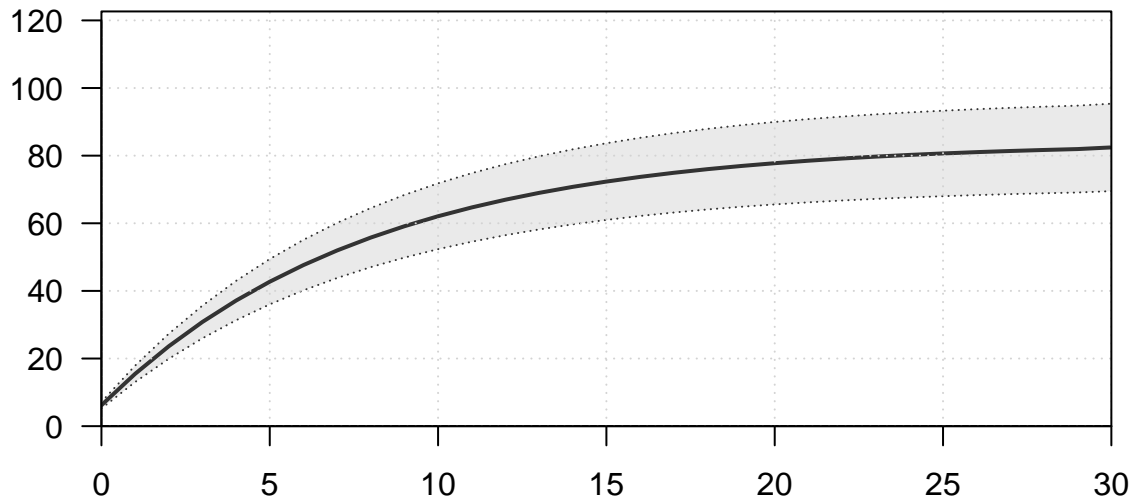
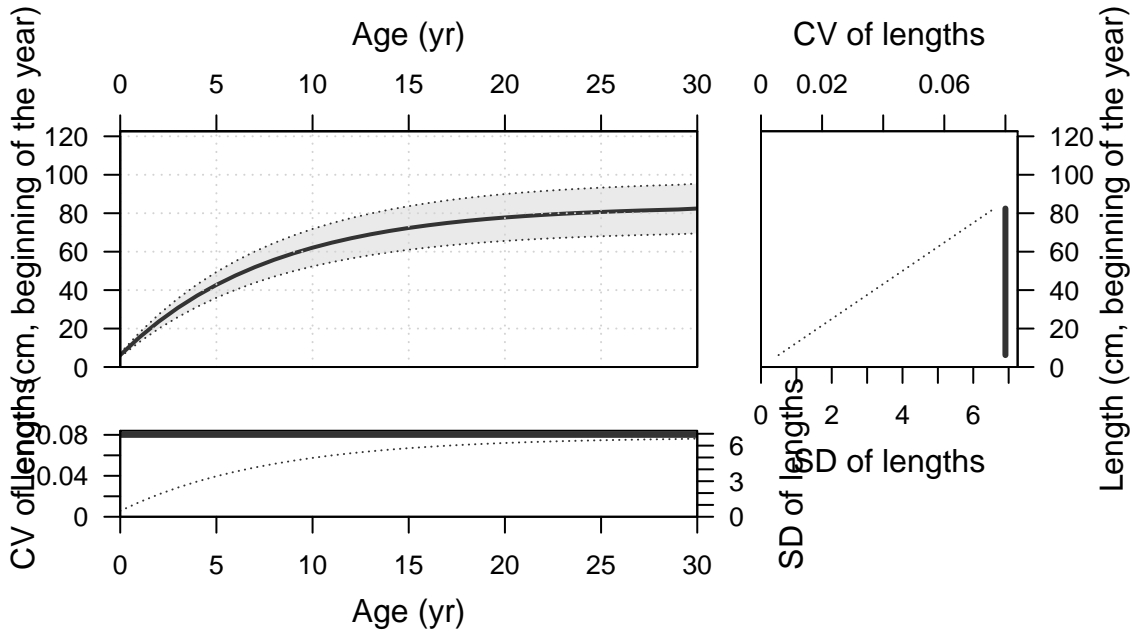


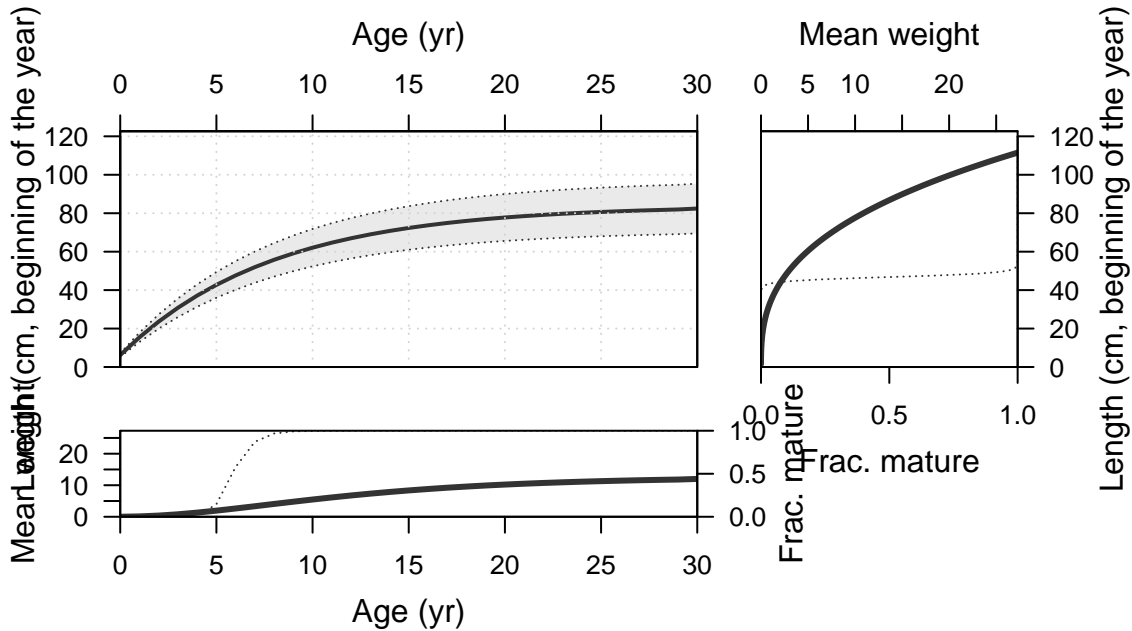
Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Thu Jul 21 14:36:13 2022  
Data\_File: data.ss  
Control\_File: control.ss

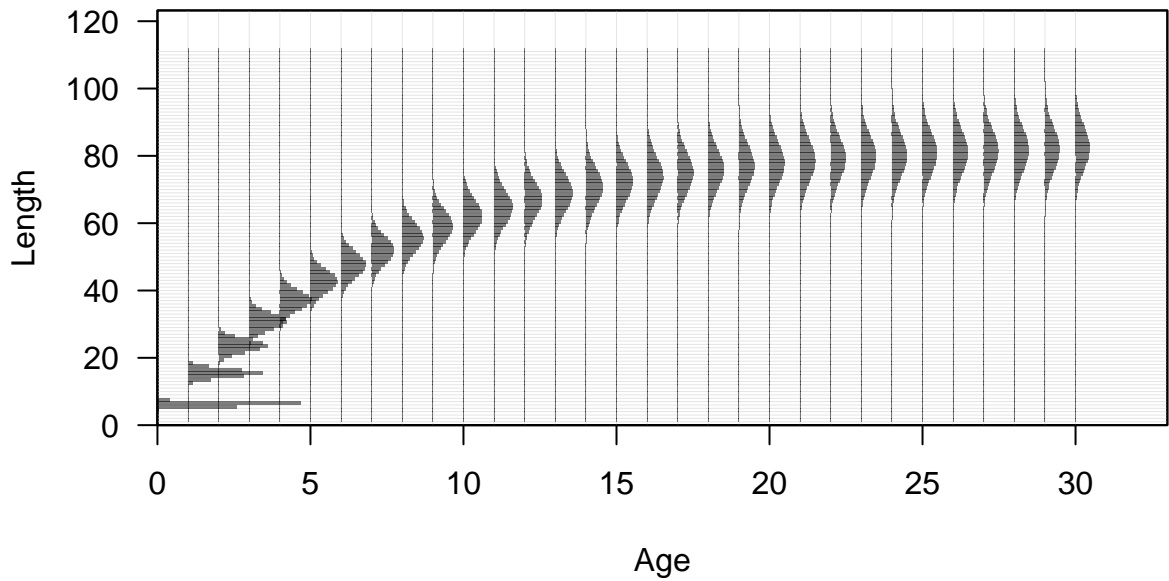
Length (cm, beginning of the year)

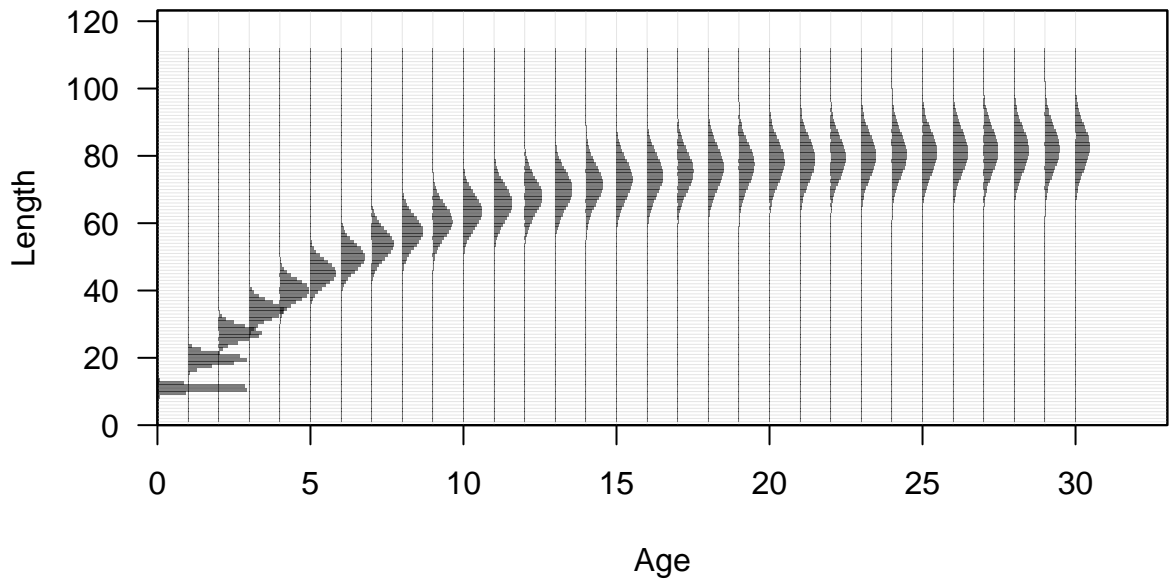


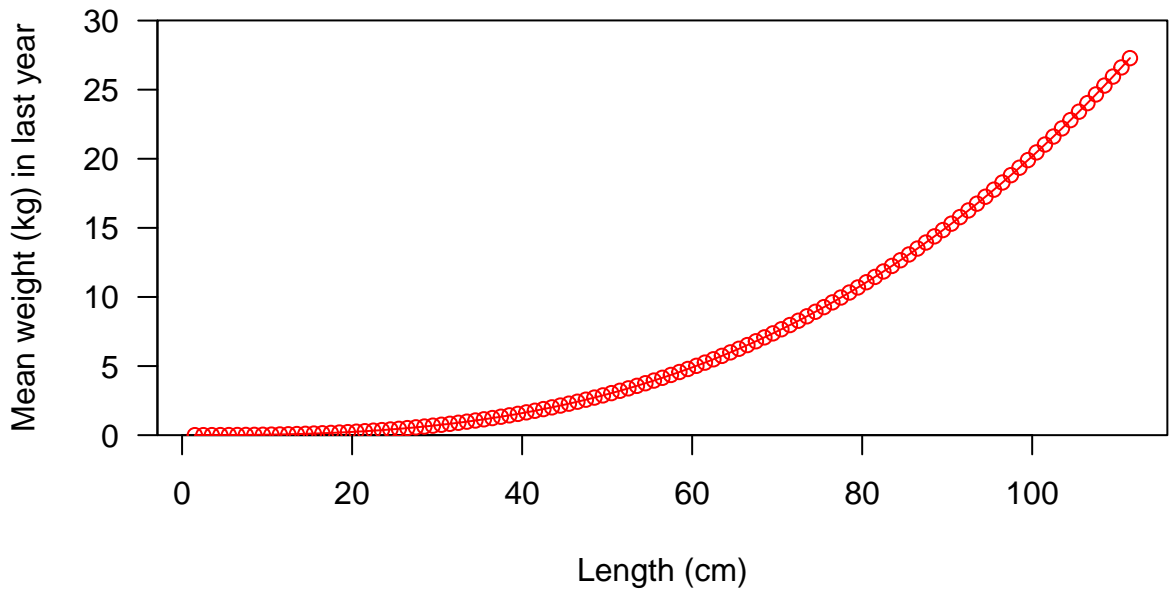
Age (yr)

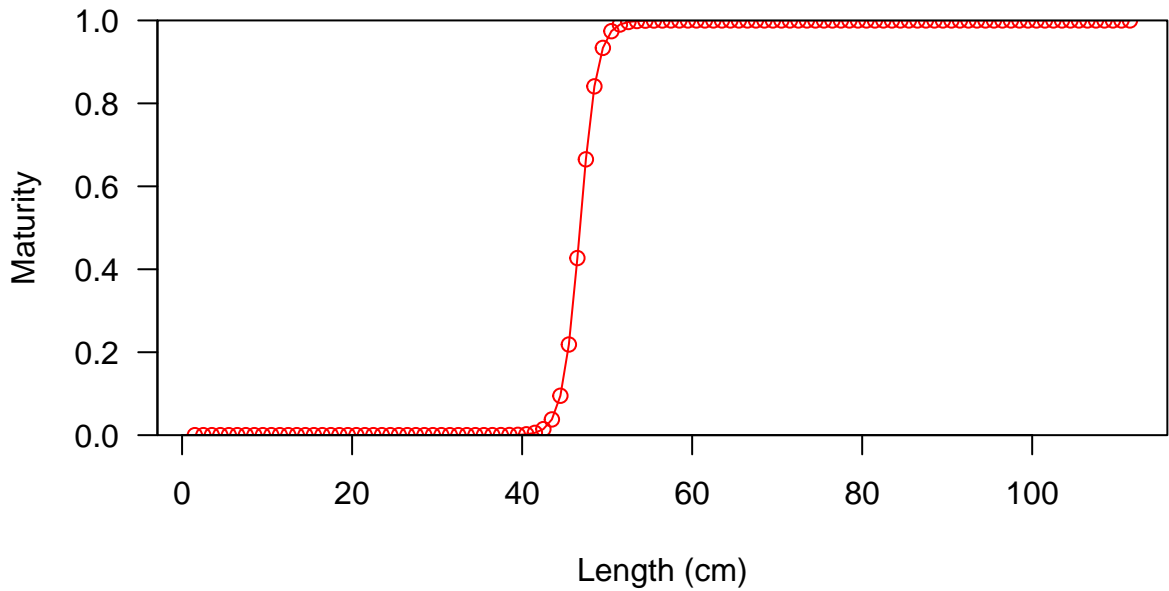




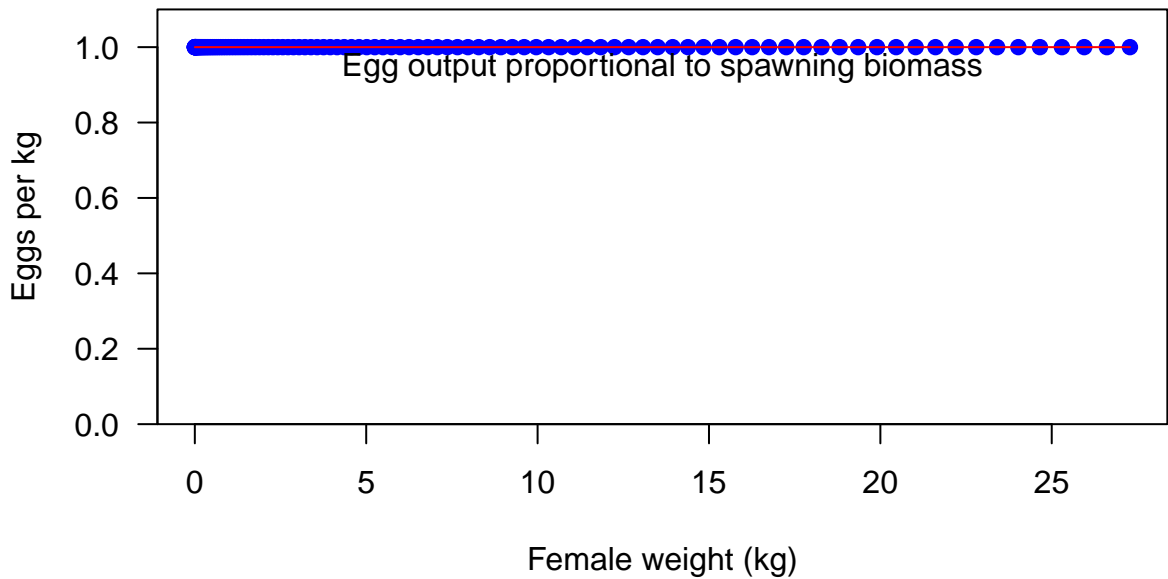


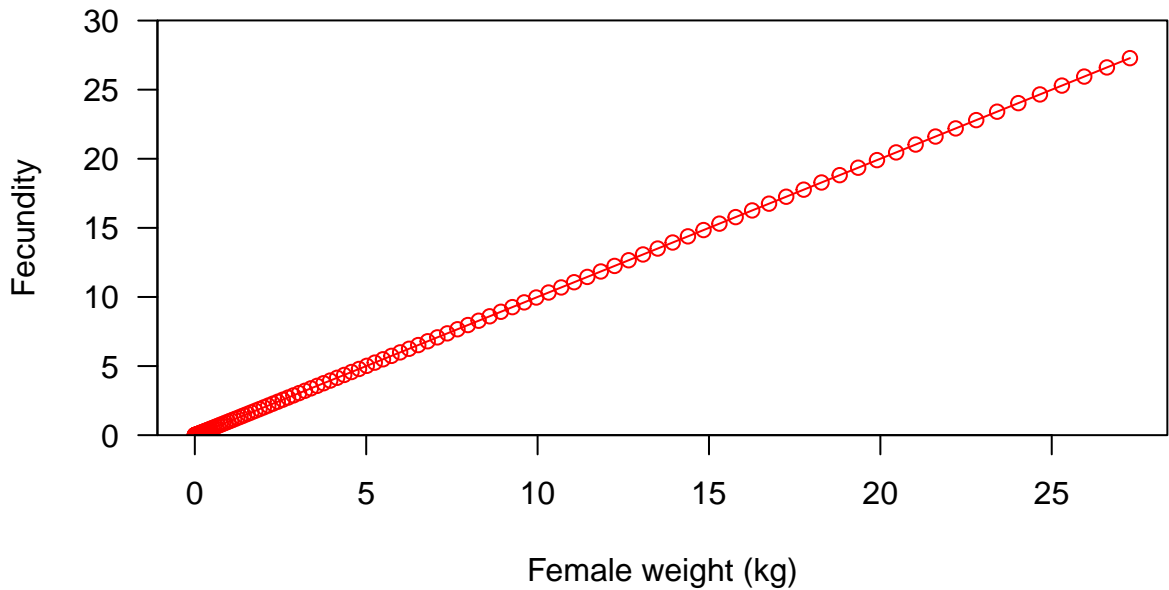












Fecundity

30  
25  
20  
15  
10  
5  
0

0

20

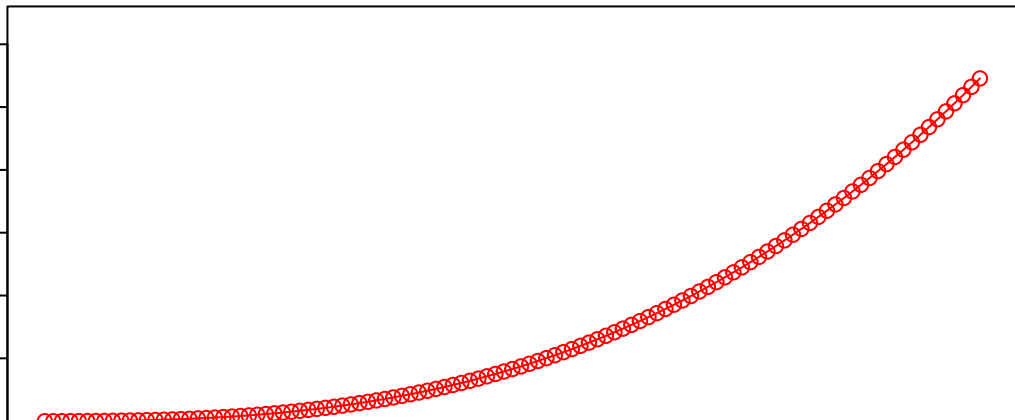
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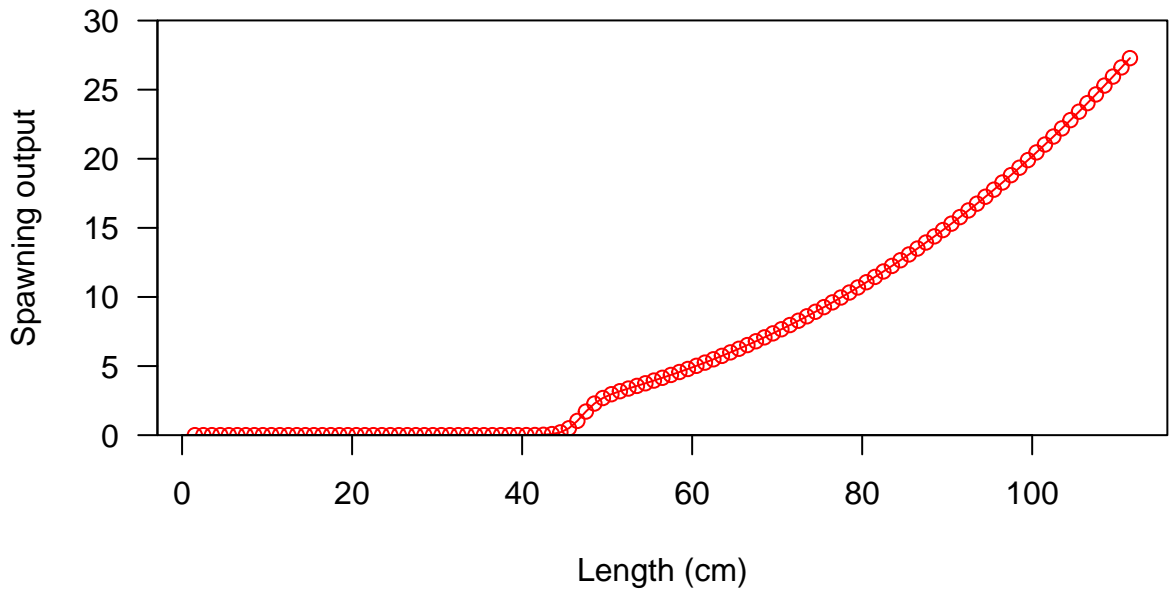
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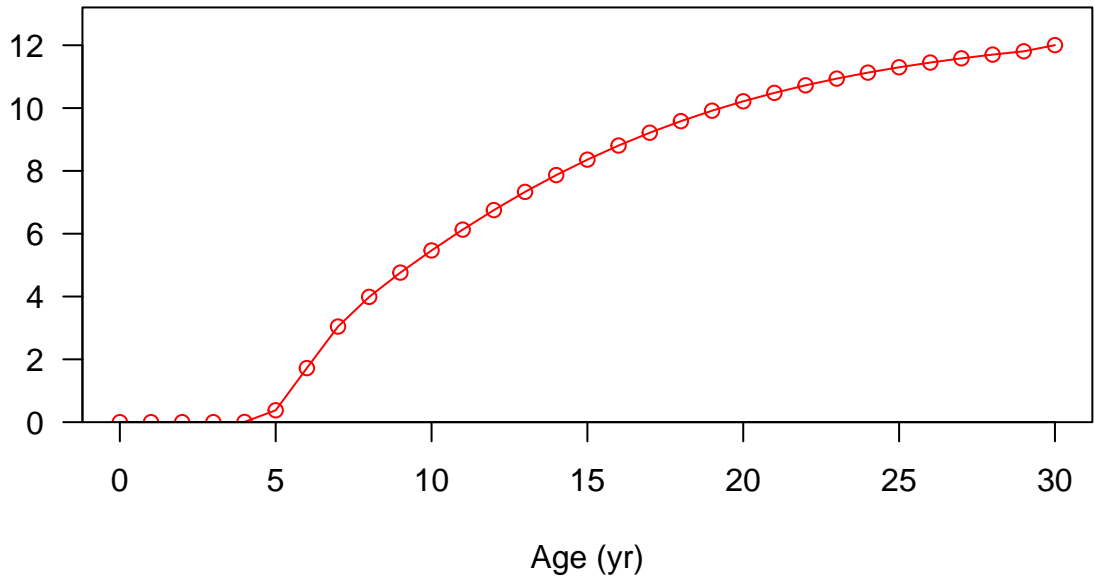
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Female length (cm)

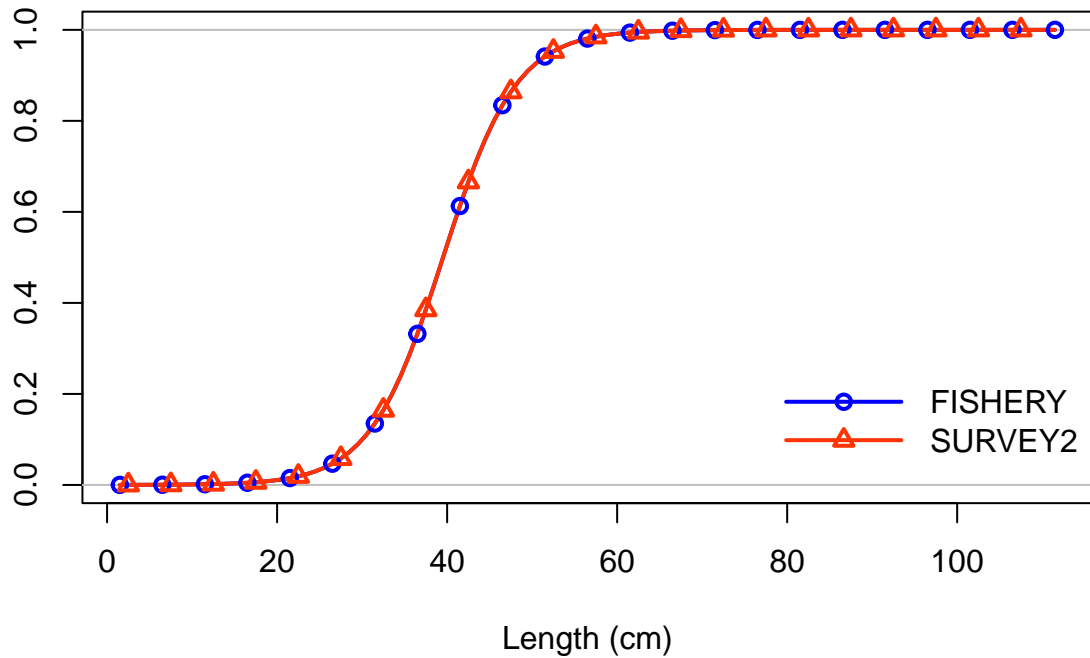




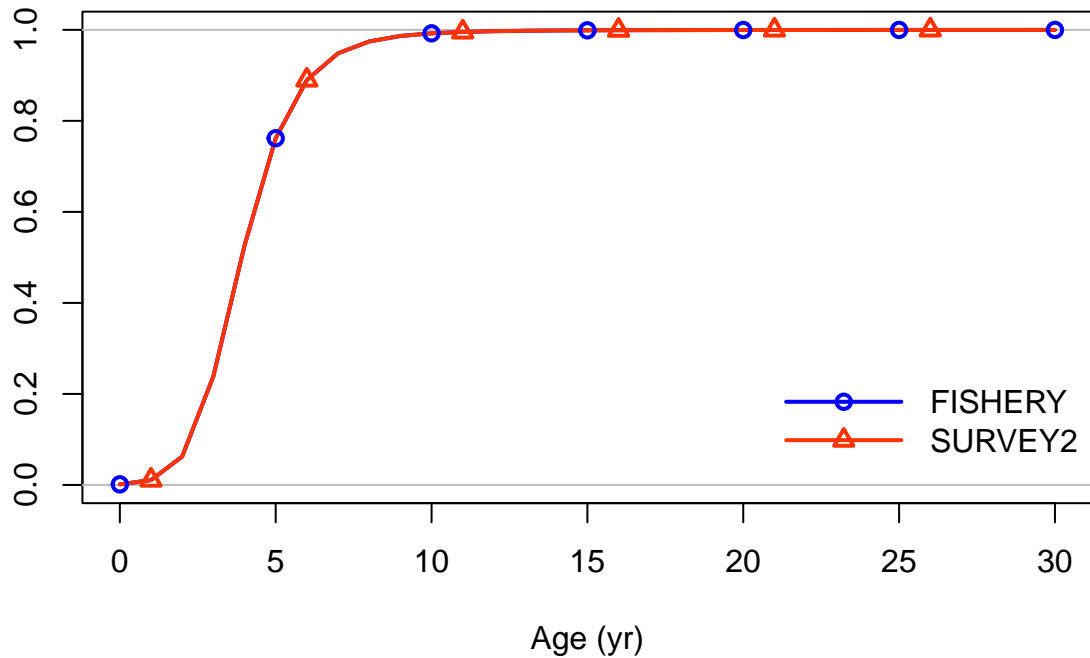
Spawning output



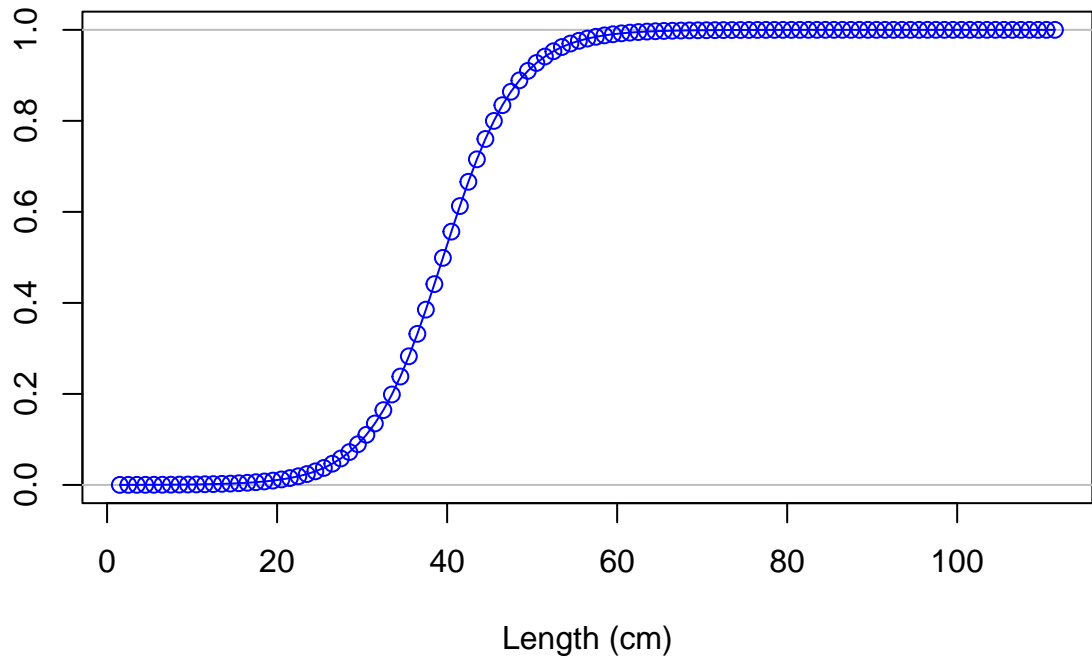
Selectivity



Selectivity

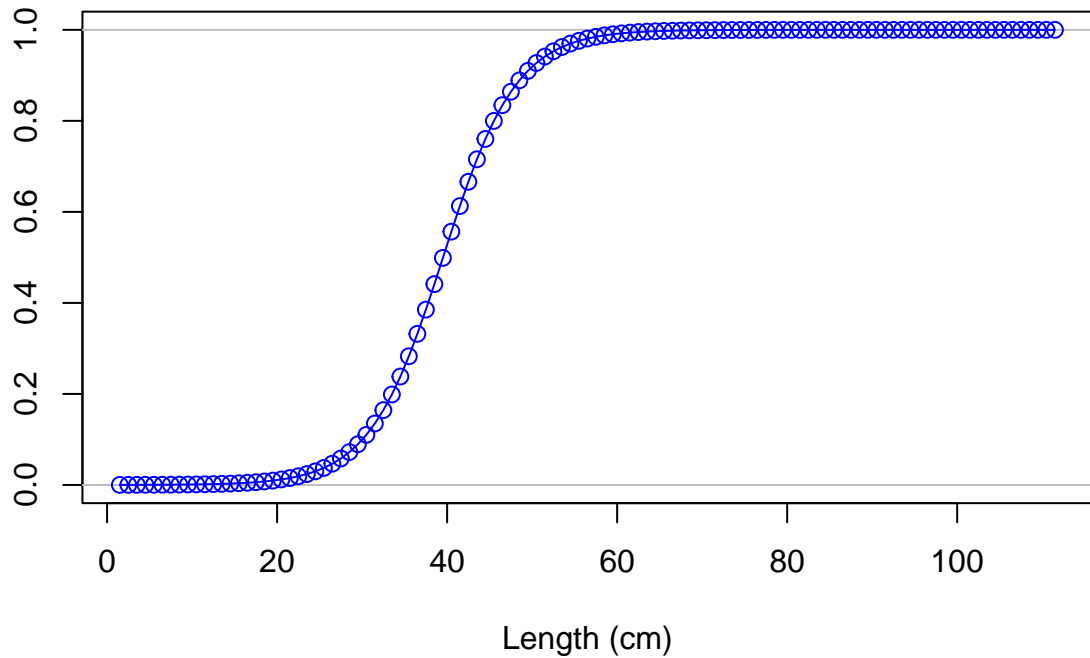


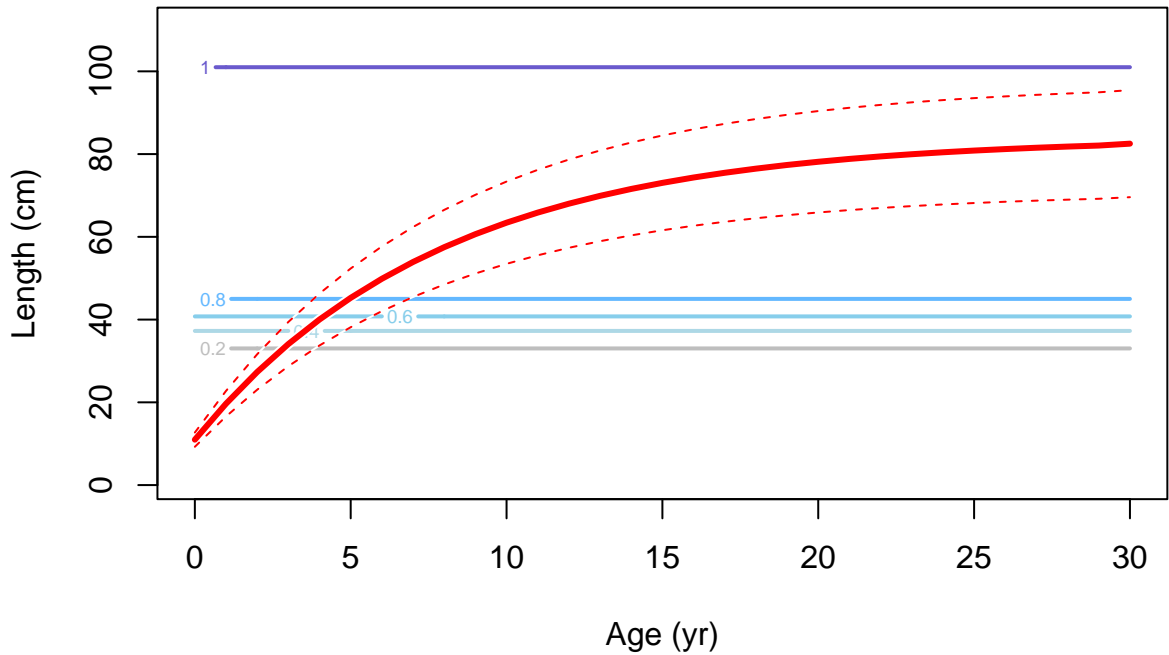
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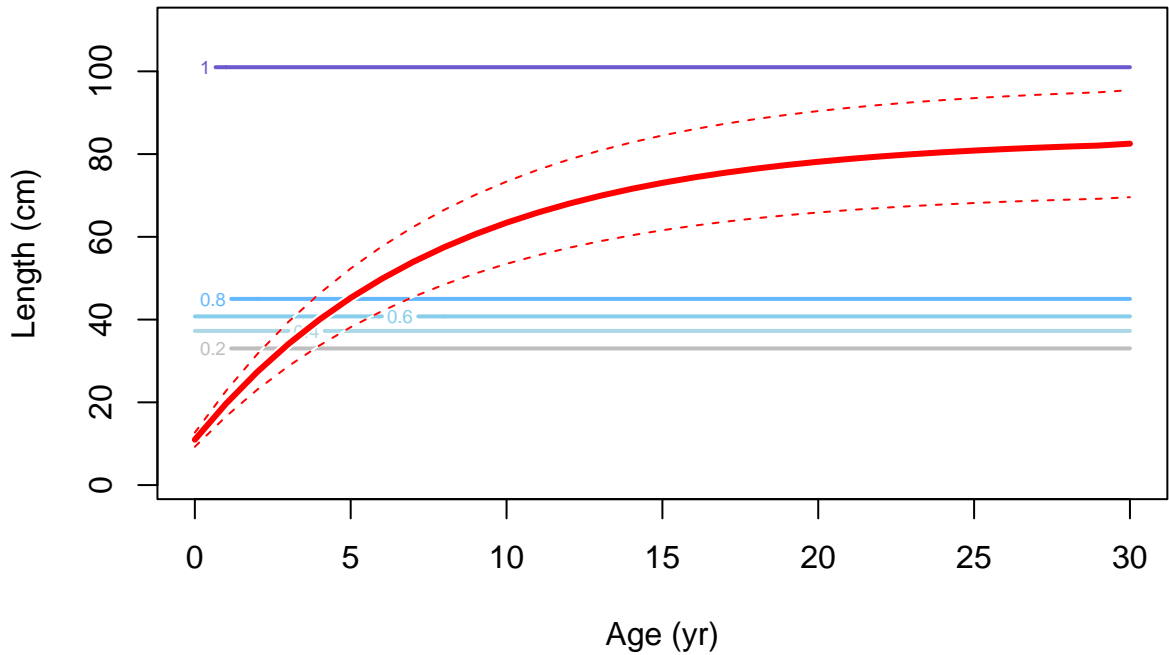




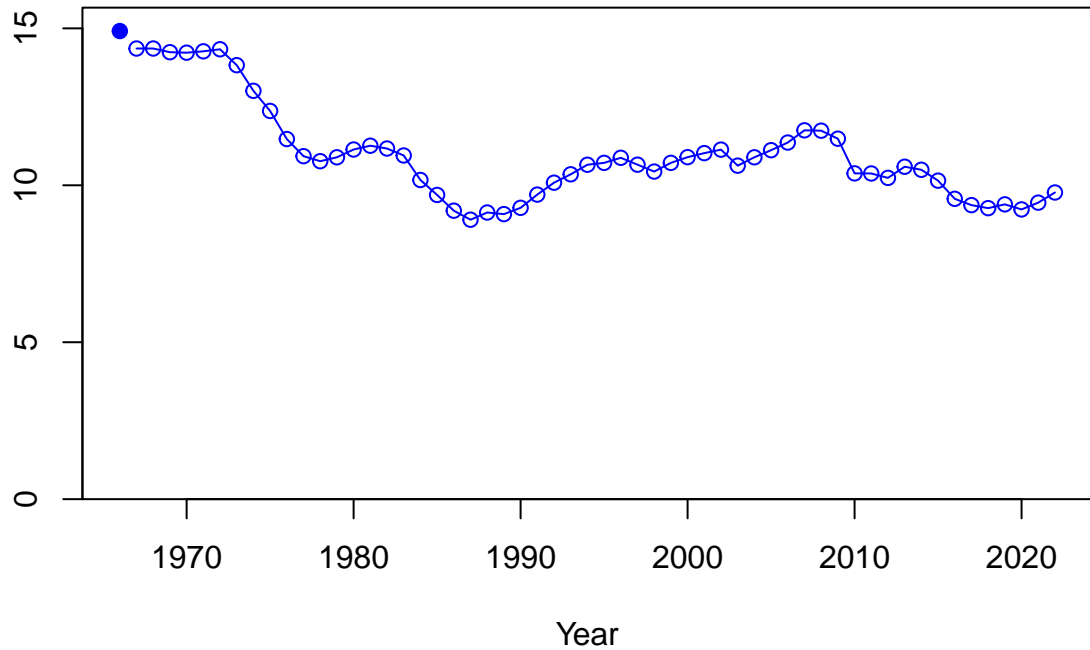
Selectivity



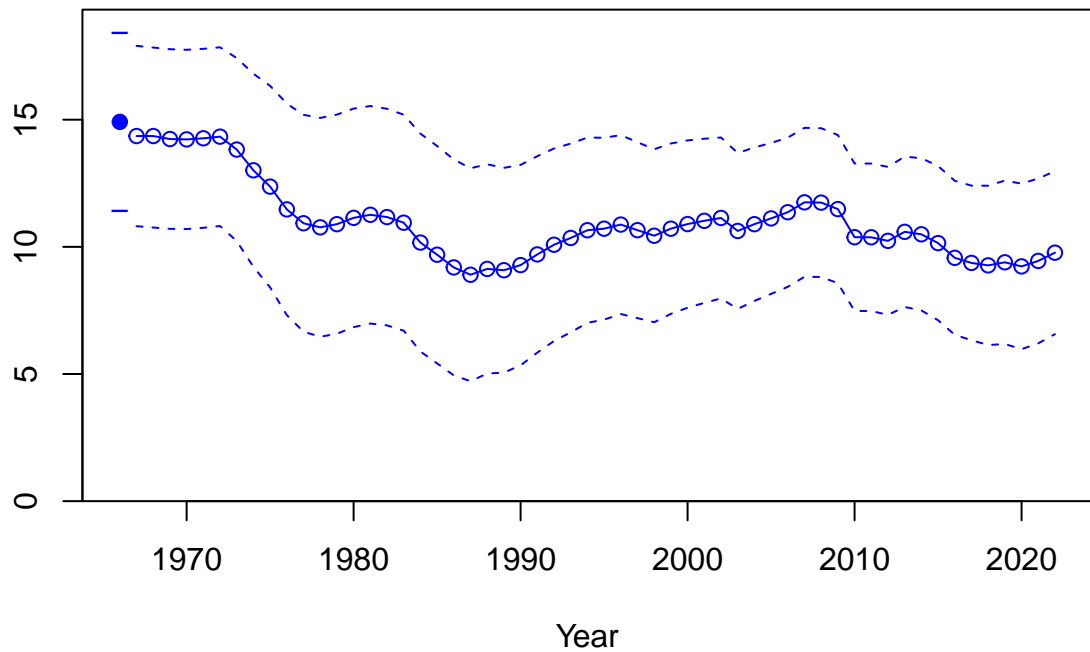




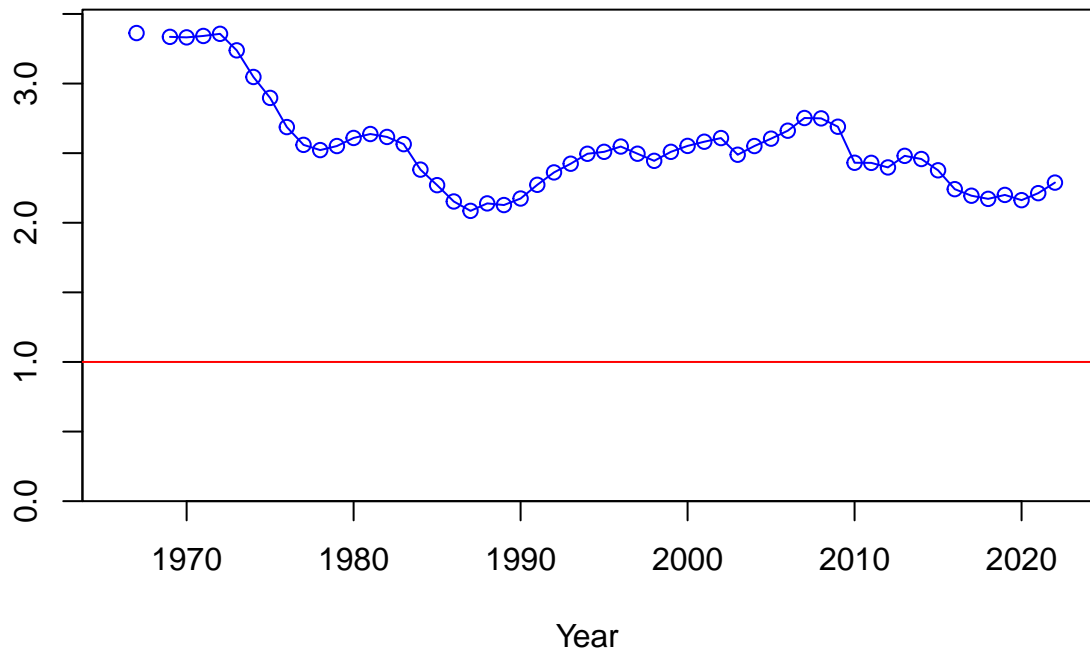
Spawning biomass (mt)



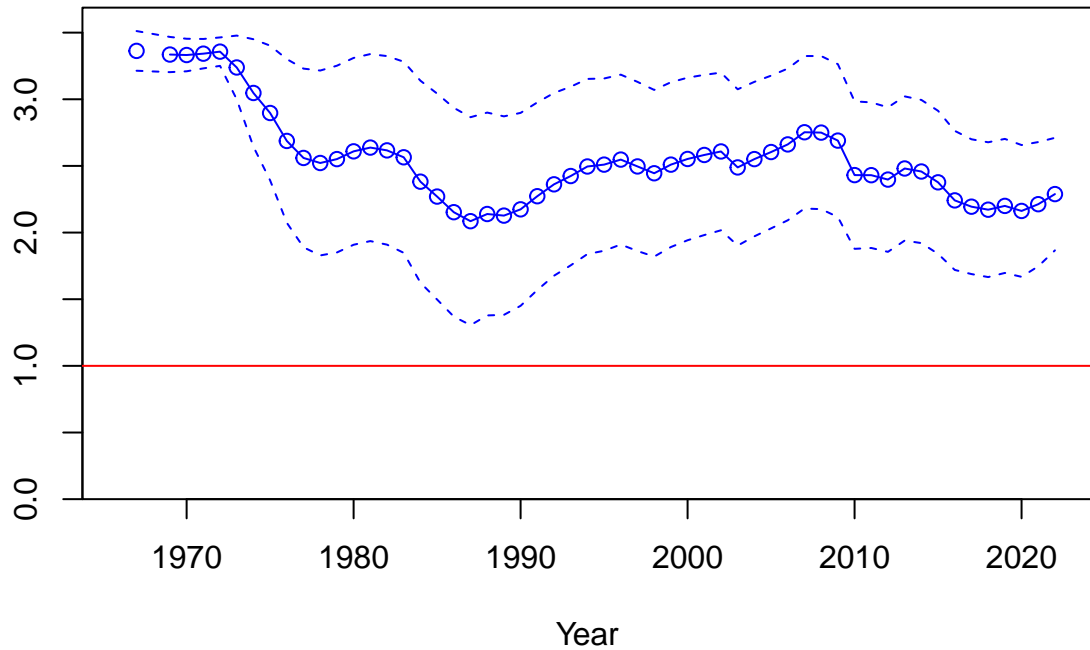
Spawning biomass (mt)

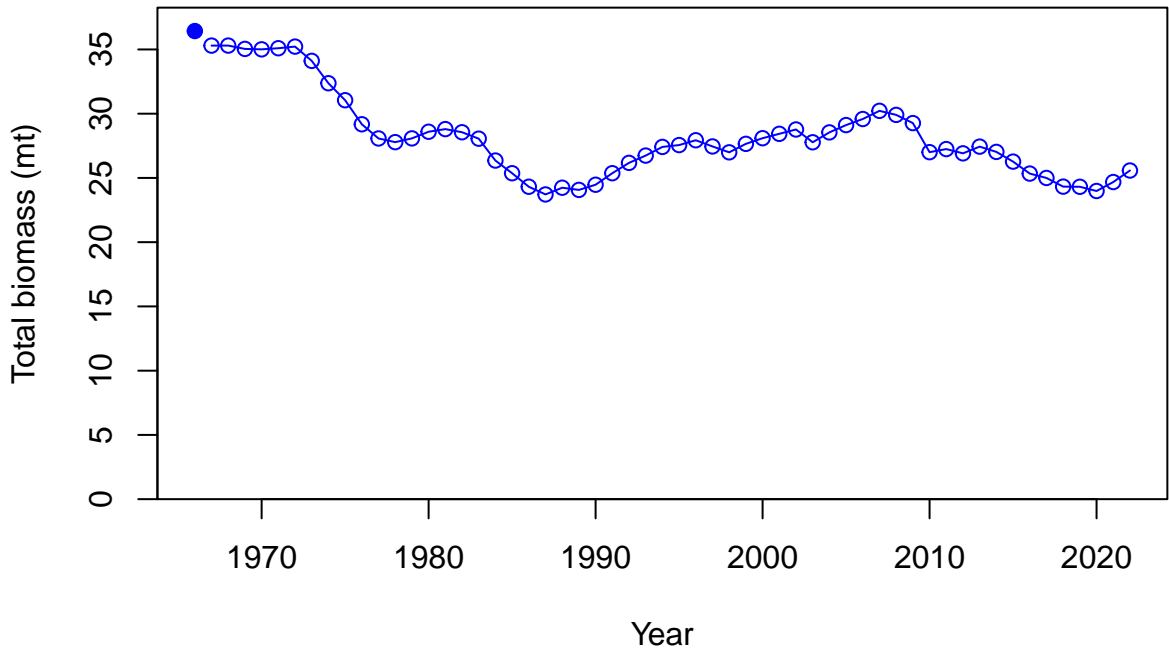


Relative spawning biomass:  $B/B_{MSY}$

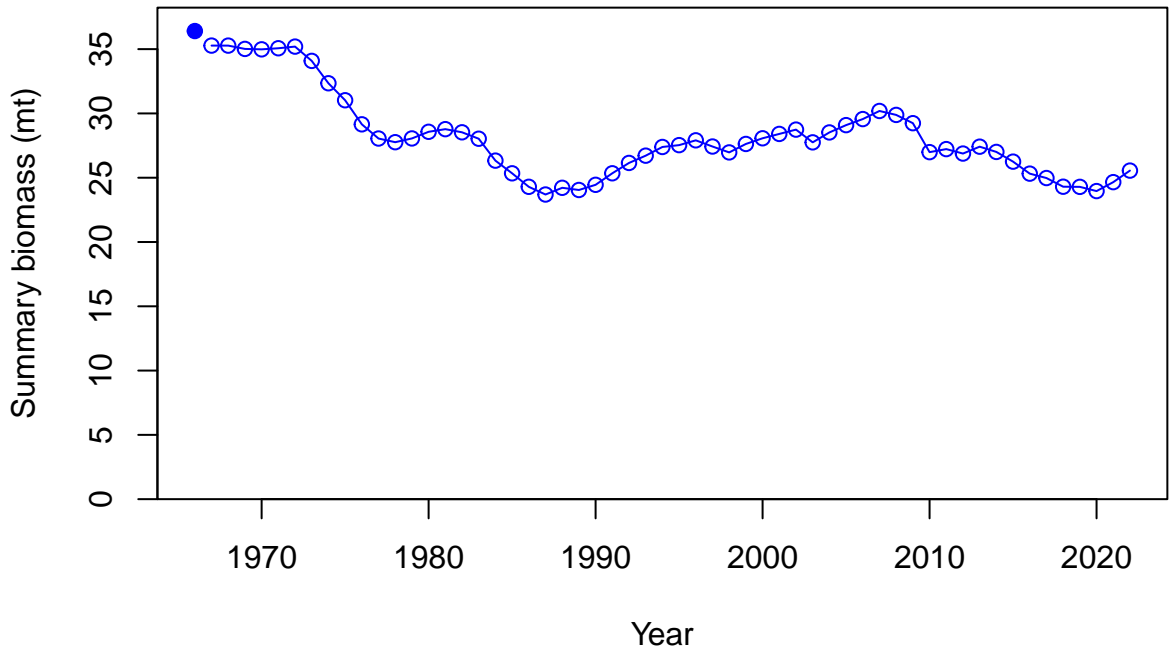


Relative spawning biomass:  $B/B_{MSY}$

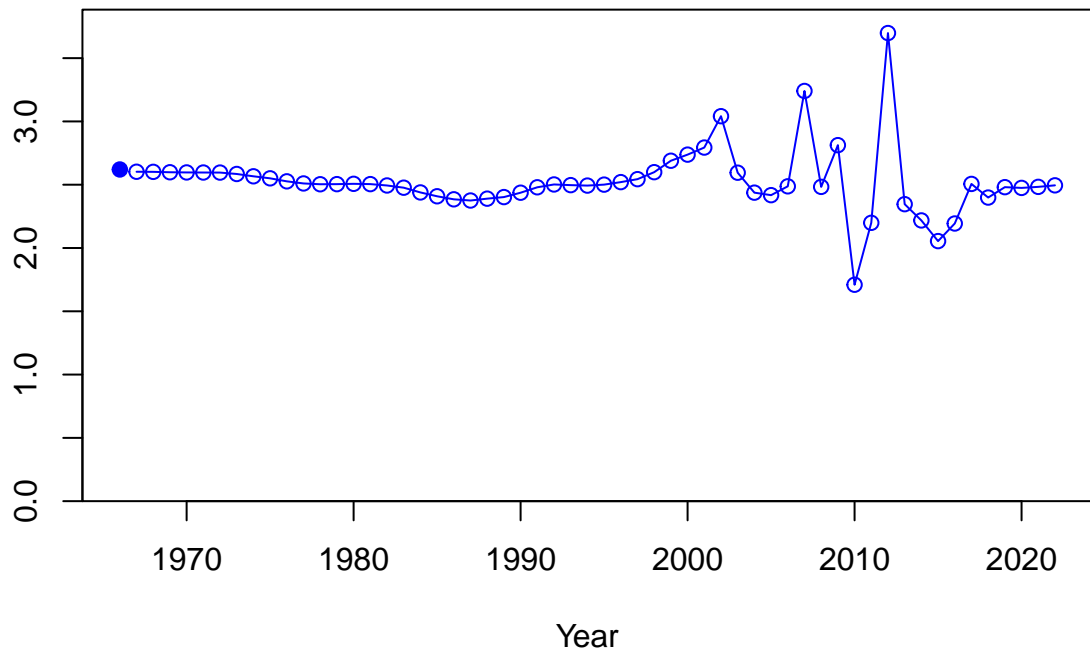




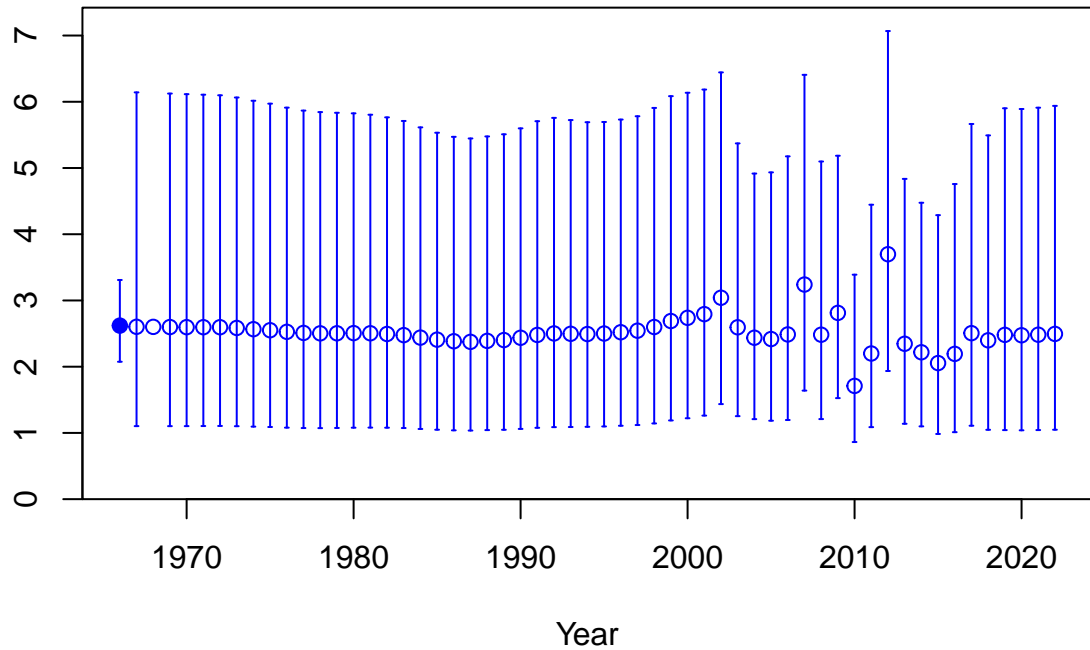




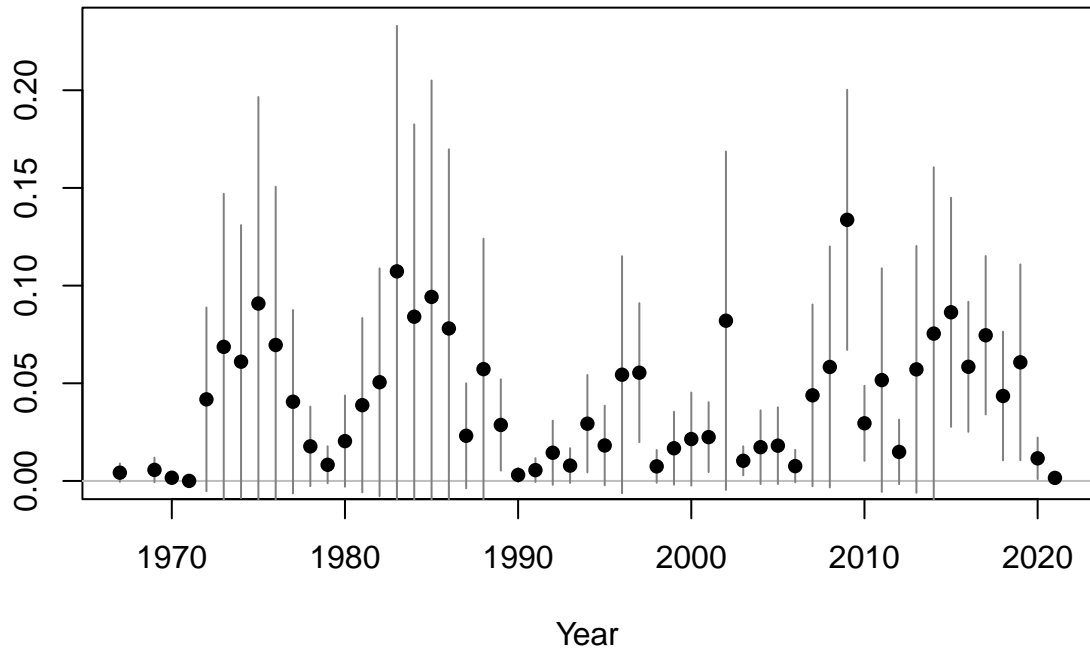
Age-0 recruits (1,000s)

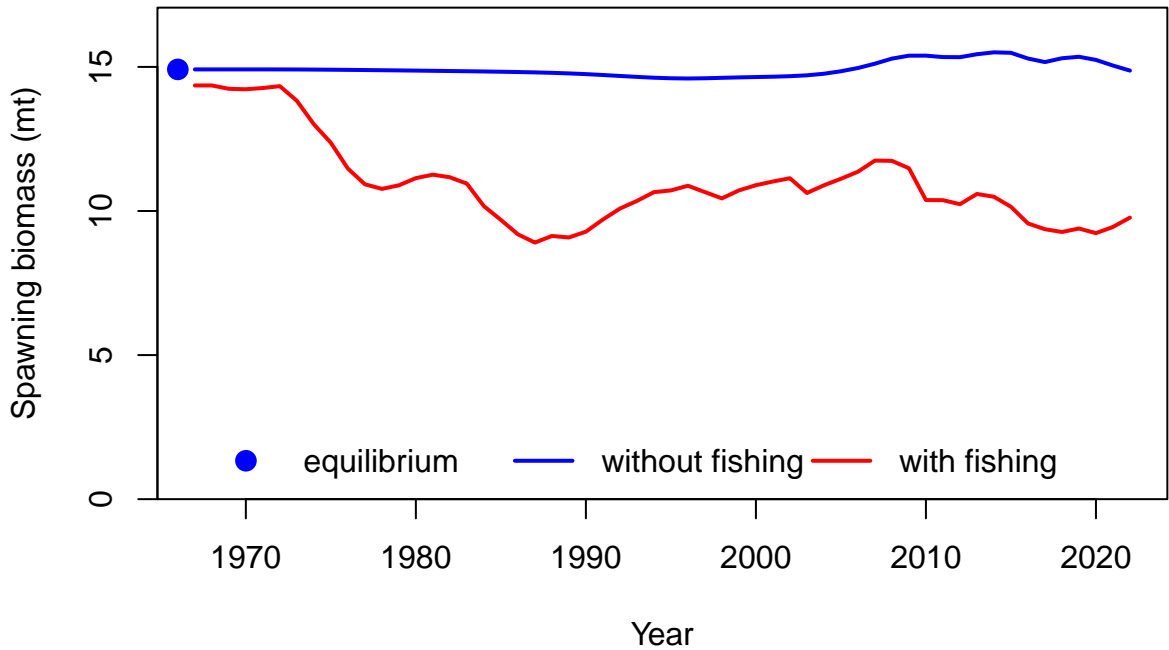


Age-0 recruits (1,000s)

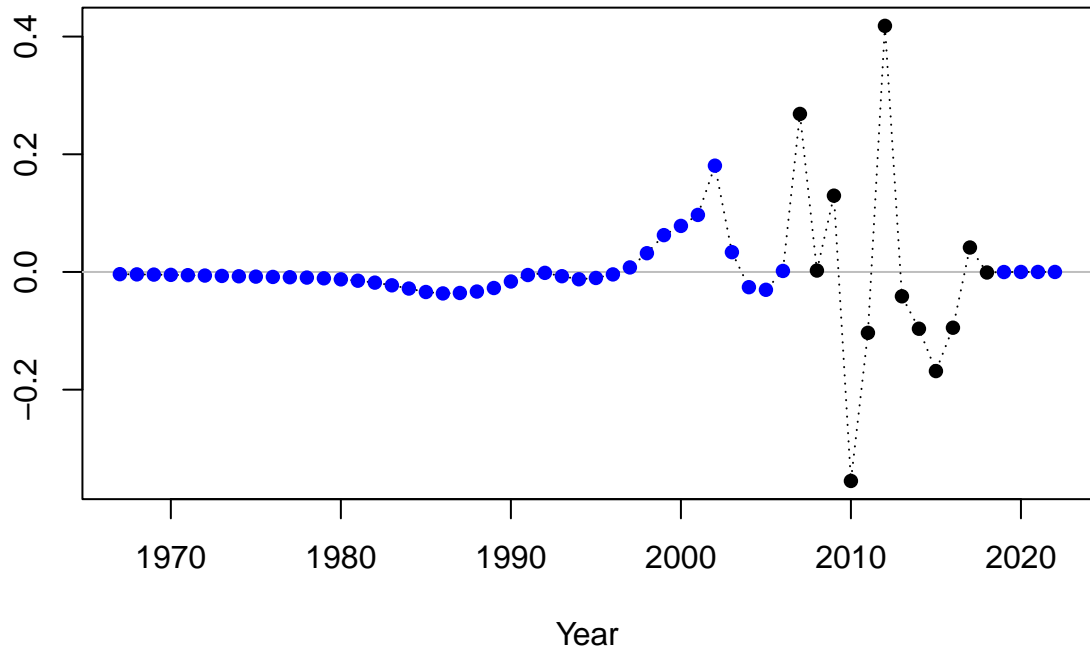


Summary Fishing Mortality

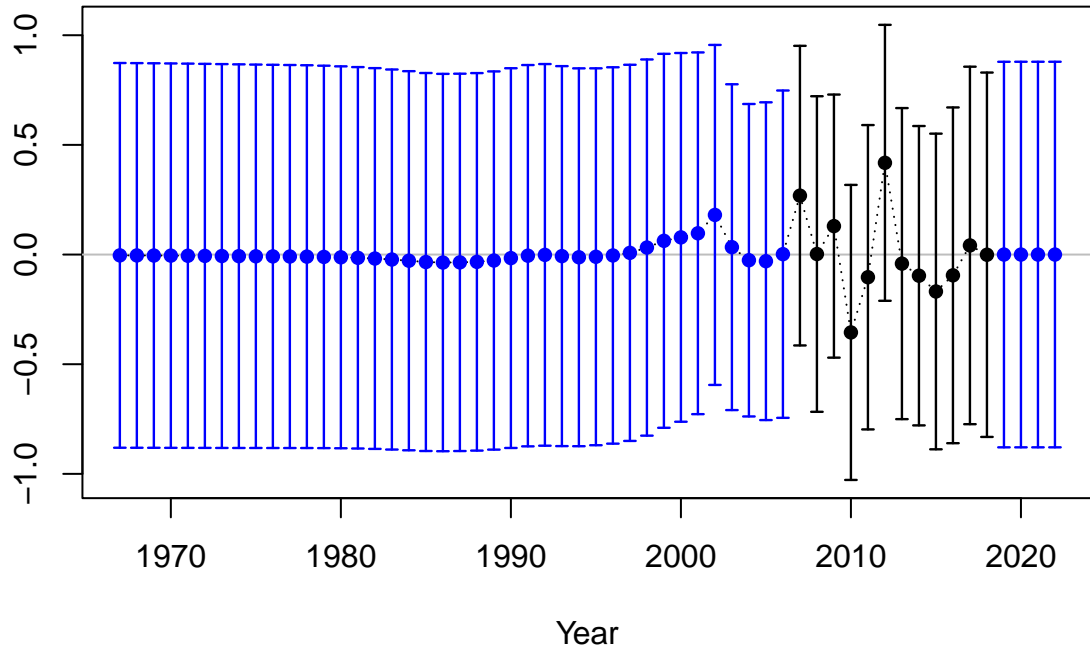




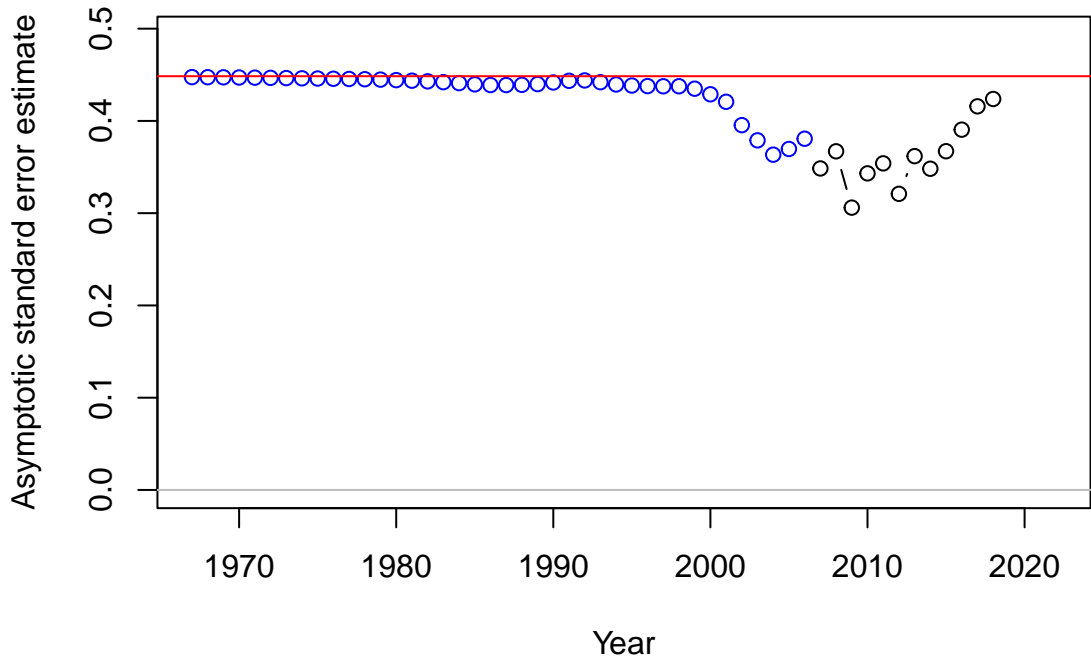
Log recruitment deviation



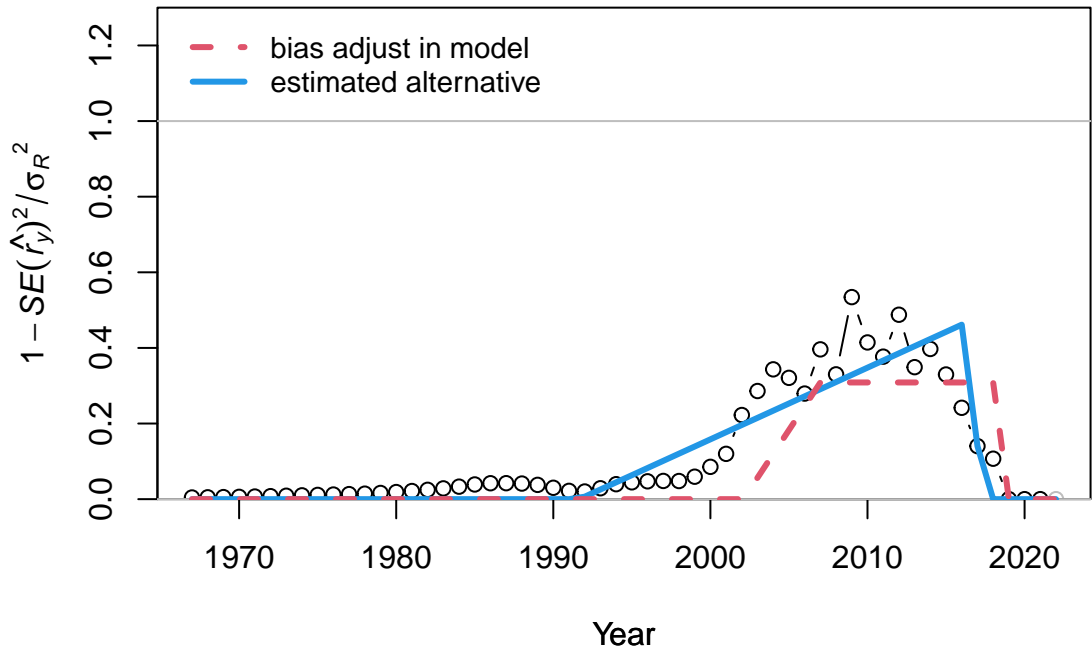
Log recruitment deviation

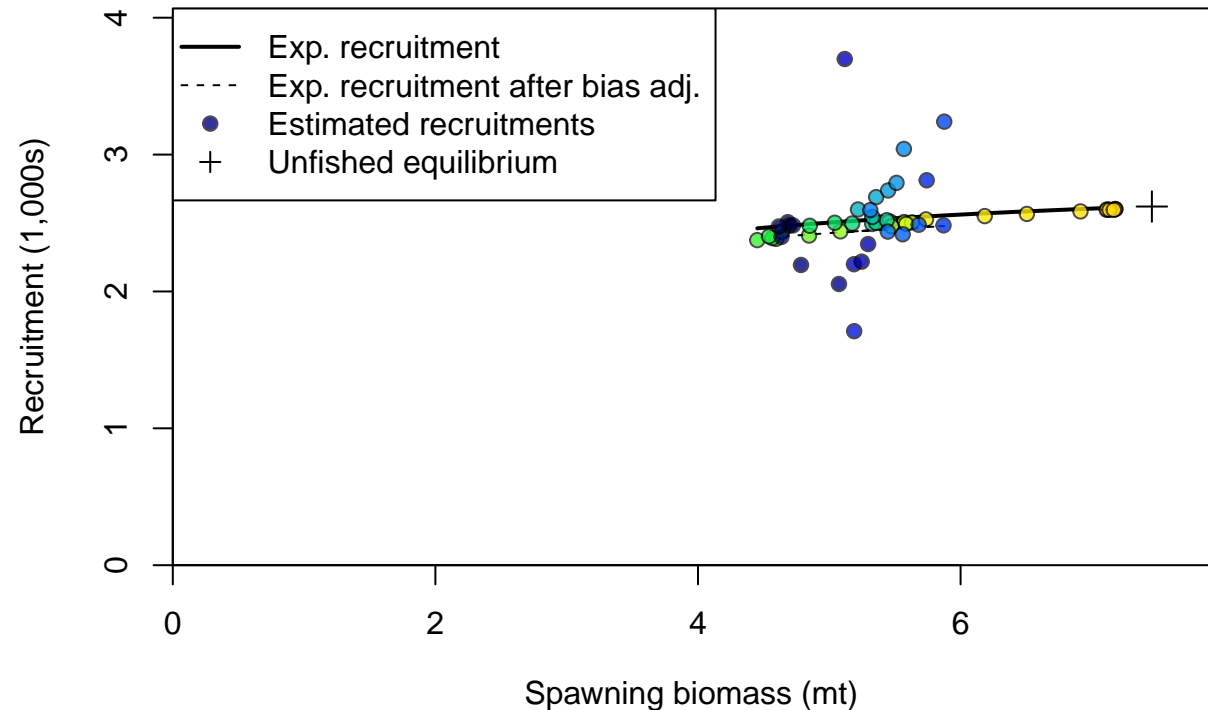


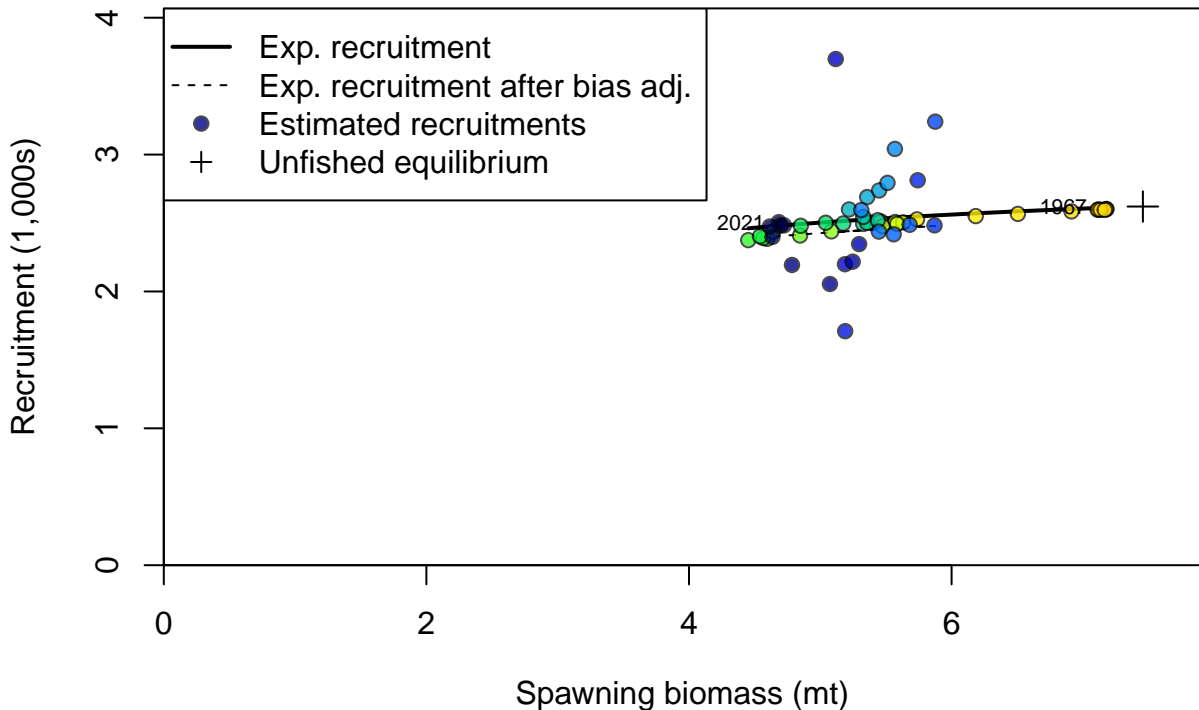
## Recruitment deviation variance



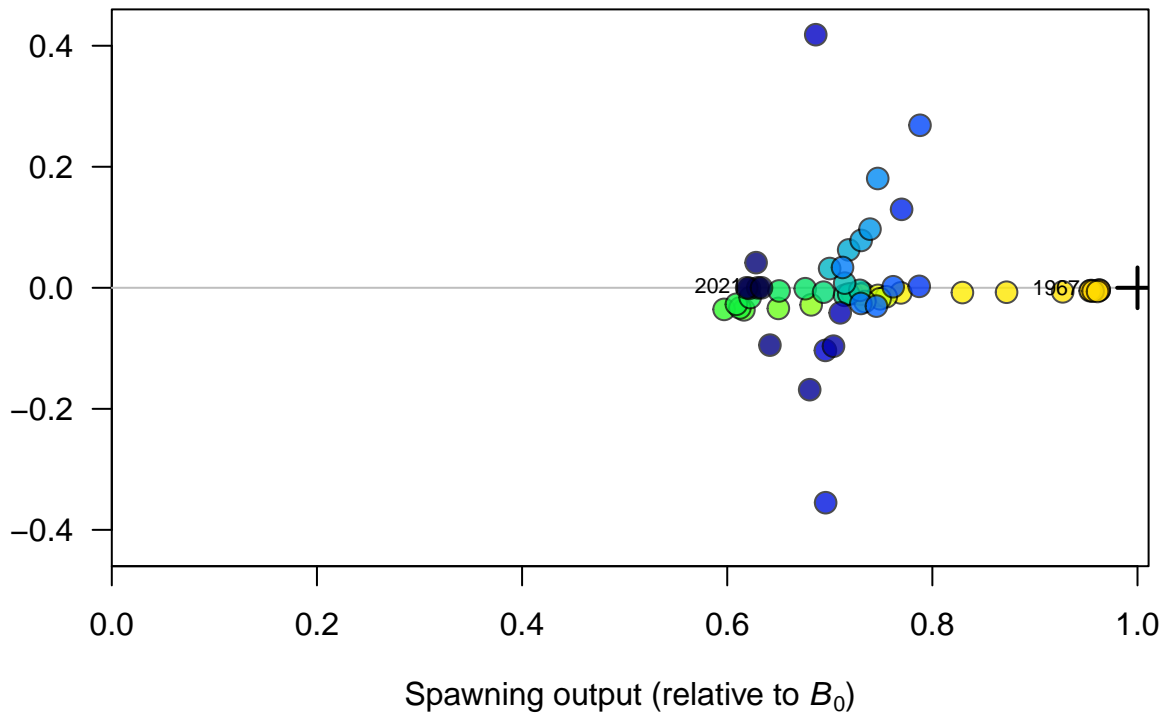


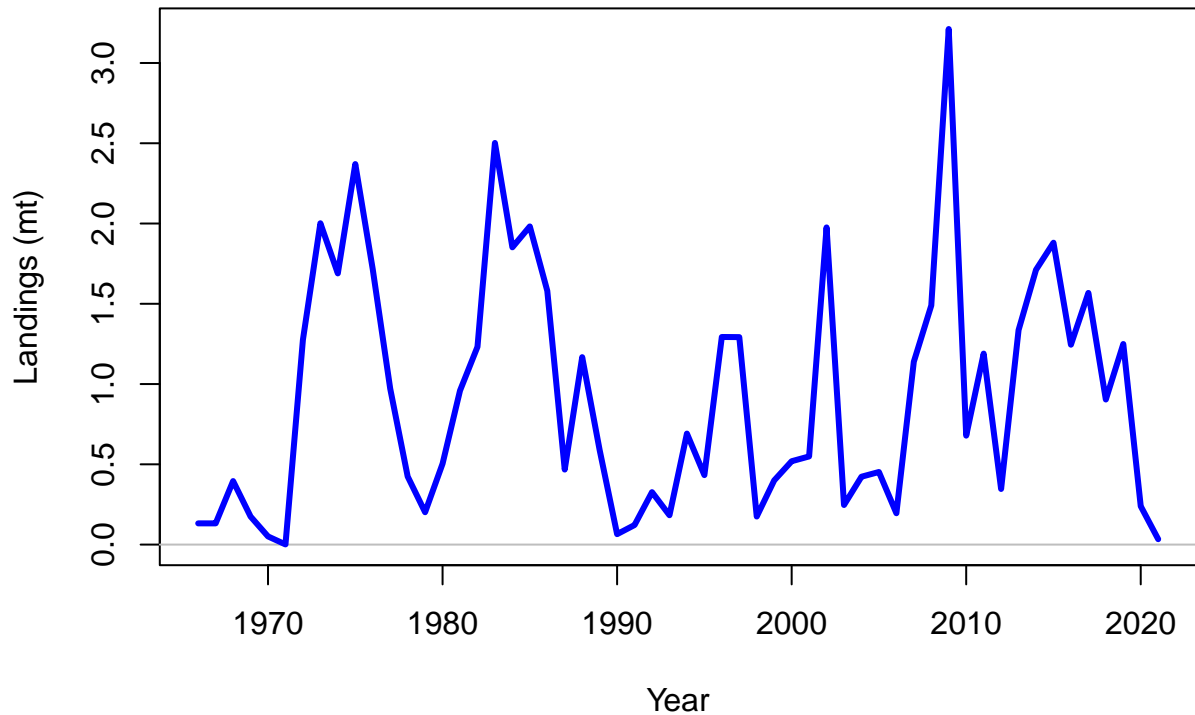


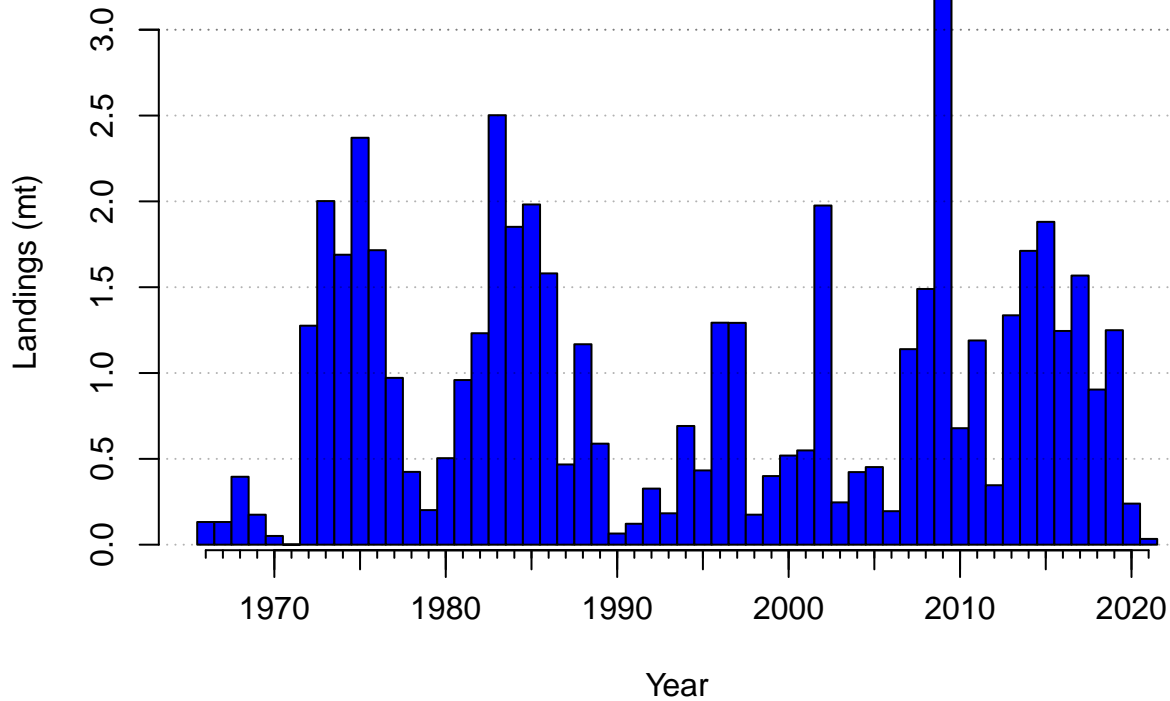


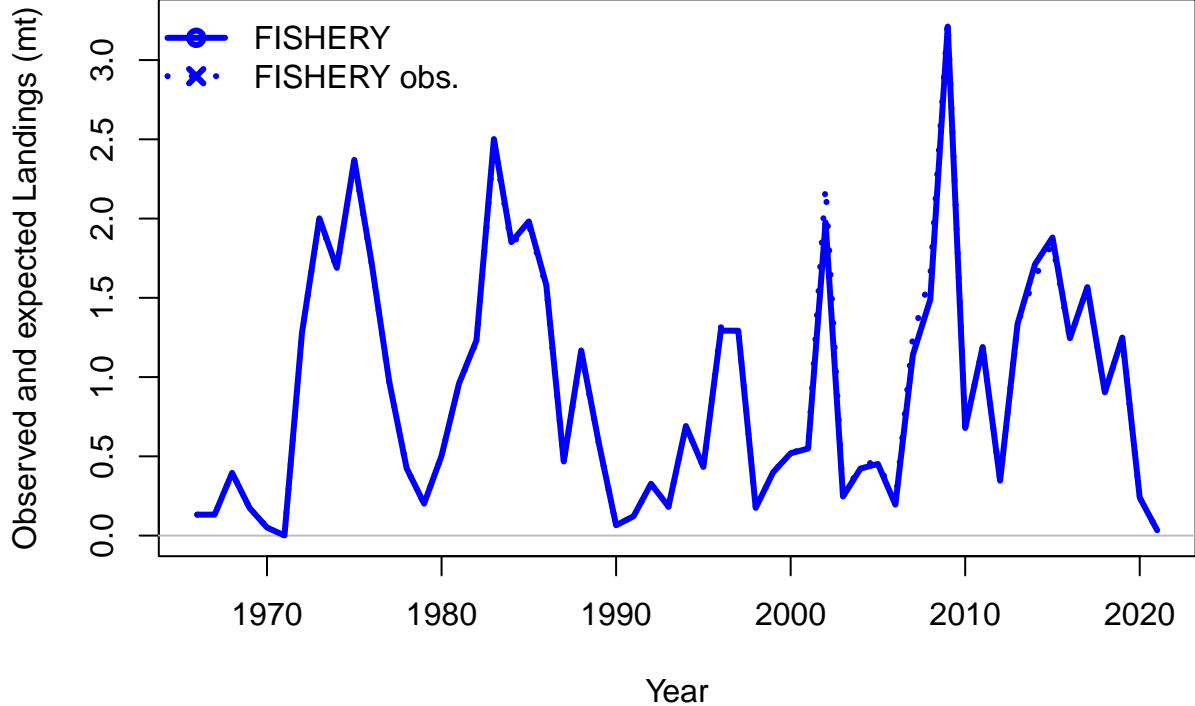


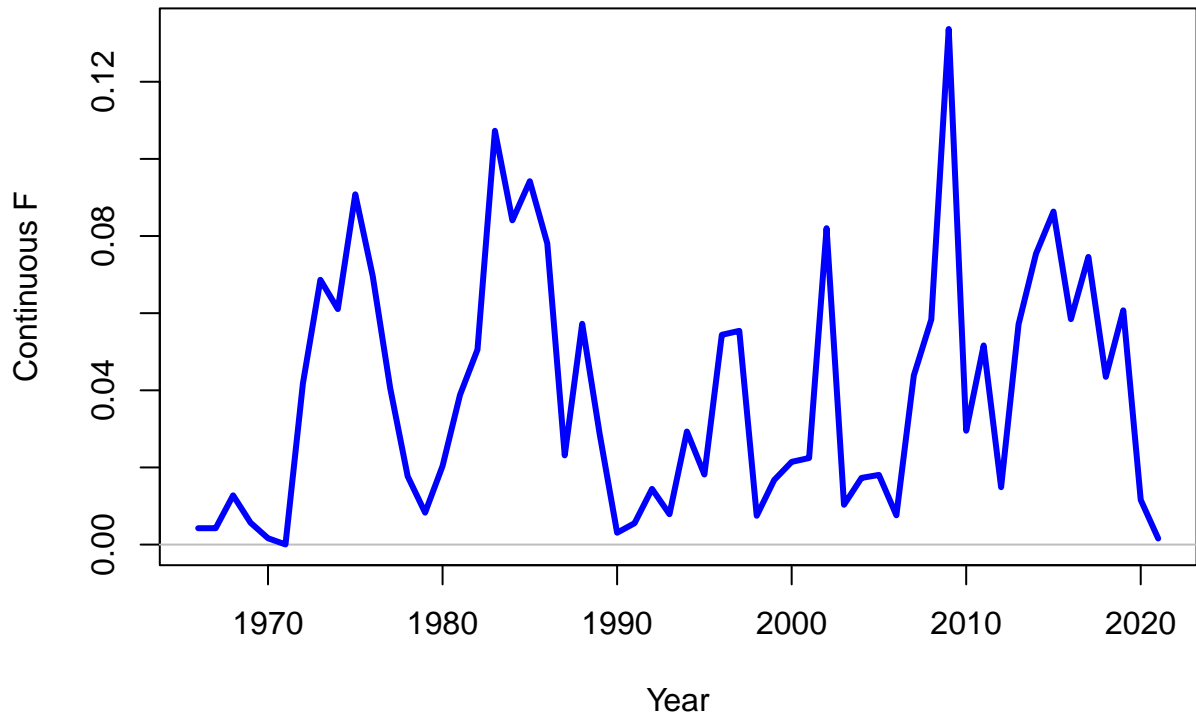
Log recruitment deviation





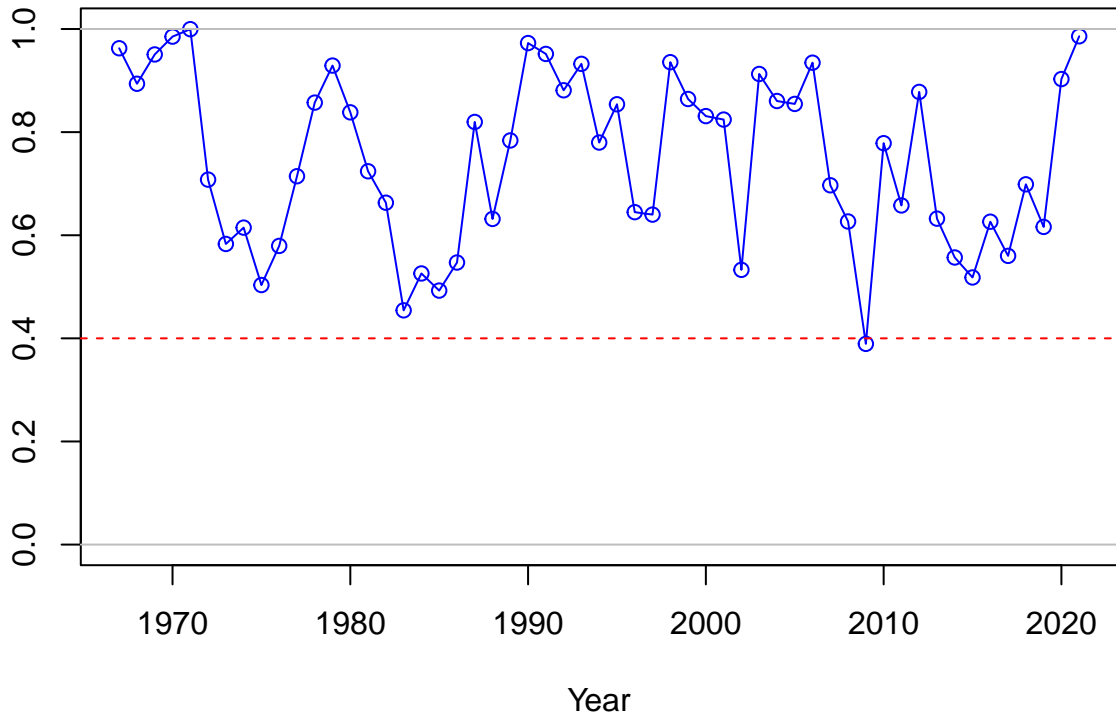




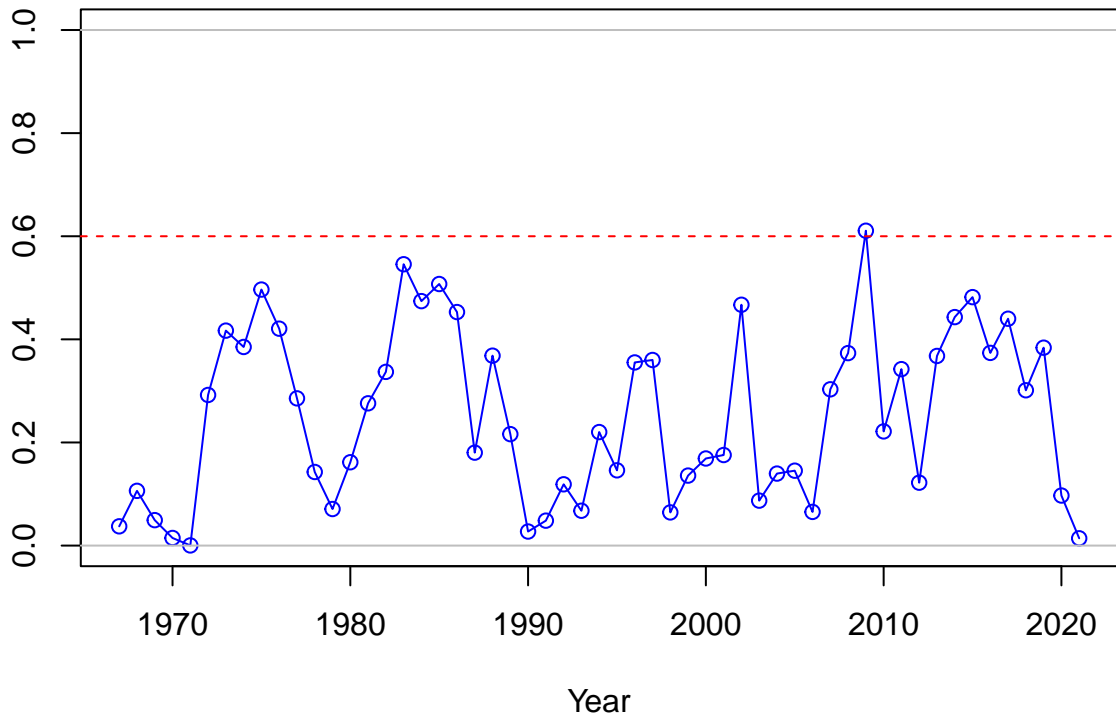




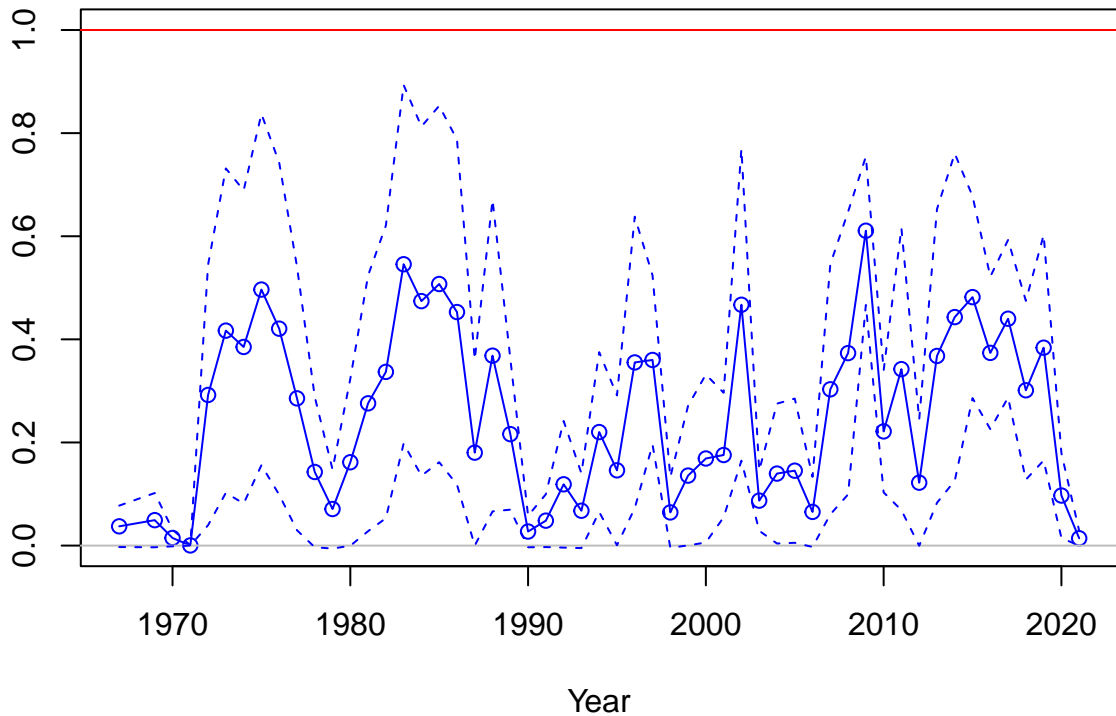
SPR



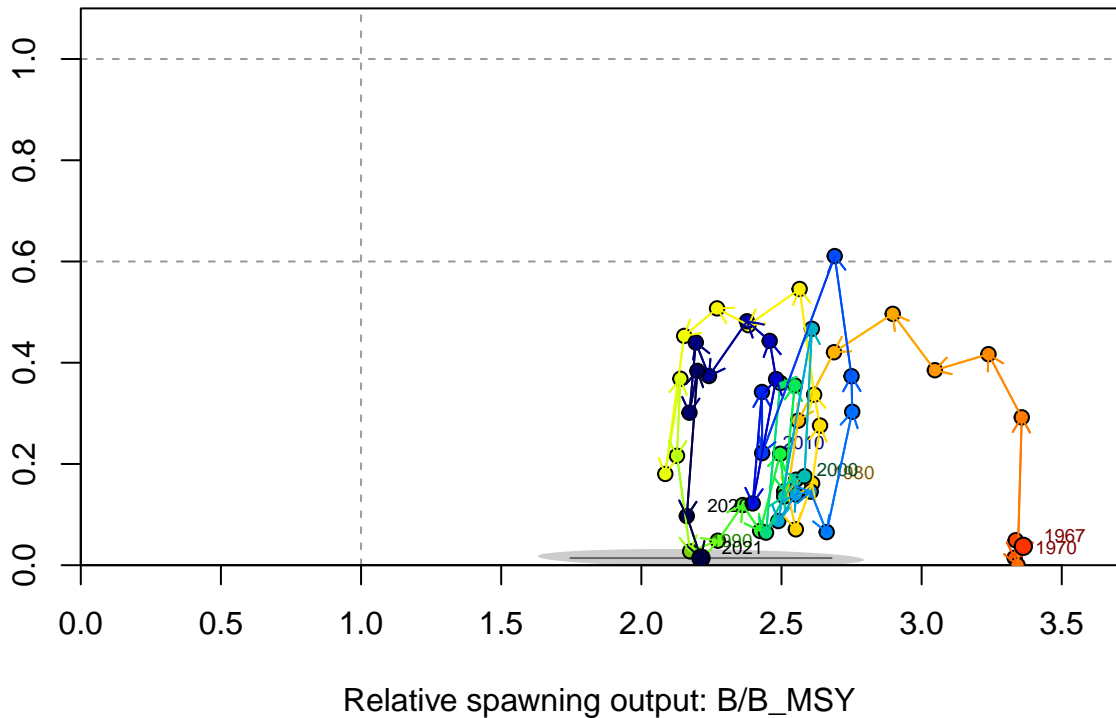
1-SPR



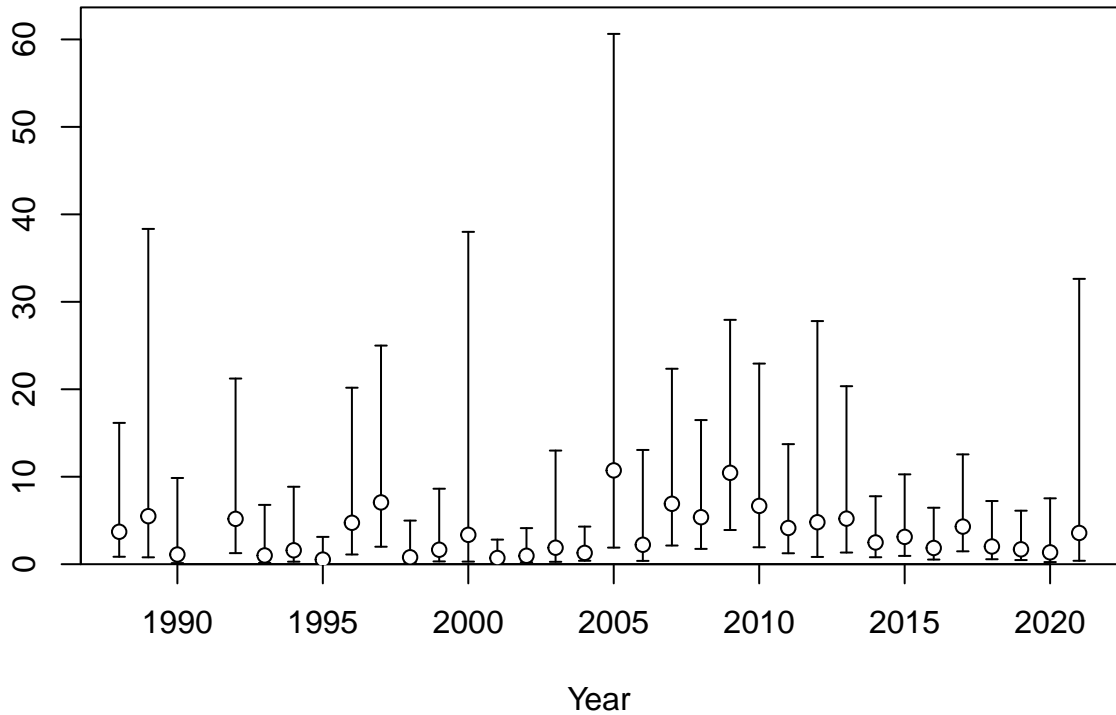
Fishing intensity: 1-SPR



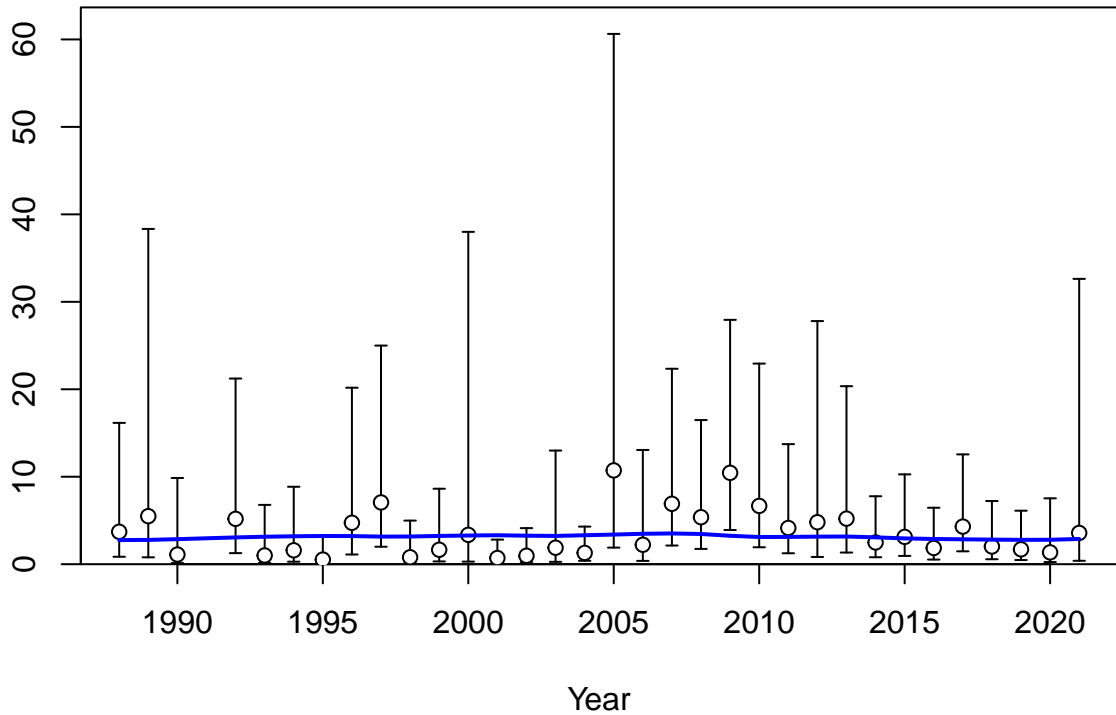
Fishing intensity: 1-SPR



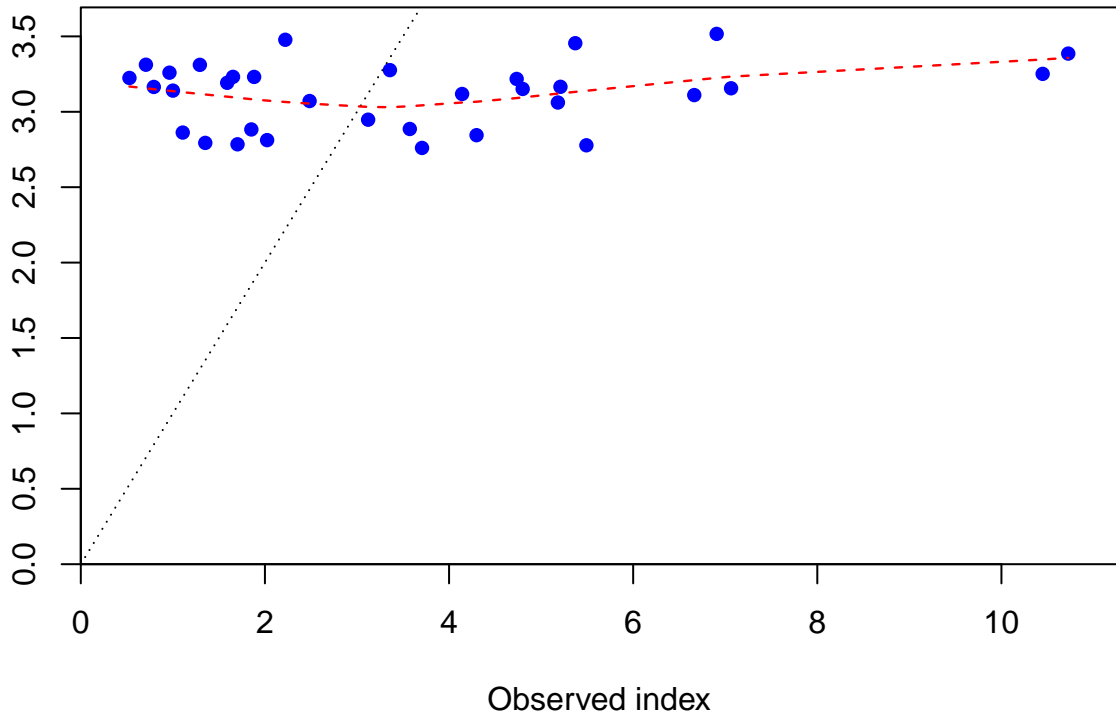
Index



Index



Expected index



Log index

4  
3  
2  
1  
0  
-1  
-2

1990

1995

2000

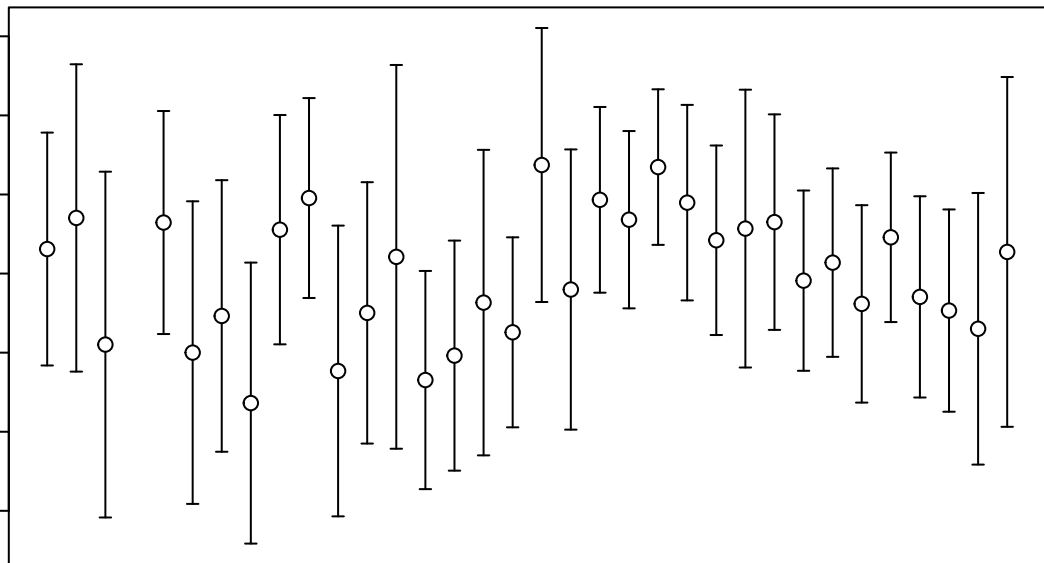
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2010

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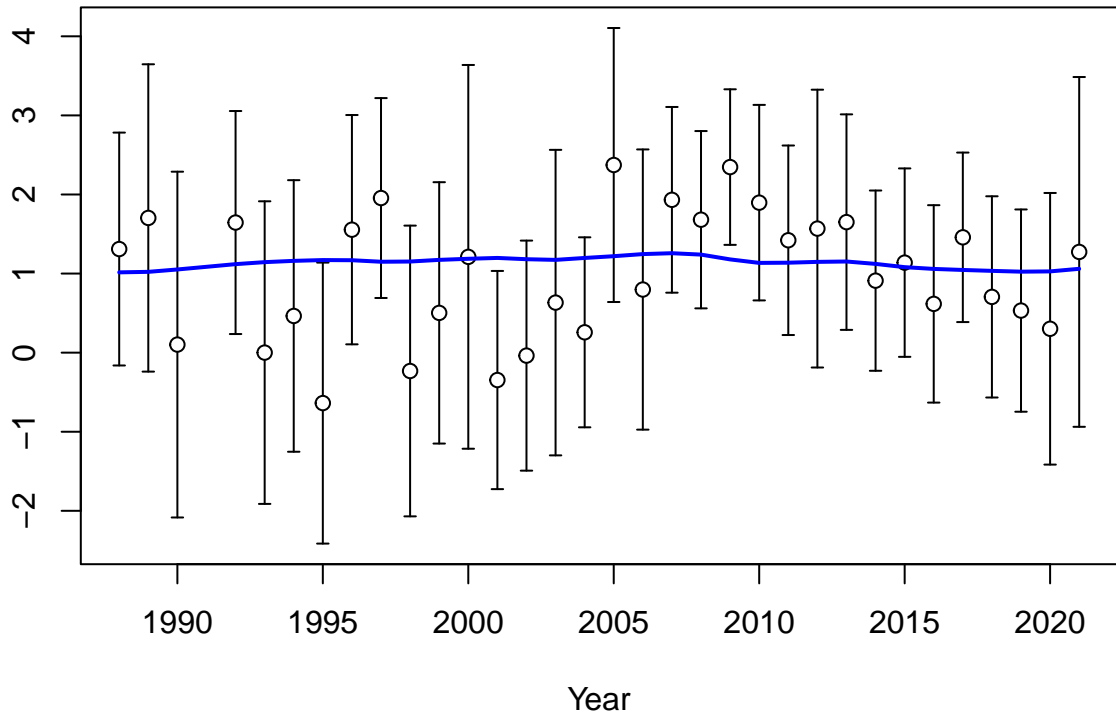
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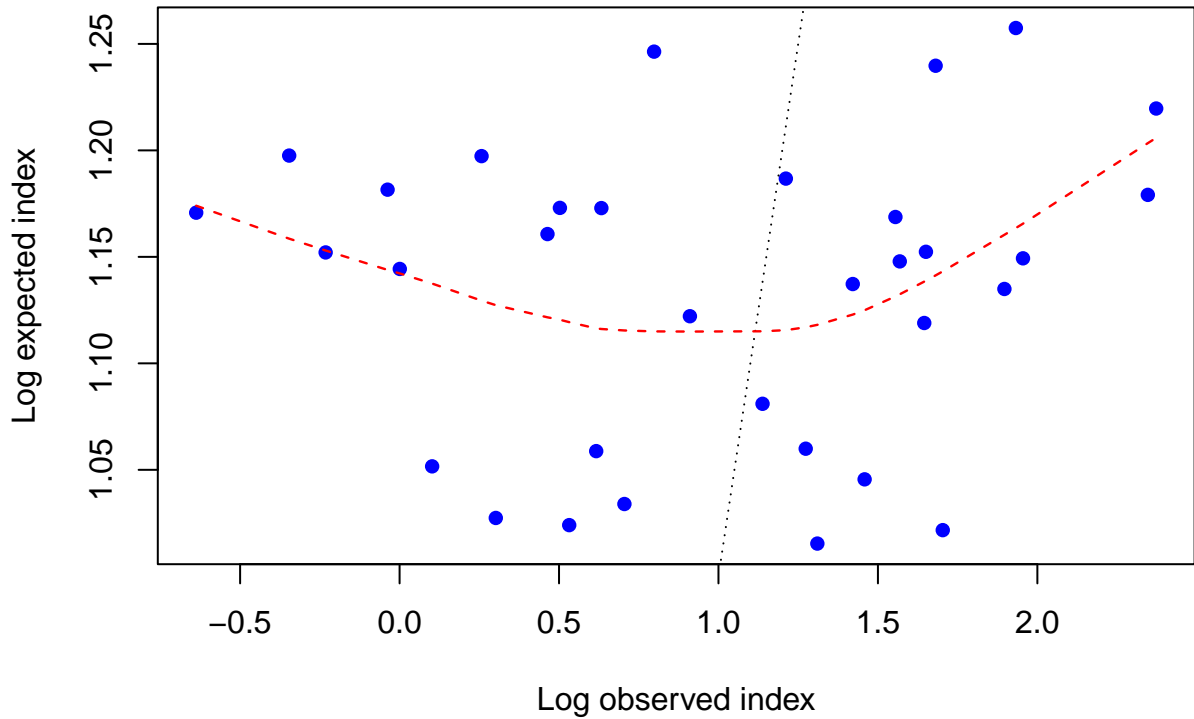
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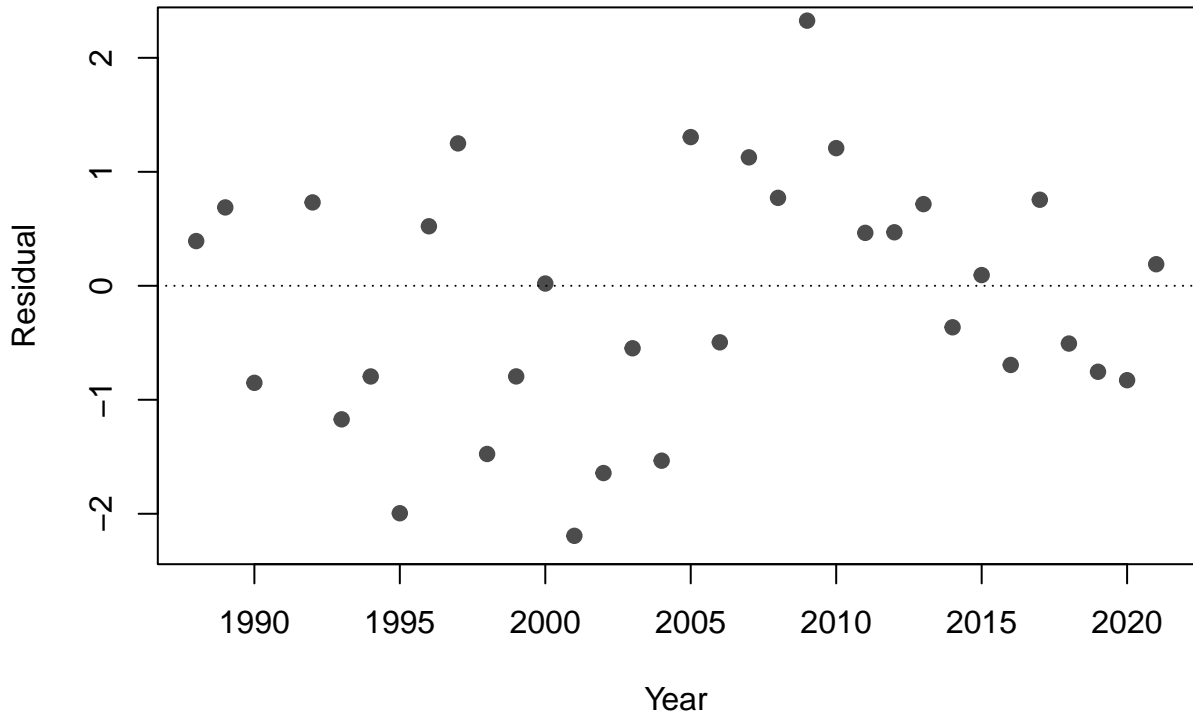


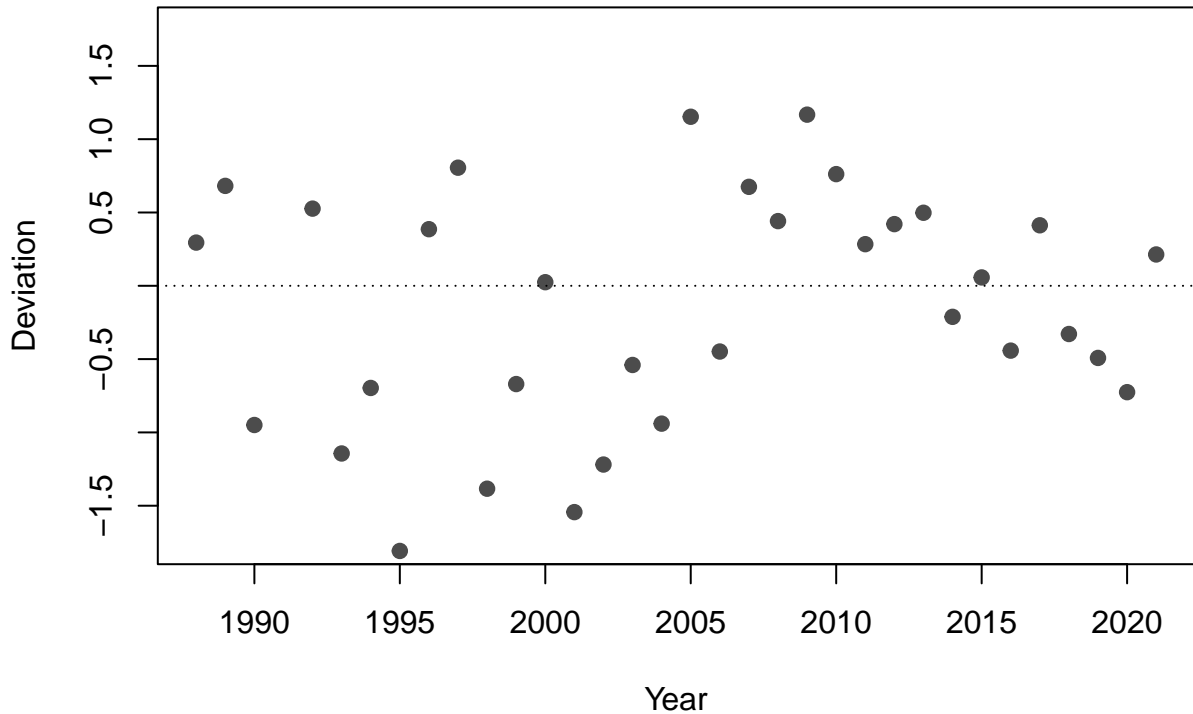


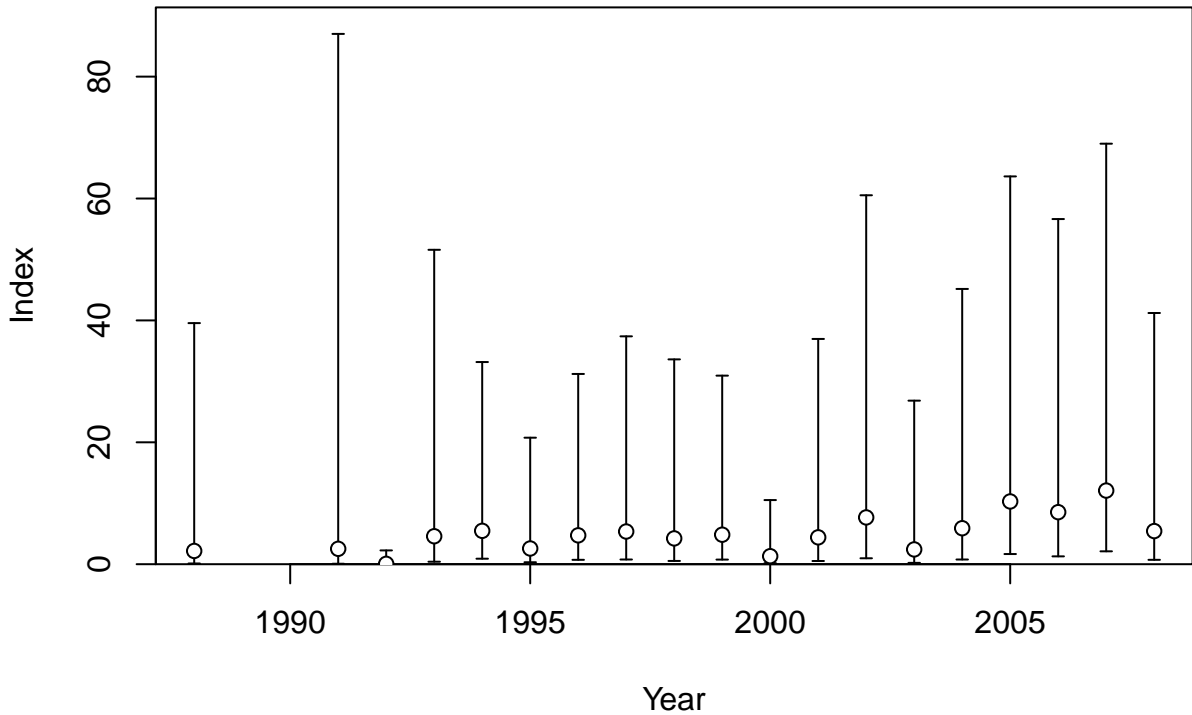
Log index

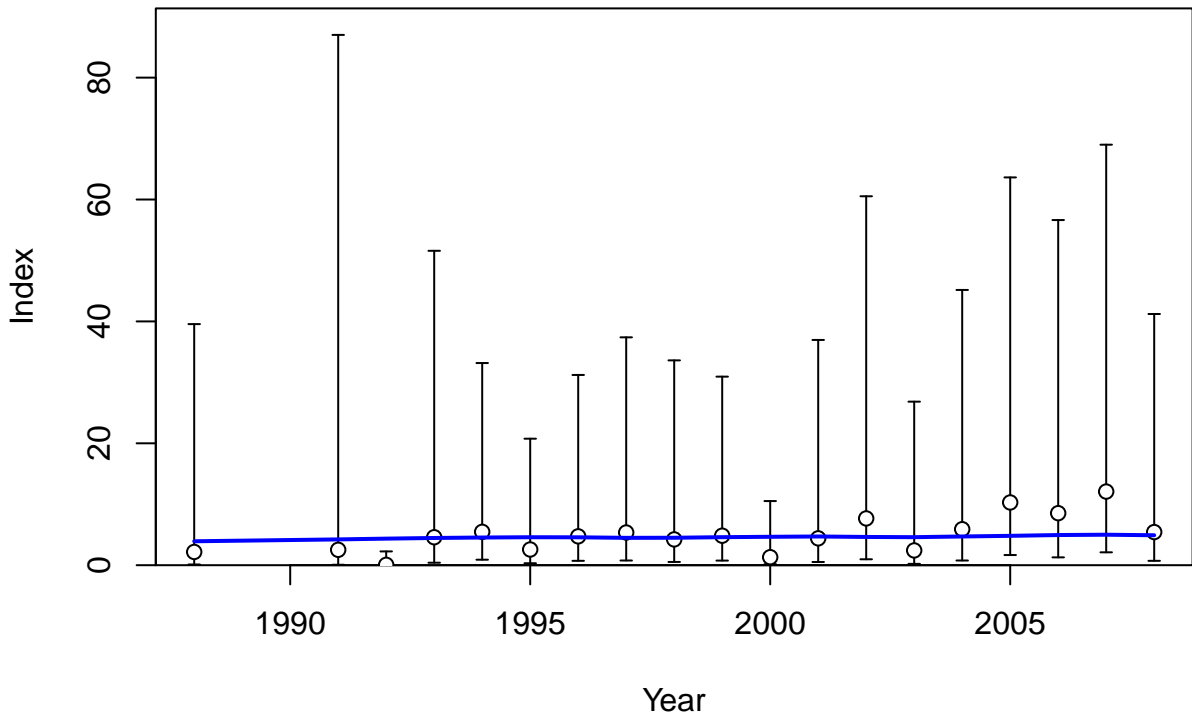


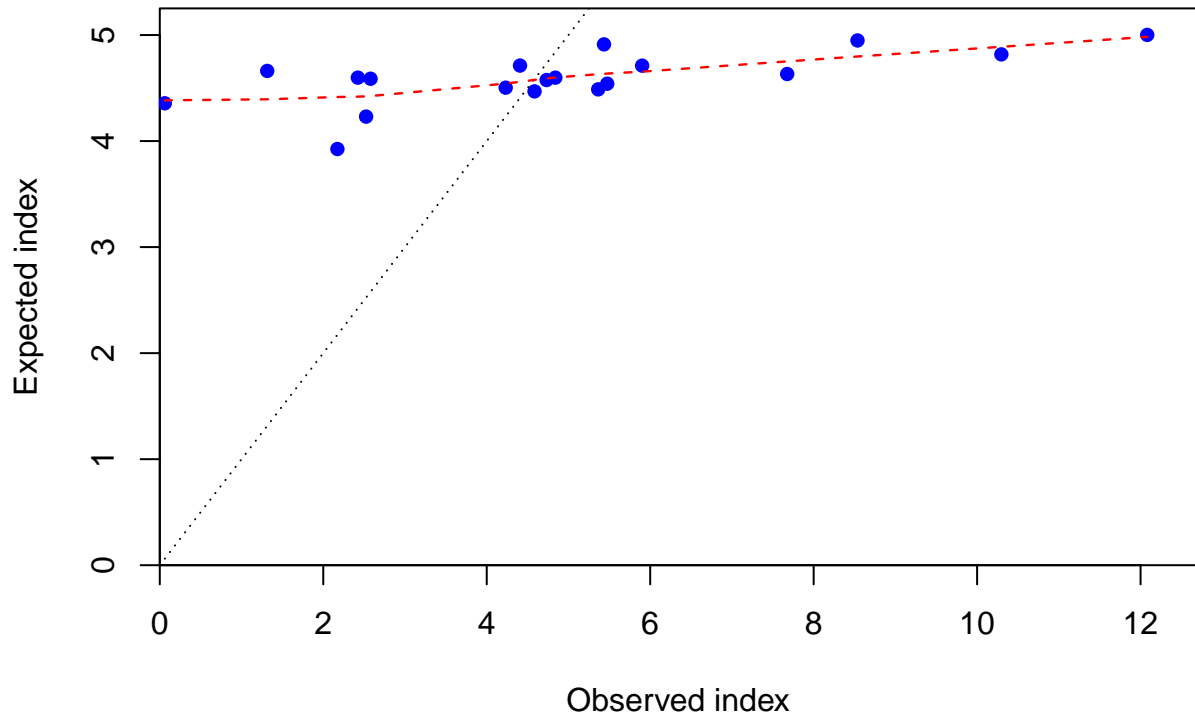


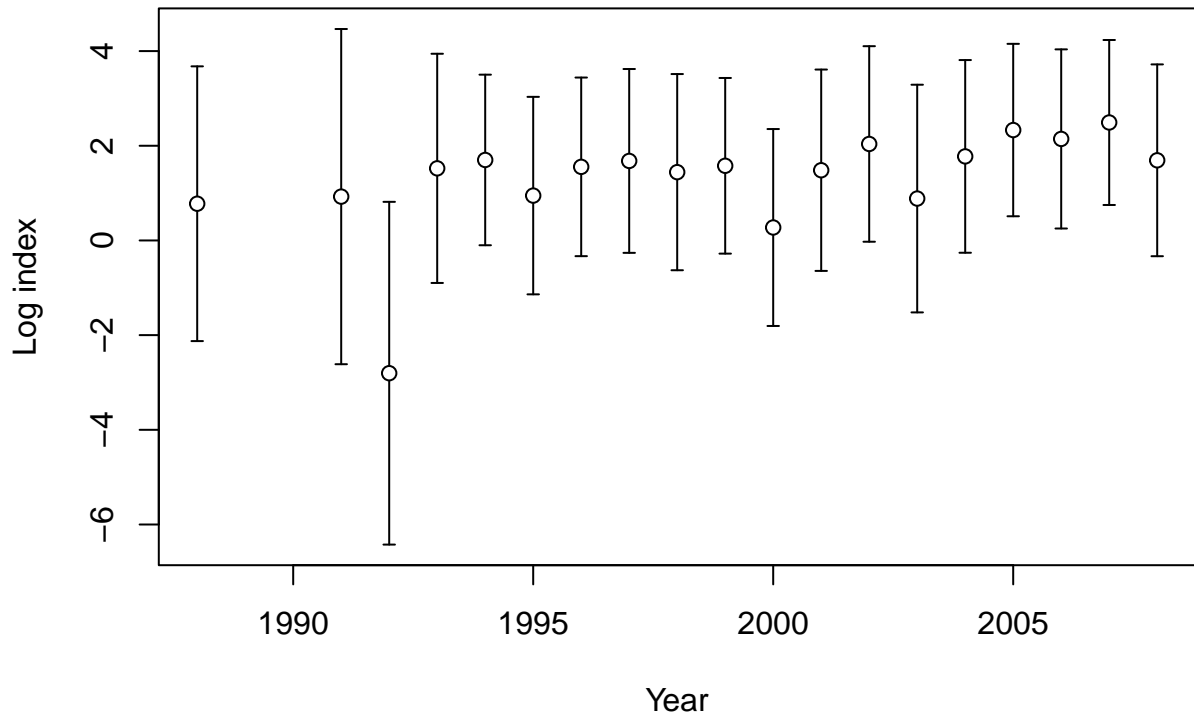




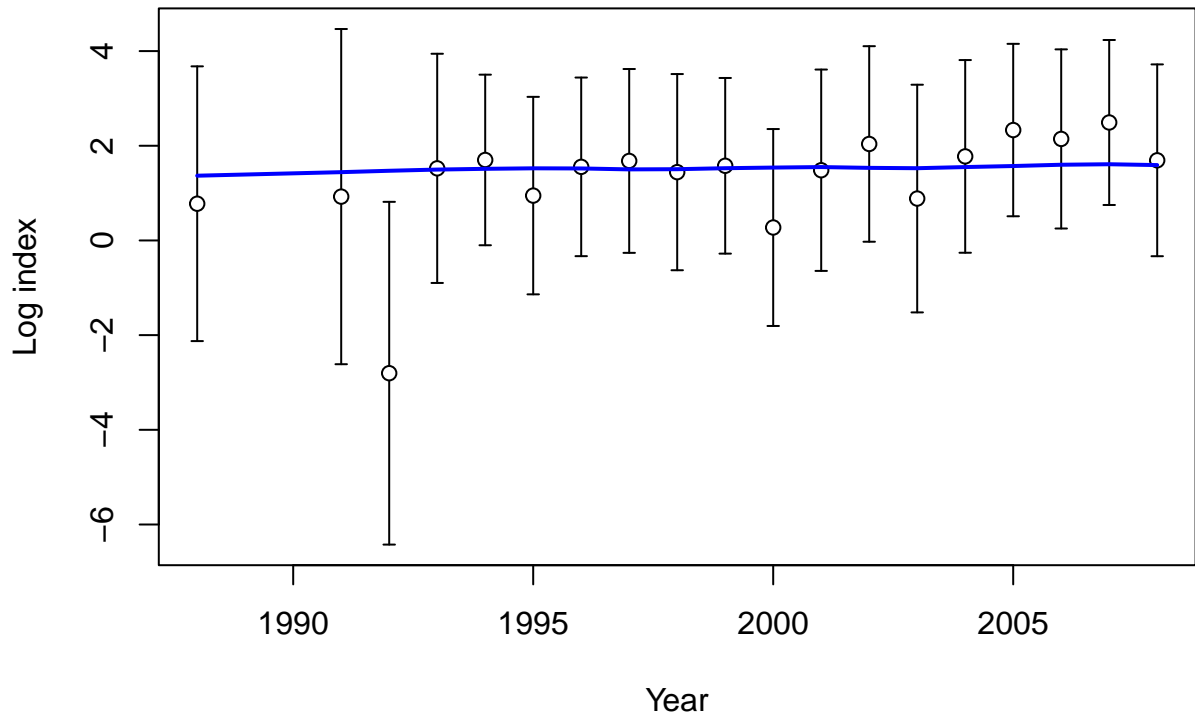


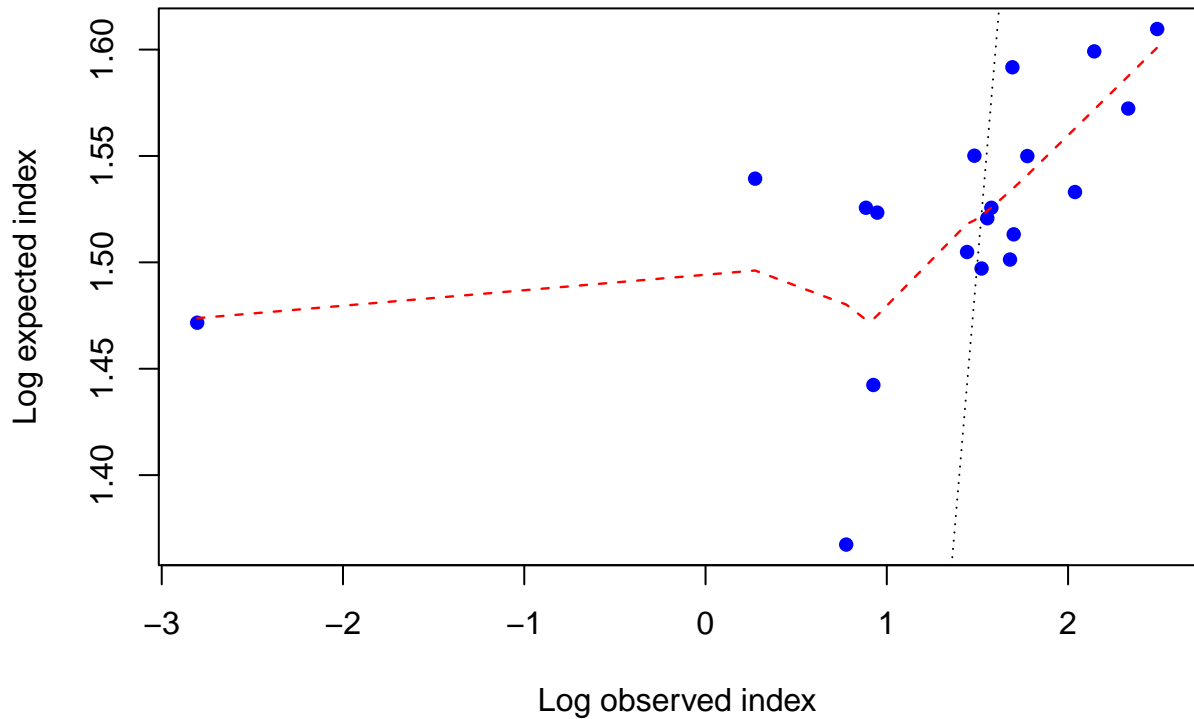


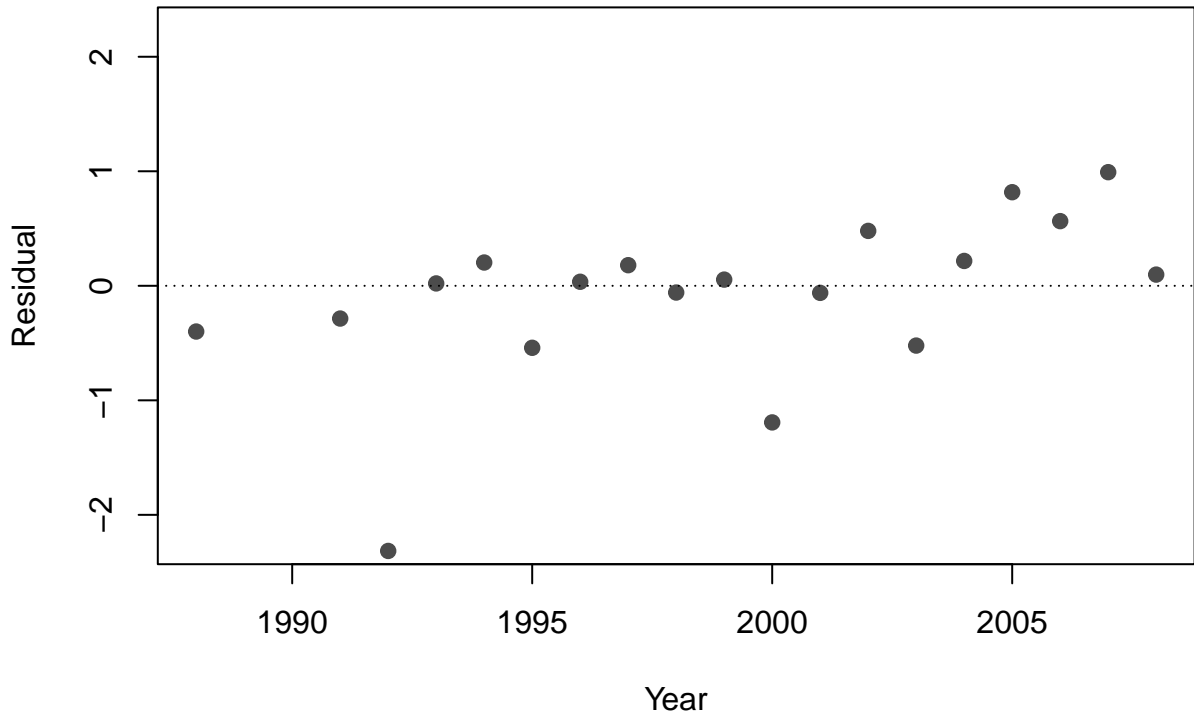




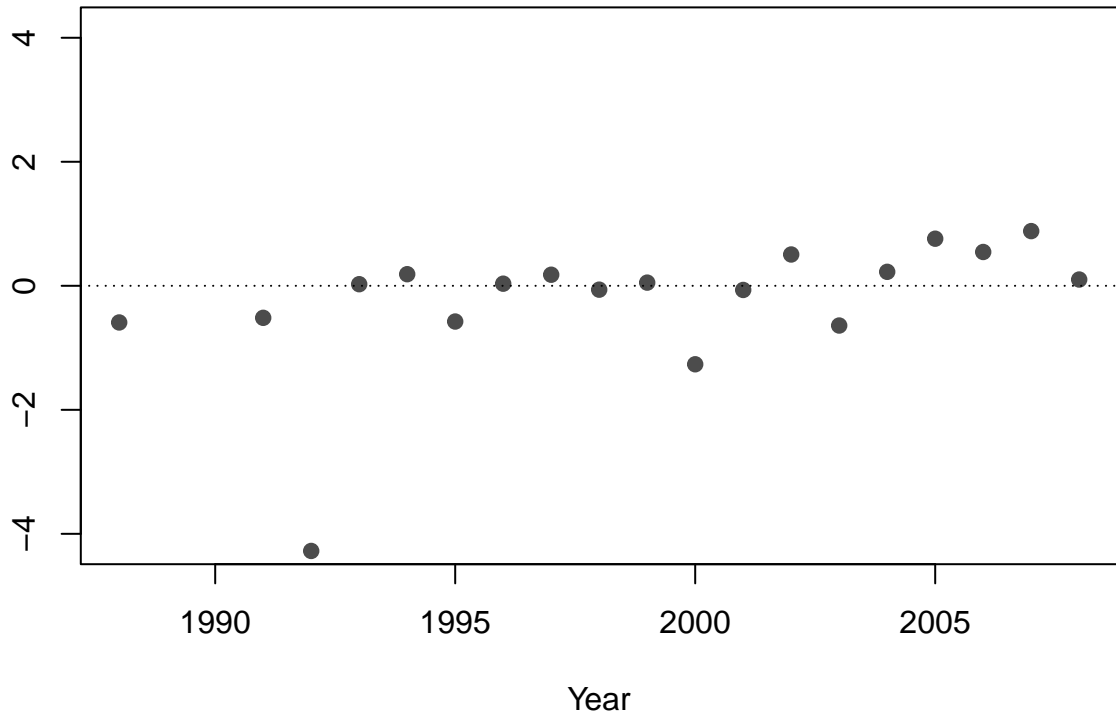




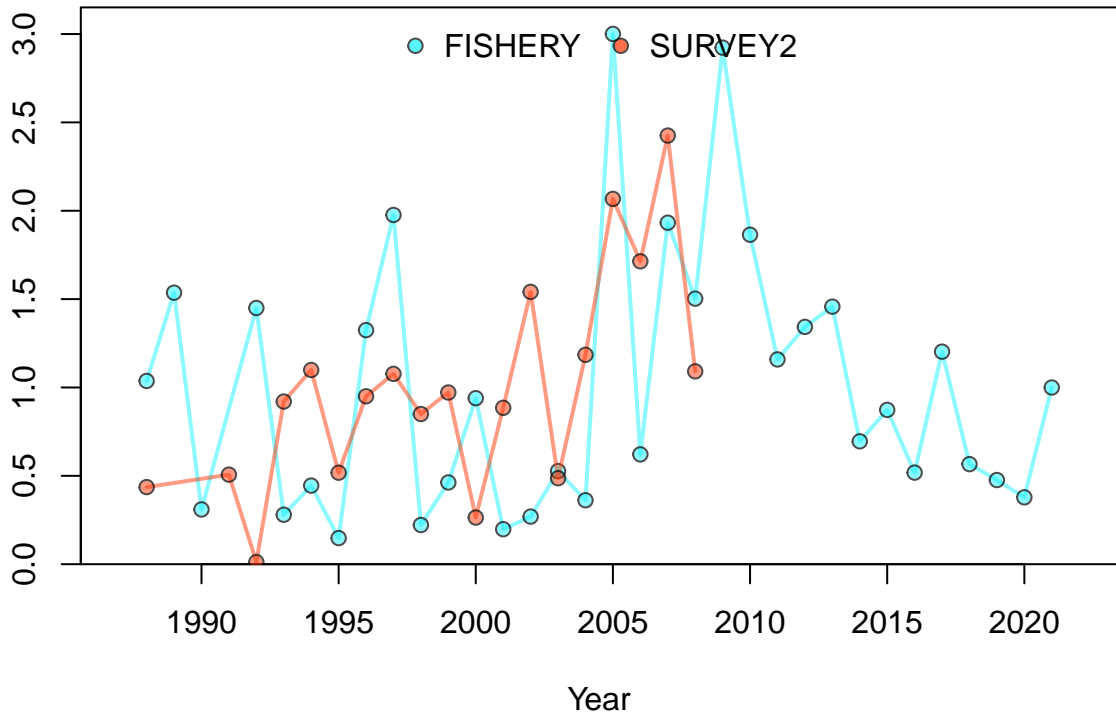


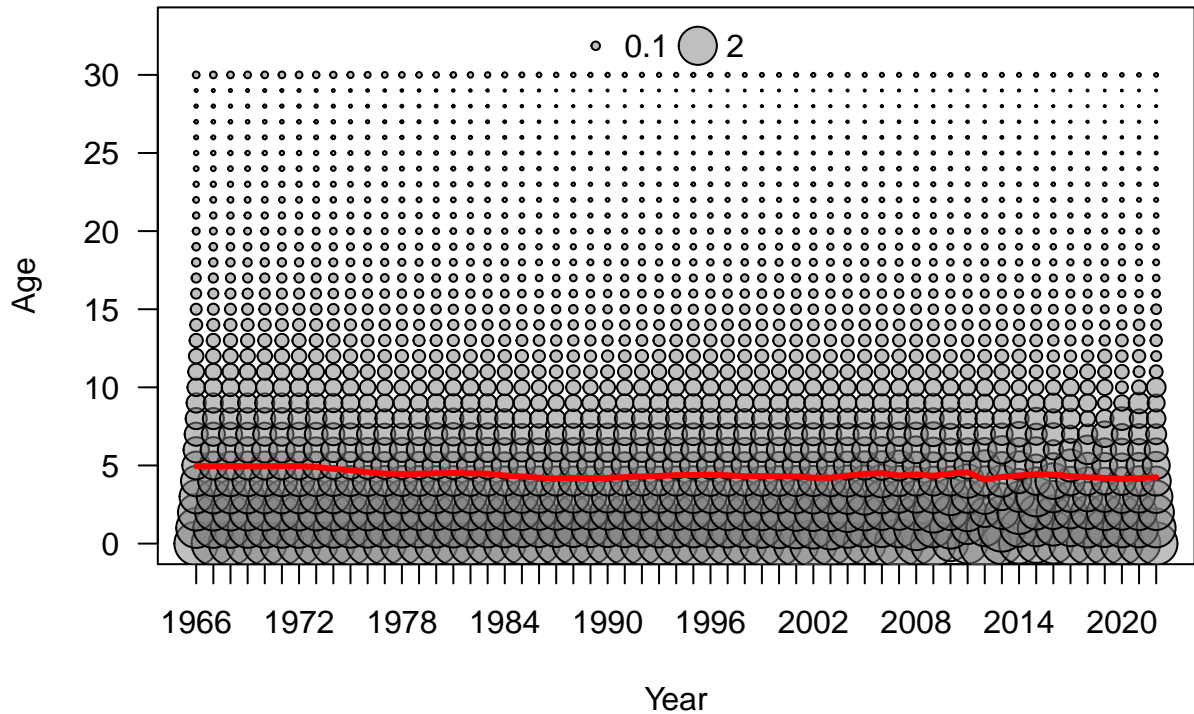


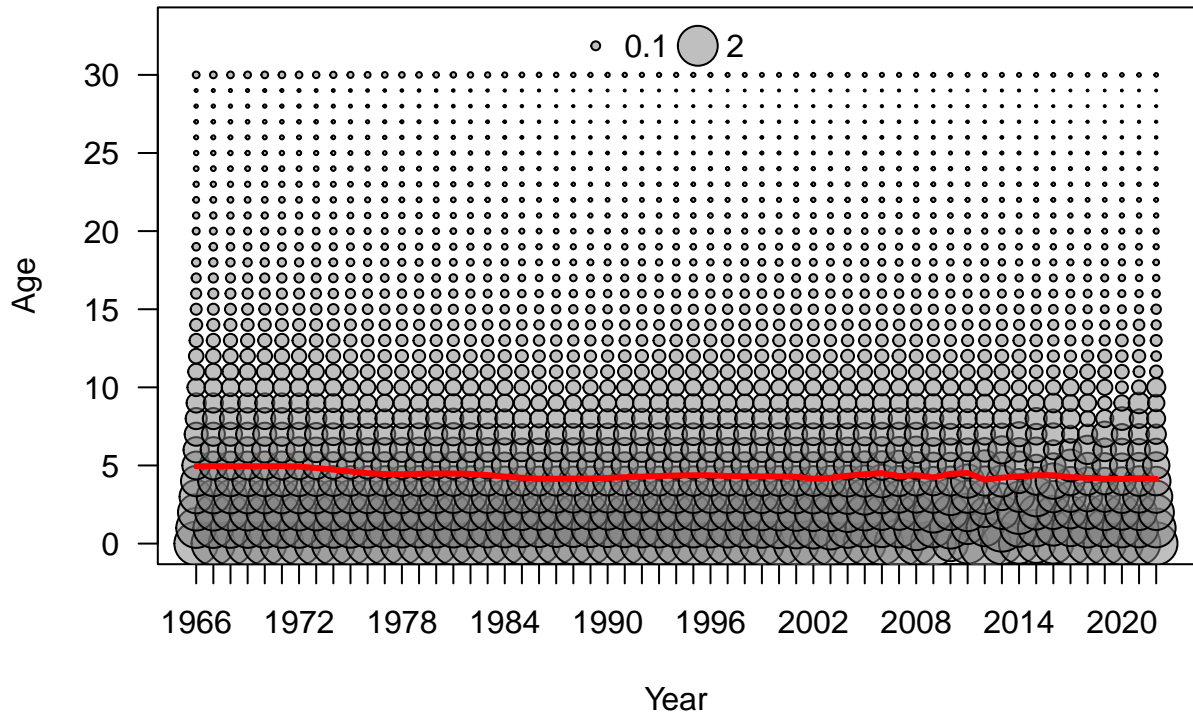
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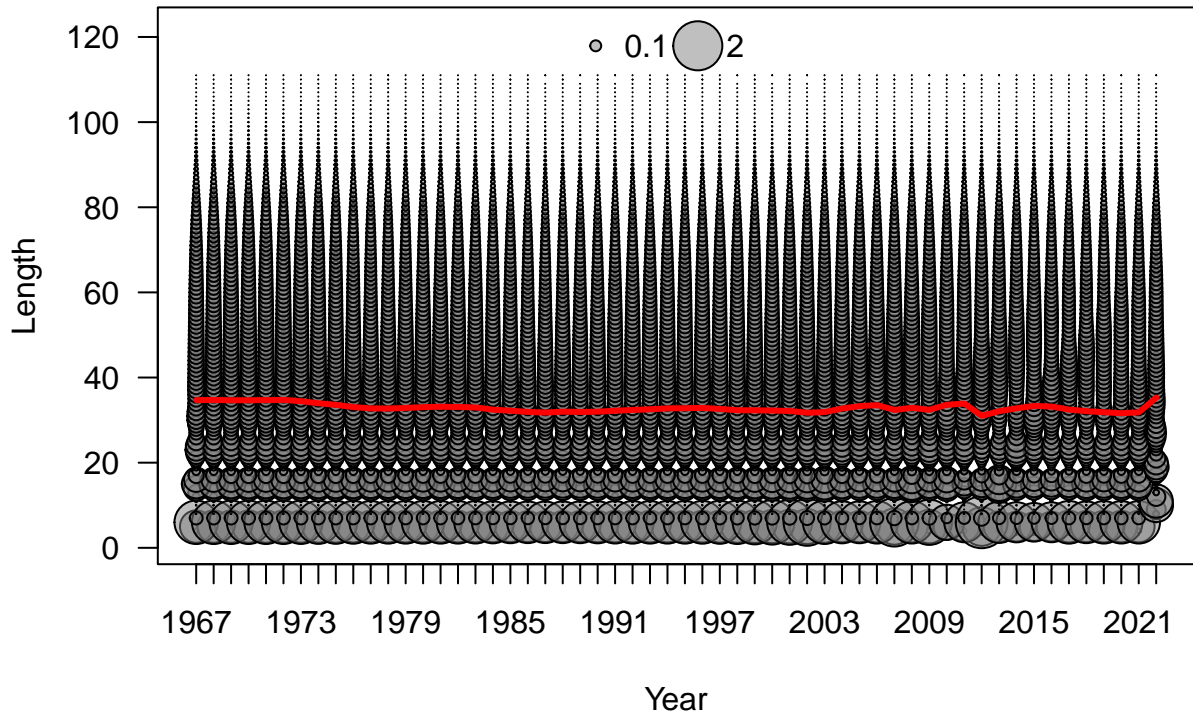


Standardized index

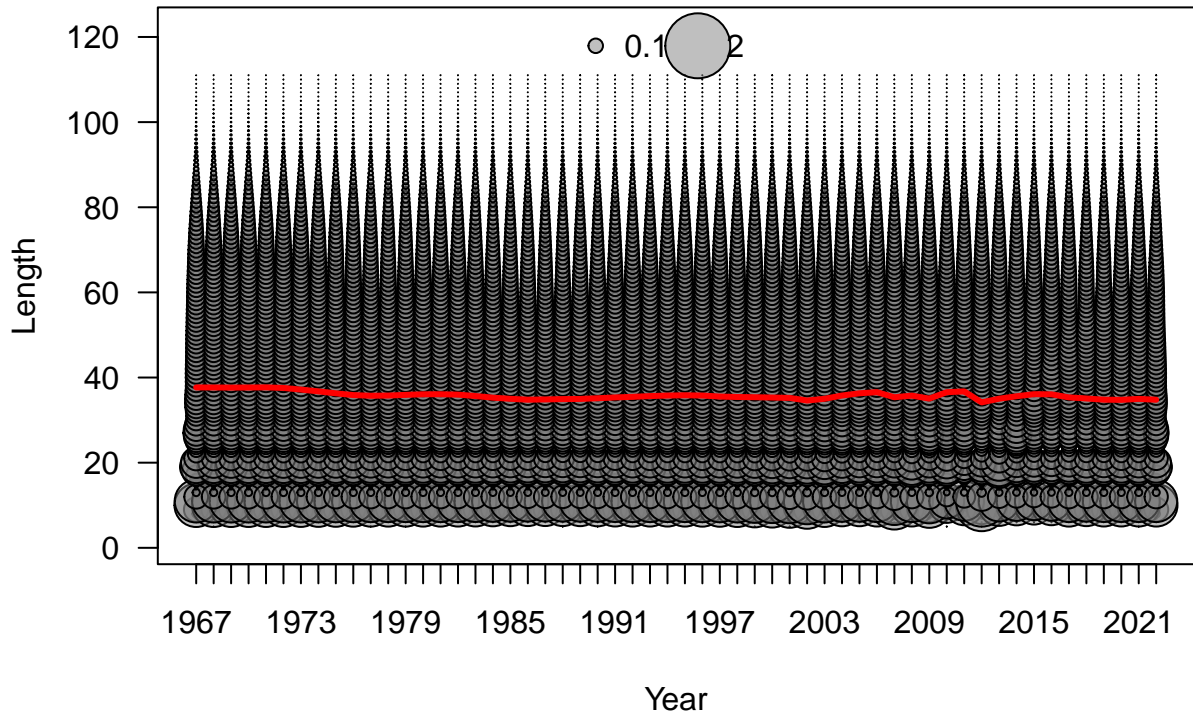


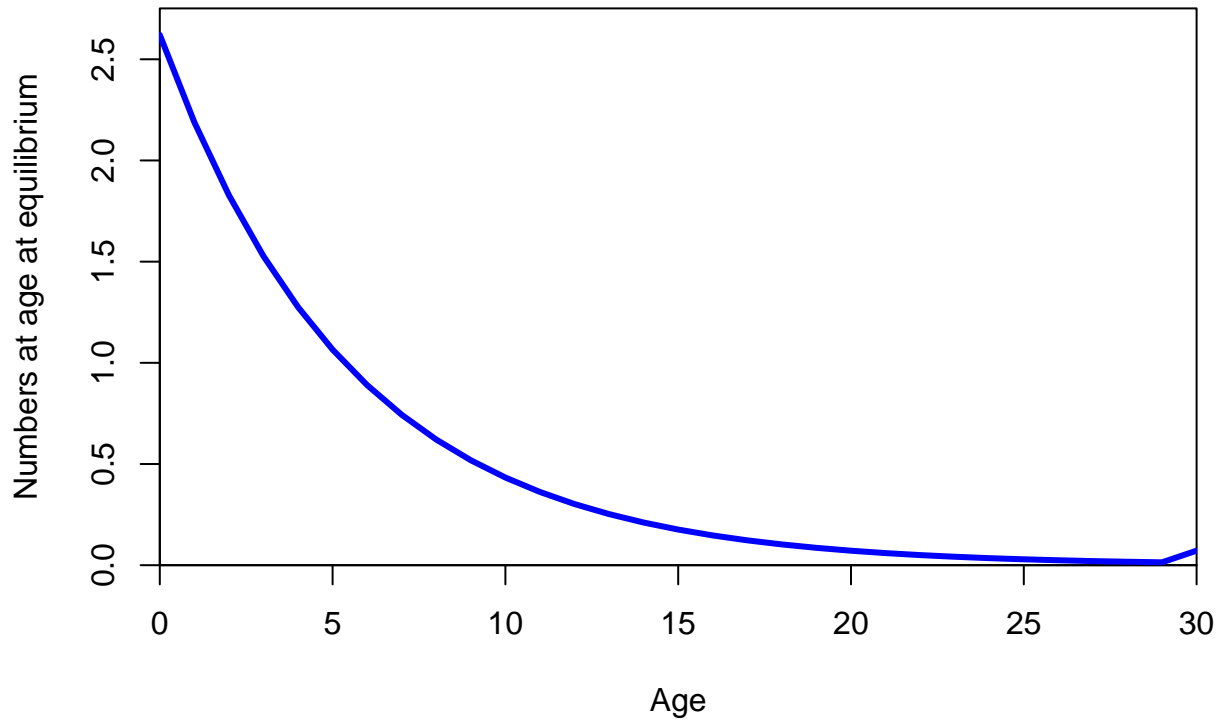






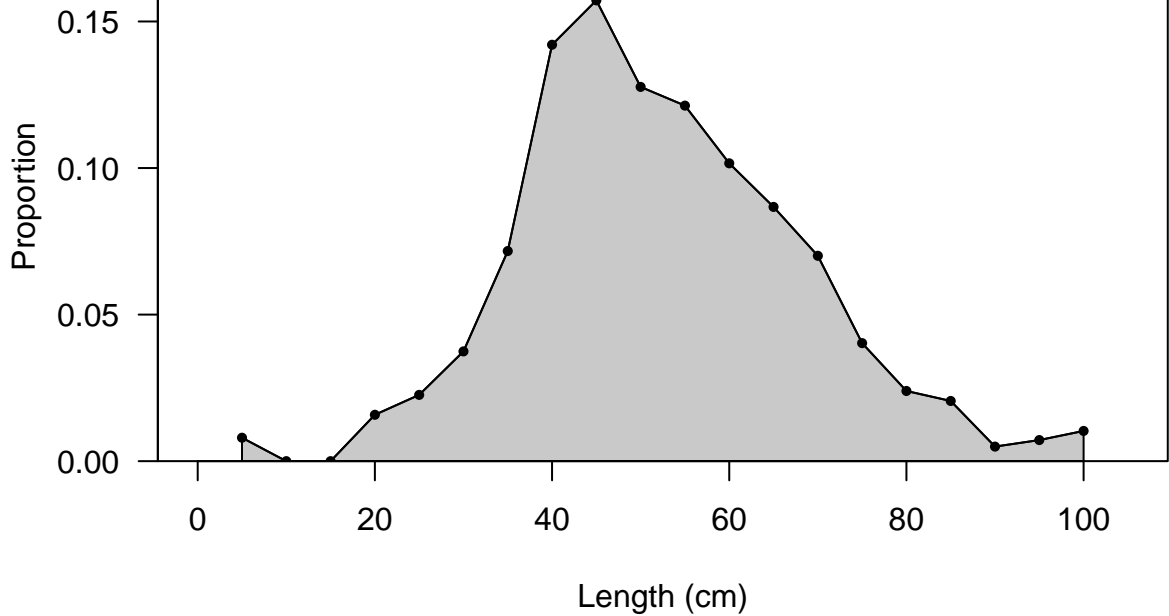


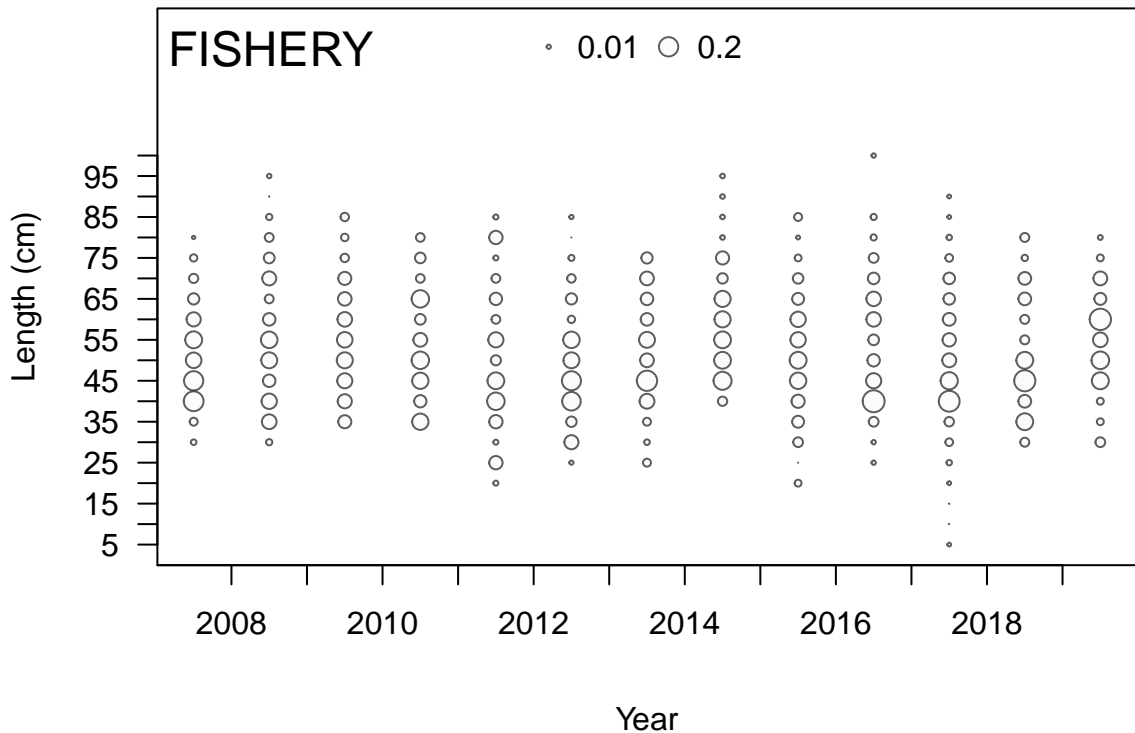




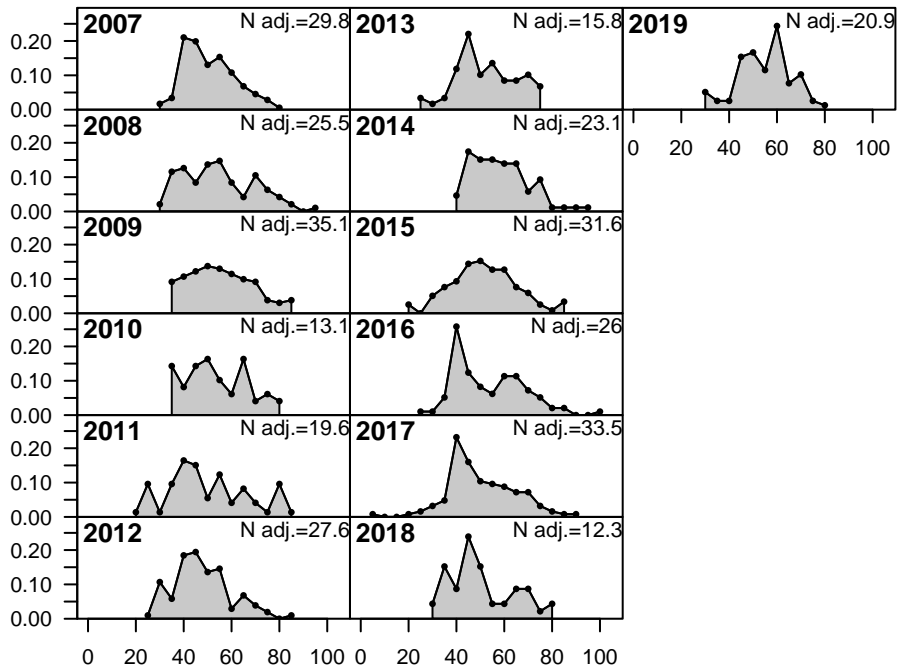
# FISHERY

Sum of N adj.=314.1

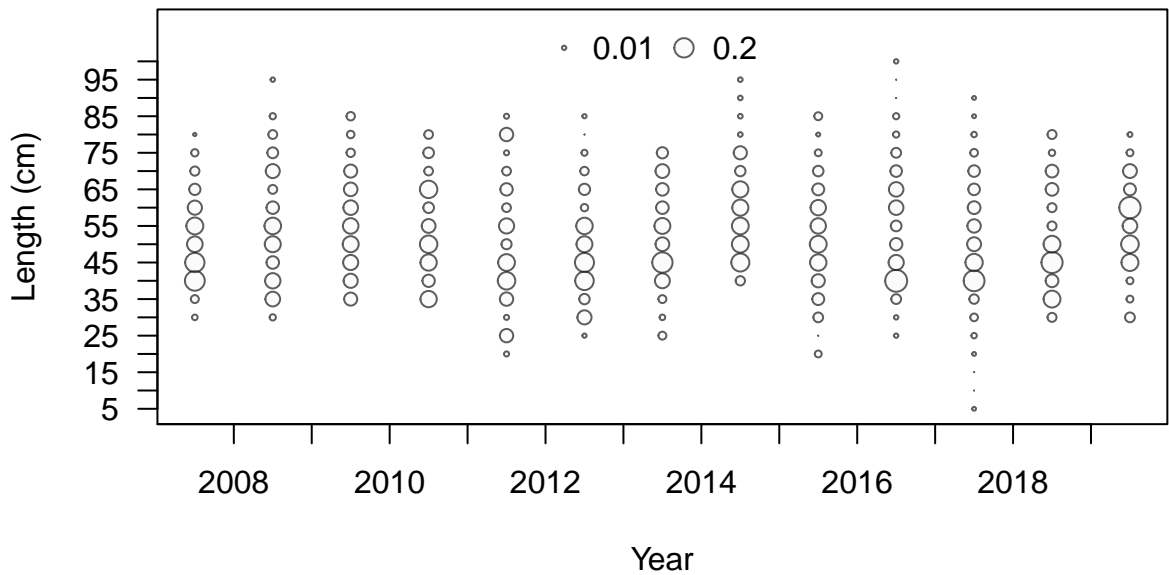




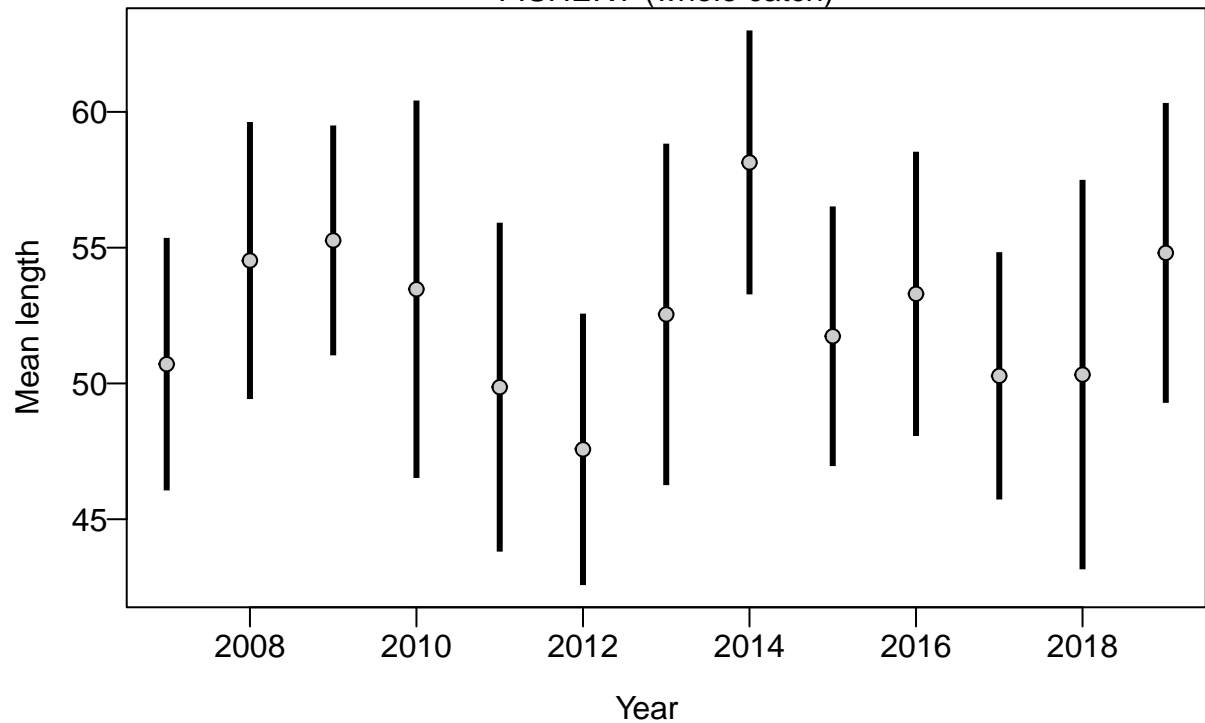
Proportion



Length (cm)

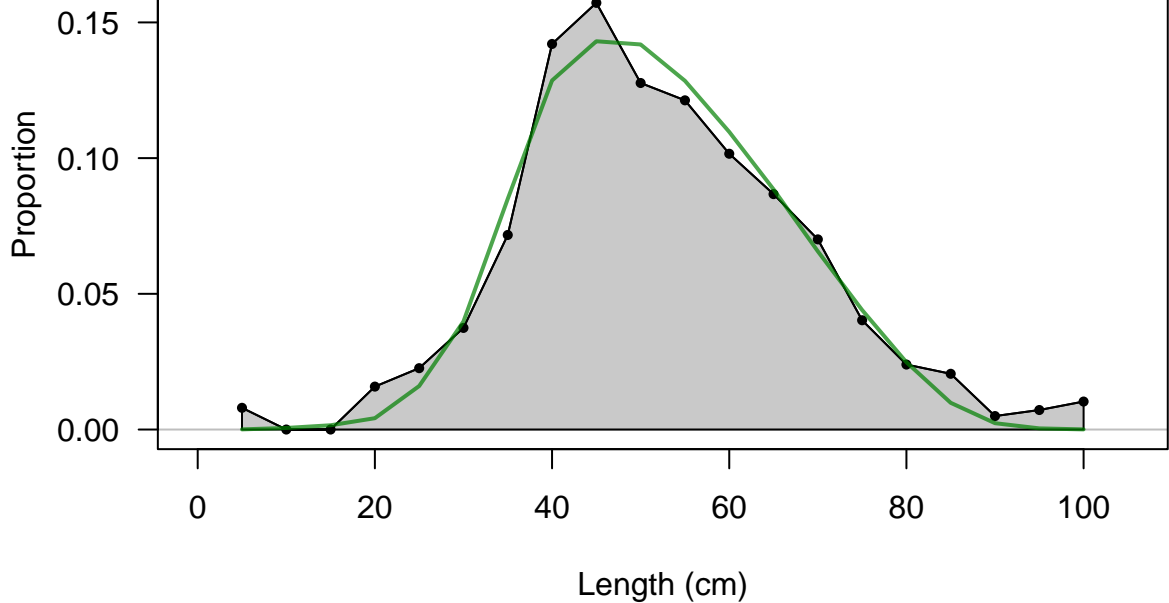


FISHERY (whole catch)

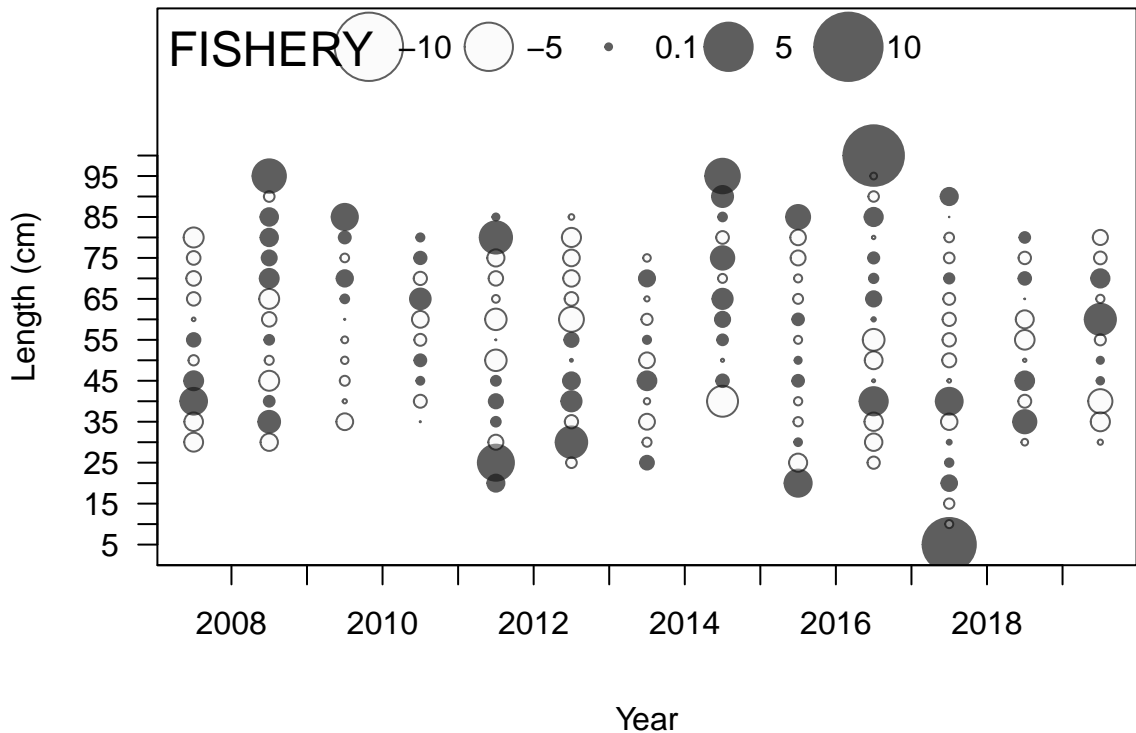


# FISHERY

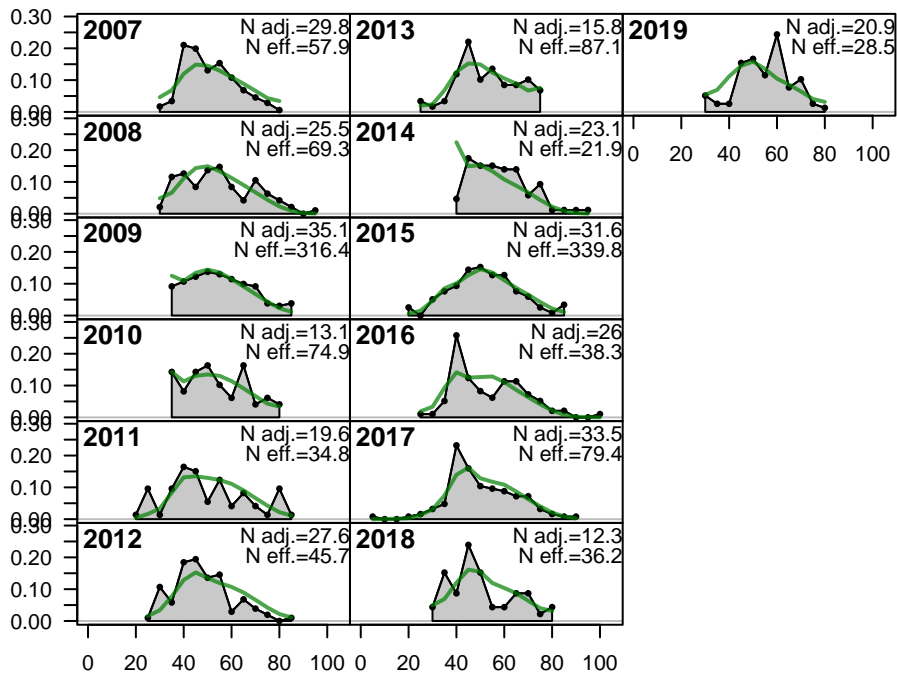
Sum of N adj.=314.1  
Sum of N eff.=1230.3



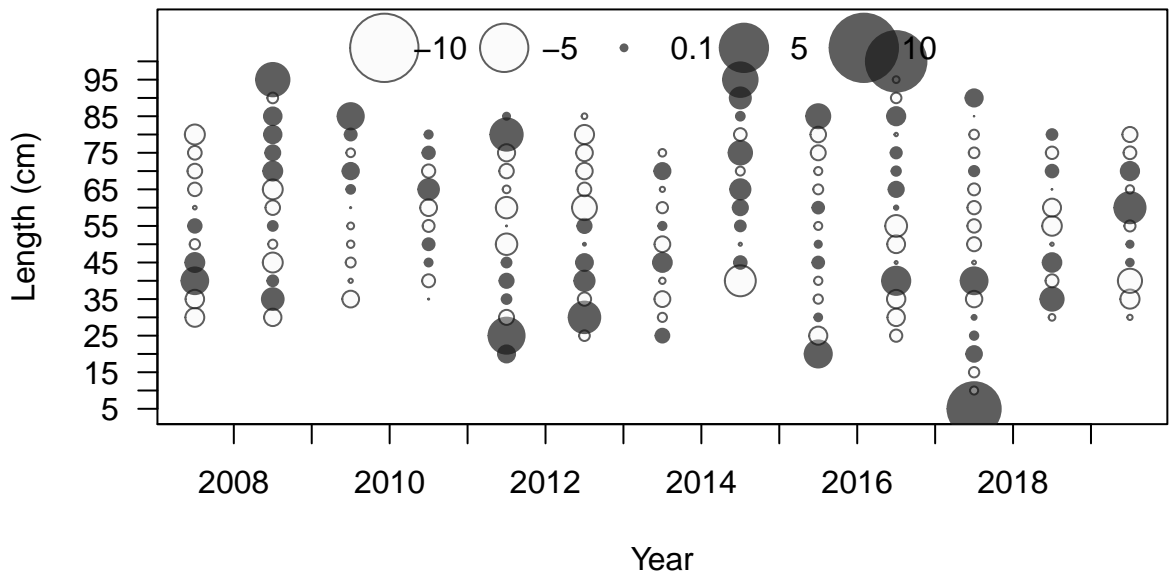




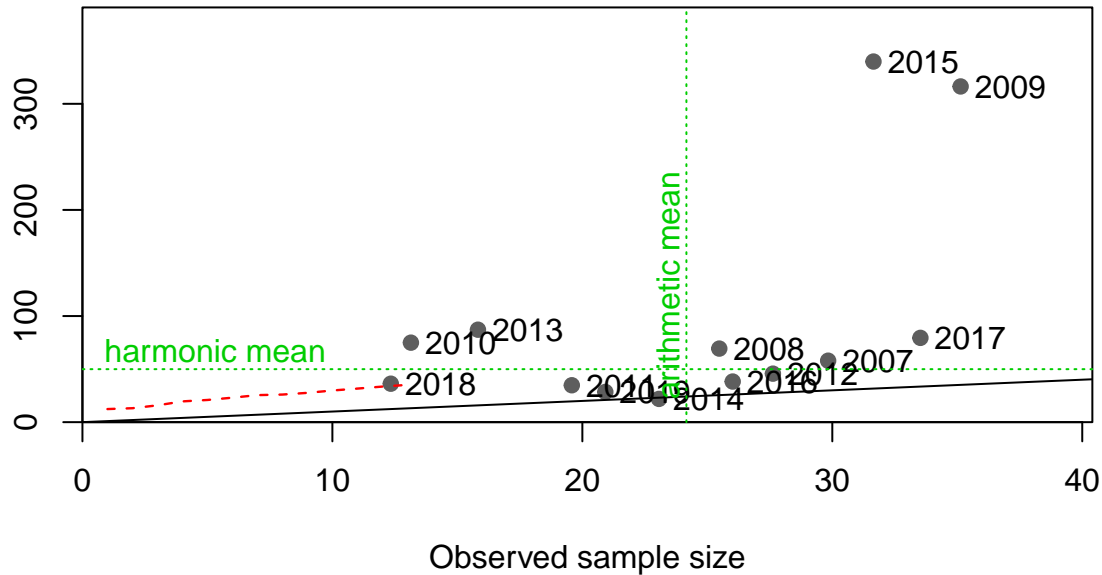
Proportion



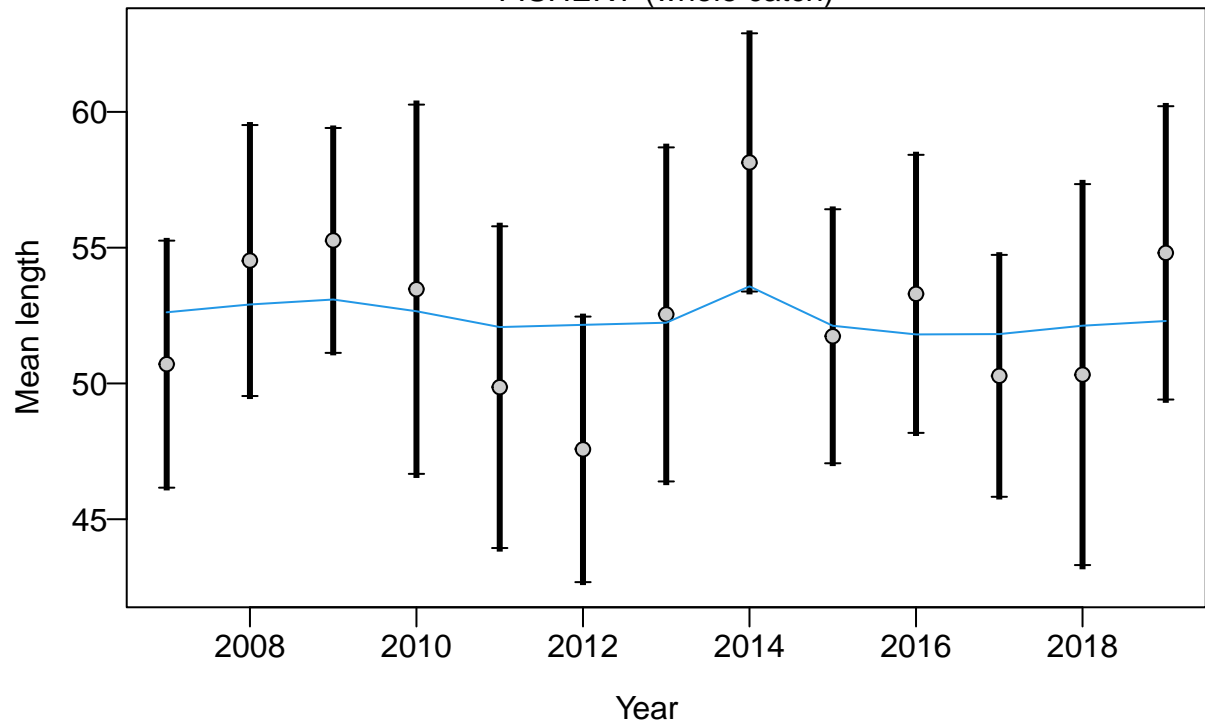
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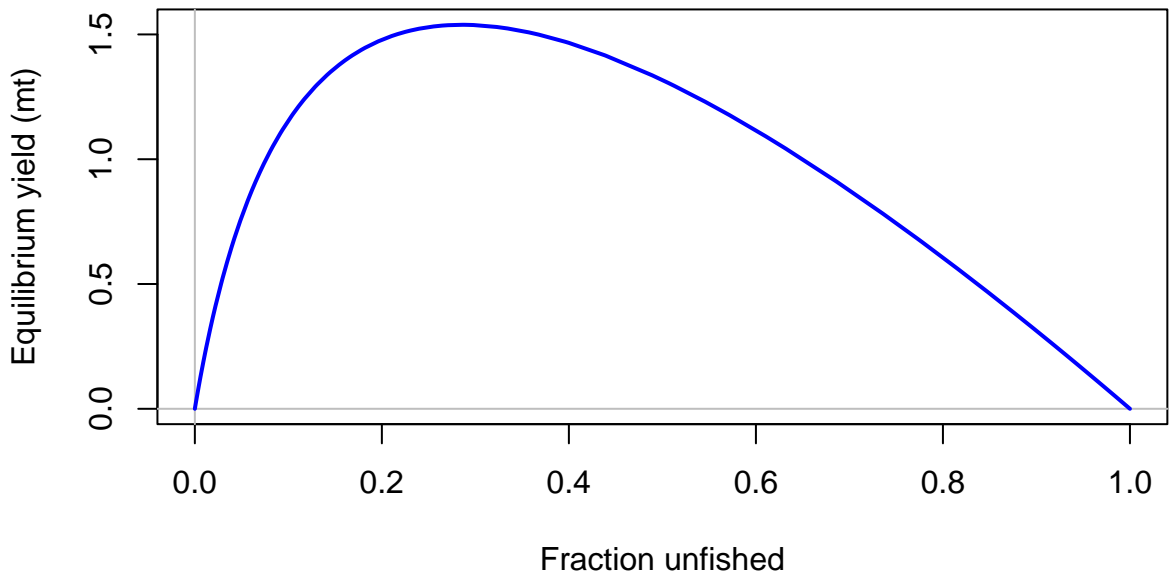


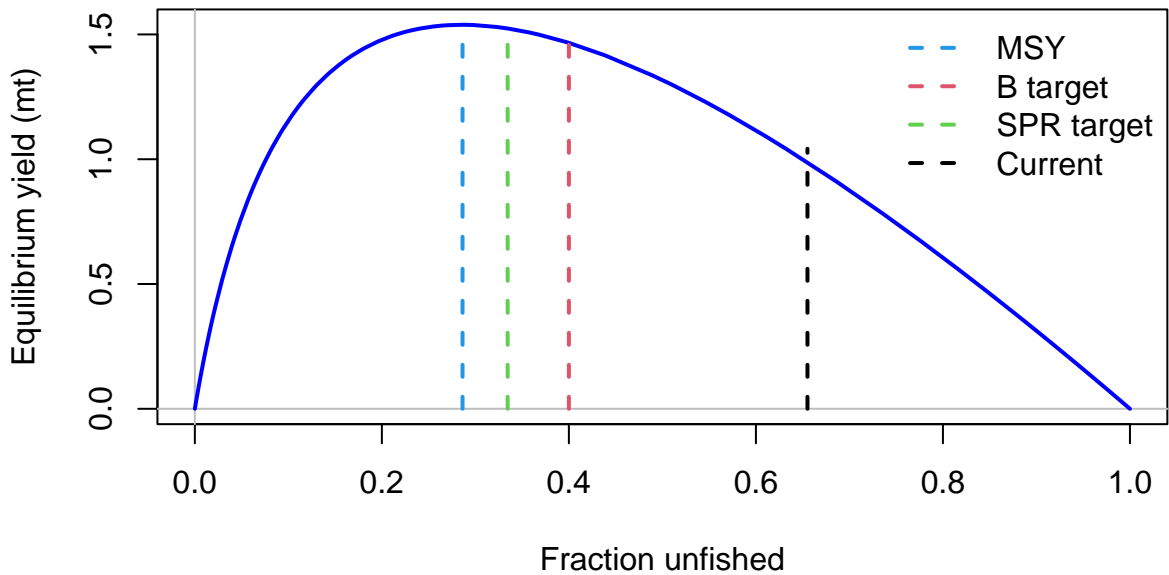
Effective sample size

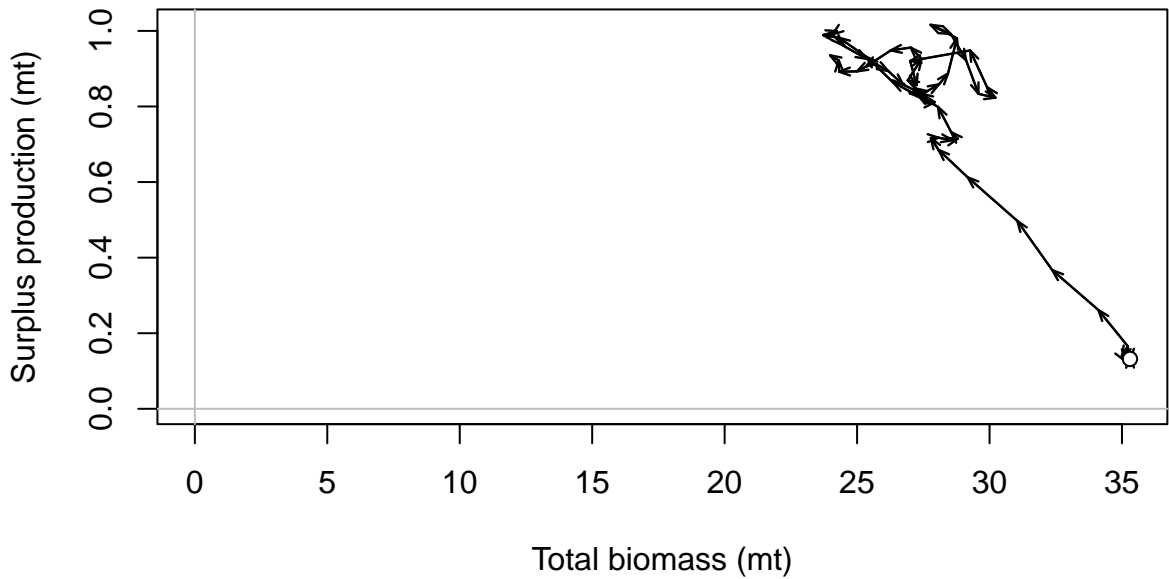


FISHERY (whole catch)

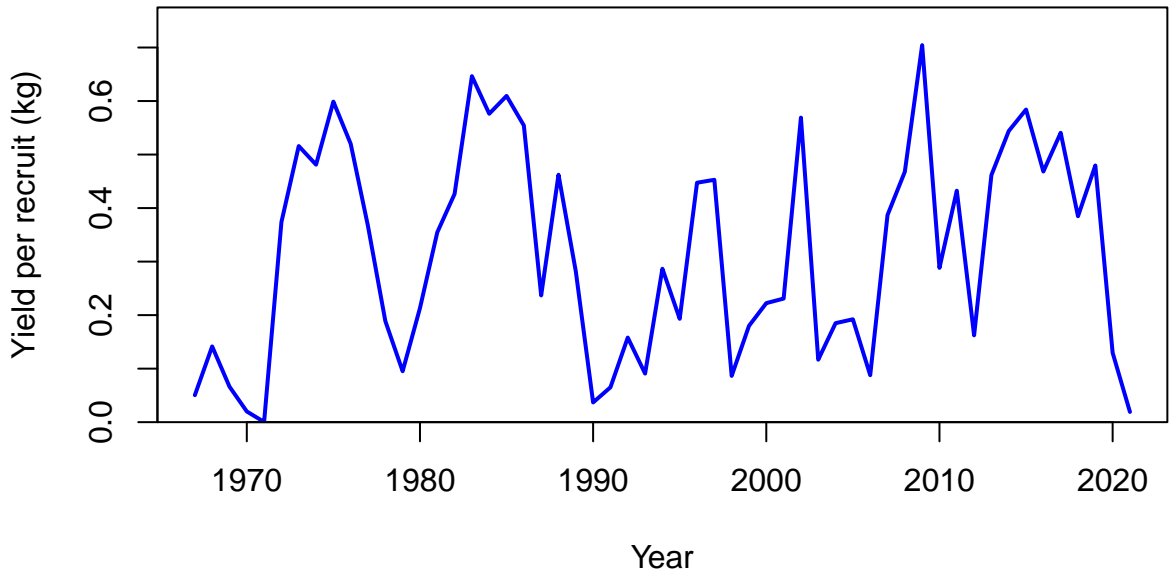


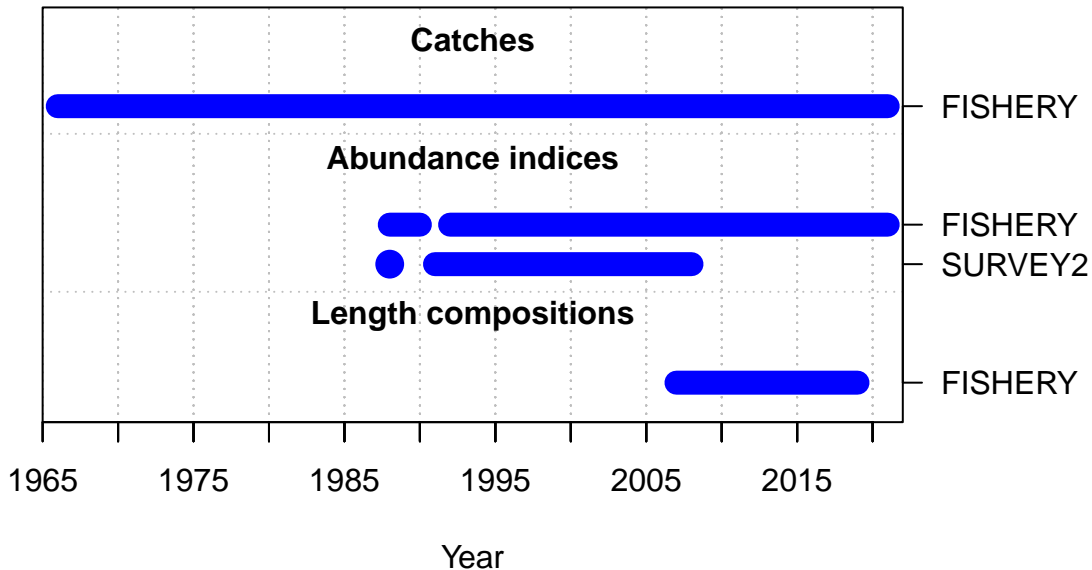


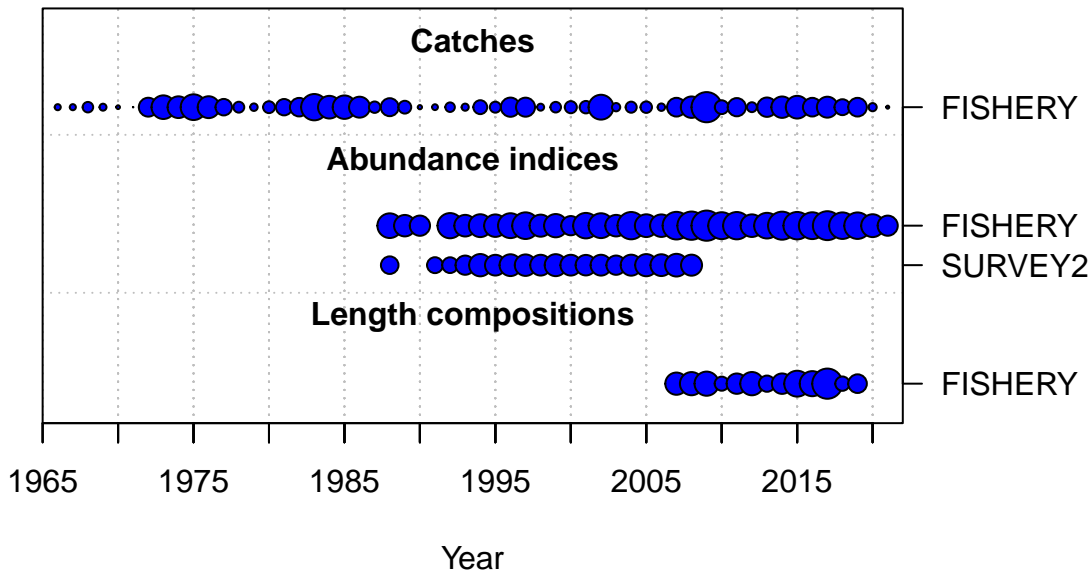








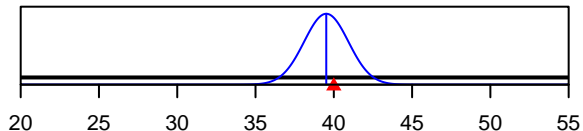




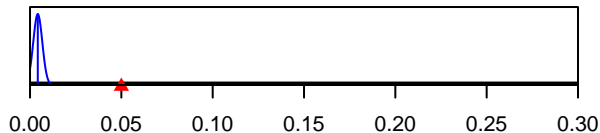
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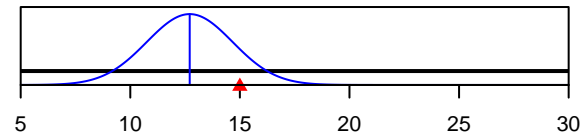
Size\_inflection\_FISHERY(1)



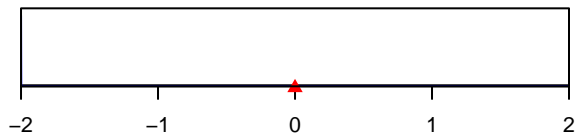
InitF\_seas\_1\_flt\_1FISHERY



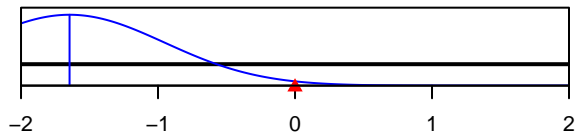
Size\_95%width\_FISHERY(1)



LnQ\_base\_FISHERY(1)



LnQ\_base\_SURVEY2(2)



Parameter value