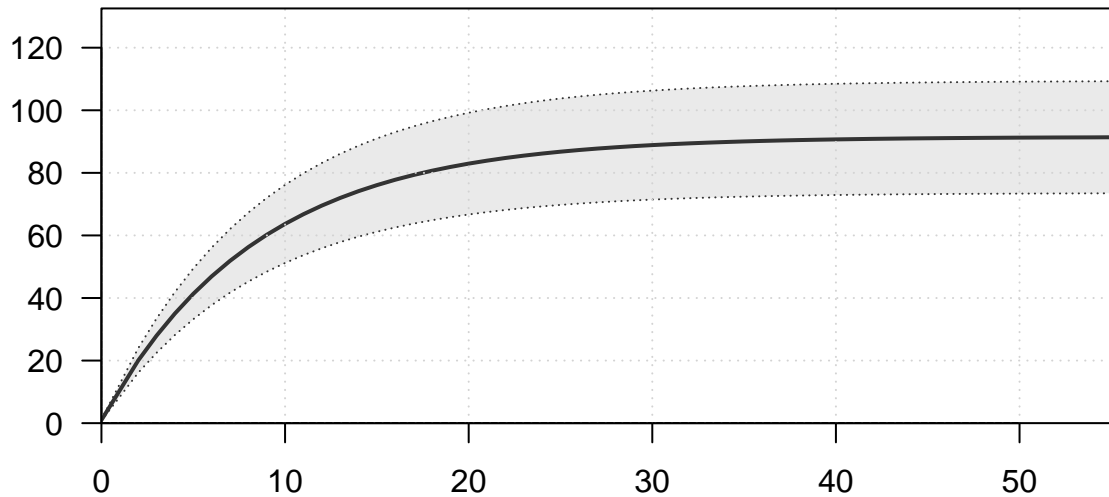
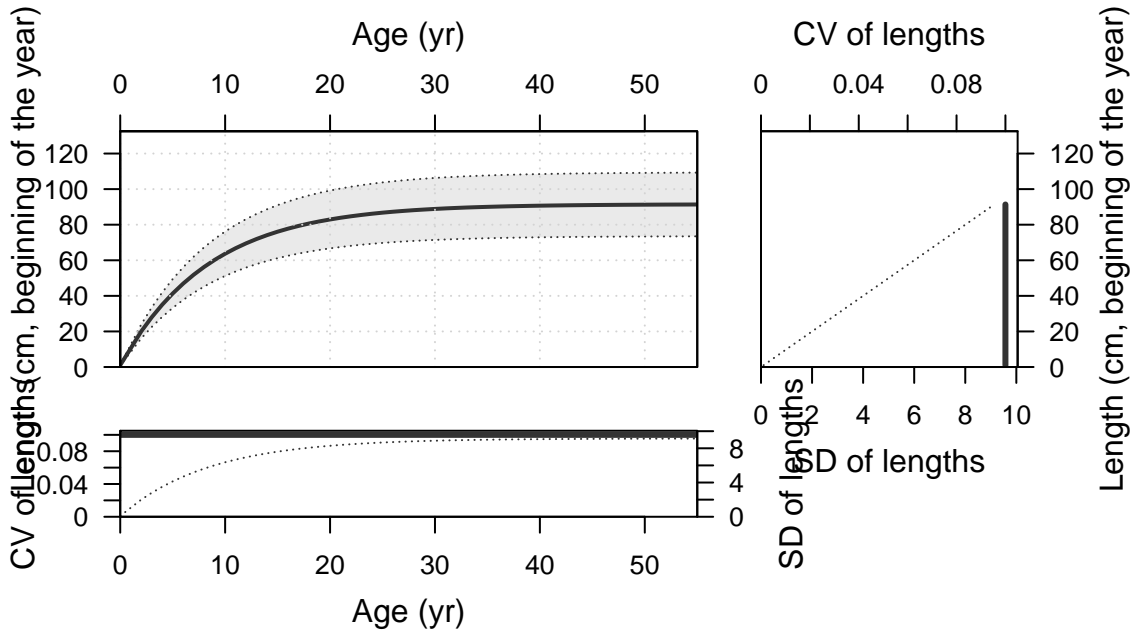


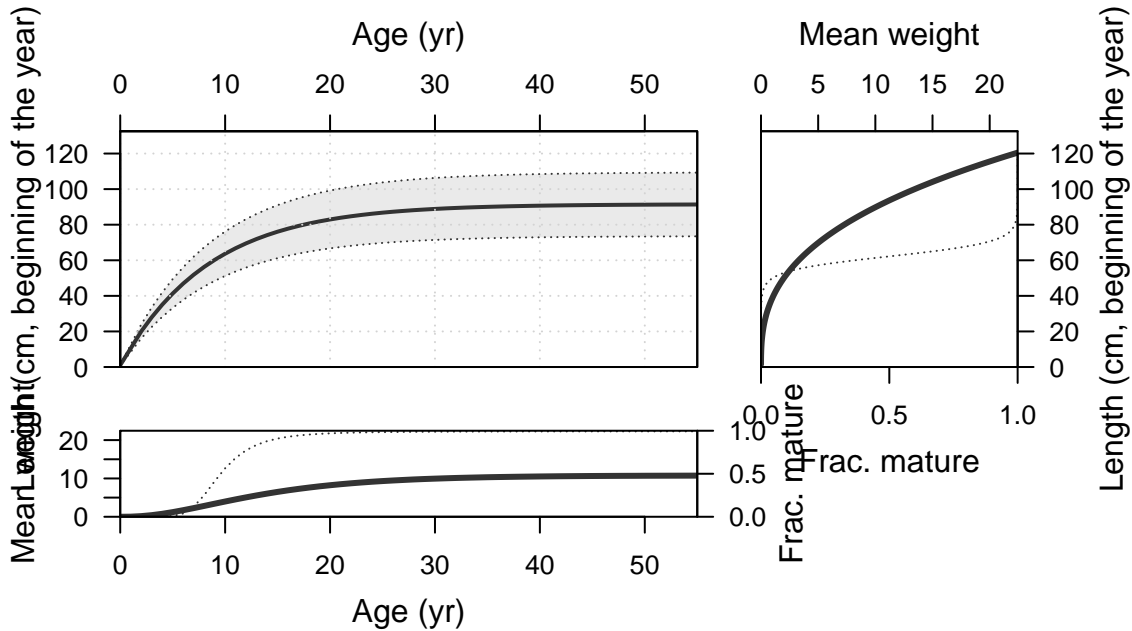
Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Fri Jul 08 08:25:43 2022  
Data\_File: data.ss  
Control\_File: control.ss

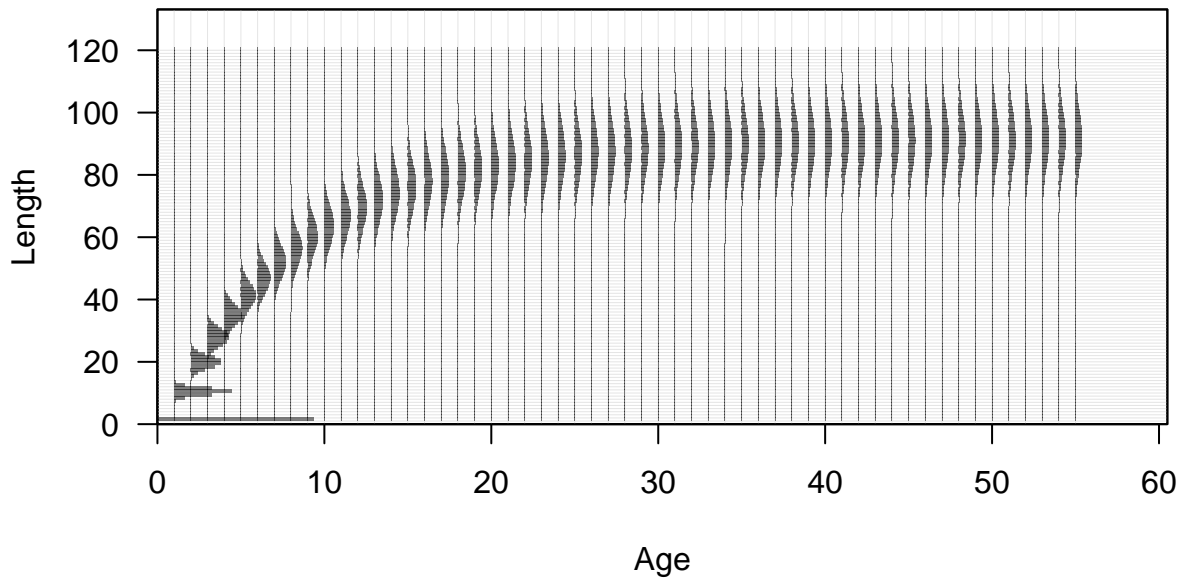
Length (cm, beginning of the year)

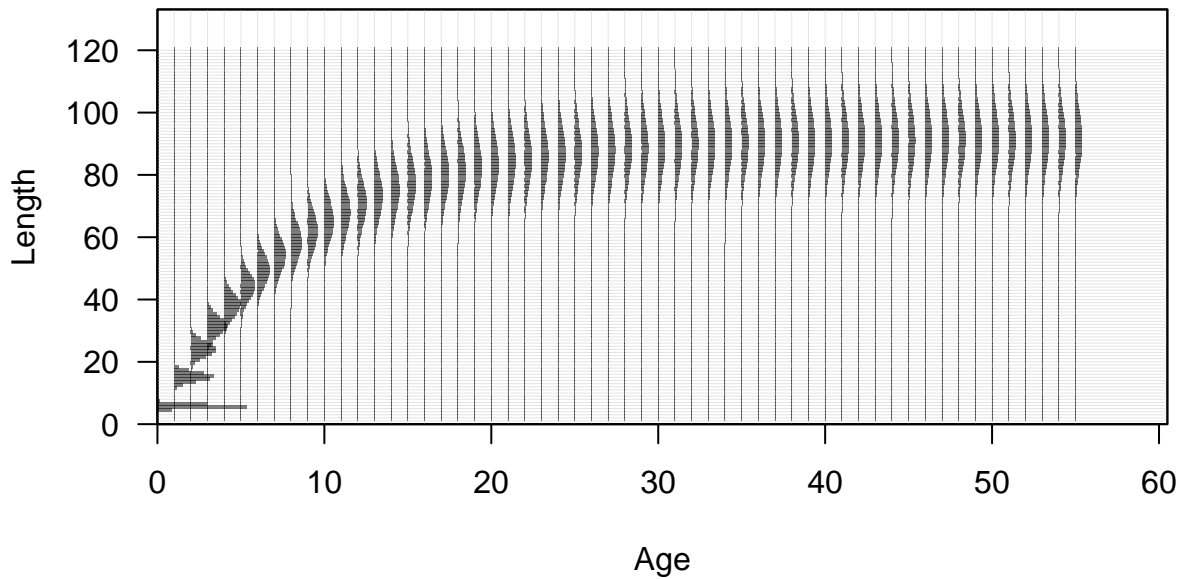


Age (yr)

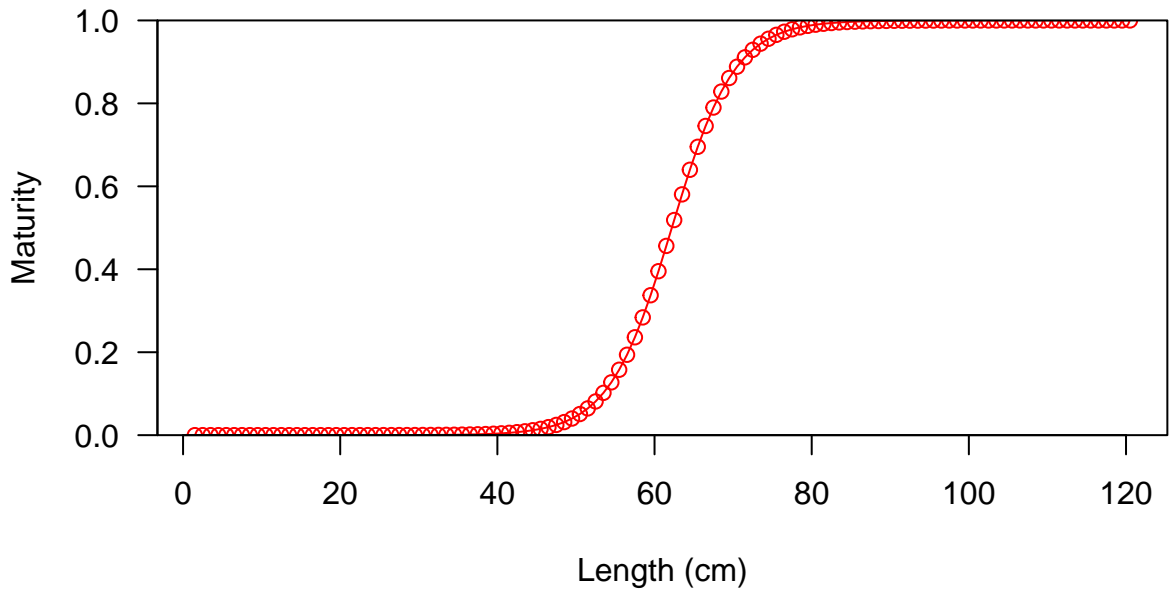
















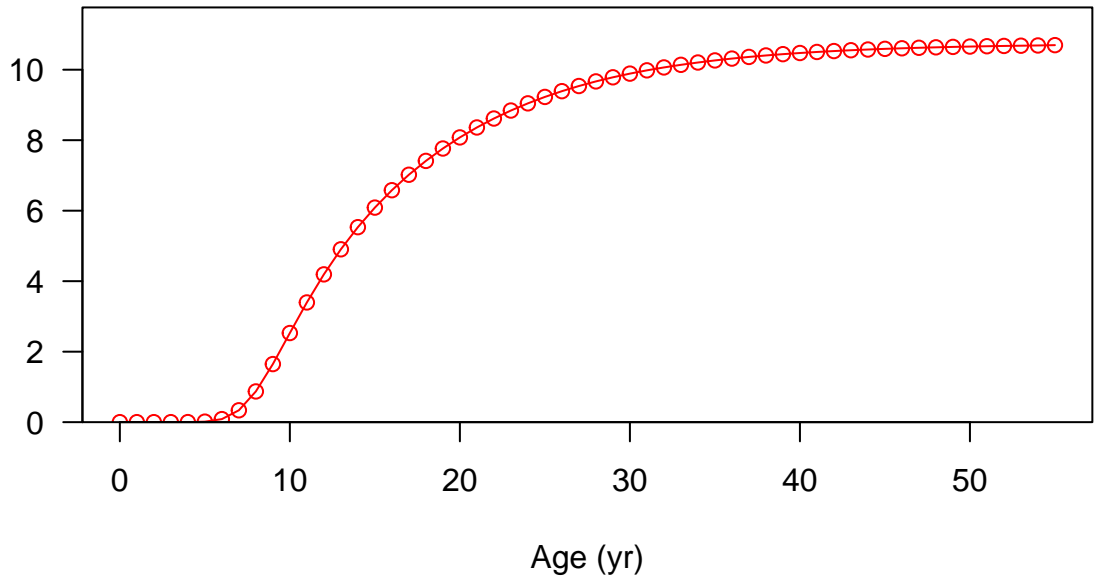


Fecundity

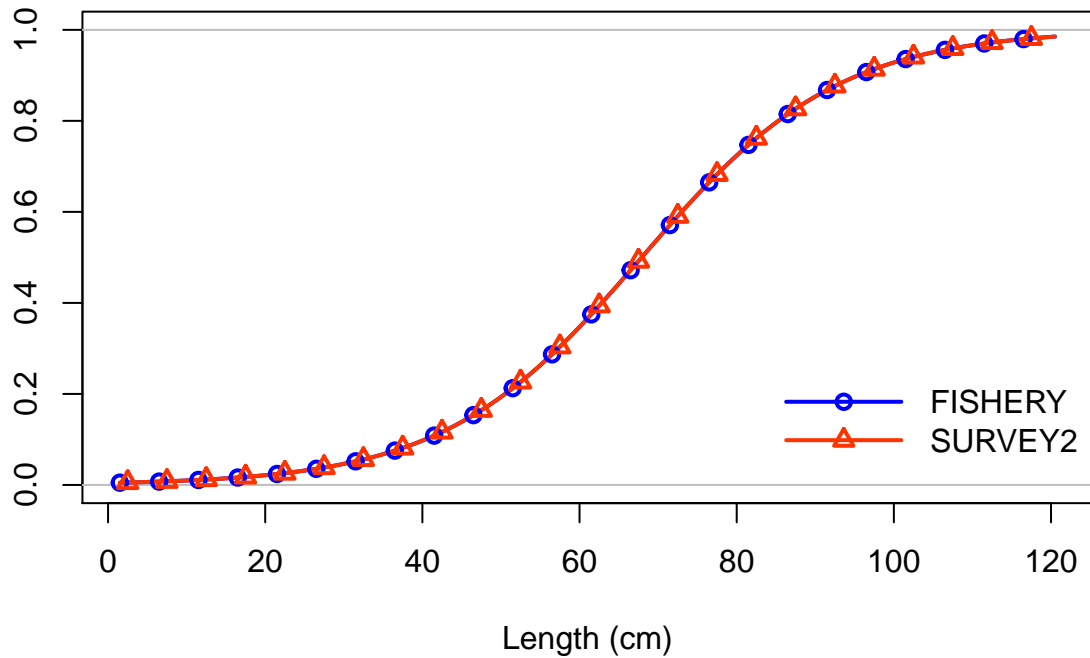




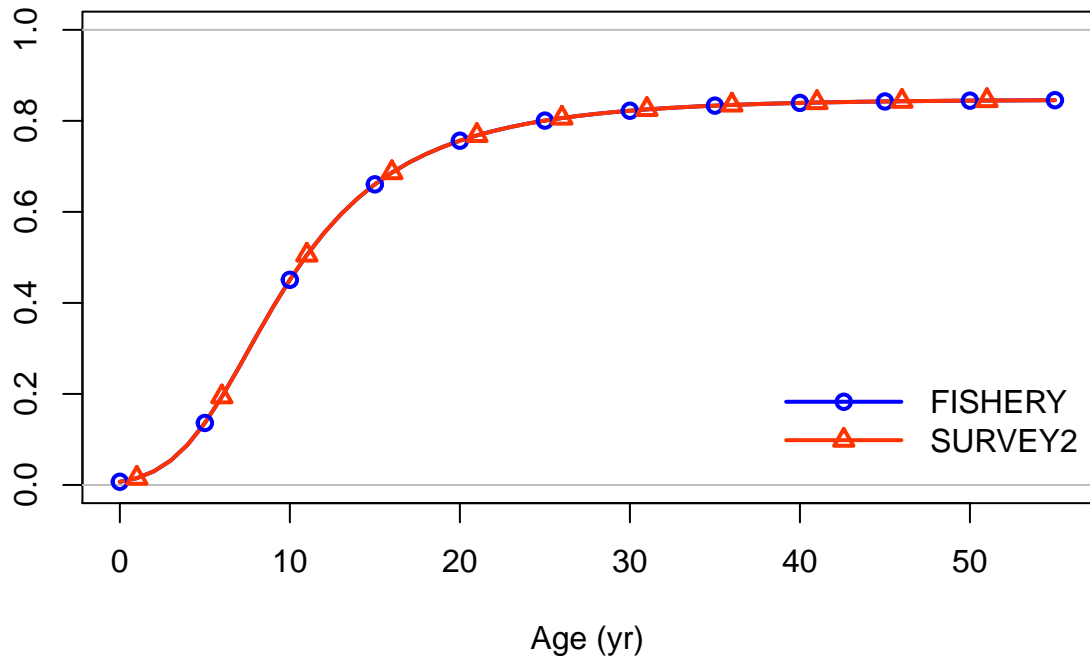
Spawning output



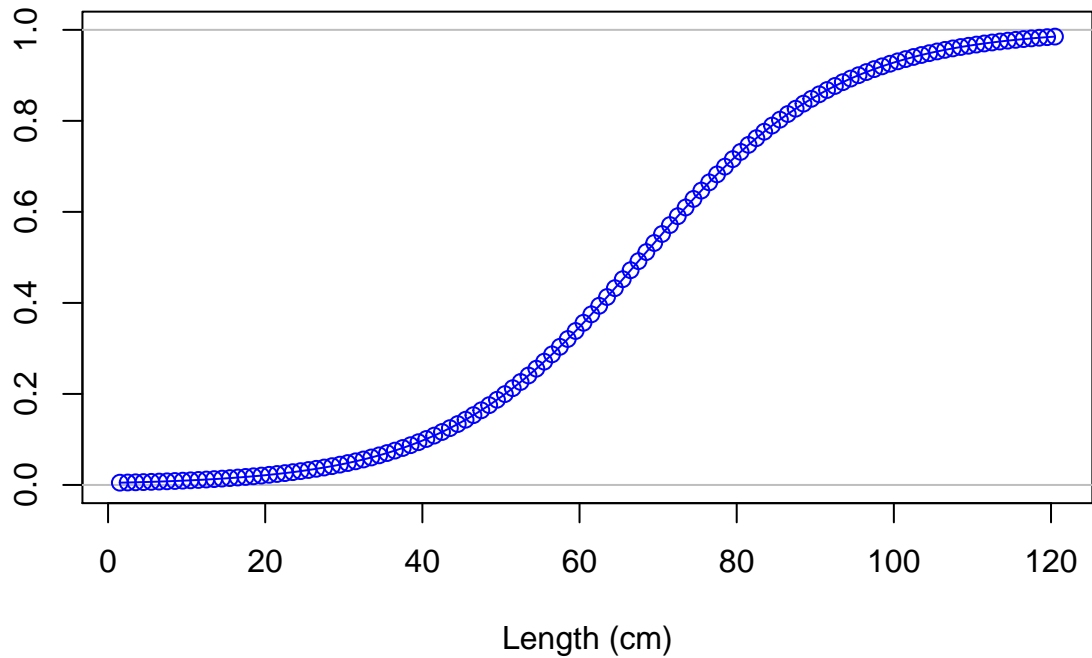
Selectivity



Selectivity

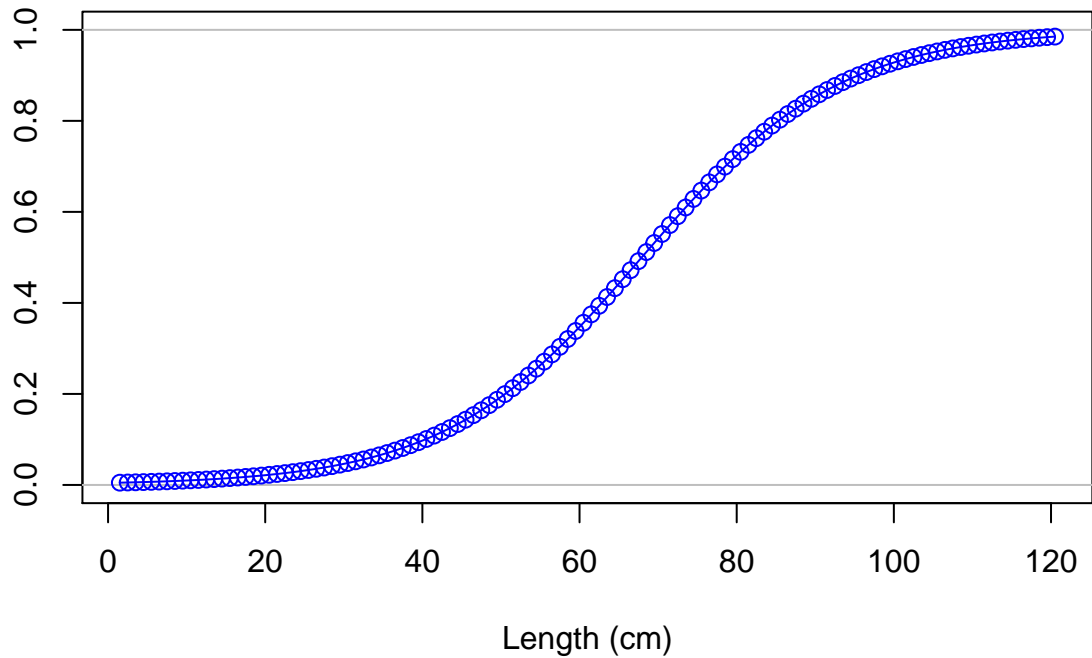


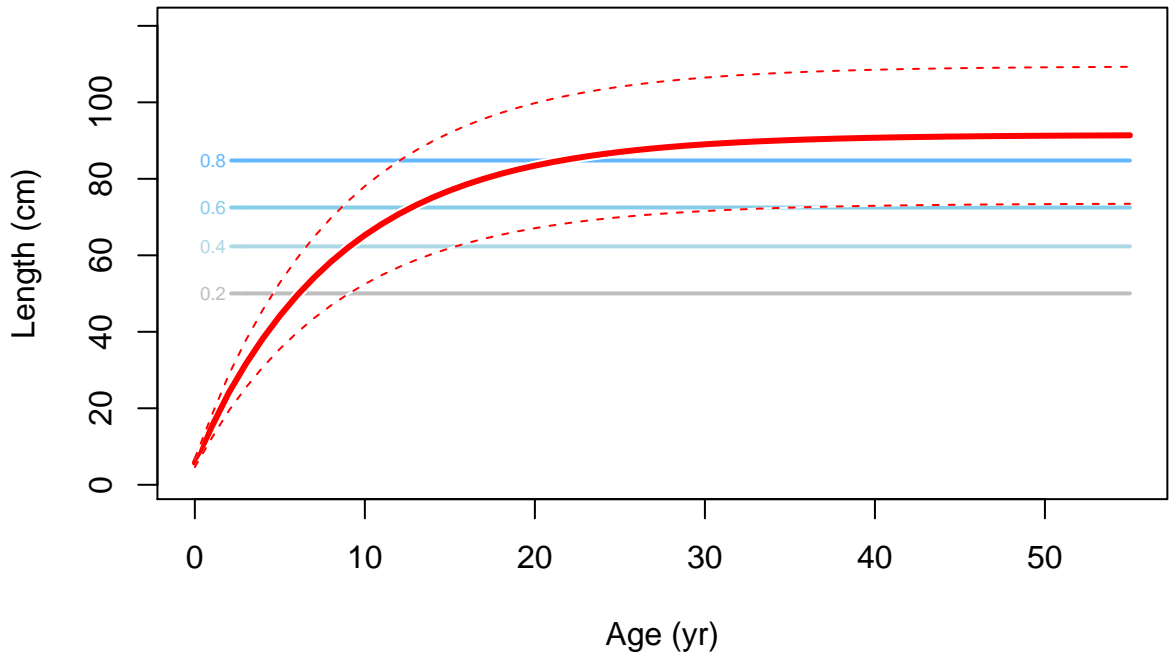
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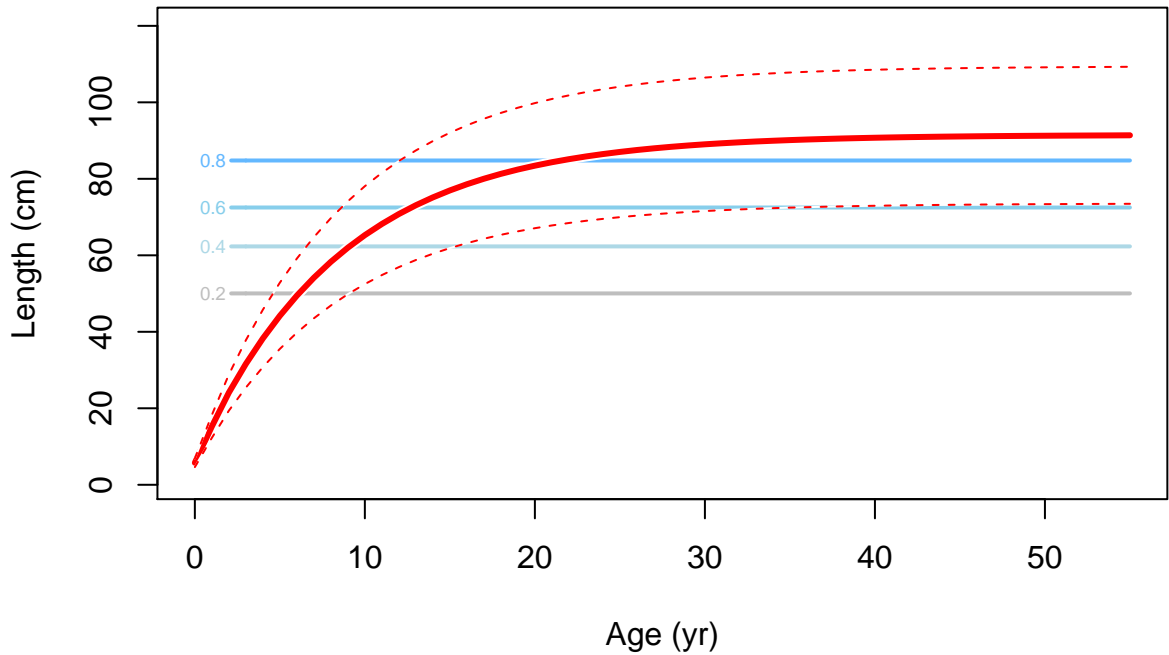




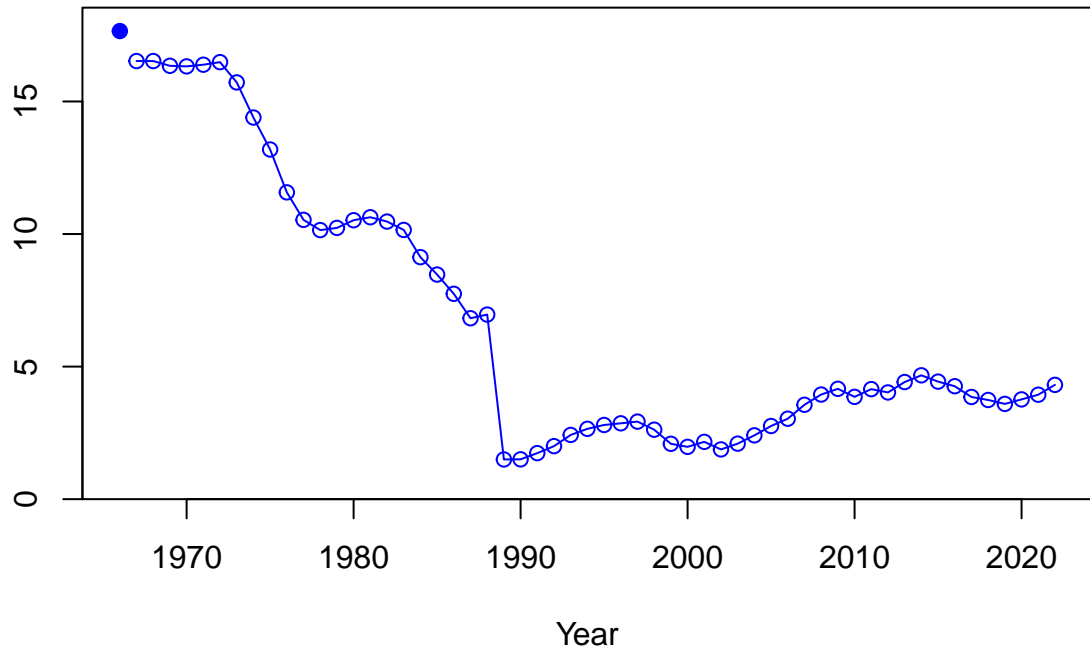
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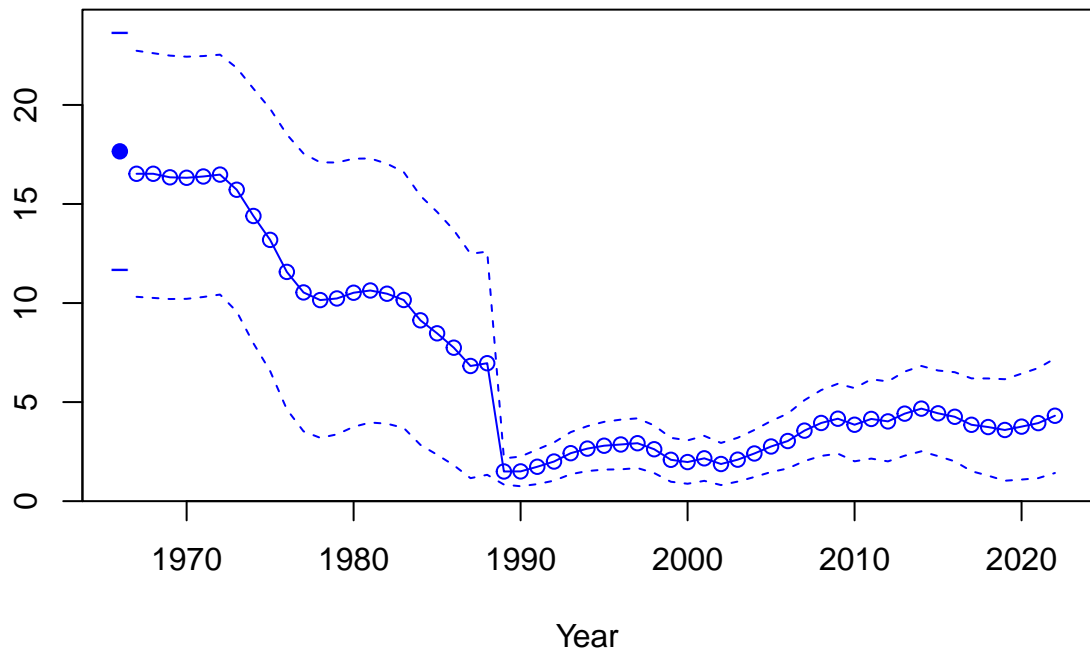




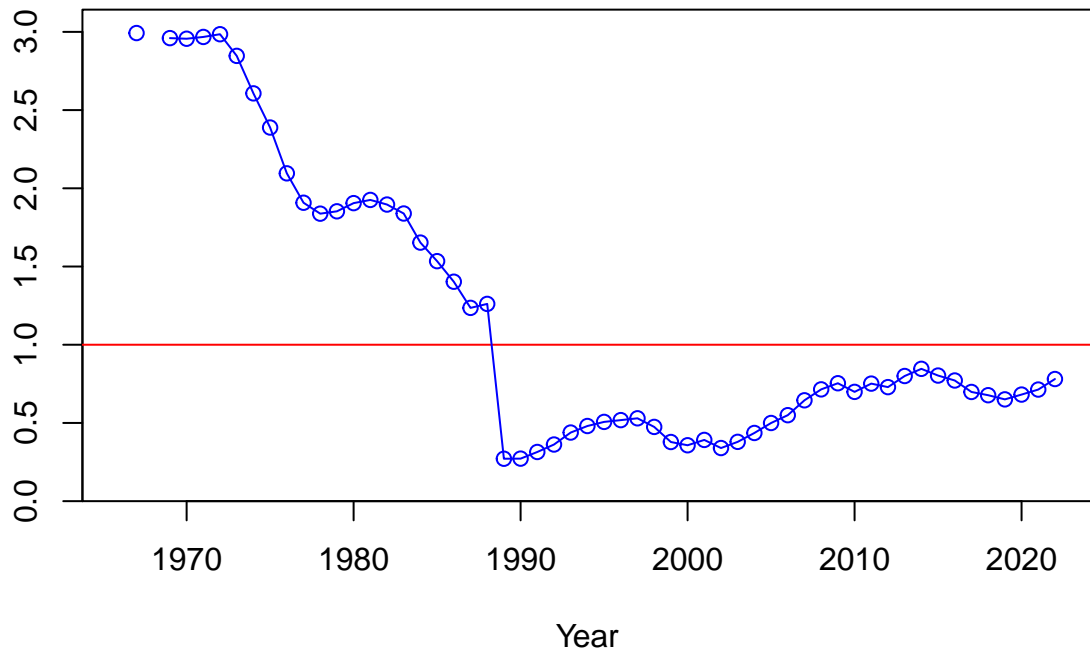
Spawning biomass (mt)



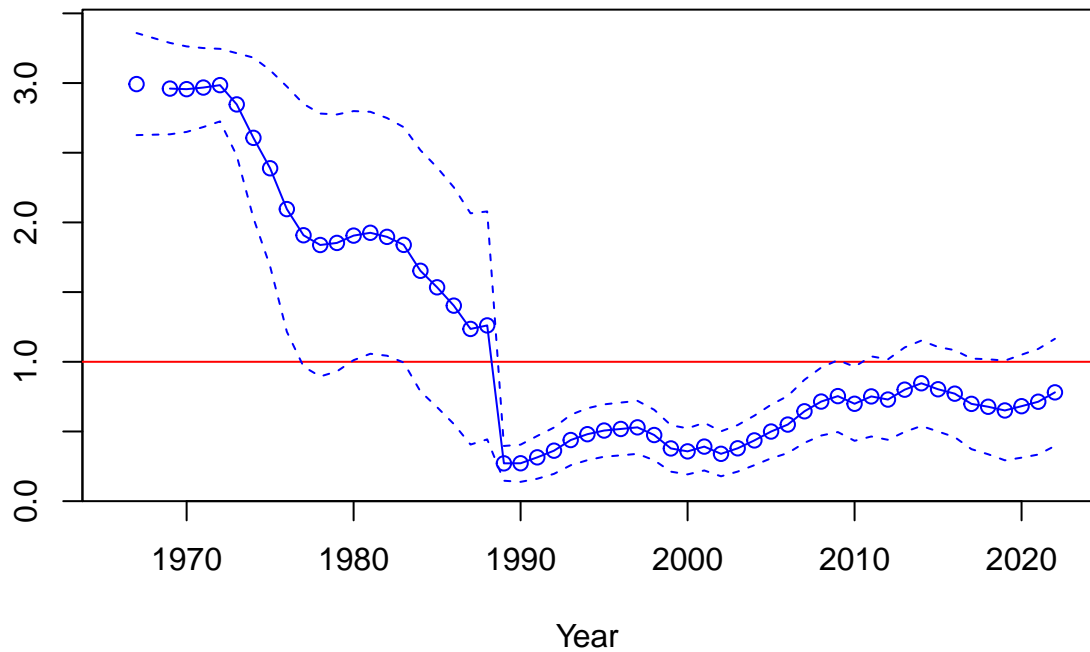
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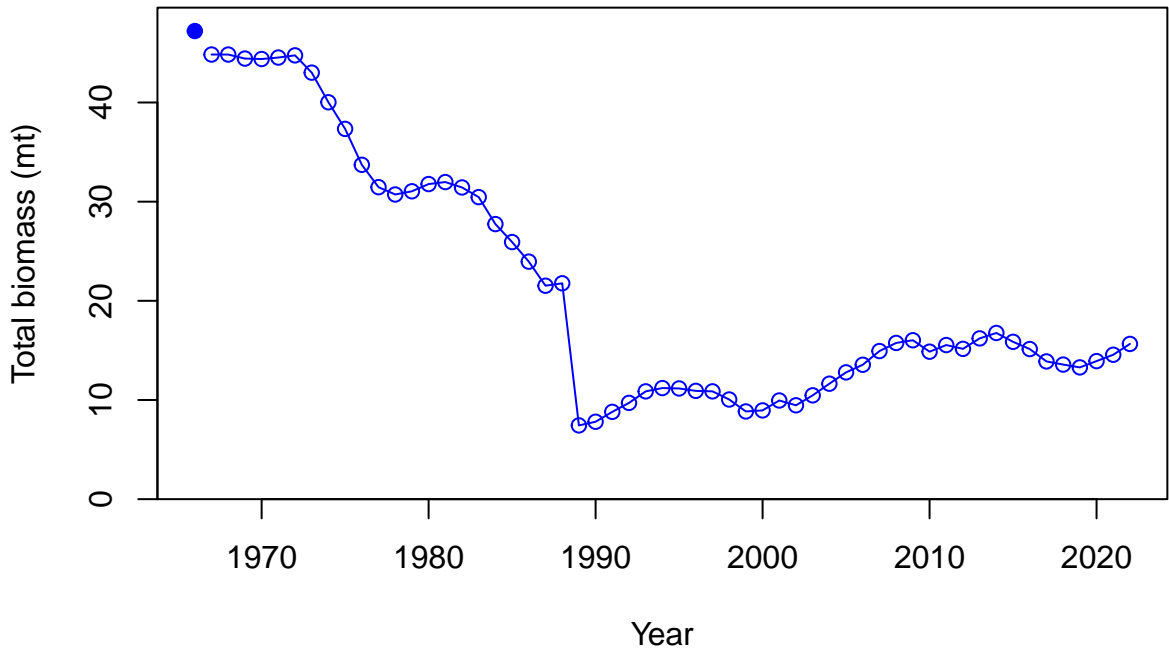


Relative spawning biomass: B/B\_MSY

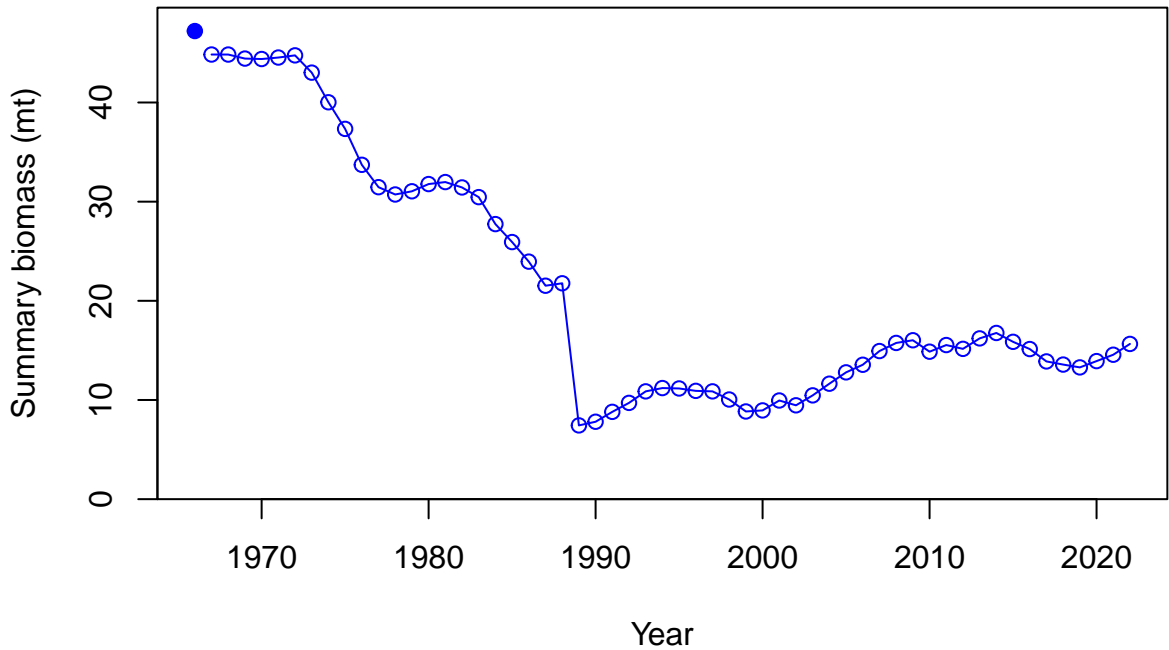


Relative spawning biomass:  $B/B_{MSY}$

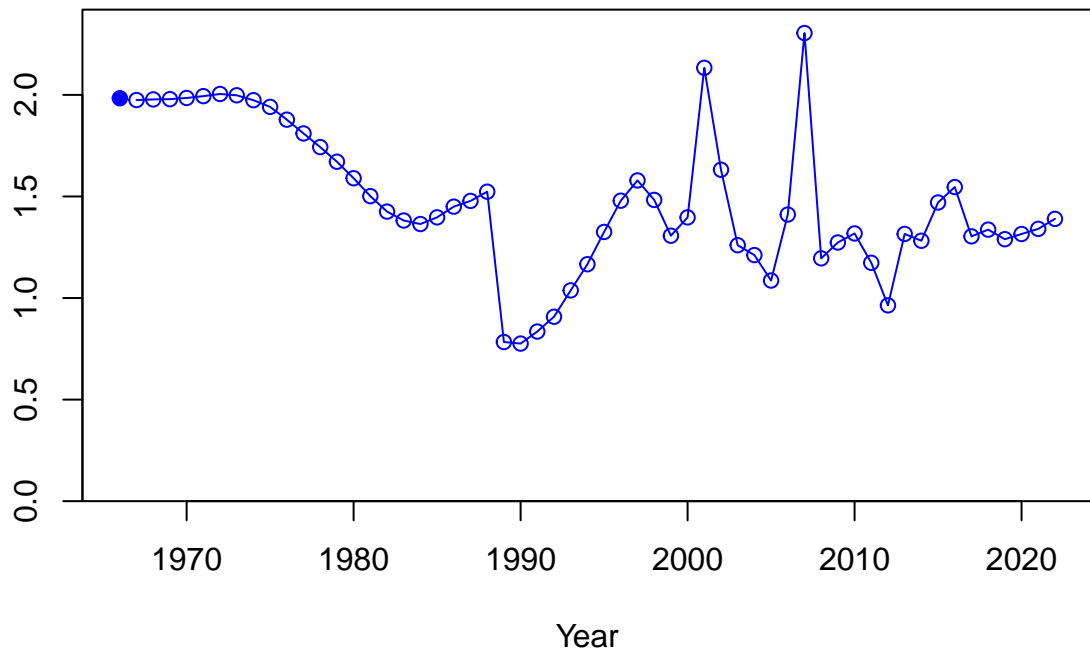




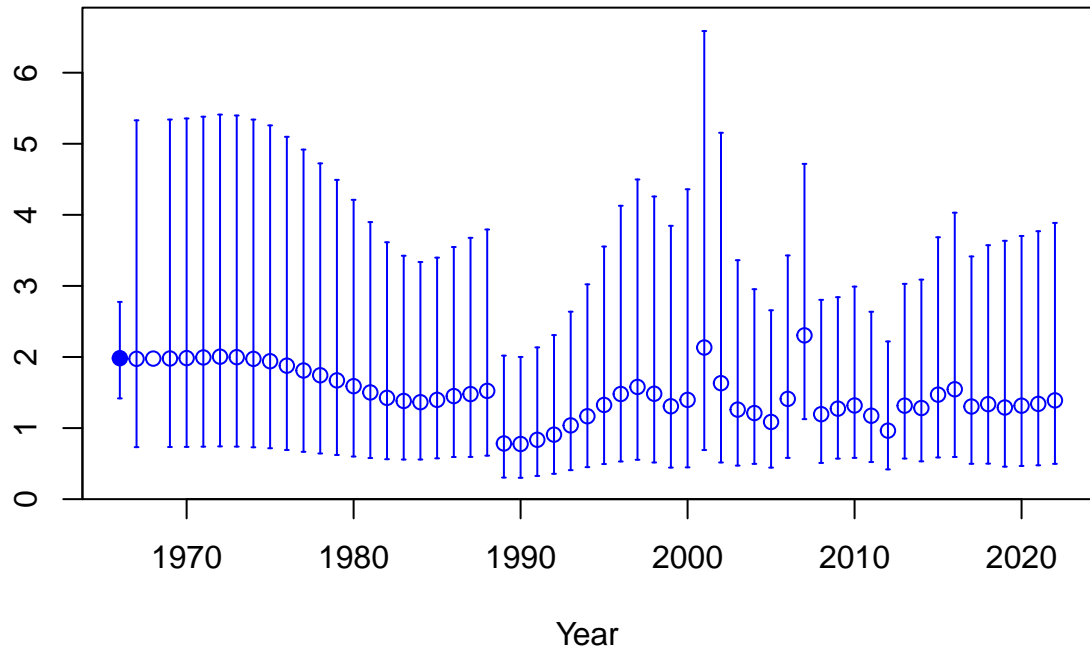




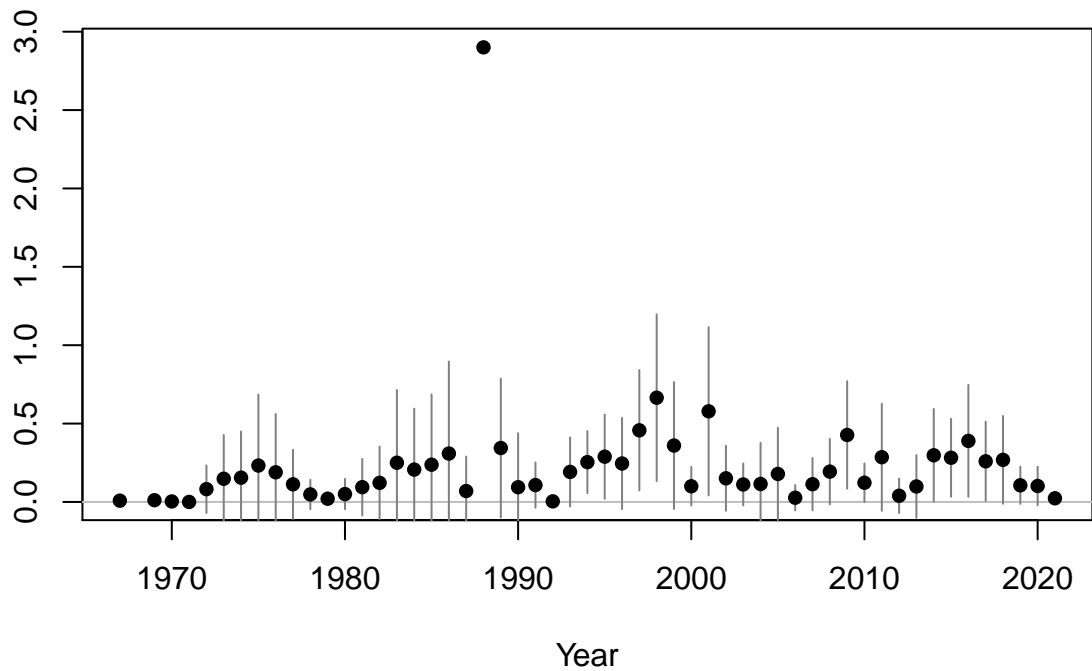
Age-0 recruits (1,000s)



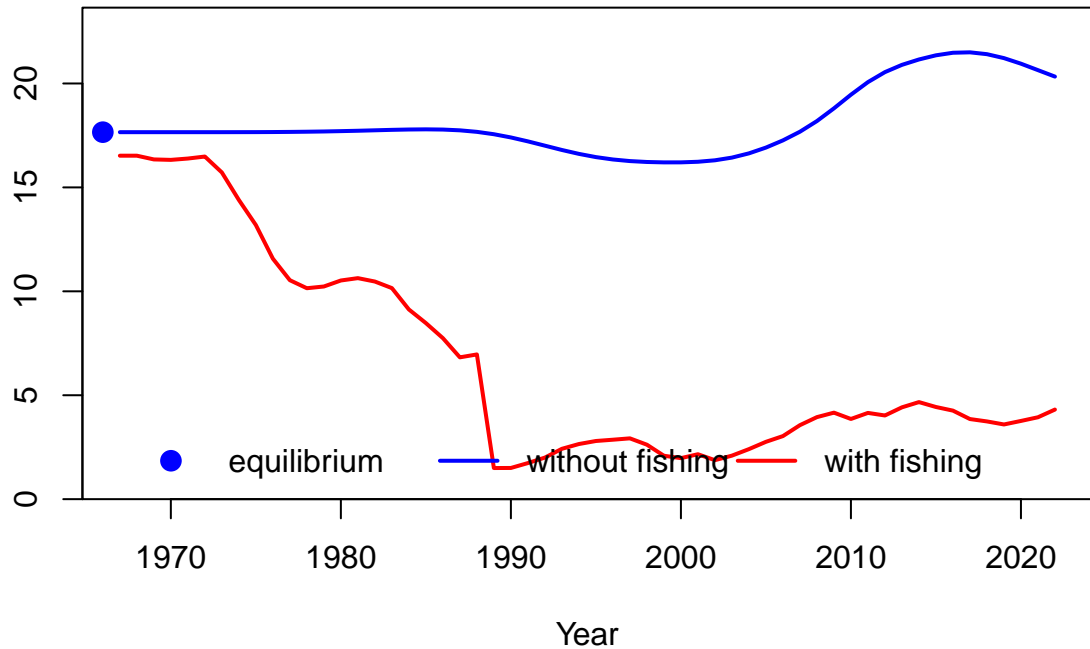
Age-0 recruits (1,000s)

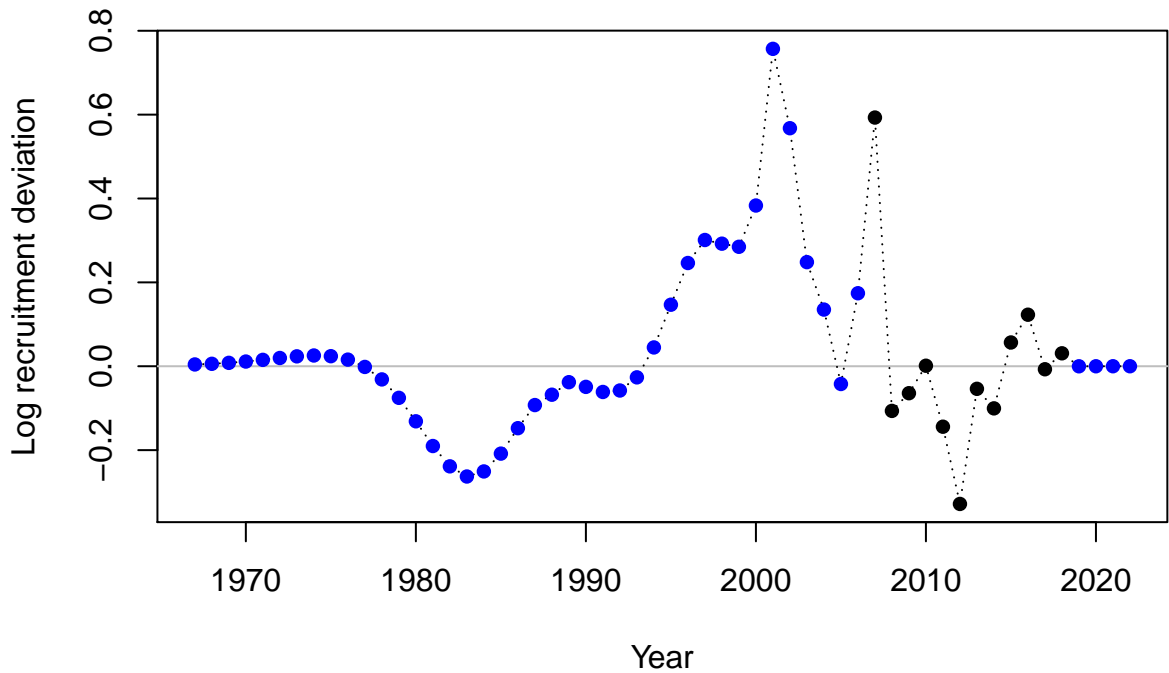


Summary Fishing Mortality

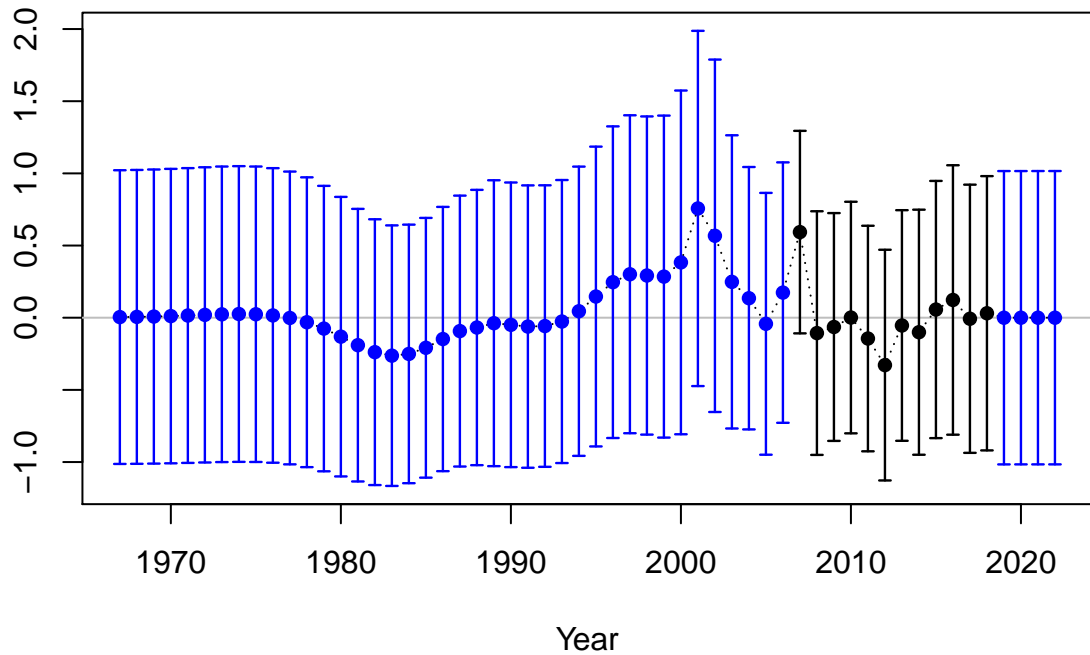


Spawning biomass (mt)



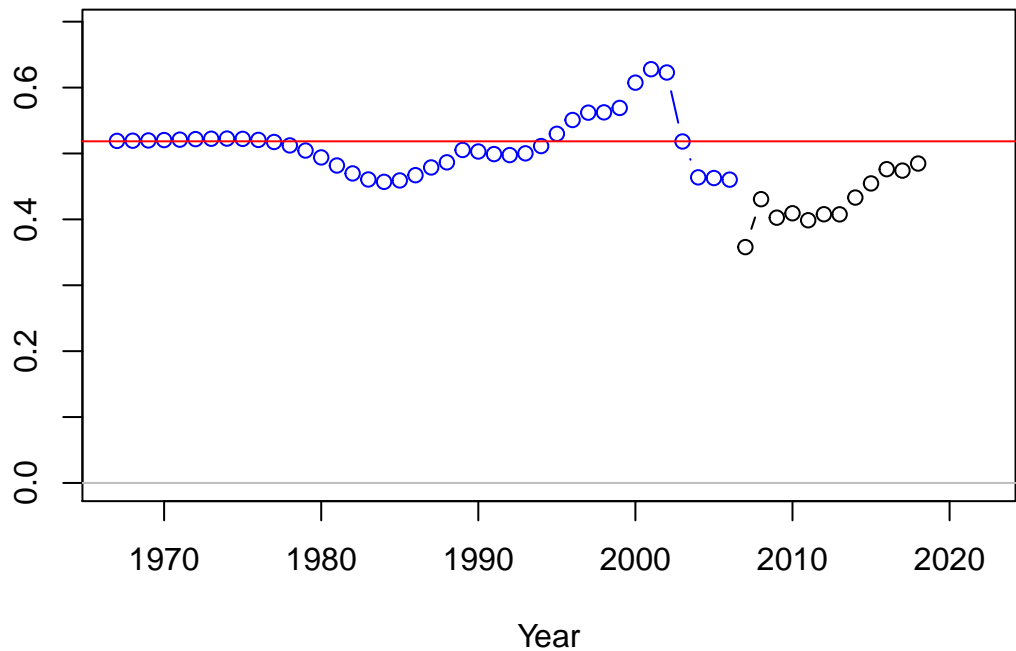


Log recruitment deviation

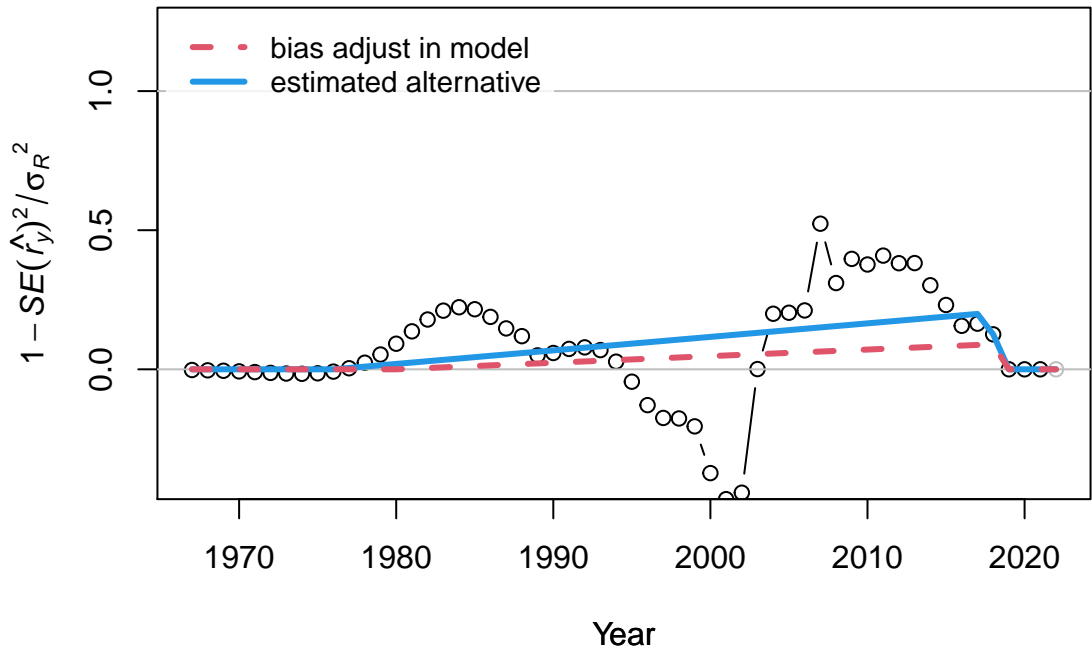


## Recruitment deviation variance

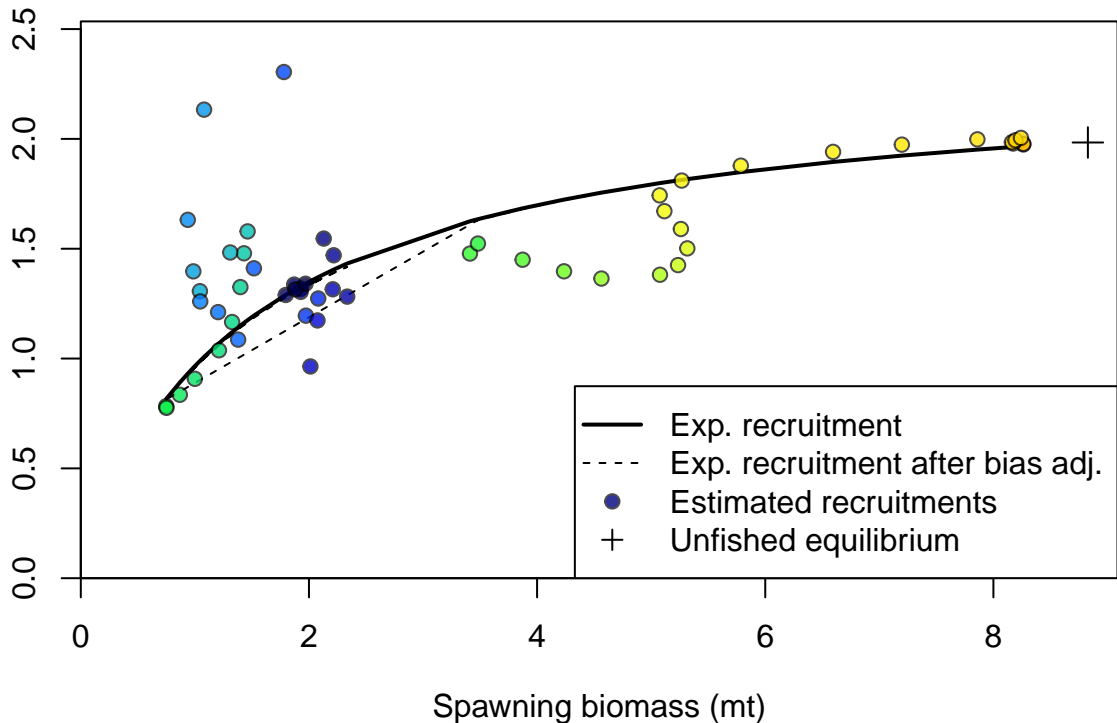
Asymptotic standard error estimate



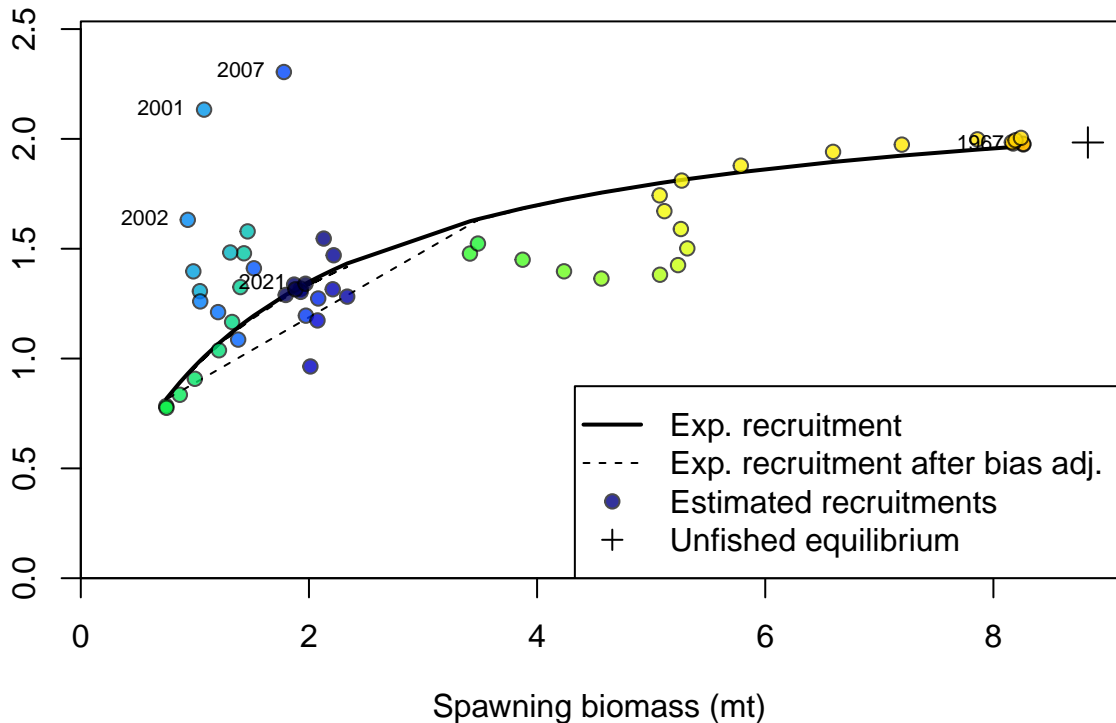




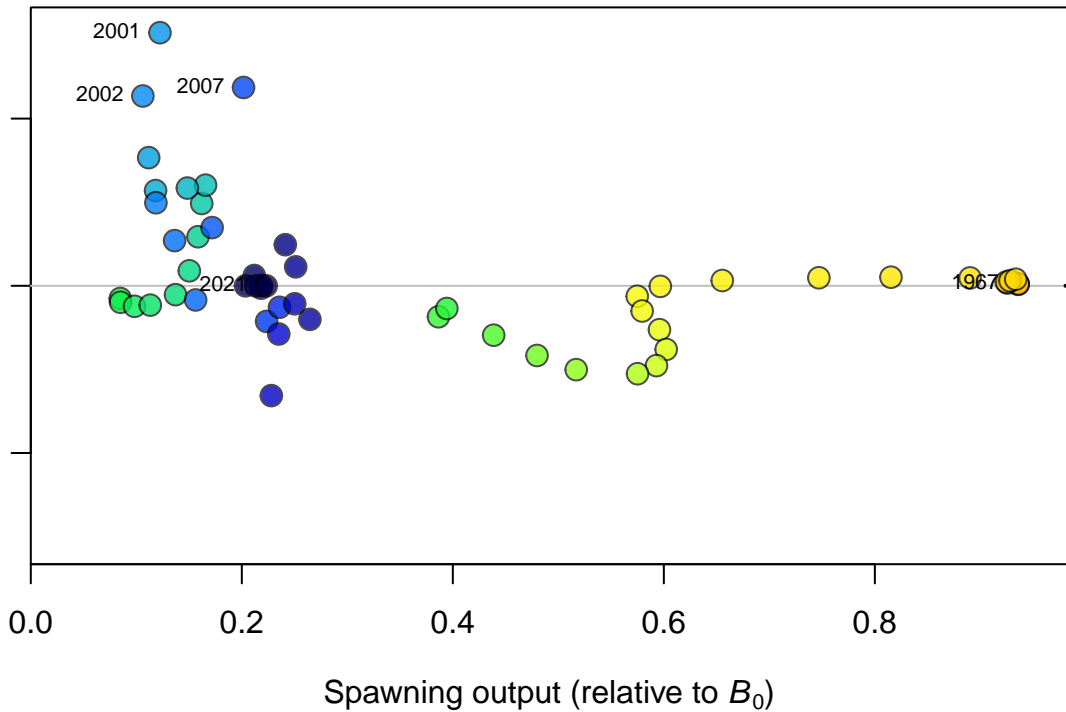
Recruitment (1,000s)

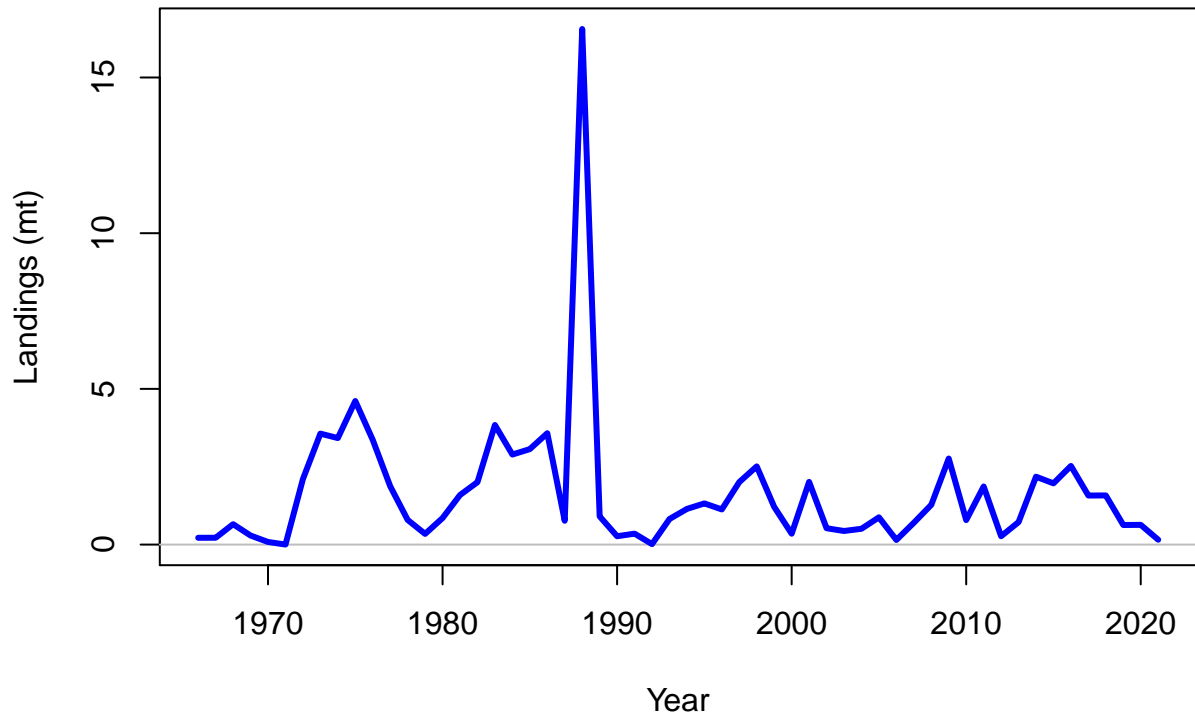


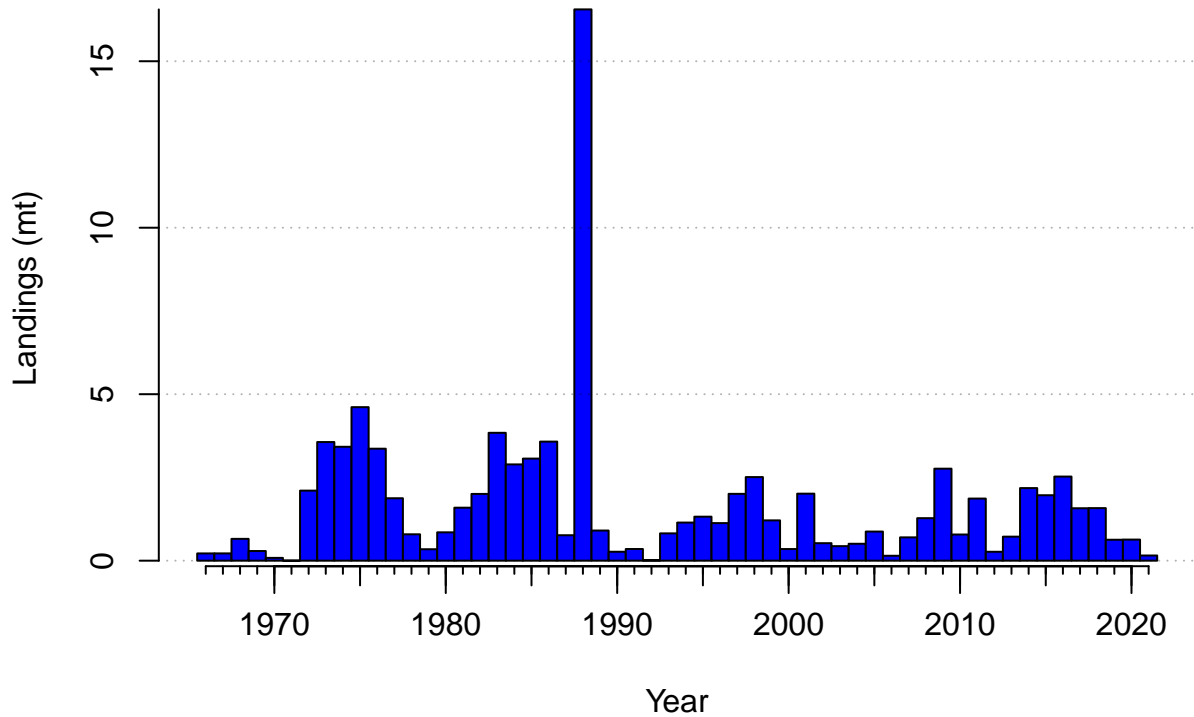
Recruitment (1,000s)

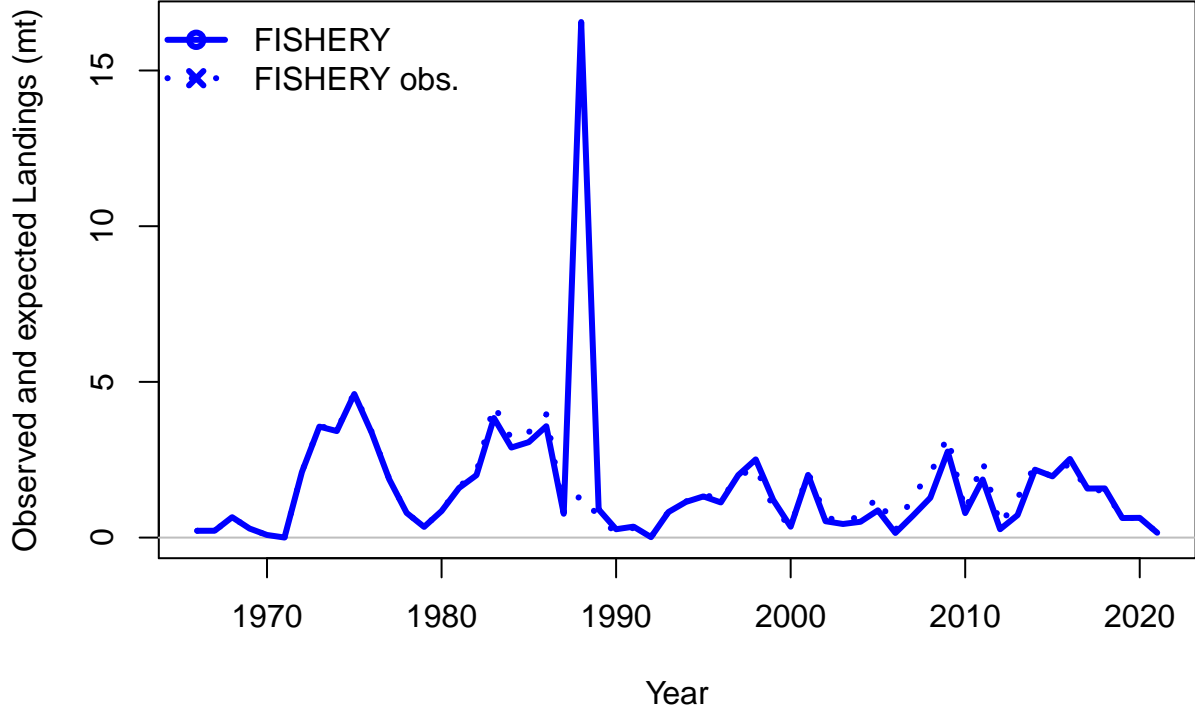


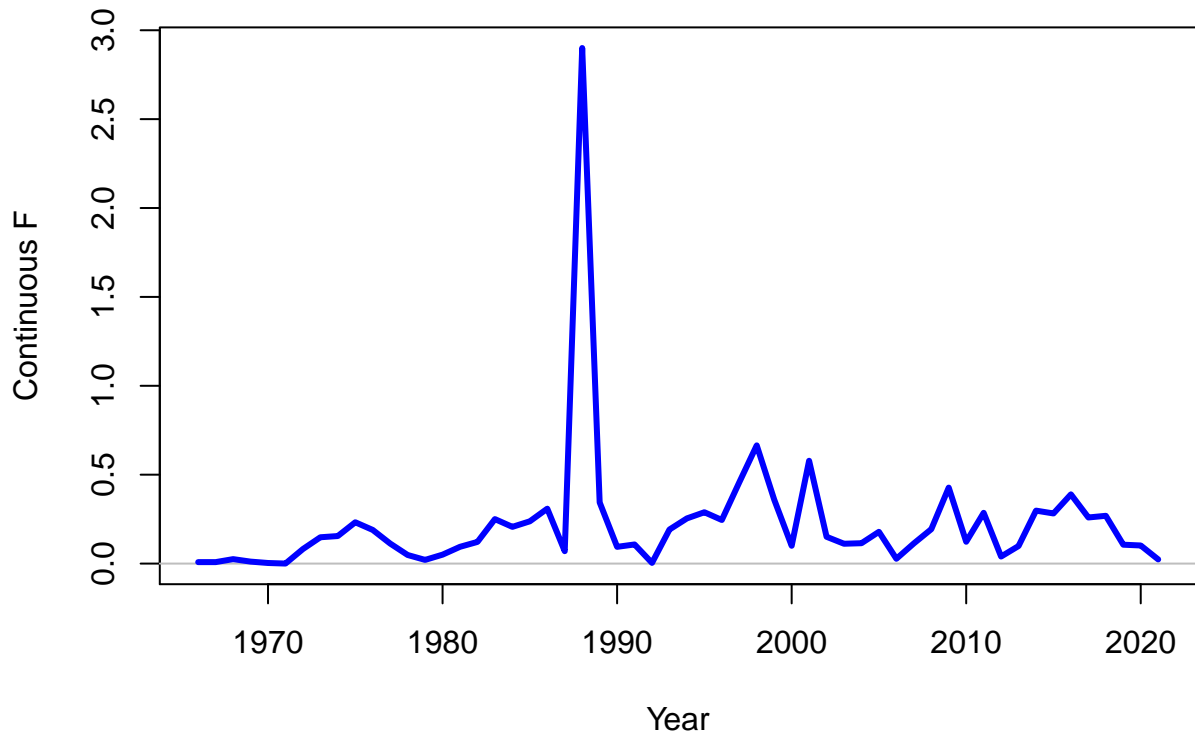
Log recruitment deviation





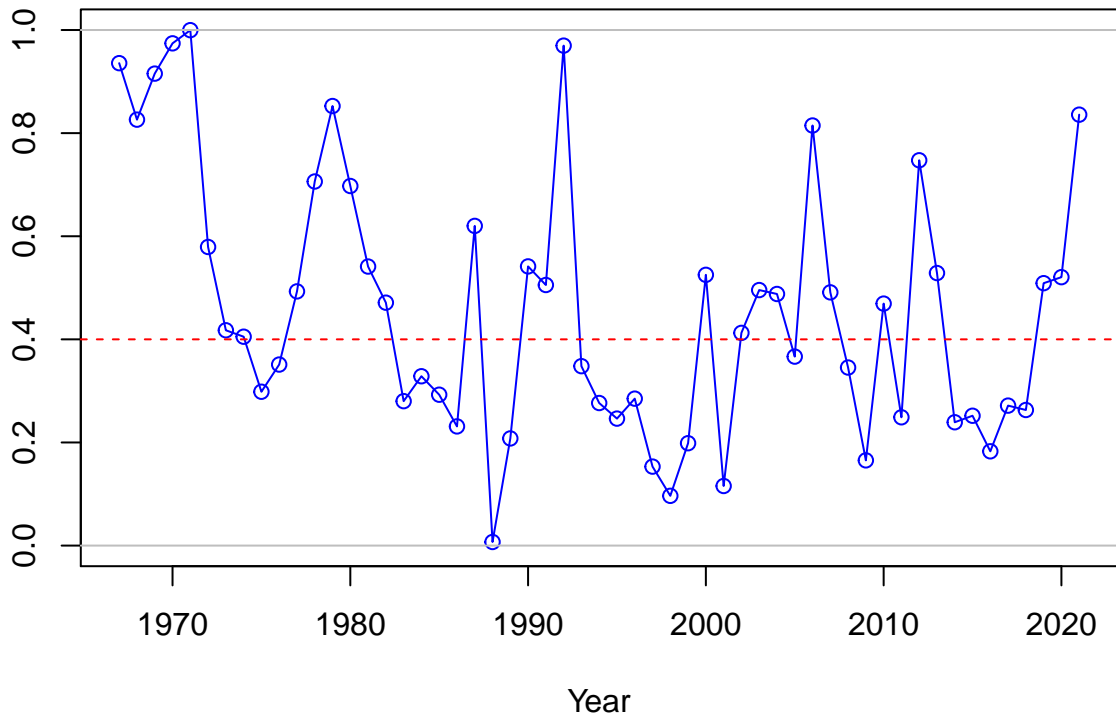


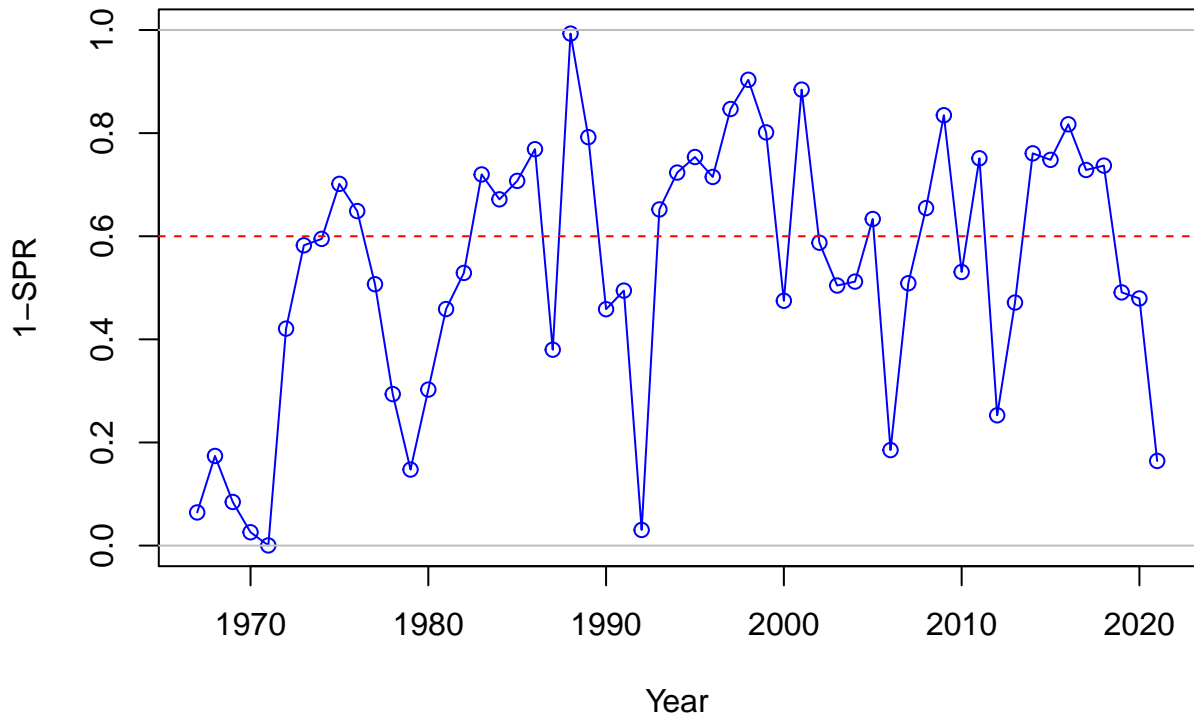




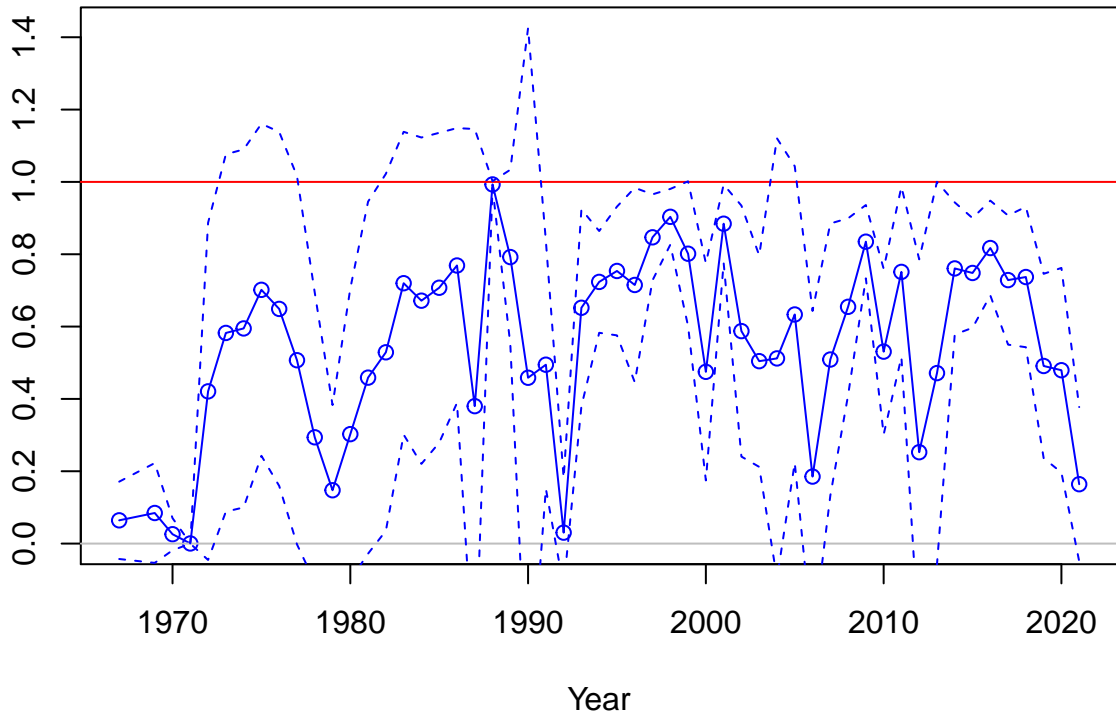


SPR

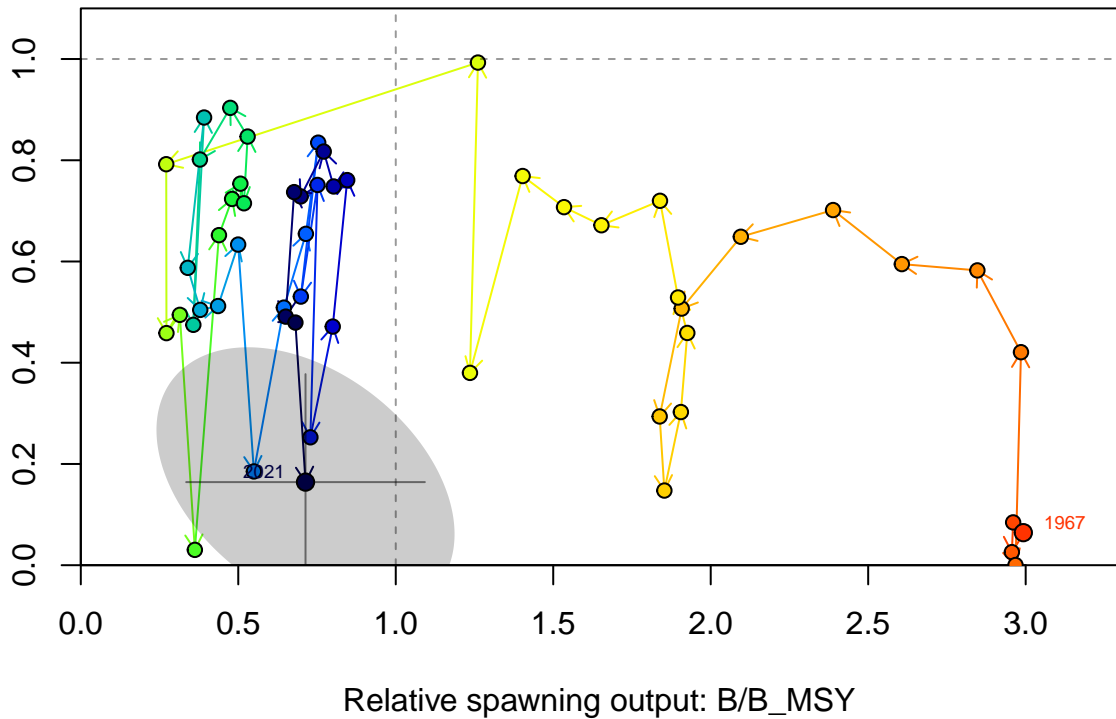




Fishing intensity: 1-SPR



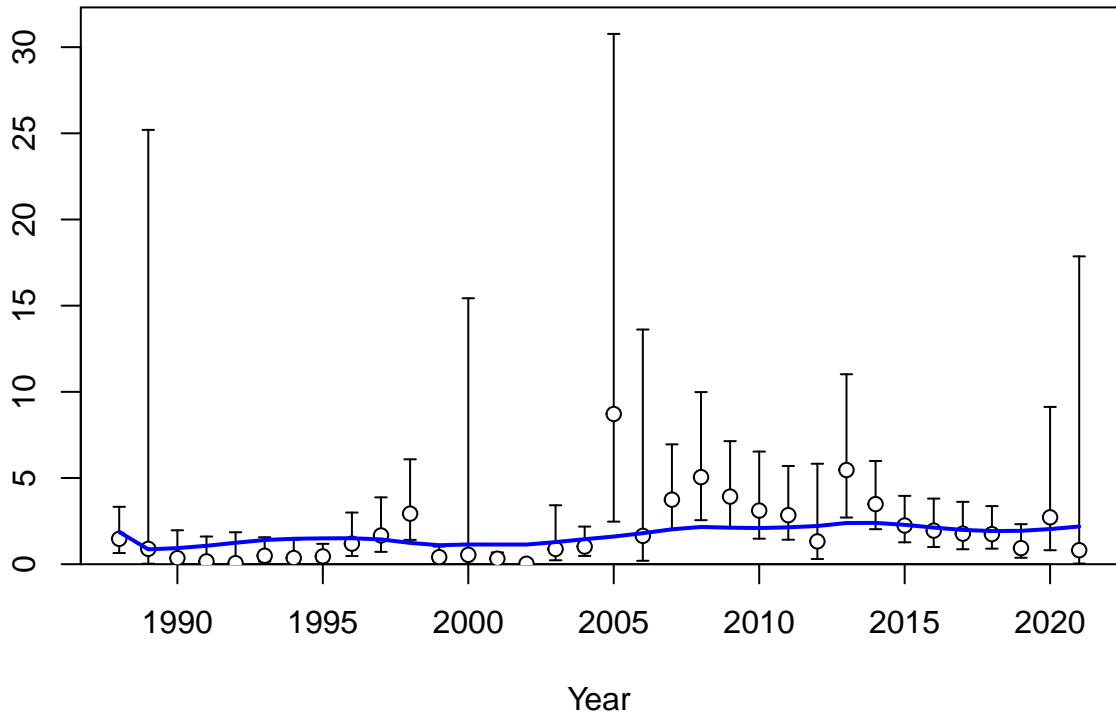
Fishing intensity: 1-SPR

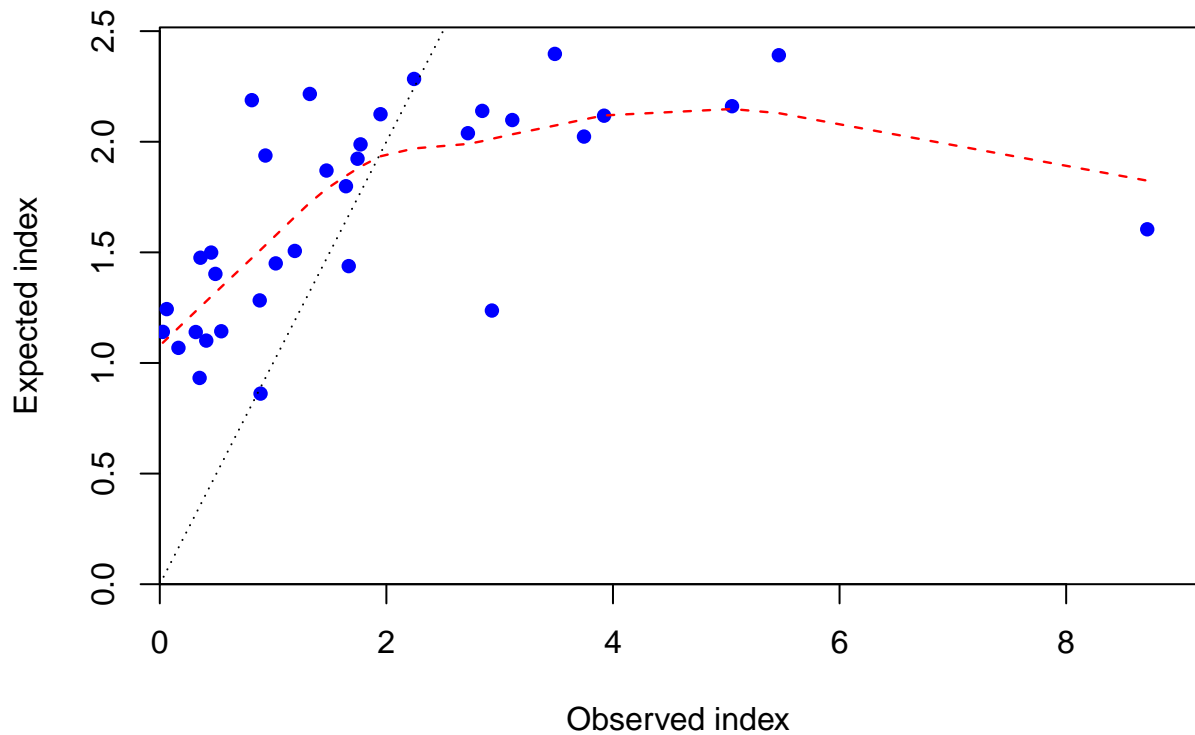


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1990

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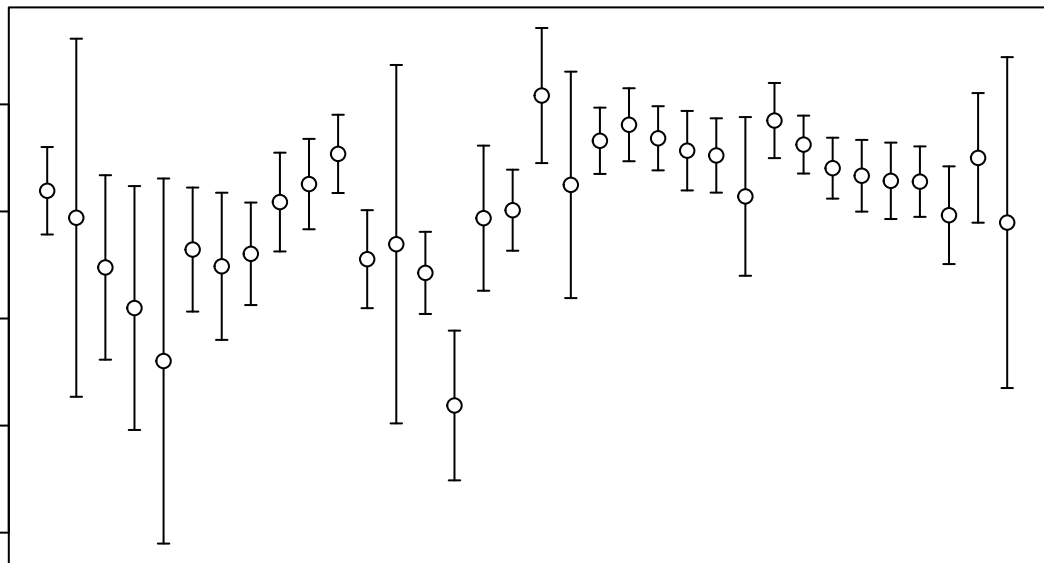
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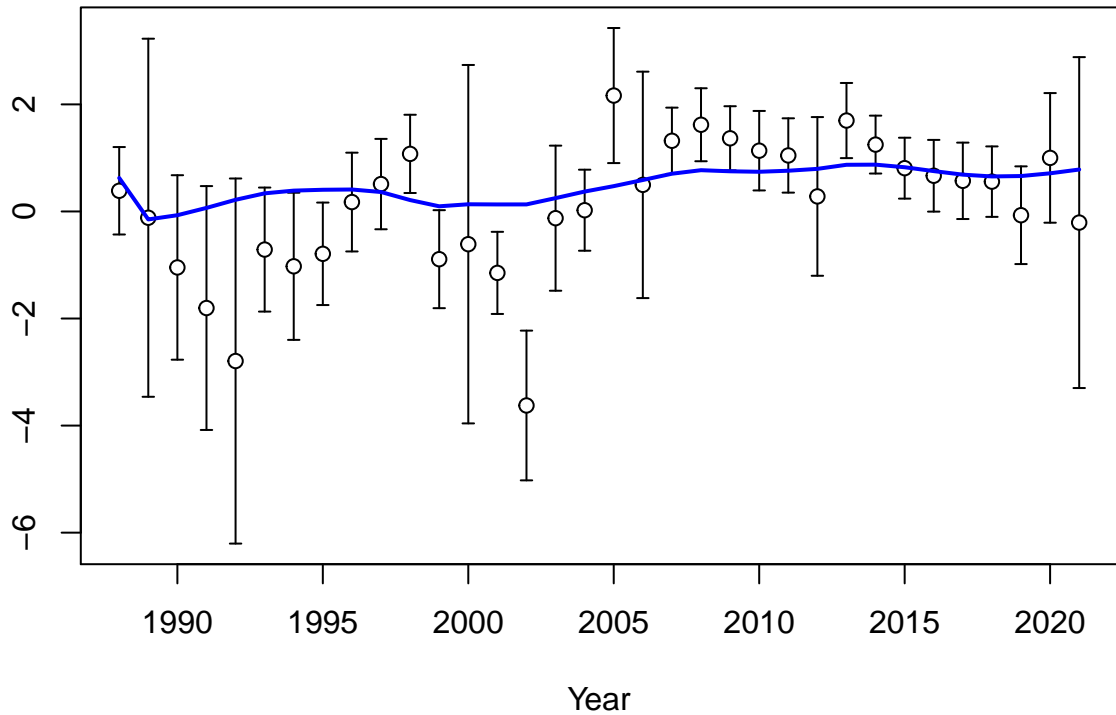
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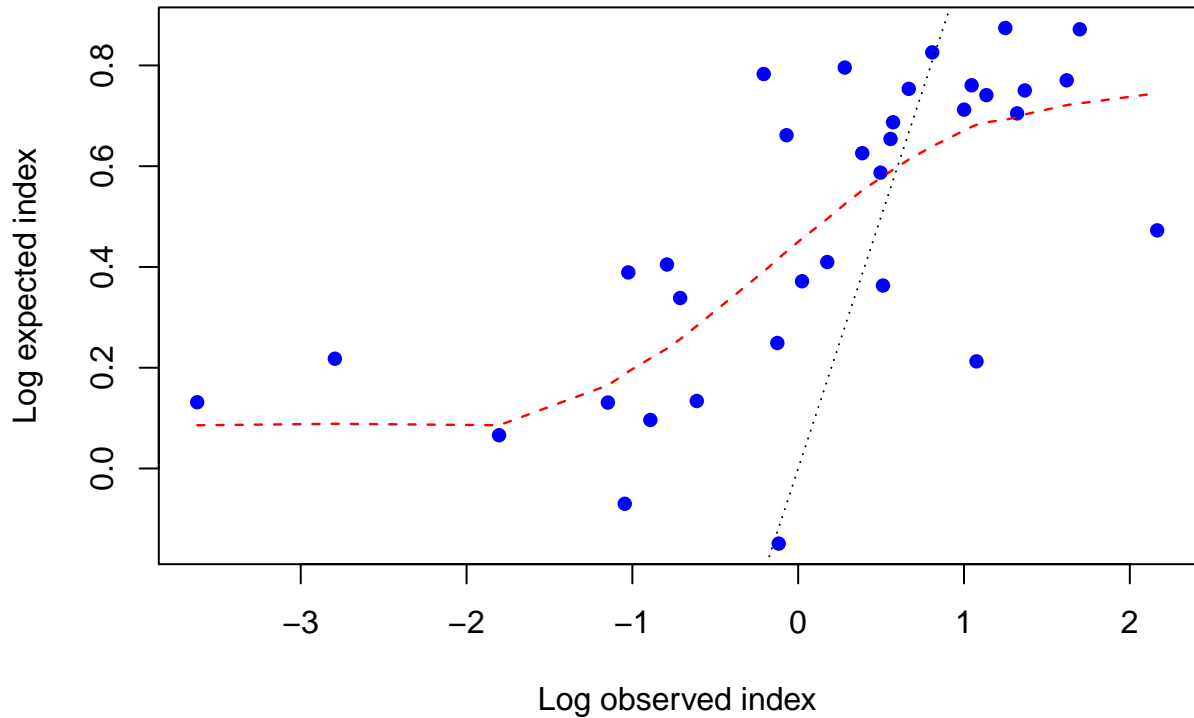
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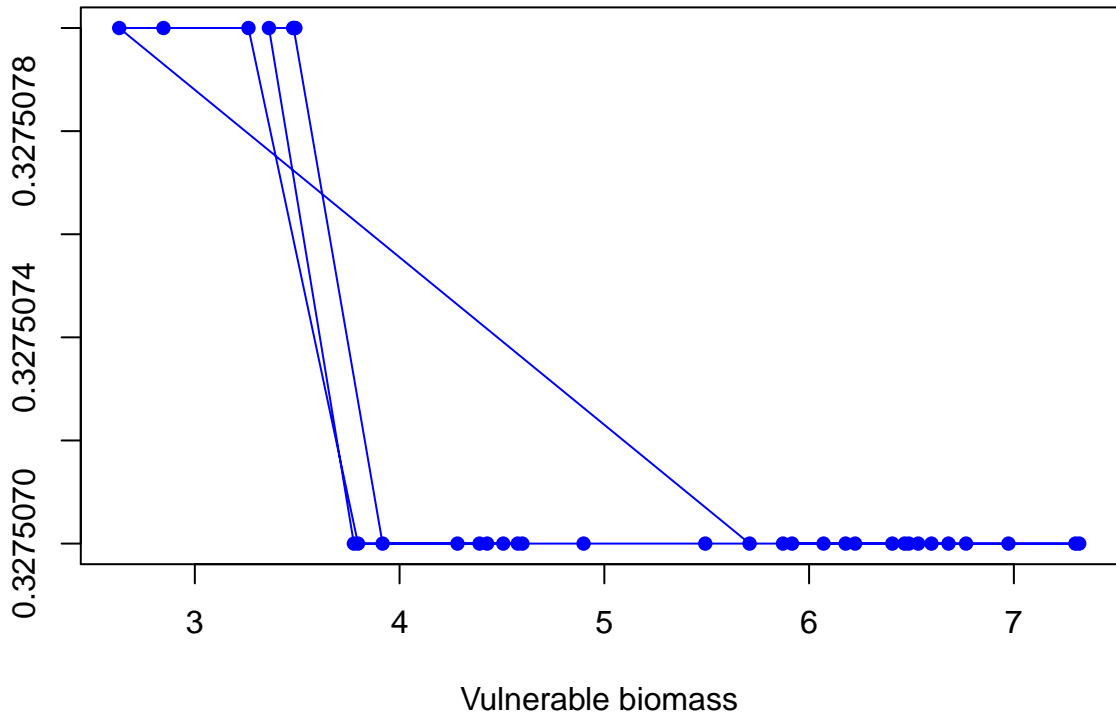


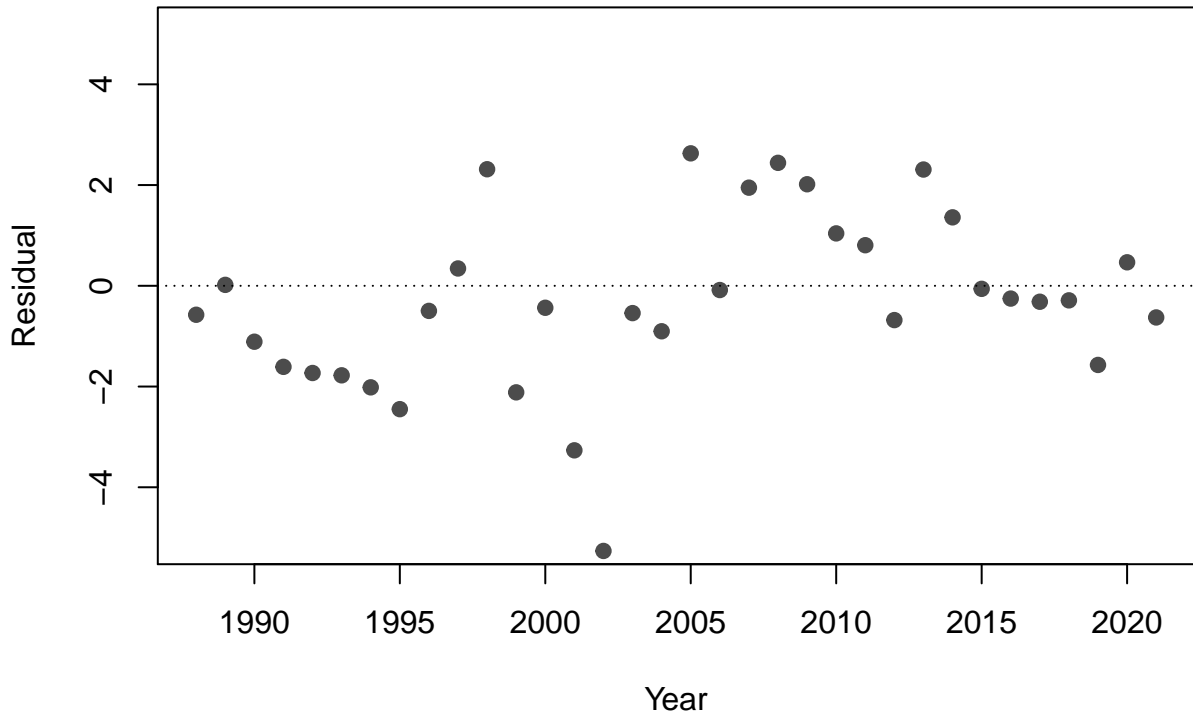
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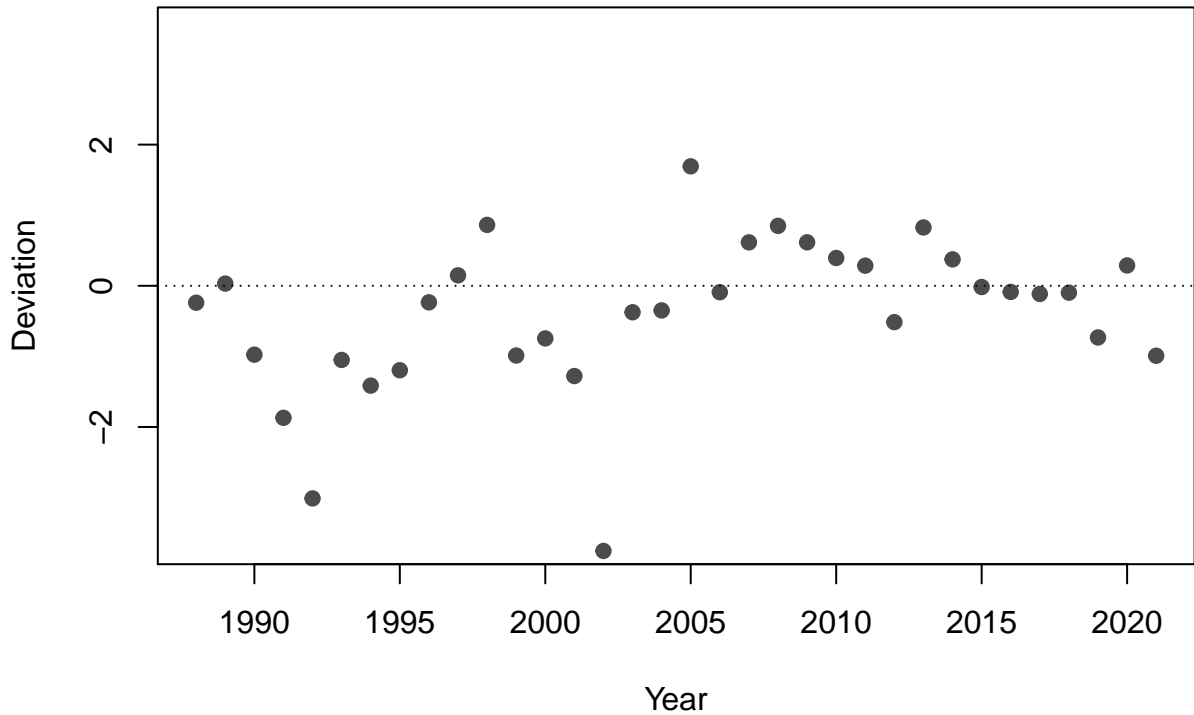


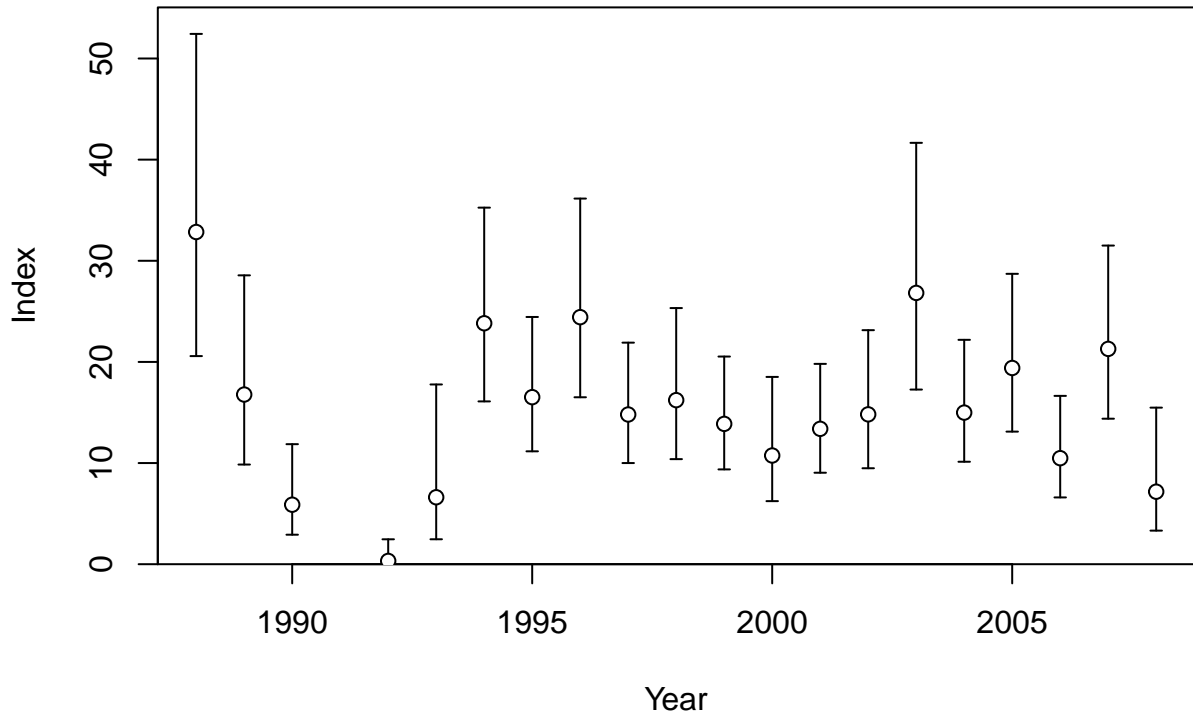


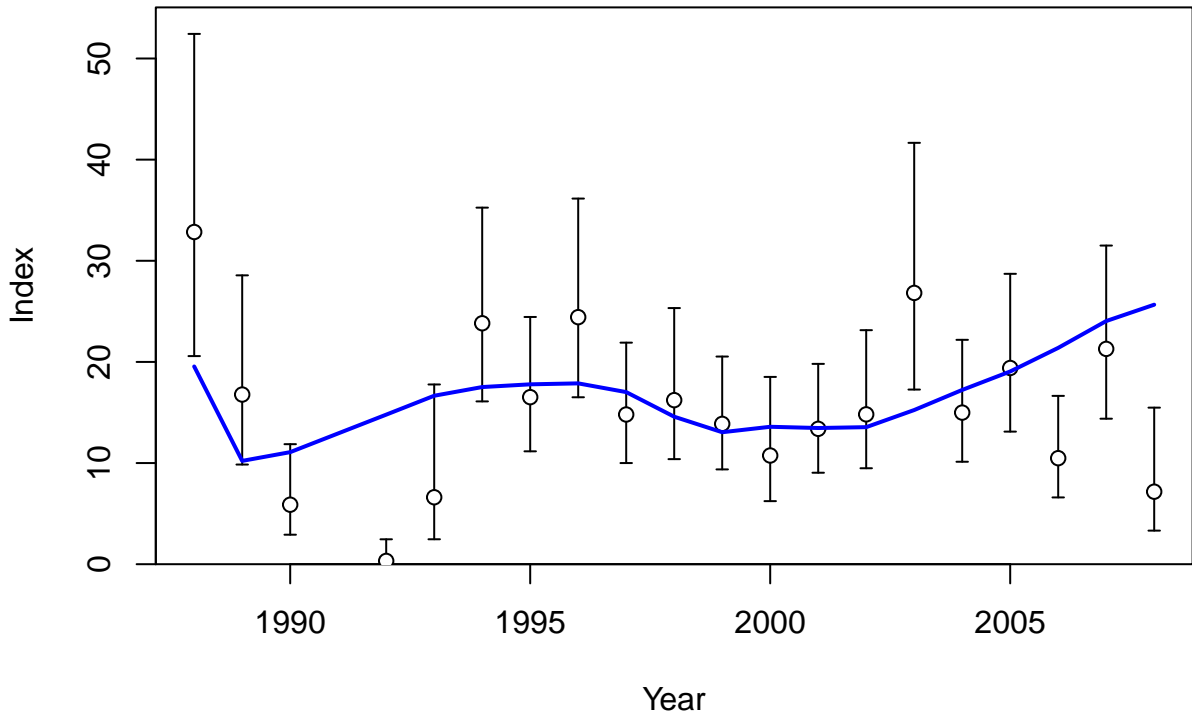
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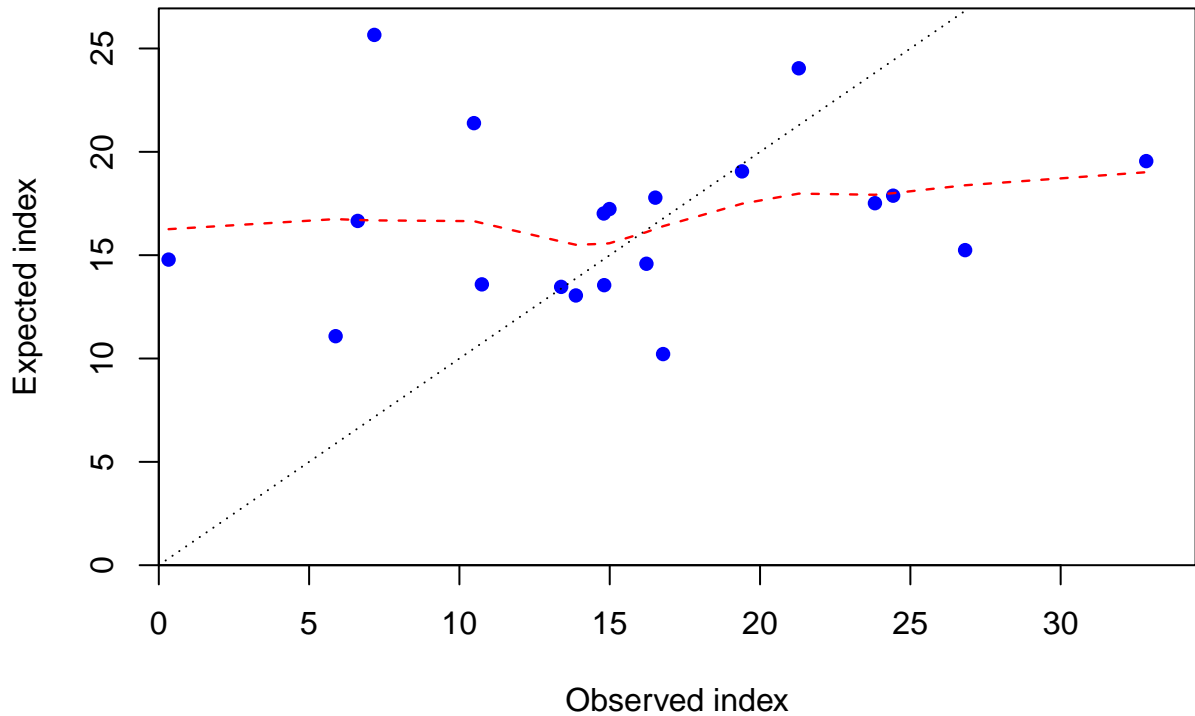






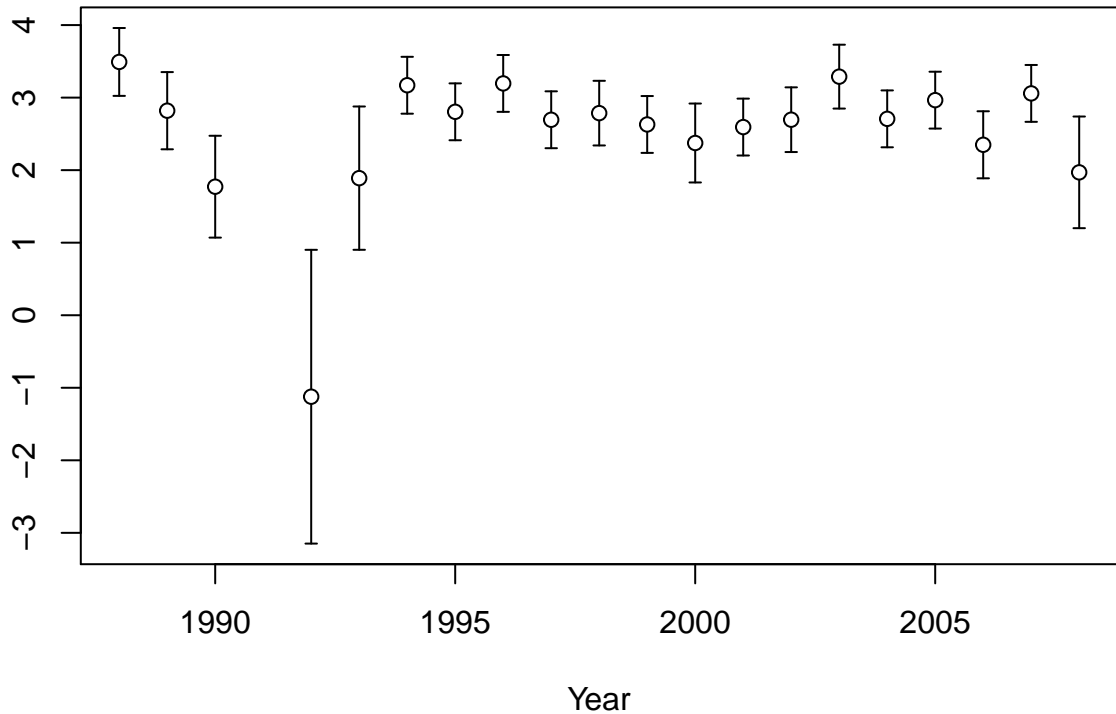




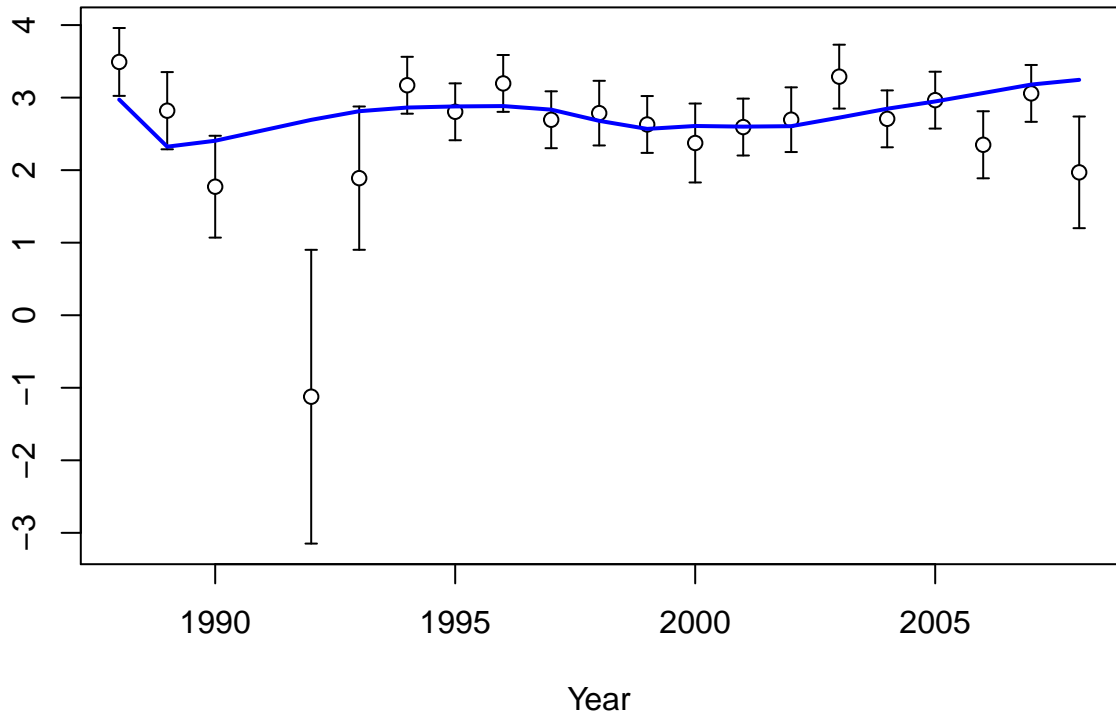


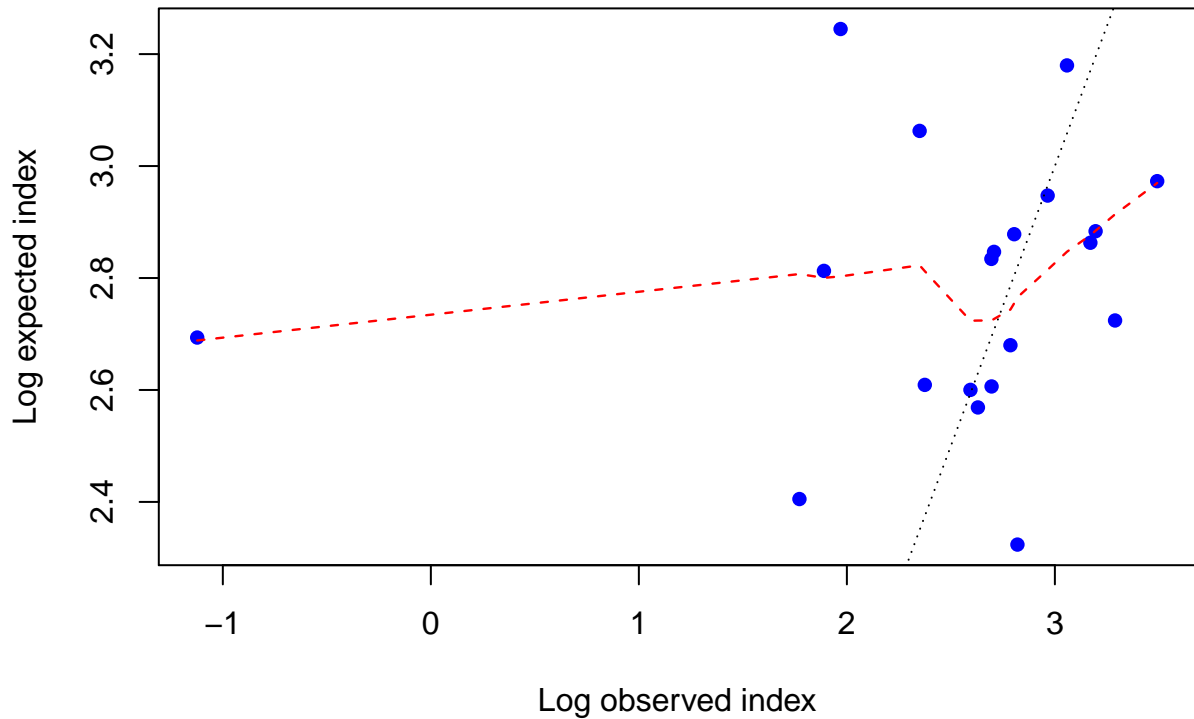


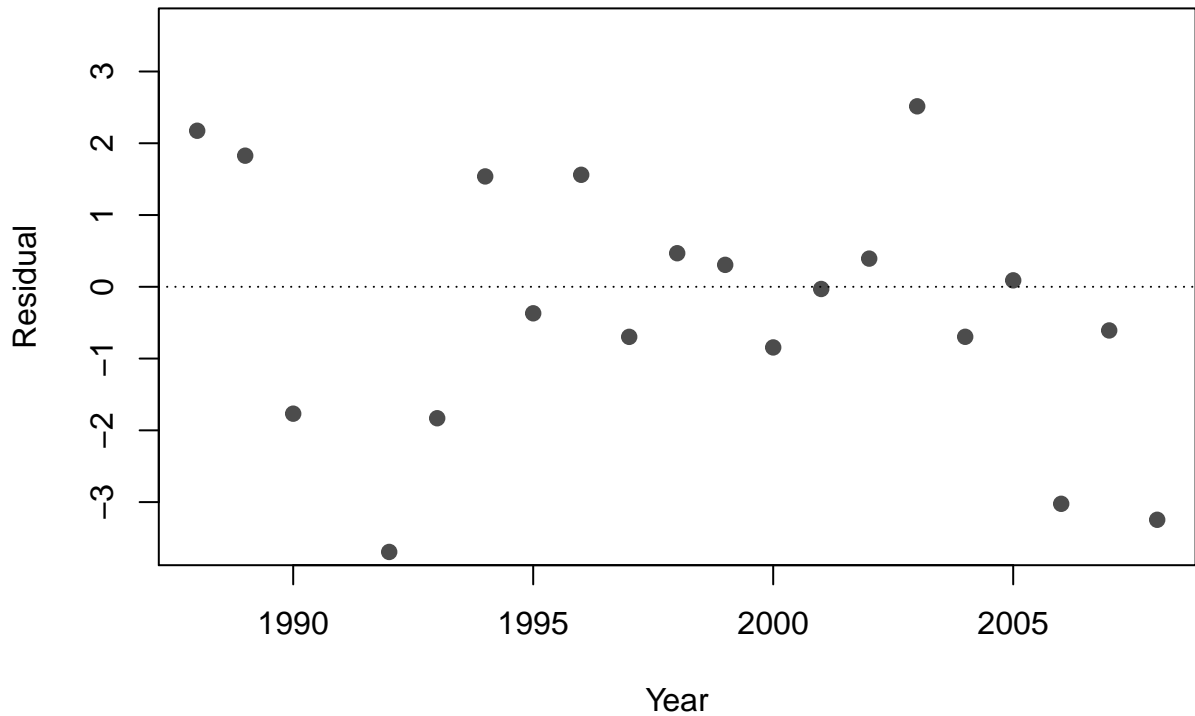
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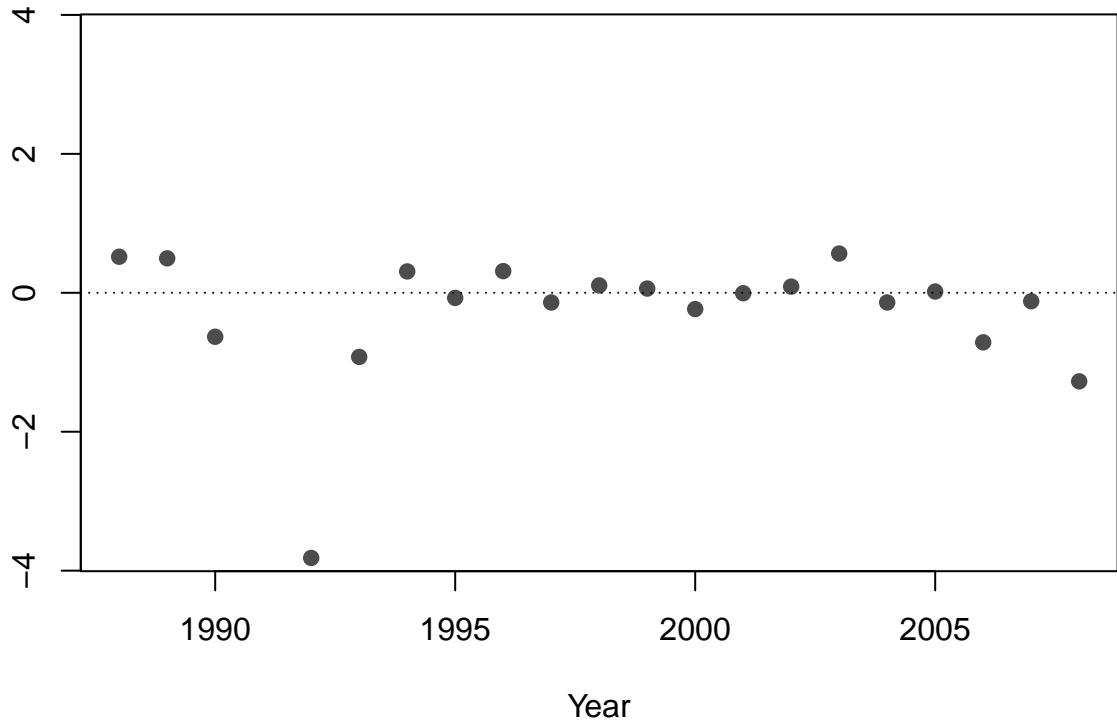
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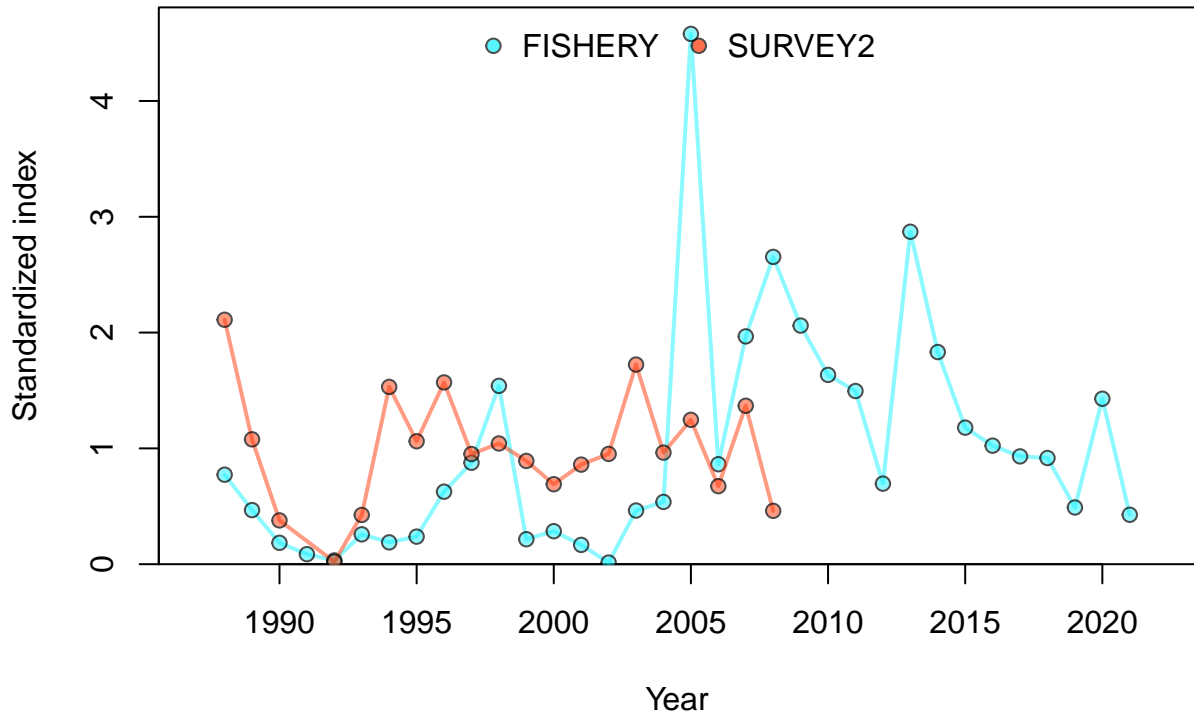


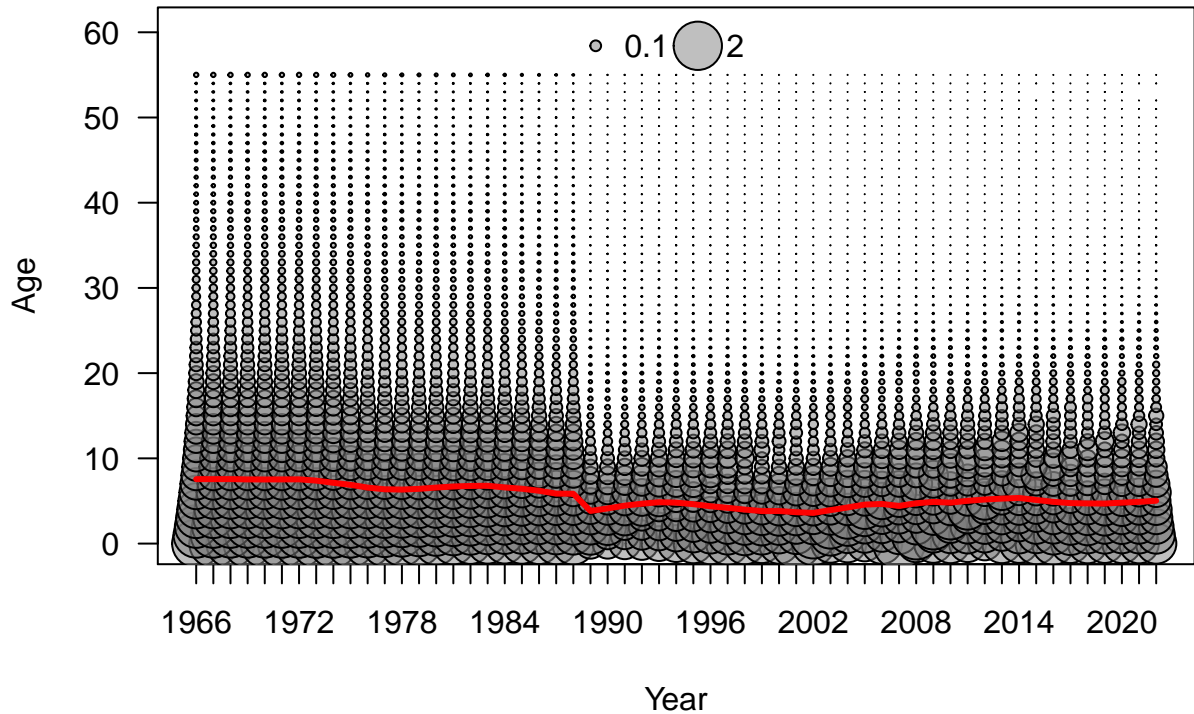


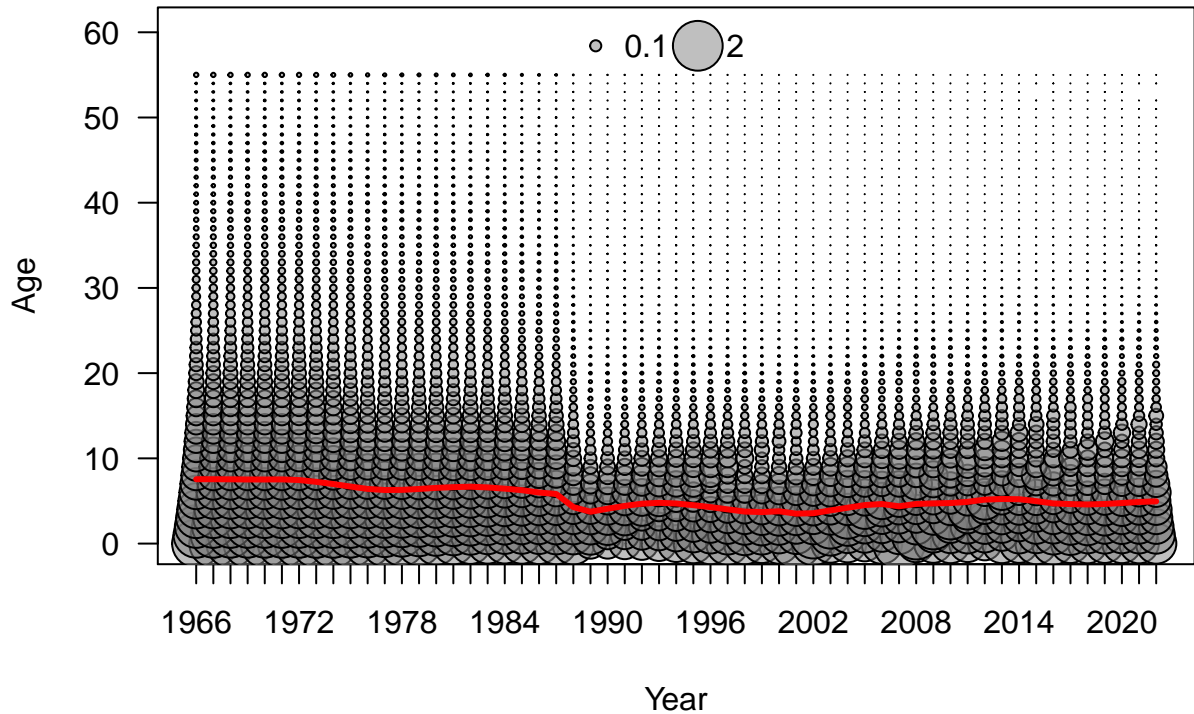


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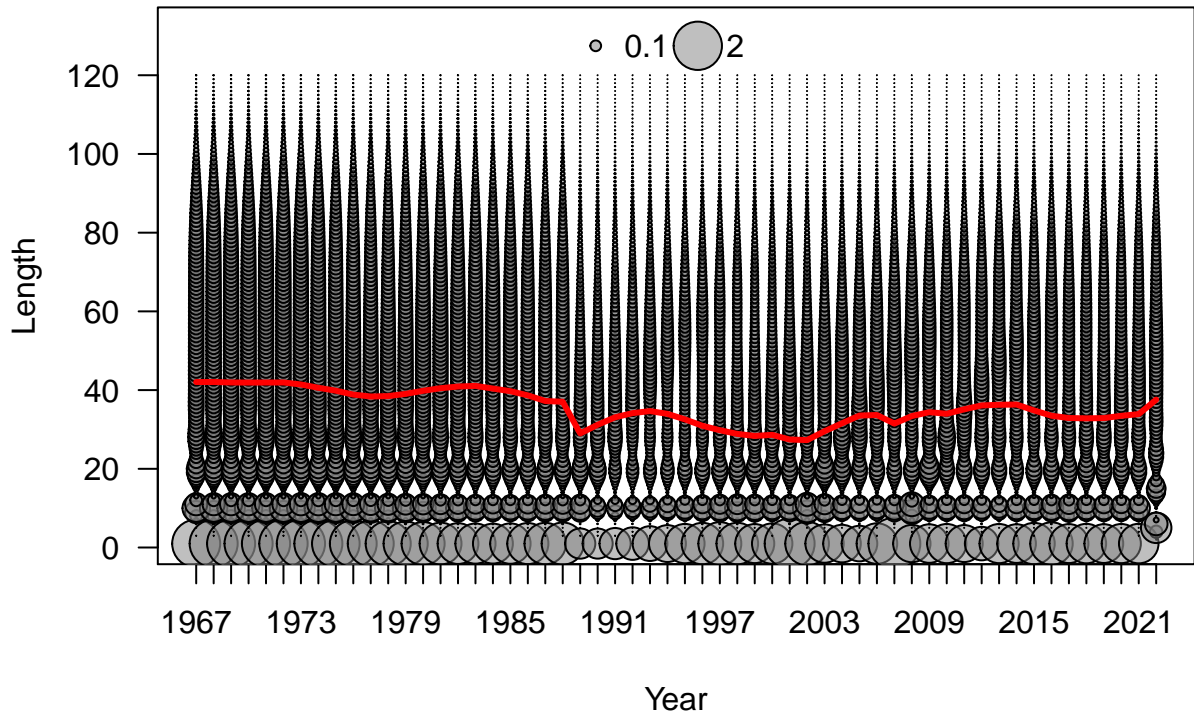


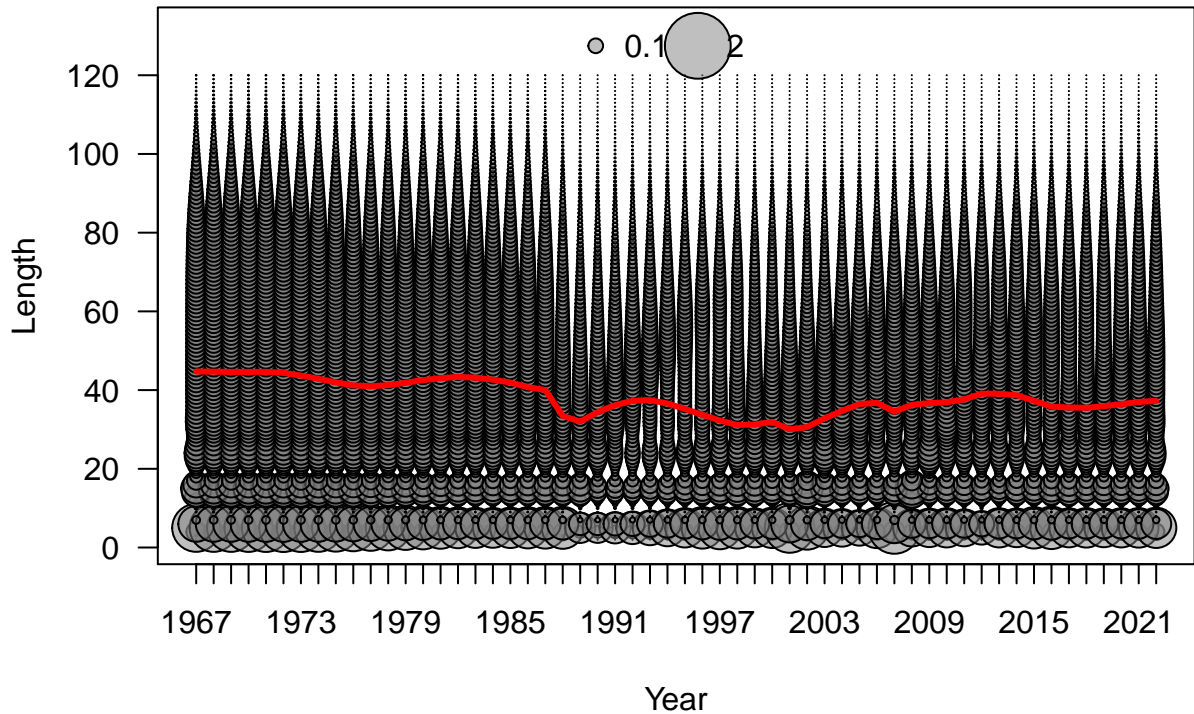


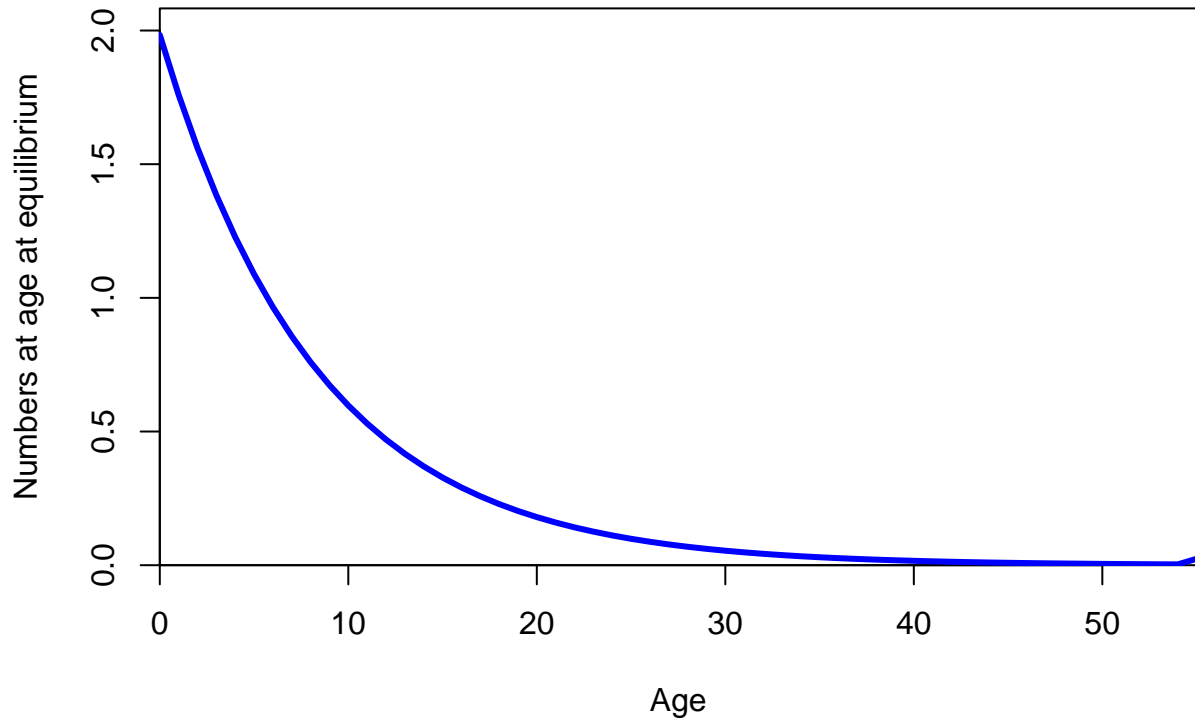






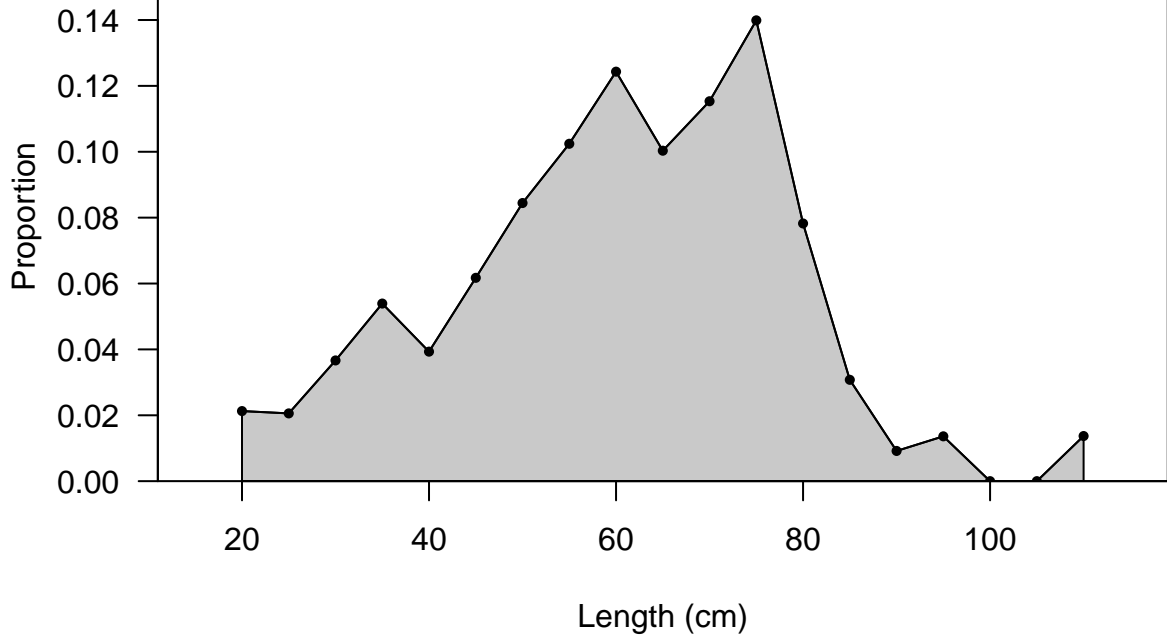






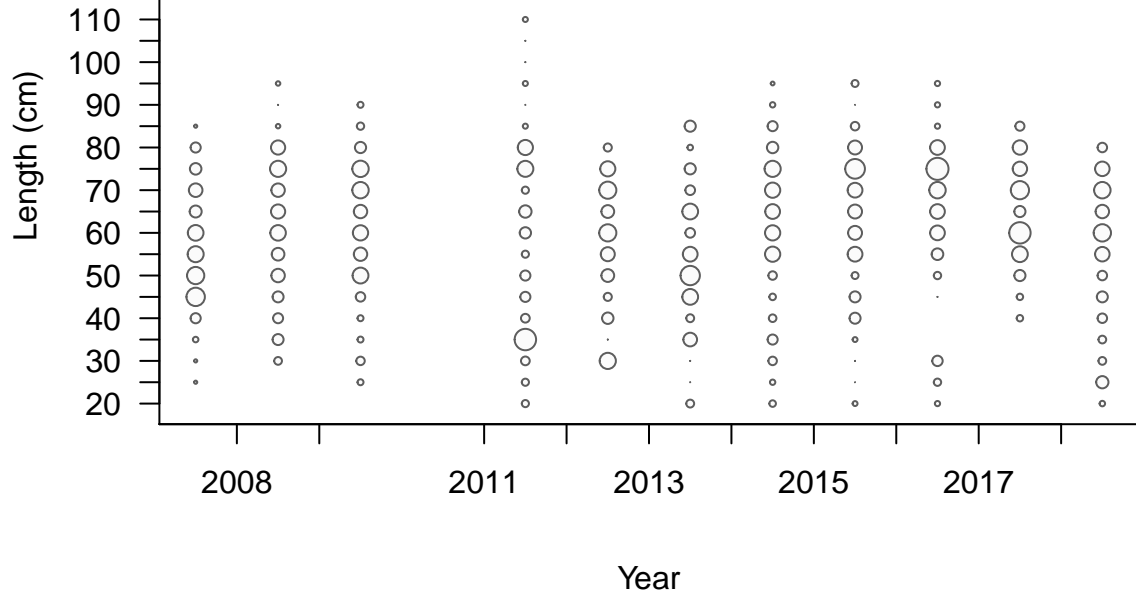
# FISHERY

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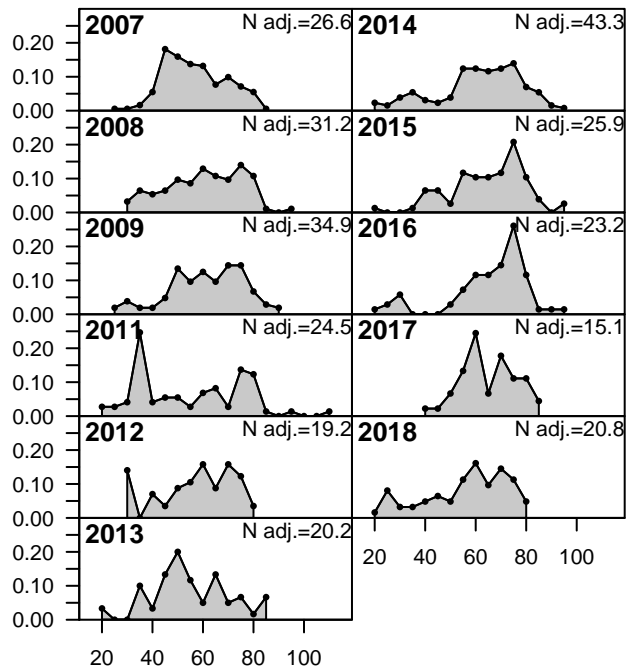


# FISHERY

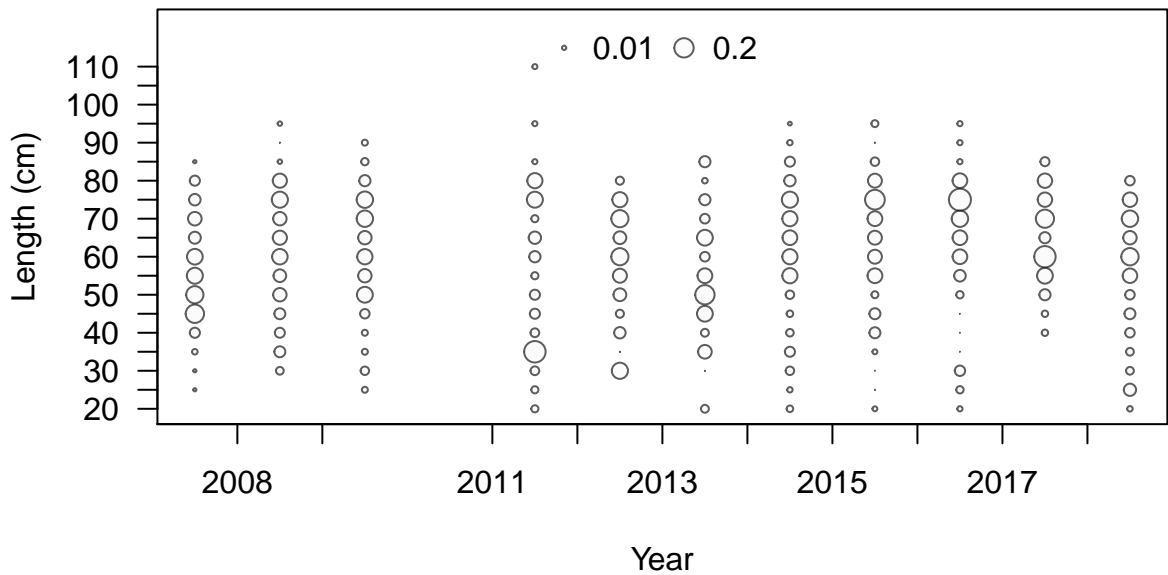
◦ 0.01 ○ 0.2



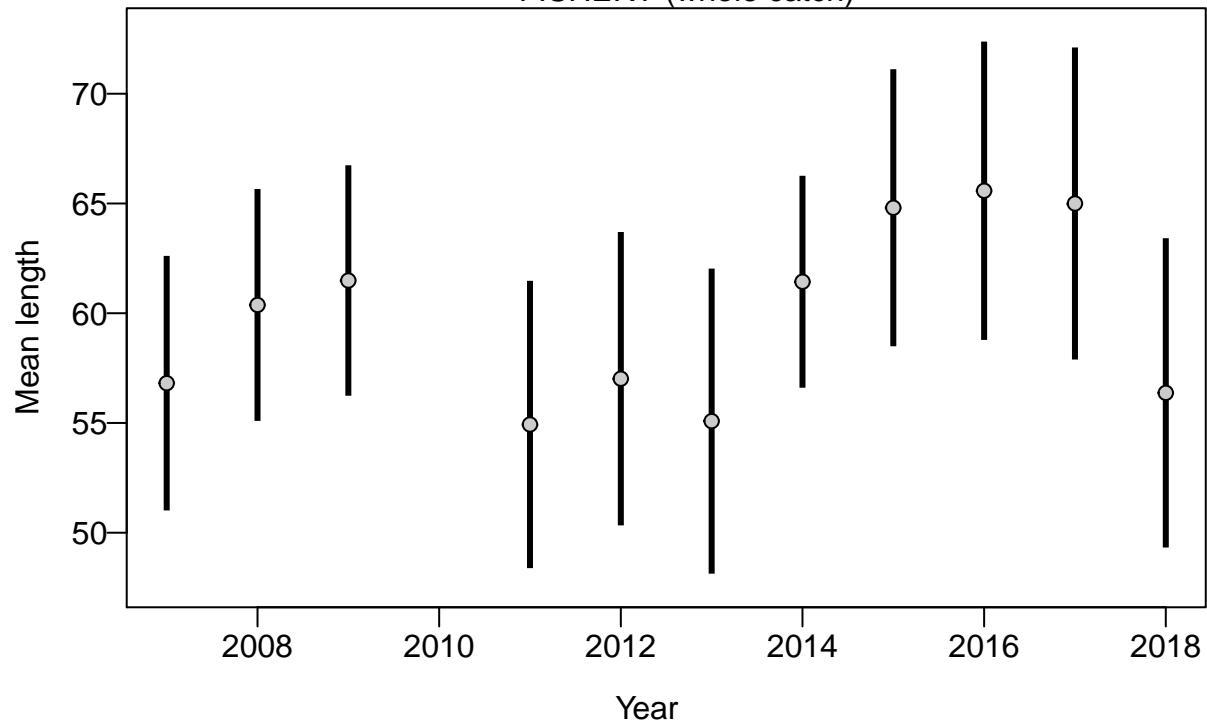
Proportion



Length (cm)



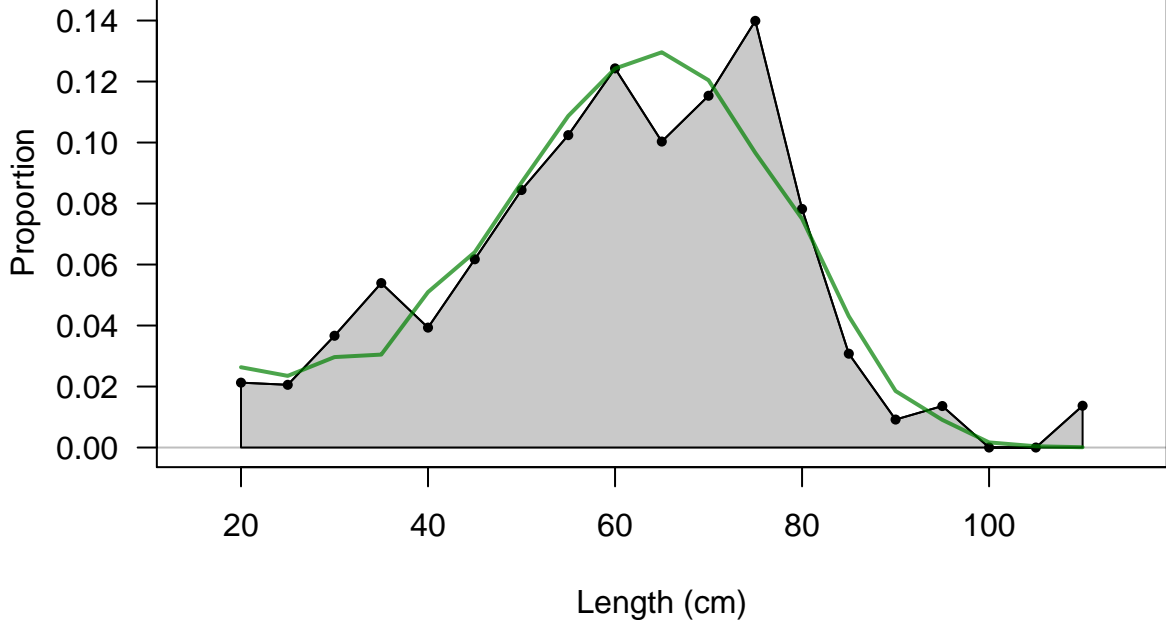
FISHERY (whole catch)

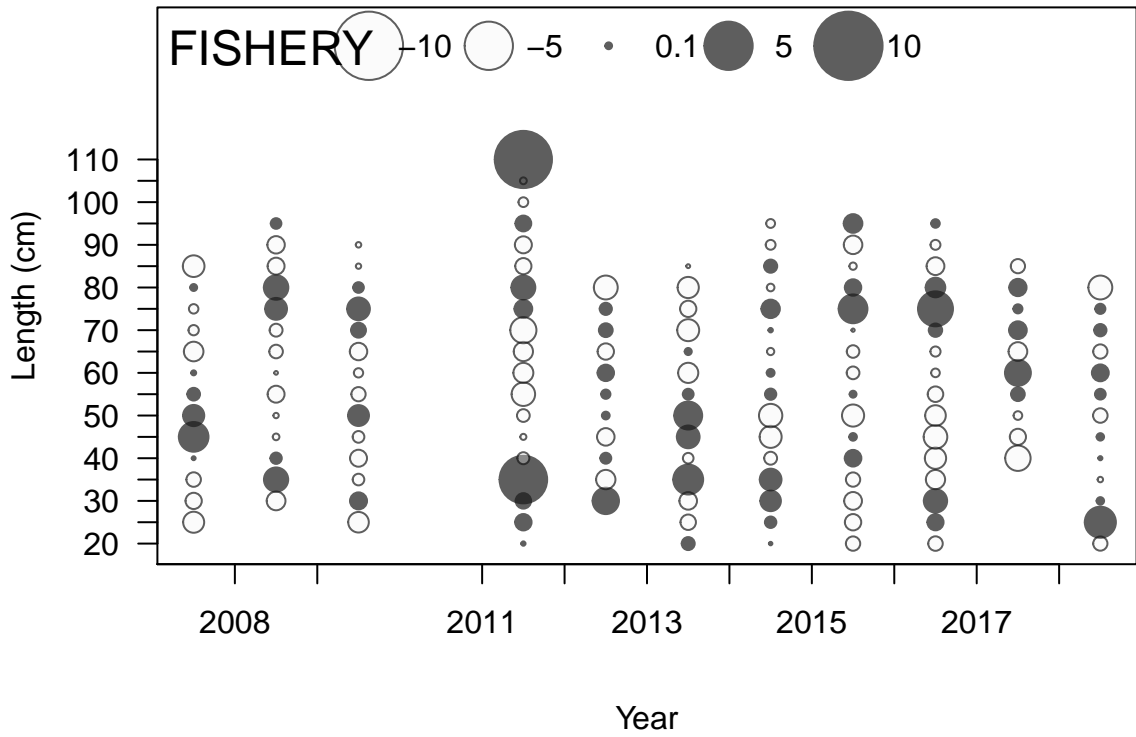




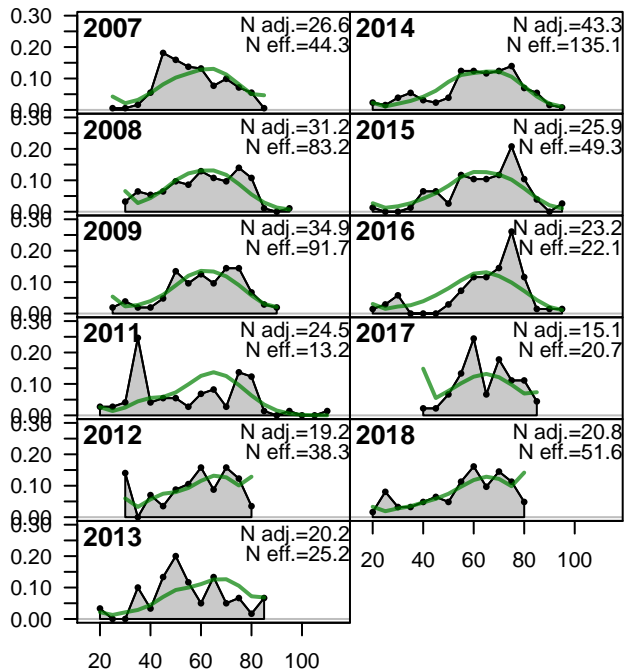
# FISHERY

Sum of N adj.=285  
Sum of N eff.=574.7

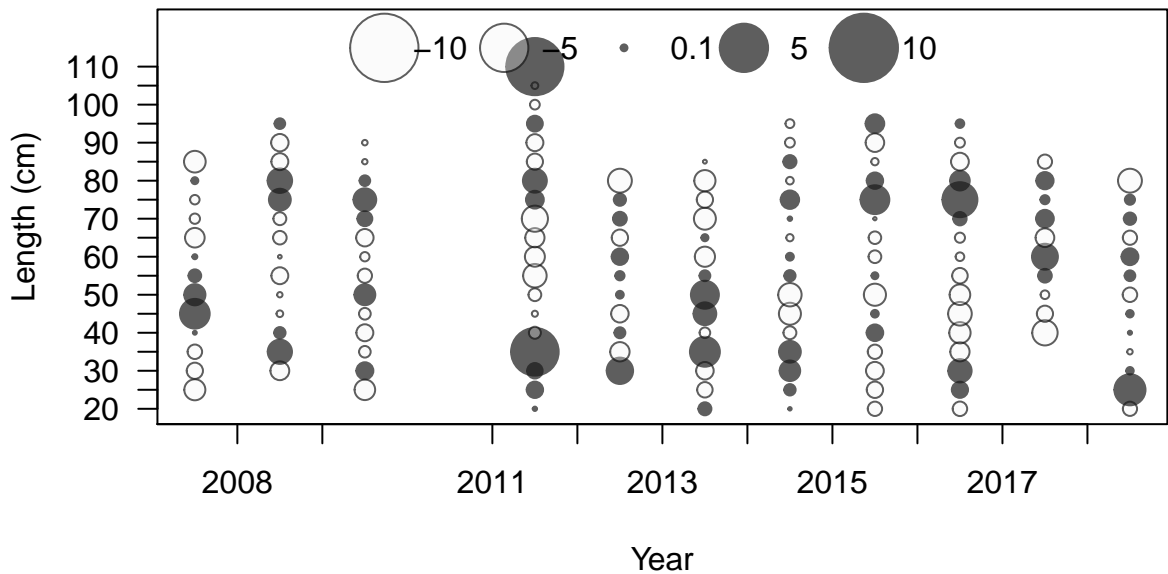




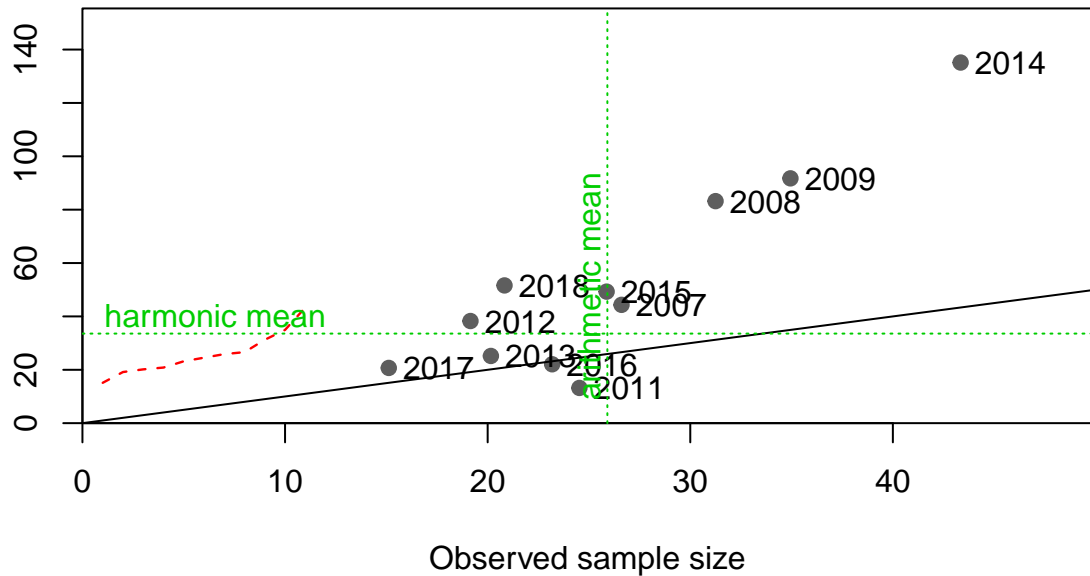
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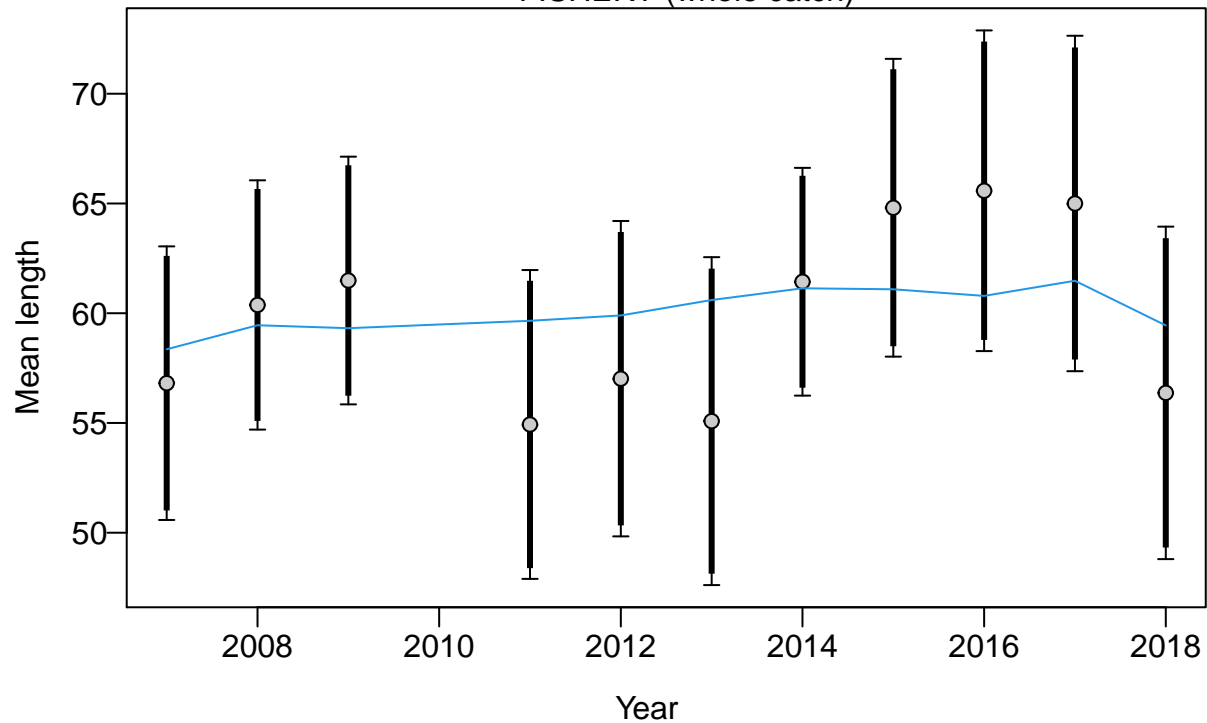
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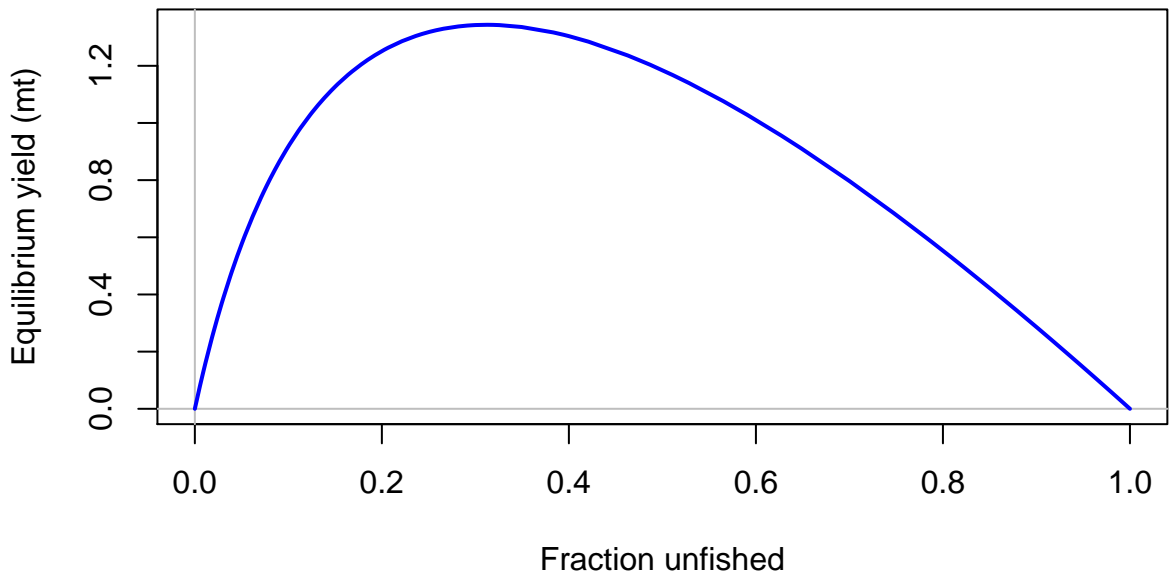


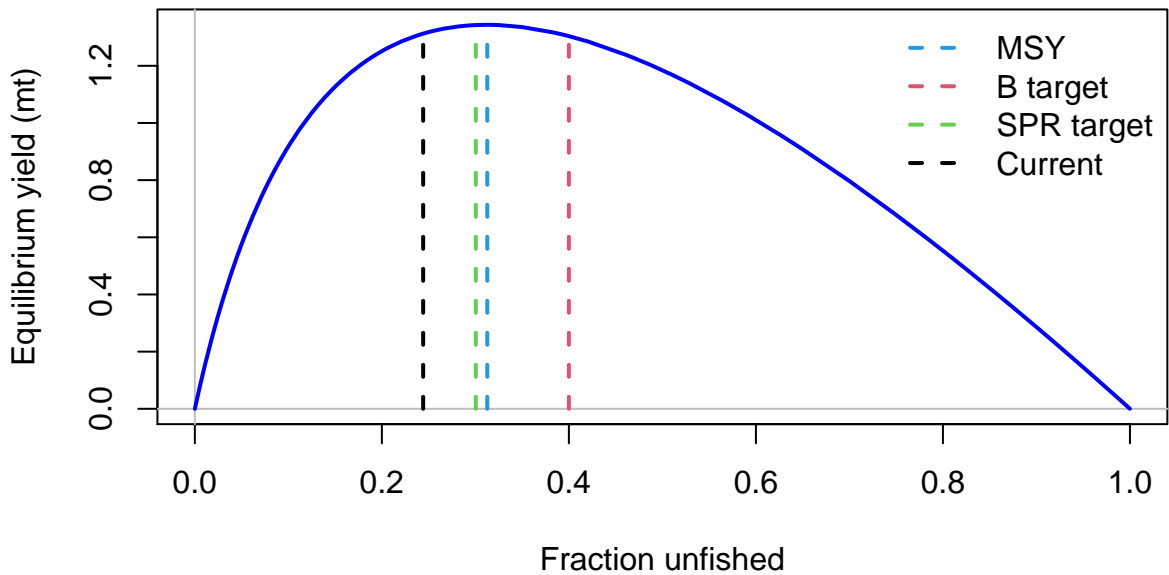
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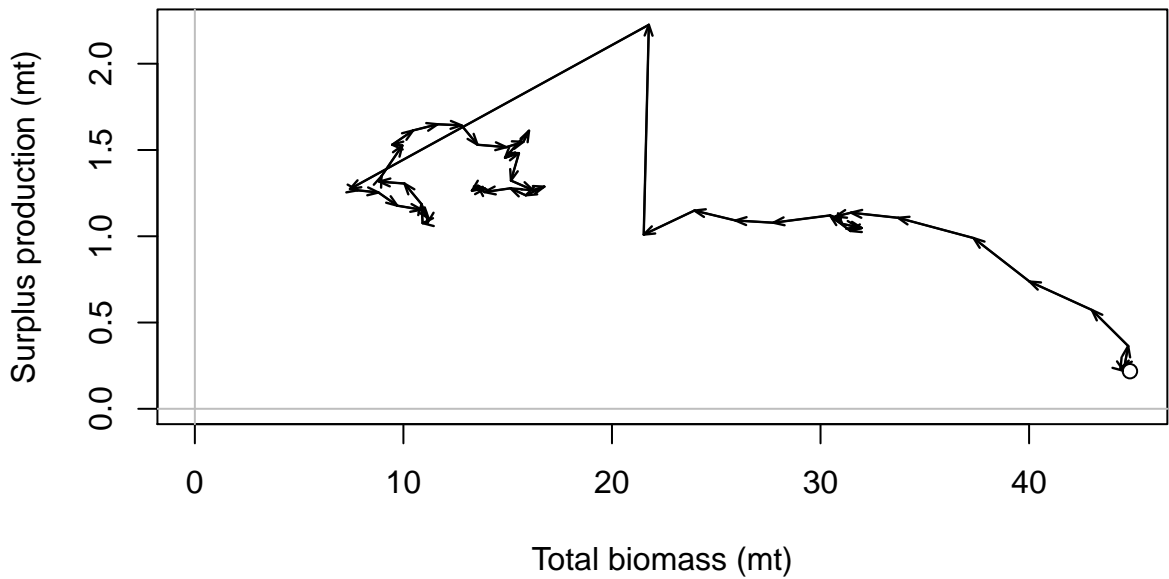
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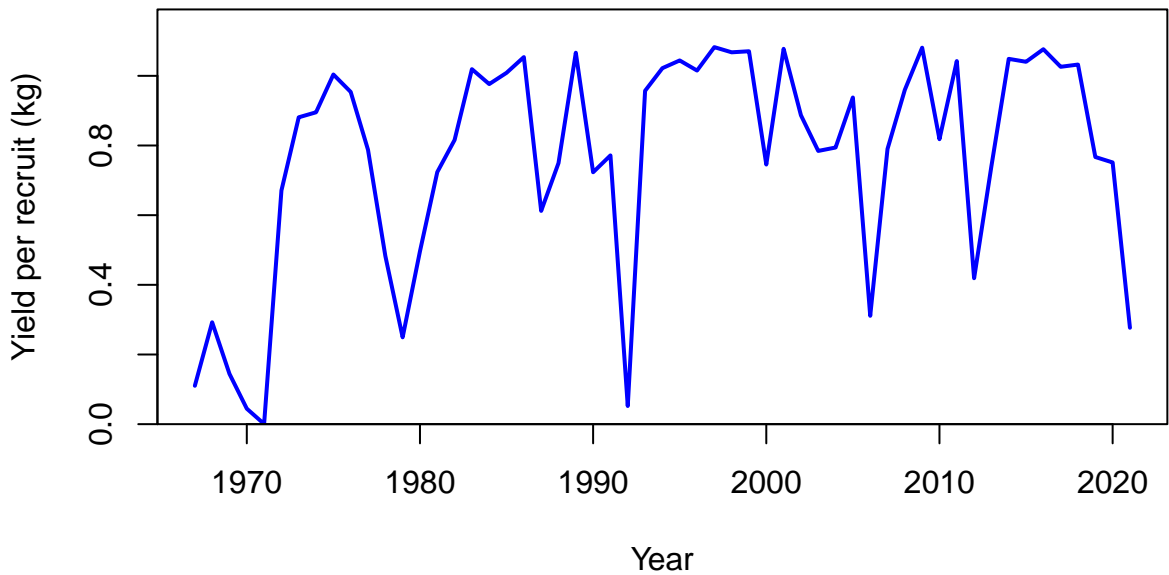


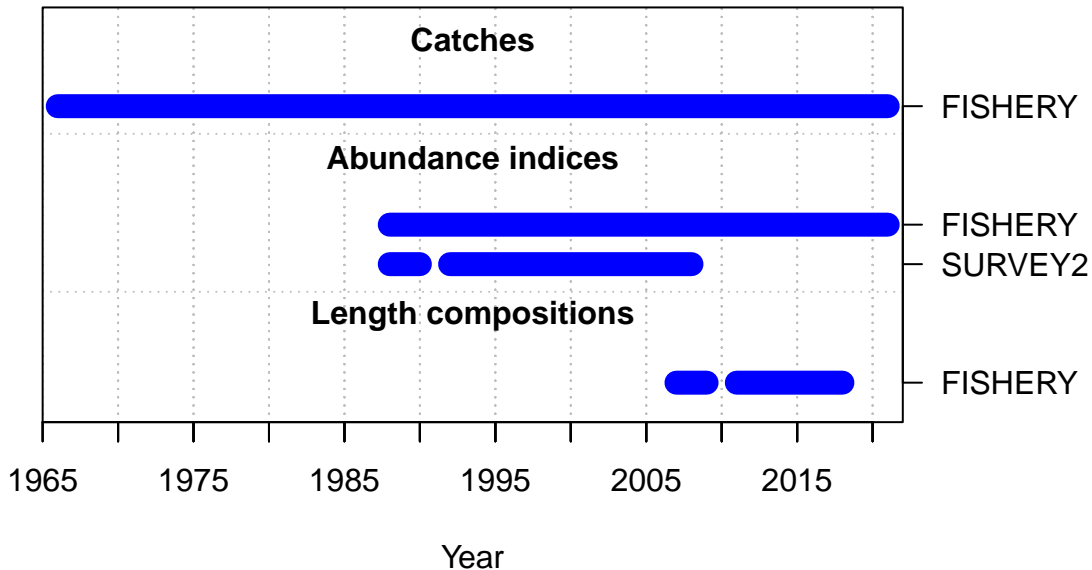


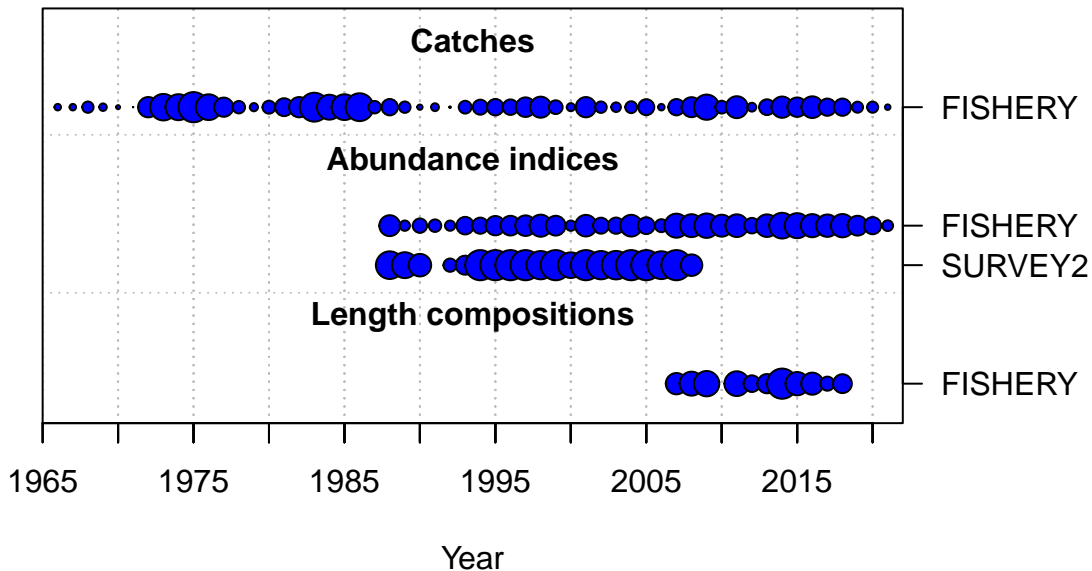




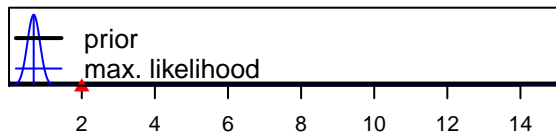




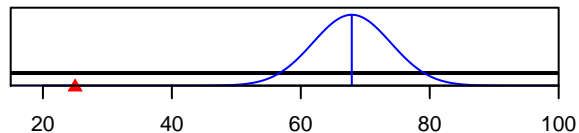




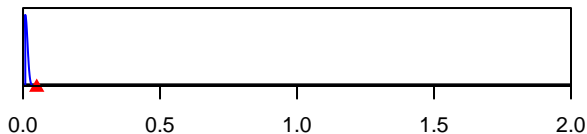
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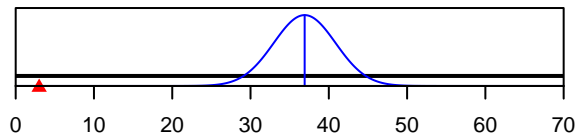
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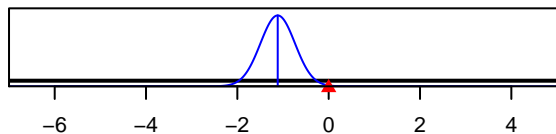
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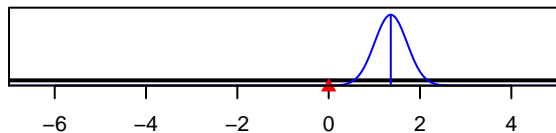
Size\_95%width\_FISHERY(1)



LnQ\_base\_FISHERY(1)



LnQ\_base\_SURVEY2(2)



Parameter value