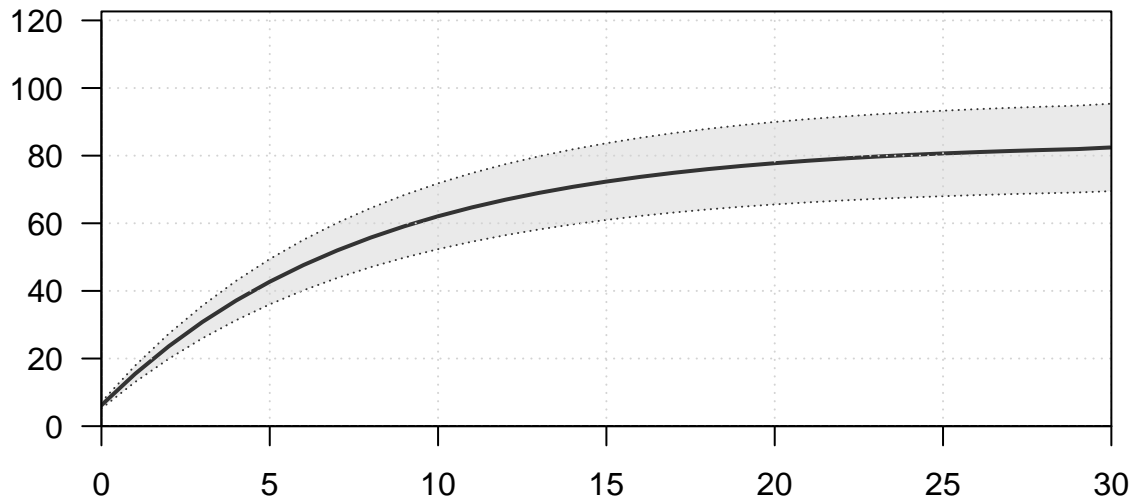
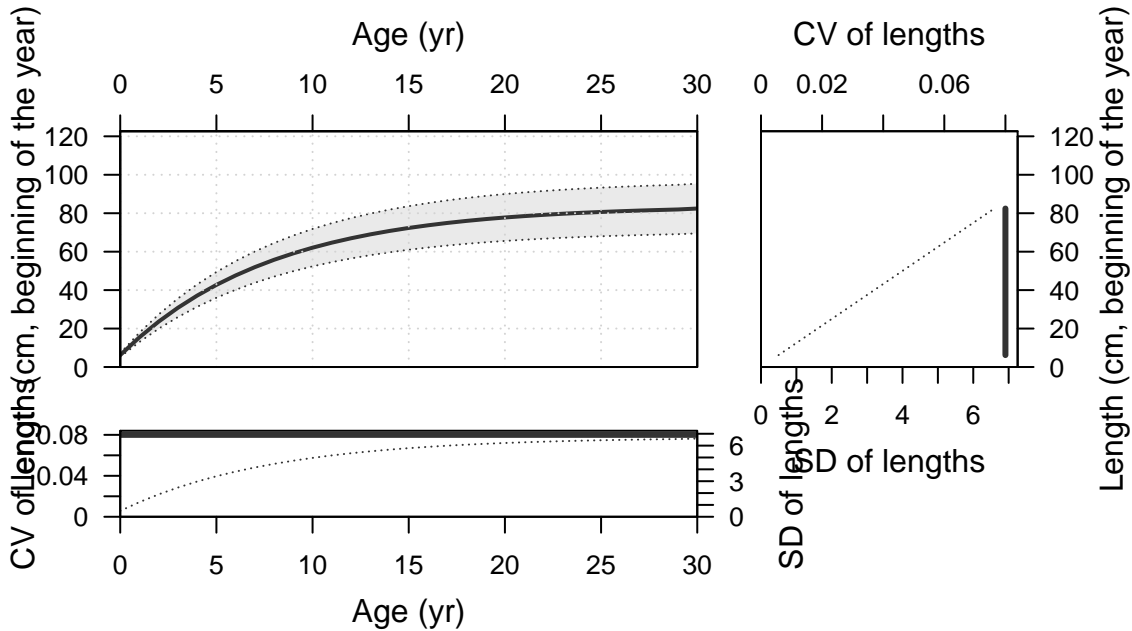


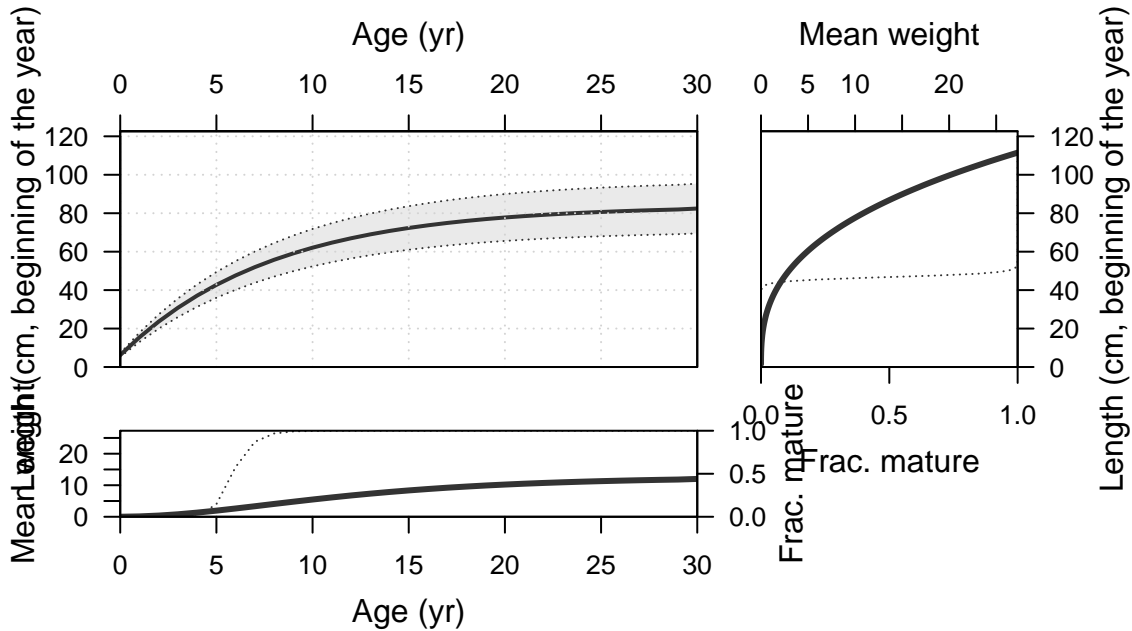
Plots created using the 'r4ss' package in R
Stock Synthesis version: 3.30.19.0
StartTime: Thu Jul 21 13:05:33 2022
Data_File: data.ss
Control_File: control.ss

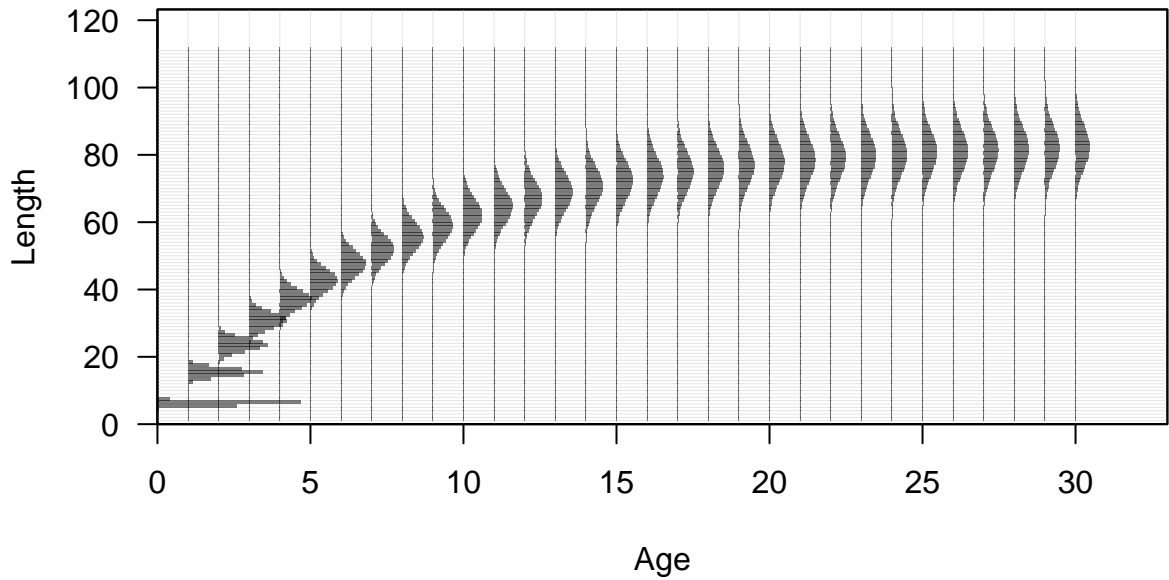
Length (cm, beginning of the year)

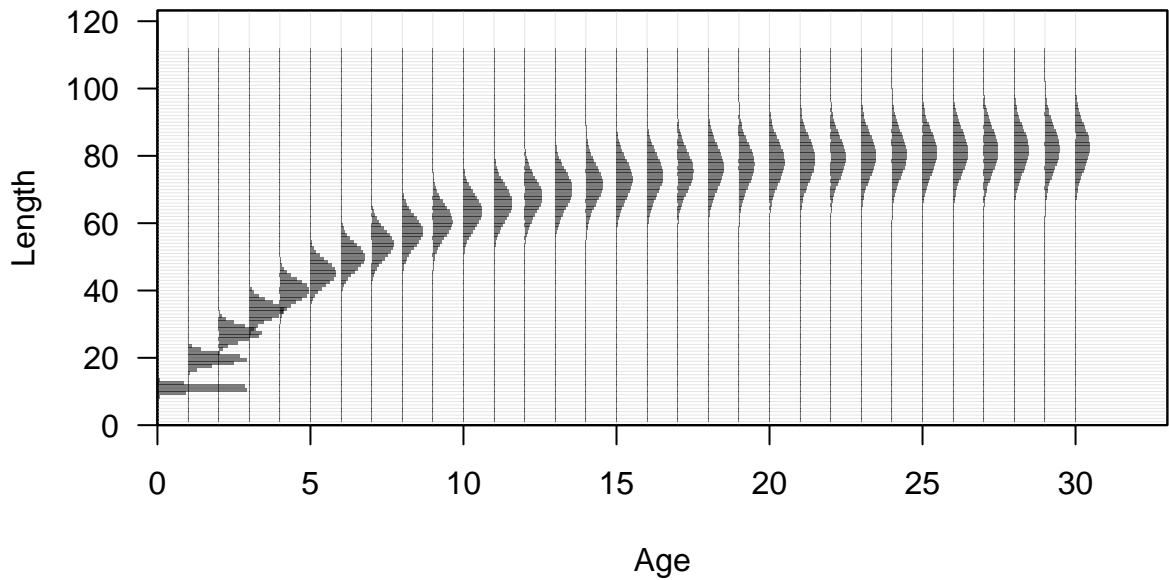


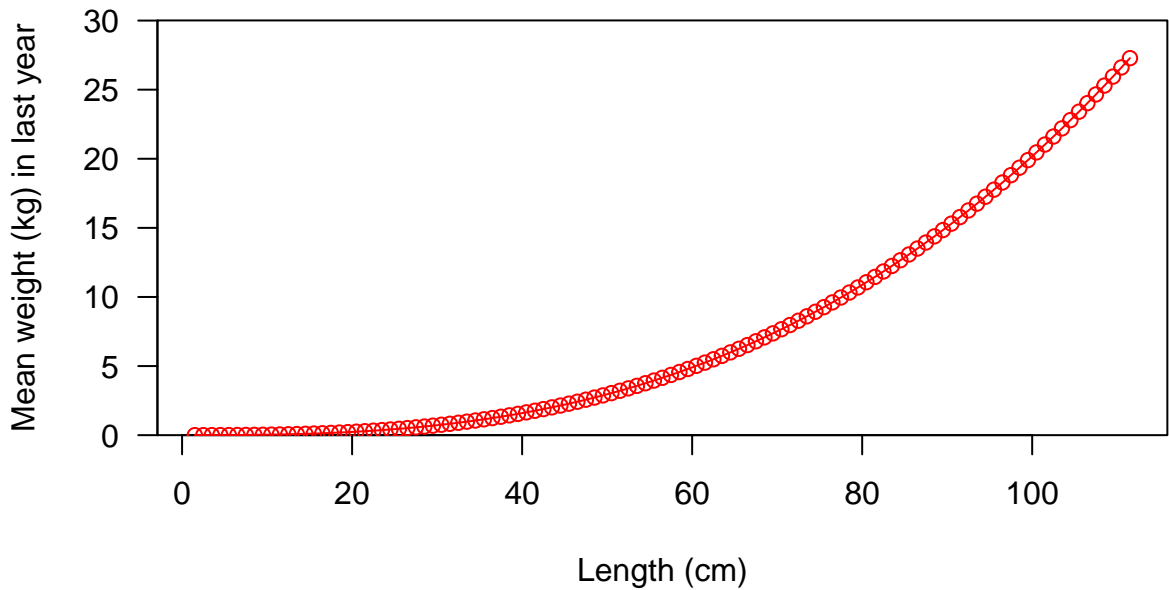
Age (yr)

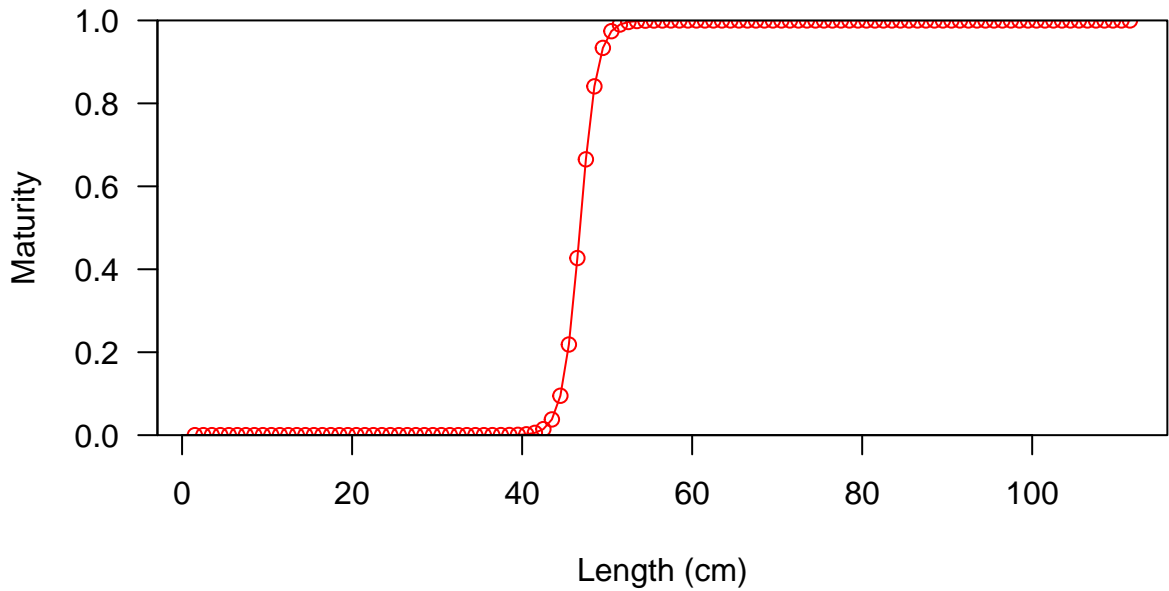


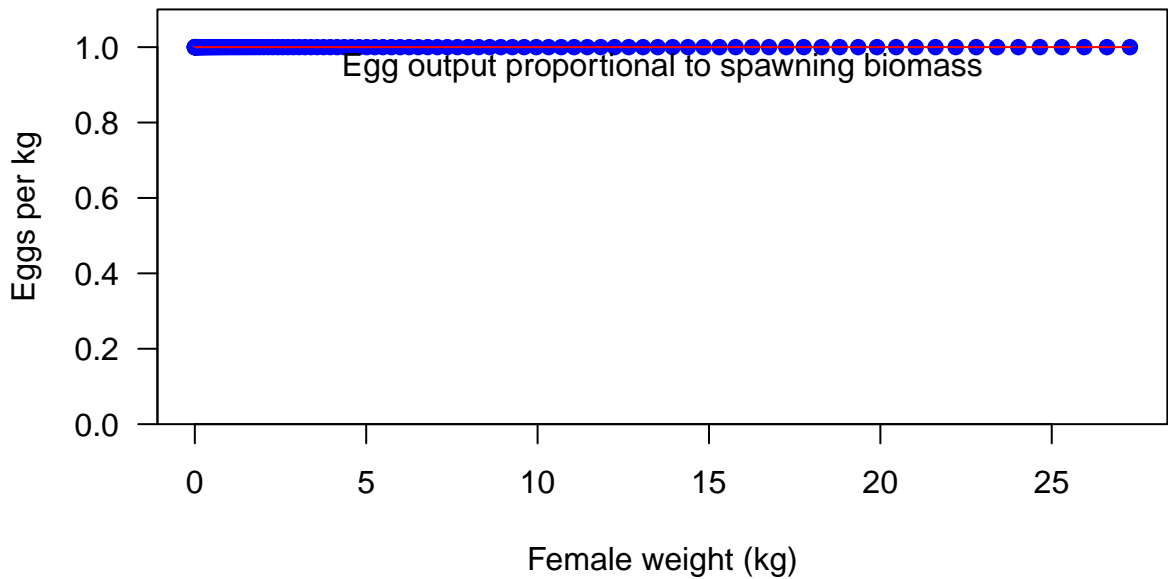


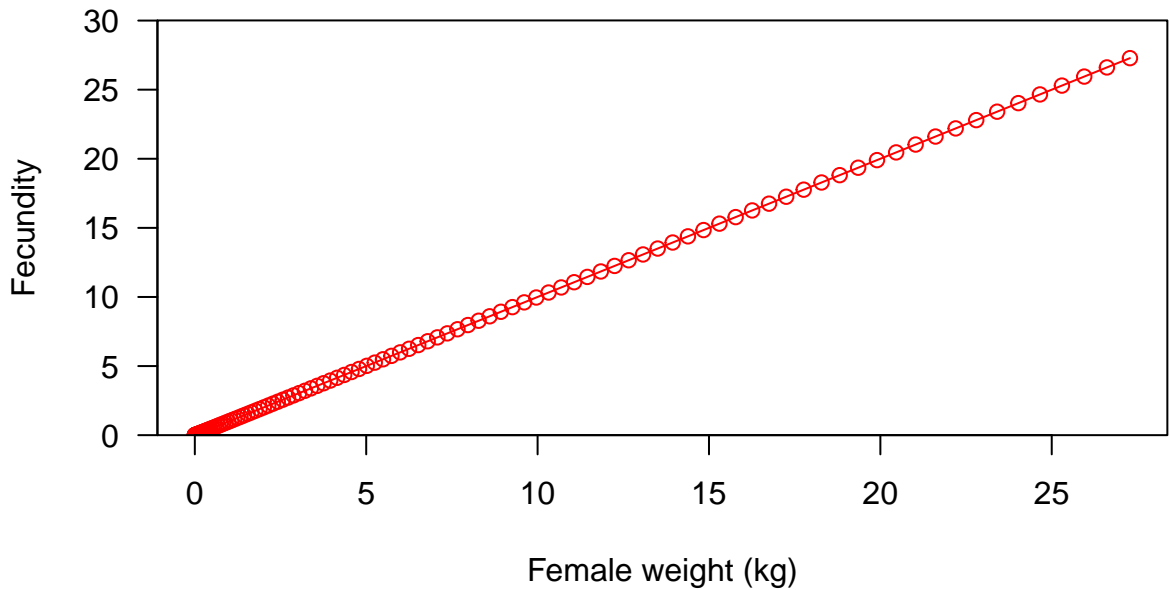












Fecundity

30
25
20
15
10
5
0

0

20

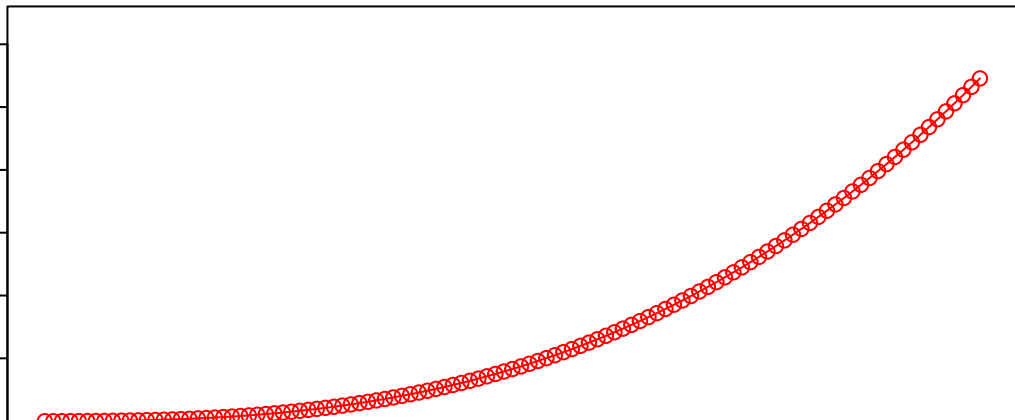
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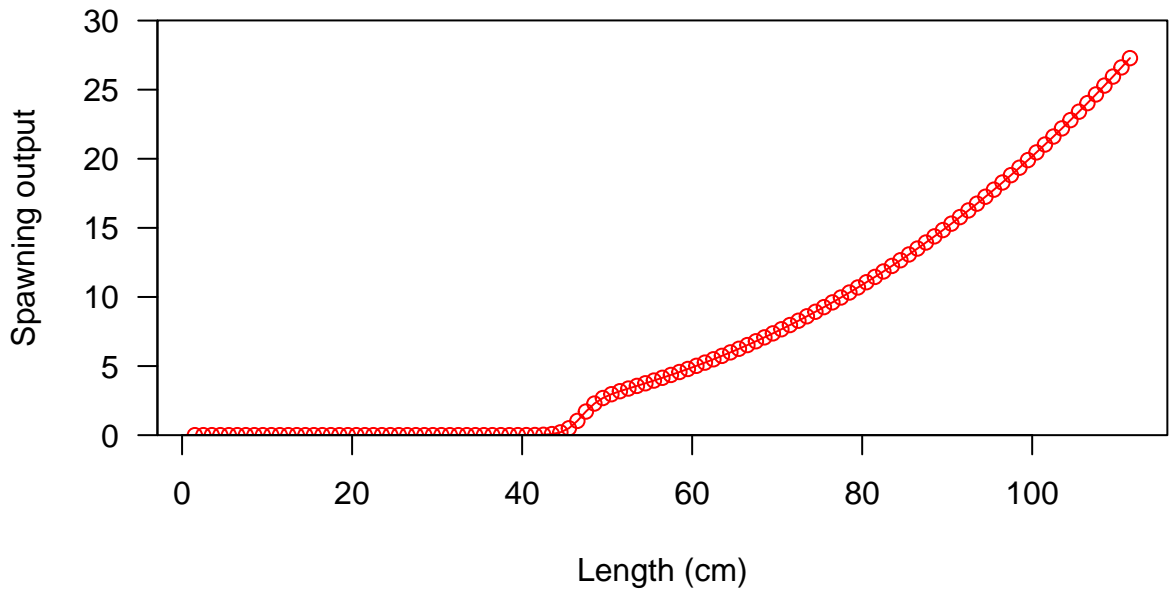
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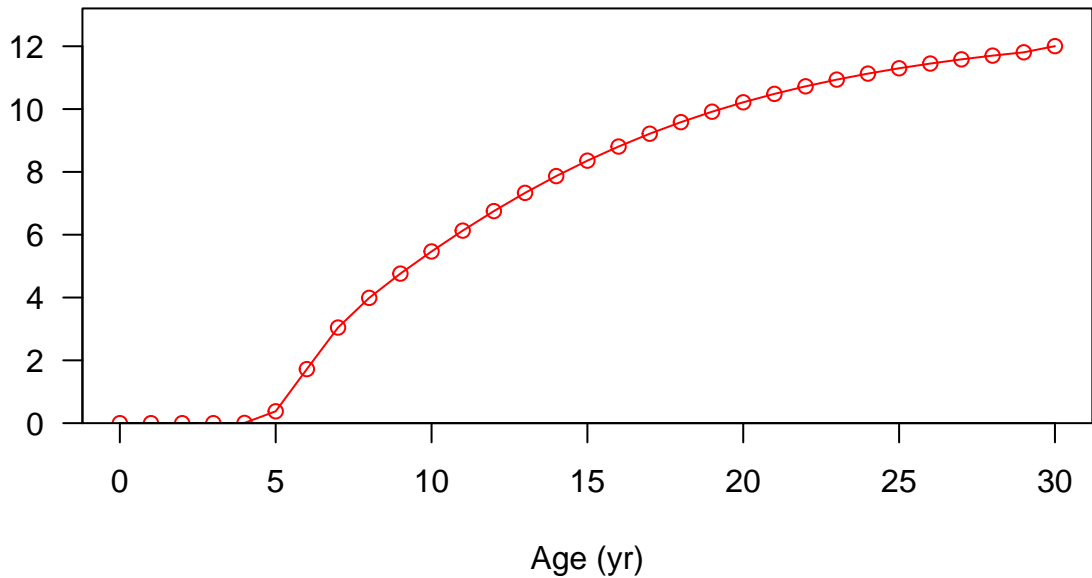
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Female length (cm)

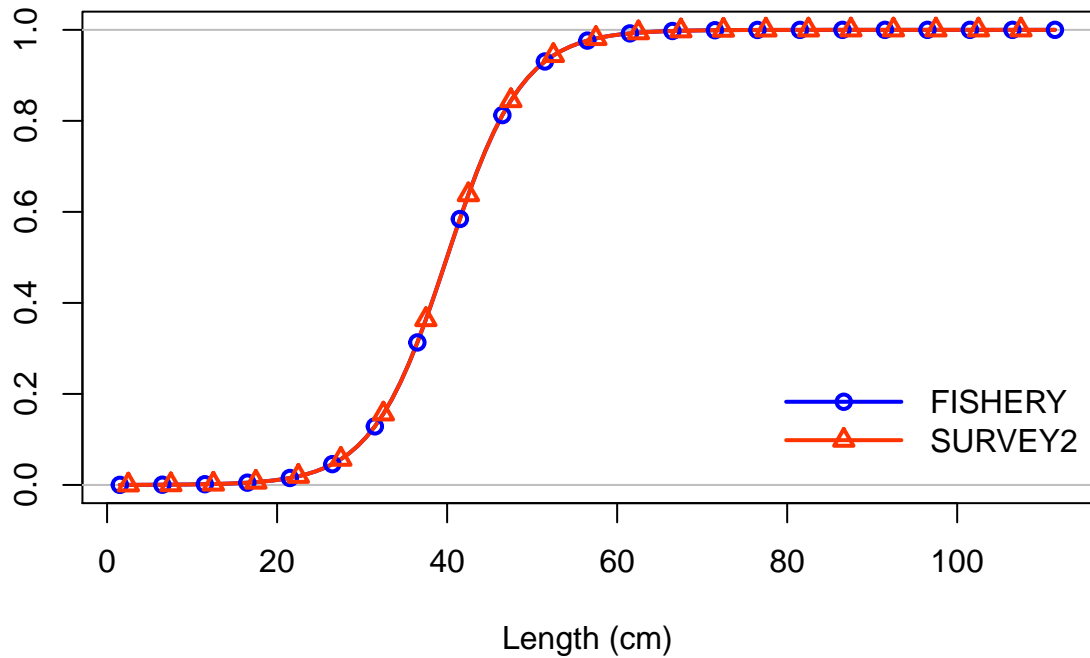




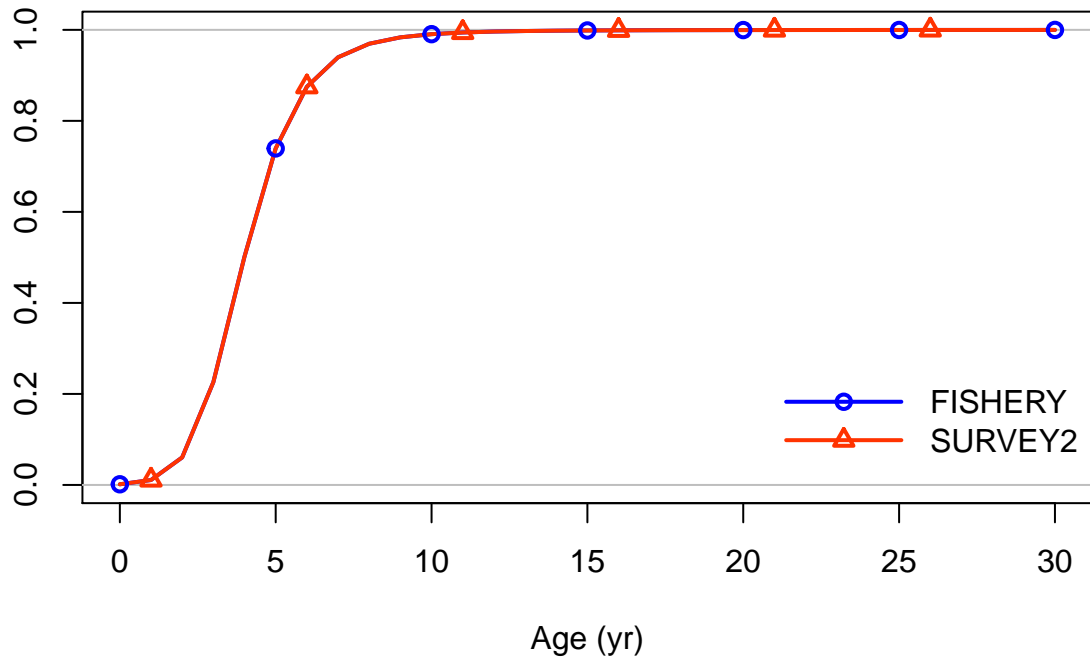
Spawning output



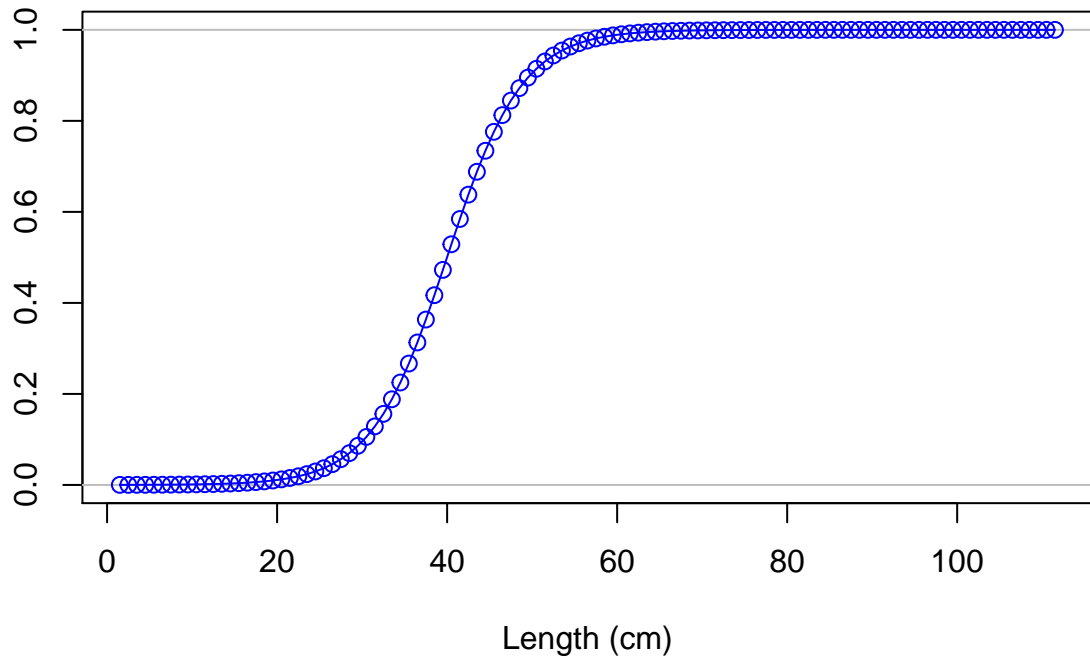
Selectivity



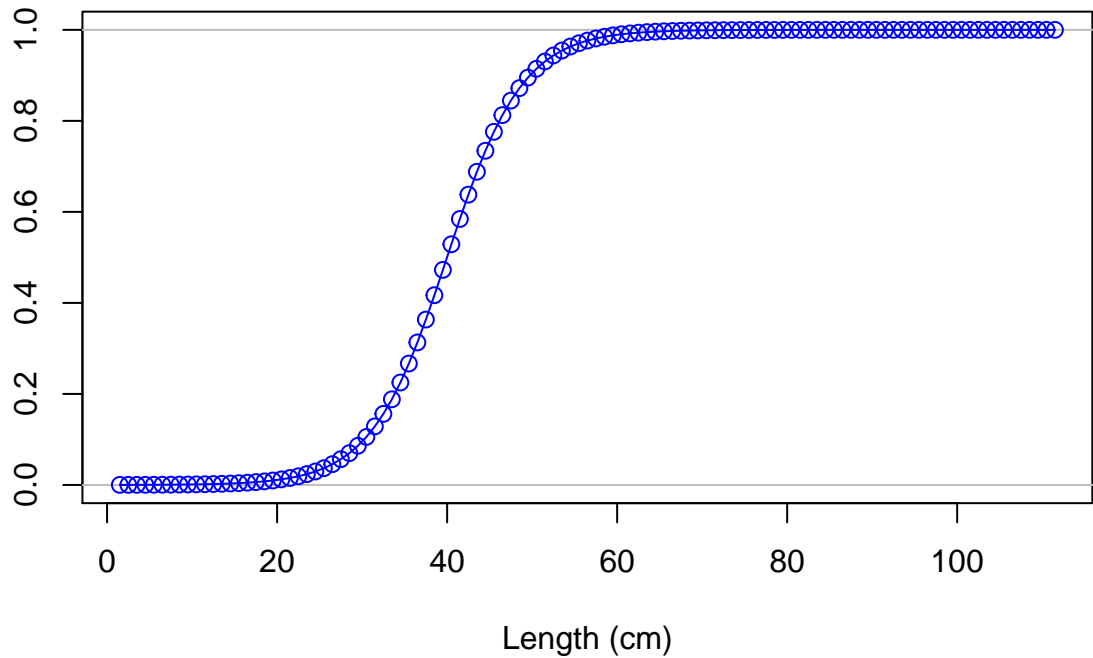
Selectivity

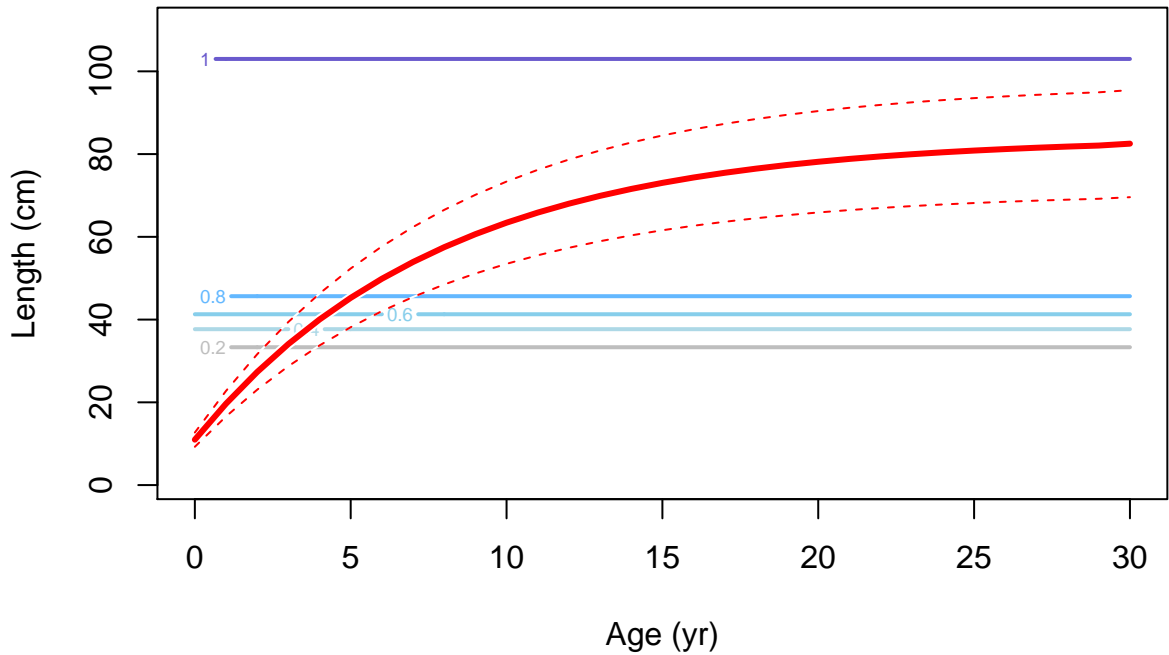


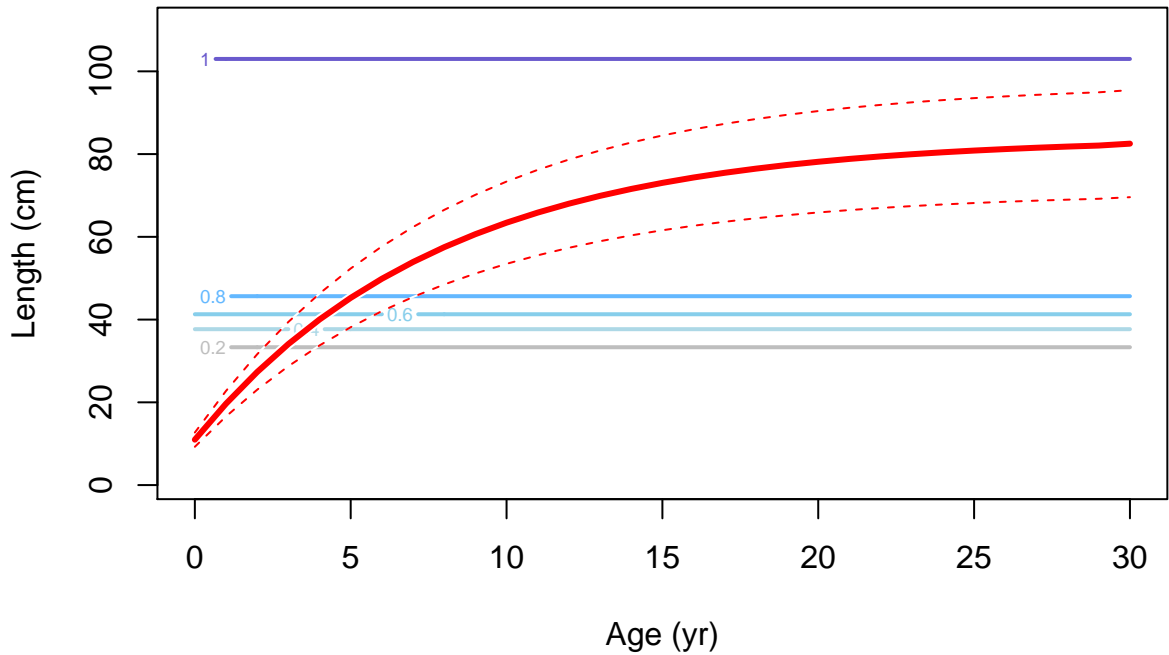
Selectivity



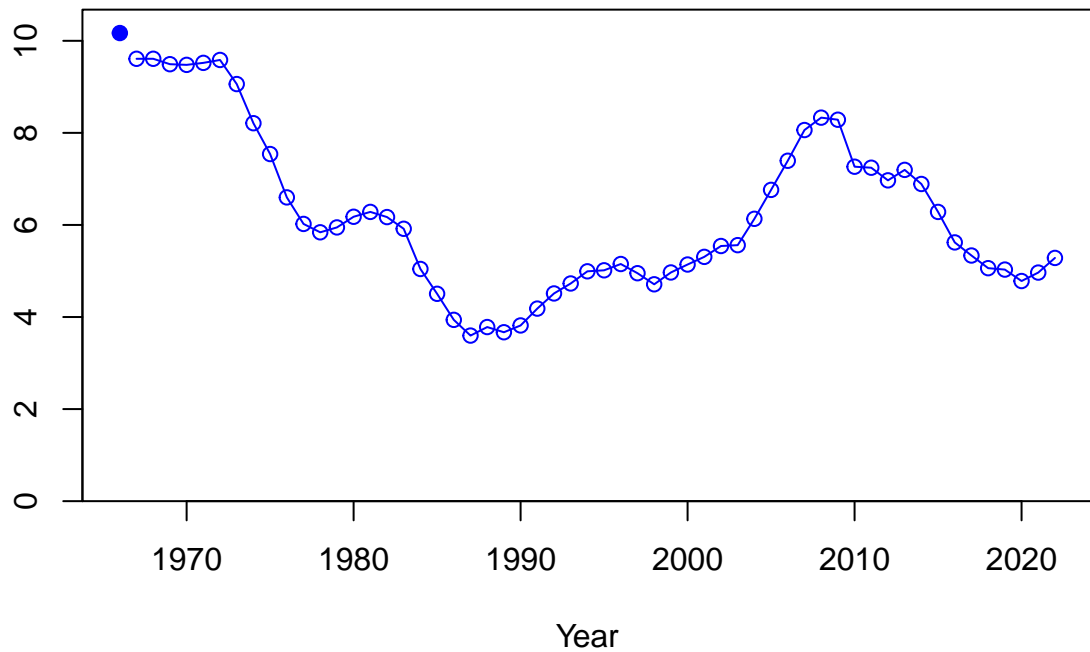
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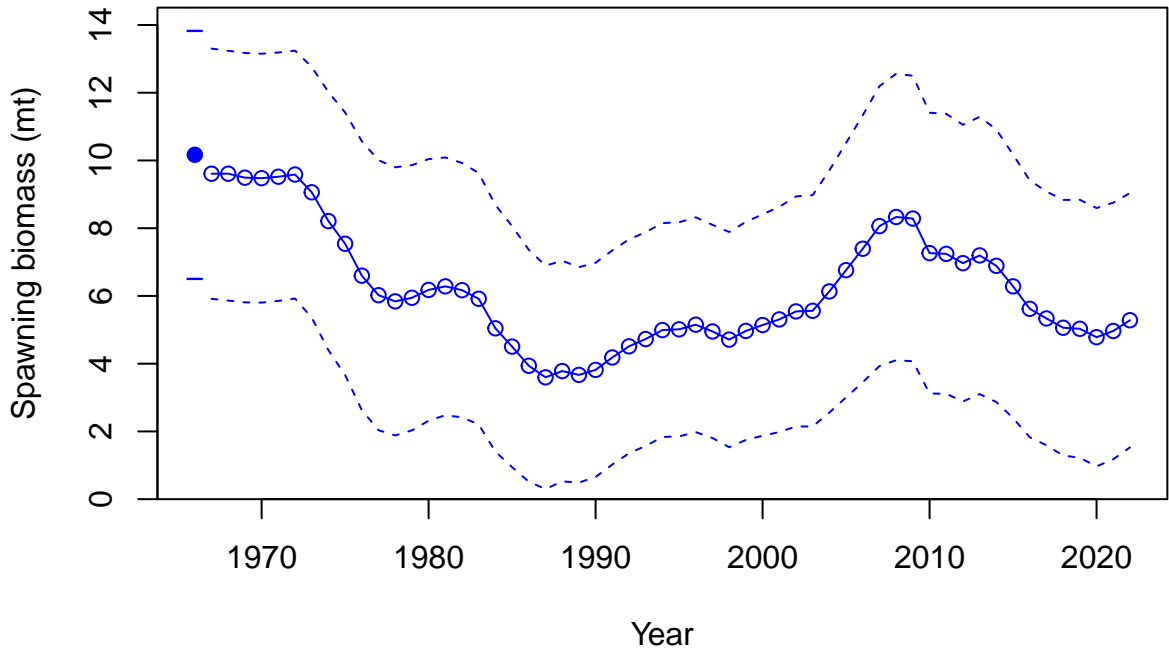




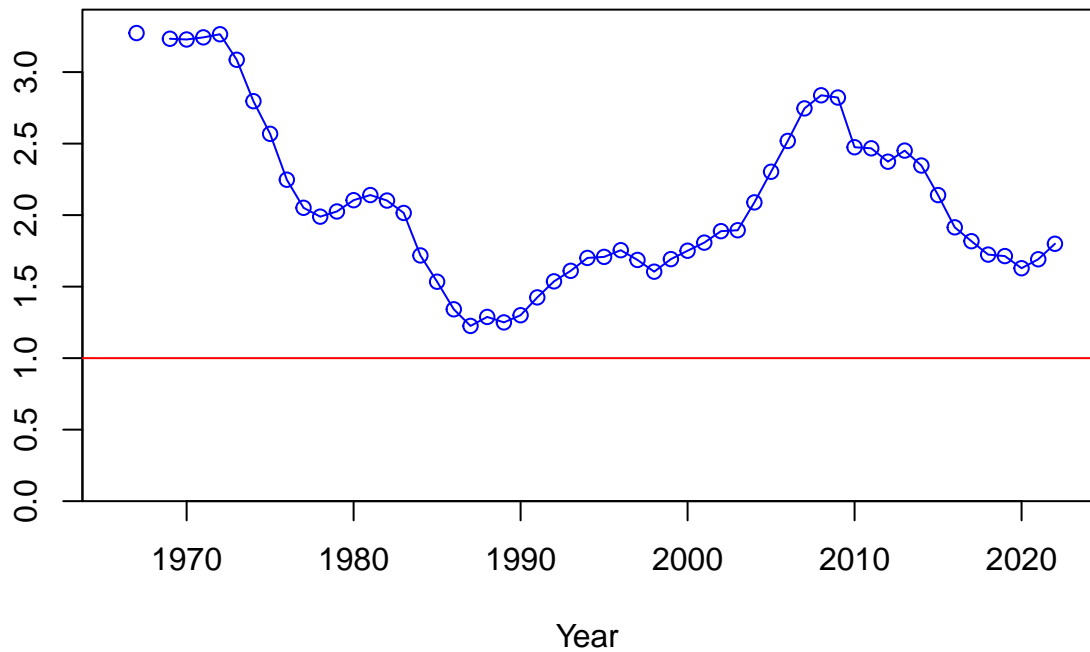


Spawning biomass (mt)

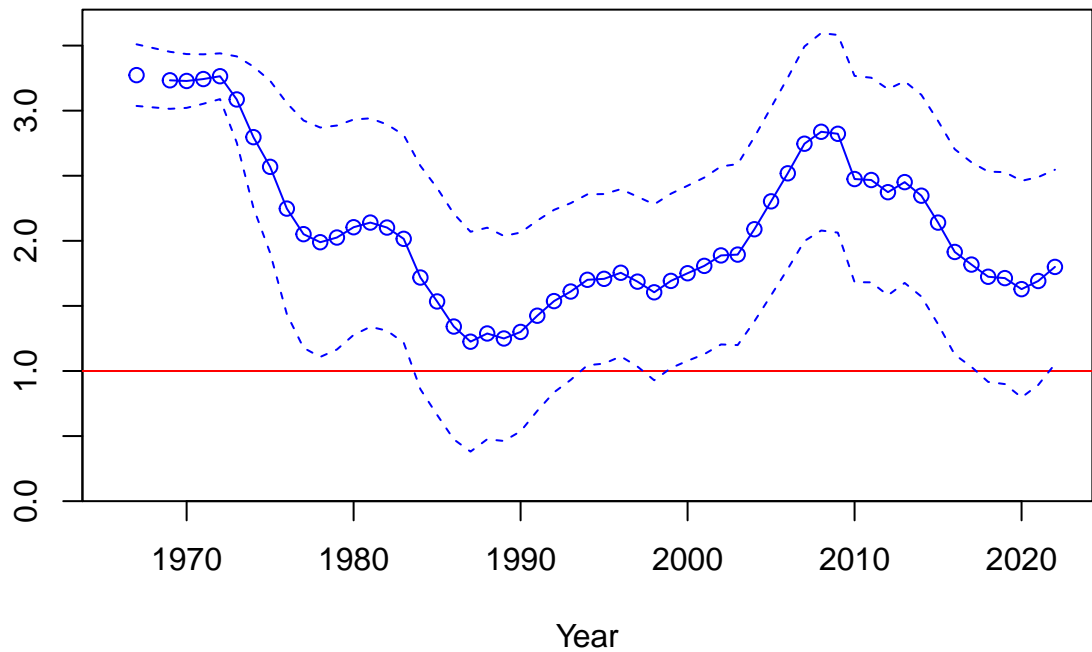


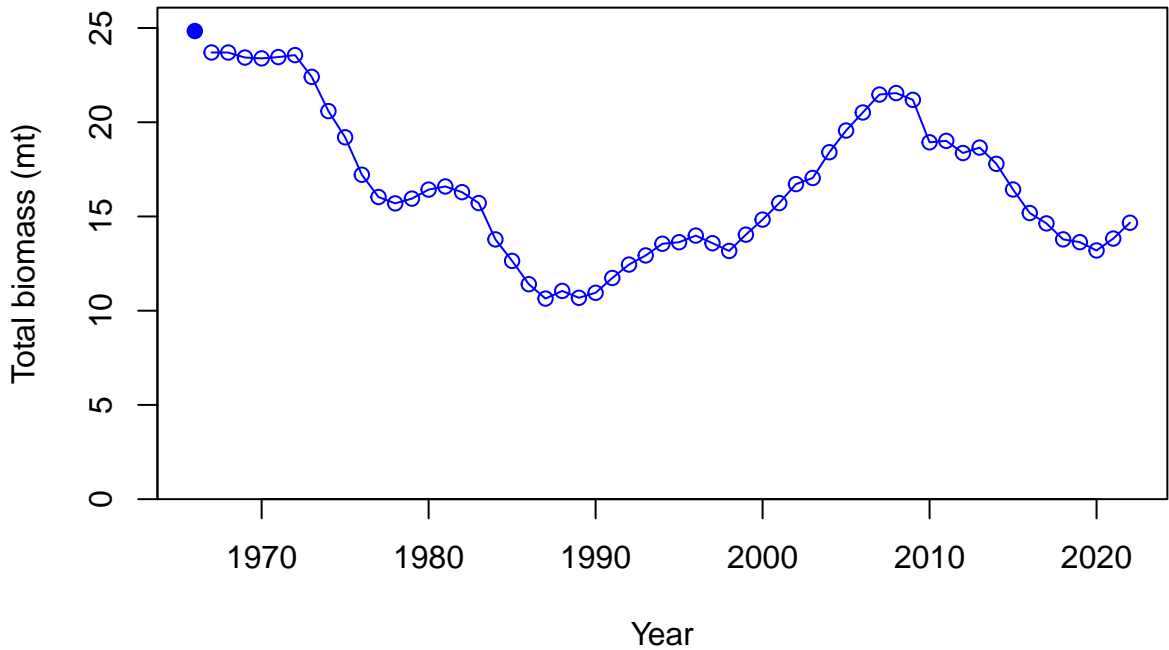


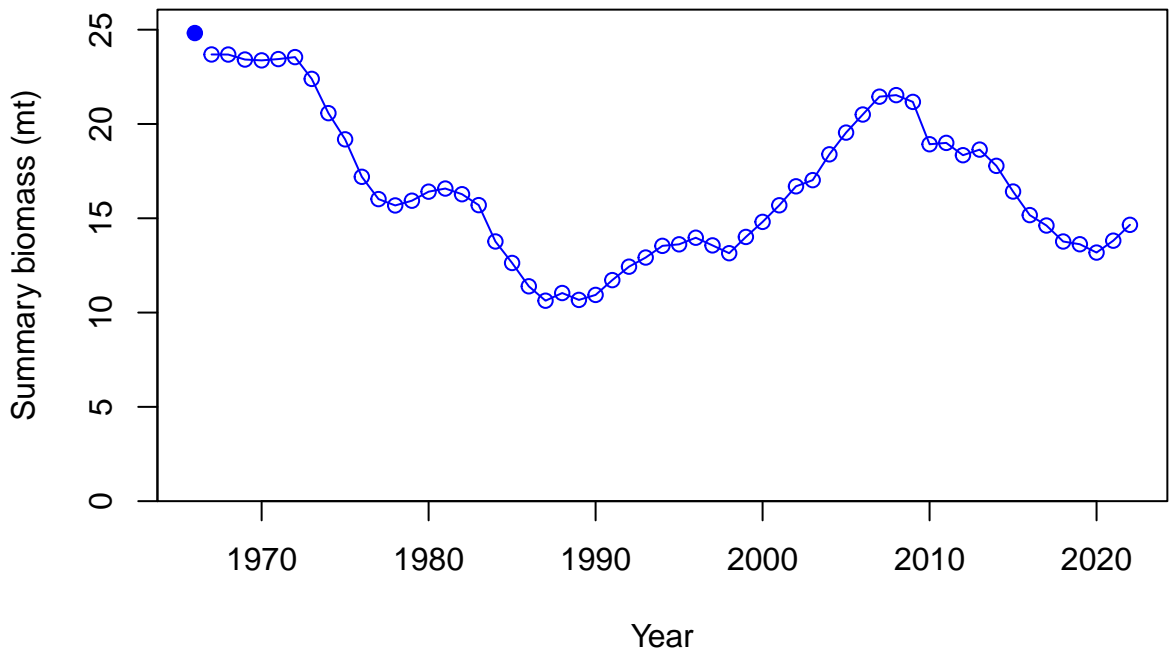
Relative spawning biomass: B/B_{MSY}



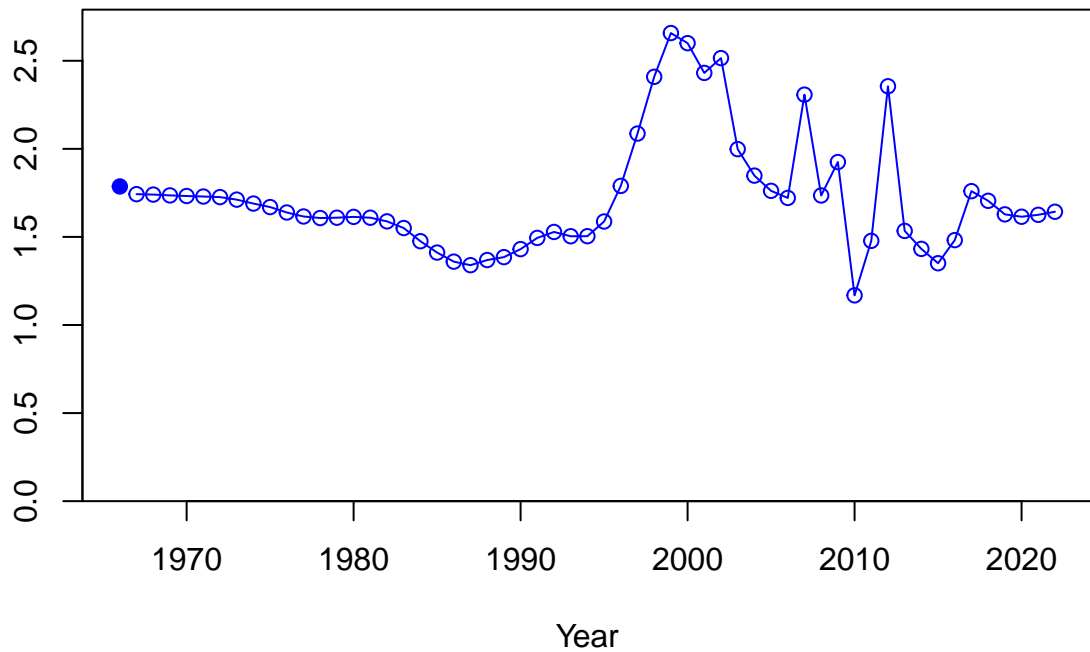
Relative spawning biomass: B/B_{MSY}



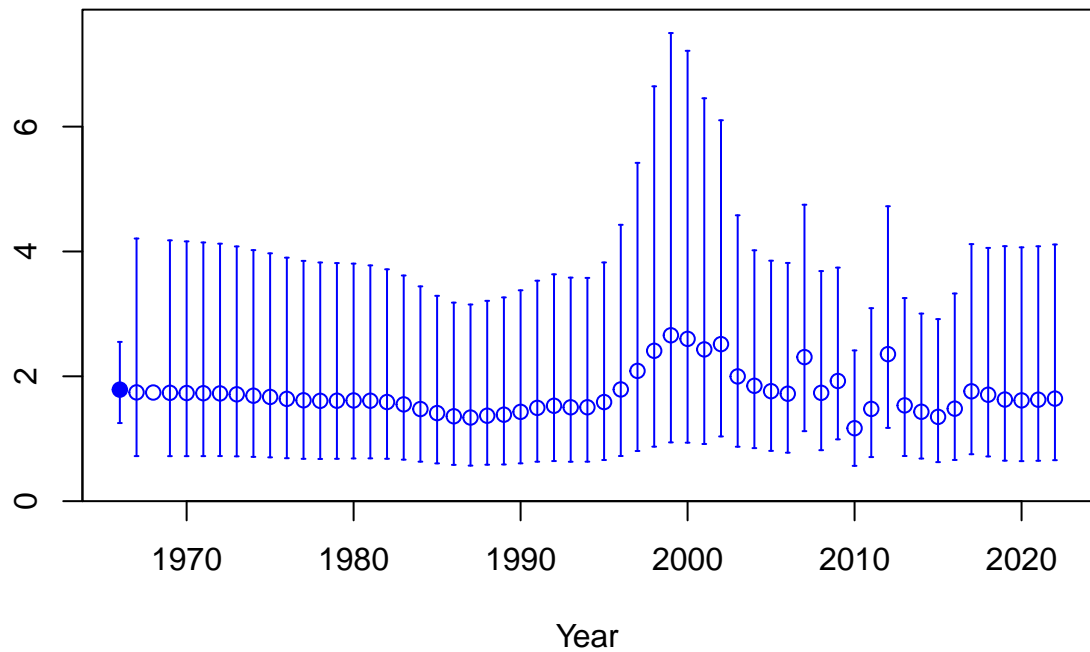




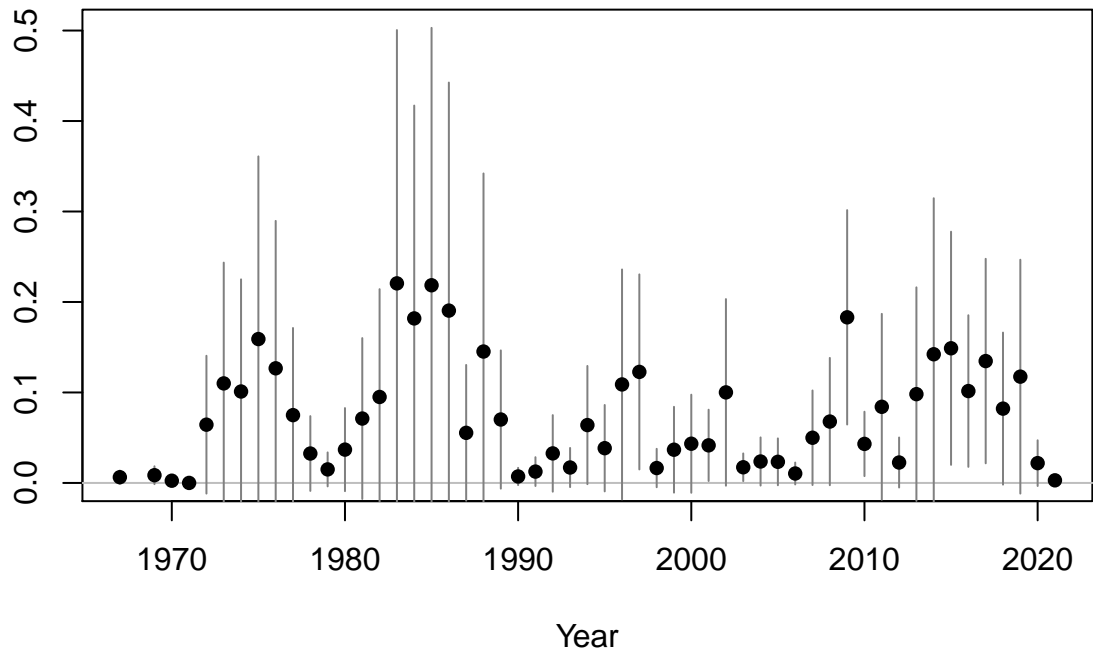
Age-0 recruits (1,000s)

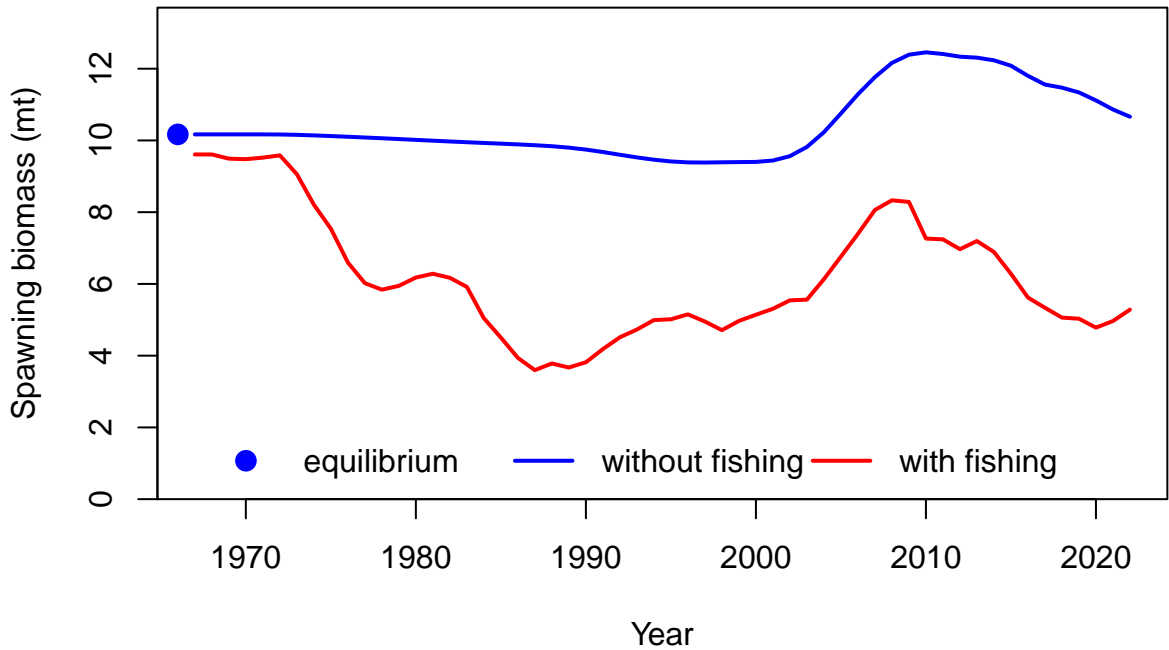


Age-0 recruits (1,000s)



Summary Fishing Mortality





Log recruitment deviation

0.4
0.2
0.0
-0.2

1970

1980

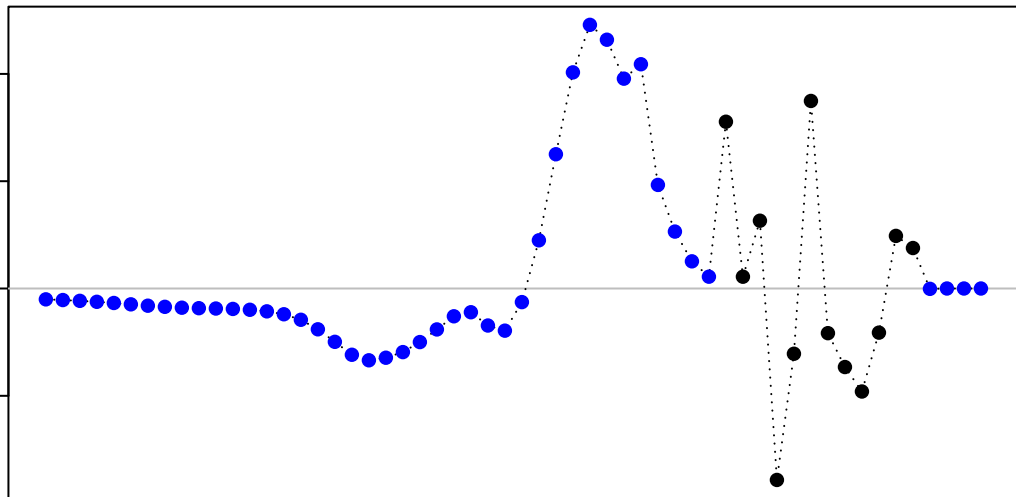
1990

2000

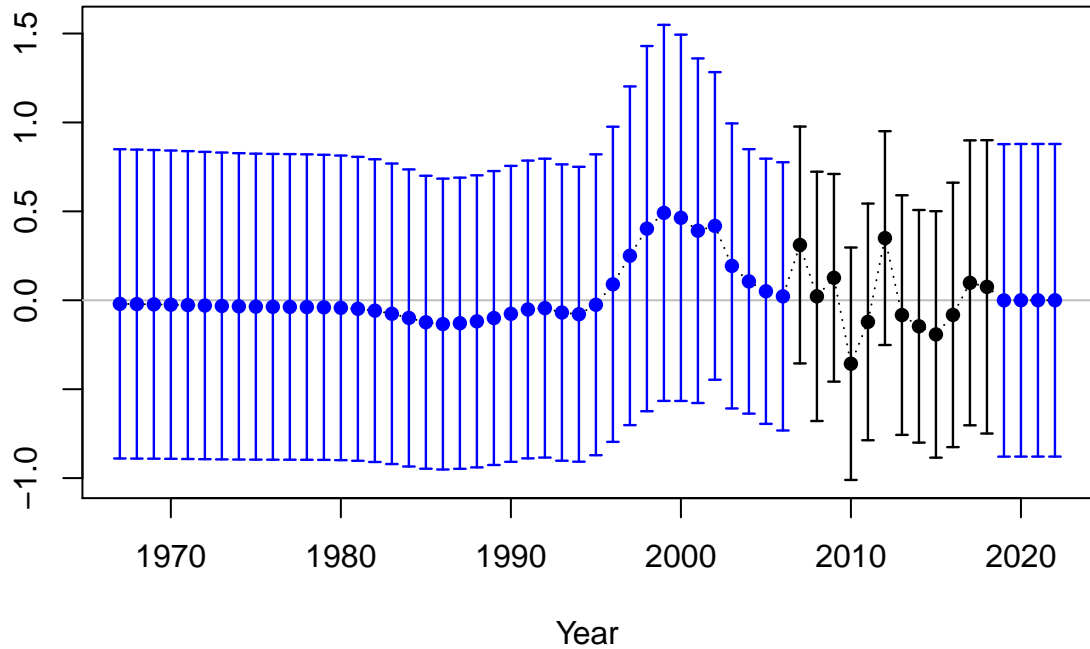
2010

2020

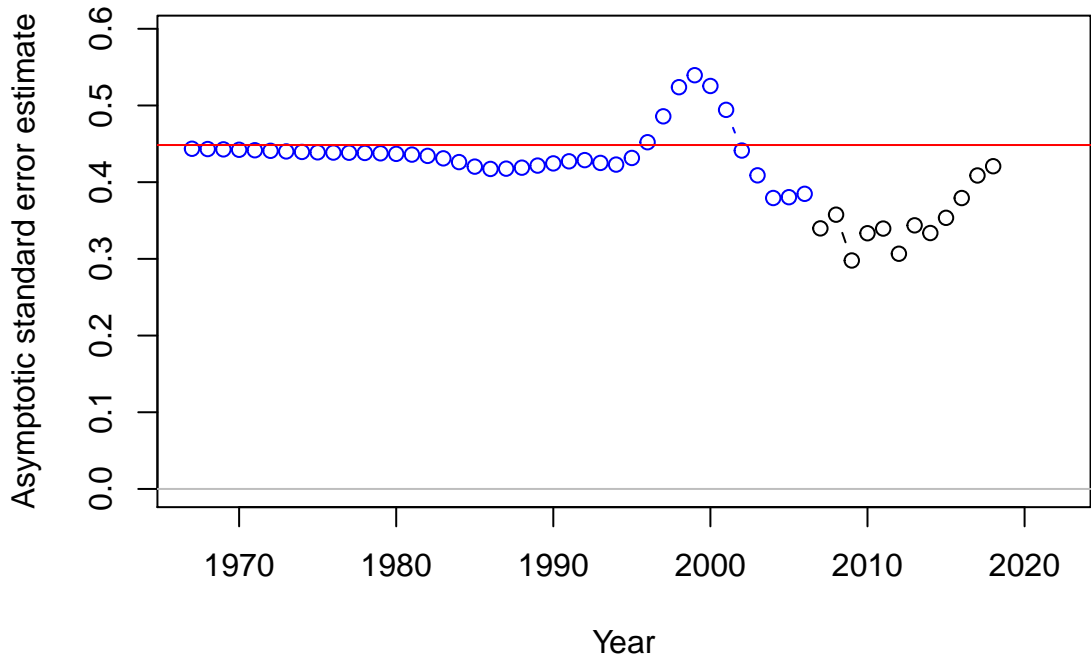
Year

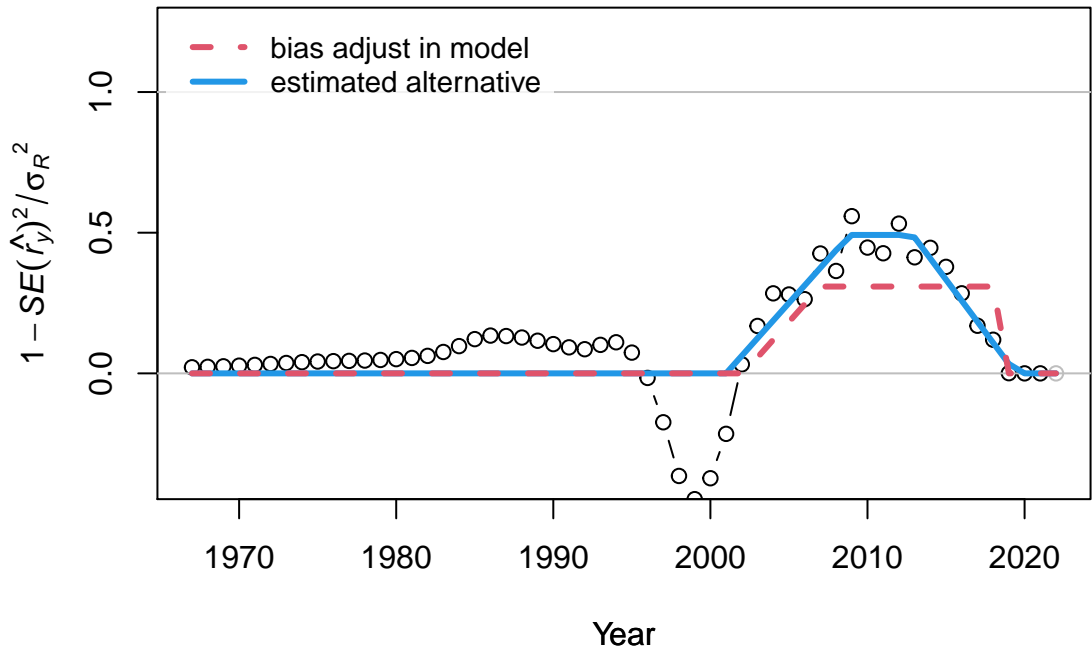


Log recruitment deviation

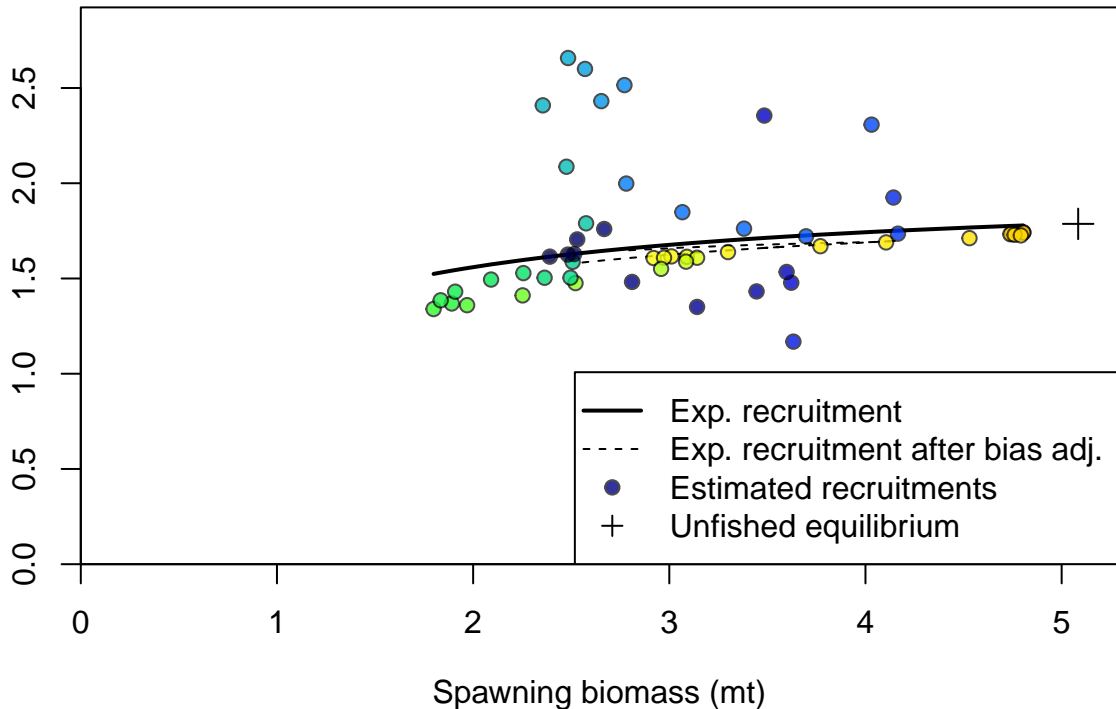


Recruitment deviation variance

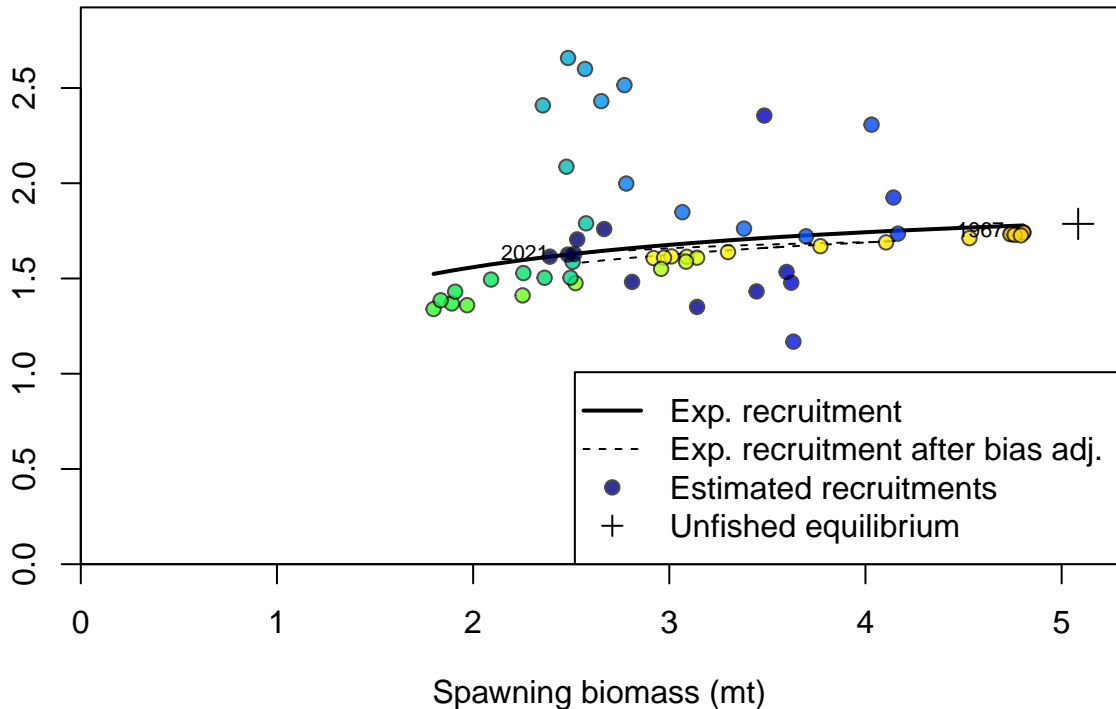




Recruitment (1,000s)



Recruitment (1,000s)

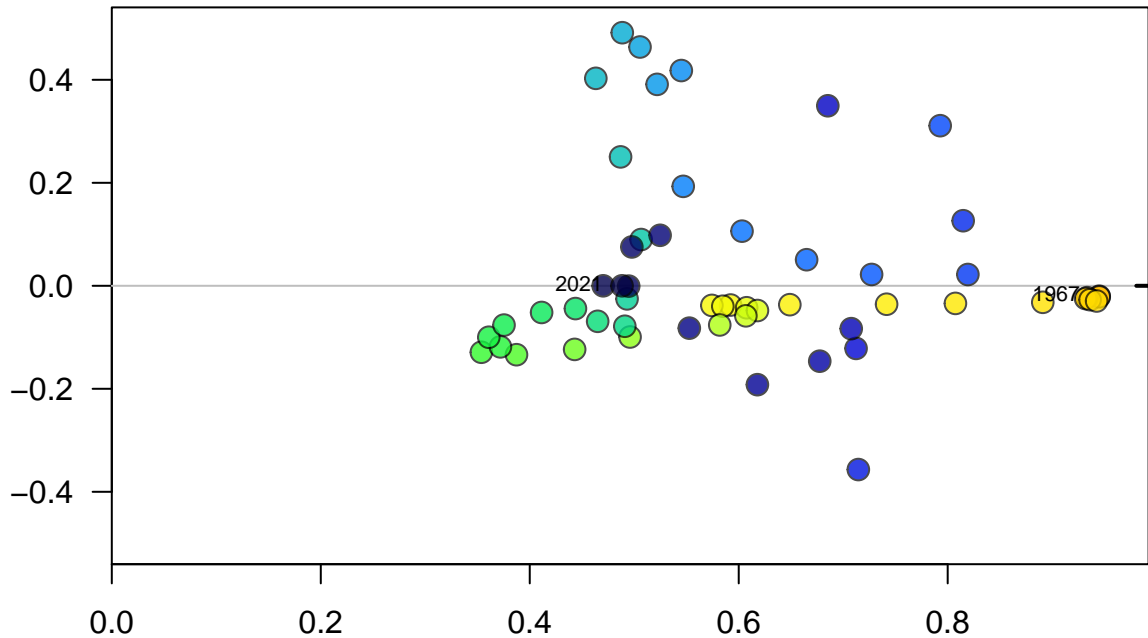


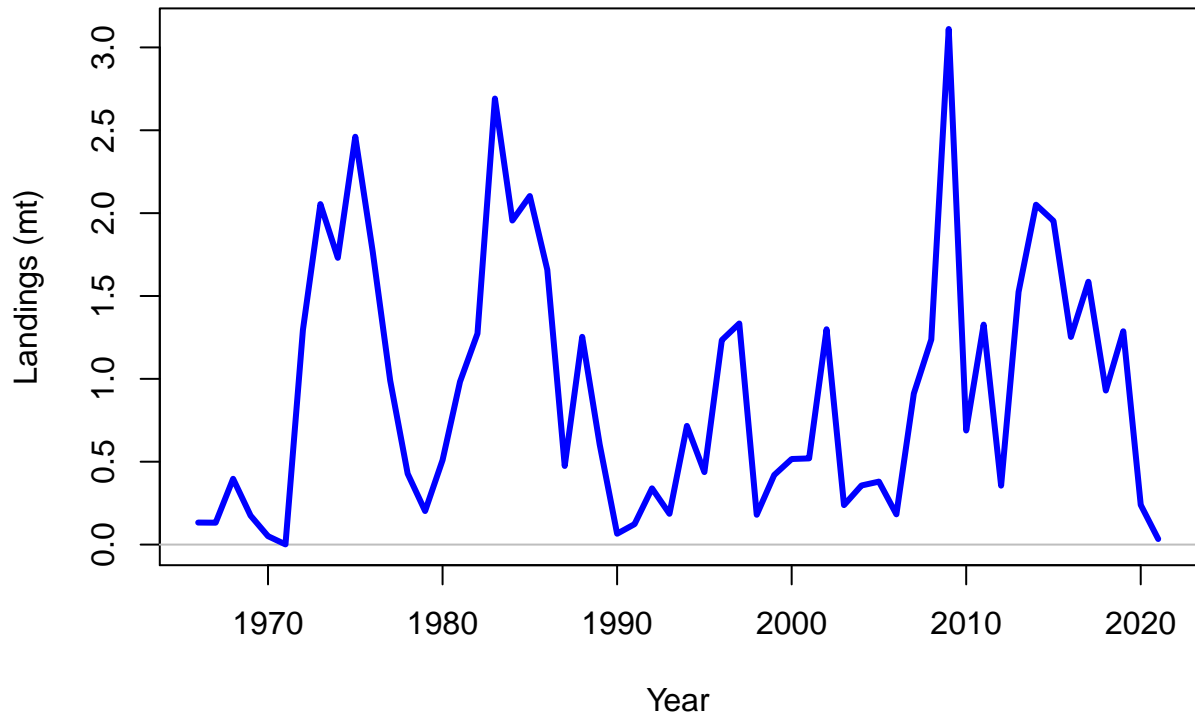
Log recruitment deviation

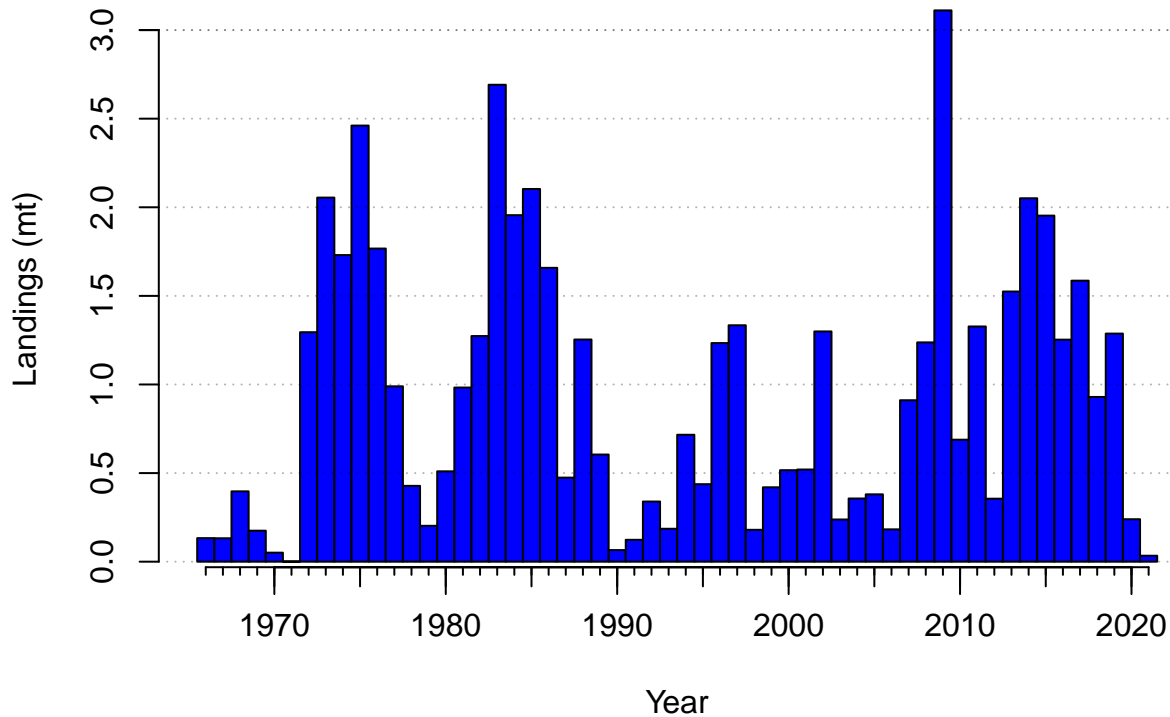
2021

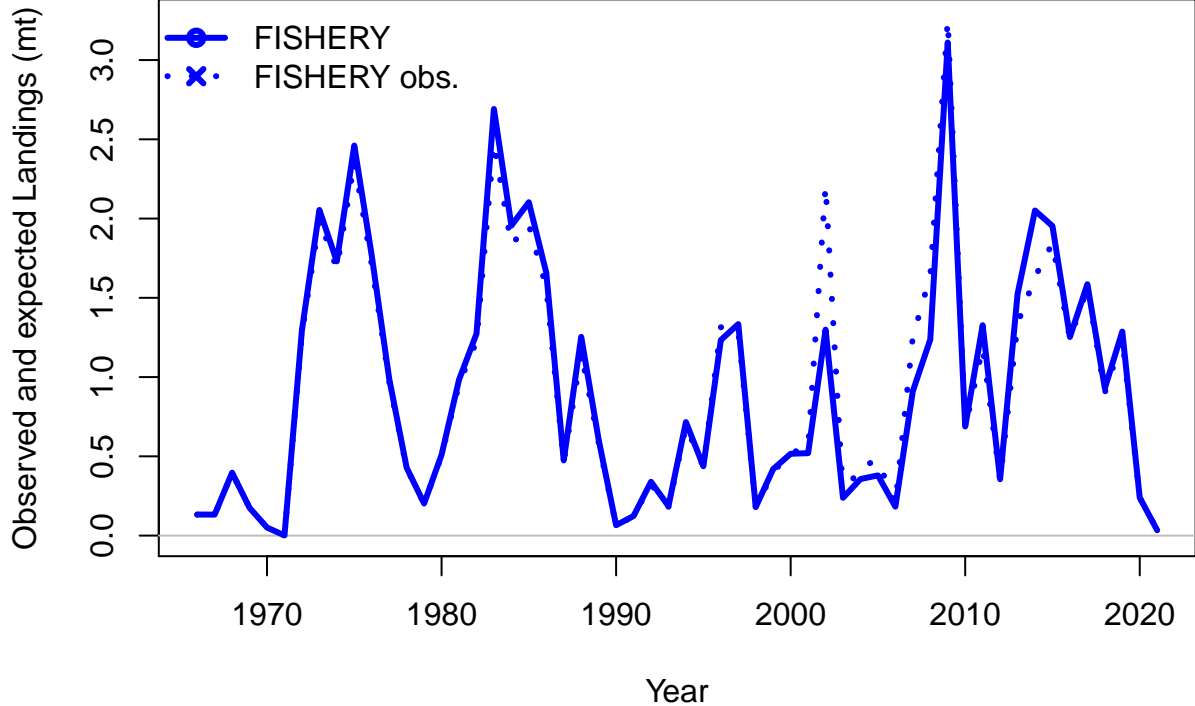
1967

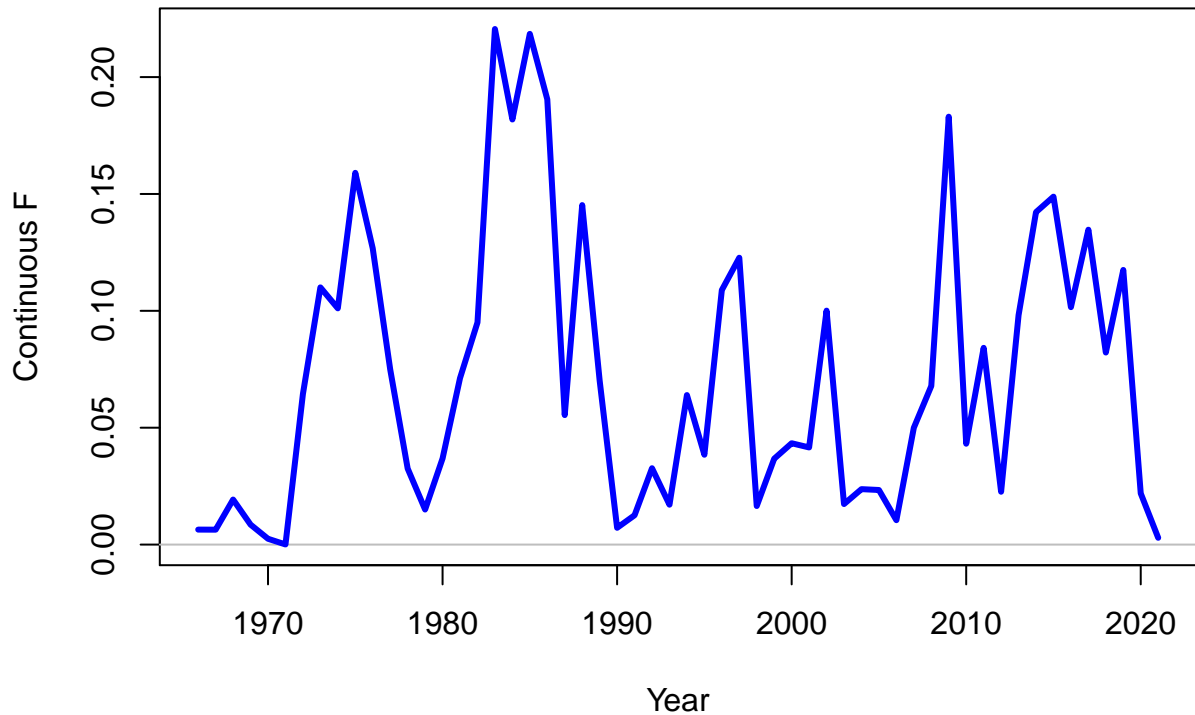
Spawning output (relative to B_0)



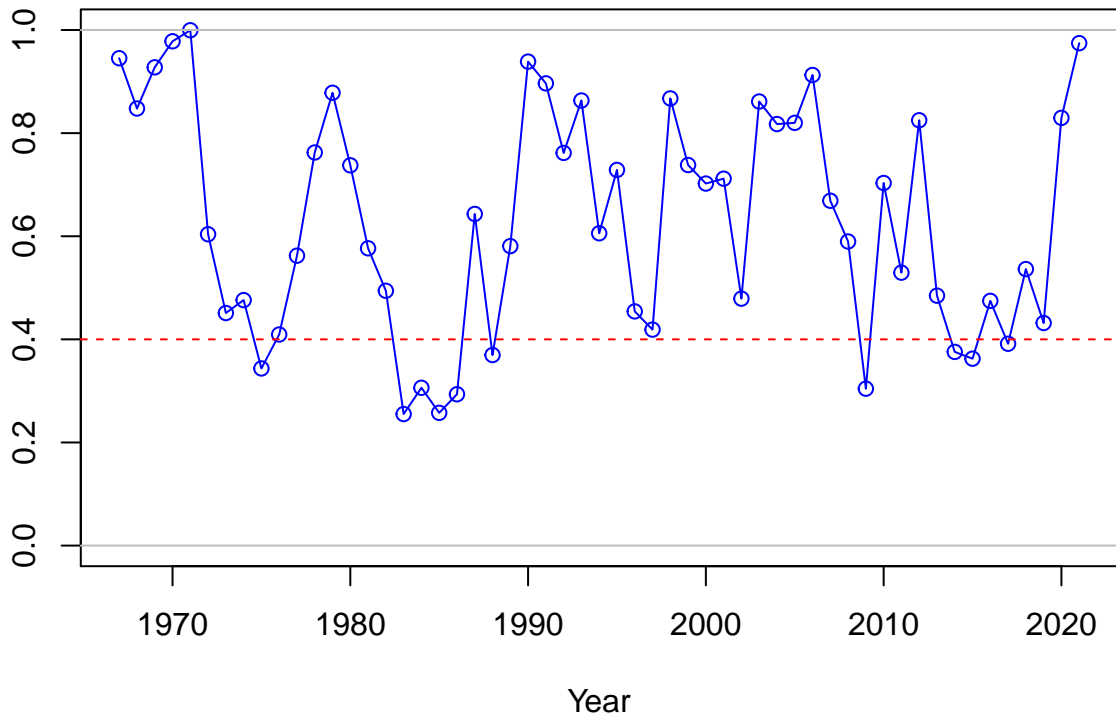


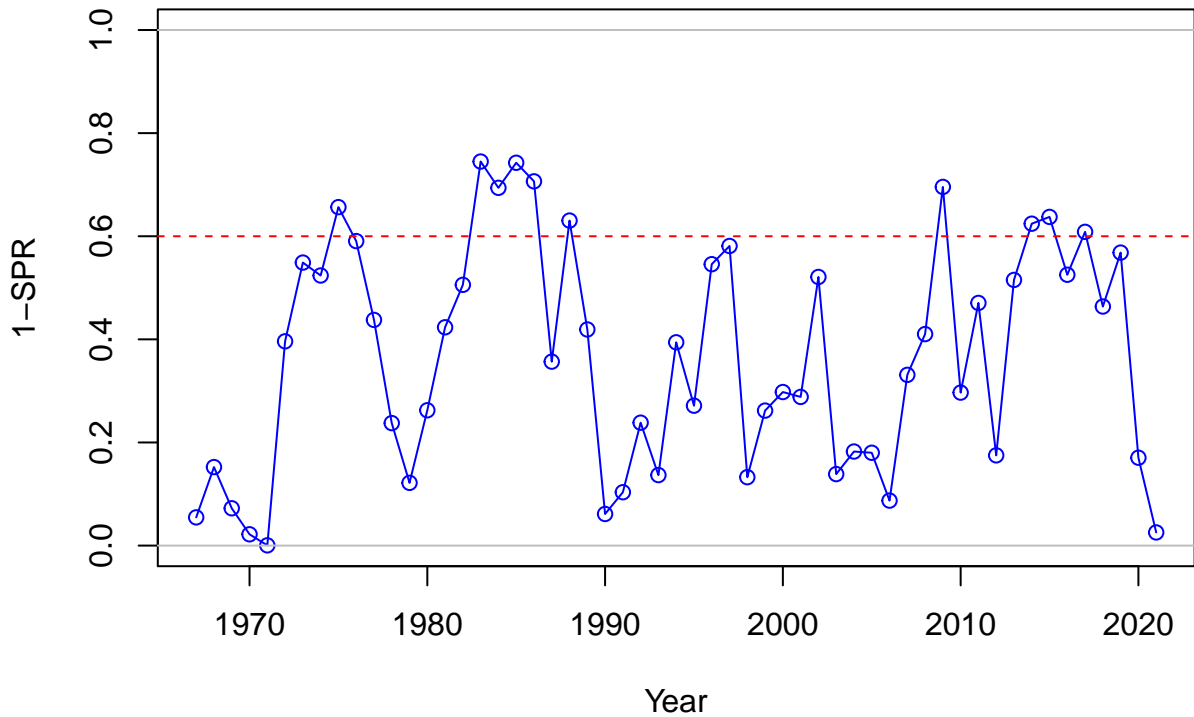




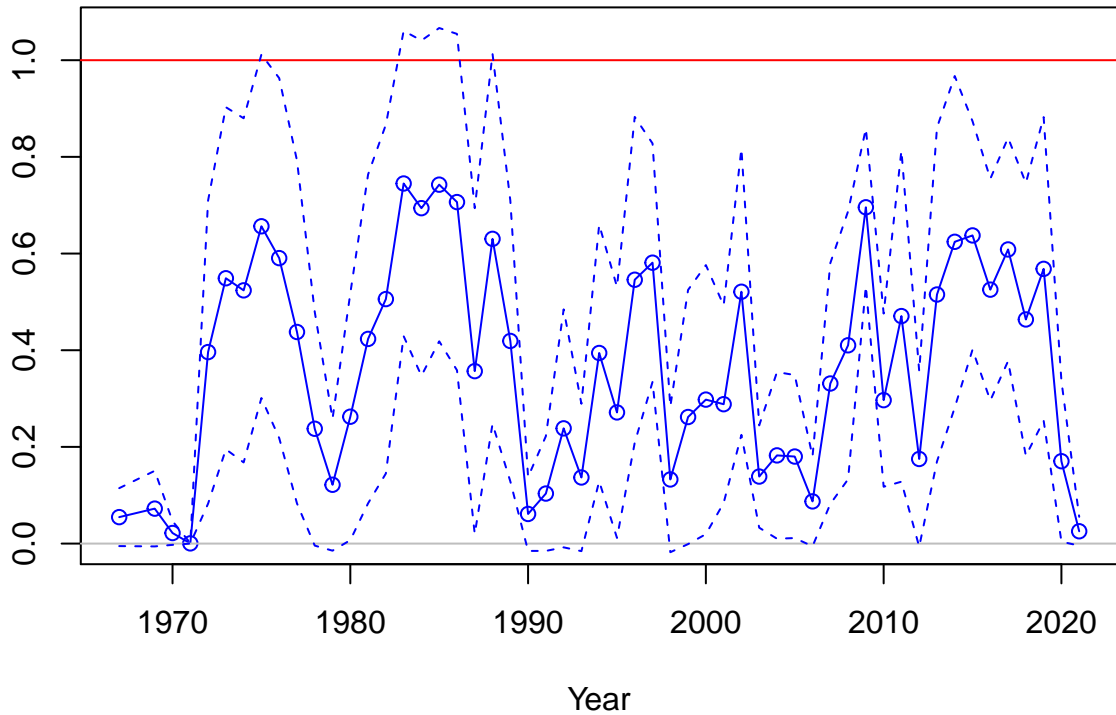


SPR

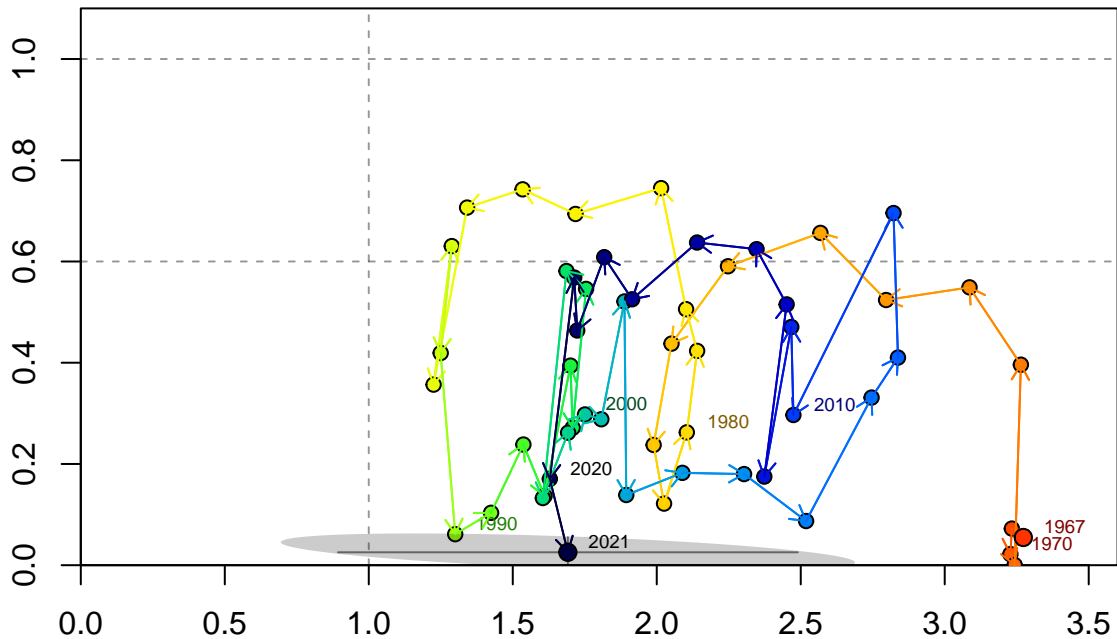




Fishing intensity: 1-SPR

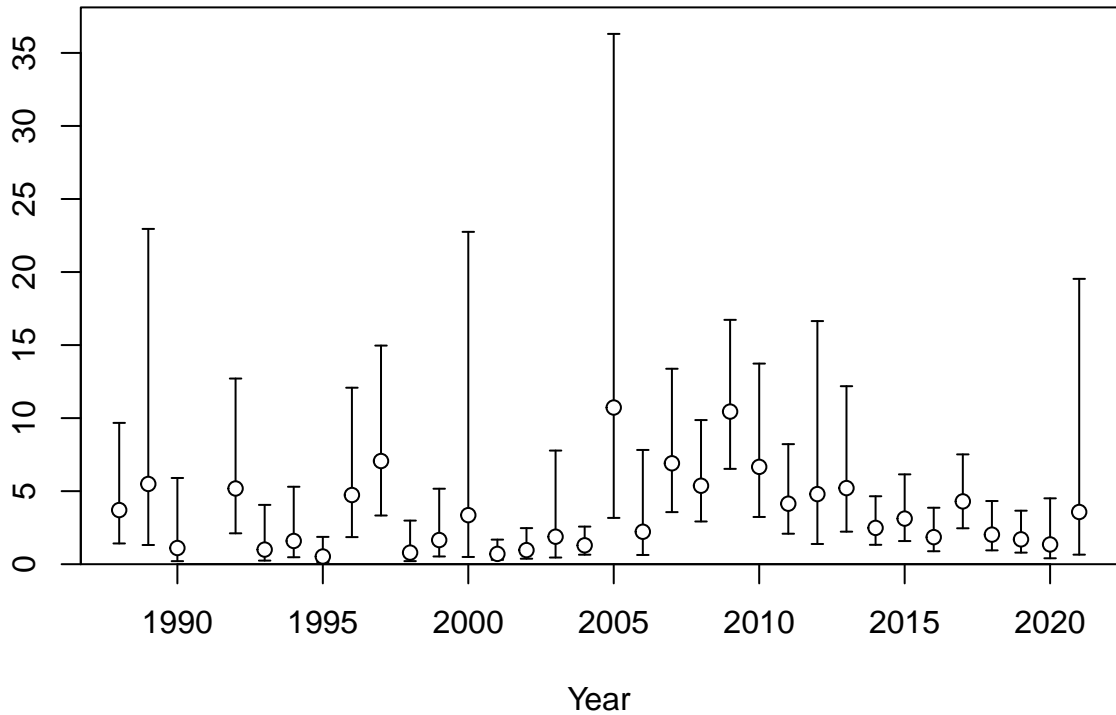


Fishing intensity: 1-SPR

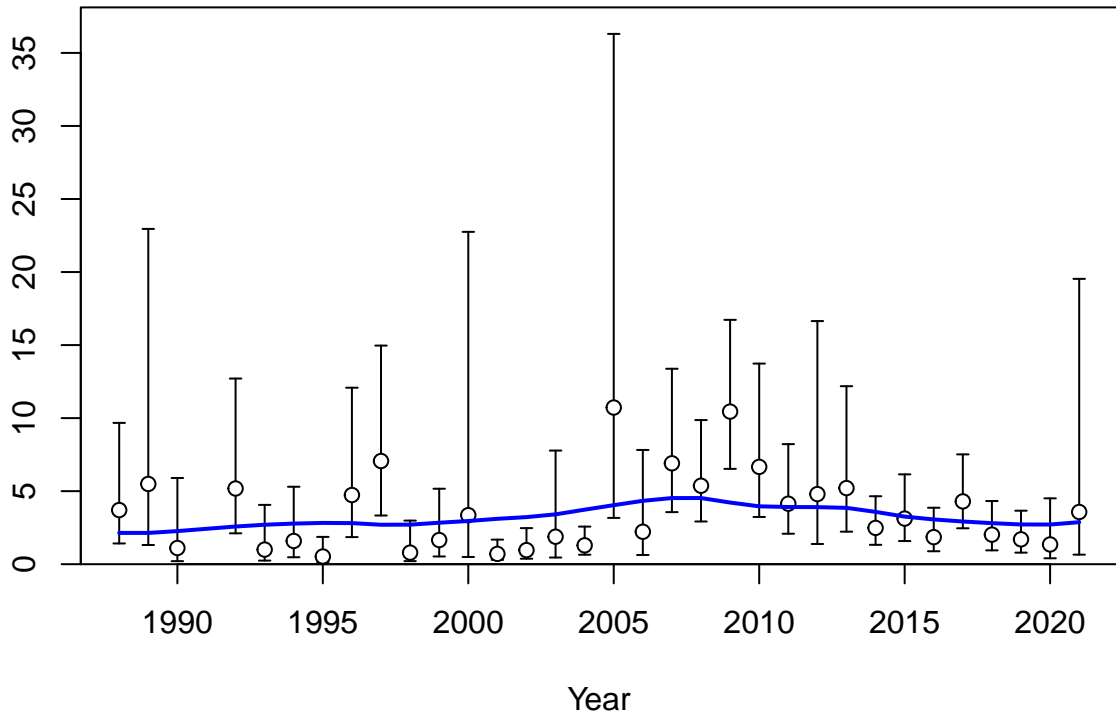


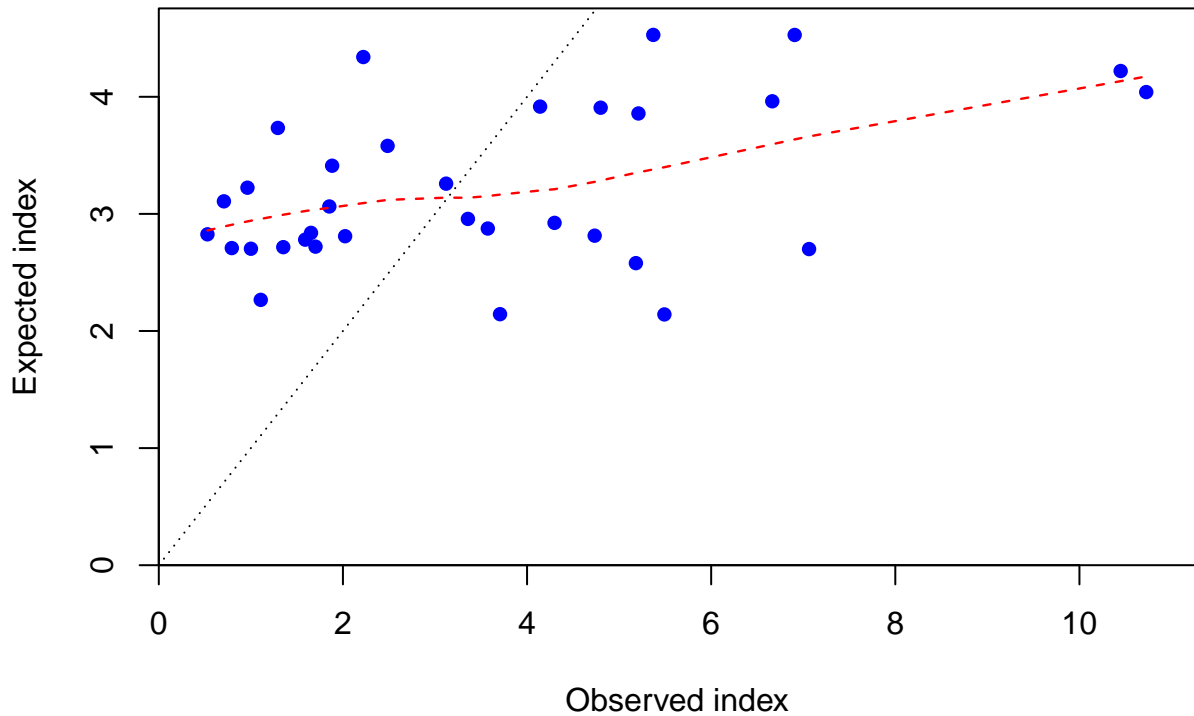
Relative spawning output: B/B_{MSY}

Index



Index





Log index

3
2
1
0
-1
-2

1990

1995

2000

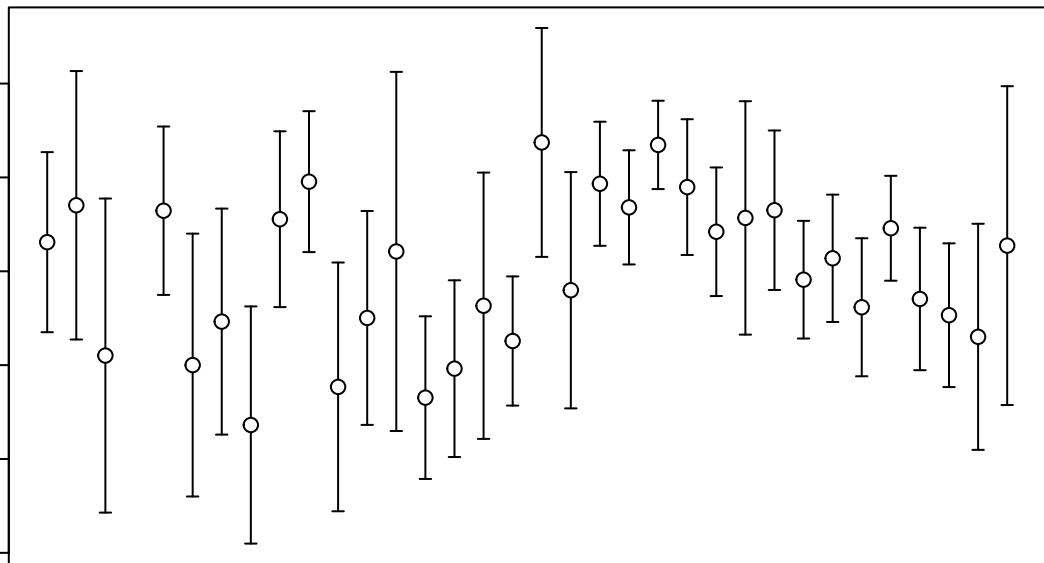
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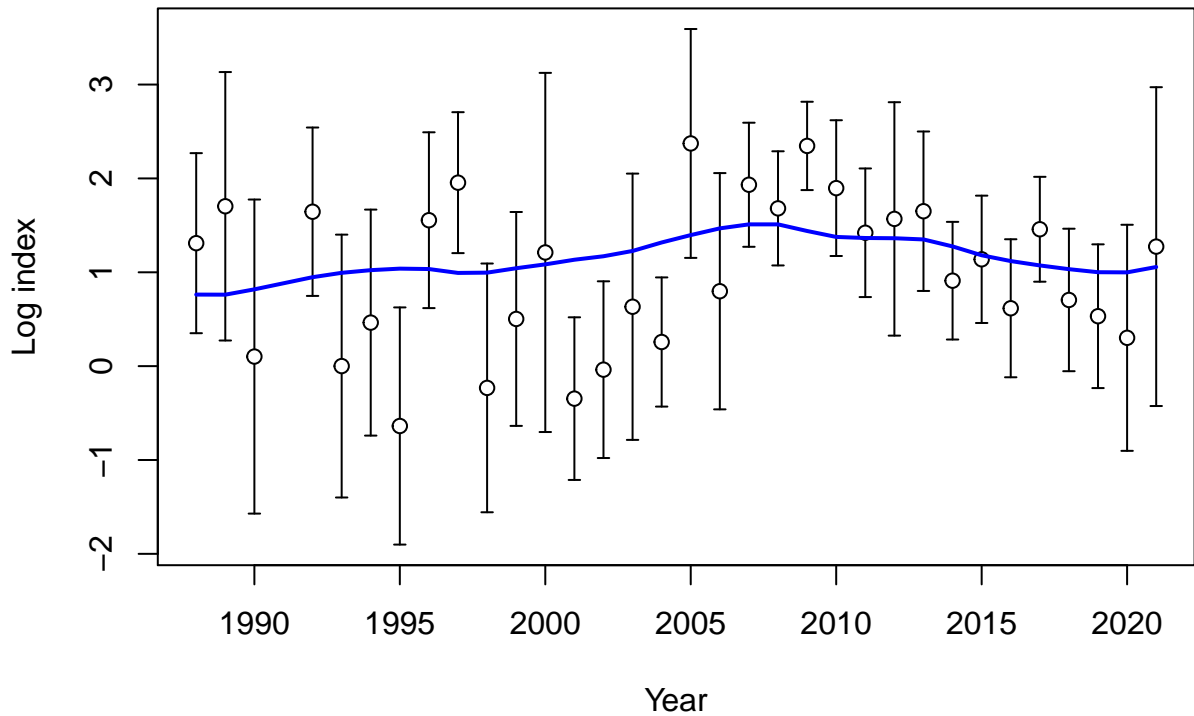
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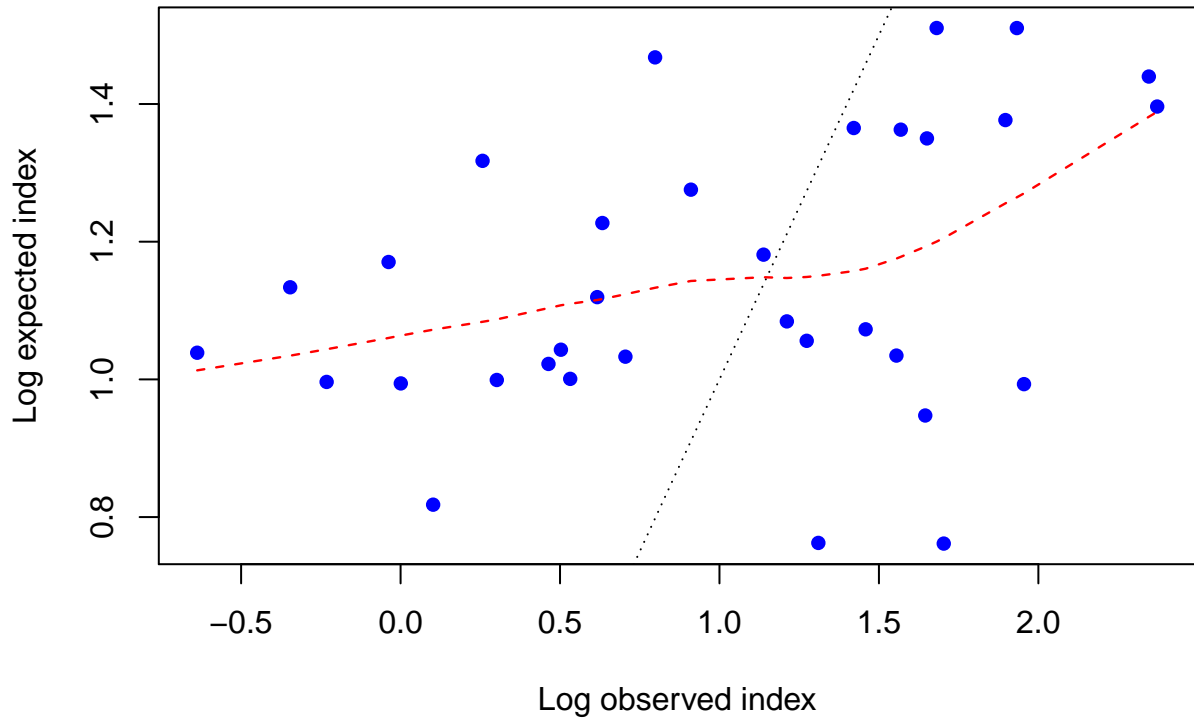
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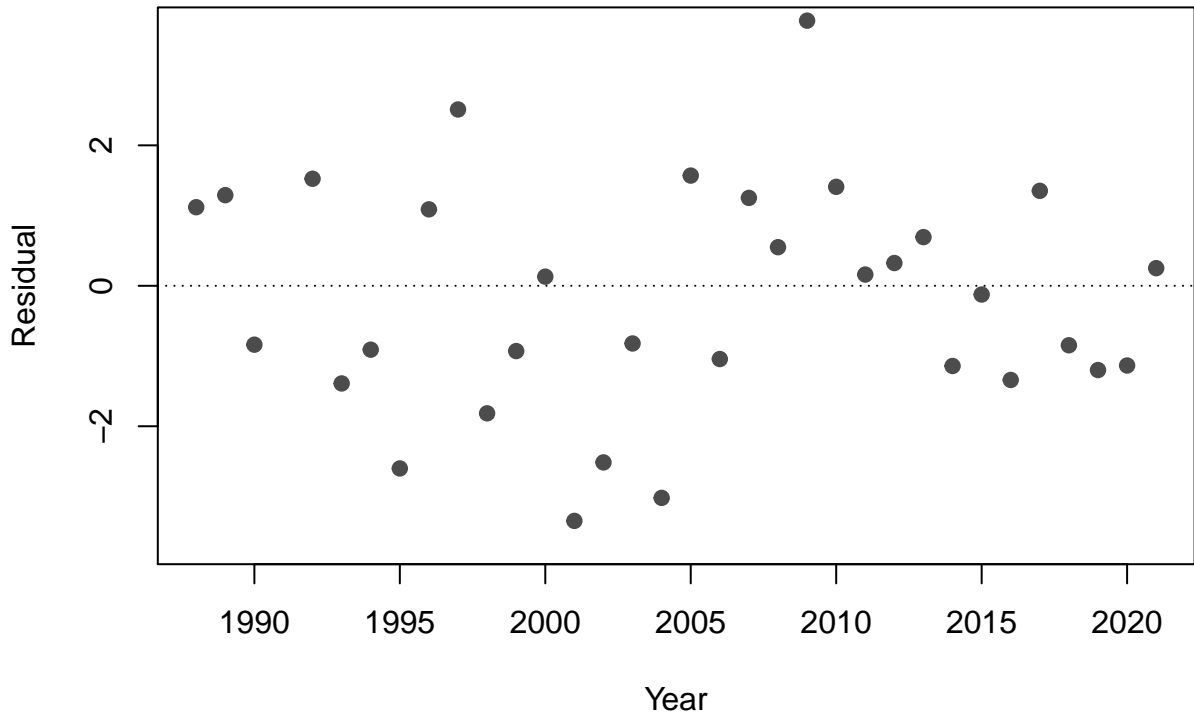
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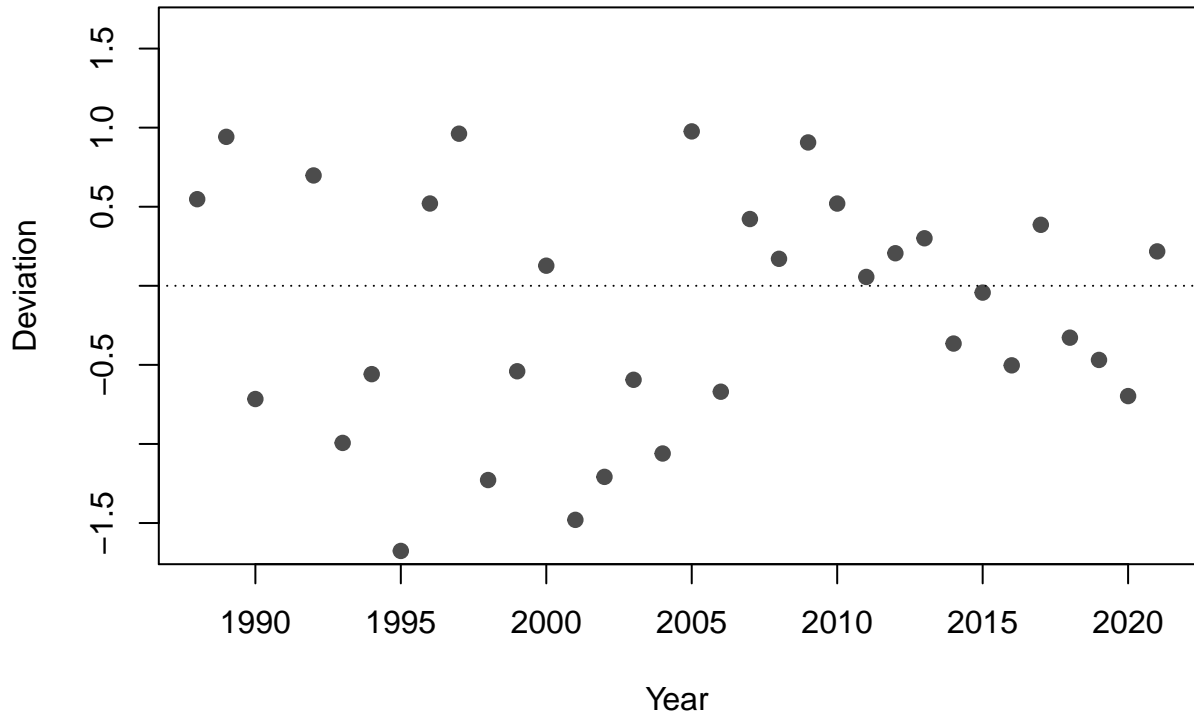
Year

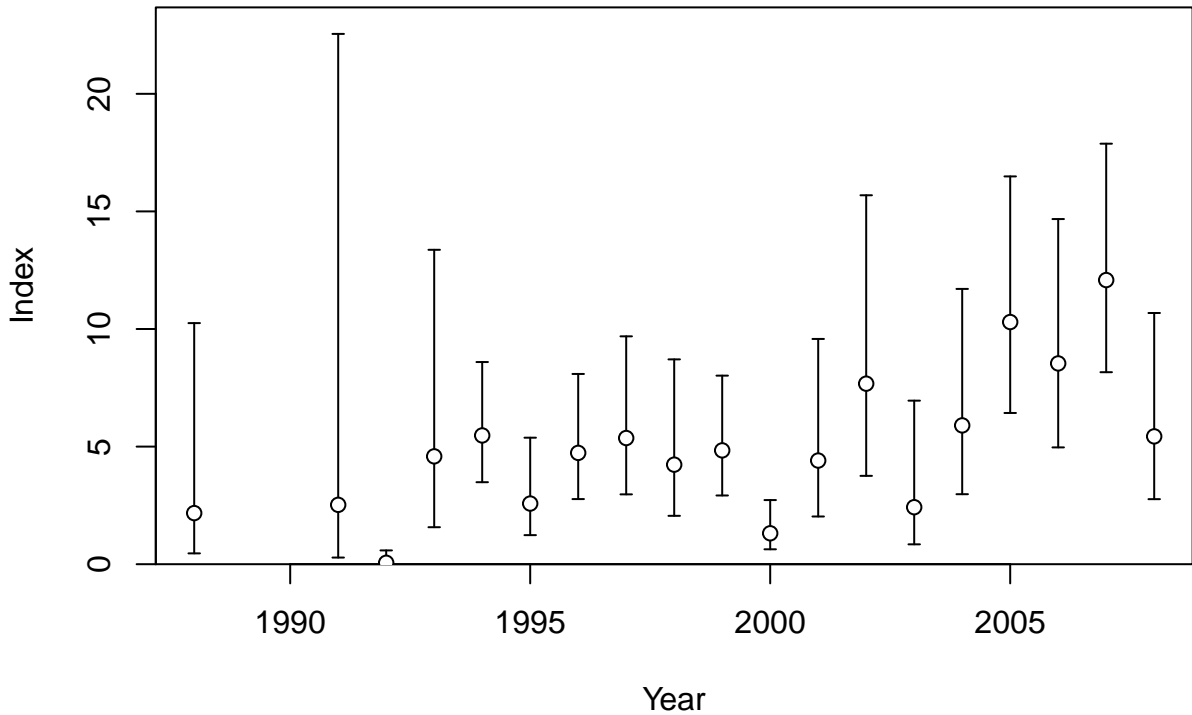


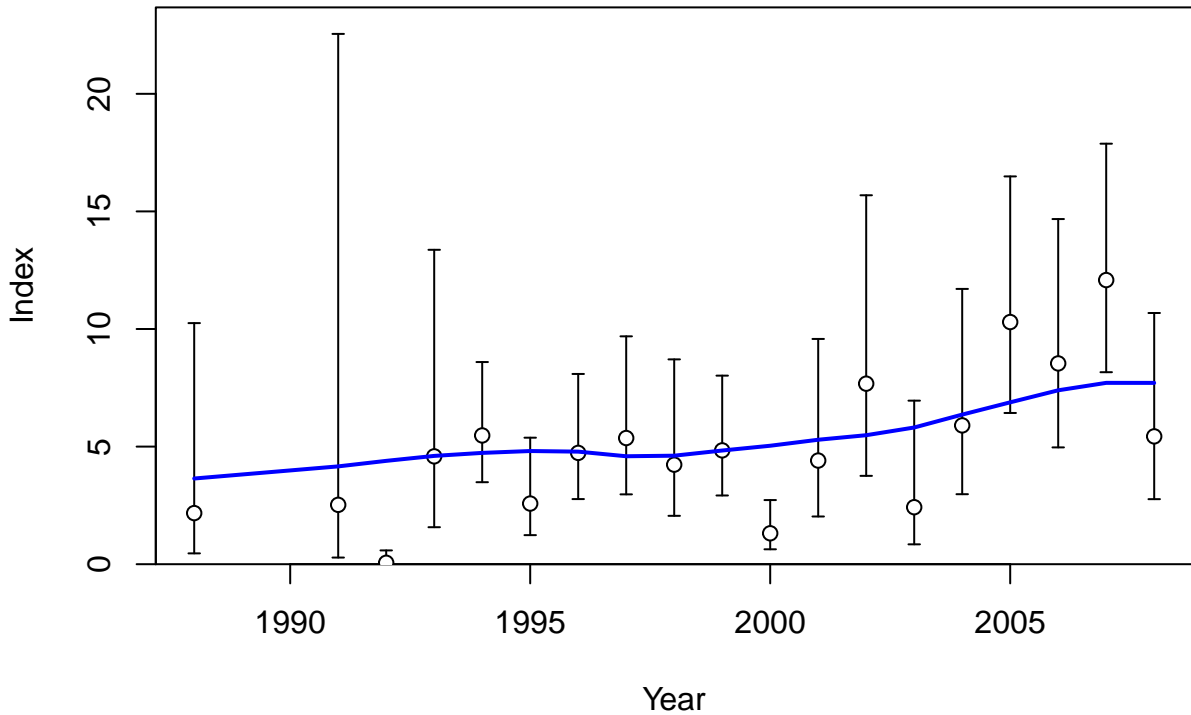


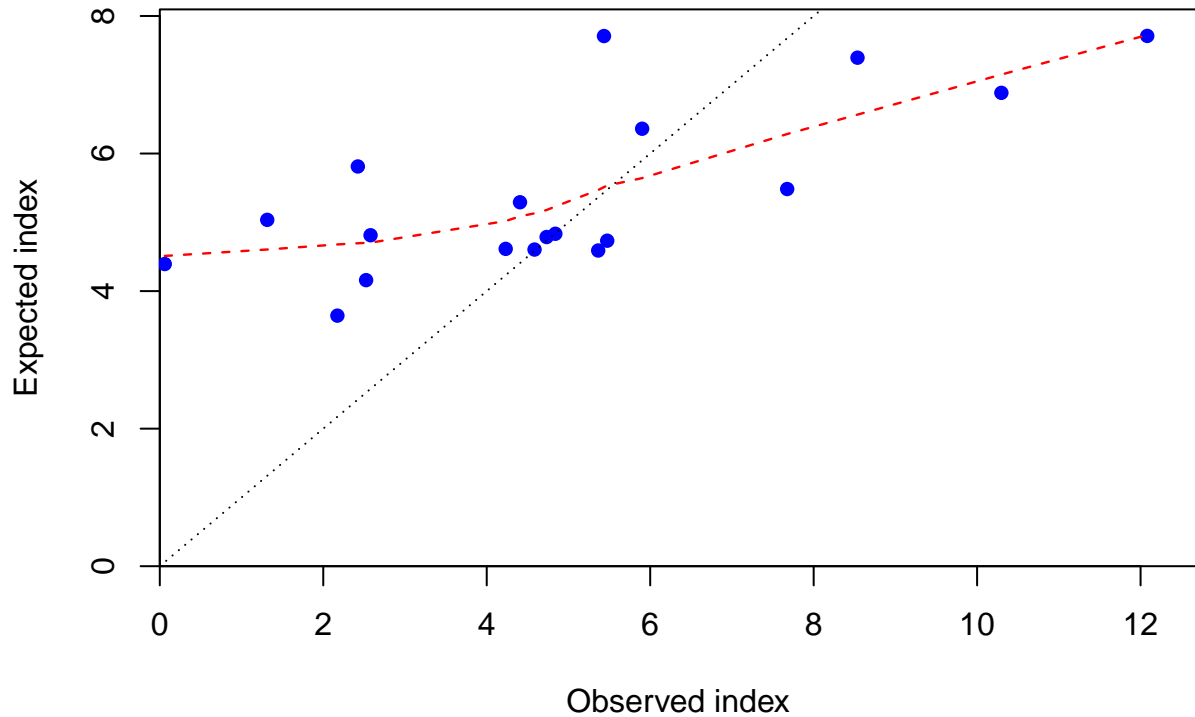


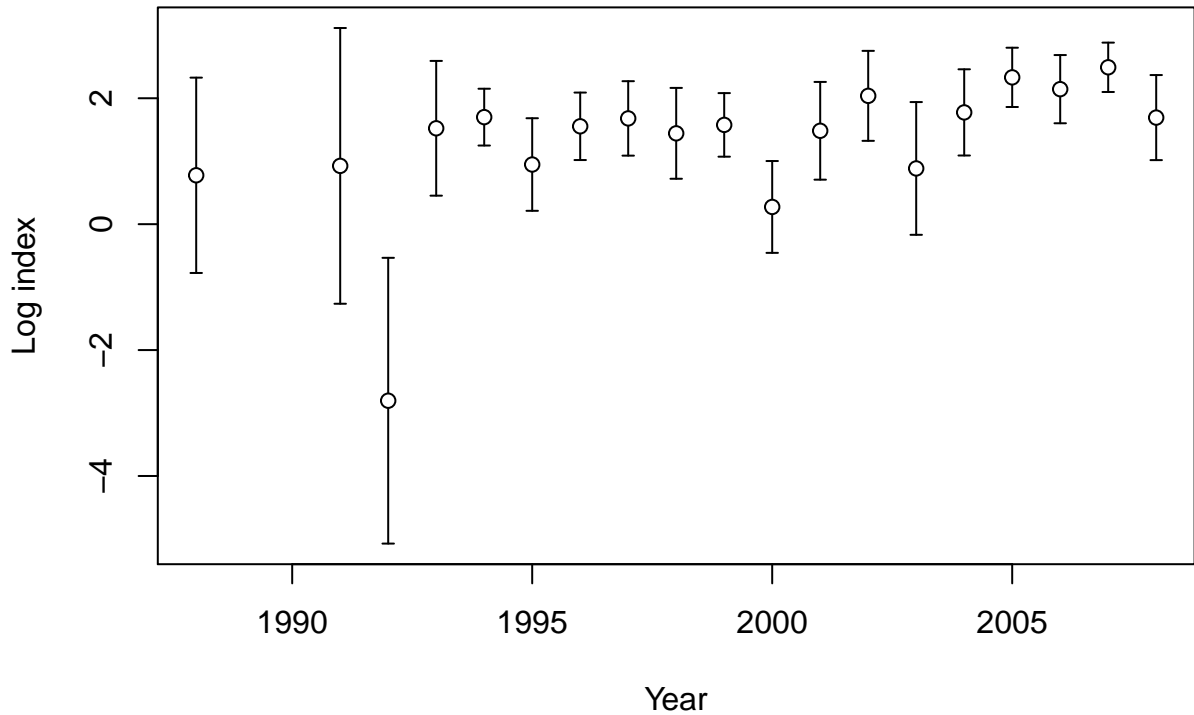


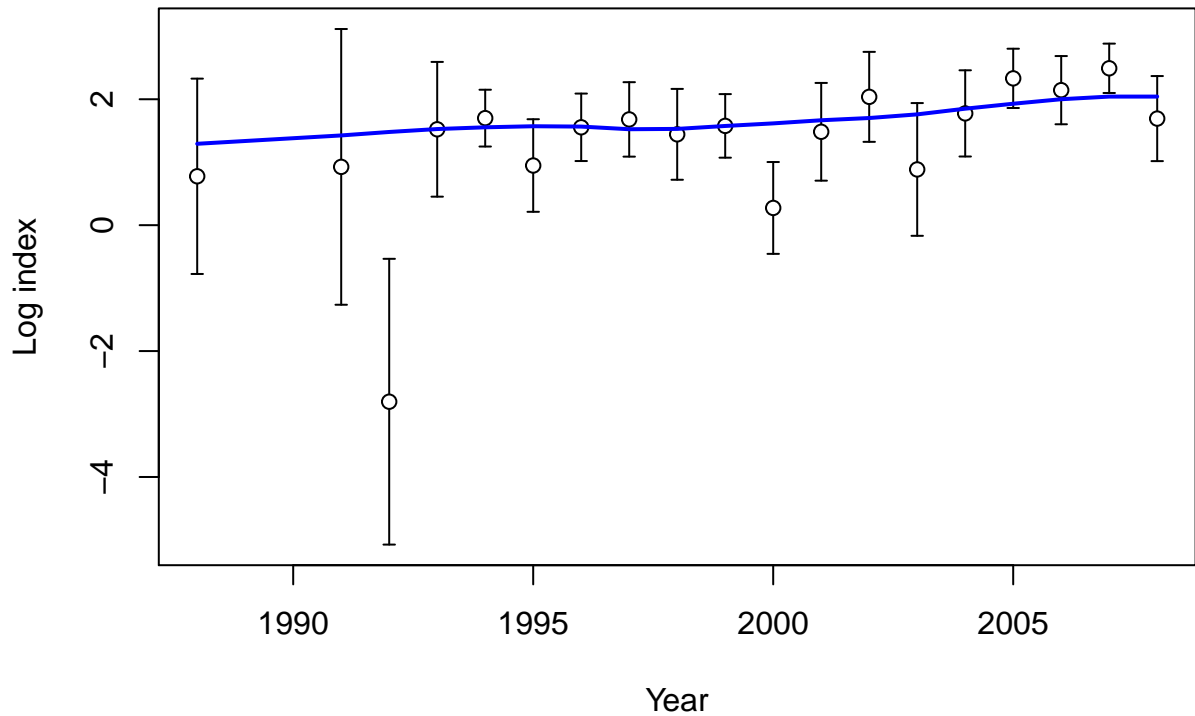


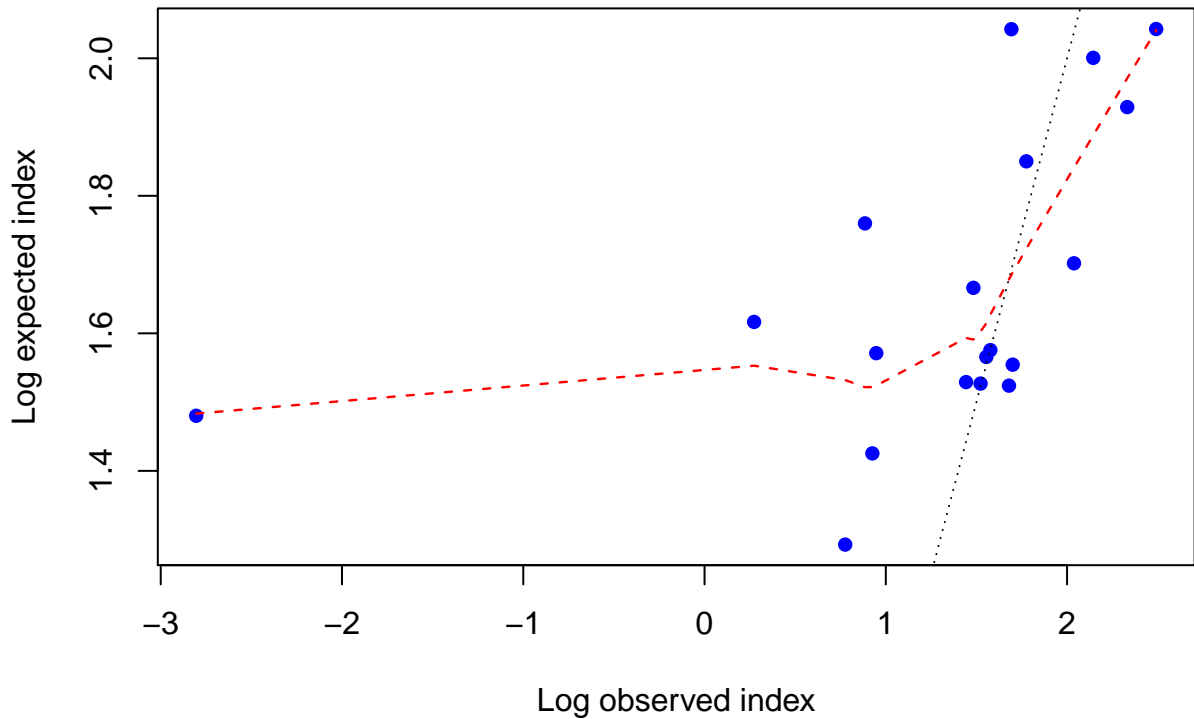


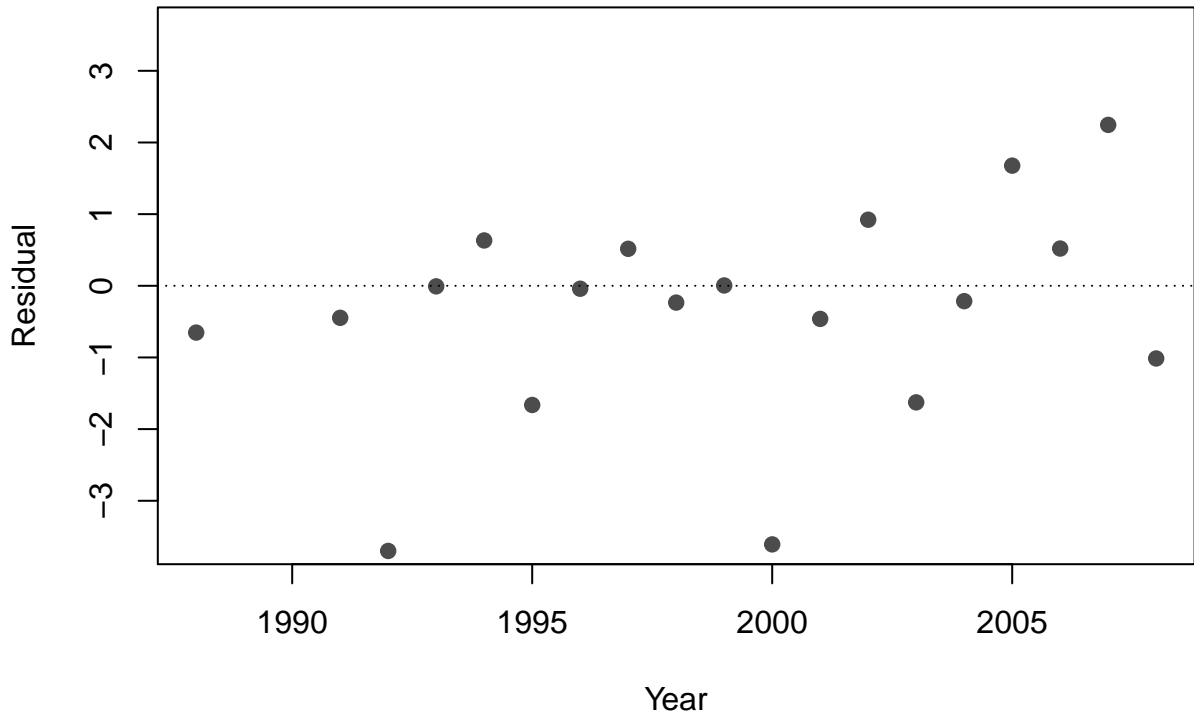


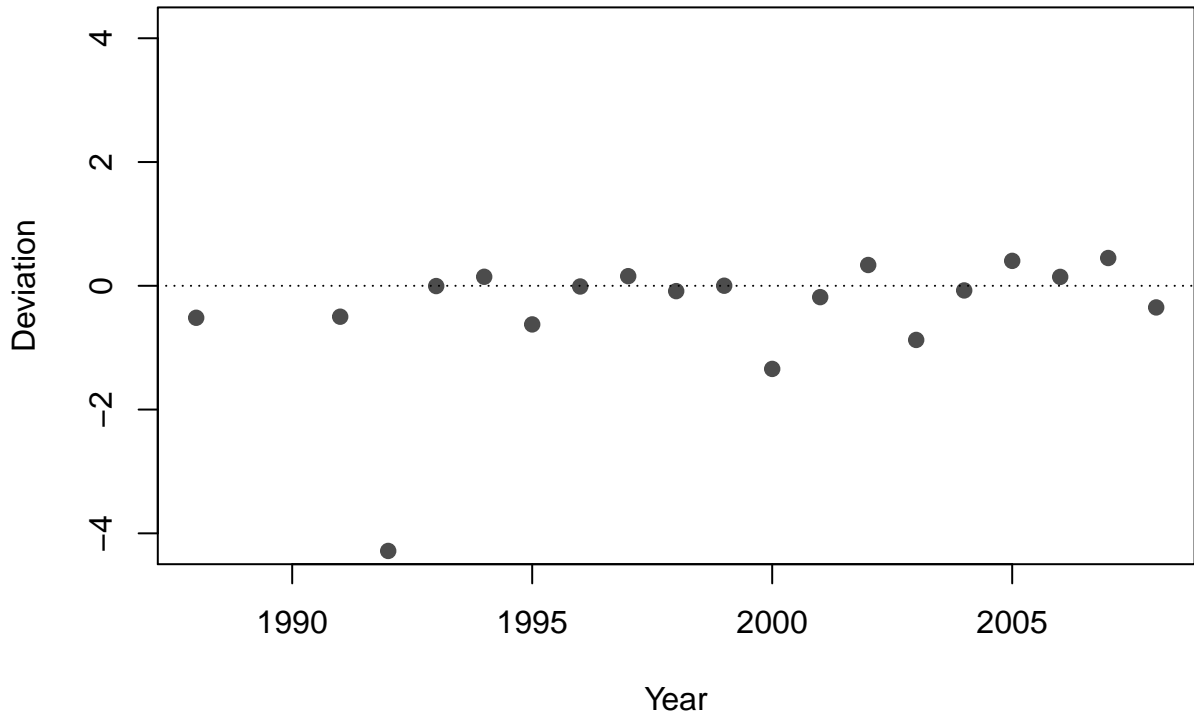




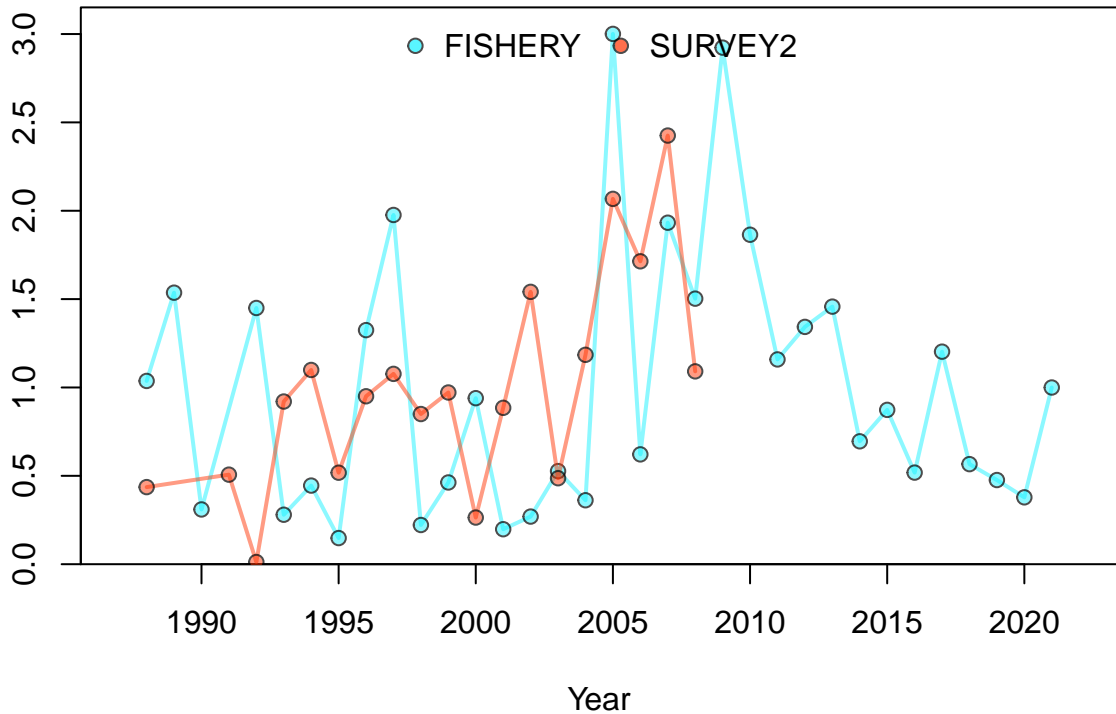


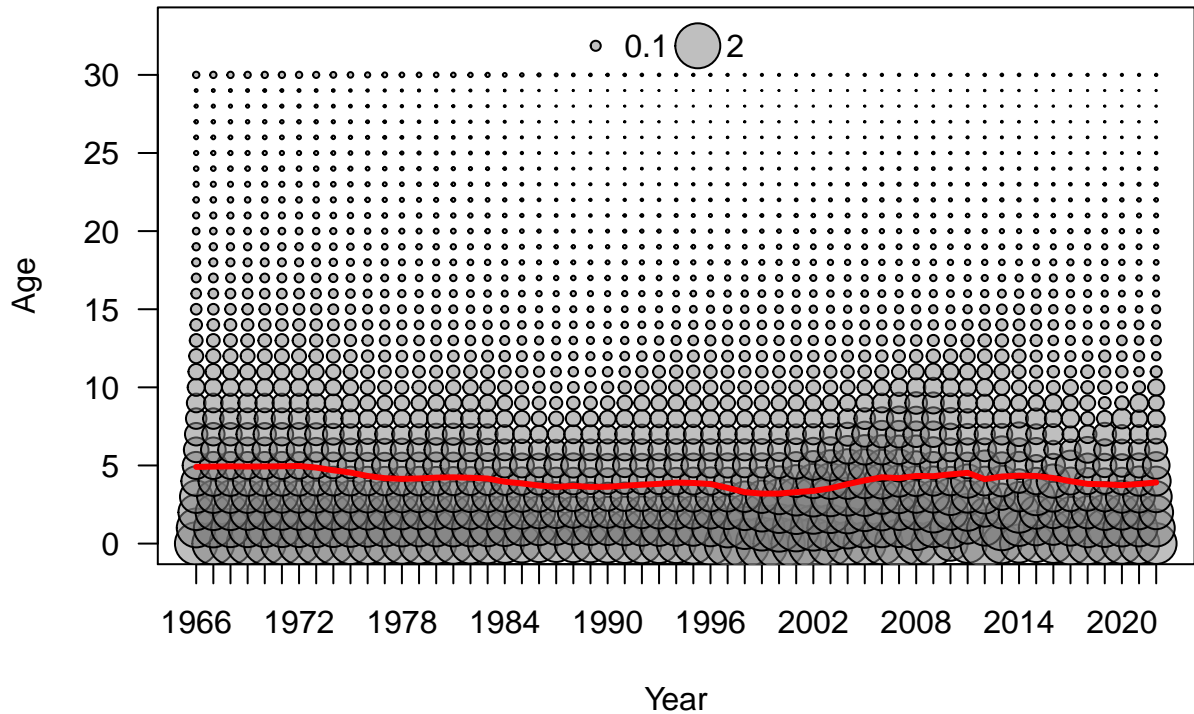


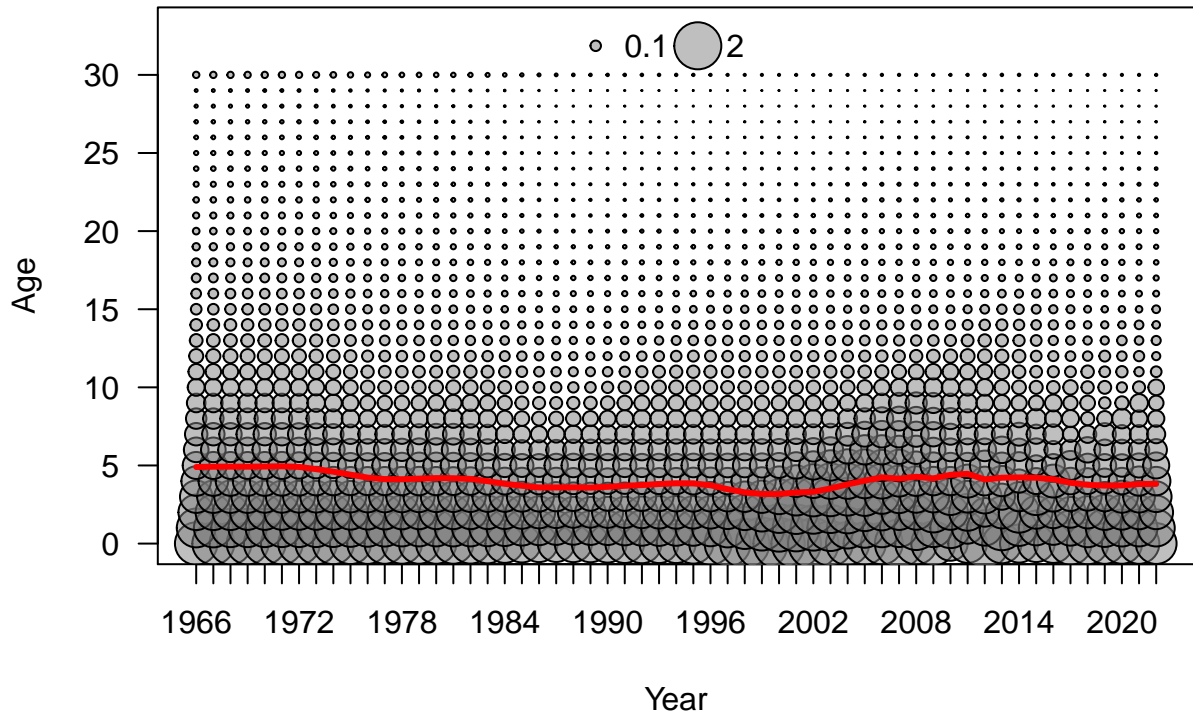


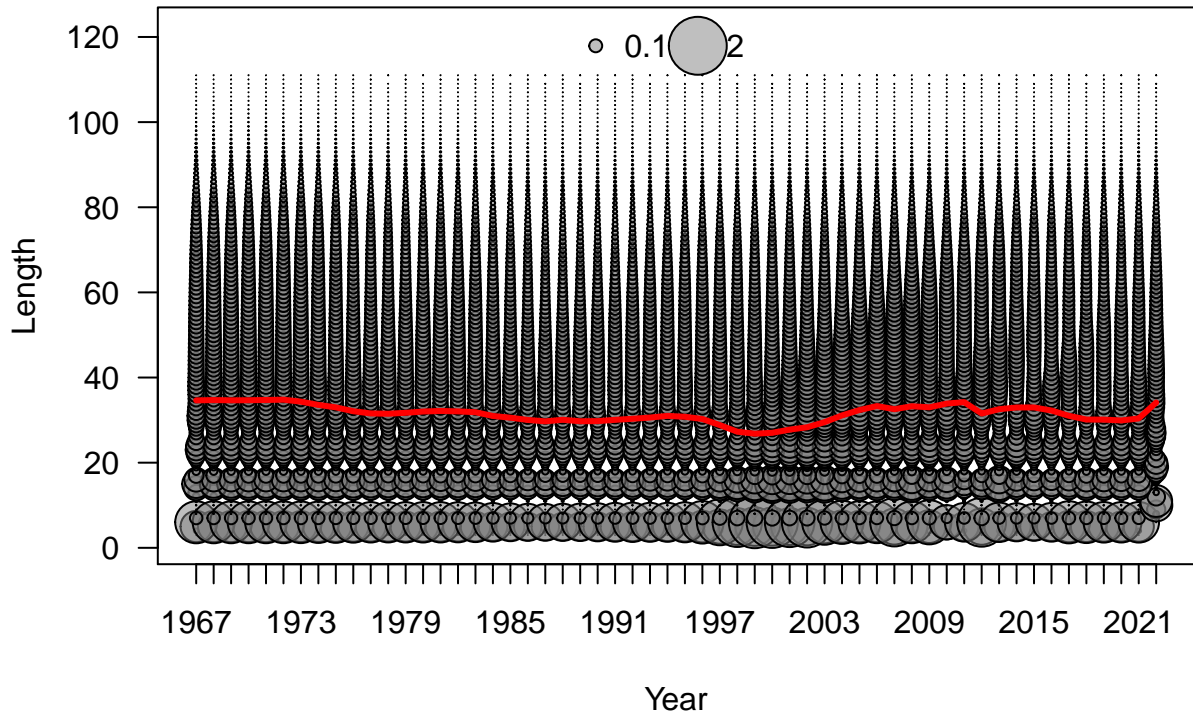


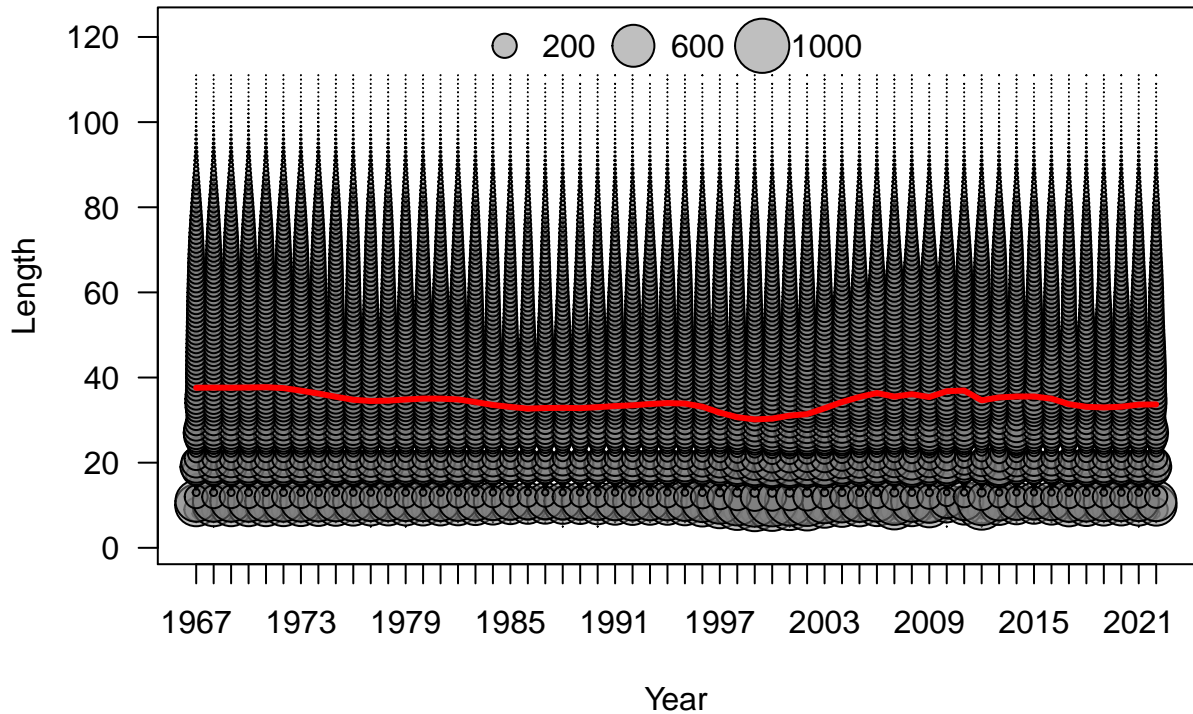
Standardized index

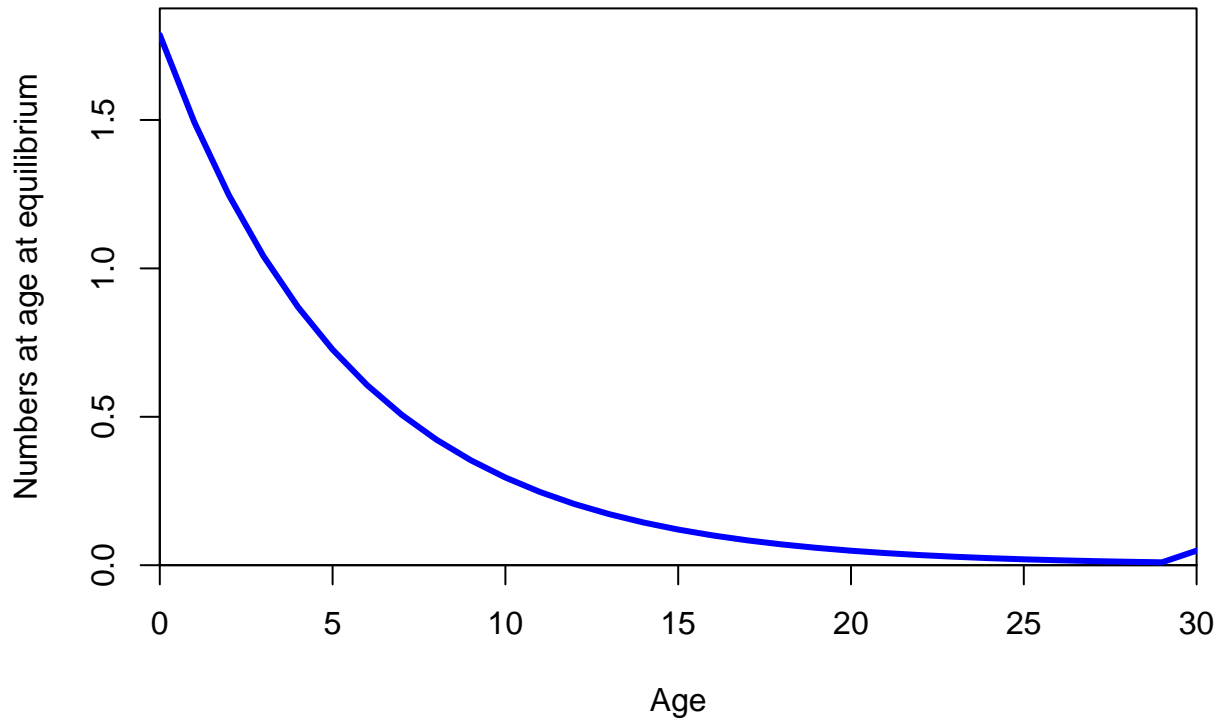






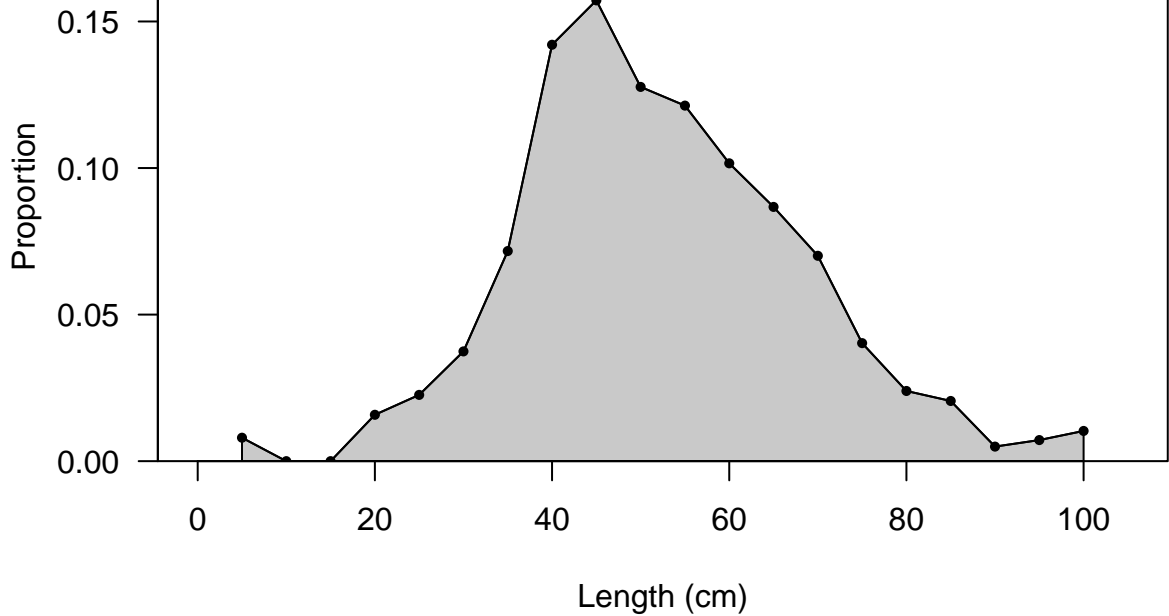


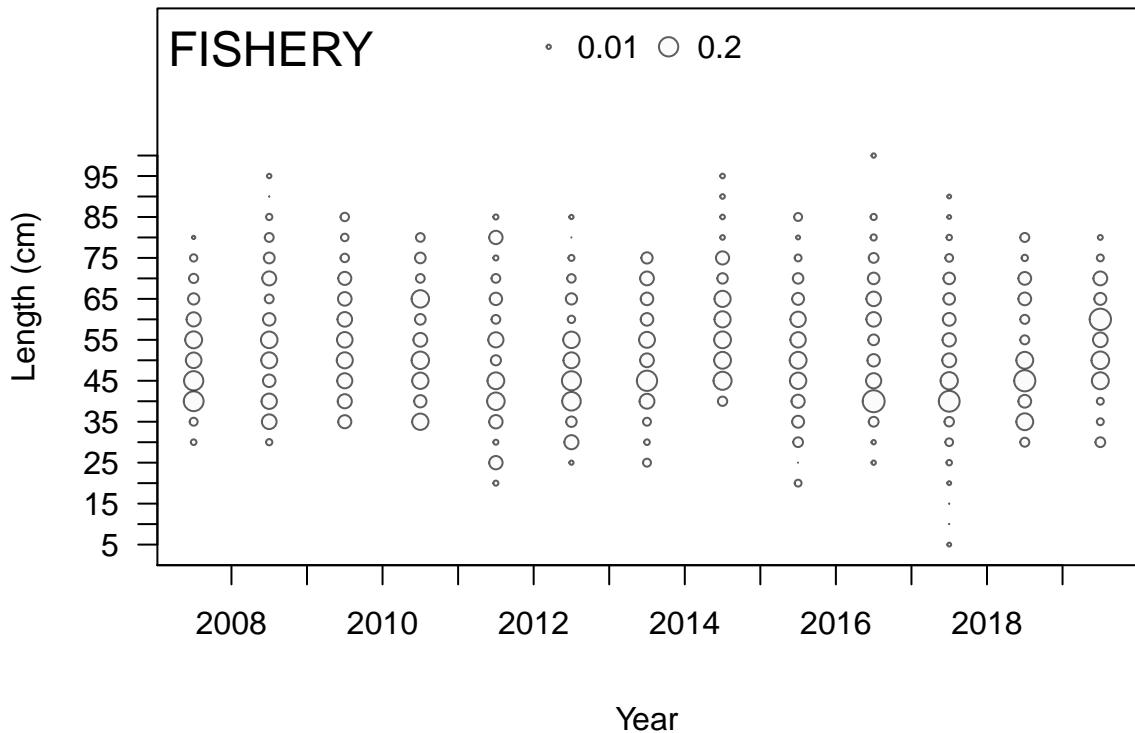


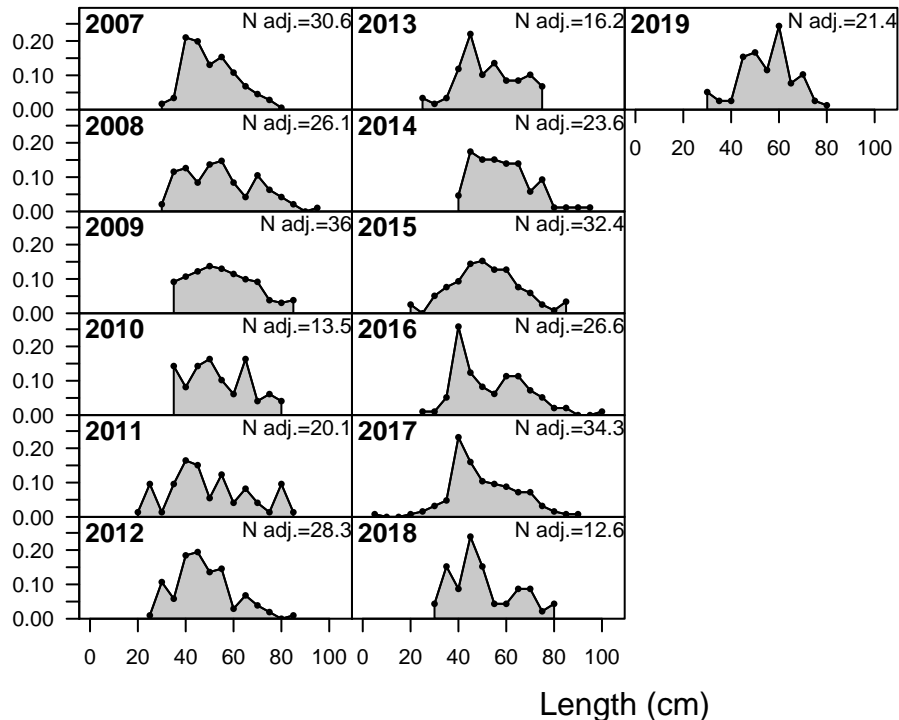


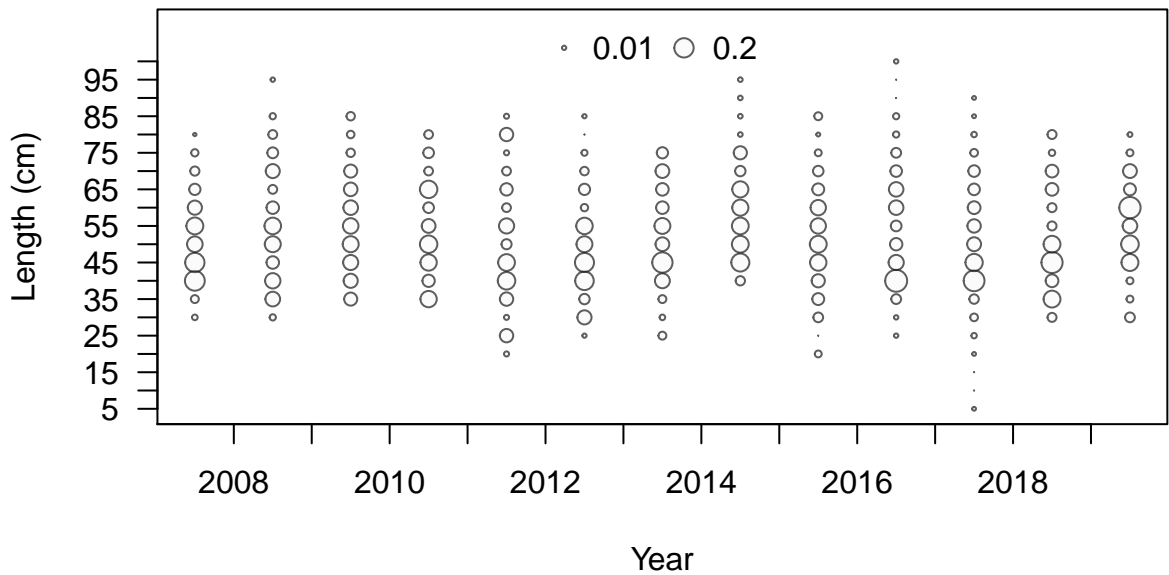
FISHERY

Sum of N adj.=321.7

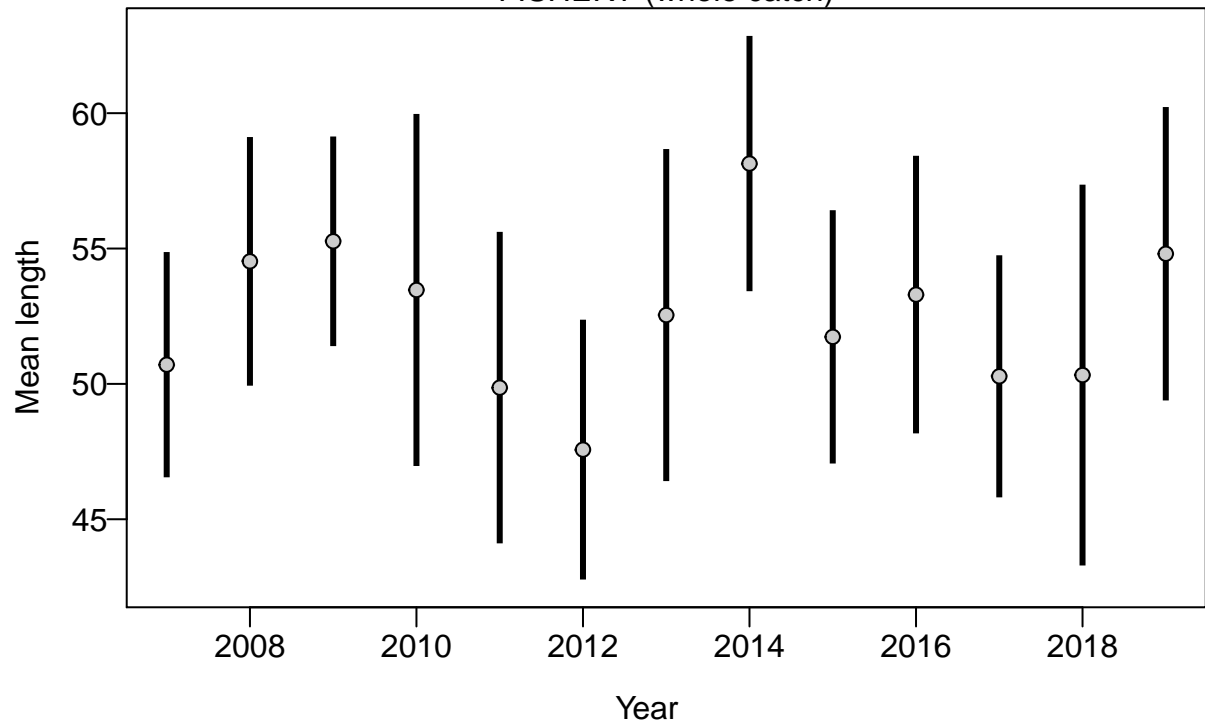






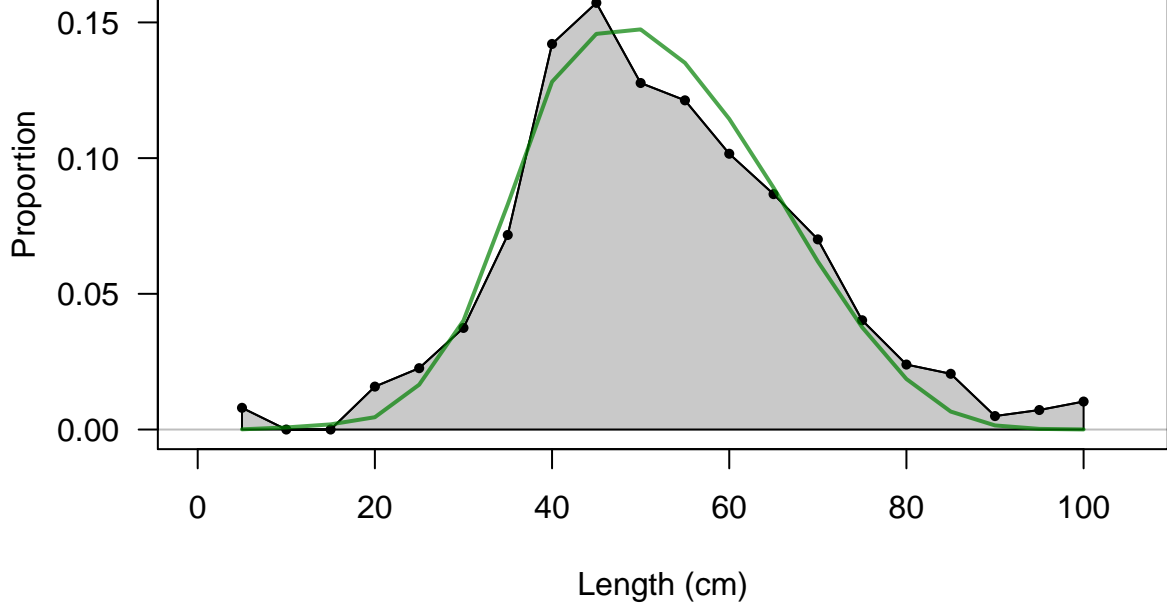


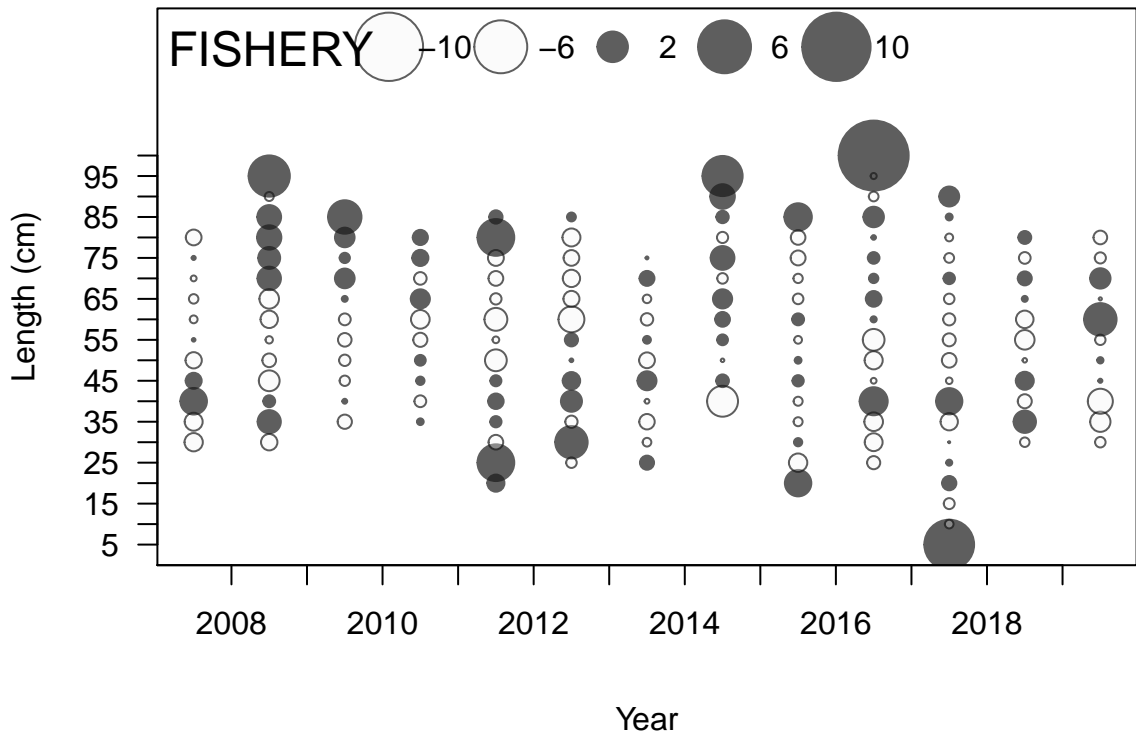
FISHERY (whole catch)



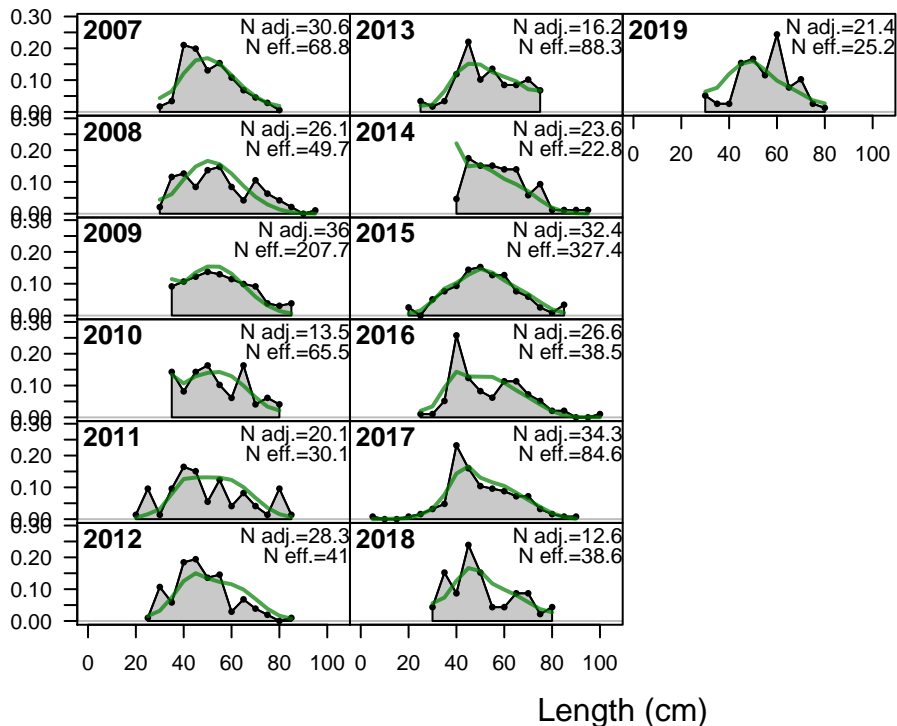
FISHERY

Sum of N adj.=321.7
Sum of N eff.=1088.3

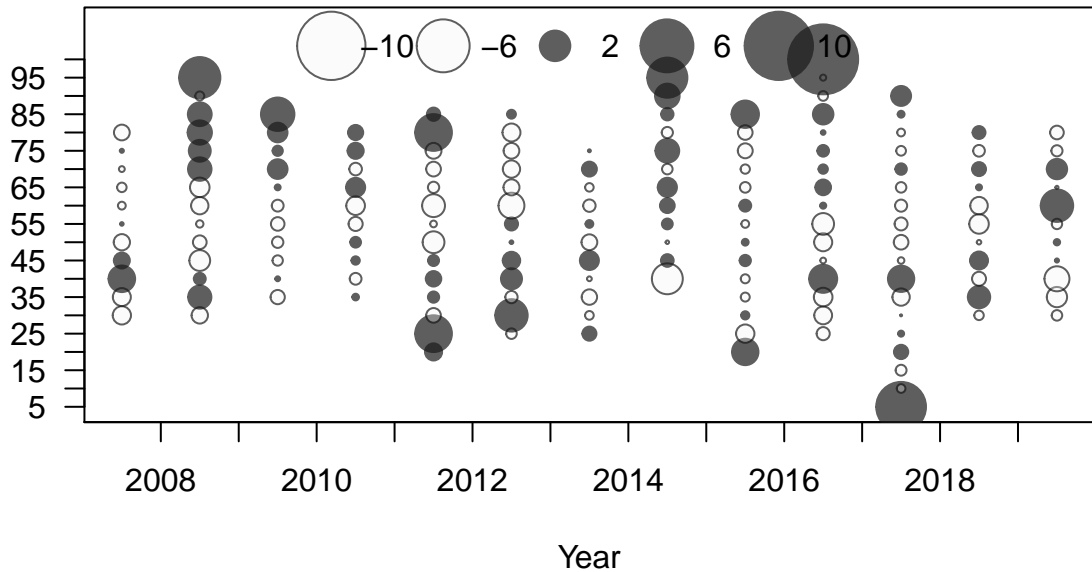




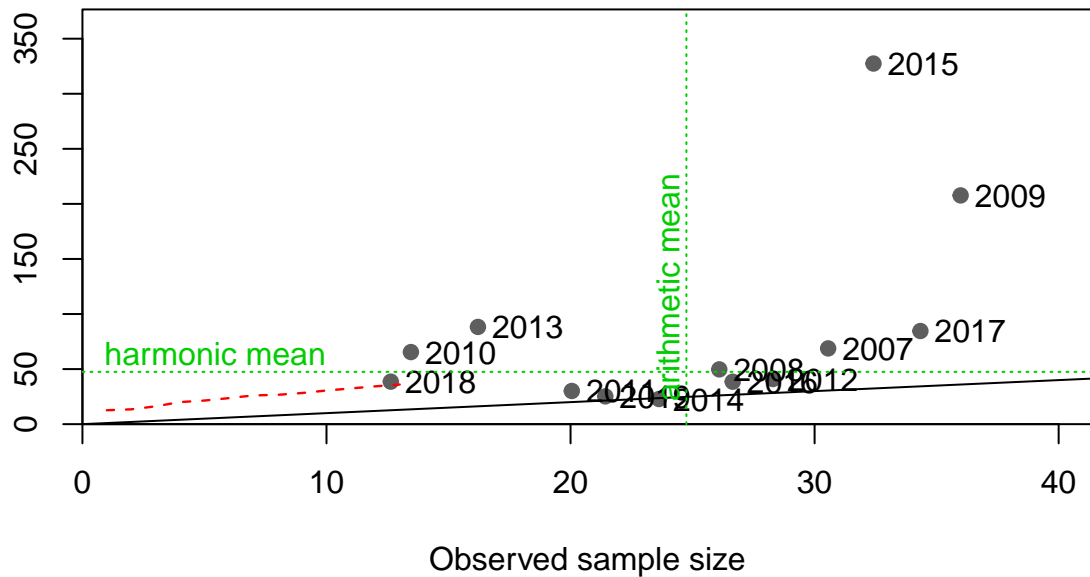
Proportion



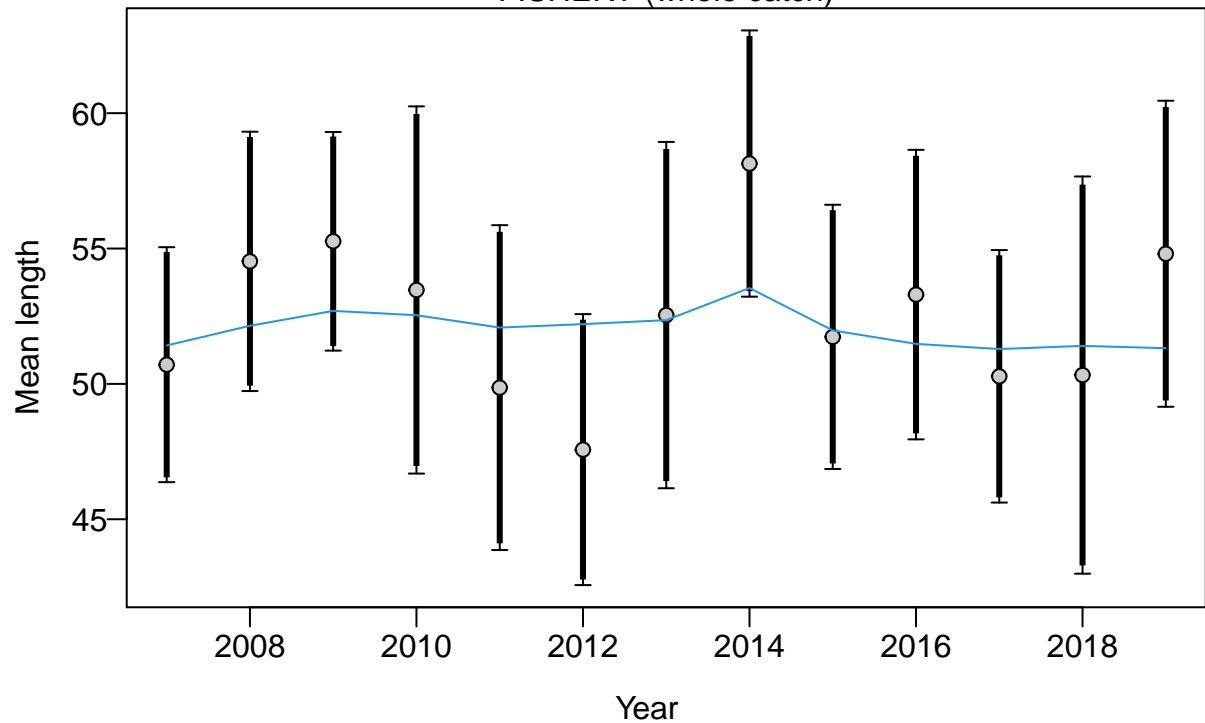
Length (cm)

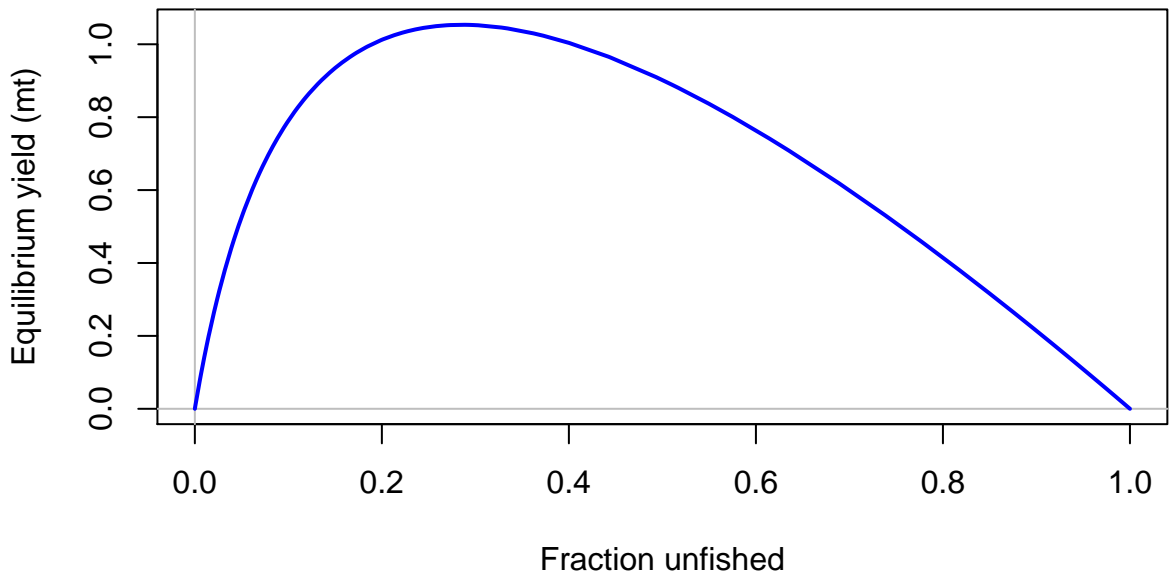


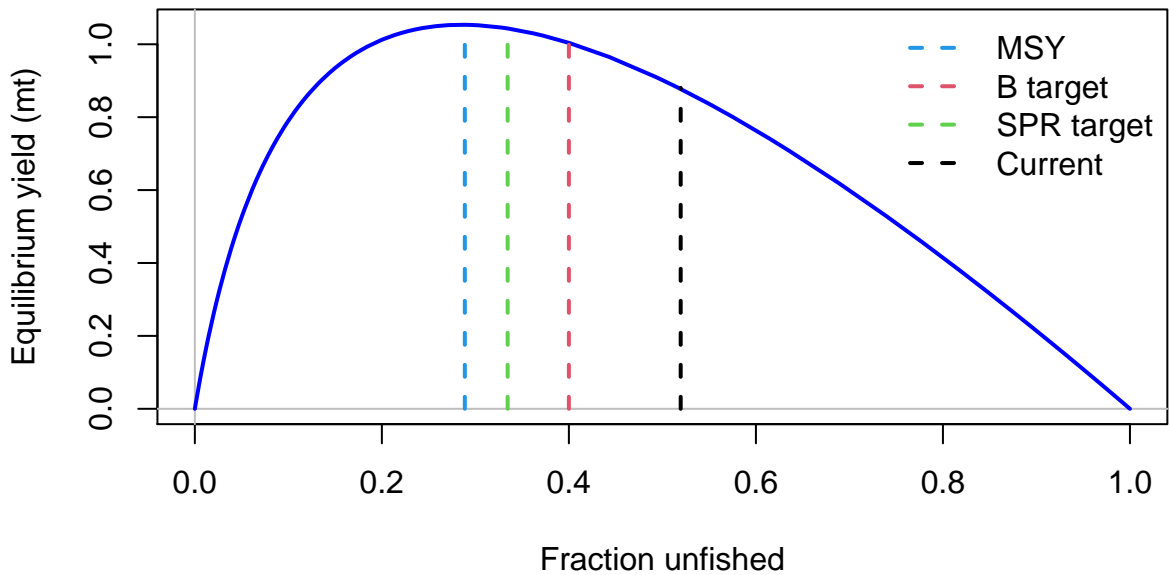
Effective sample size

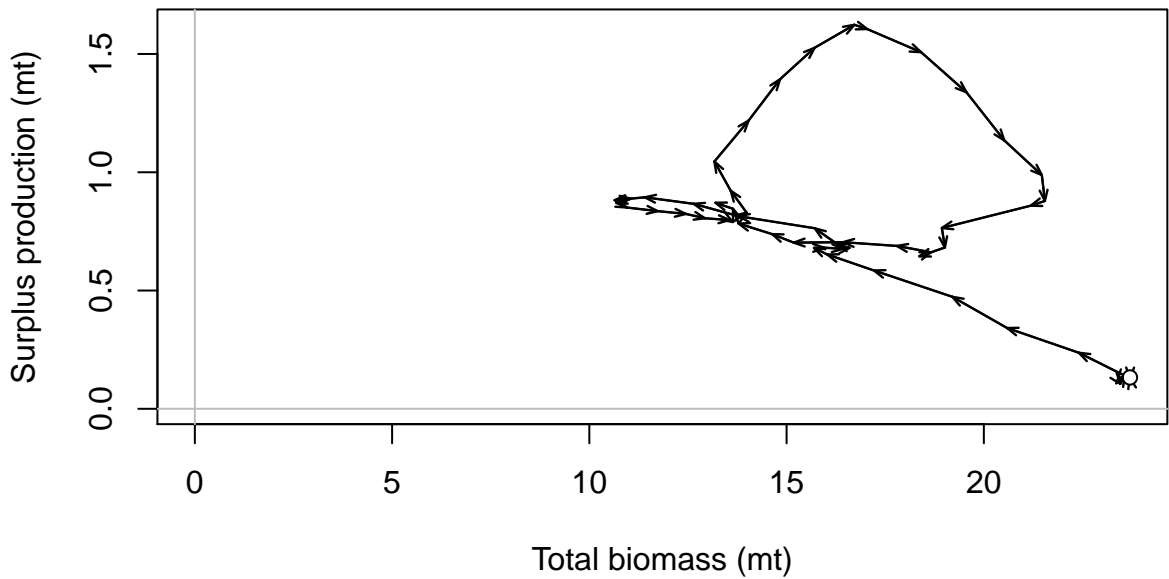


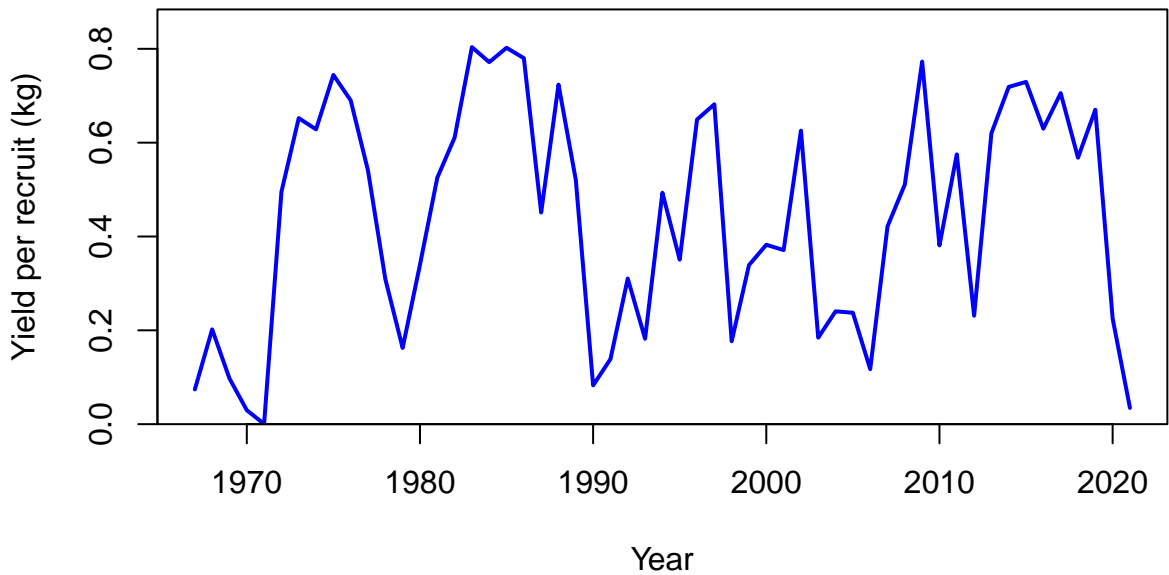
FISHERY (whole catch)

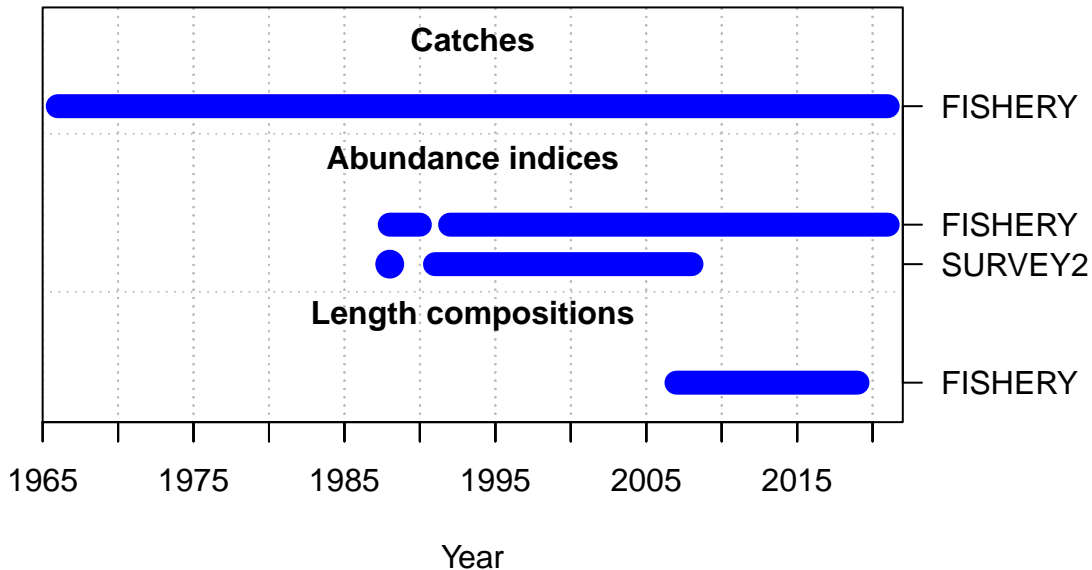


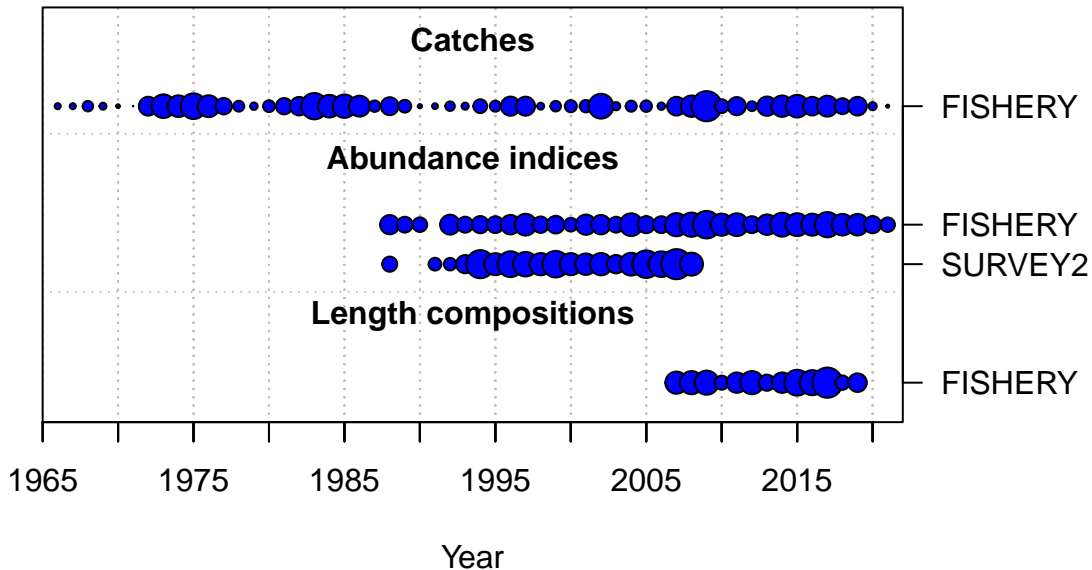








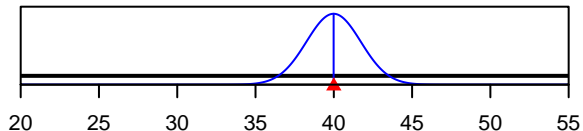




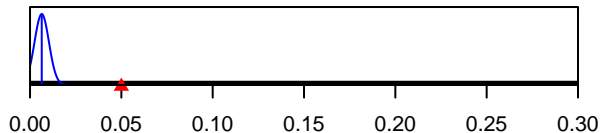
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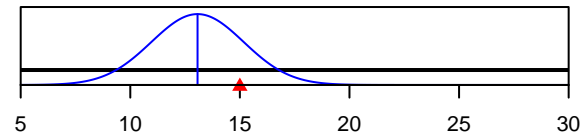
Size_inflection_FISHERY(1)



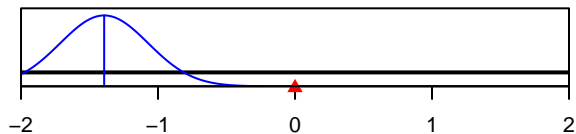
InitF_seas_1_flt_1FISHERY



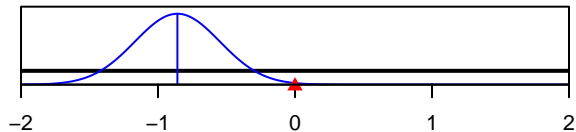
Size_95%width_FISHERY(1)



LnQ_base_FISHERY(1)



LnQ_base_SURVEY2(2)



Parameter value