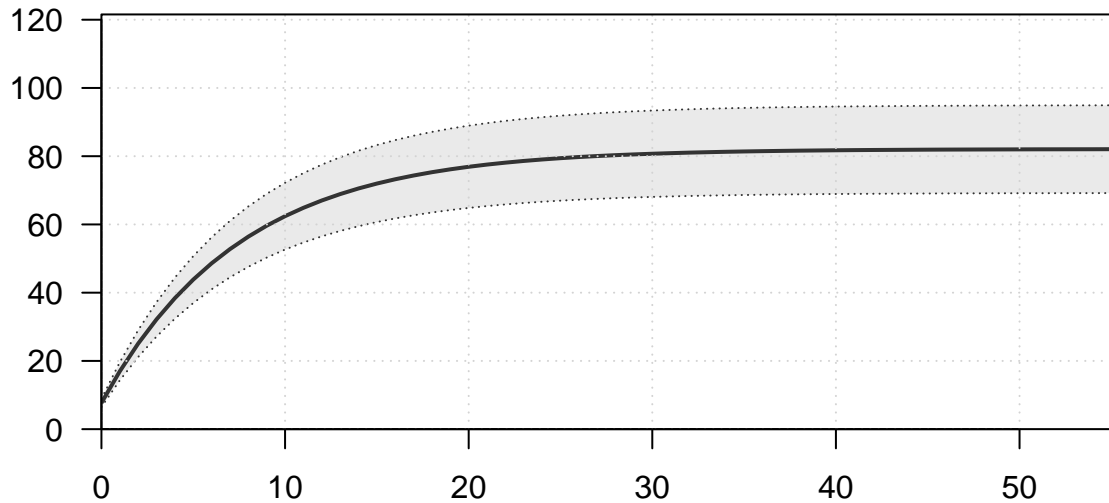
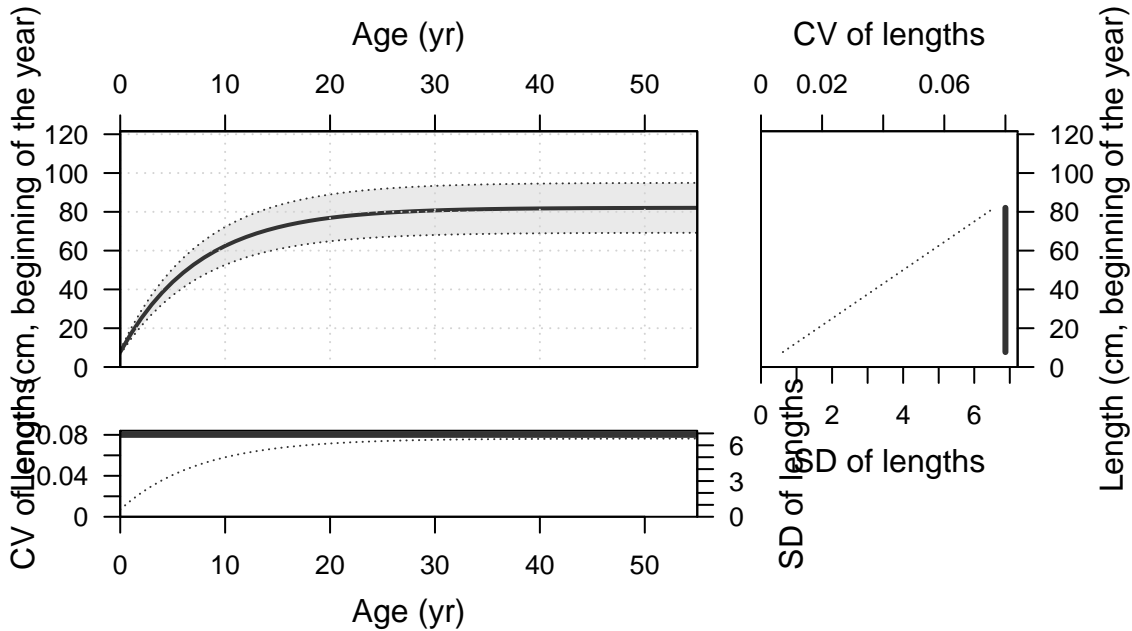


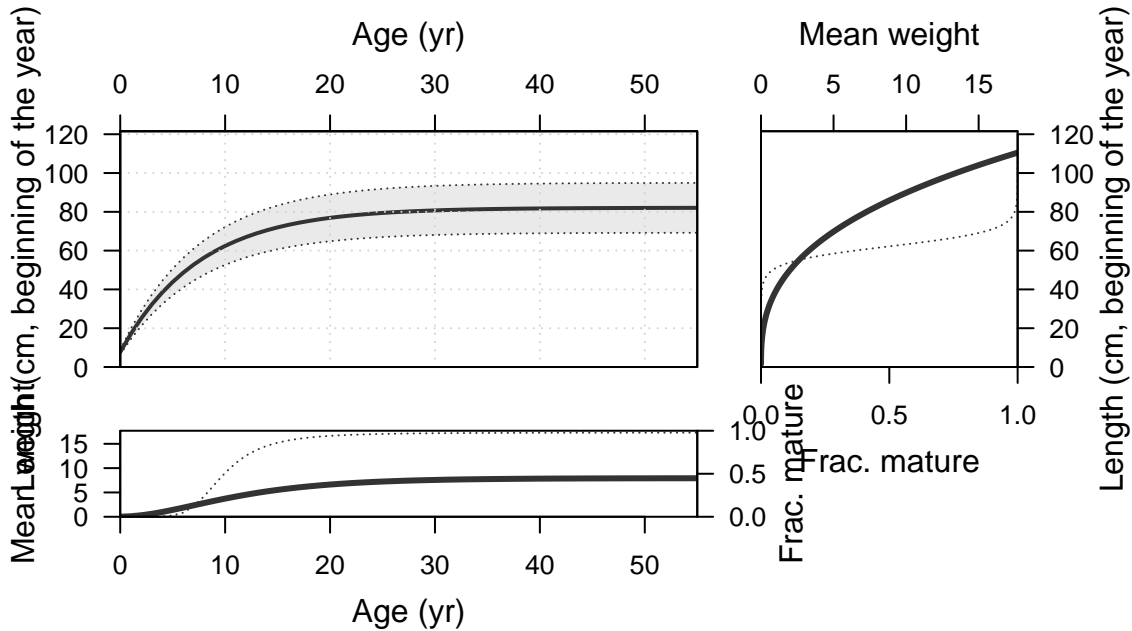
Plots created using the 'r4ss' package in R
Stock Synthesis version: 3.30.19.0
StartTime: Mon Jul 18 13:18:57 2022
Data_File: data.ss
Control_File: control.ss

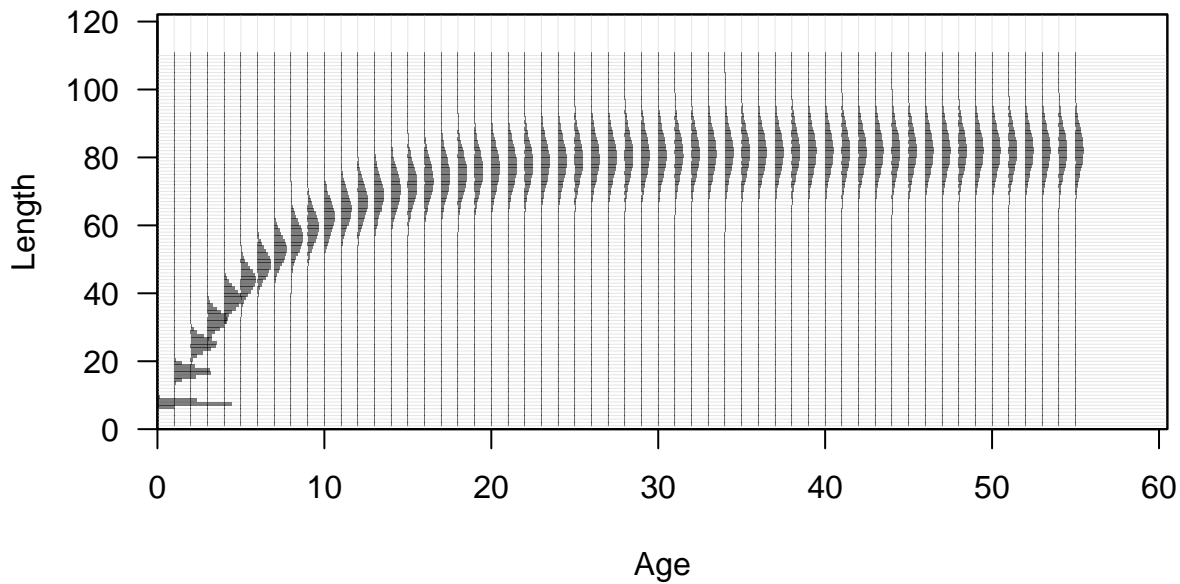
Length (cm, beginning of the year)

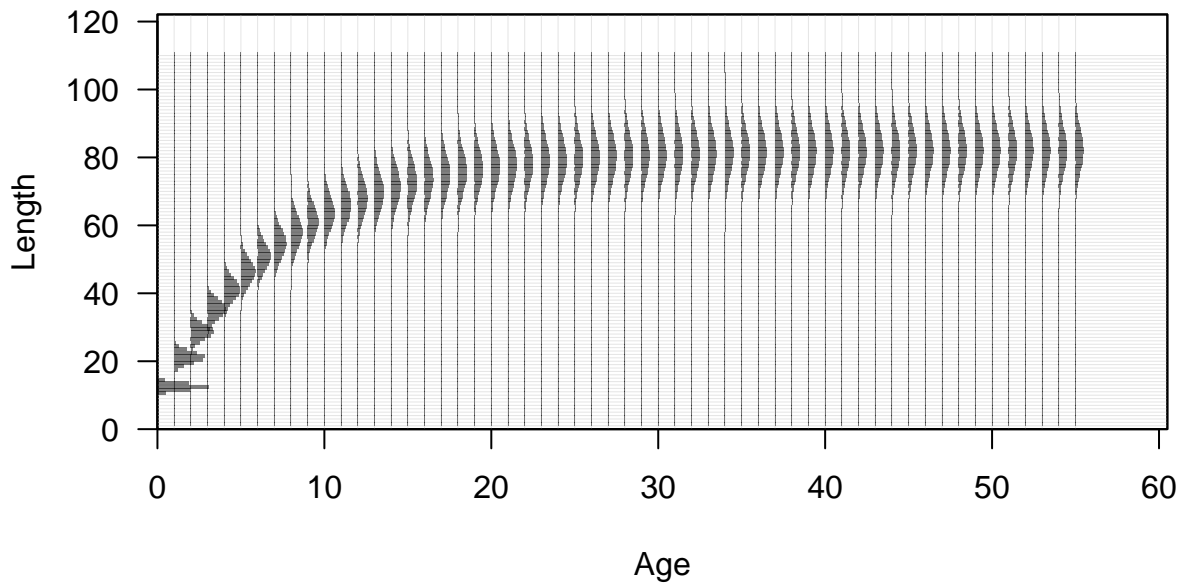


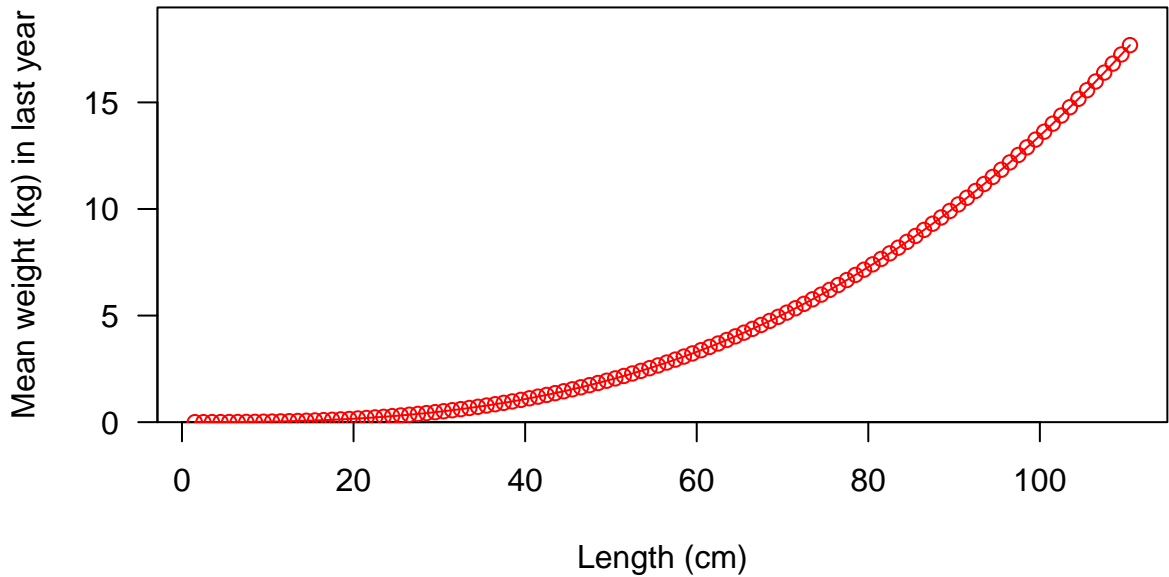
Age (yr)

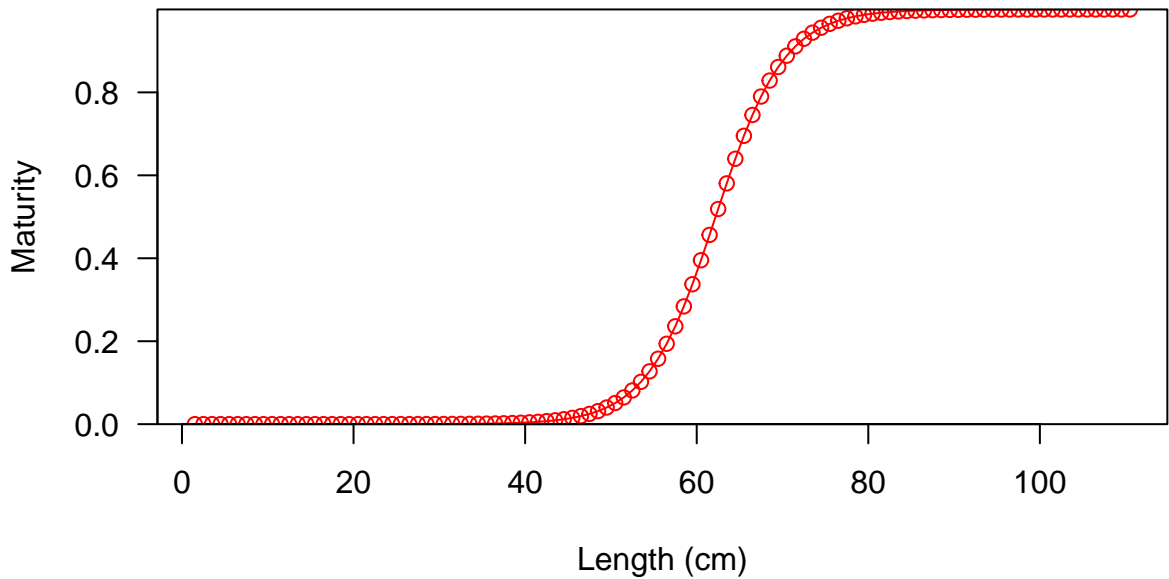


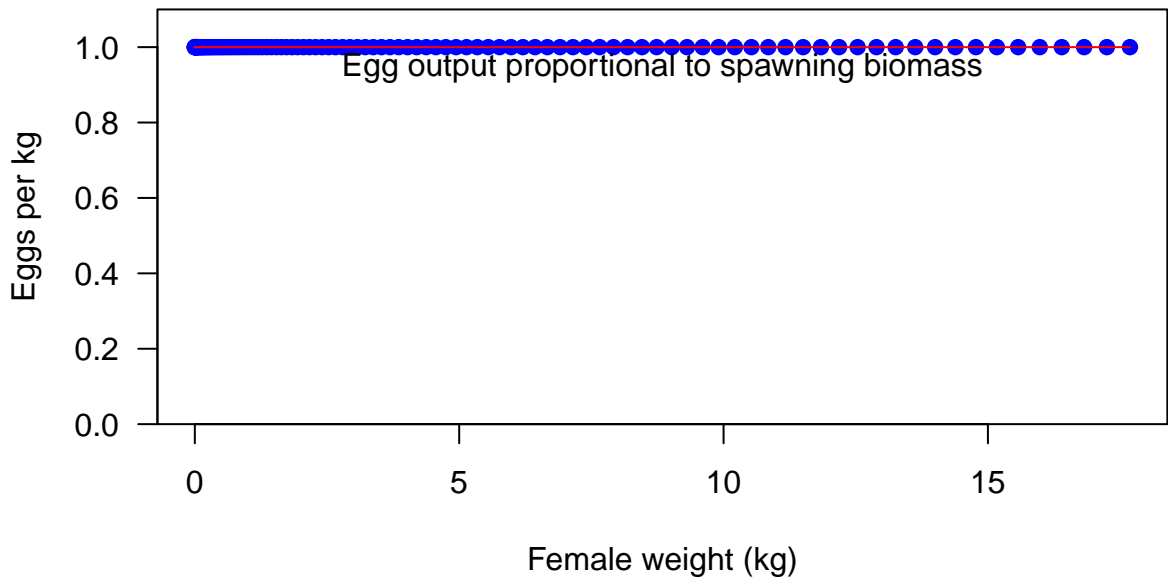




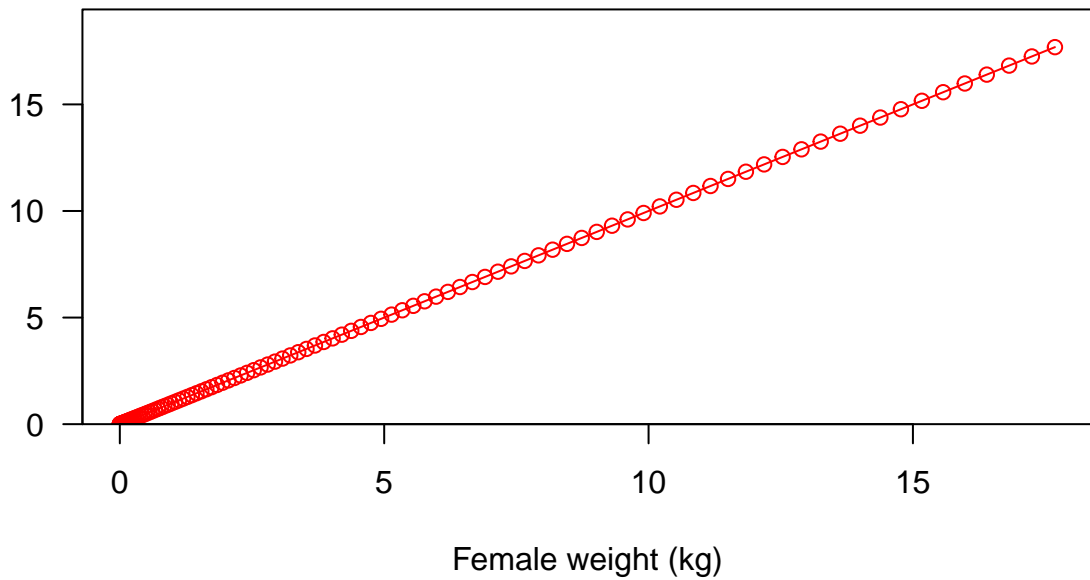




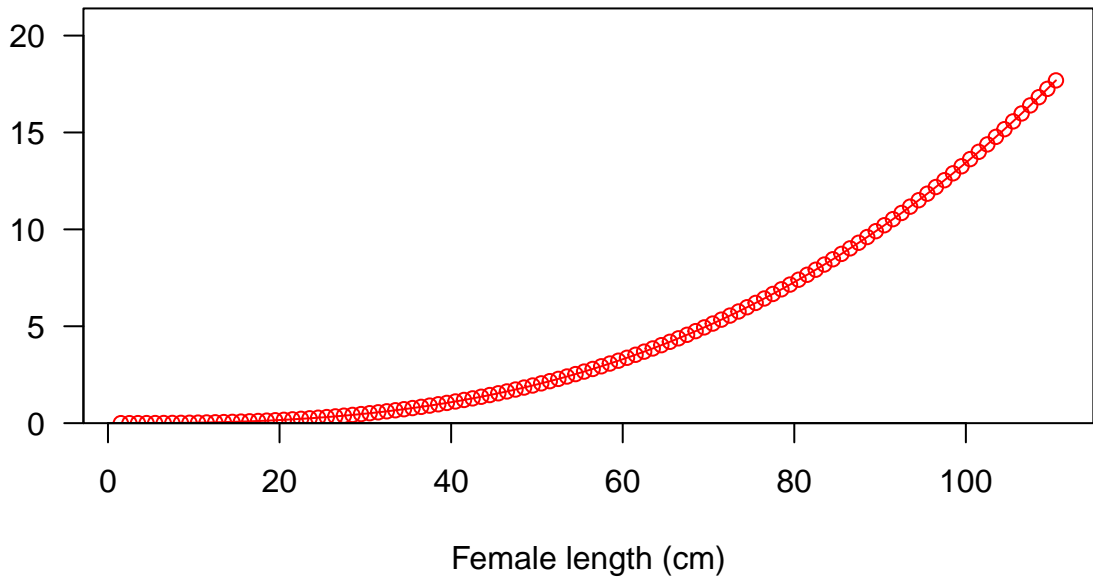


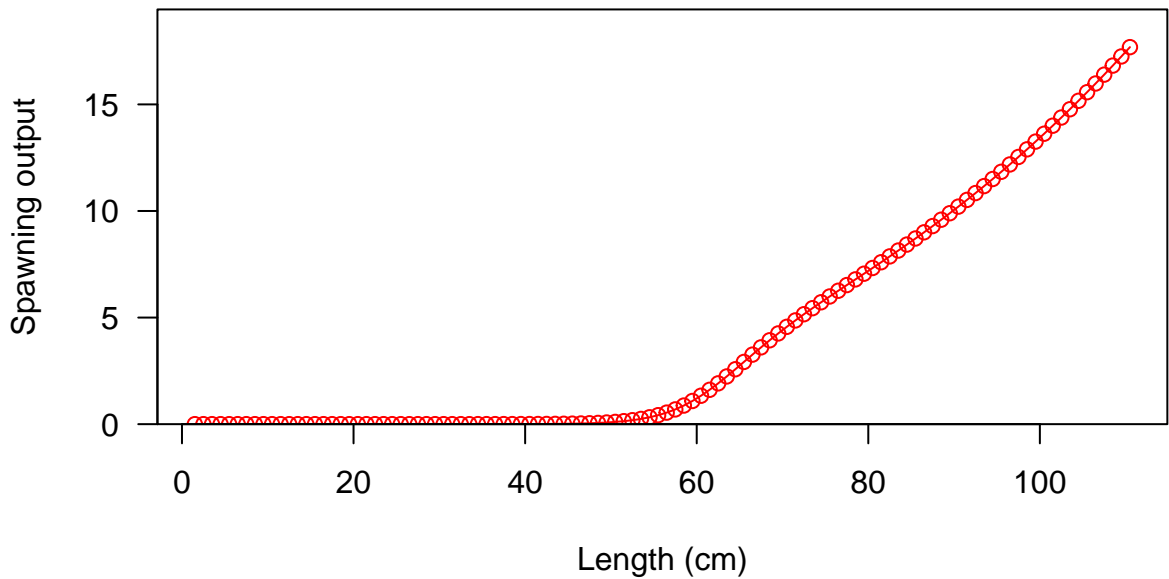


Fecundity

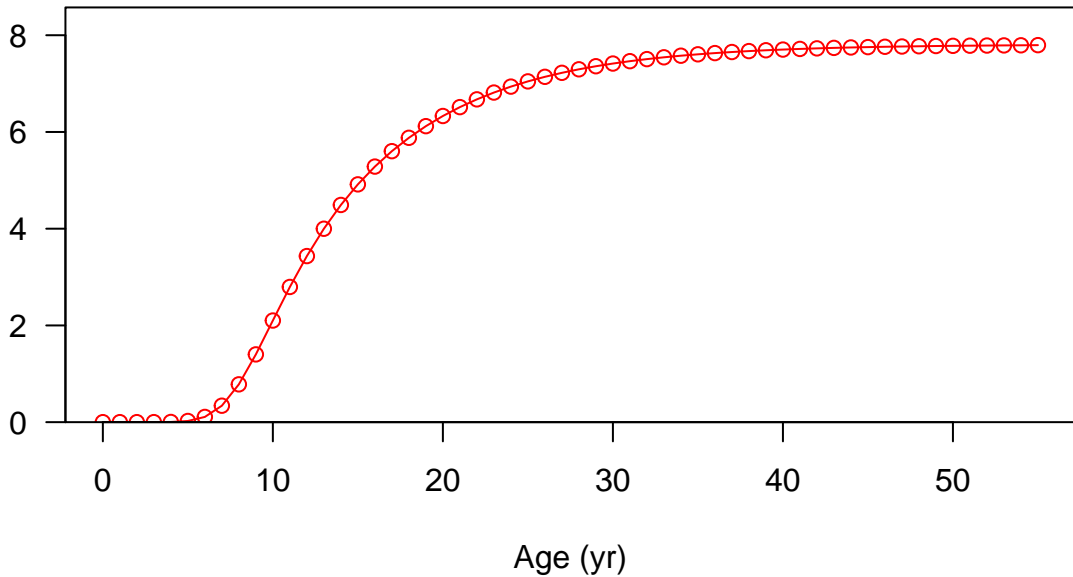


Fecundity

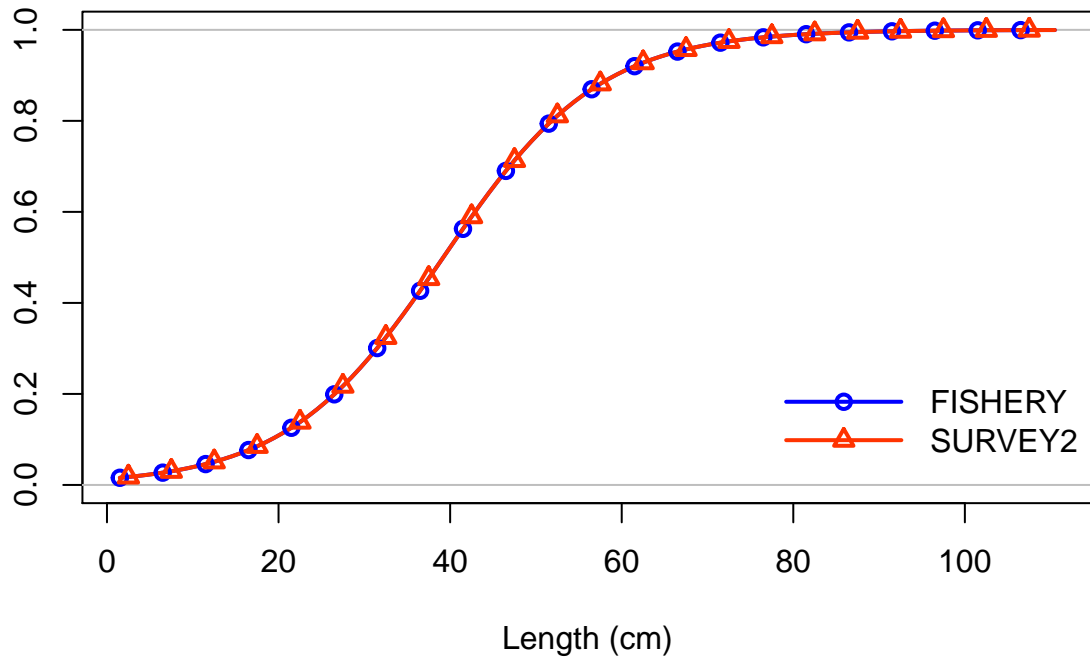




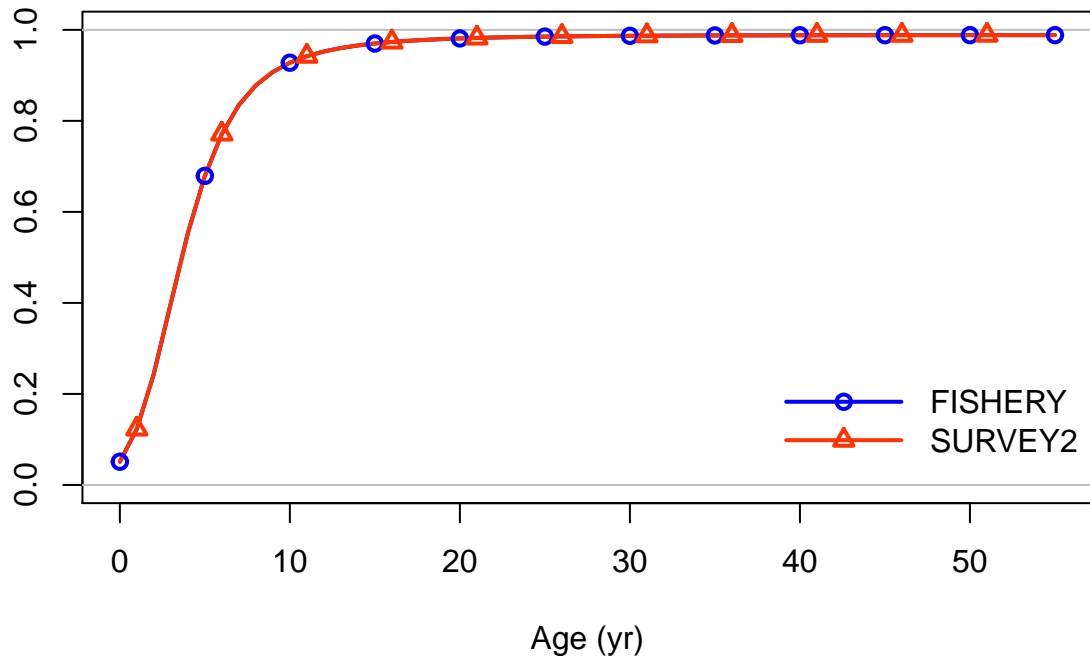
Spawning output



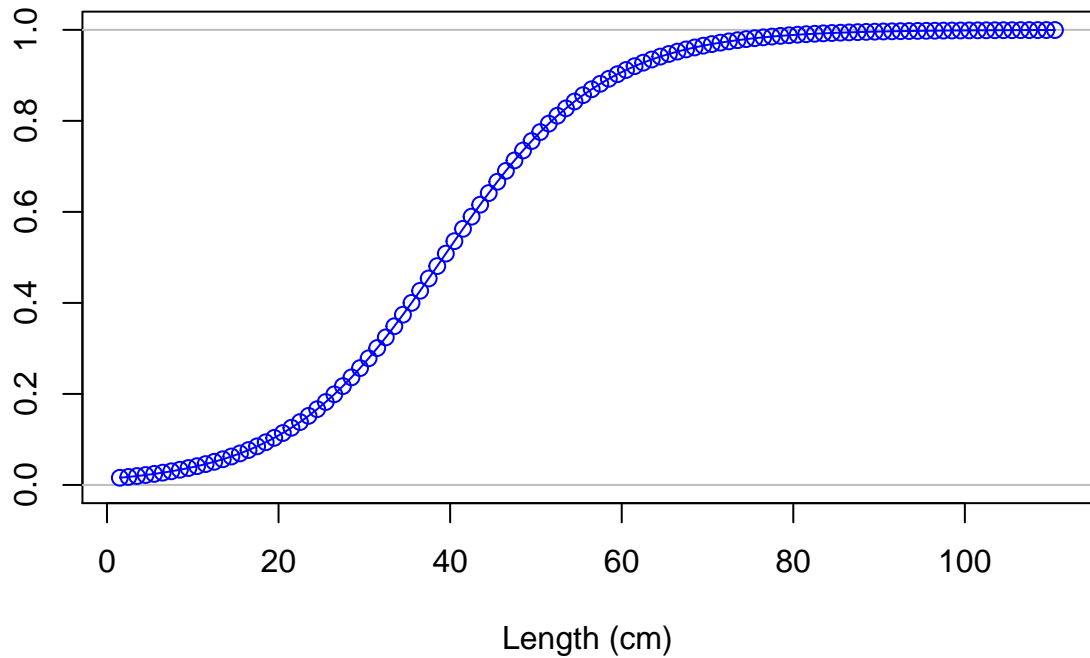
Selectivity



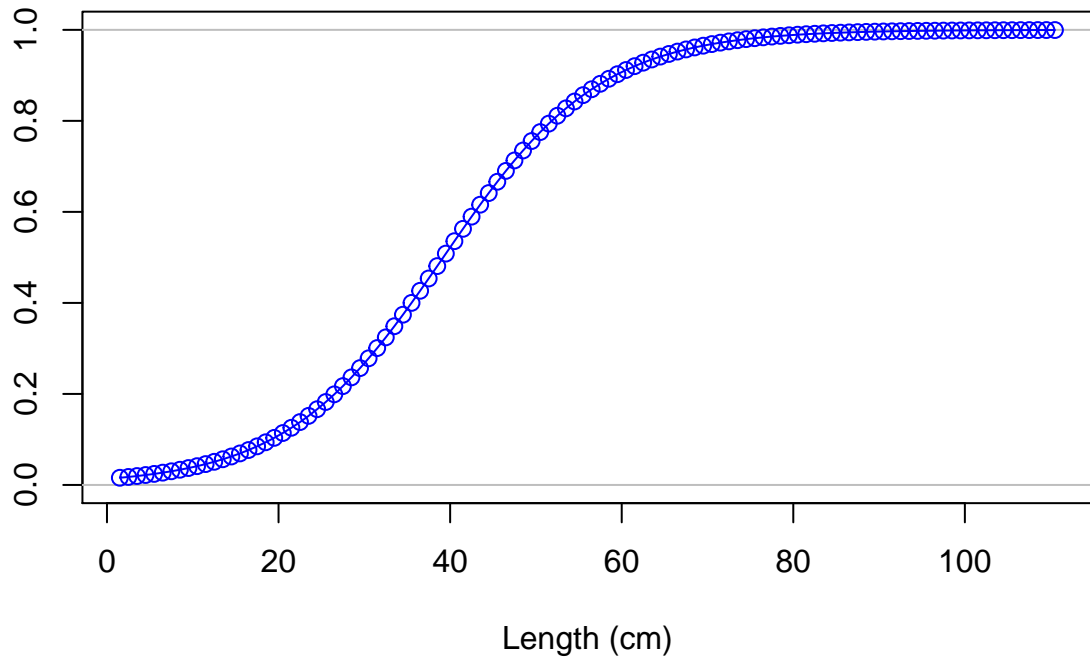
Selectivity

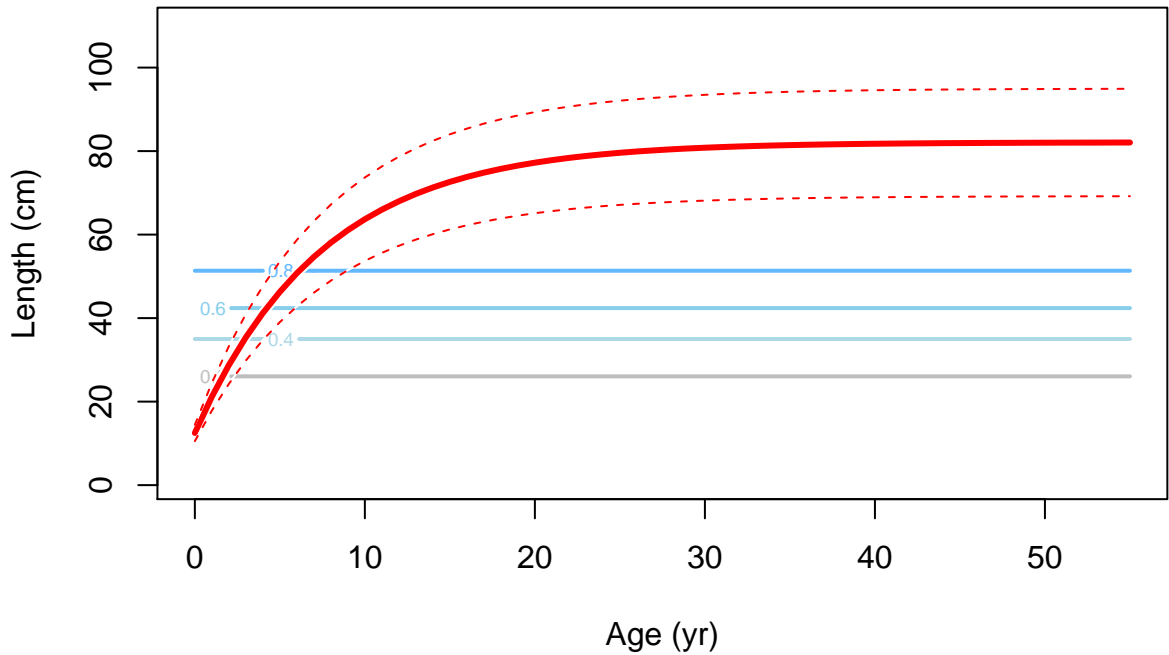


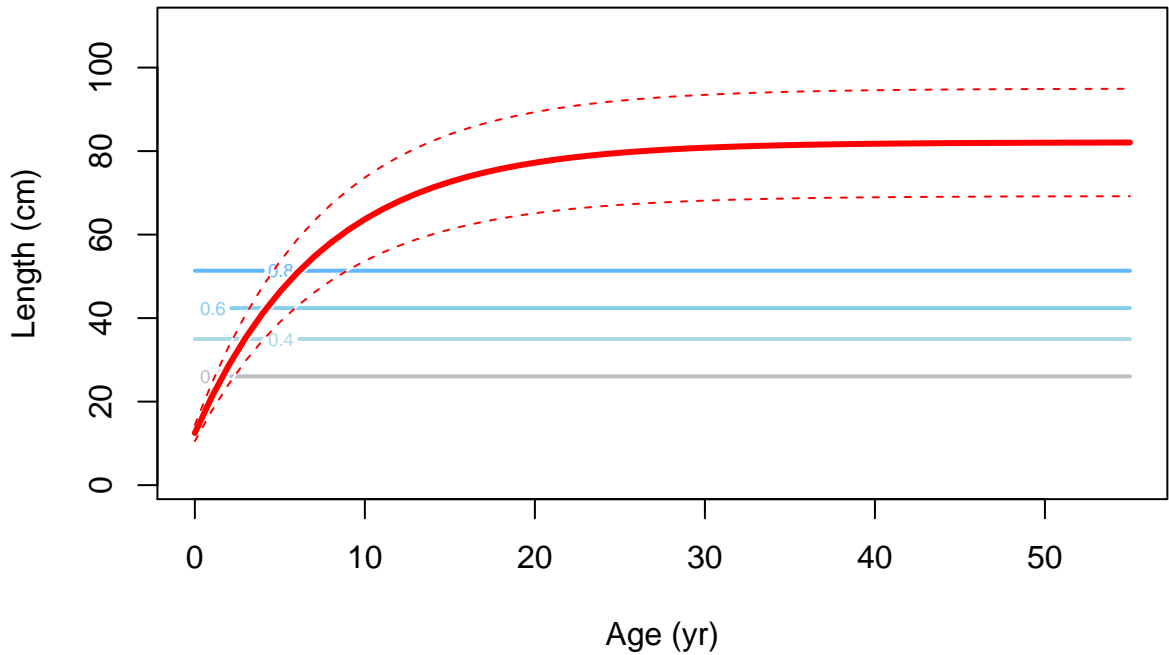
Selectivity

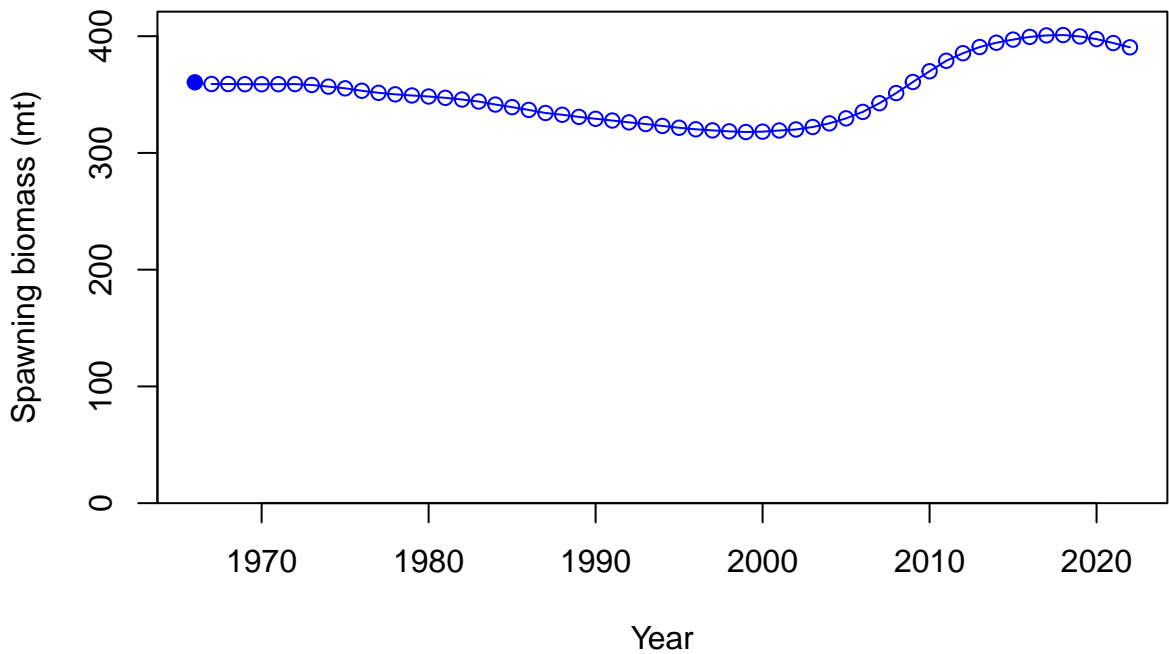


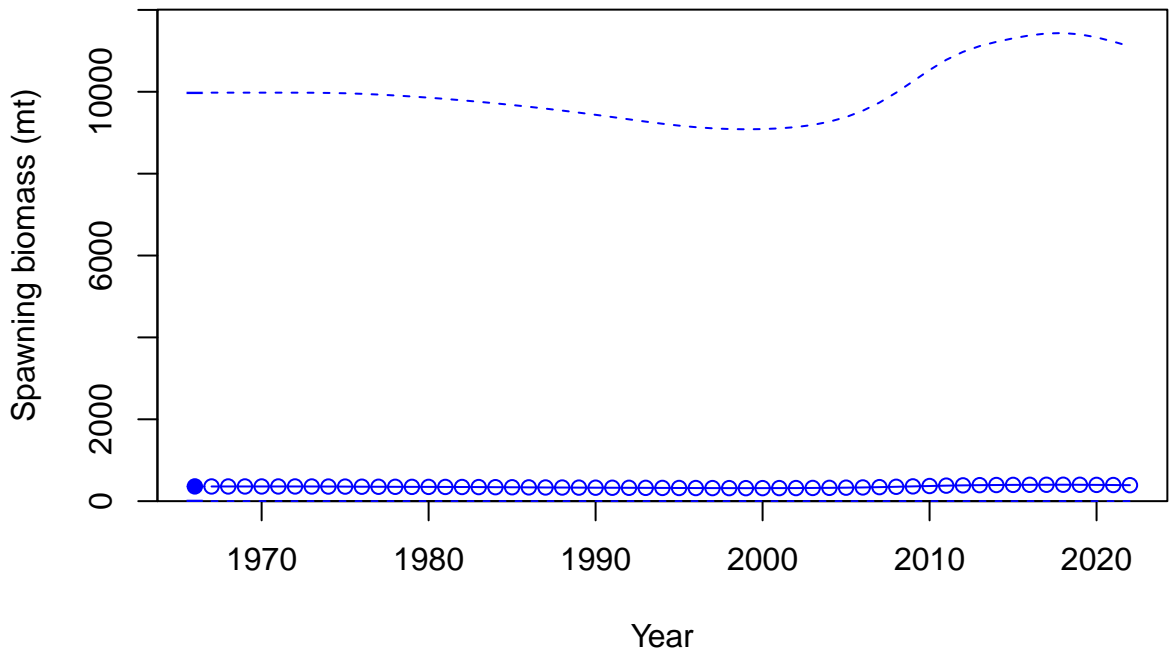
Selectivity



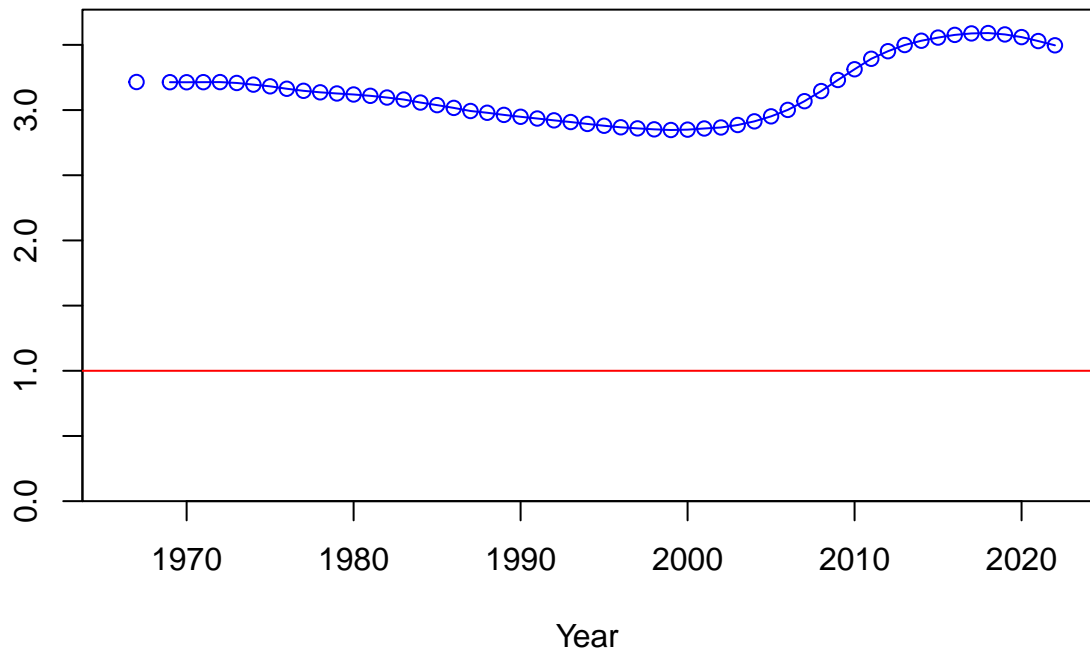




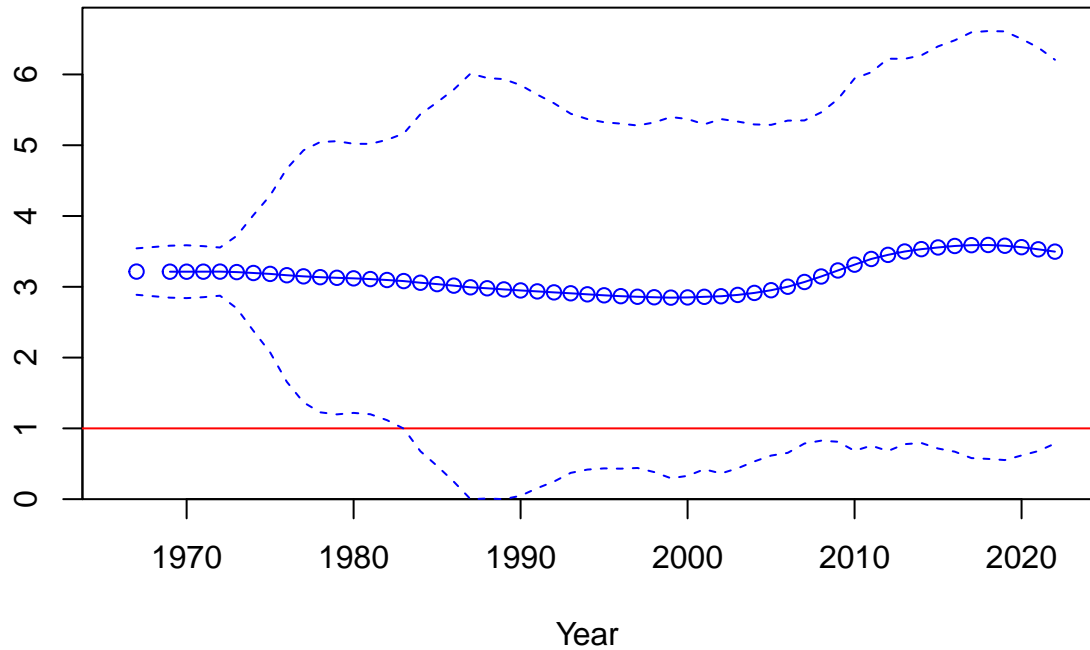


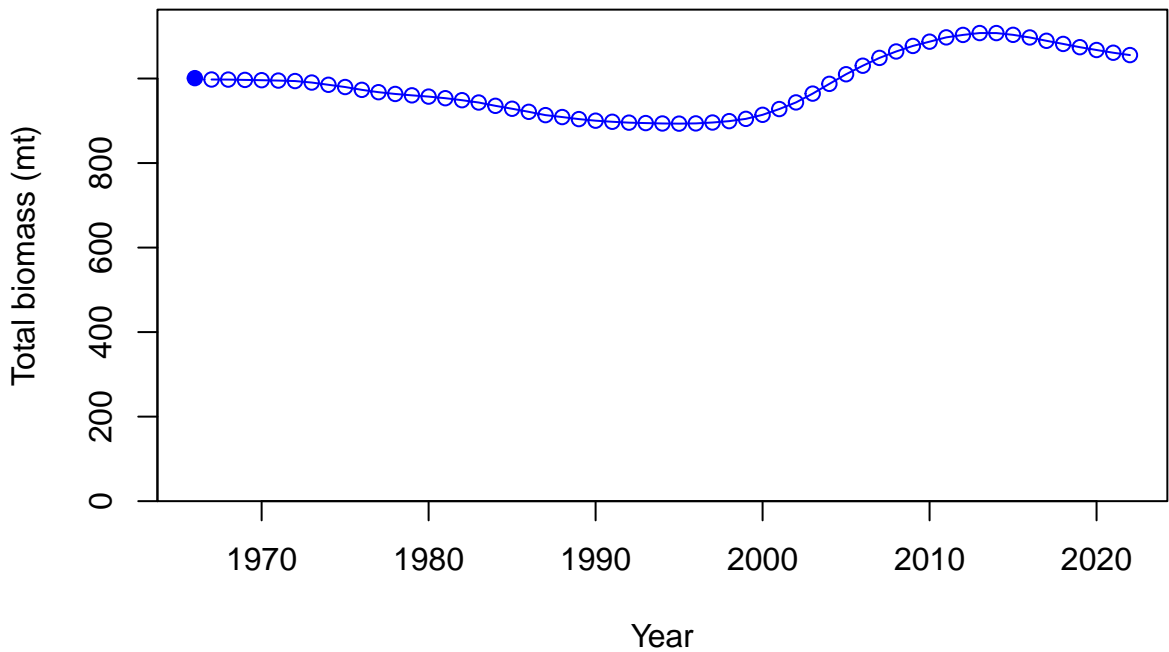


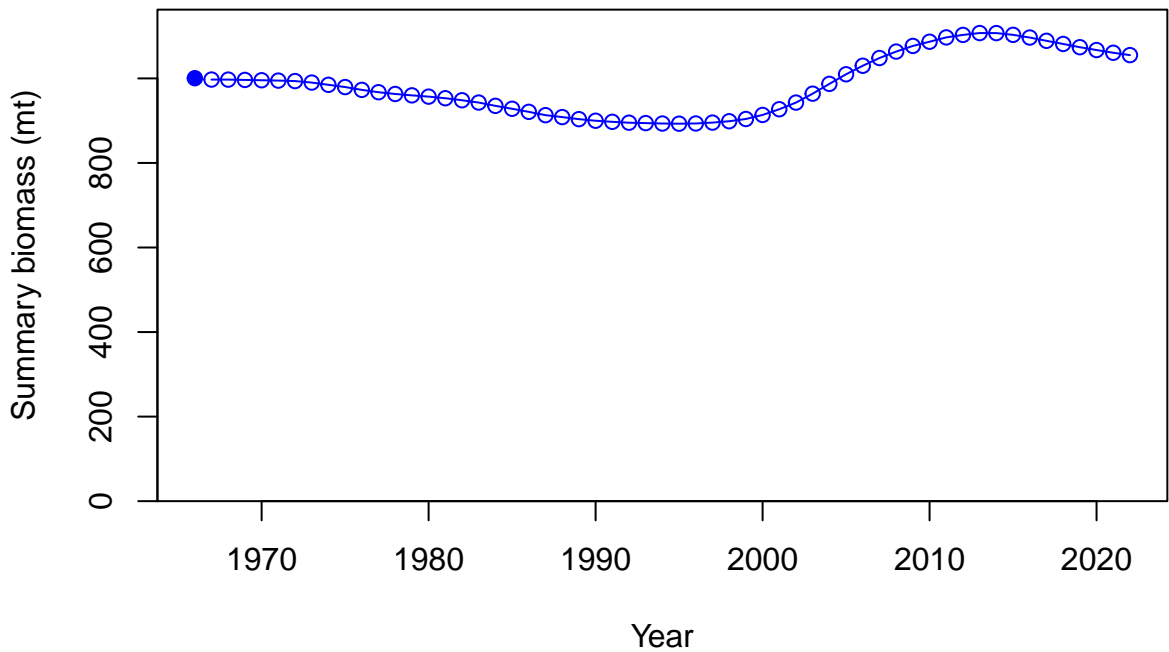
Relative spawning biomass: B/B_{MSY}



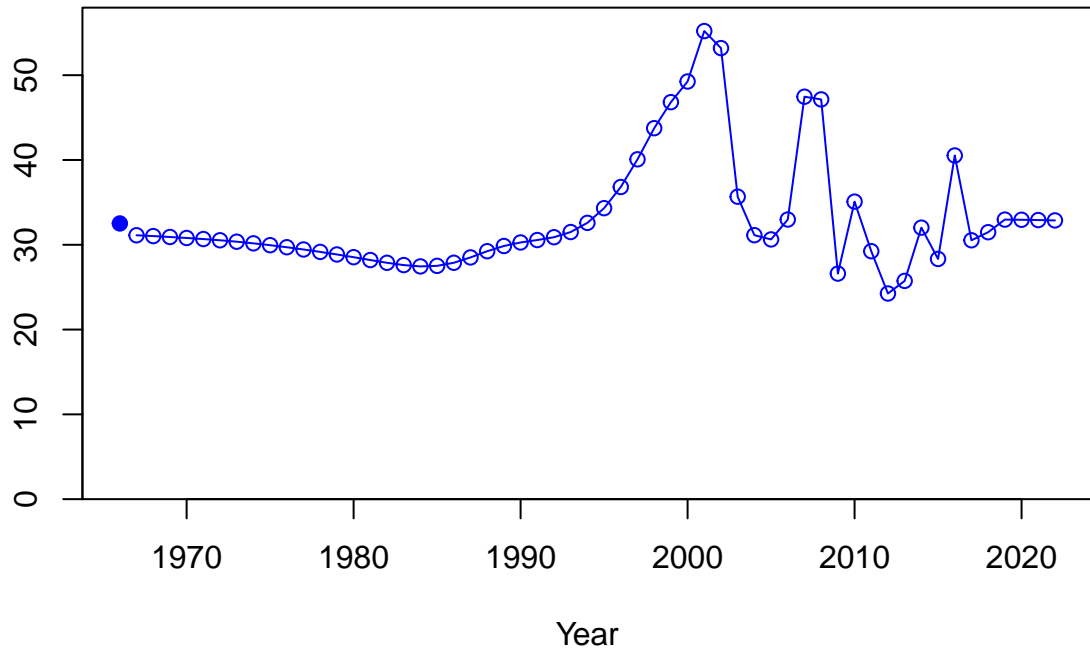
Relative spawning biomass: B/B_{MSY}

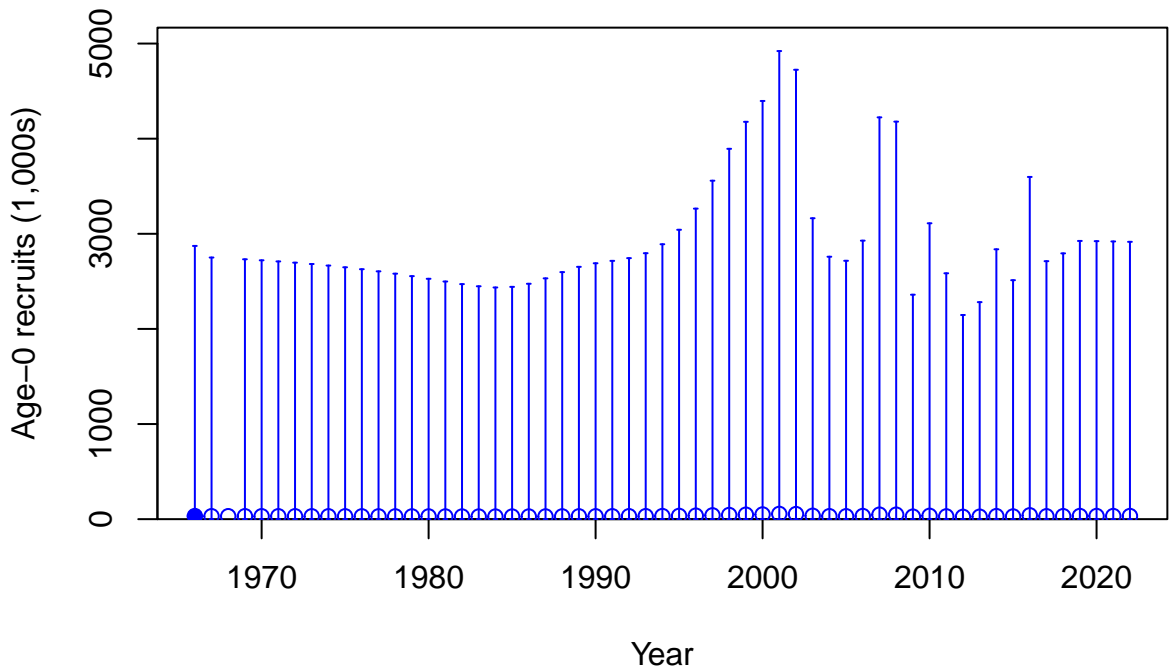




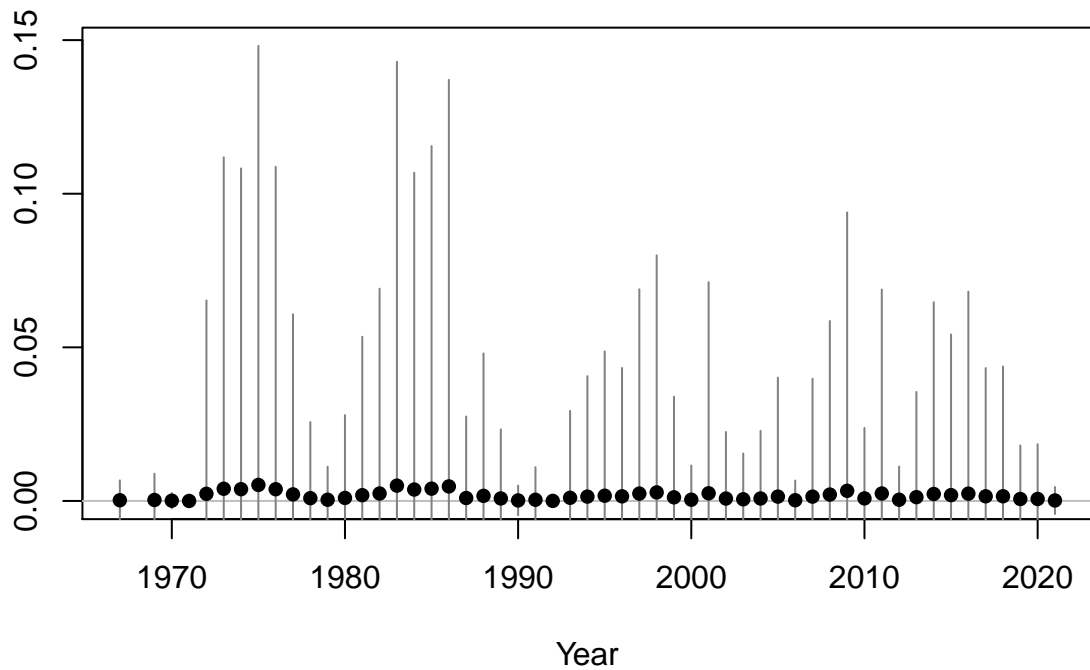


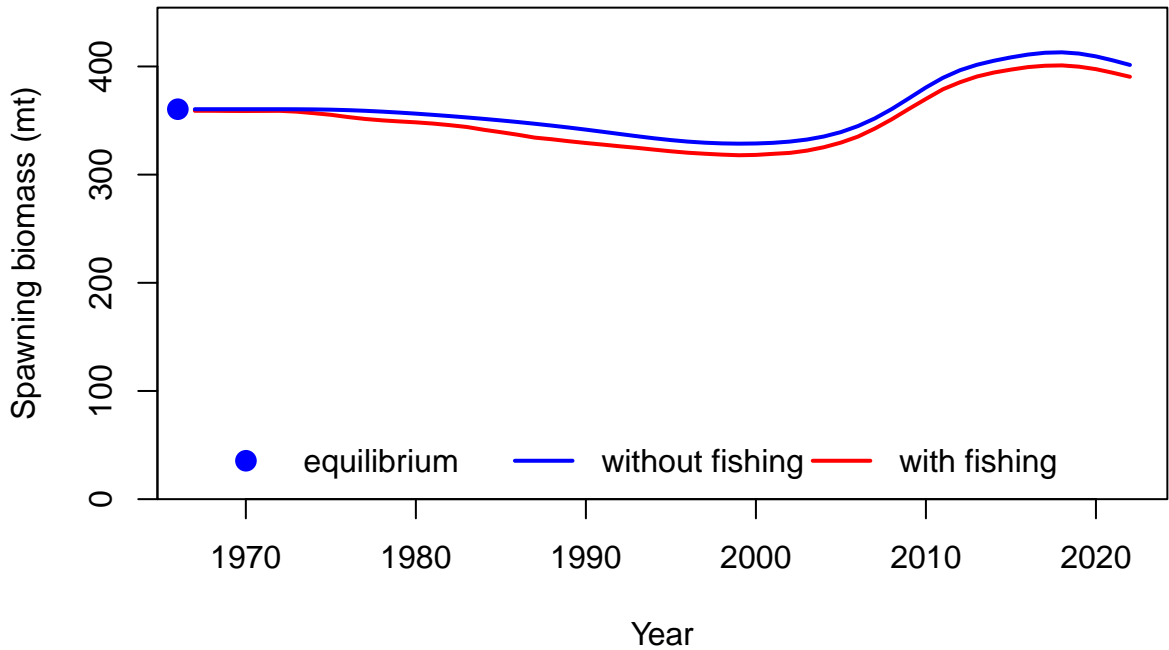
Age-0 recruits (1,000s)





Summary Fishing Mortality





Log recruitment deviation

0.4
0.2
0.0
-0.2

1970

1980

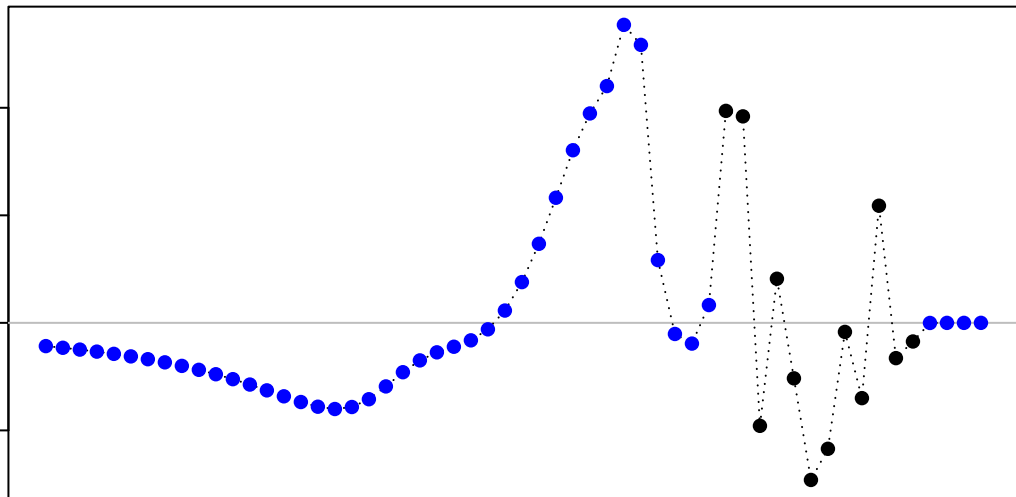
1990

2000

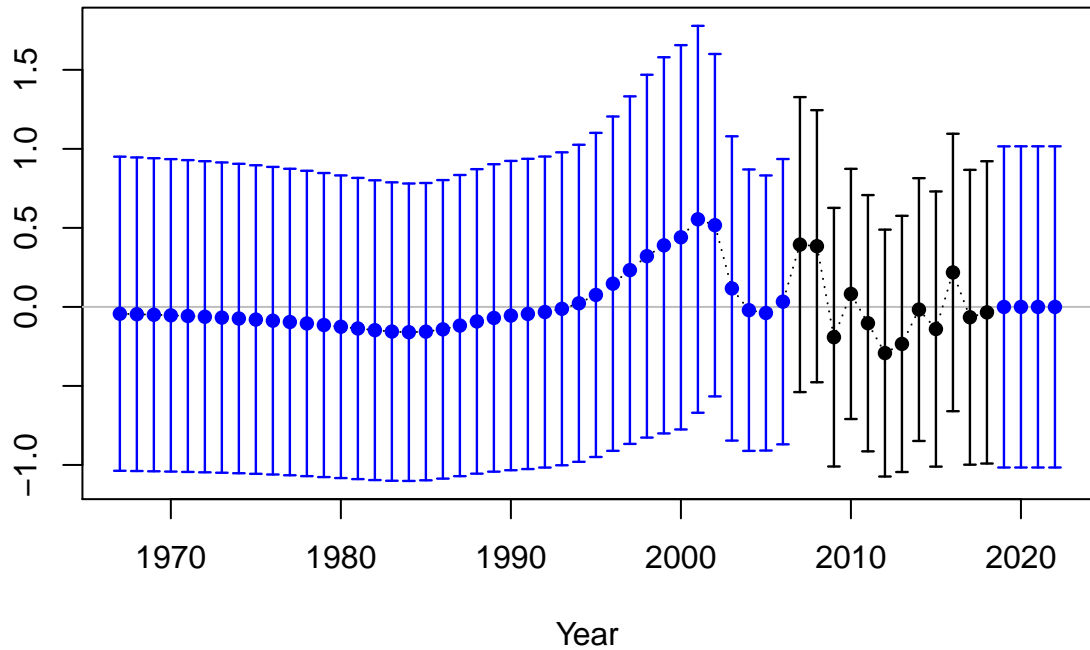
2010

2020

Year

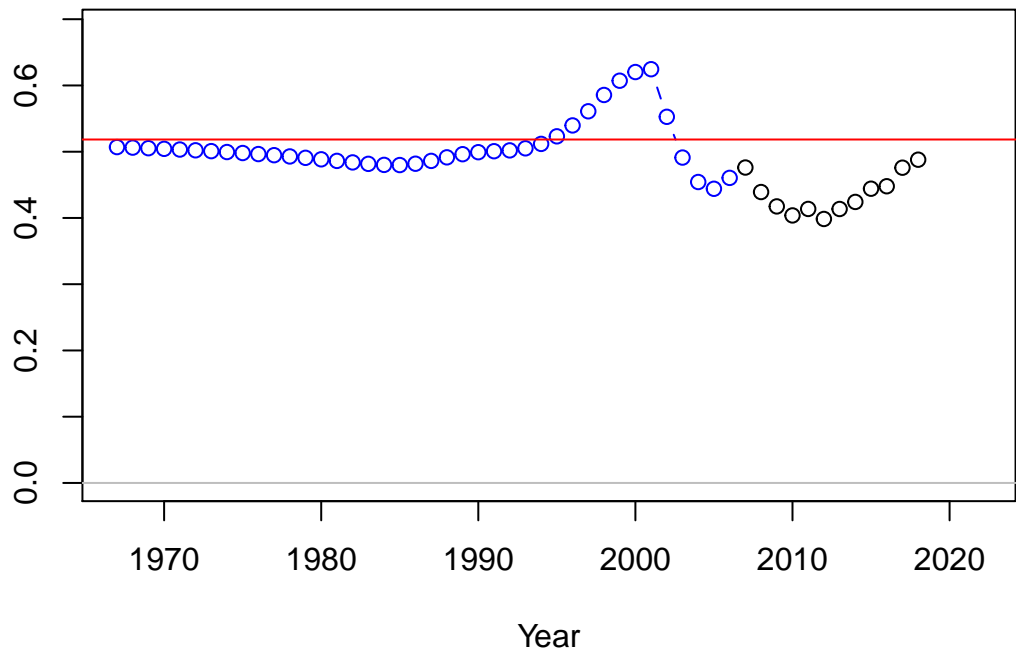


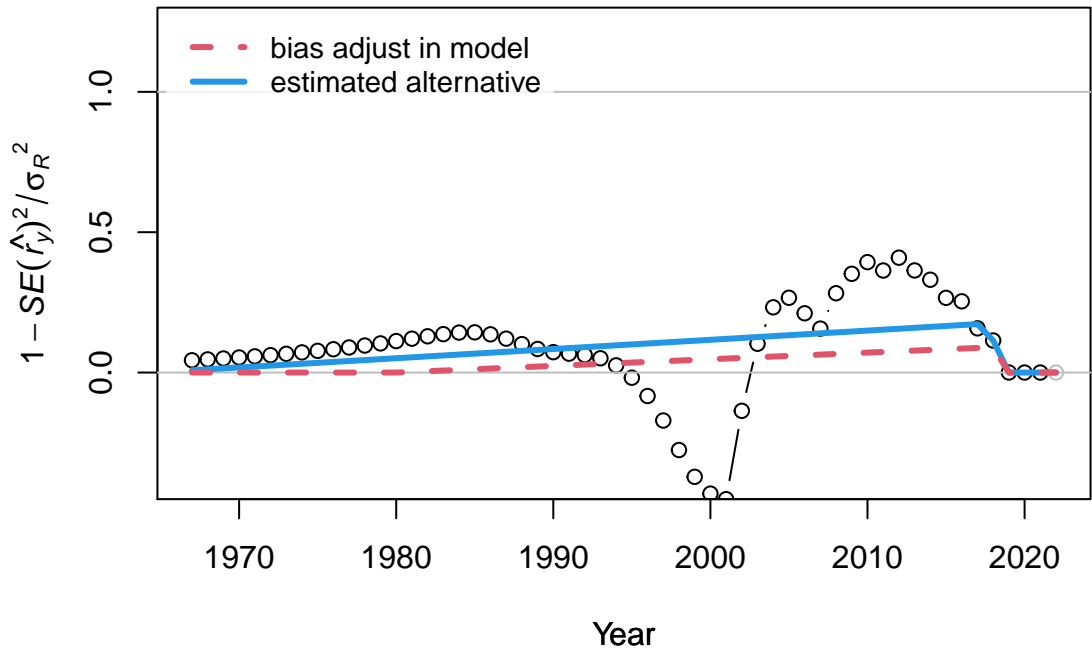
Log recruitment deviation



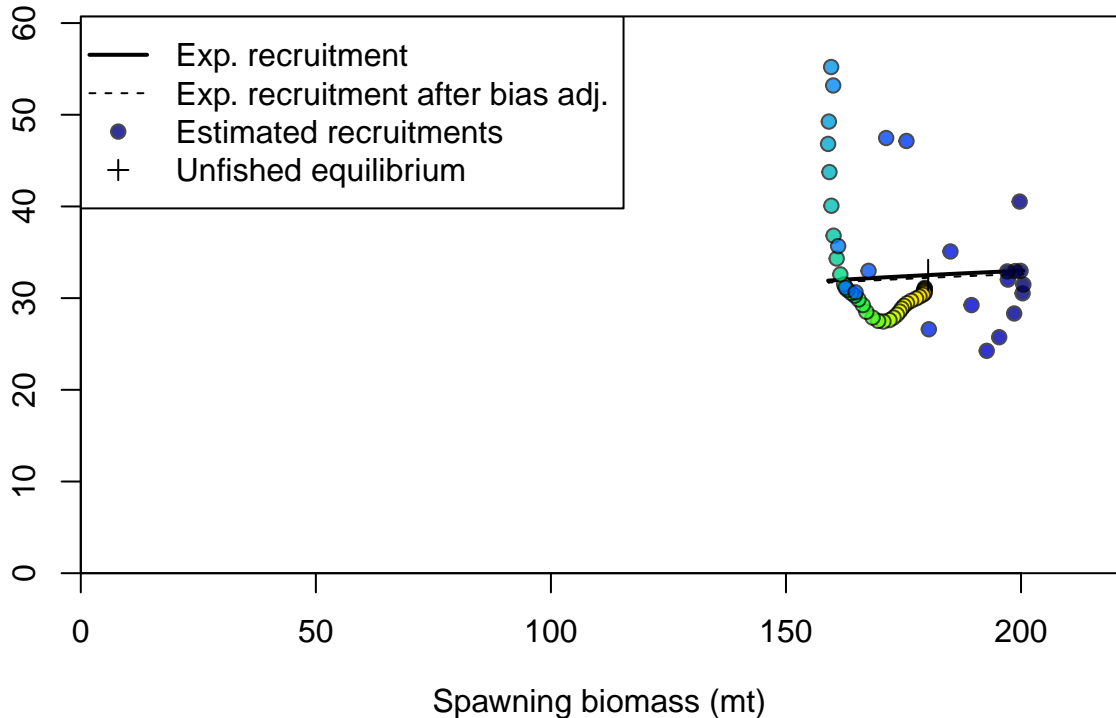
Recruitment deviation variance

Asymptotic standard error estimate

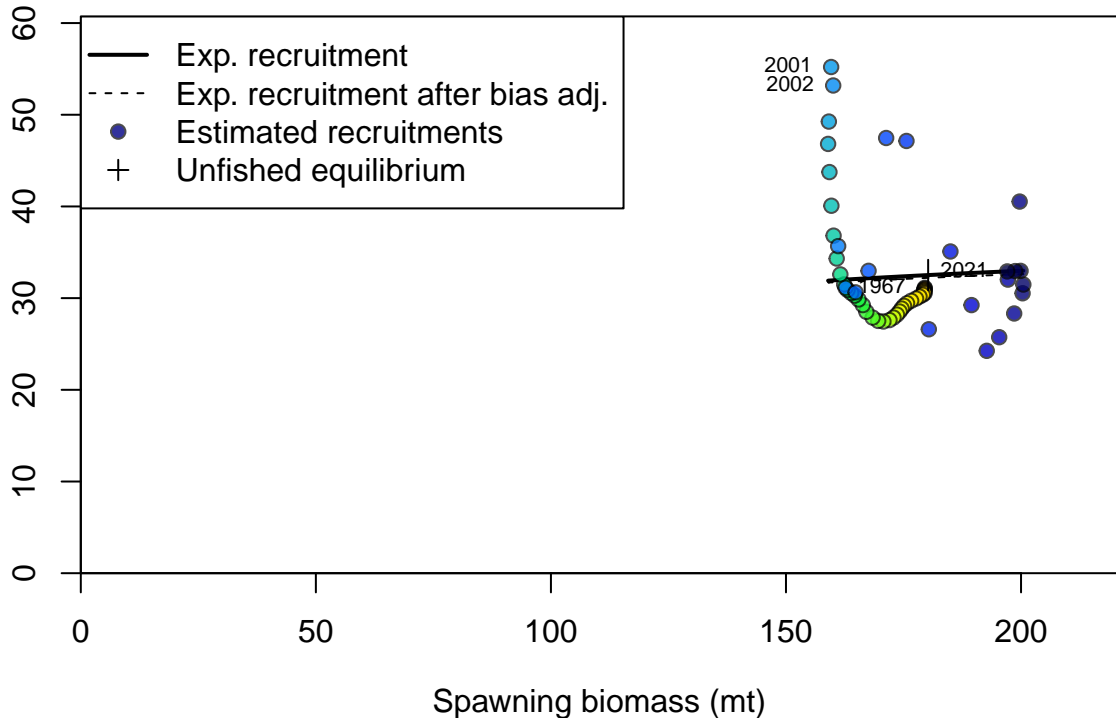




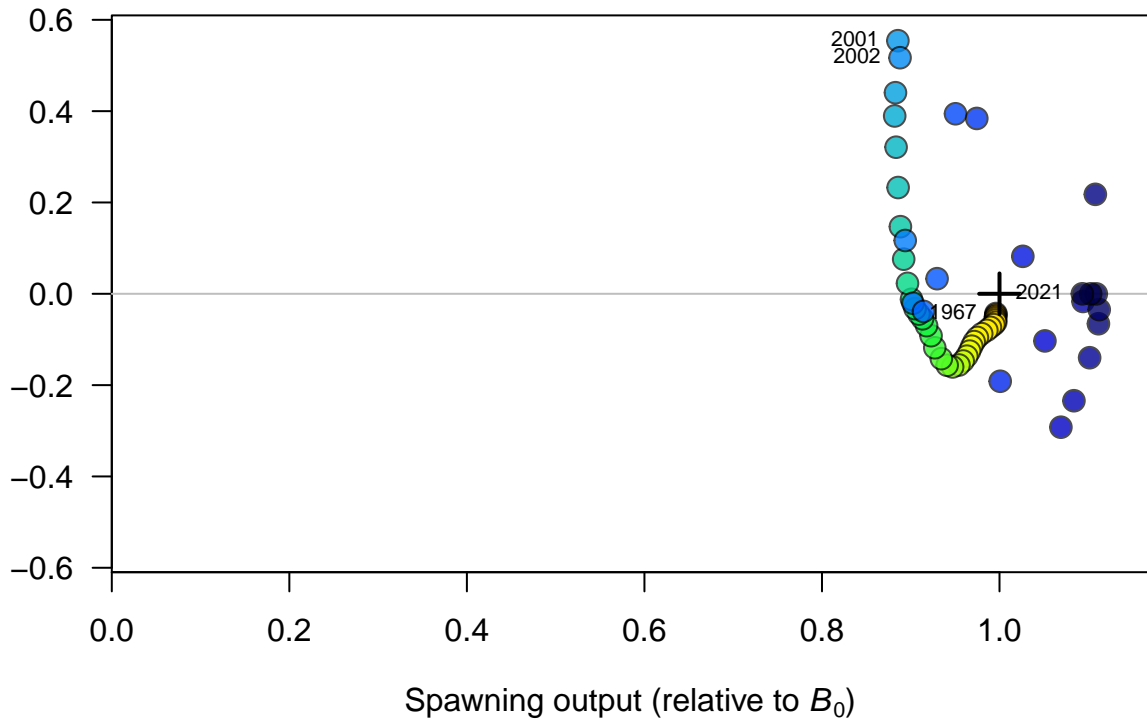
Recruitment (1,000s)

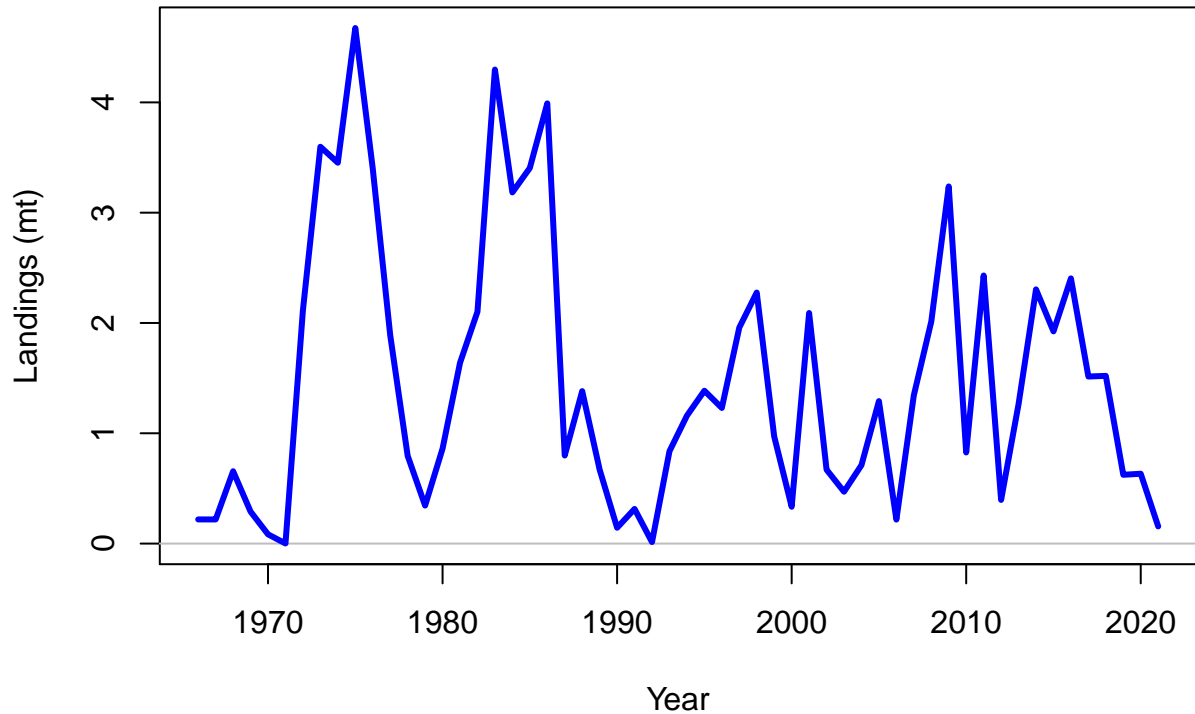


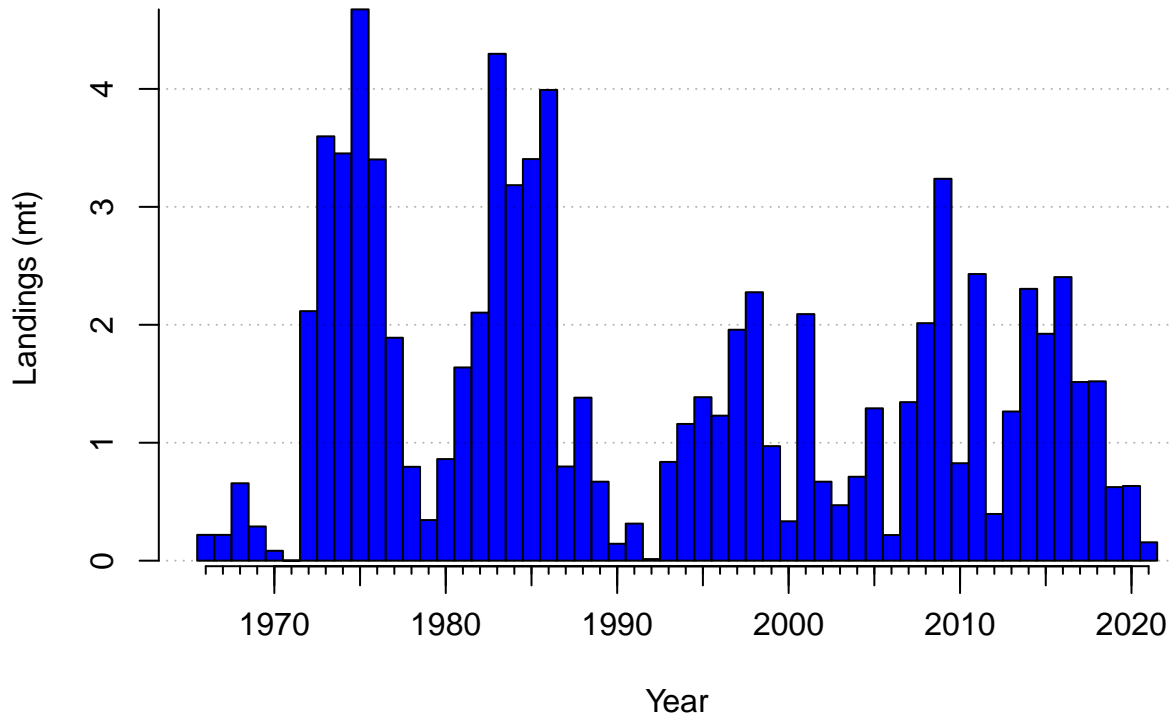
Recruitment (1,000s)



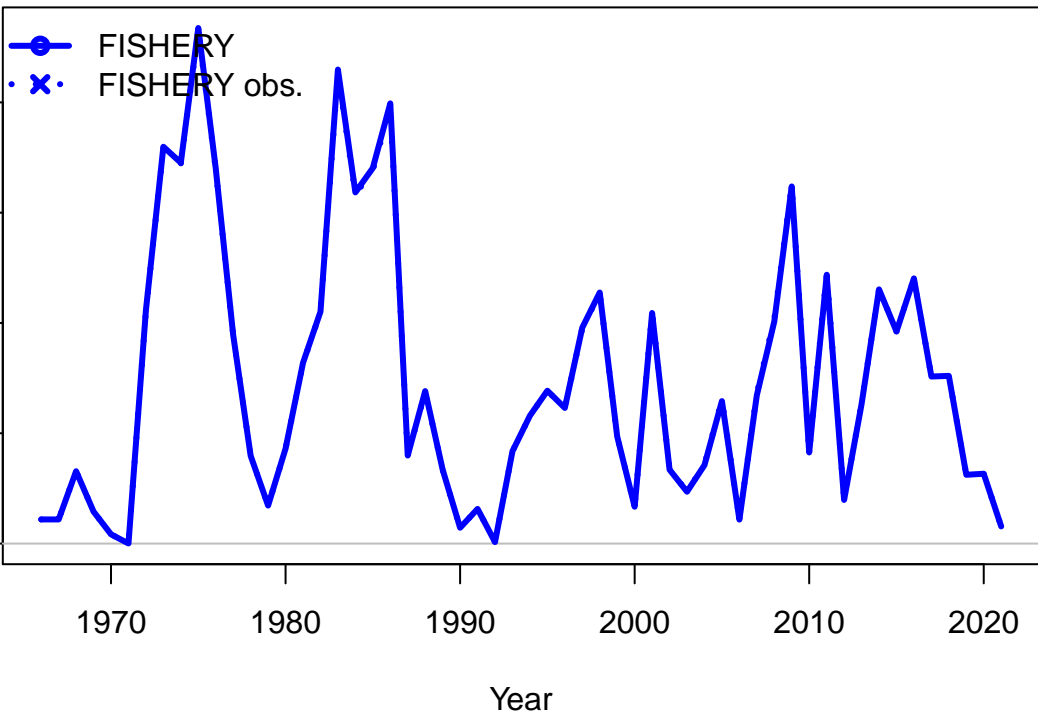
Log recruitment deviation

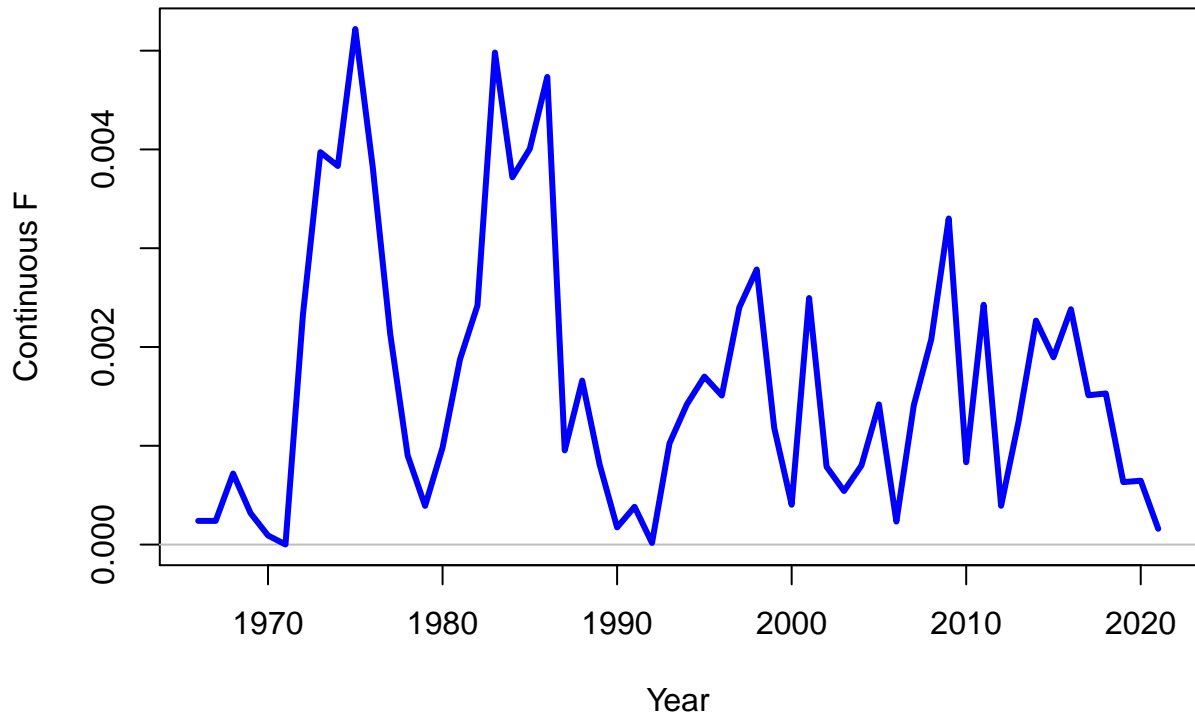




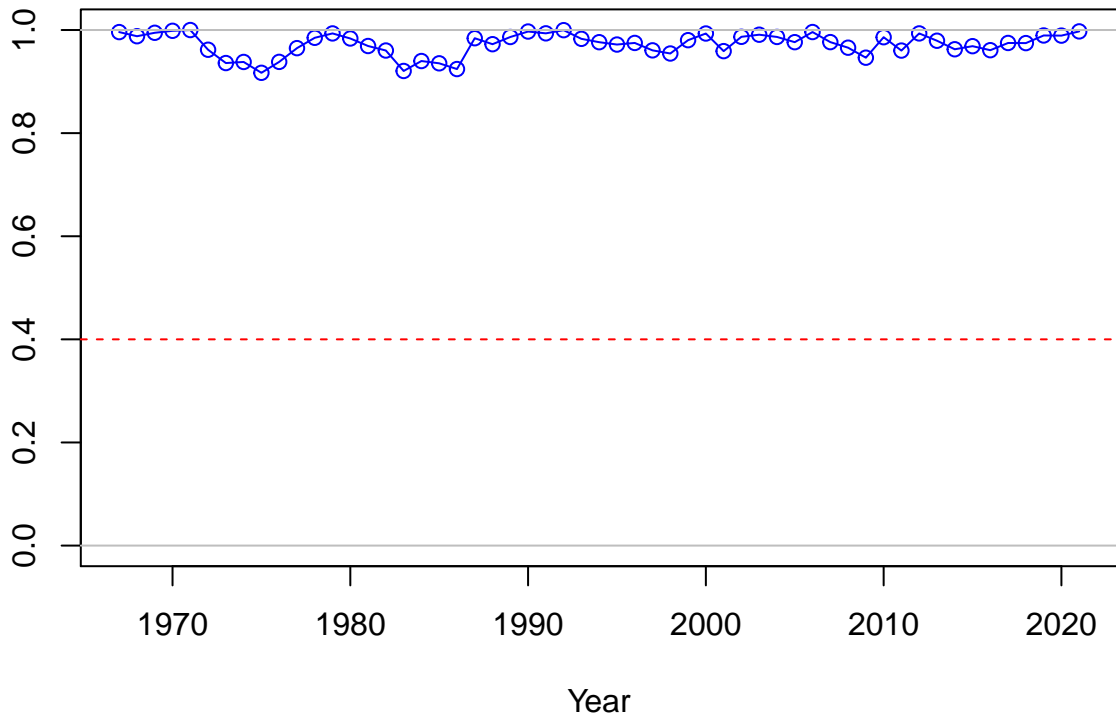


Observed and expected Landings (mt)

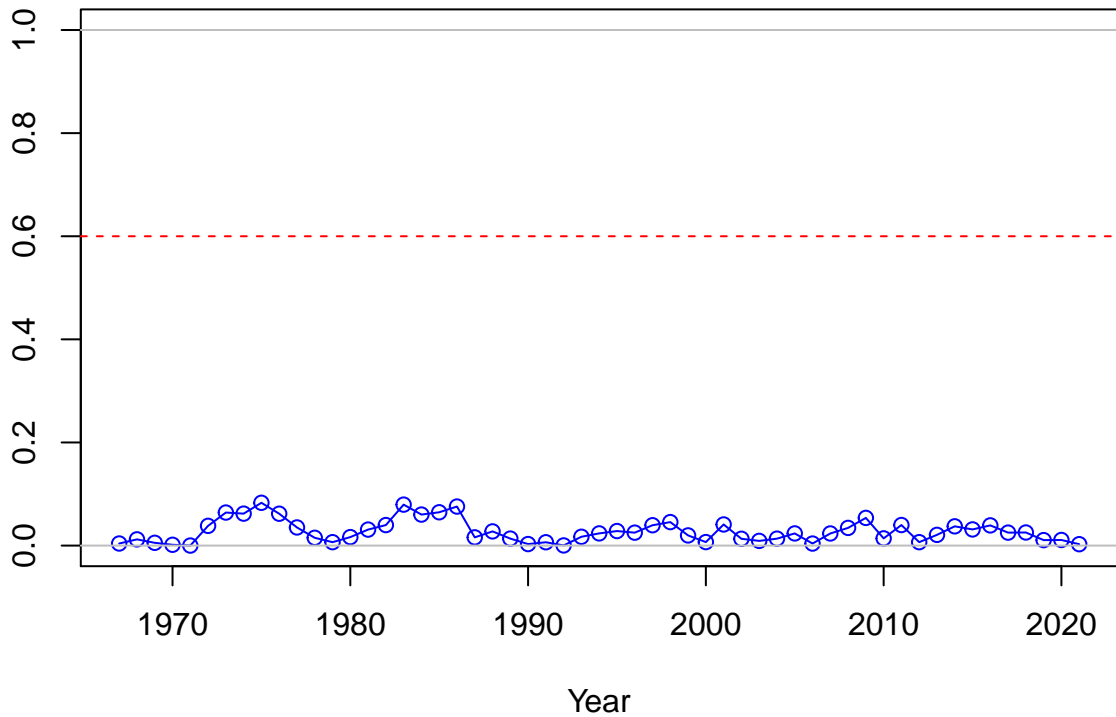




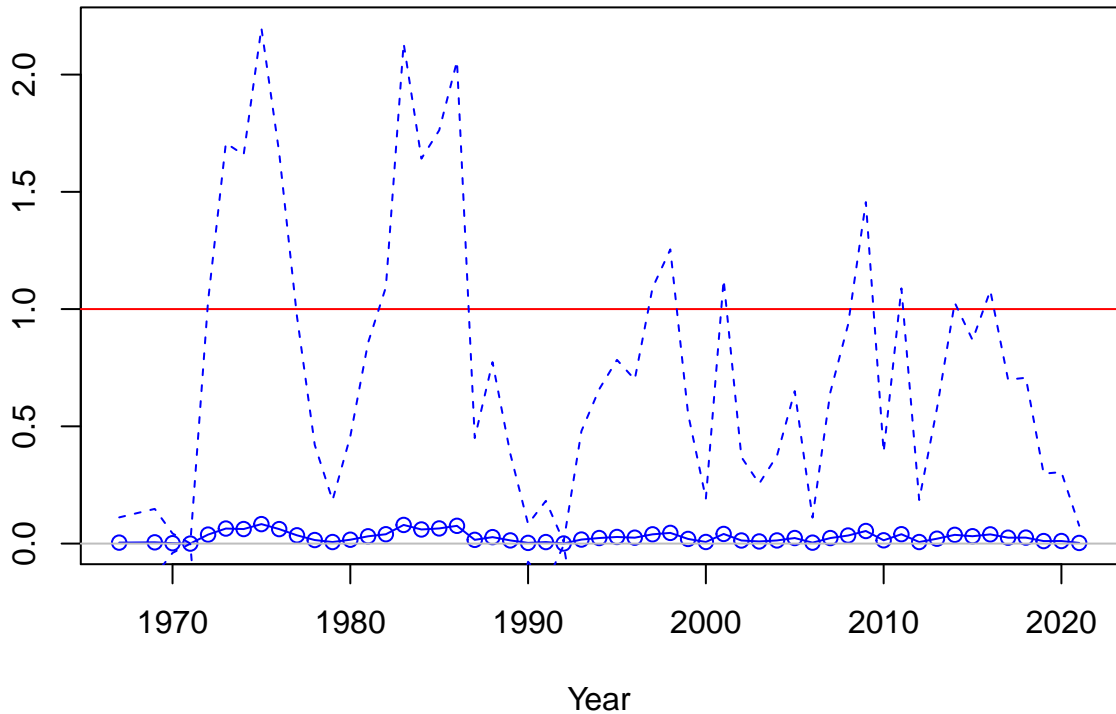
SPR



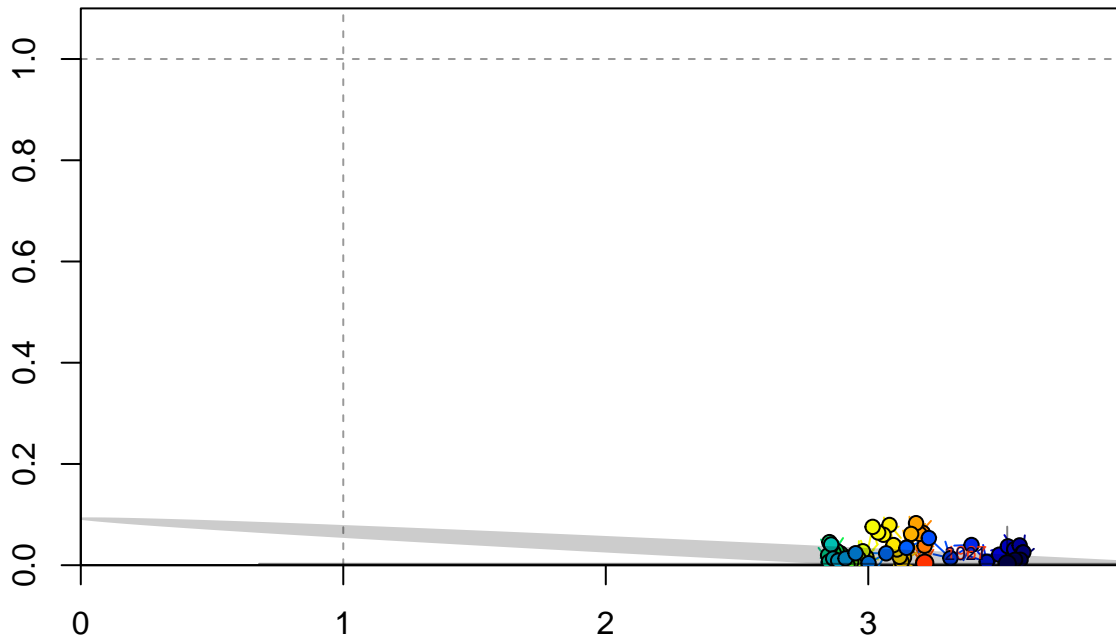
1-SPR



Fishing intensity: 1-SPR



Fishing intensity: 1-SPR

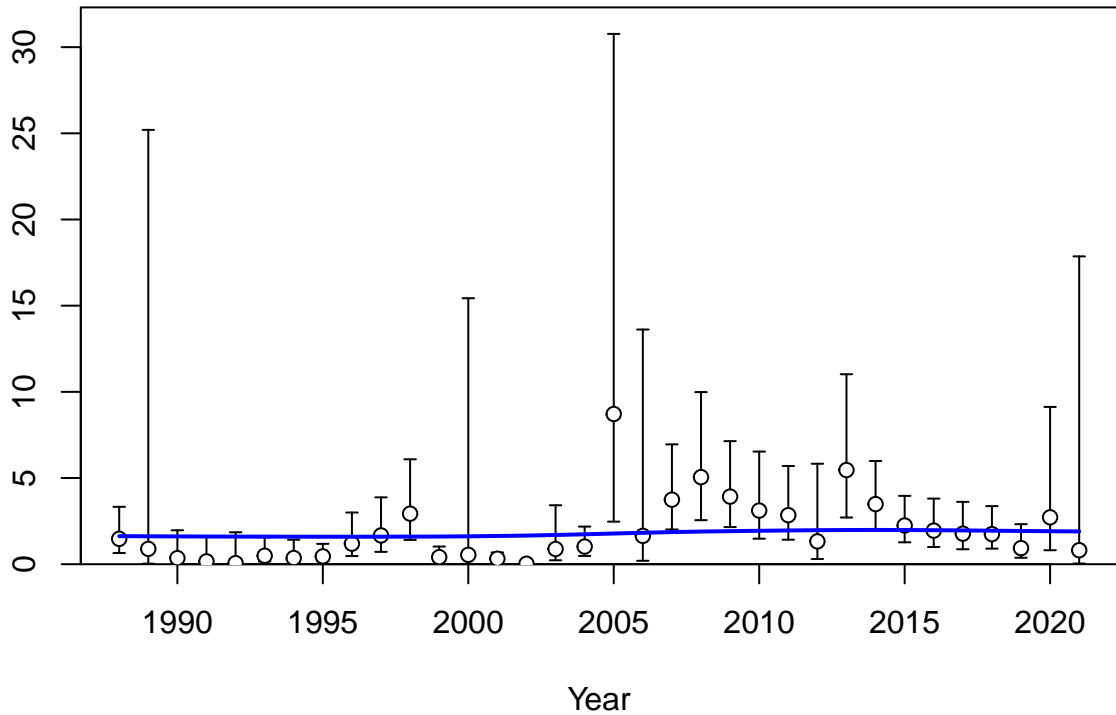


Relative spawning output: B/B_{MSY}

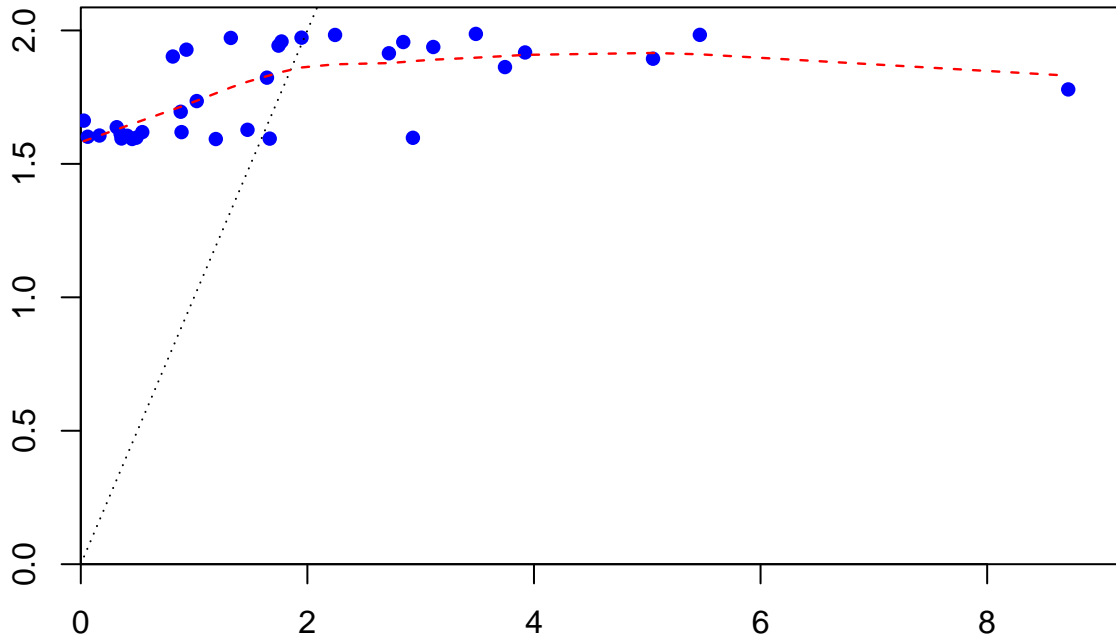
Index



Index



Expected index



Observed index

Log index

2
0
-2
-4
-6

1990

1995

2000

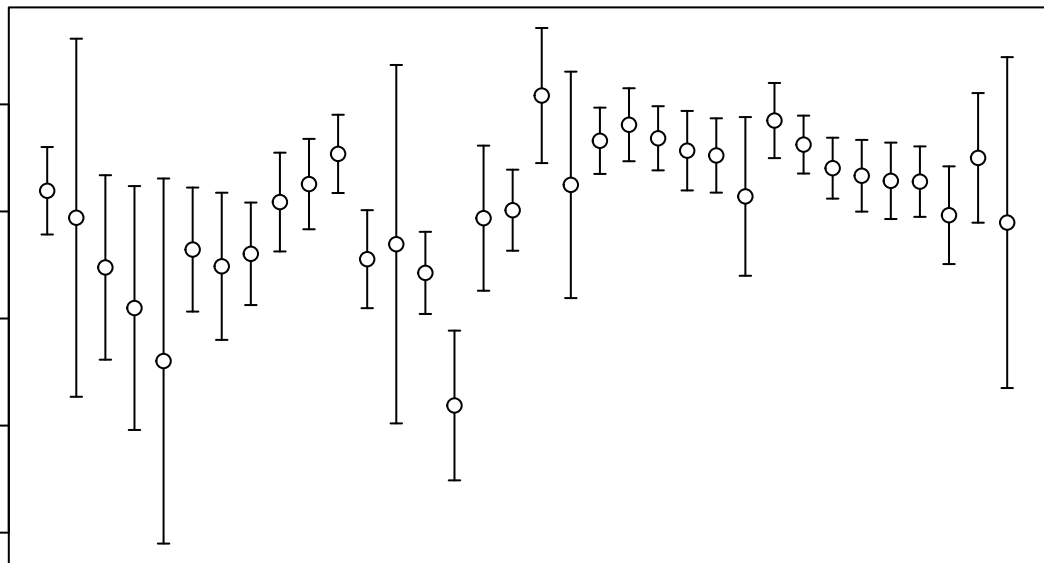
2005

2010

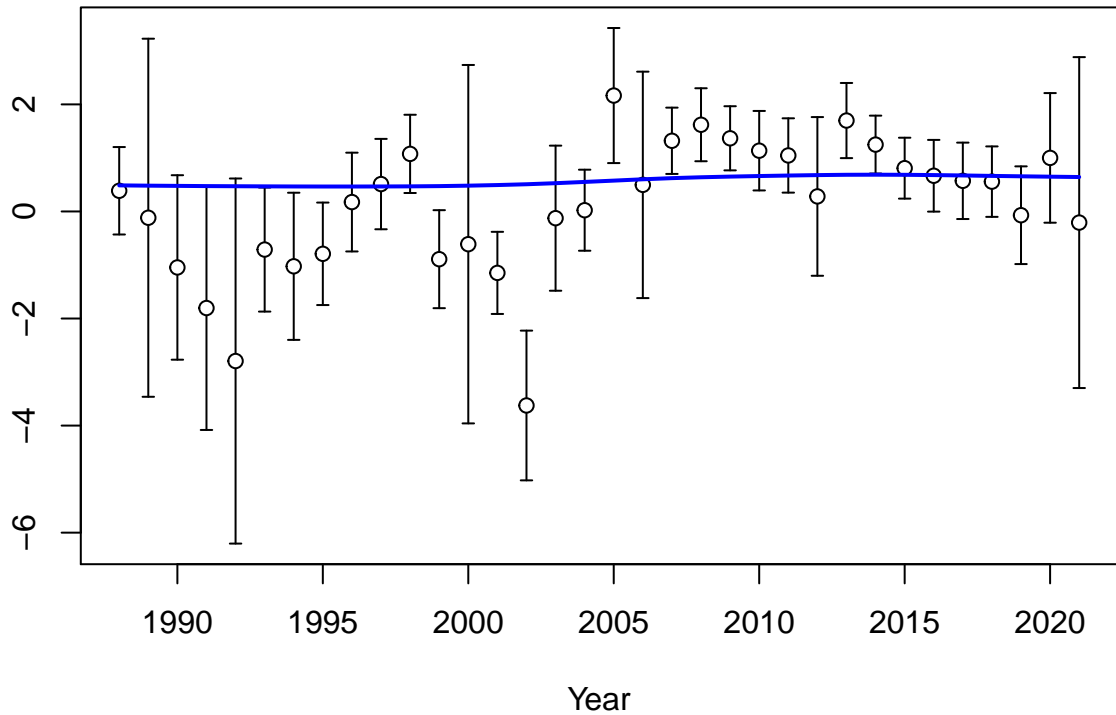
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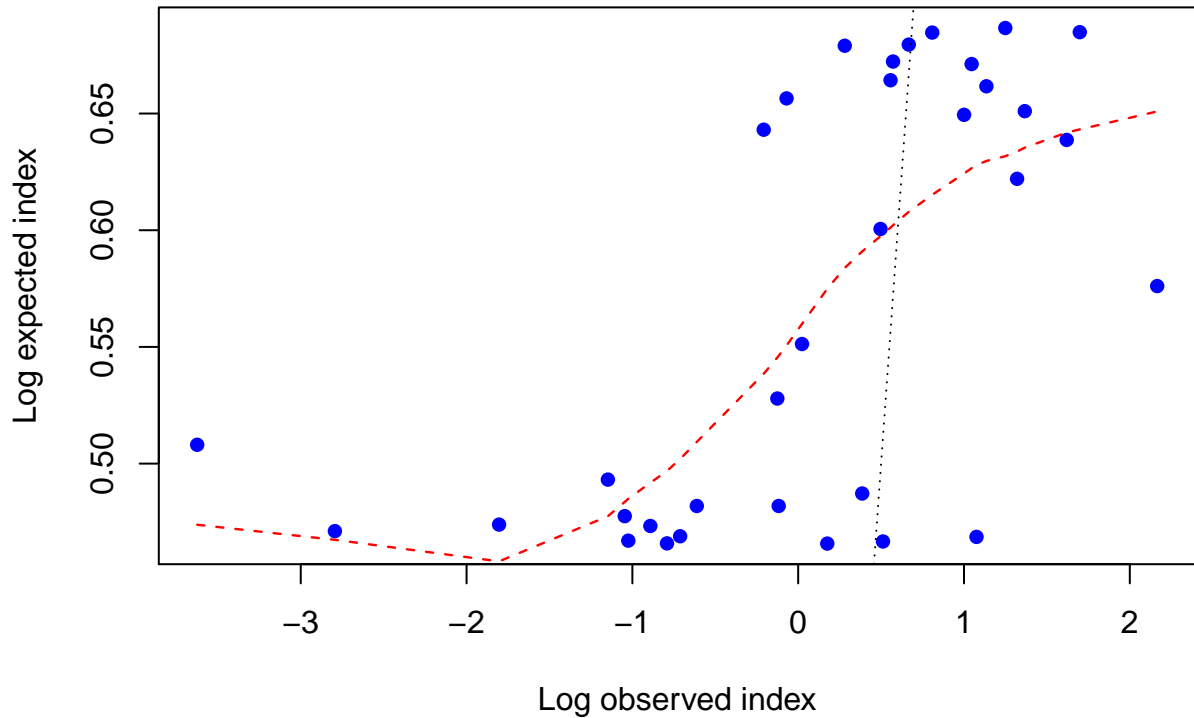
2020

Year

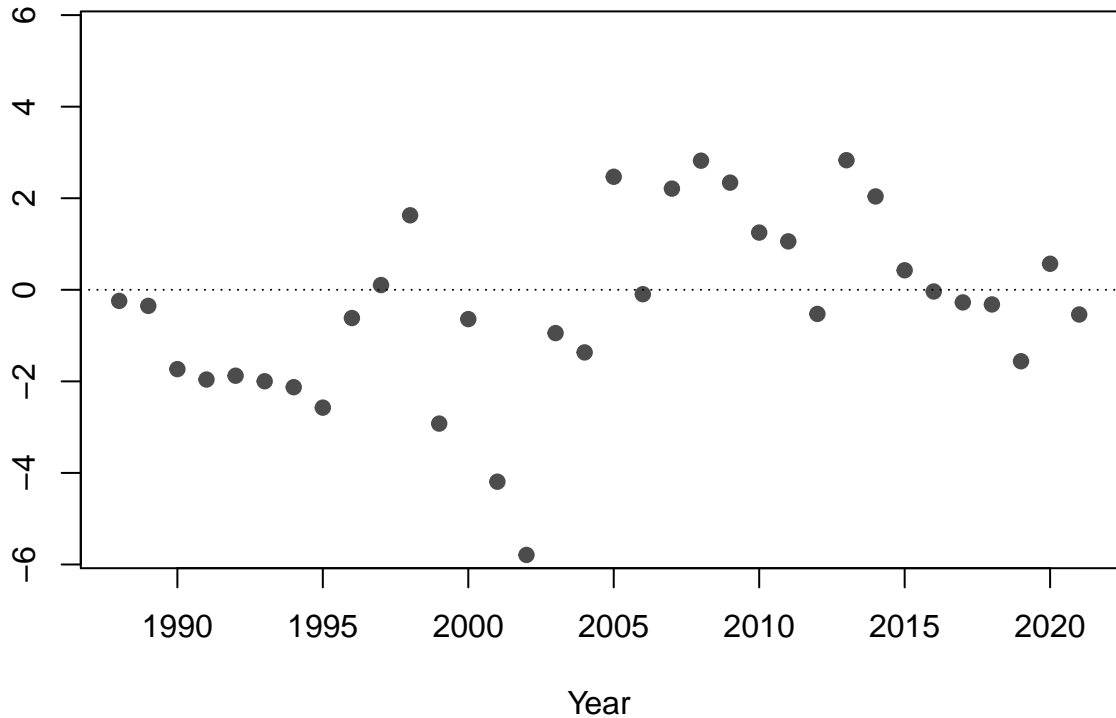


Log index

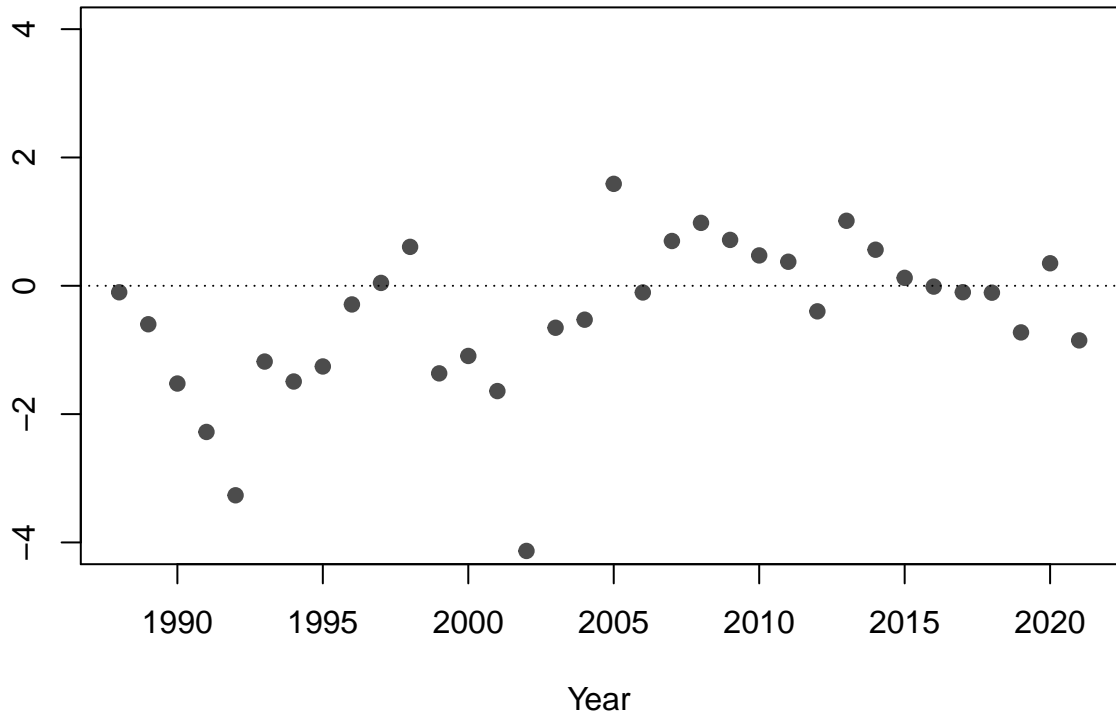


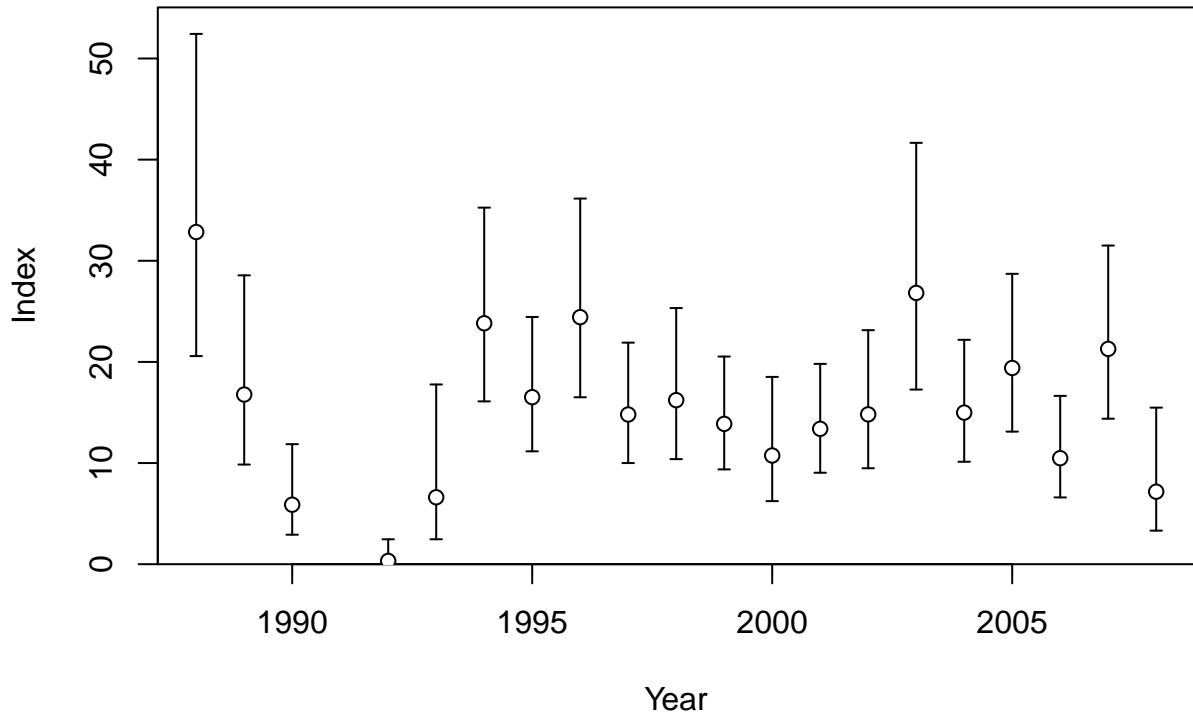


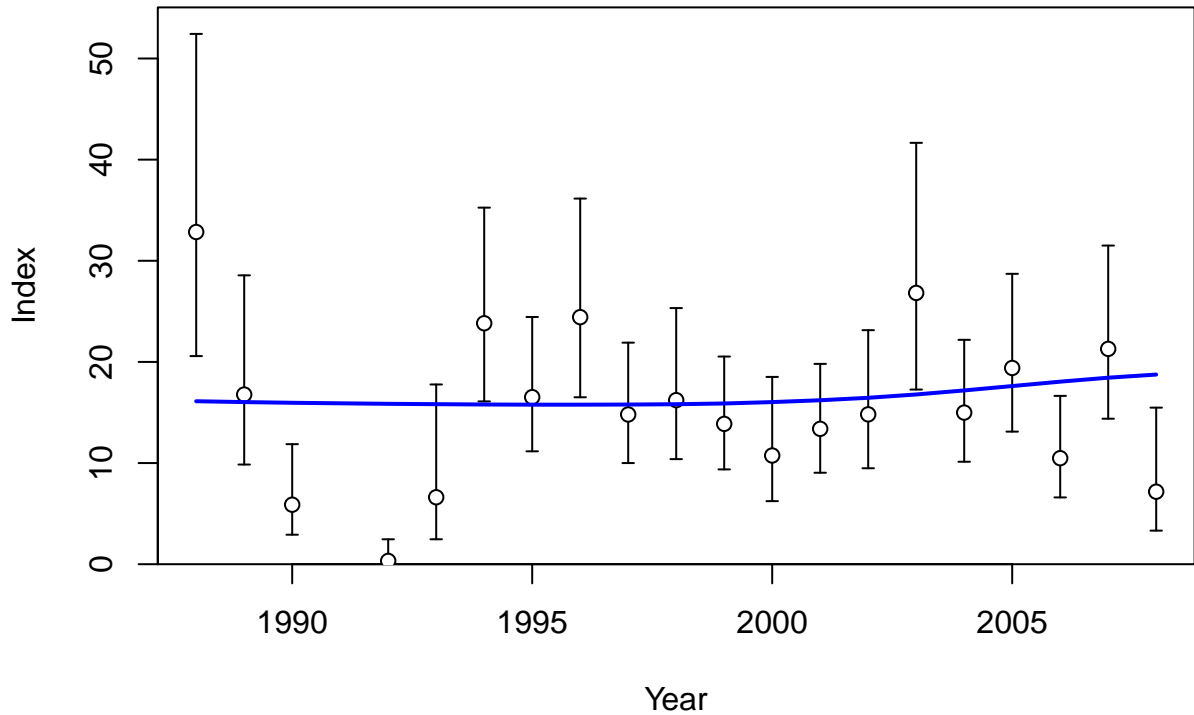
Residual

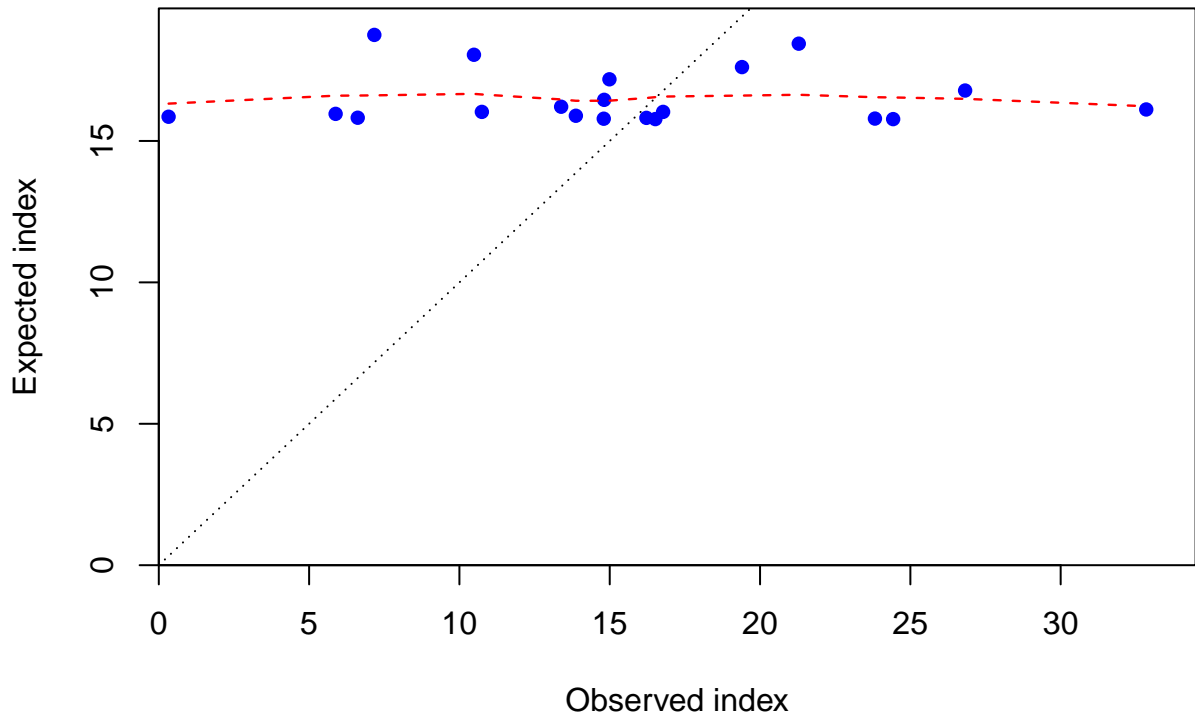


Deviation

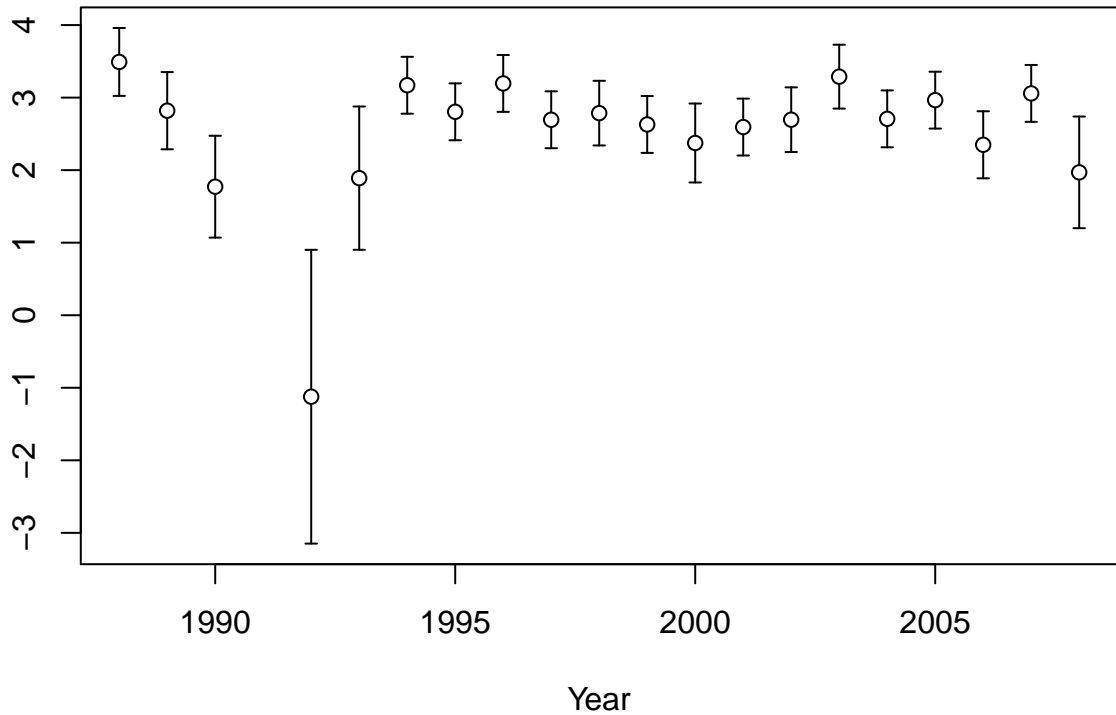




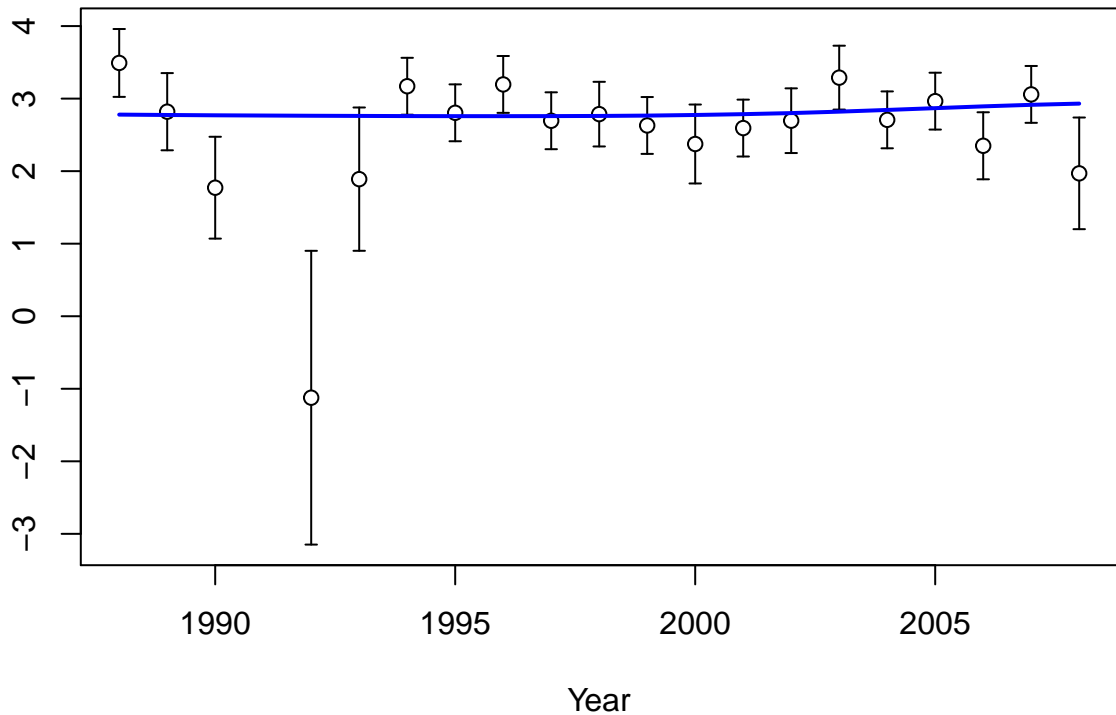


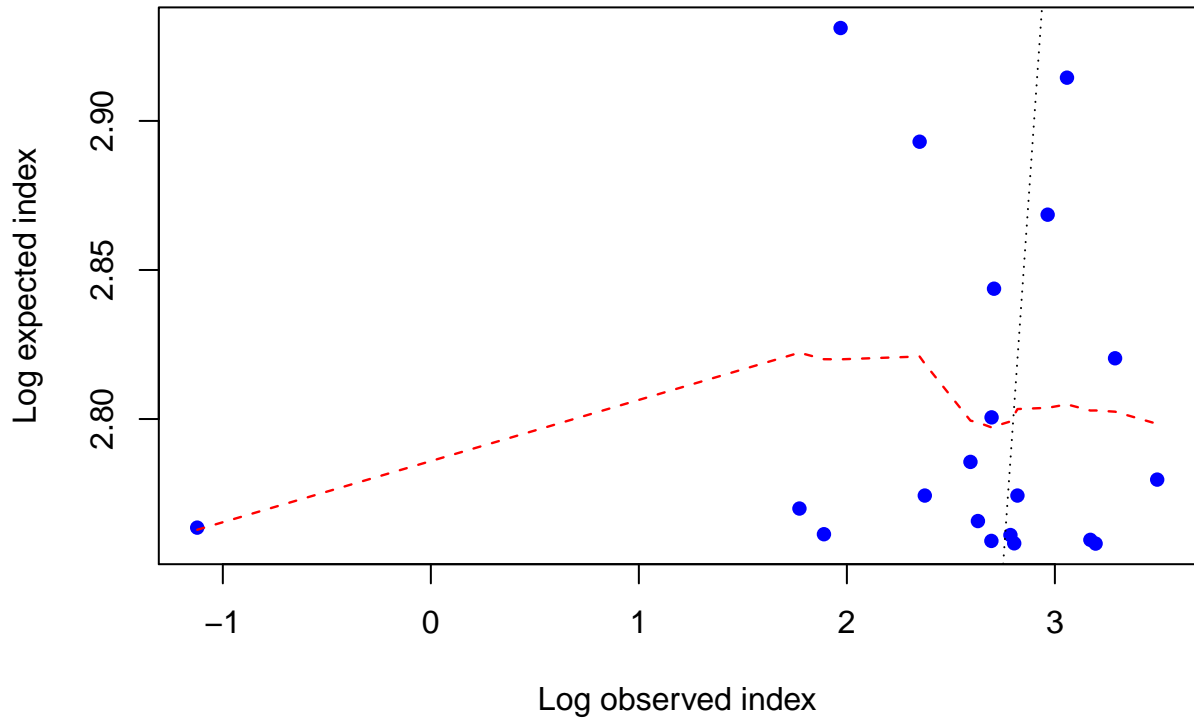


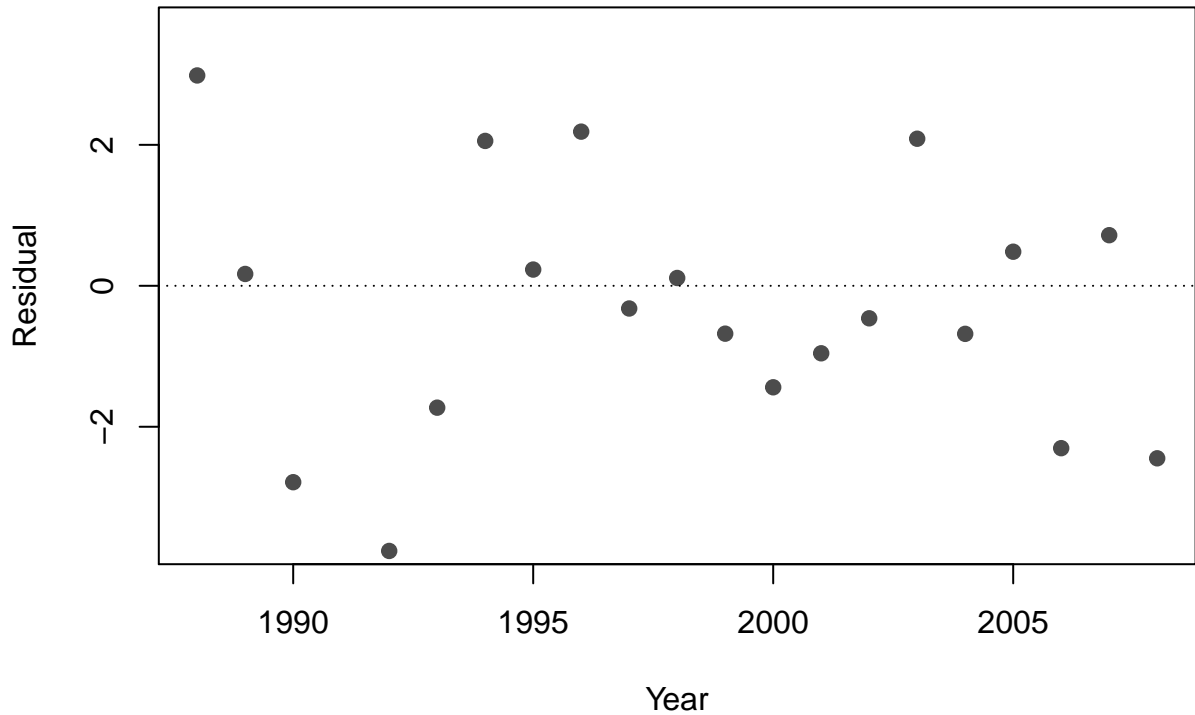
Log index



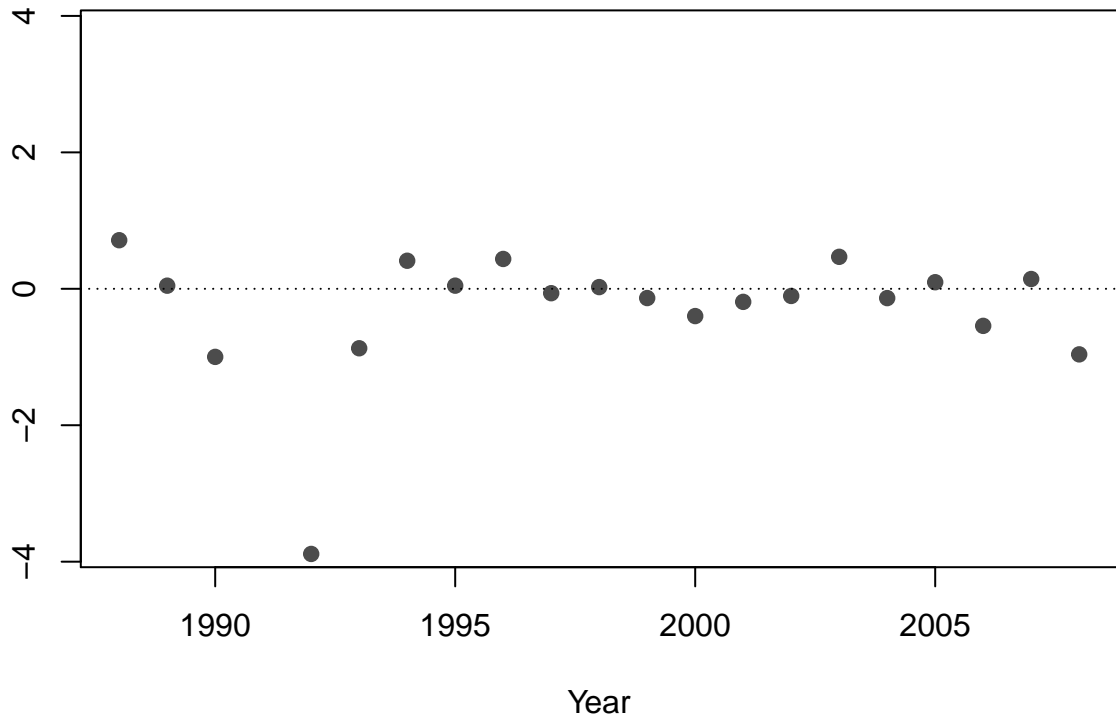
Log index

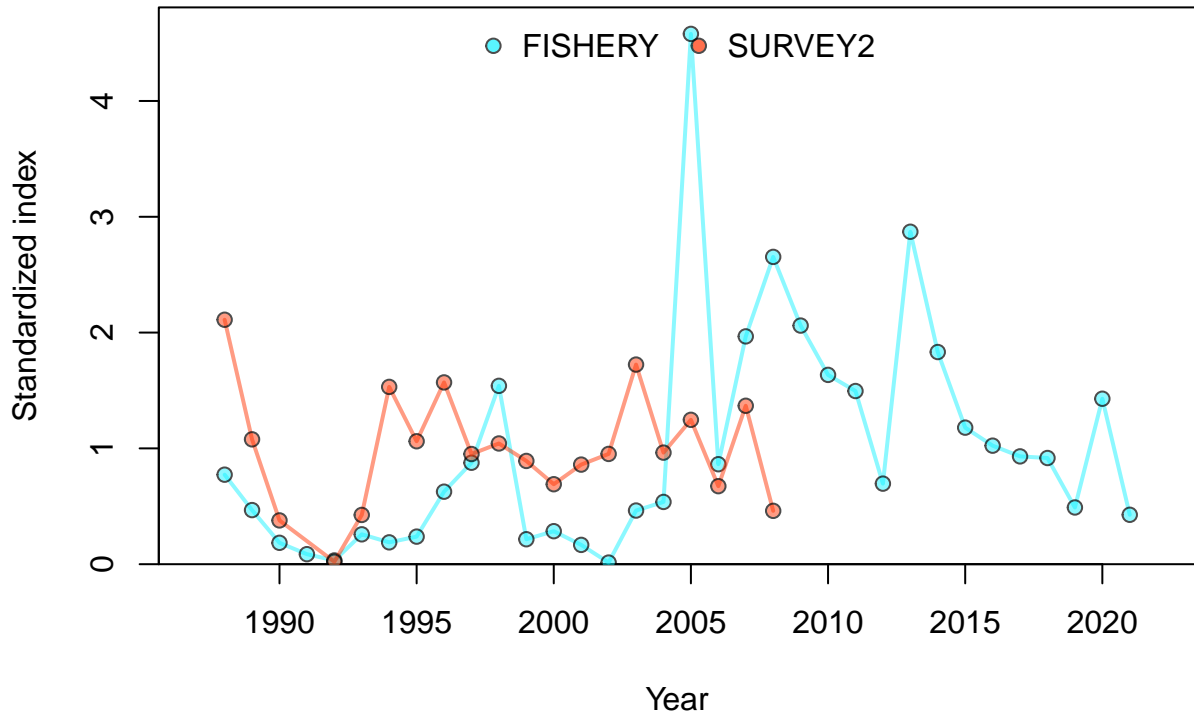


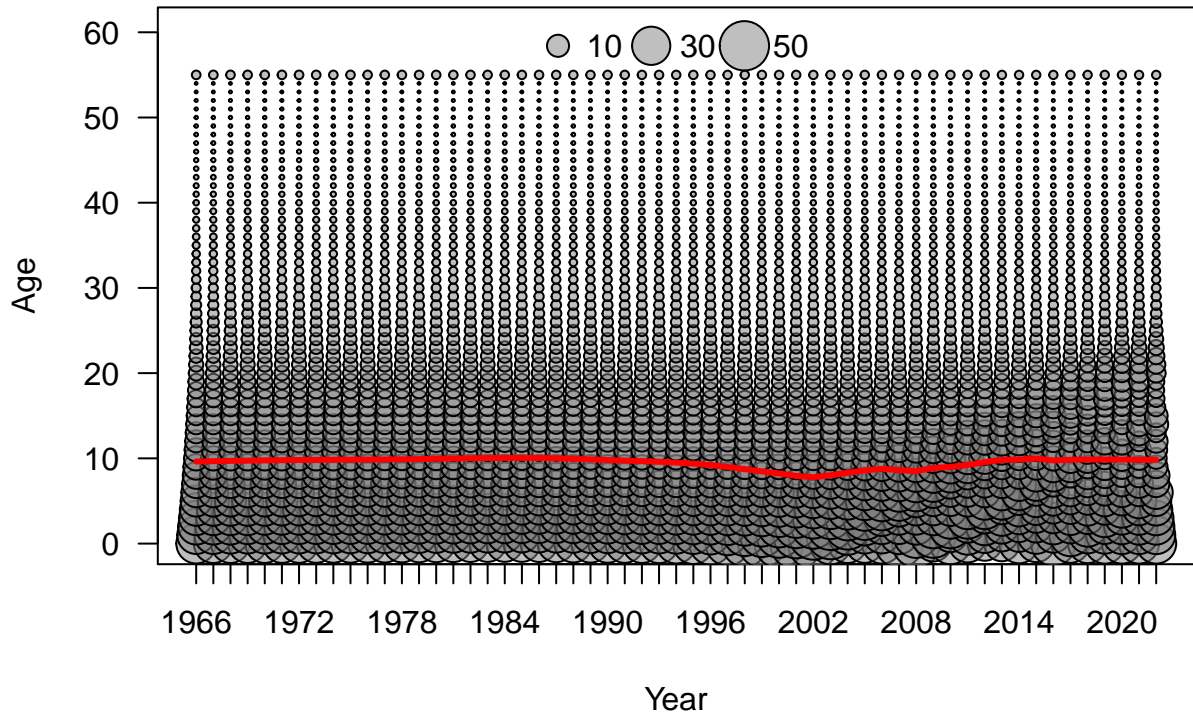


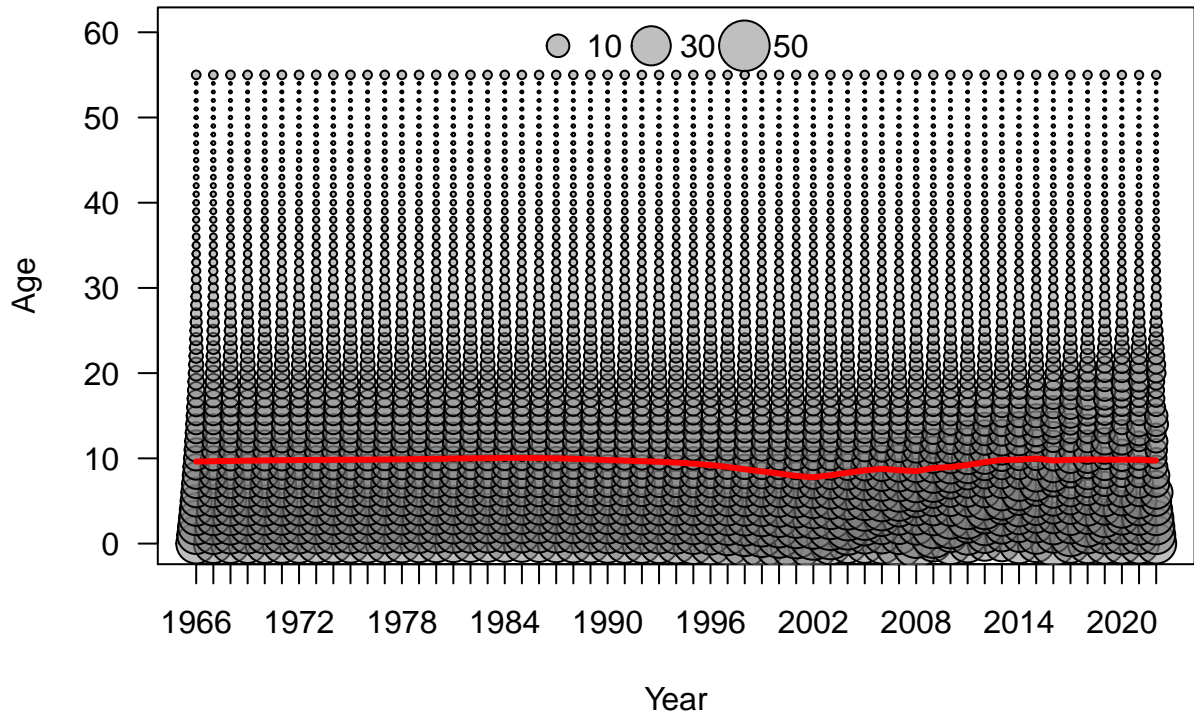


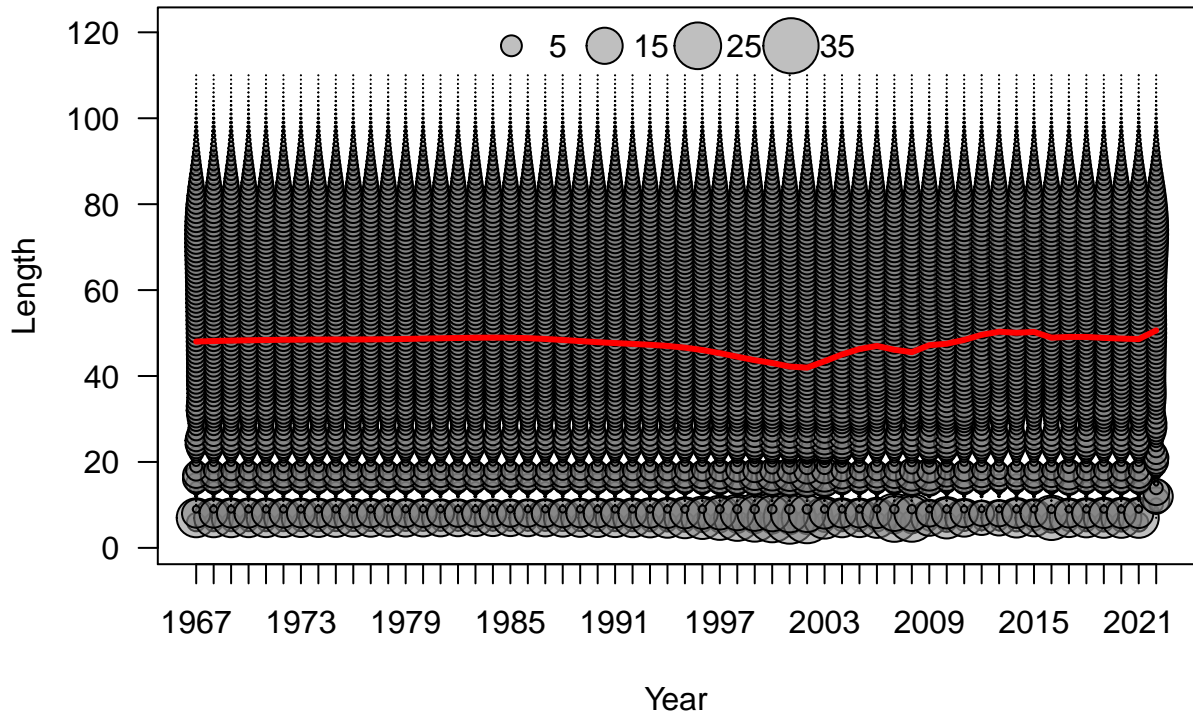
Deviation

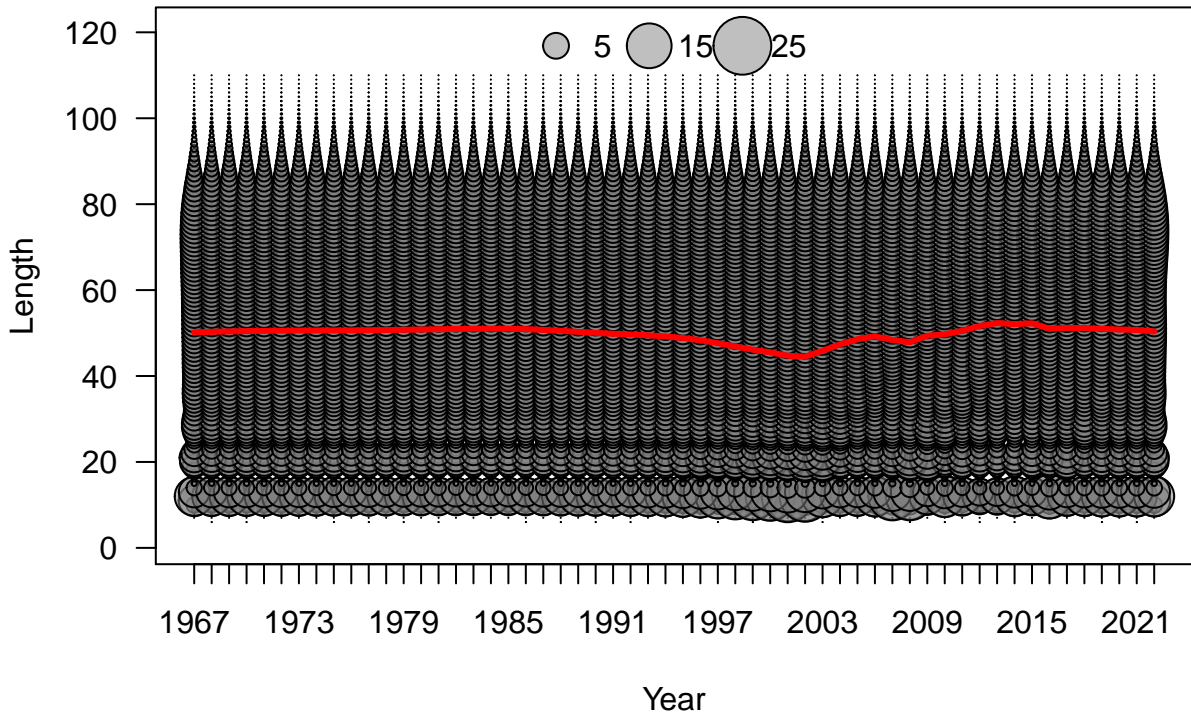


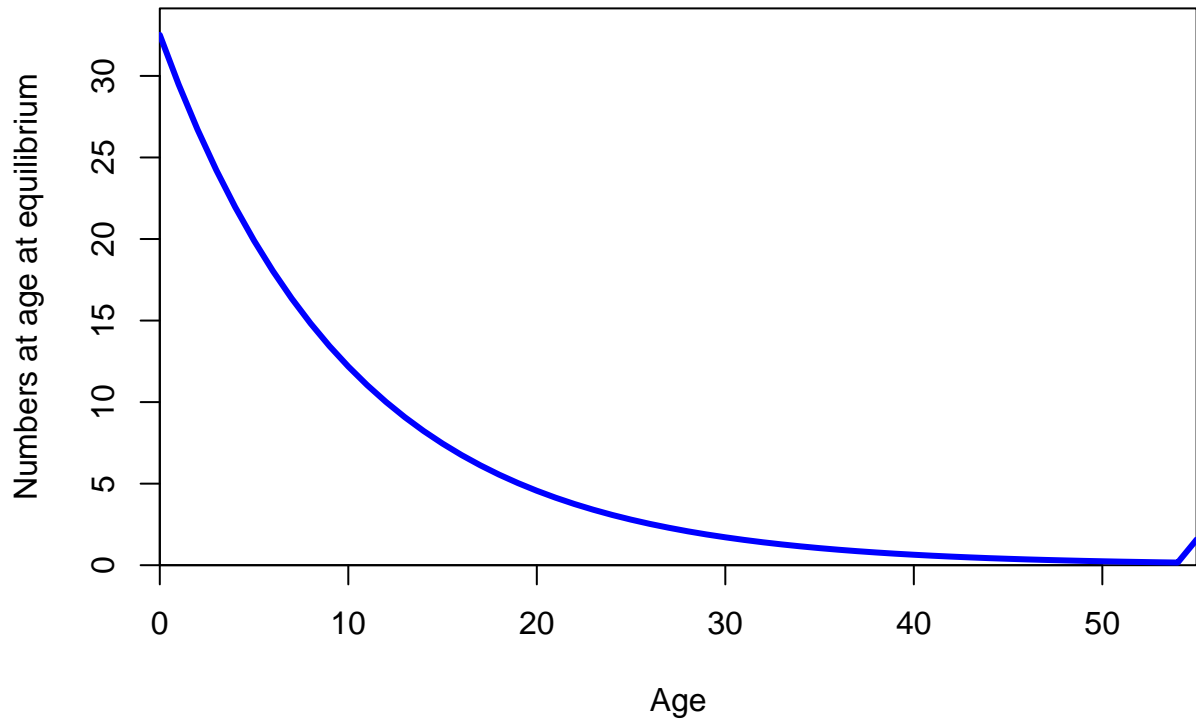






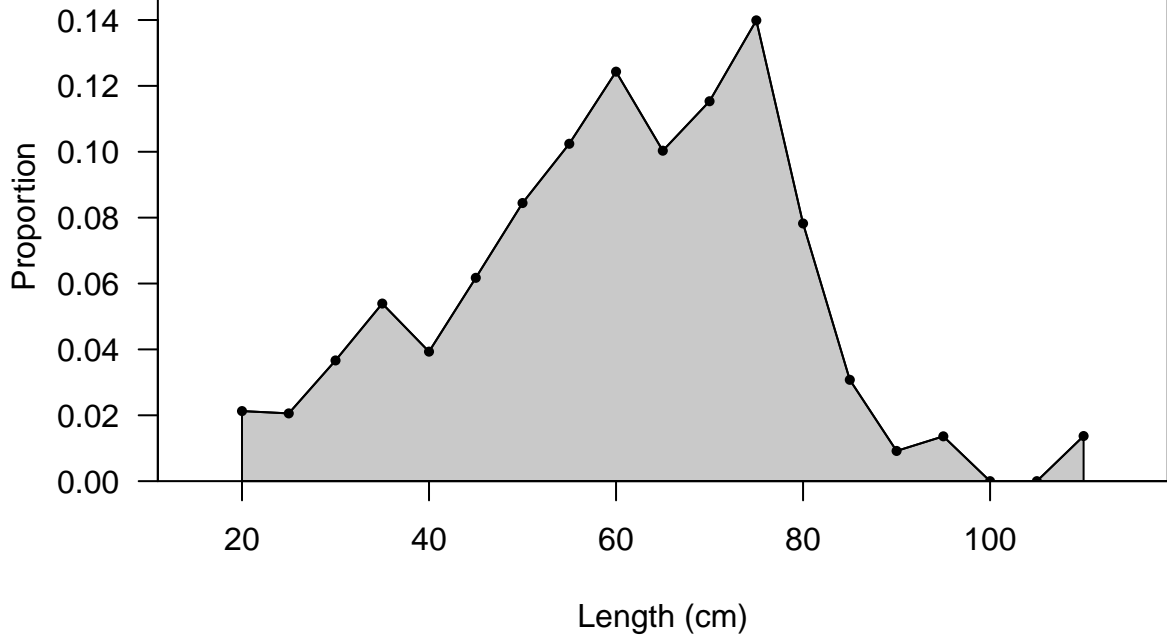






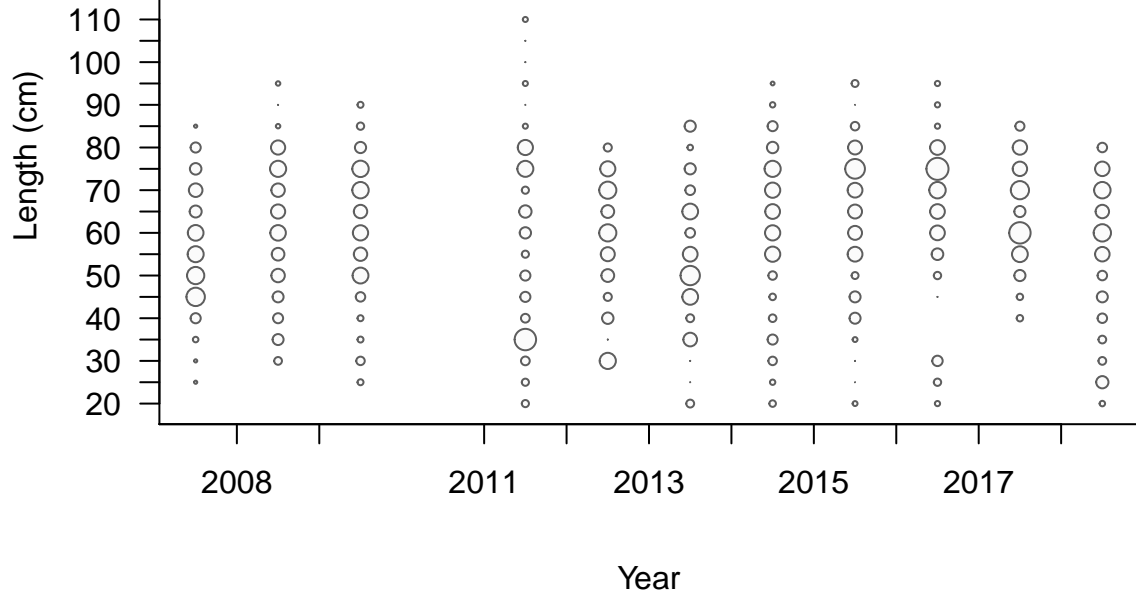
FISHERY

Sum of N adj.=285

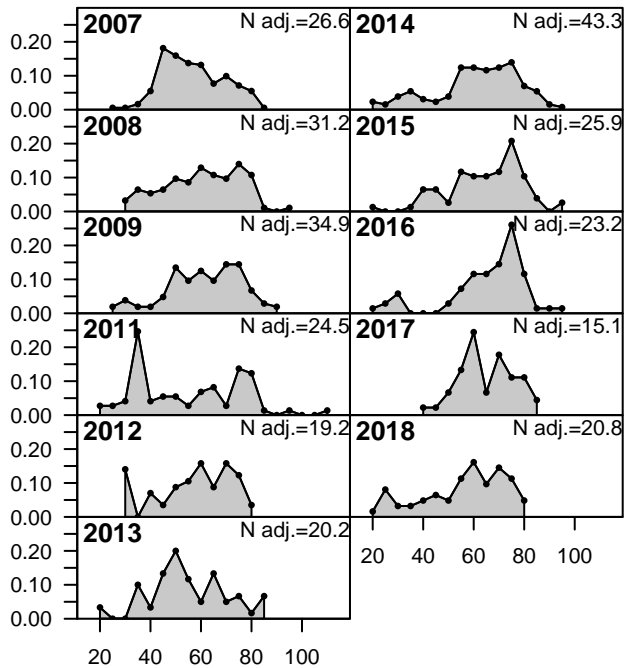


FISHERY

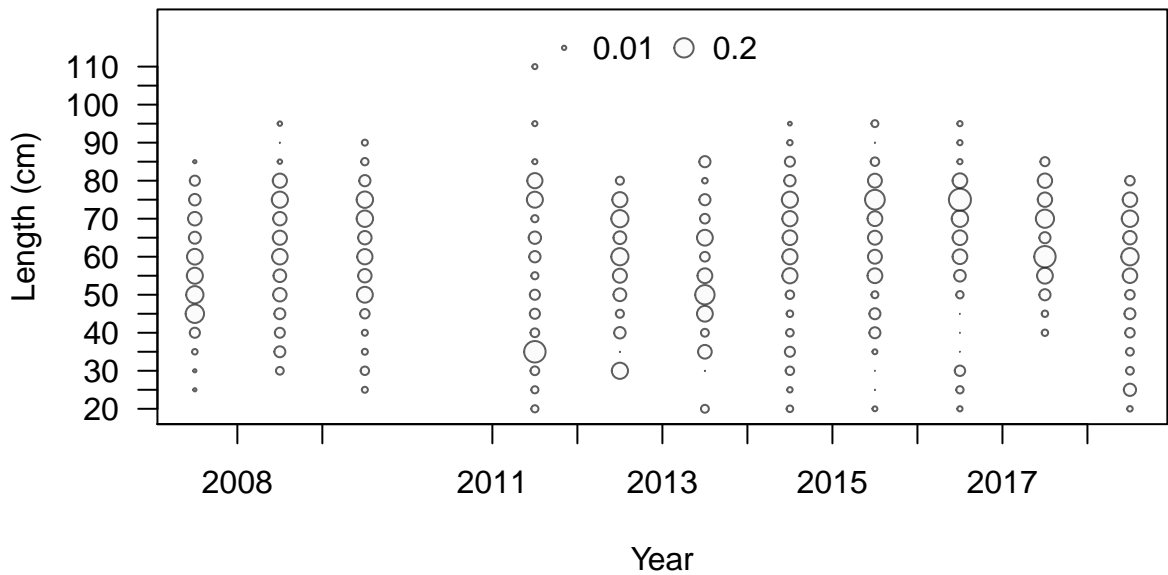
◦ 0.01 ○ 0.2



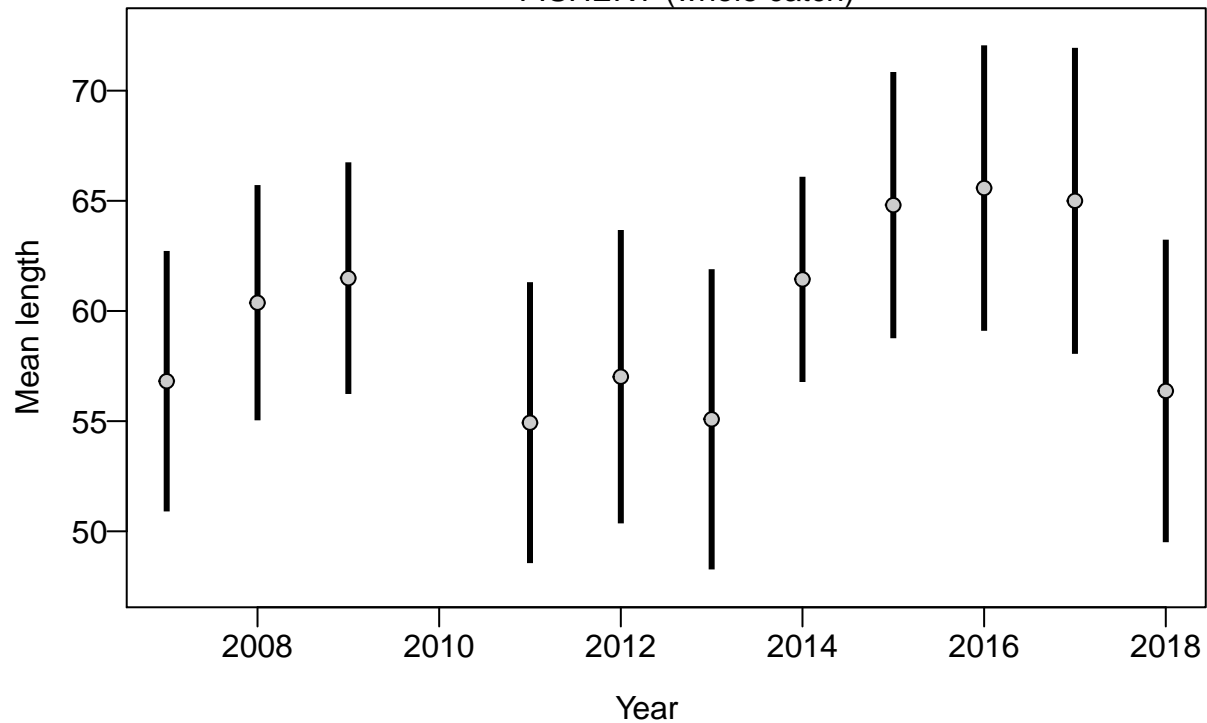
Proportion



Length (cm)

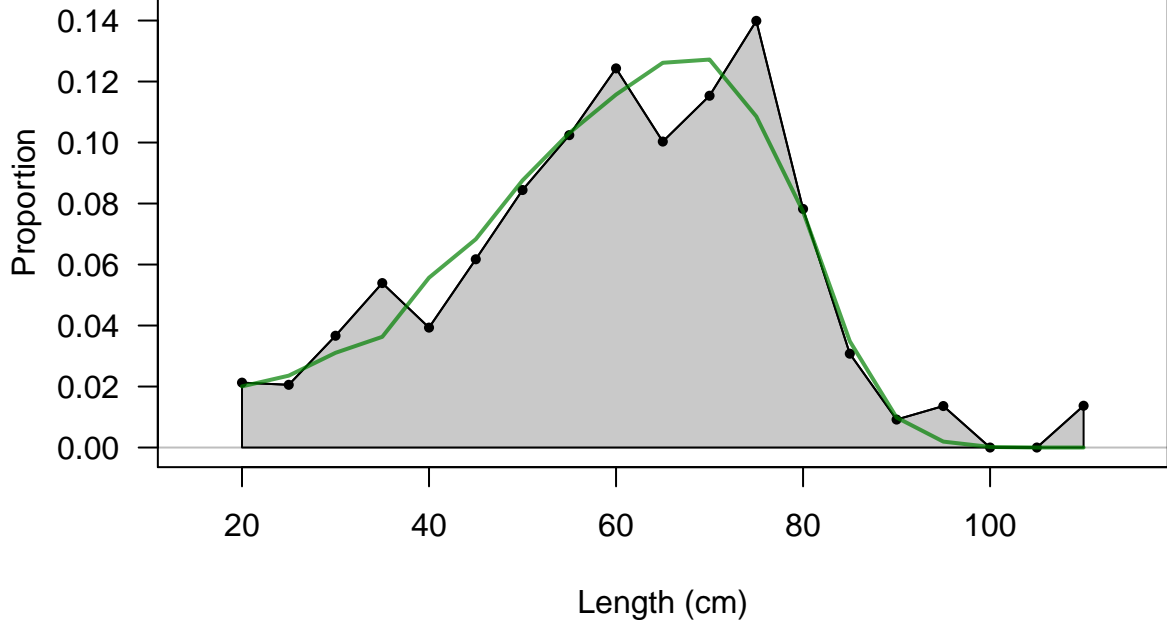


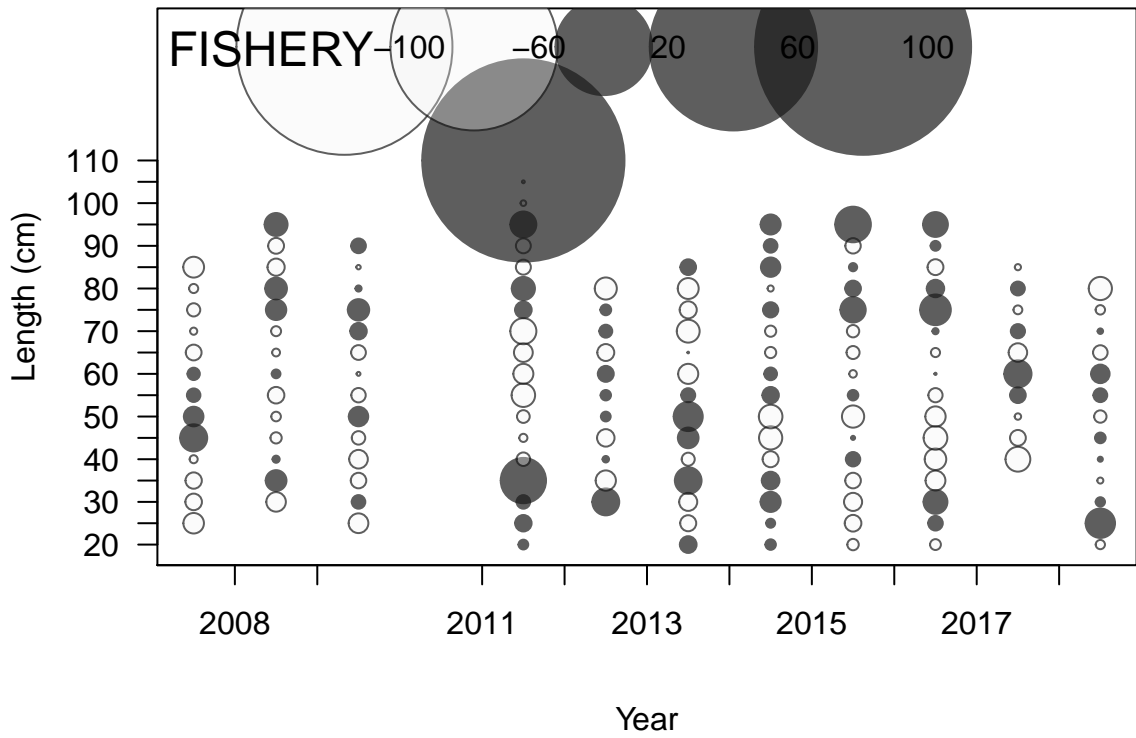
FISHERY (whole catch)



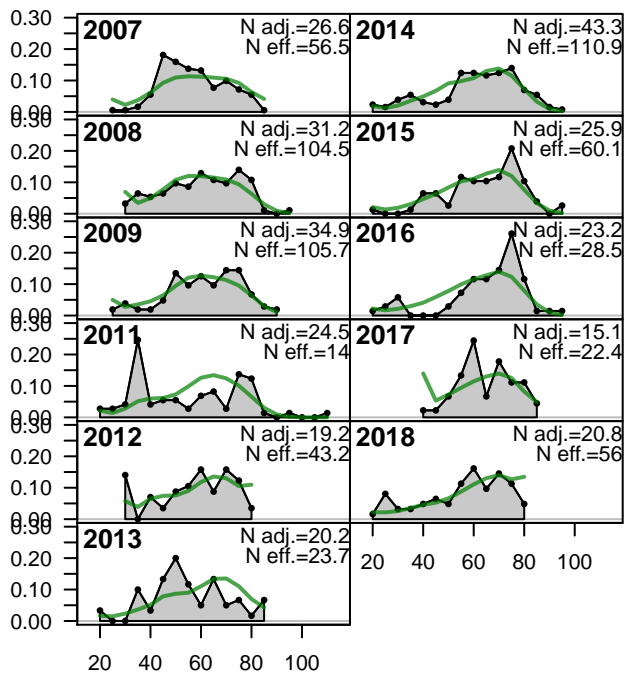
FISHERY

Sum of N adj.=285
Sum of N eff.=625.3

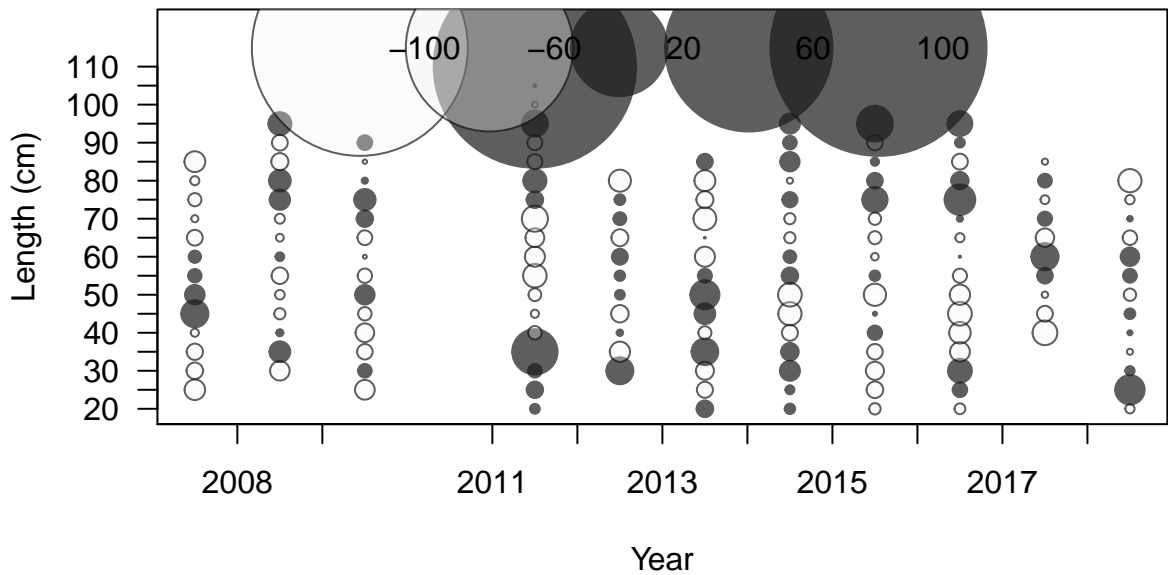




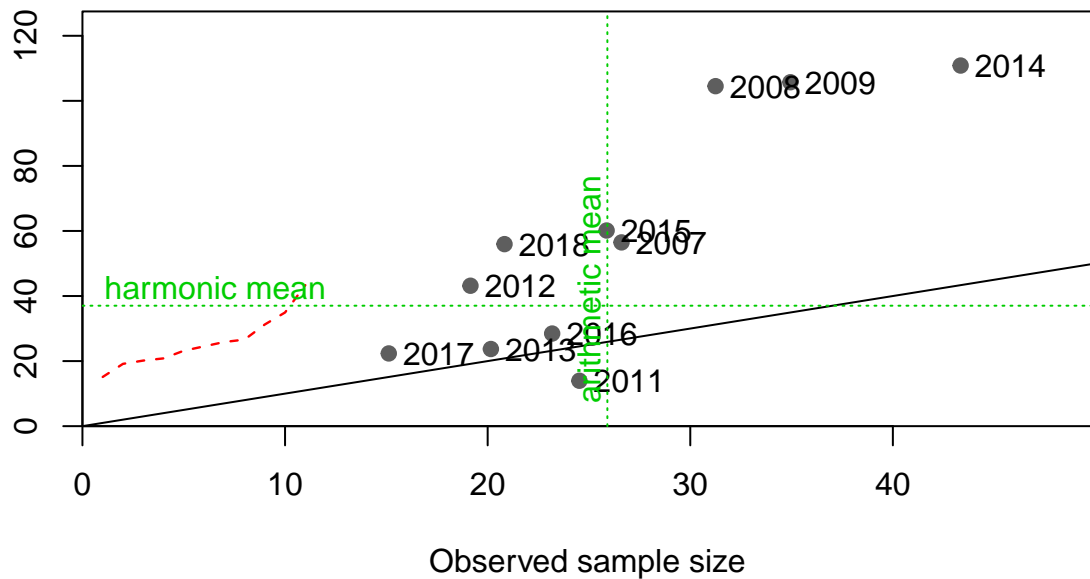
Proportion



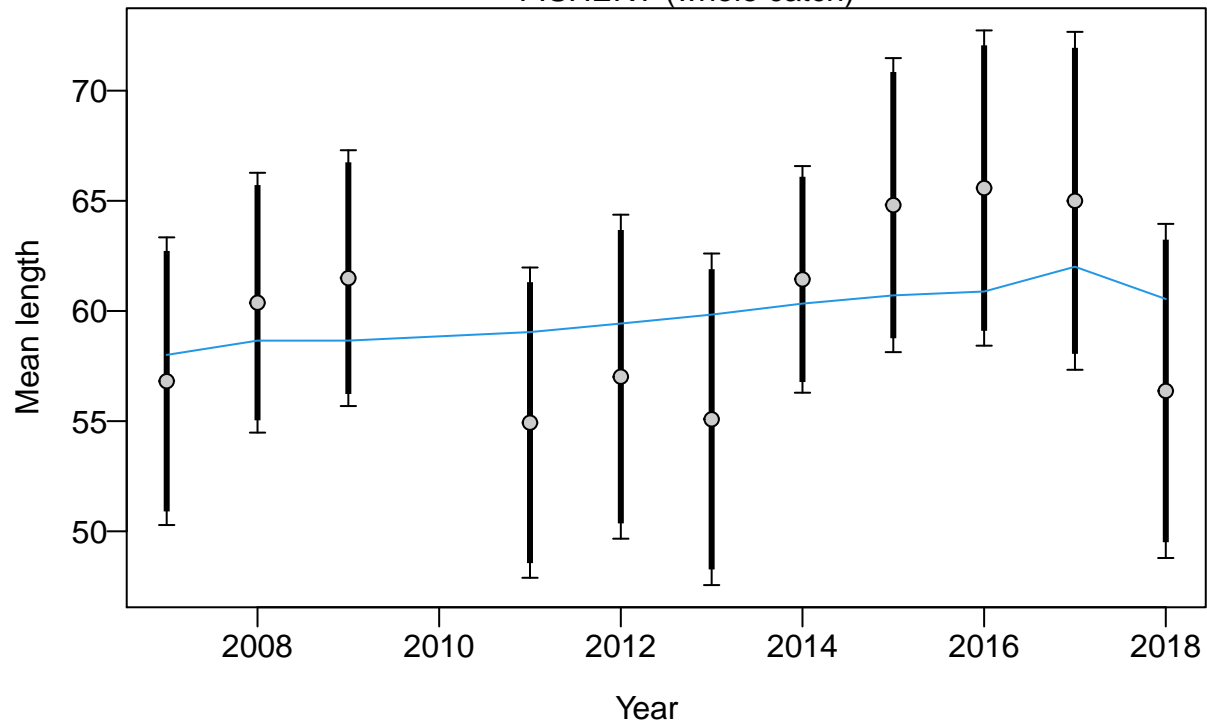
Length (cm)

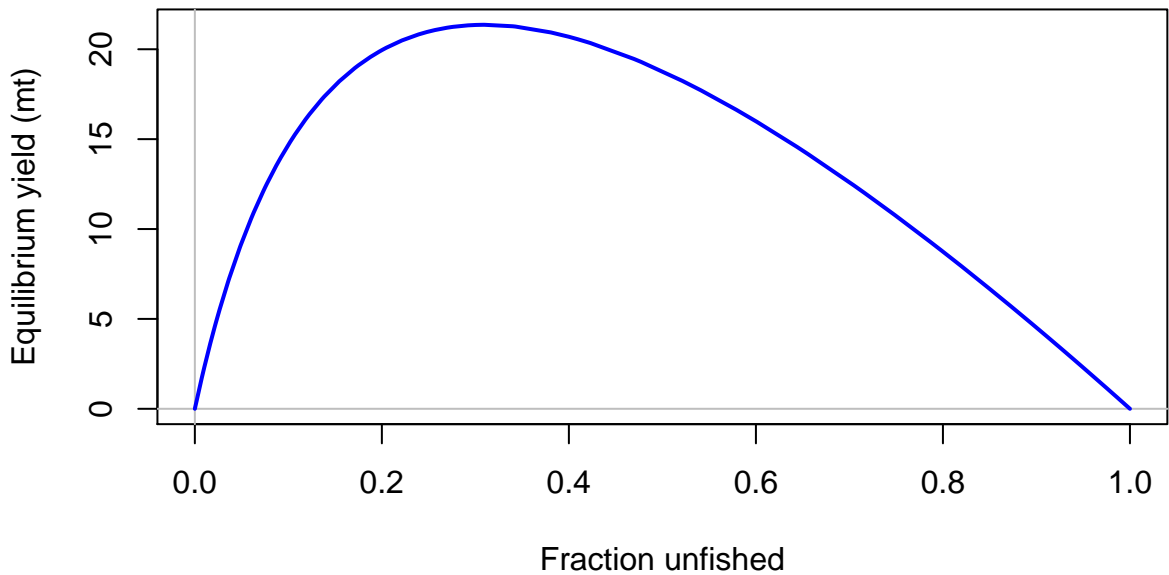


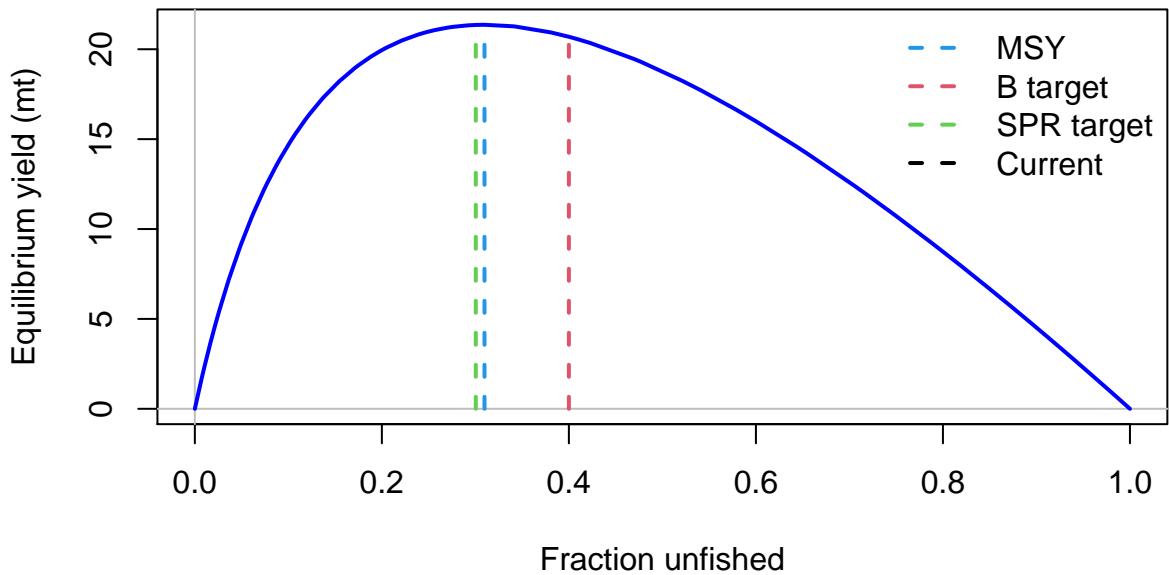
Effective sample size

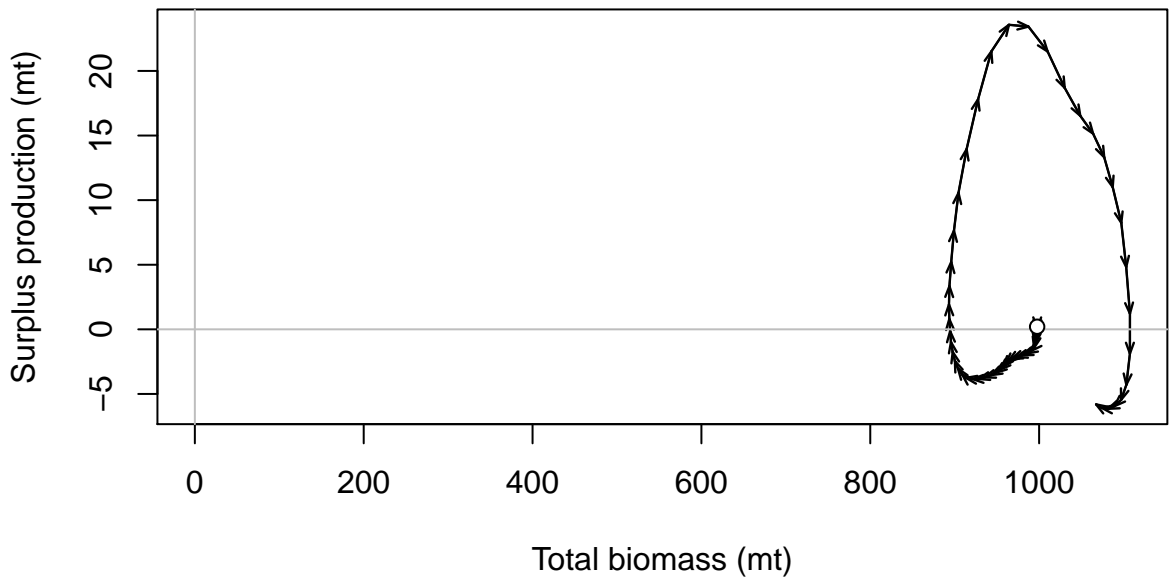


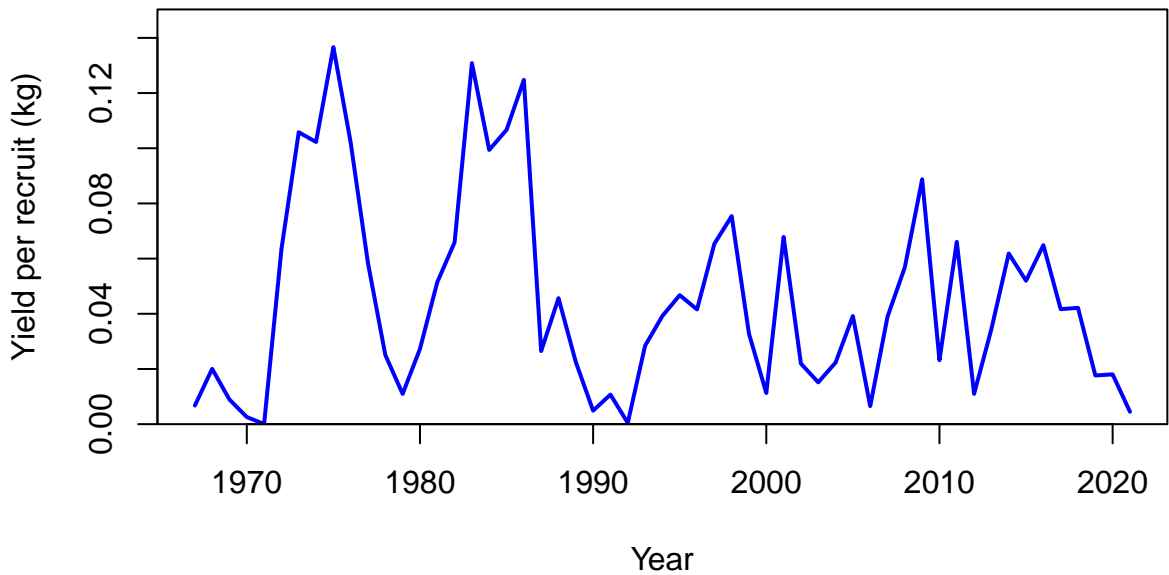
FISHERY (whole catch)

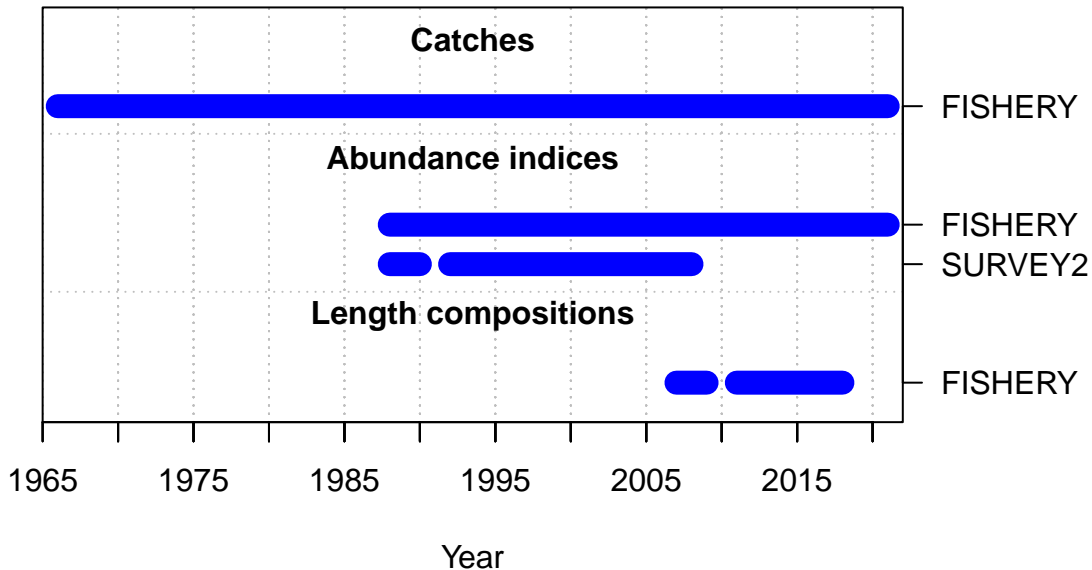


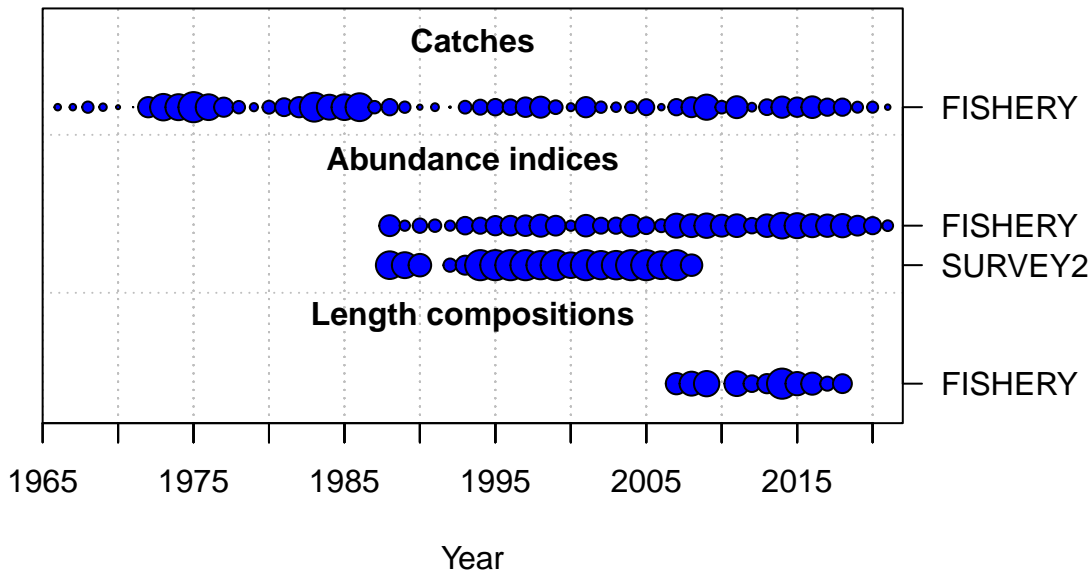






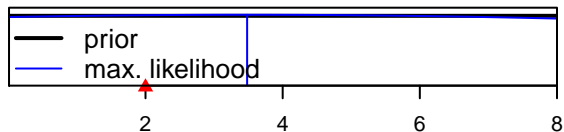




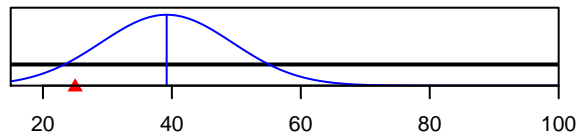


Density

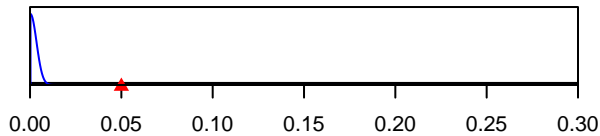
SR_LN(R0)



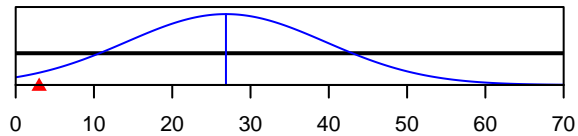
Size_inflection_FISHERY(1)



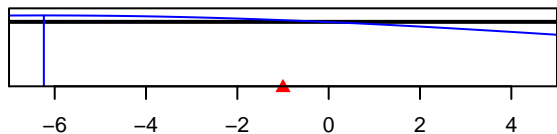
InitF_seas_1_flt_1FISHERY



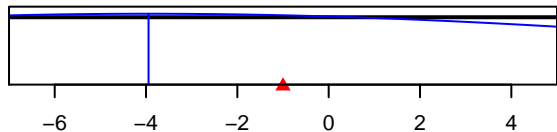
Size_95%width_FISHERY(1)



LnQ_base_FISHERY(1)



LnQ_base_SURVEY2(2)



Parameter value