

Plots created using the 'r4ss' package in R

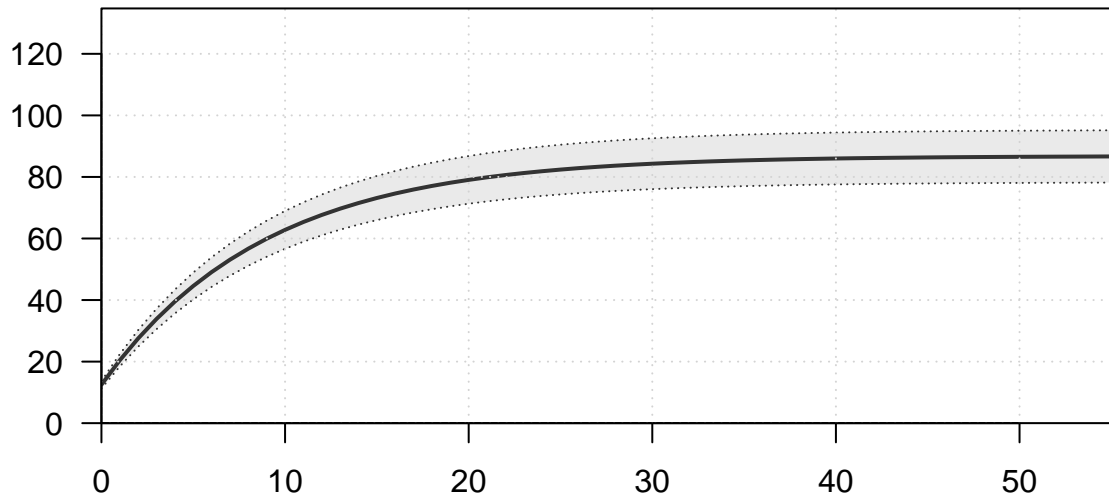
Stock Synthesis version: 3.30.19.0

StartTime: Thu Jul 28 10:20:30 2022

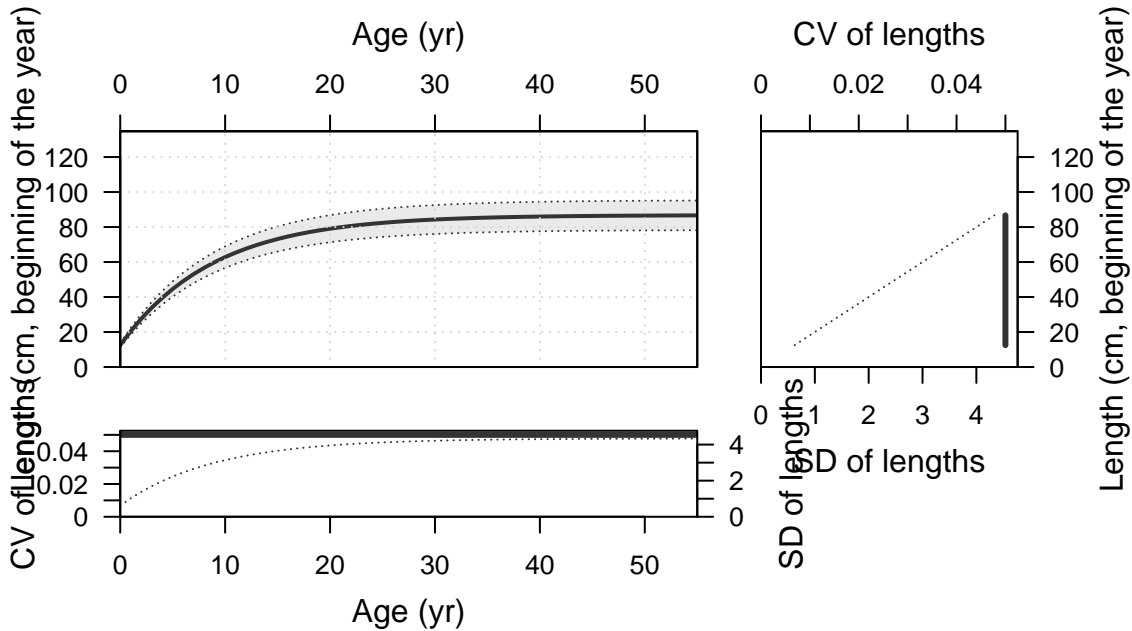
Data_File: data.ss

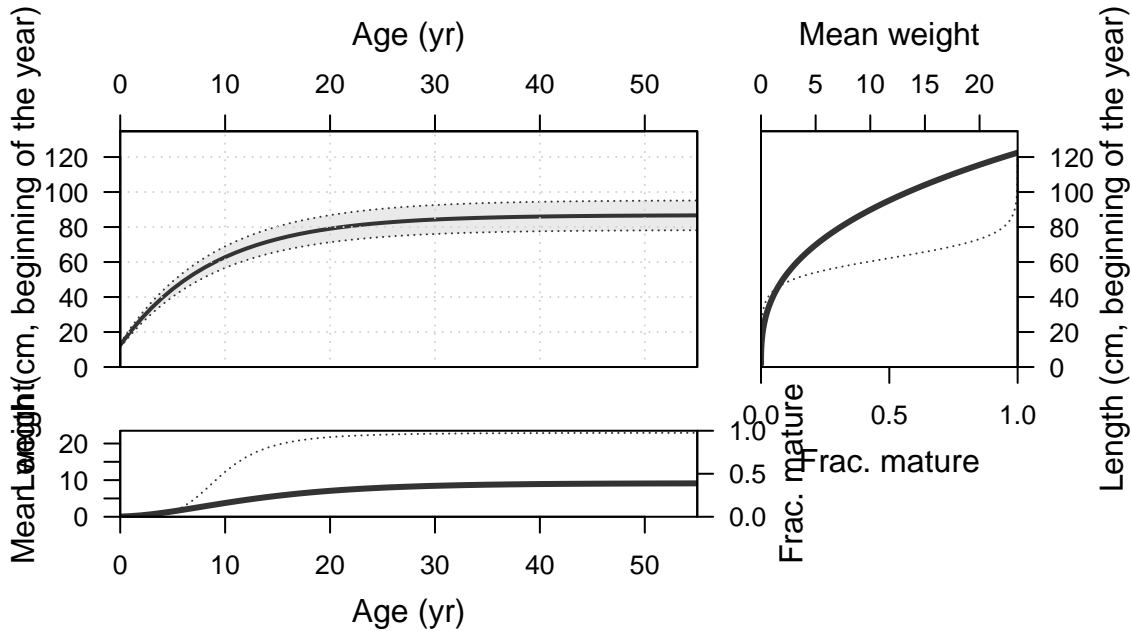
Control_File: control.ss

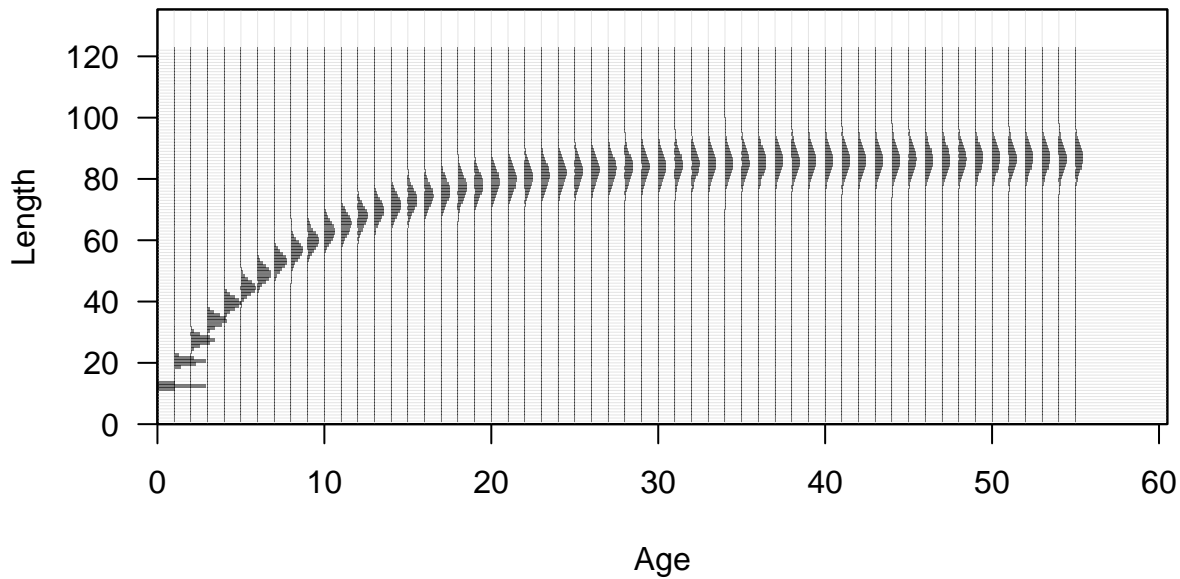
Length (cm, beginning of the year)

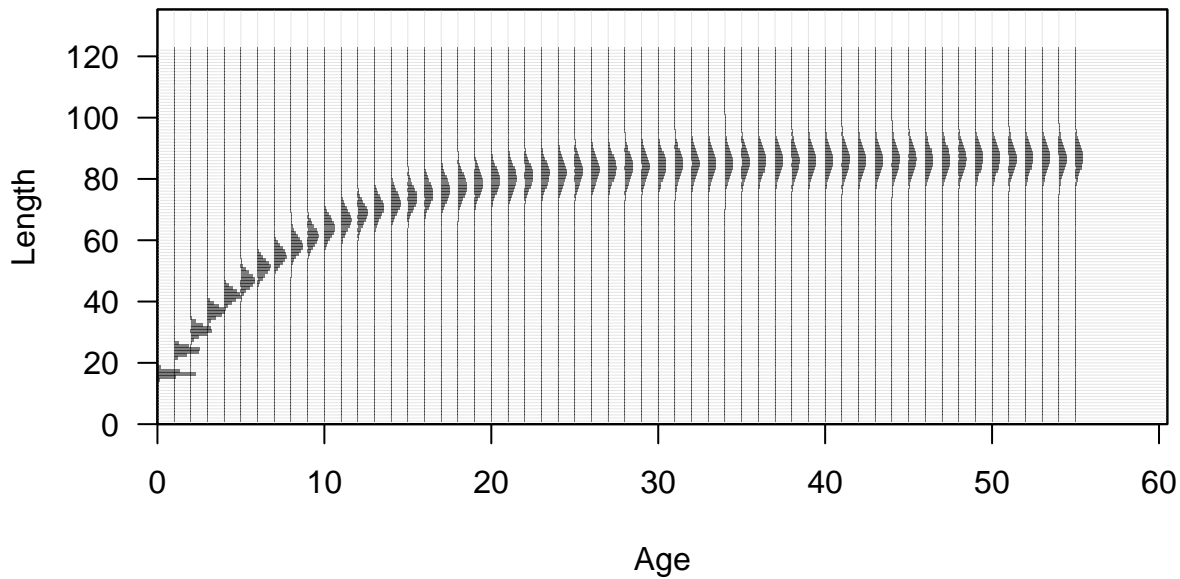


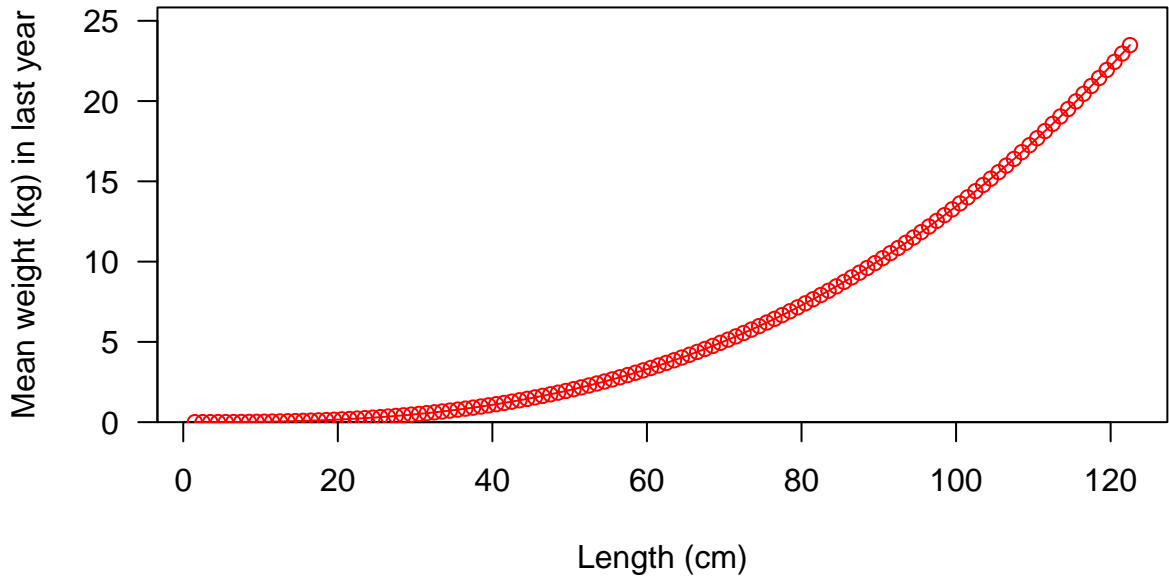
Age (yr)

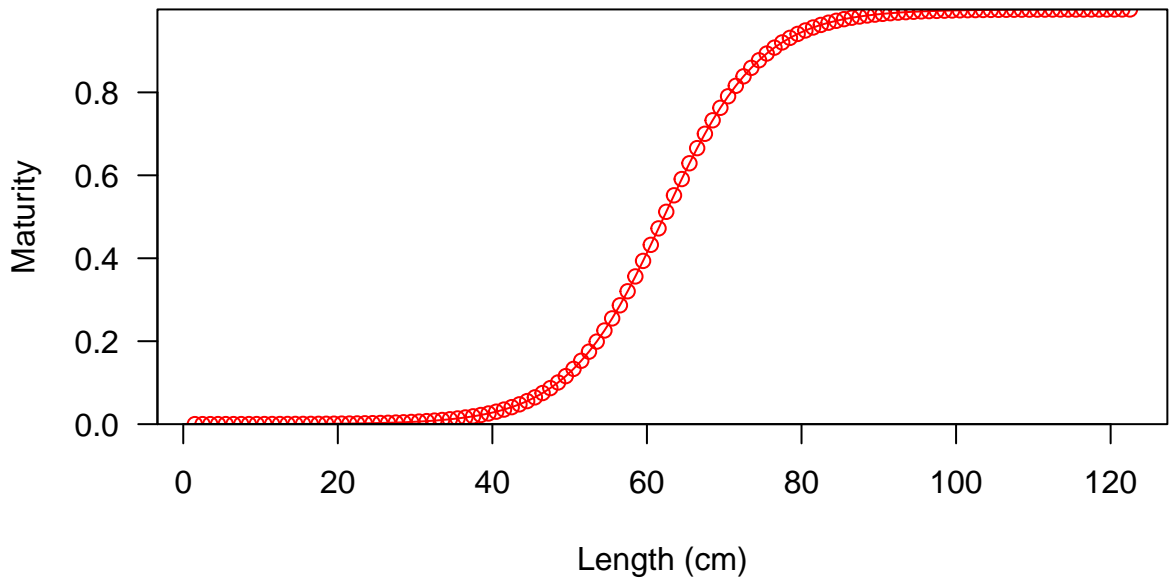


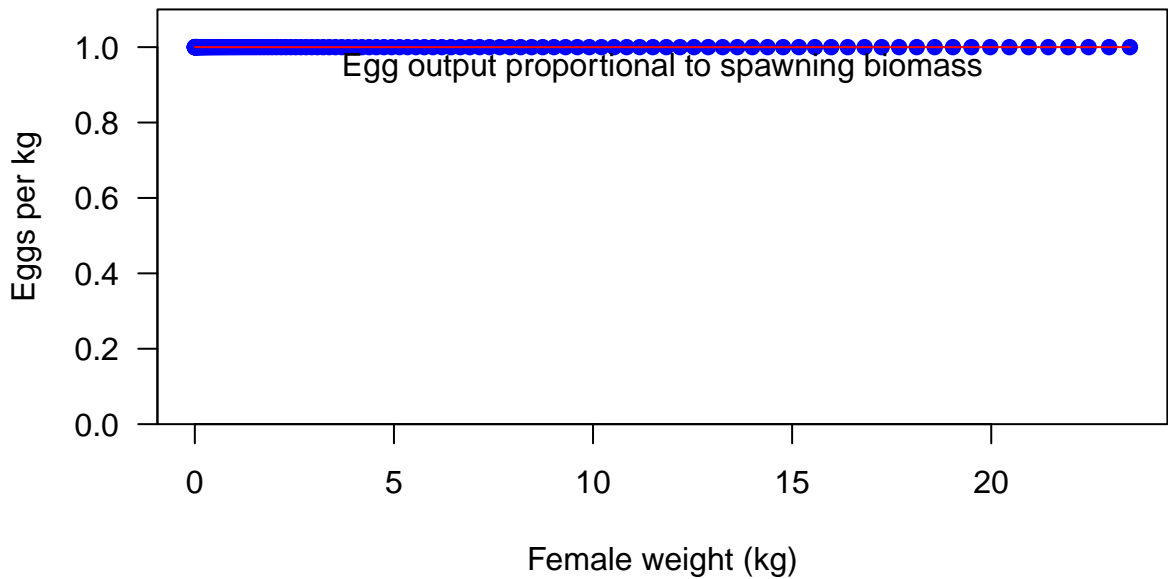


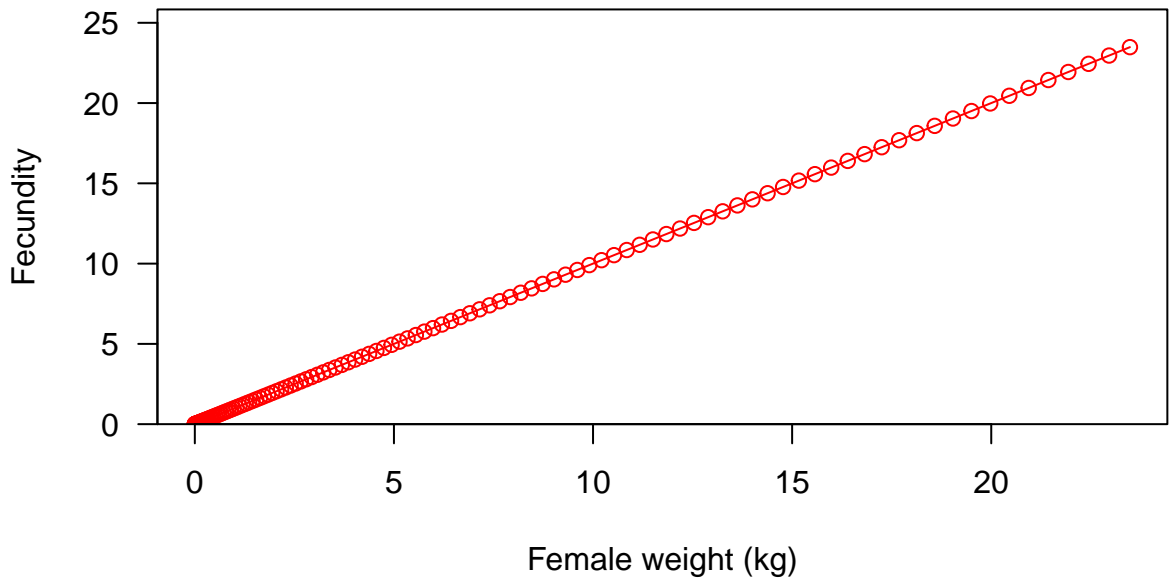












Fecundity

25
20
15
10
5
0

0

20

40

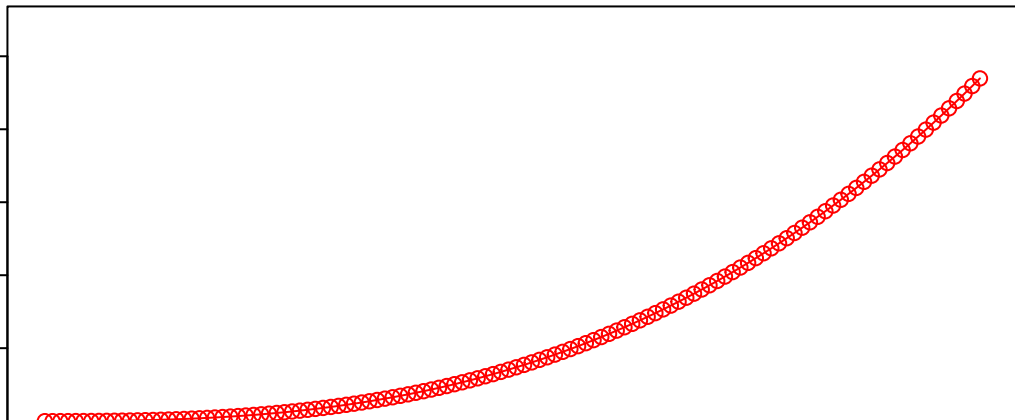
60

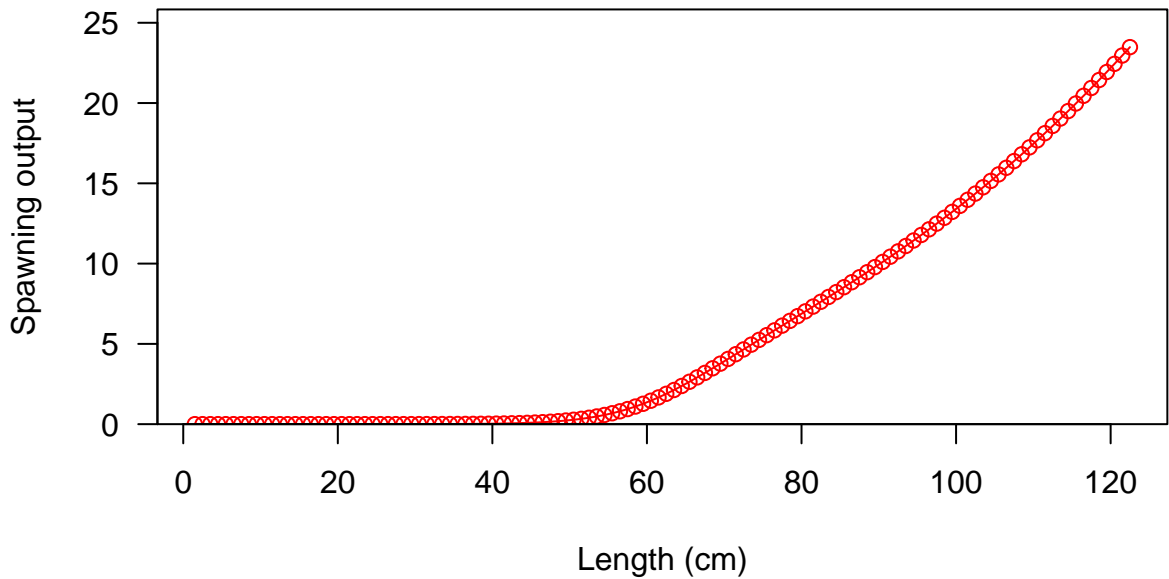
80

100

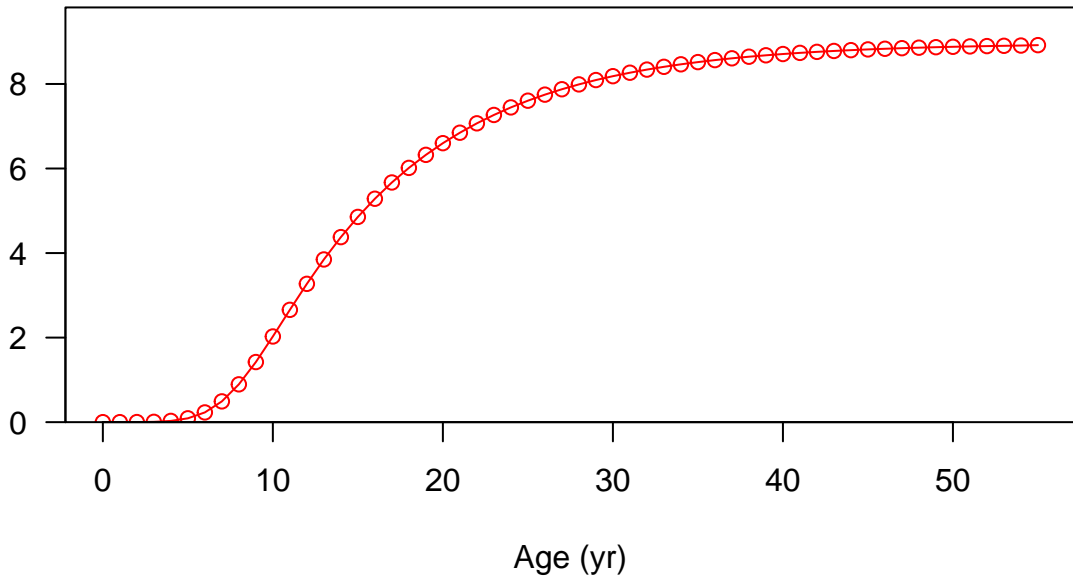
120

Female length (cm)

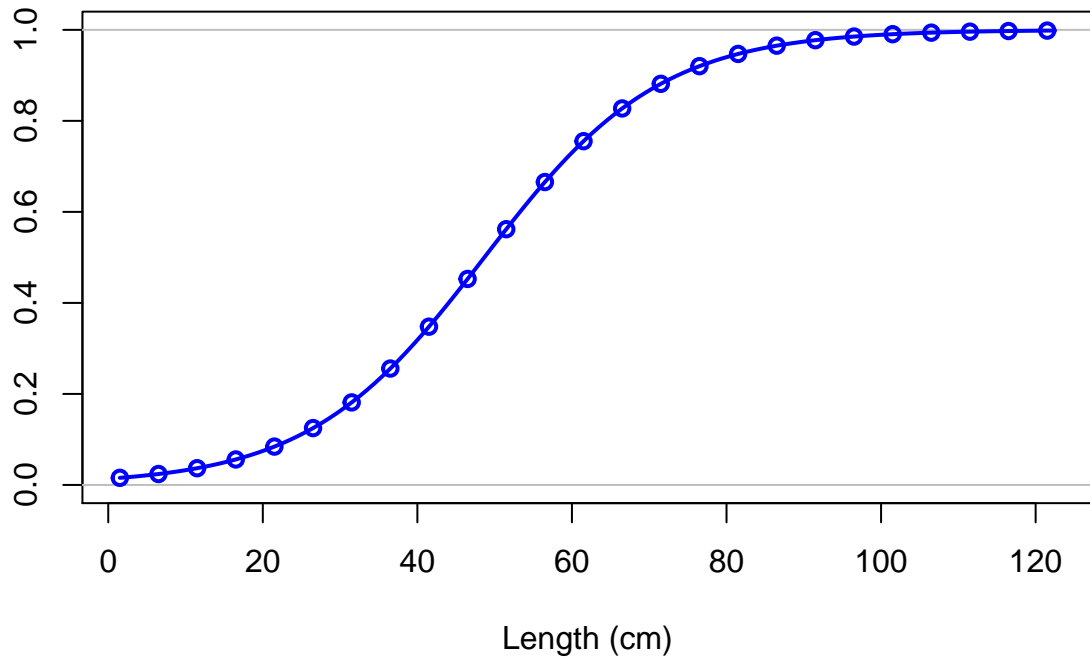




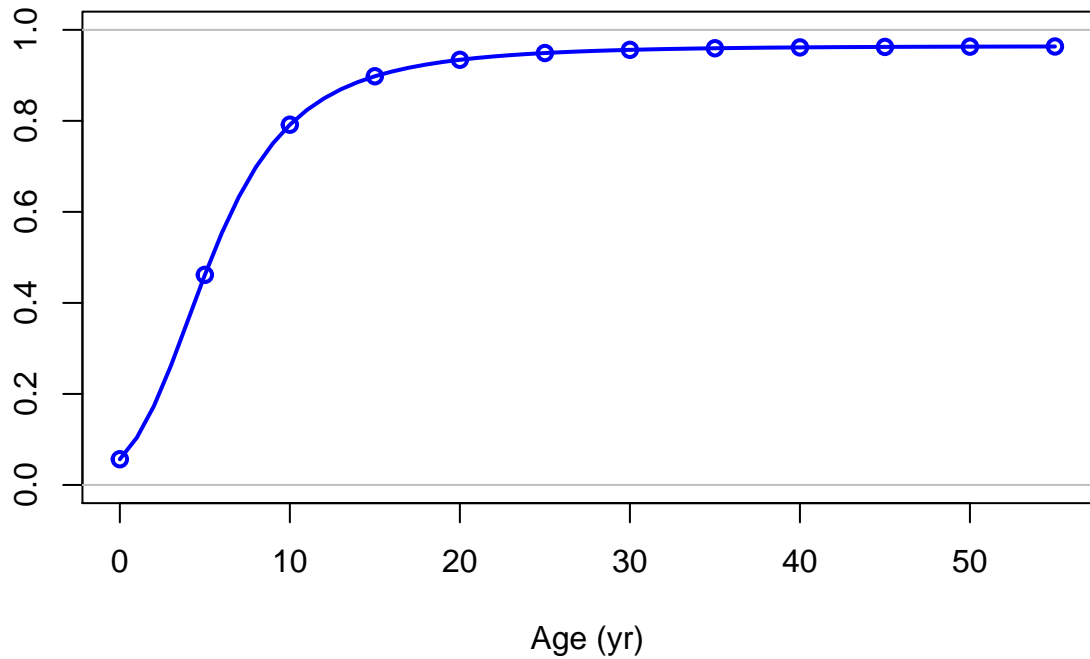
Spawning output



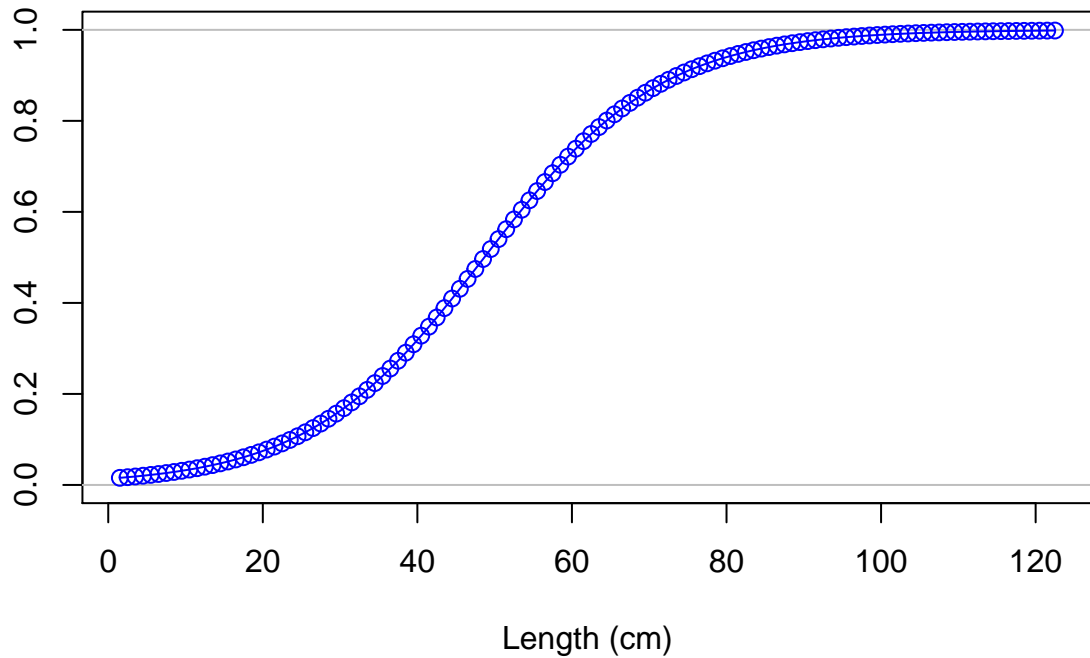
Selectivity

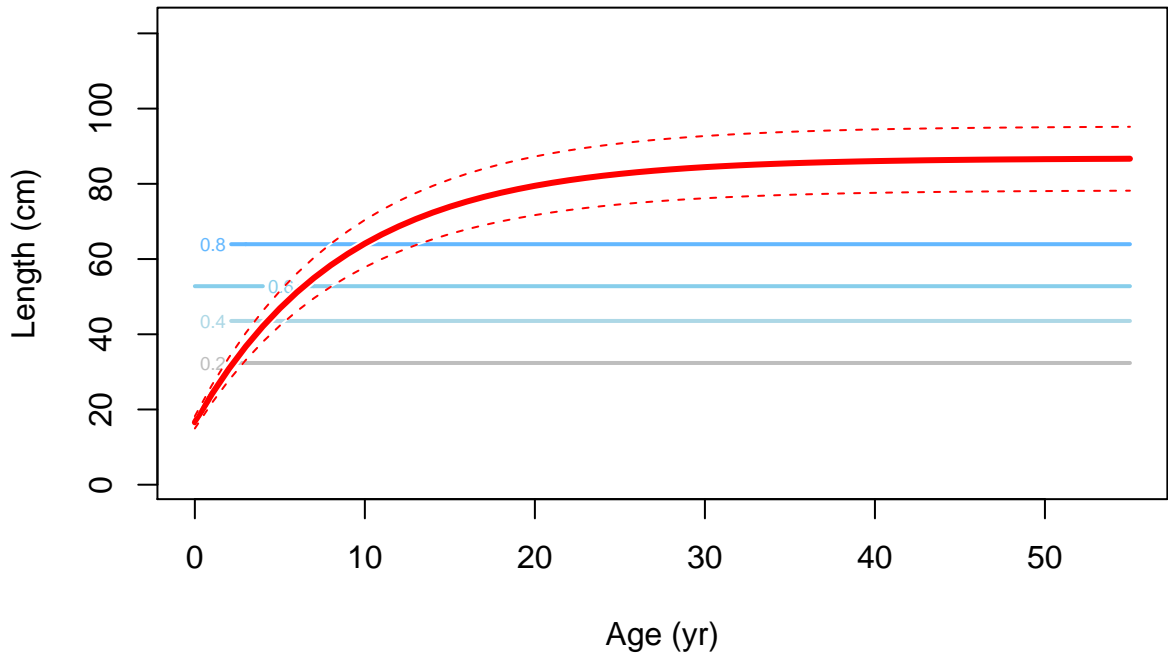


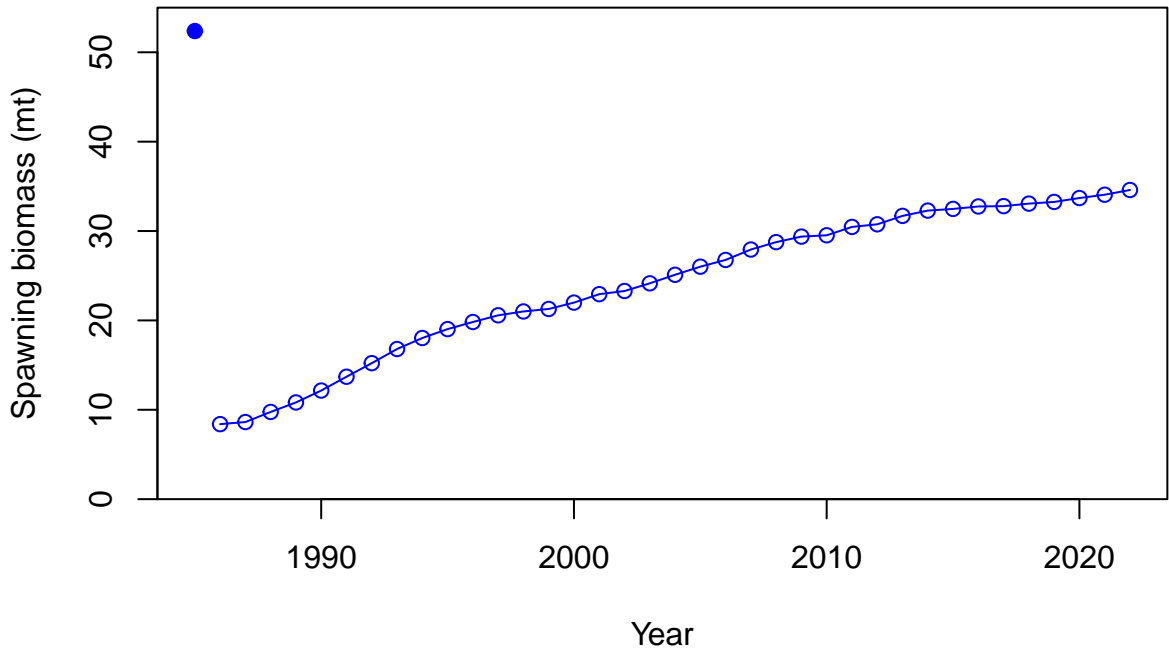
Selectivity

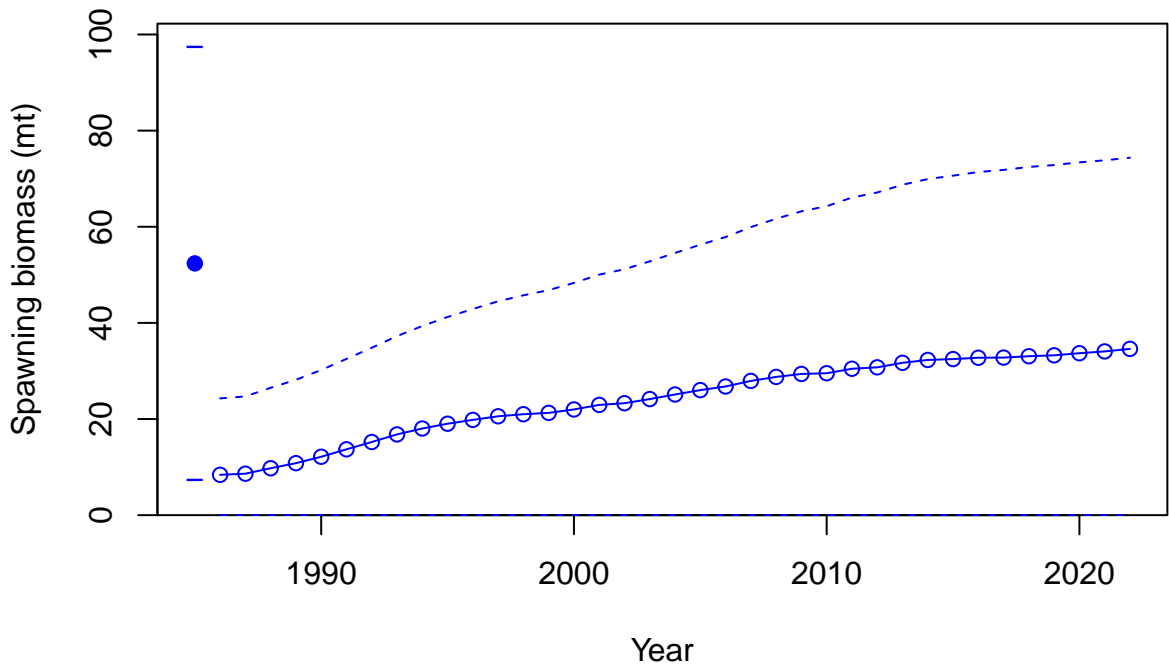


Selectivity

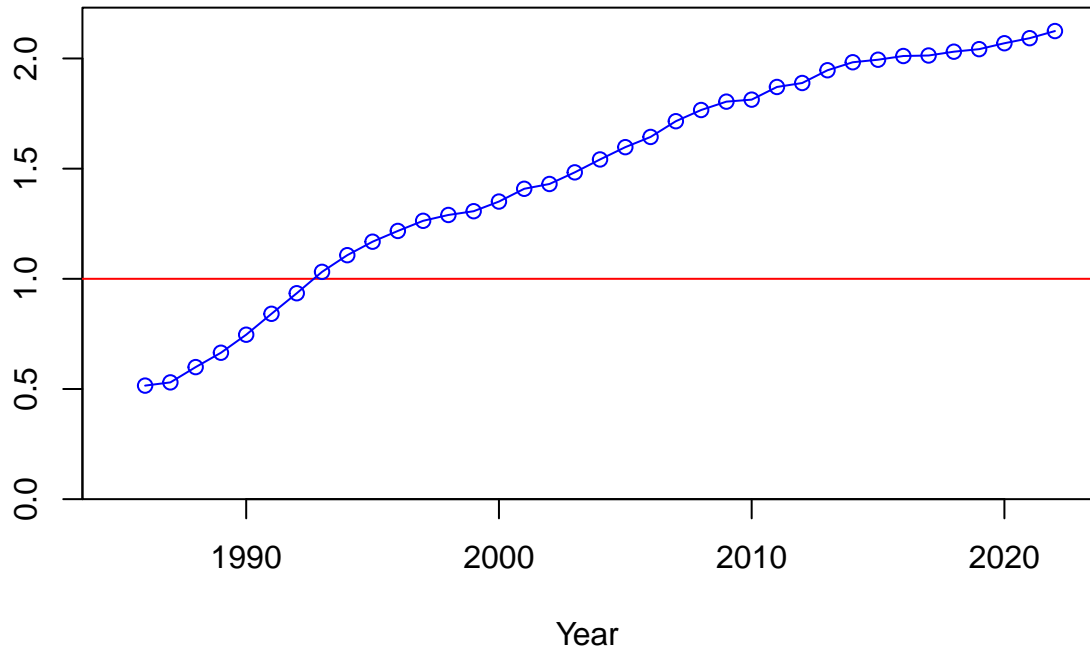




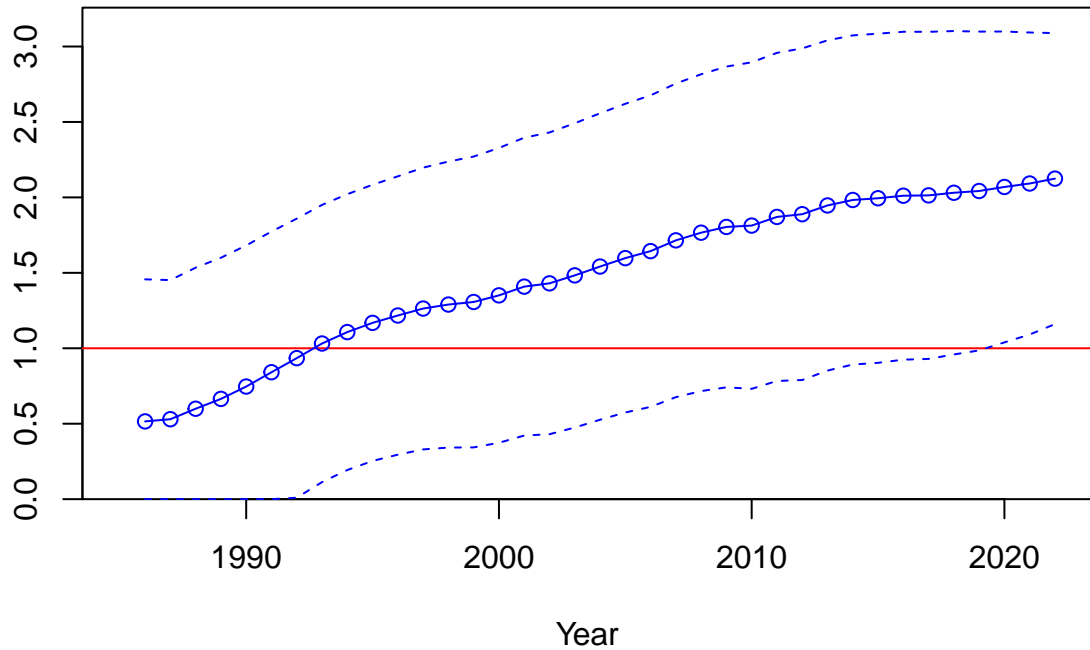


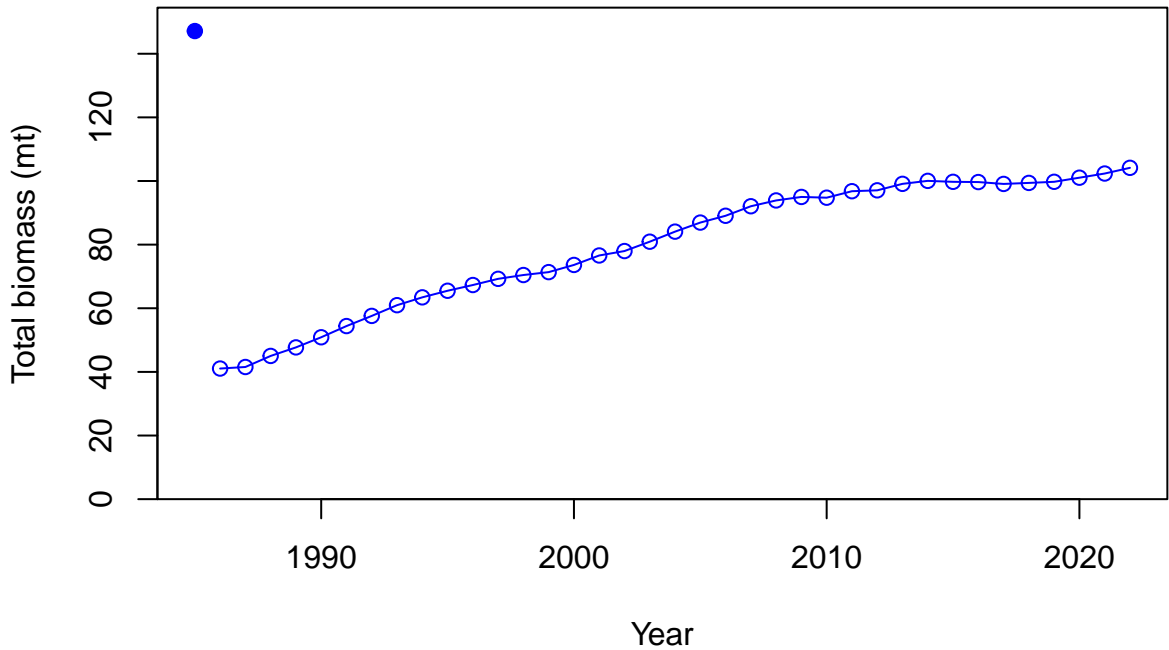


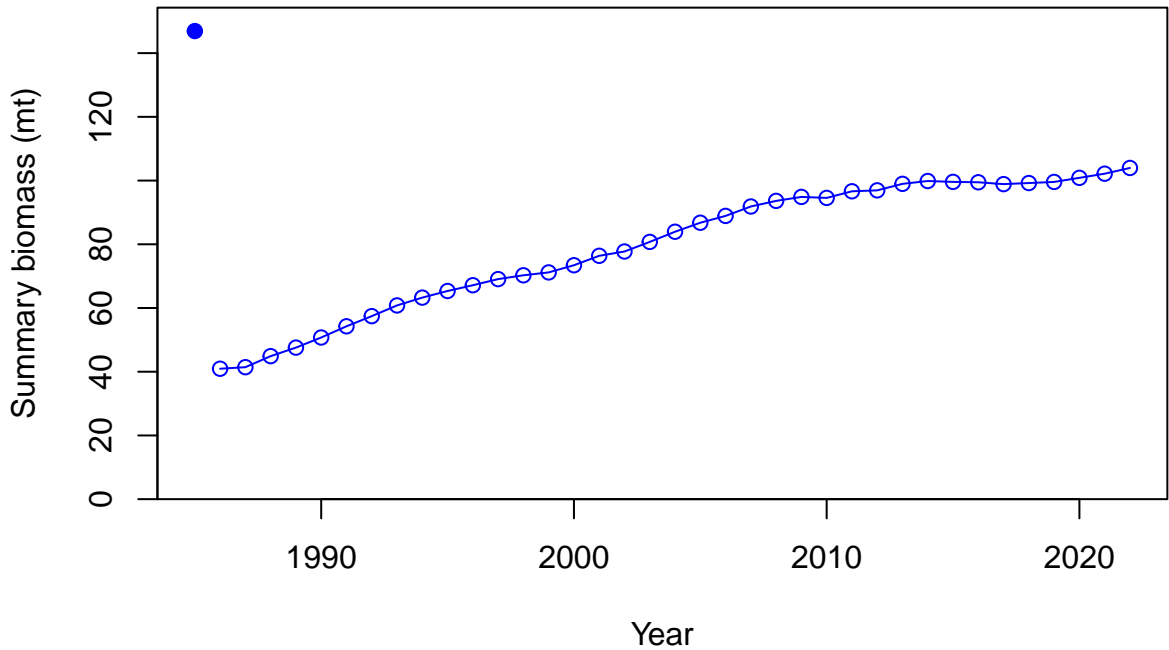
Relative spawning biomass: B/B_{MSY}



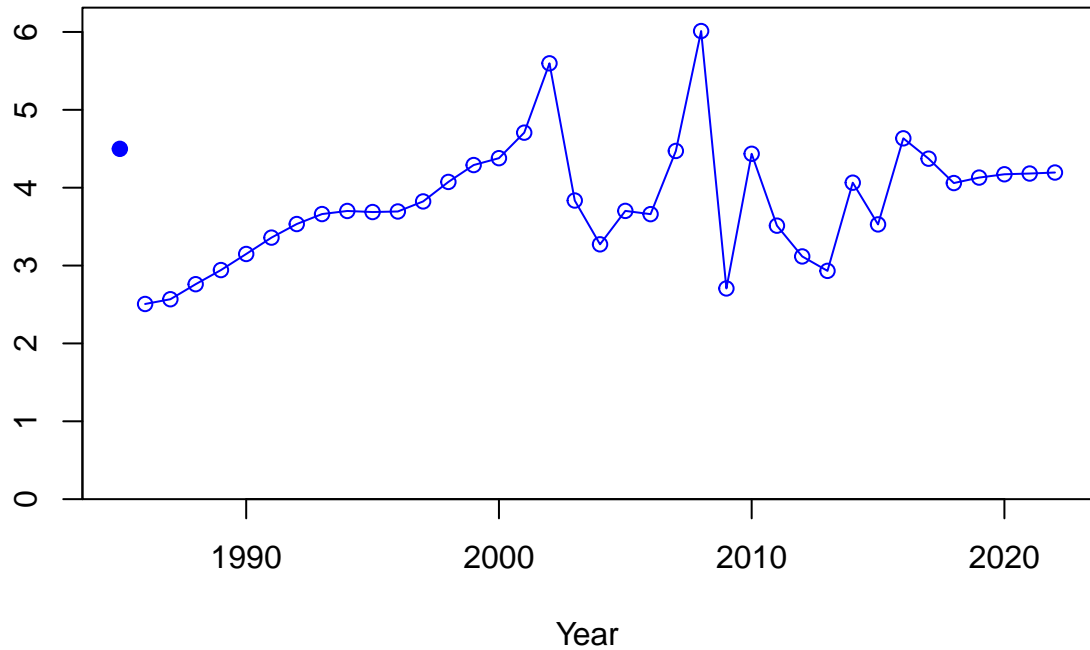
Relative spawning biomass: B/B_{MSY}



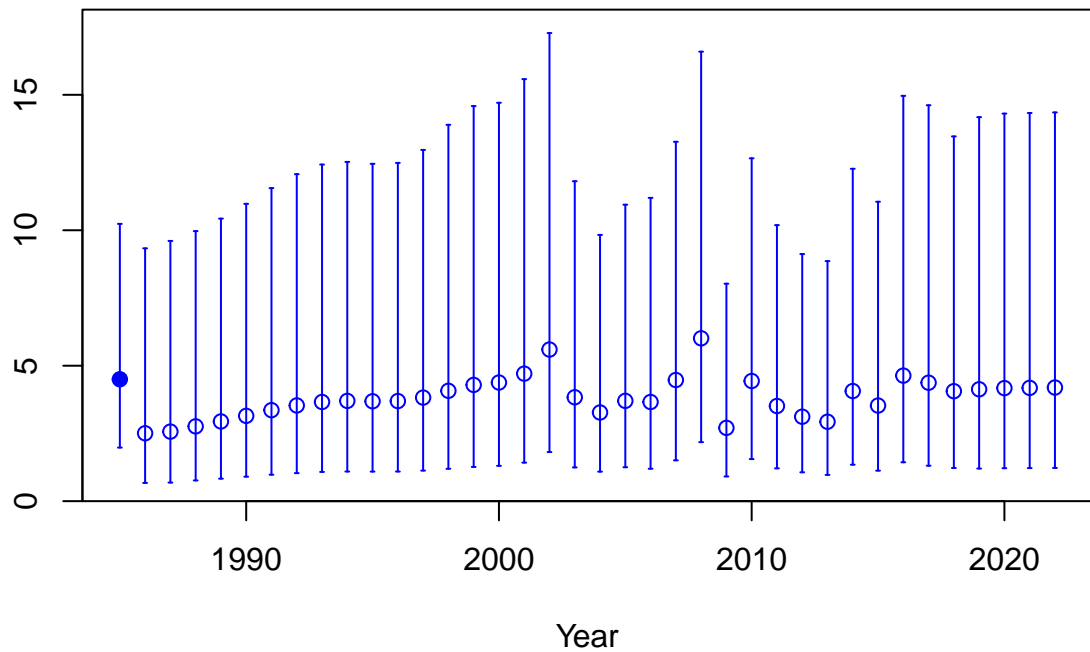




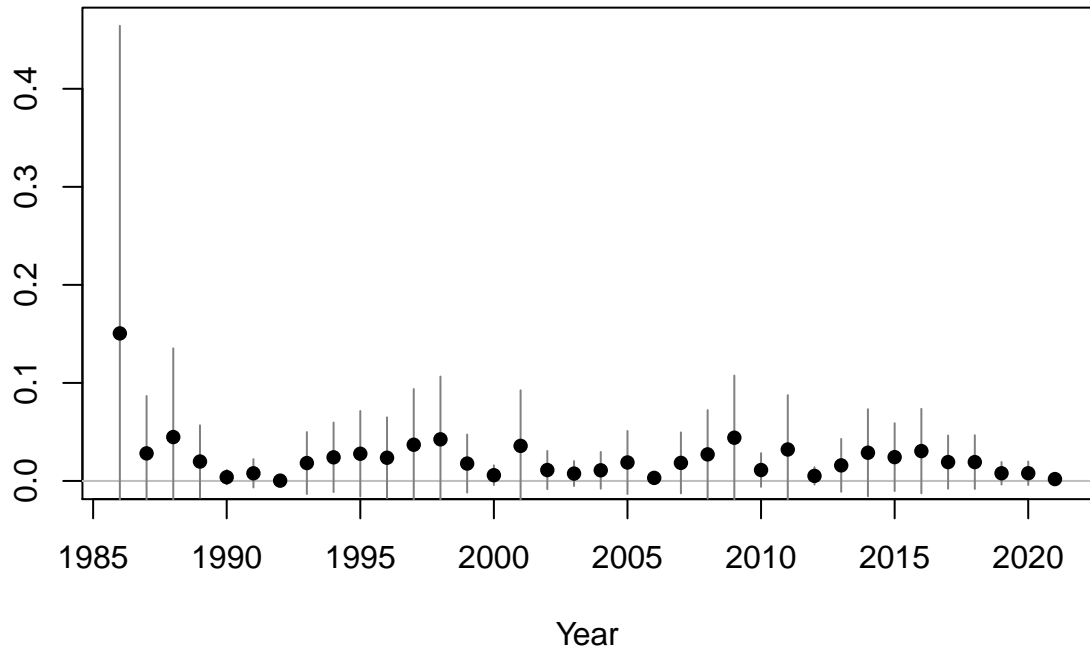
Age-0 recruits (1,000s)

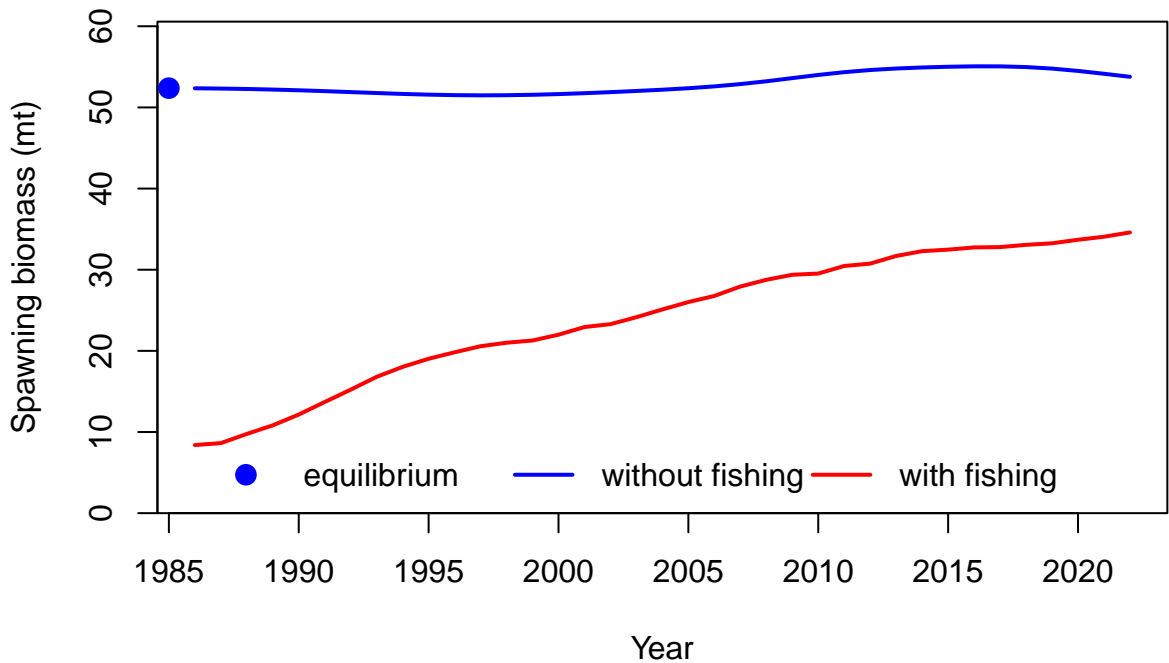


Age-0 recruits (1,000s)



Summary Fishing Mortality





Log recruitment deviation

0.4
0.2
0.0
-0.2

1970

1980

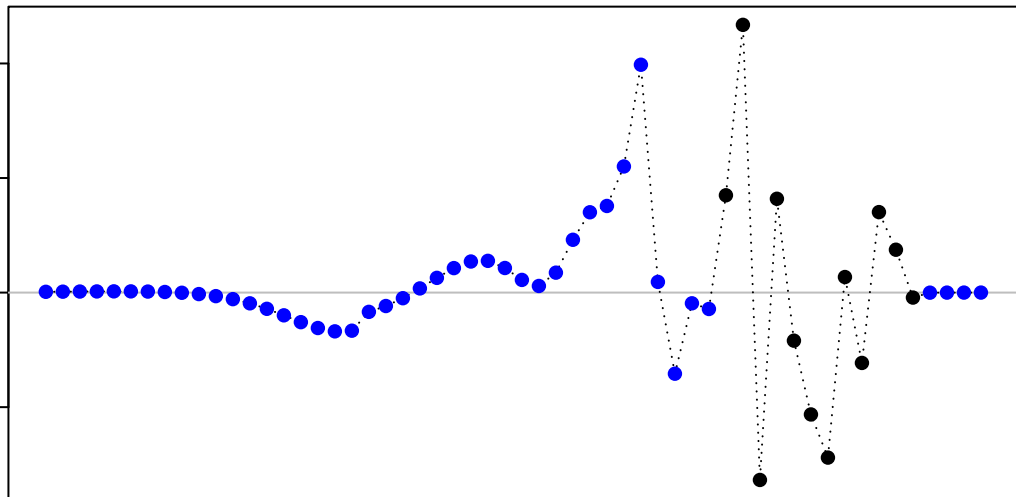
1990

2000

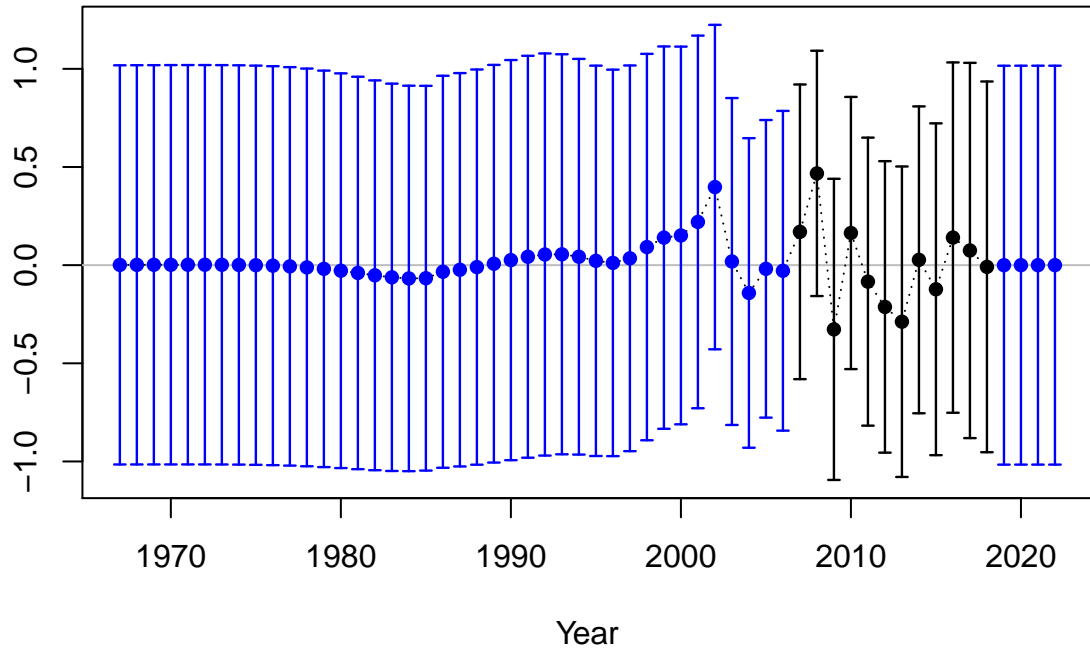
2010

2020

Year

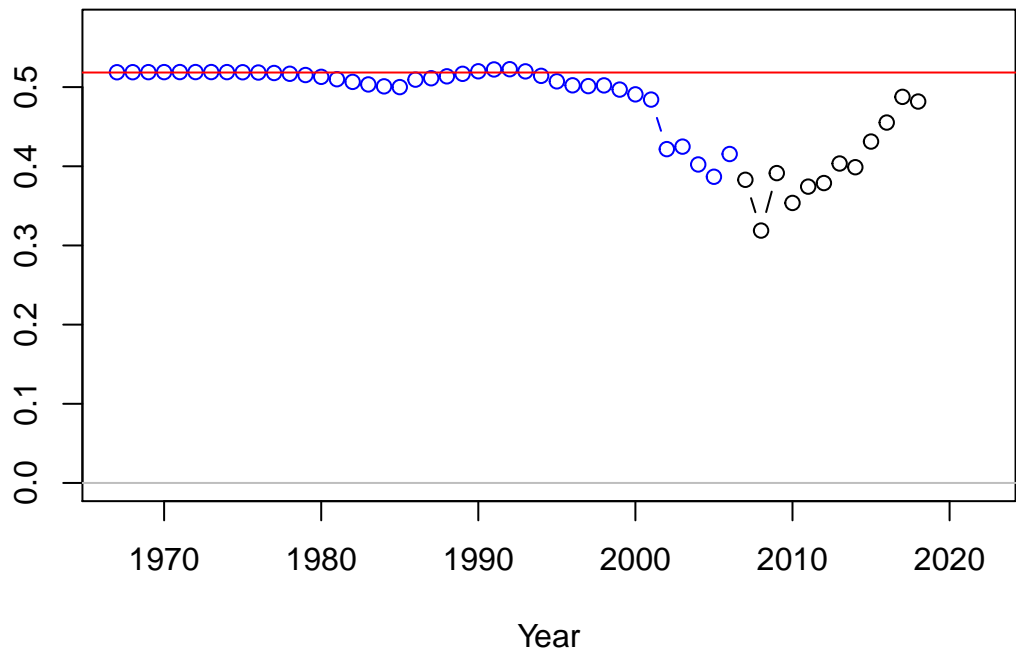


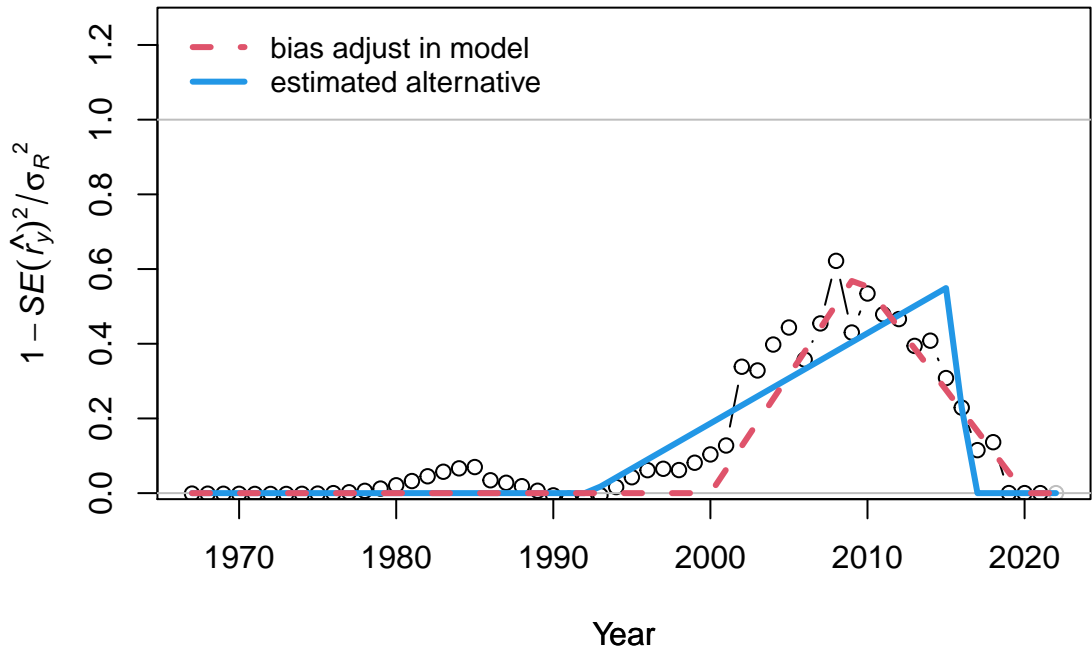
Log recruitment deviation

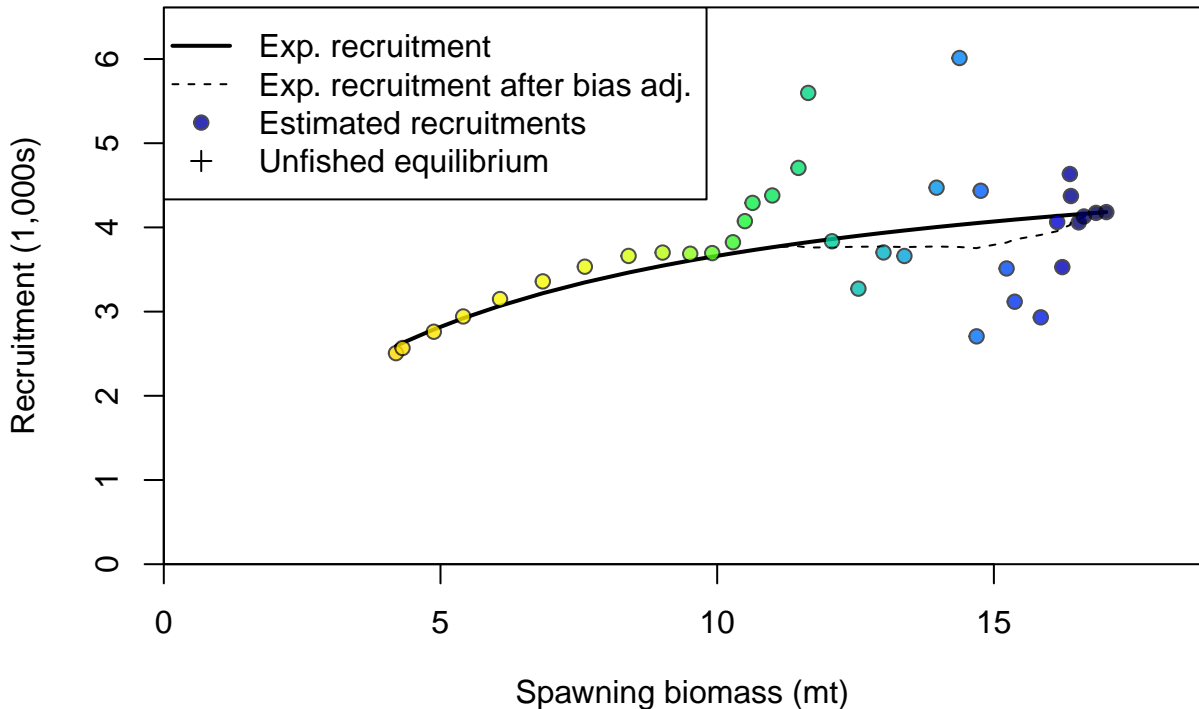


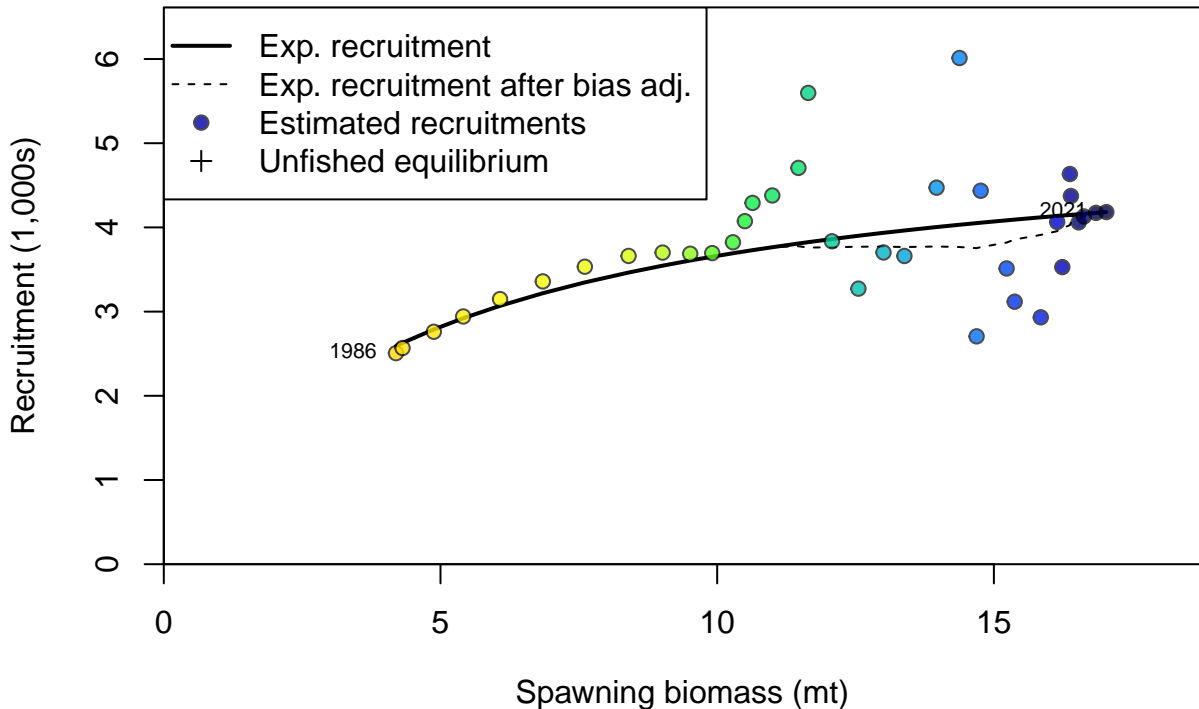
Recruitment deviation variance

Asymptotic standard error estimate







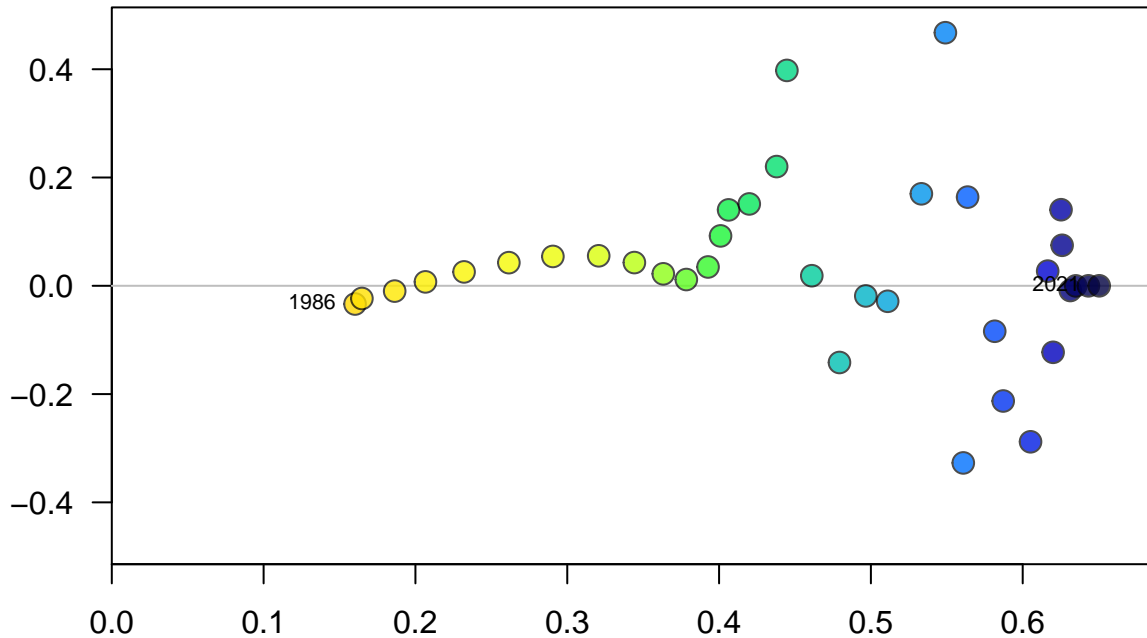


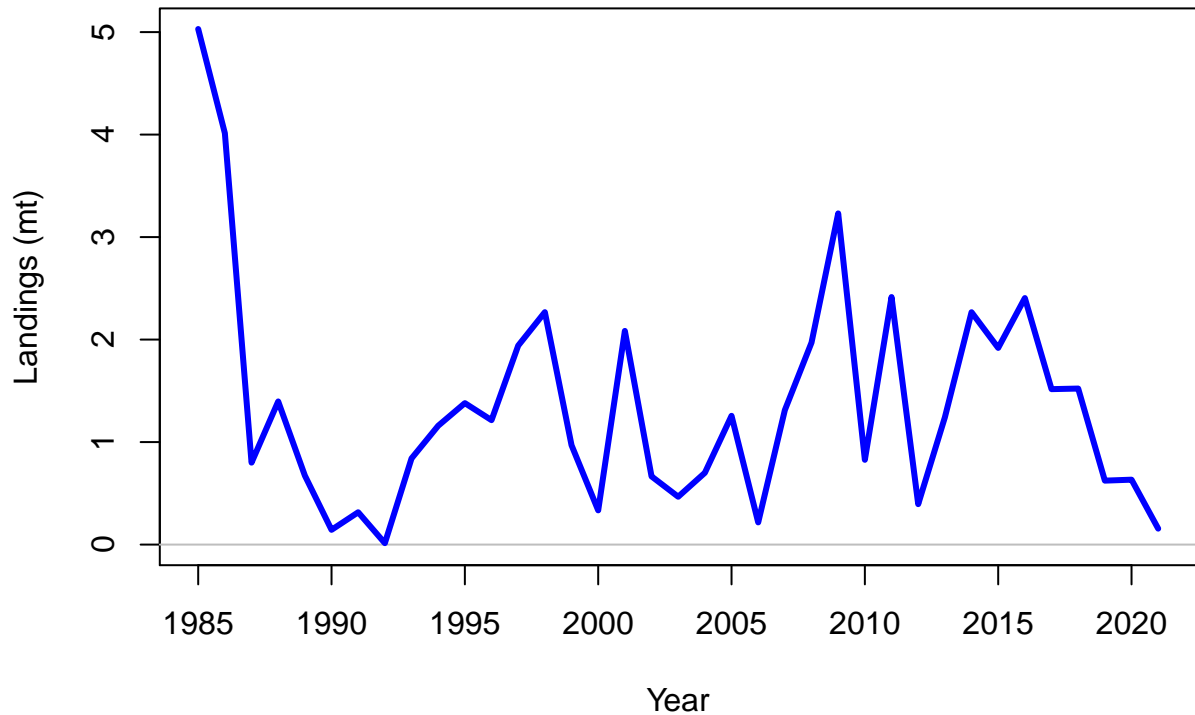
Log recruitment deviation

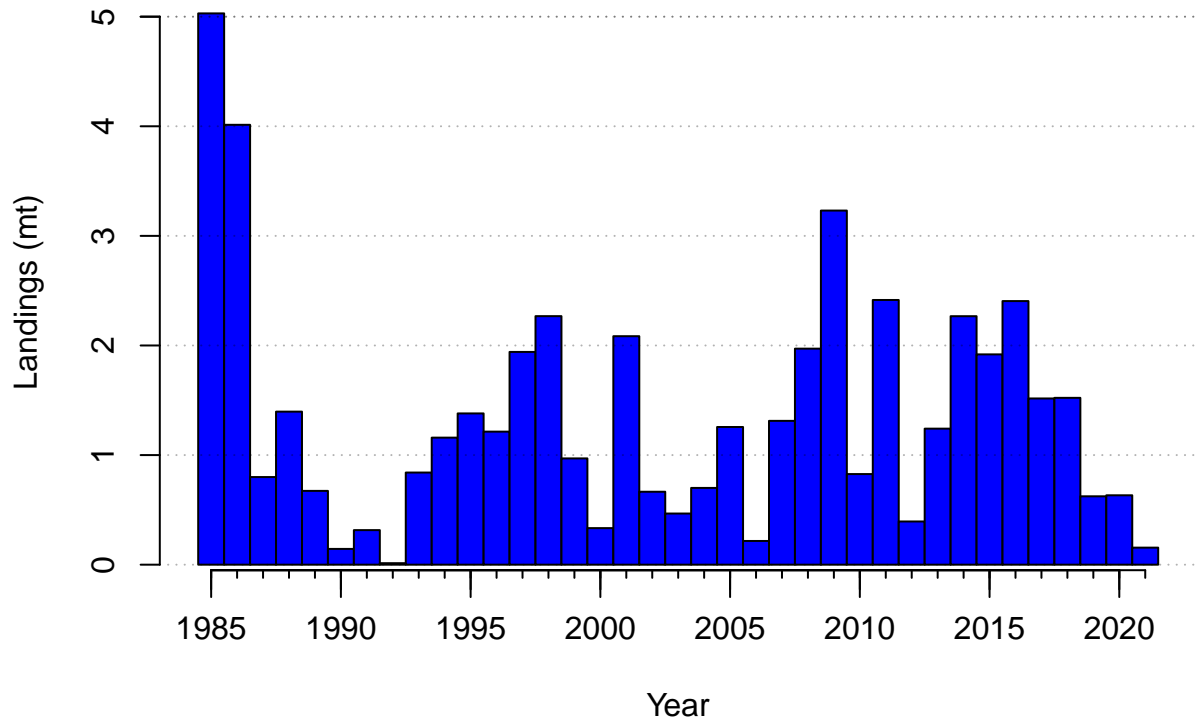
1986

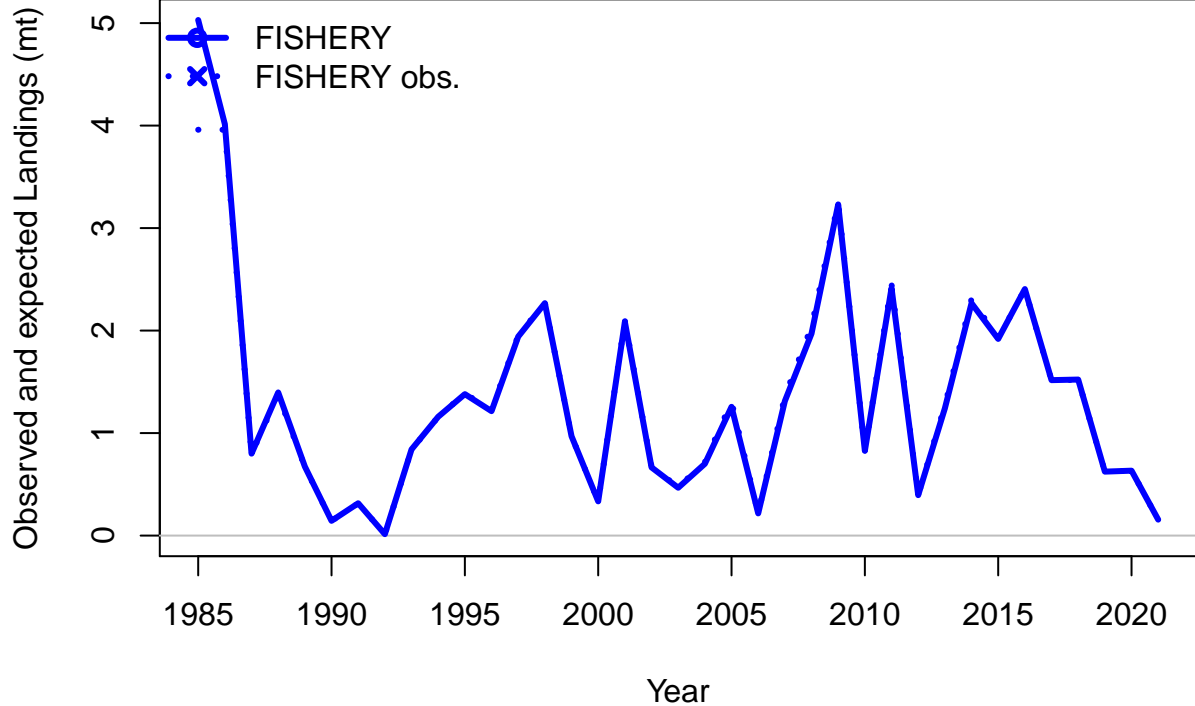
2021

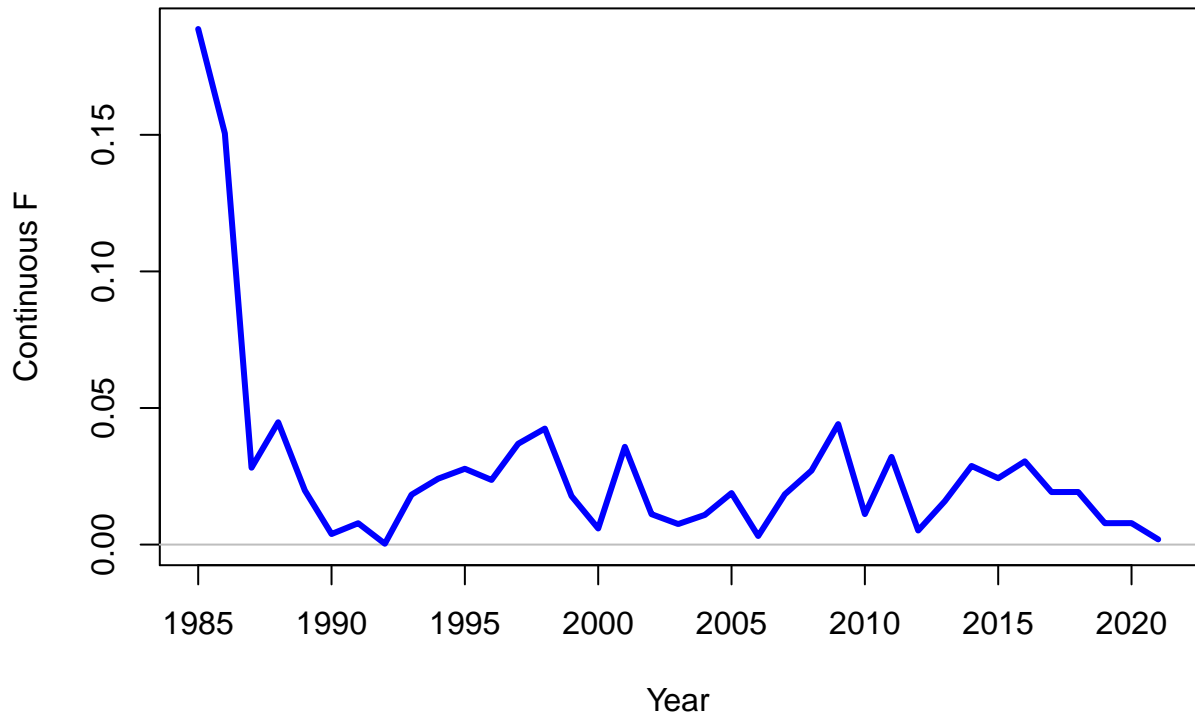
Spawning output (relative to B_0)



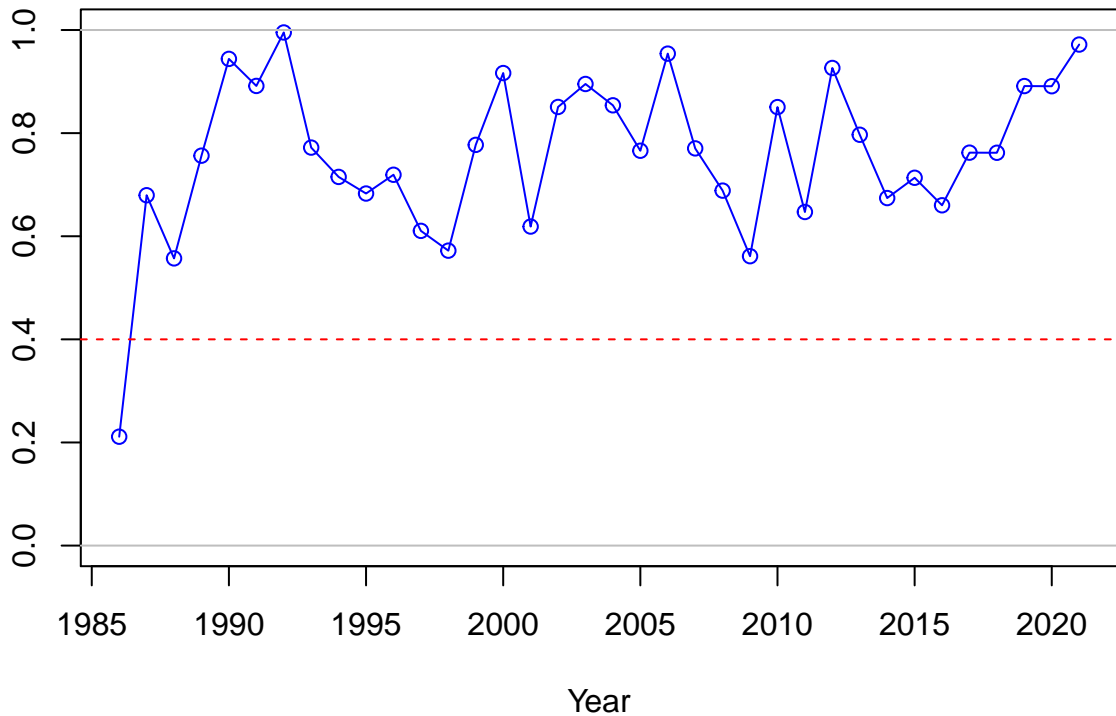




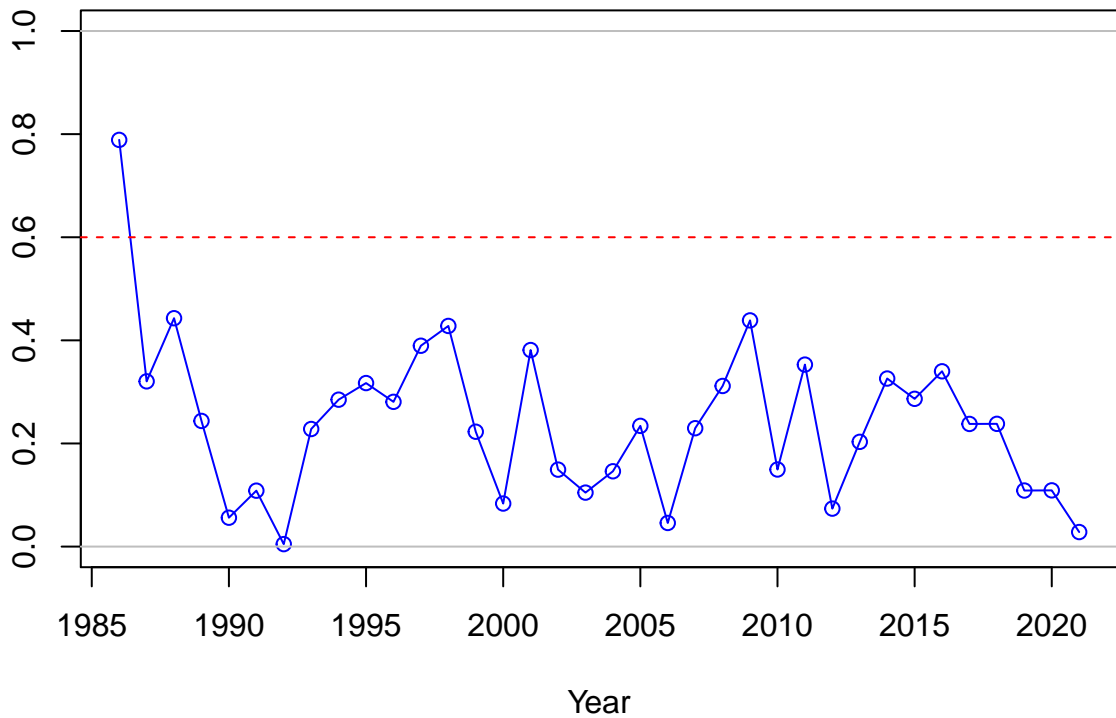




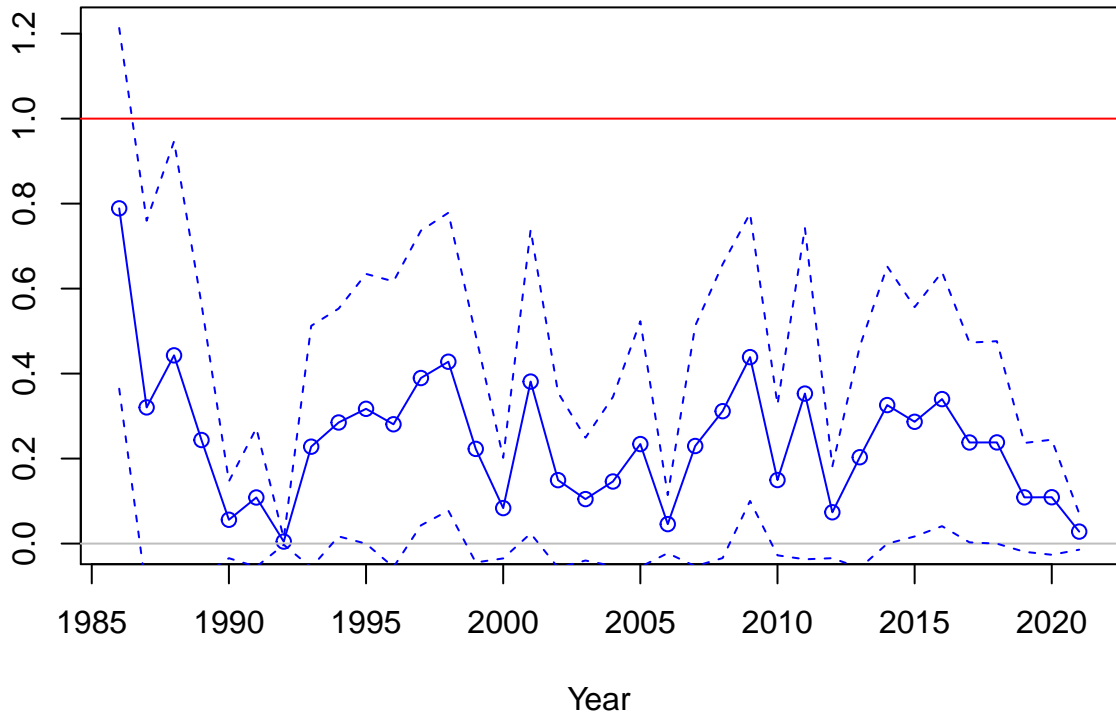
SPR



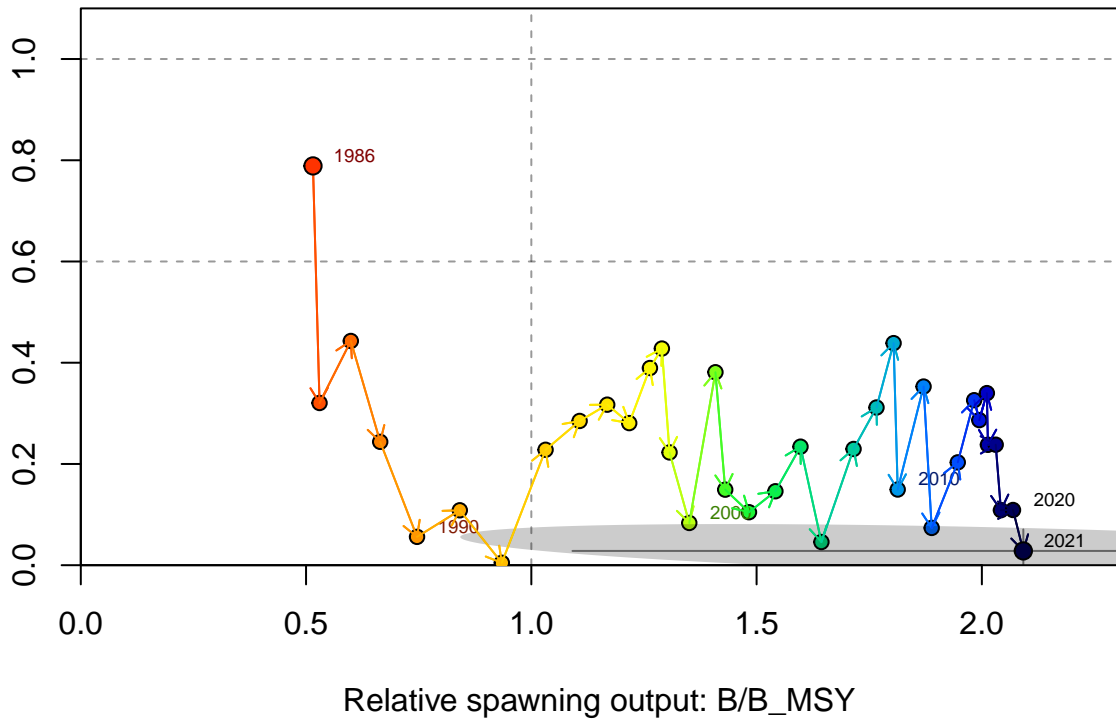
1-SPR



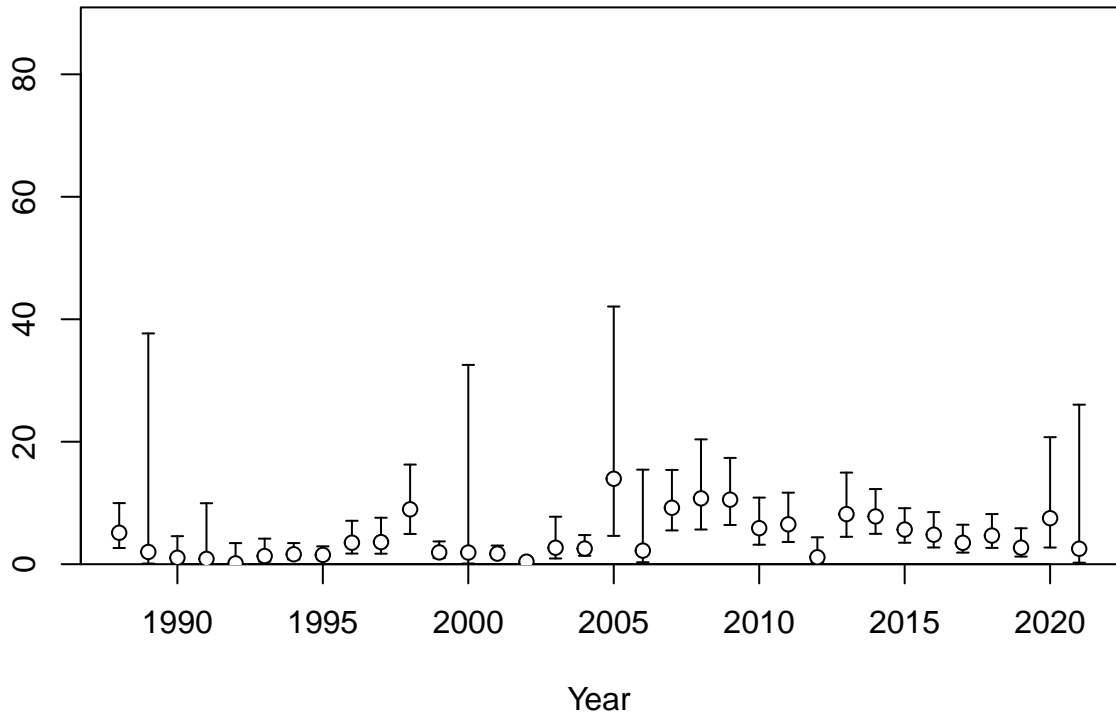
Fishing intensity: 1-SPR



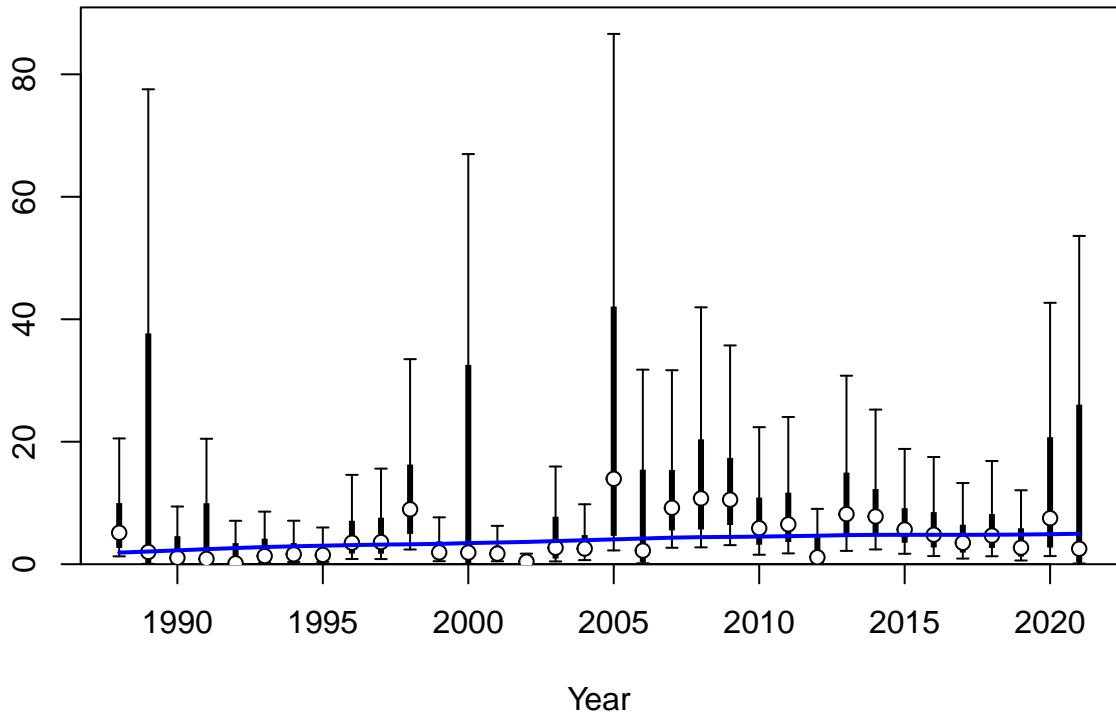
Fishing intensity: 1-SPR

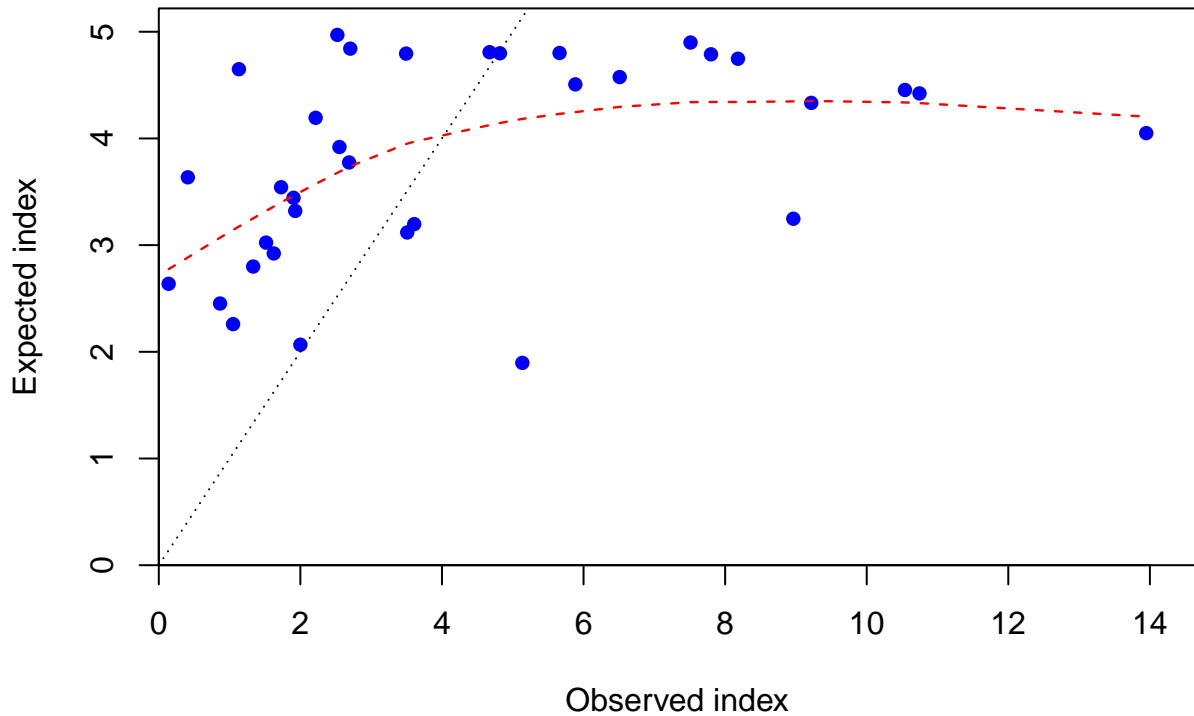


Index

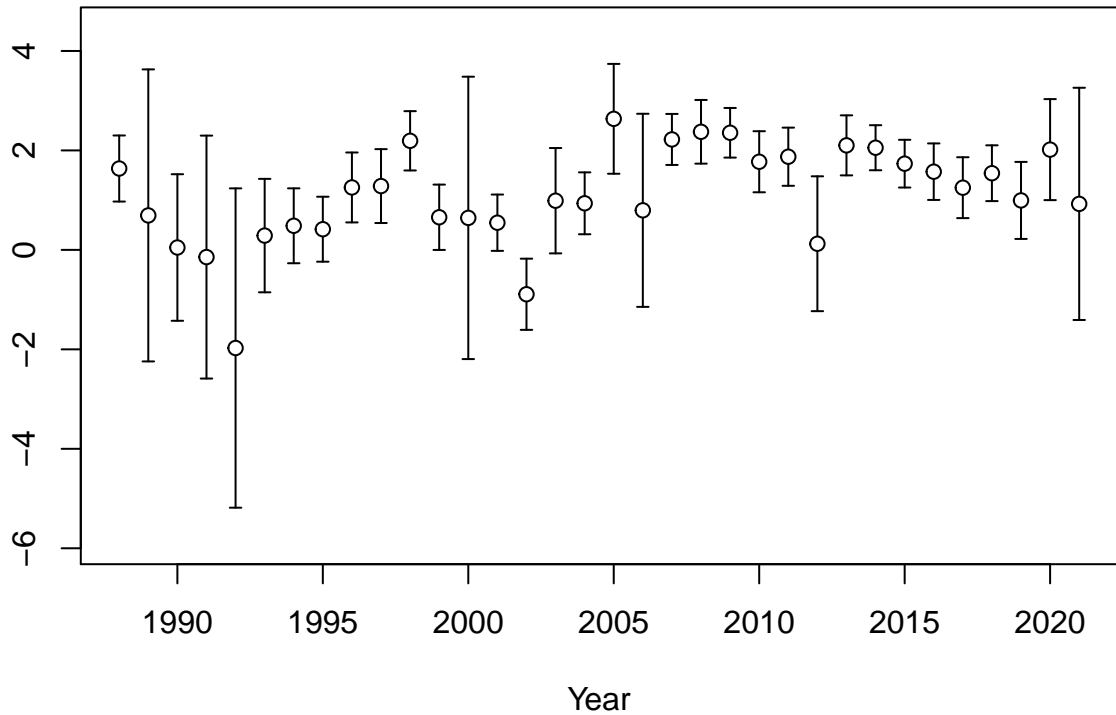


Index

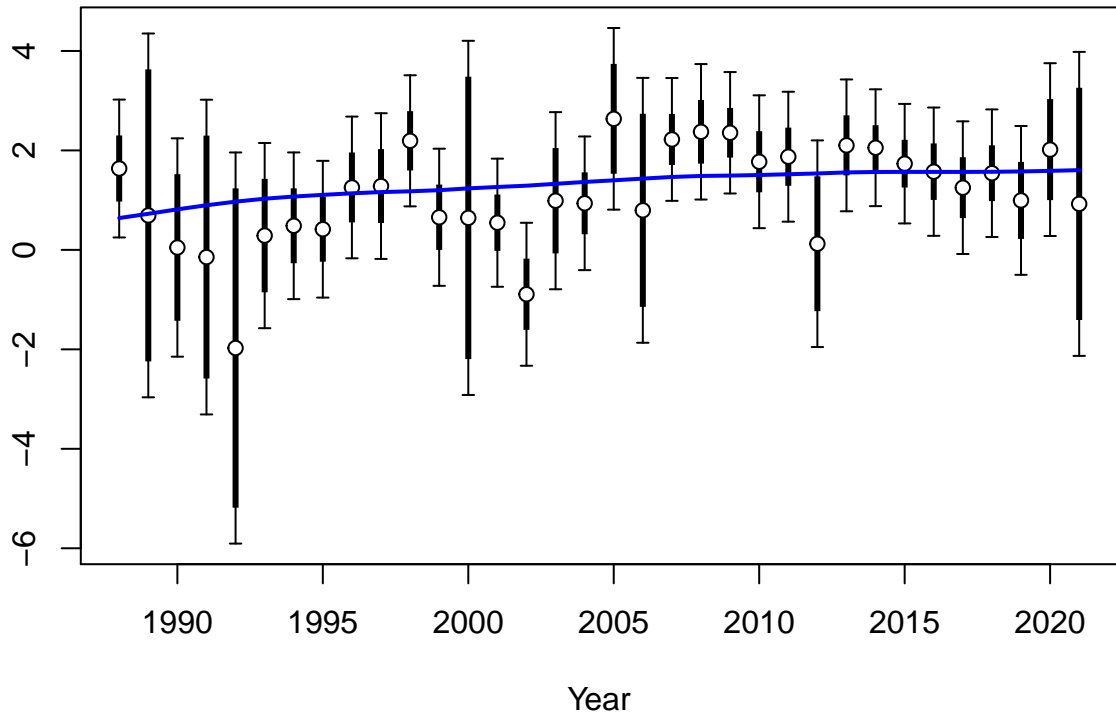


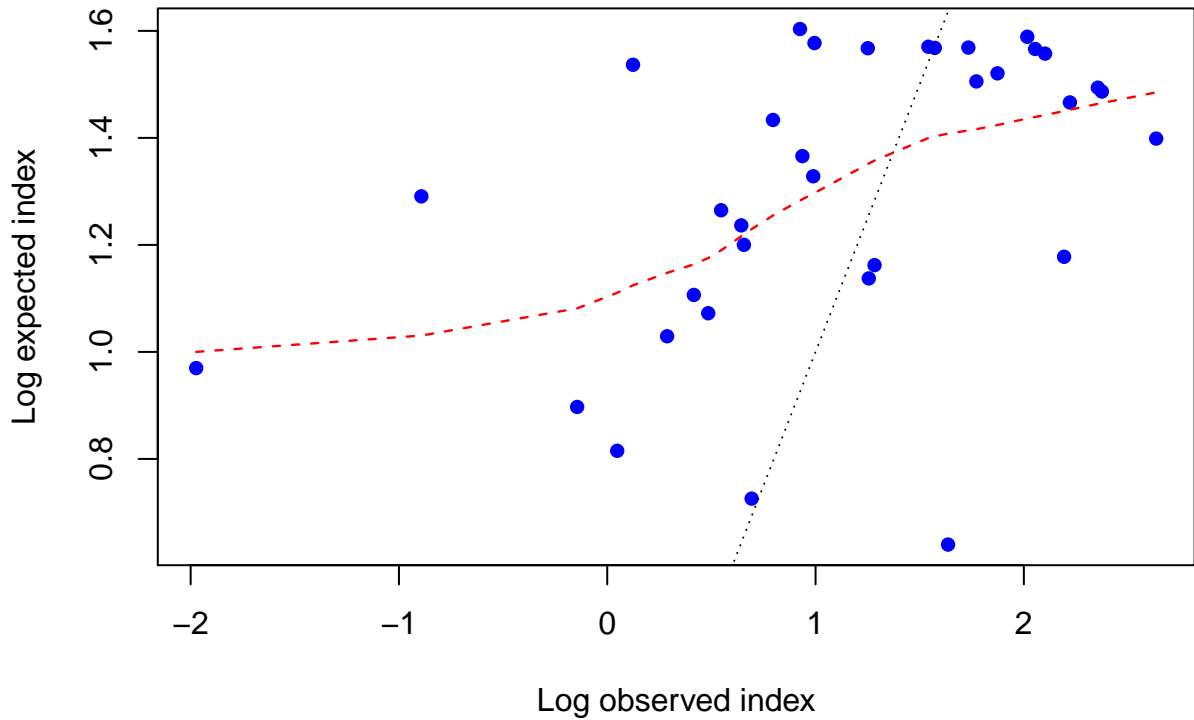


Log index

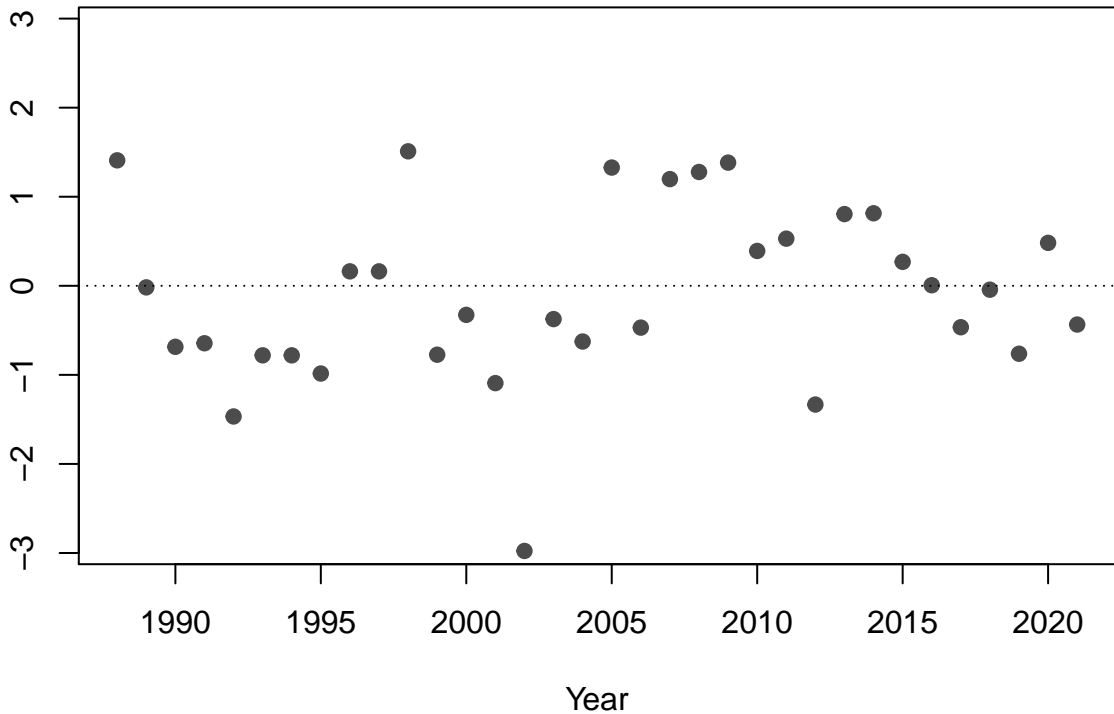


Log index

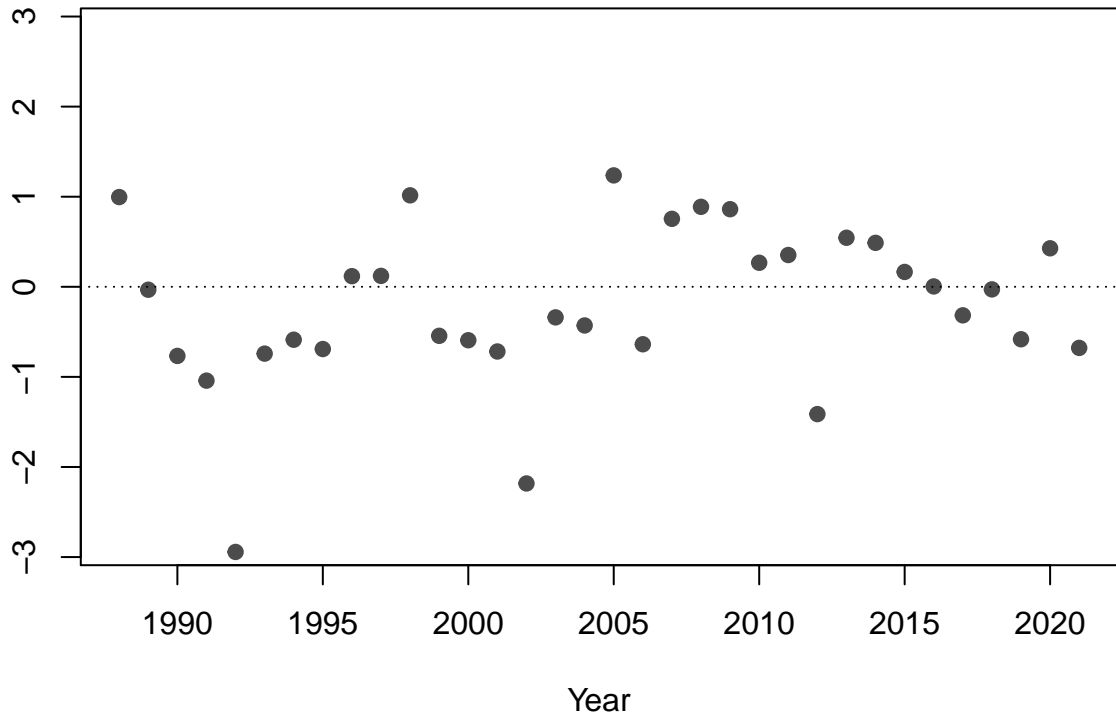


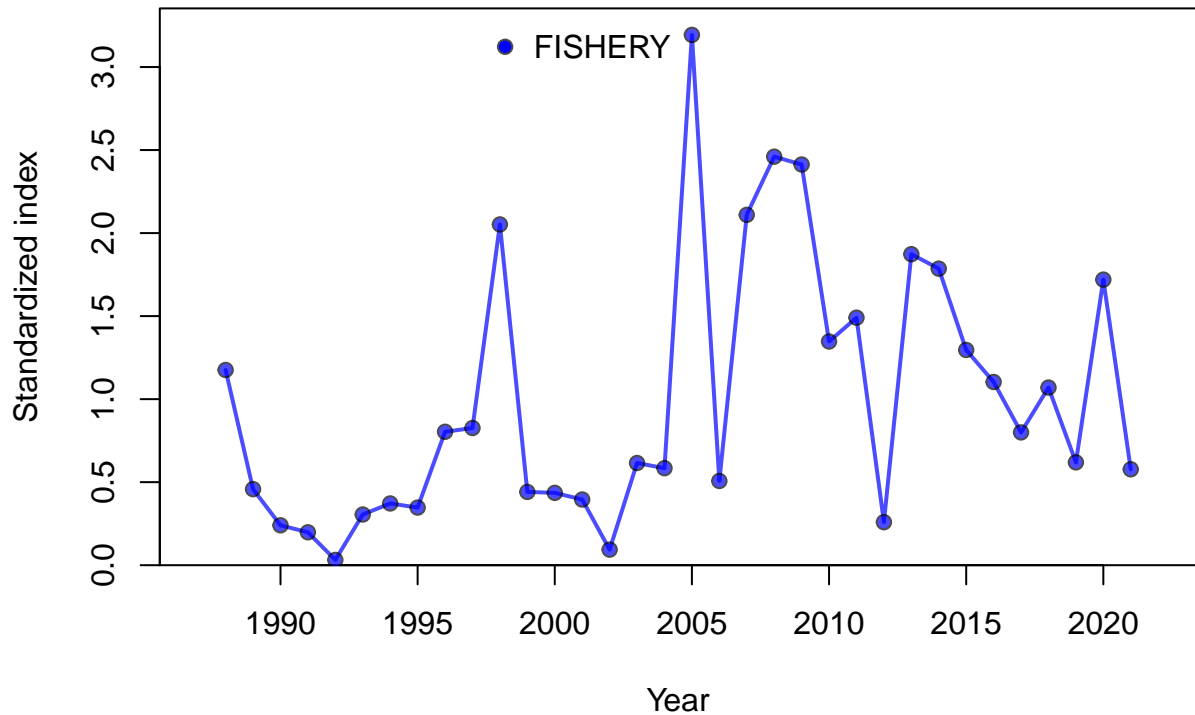


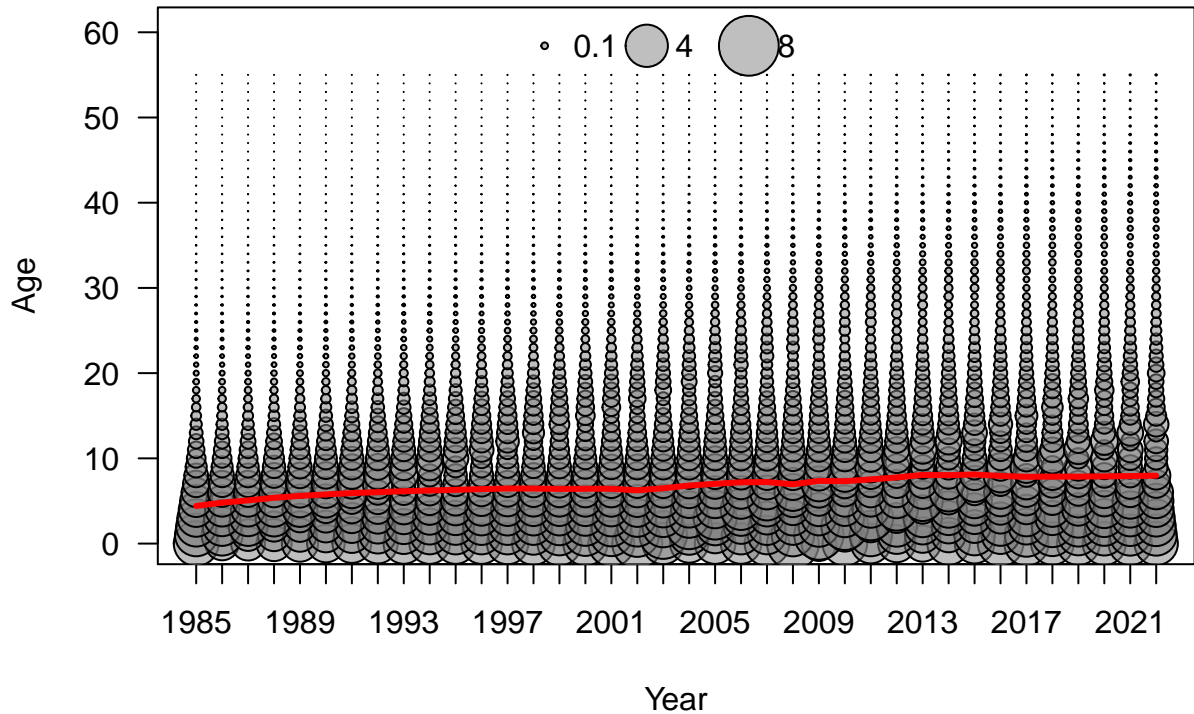
Residual

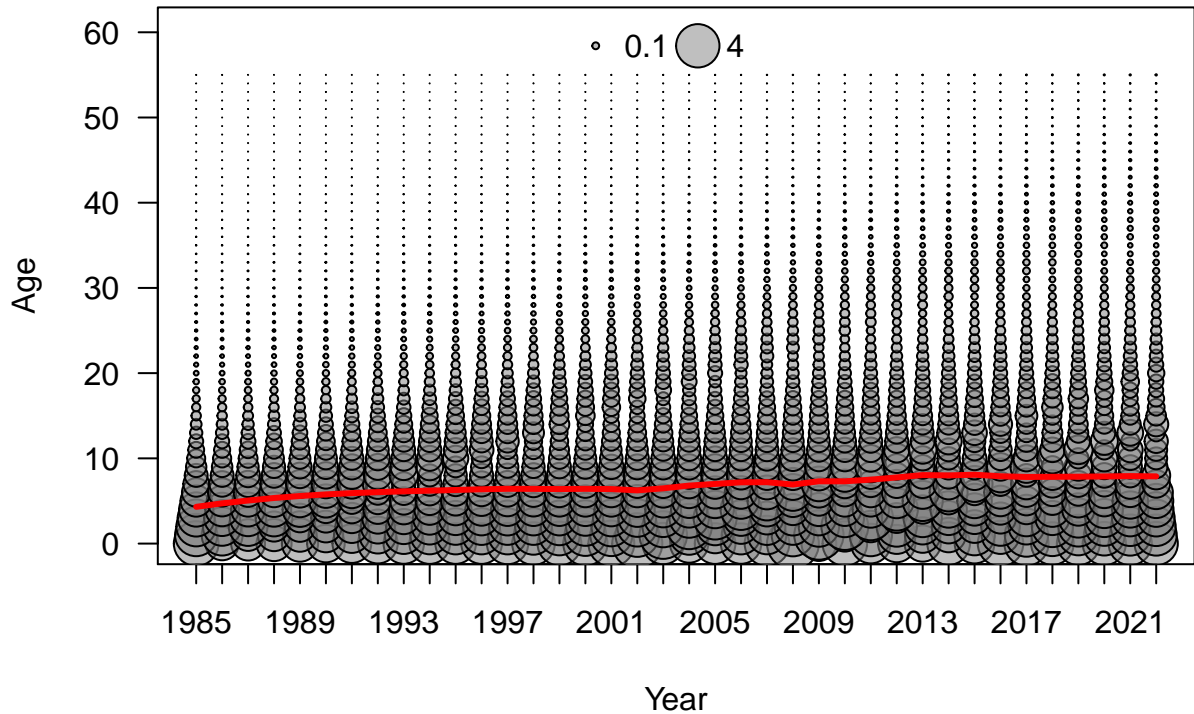


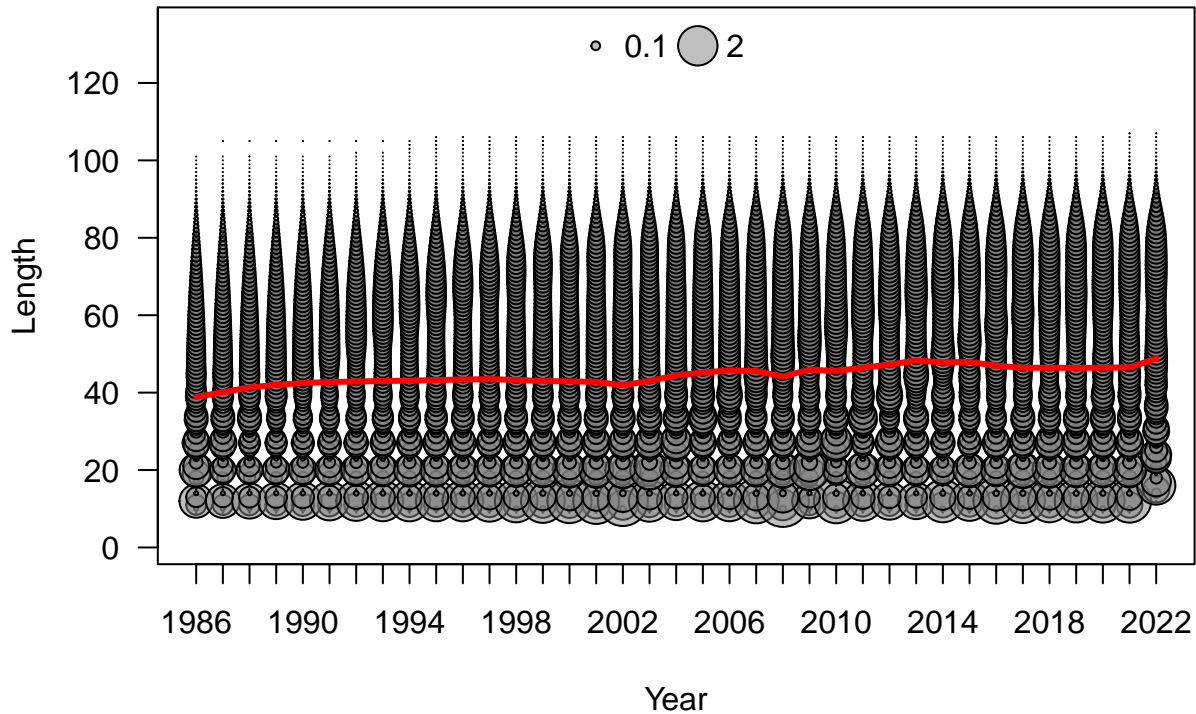
Deviation

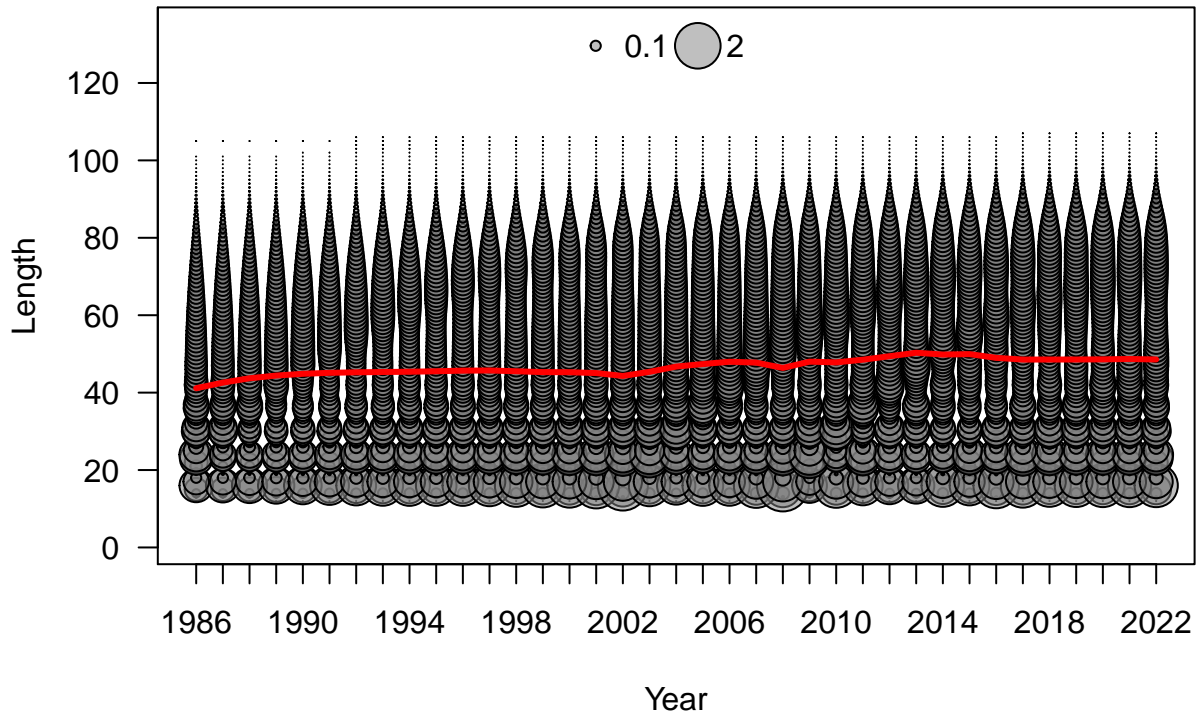


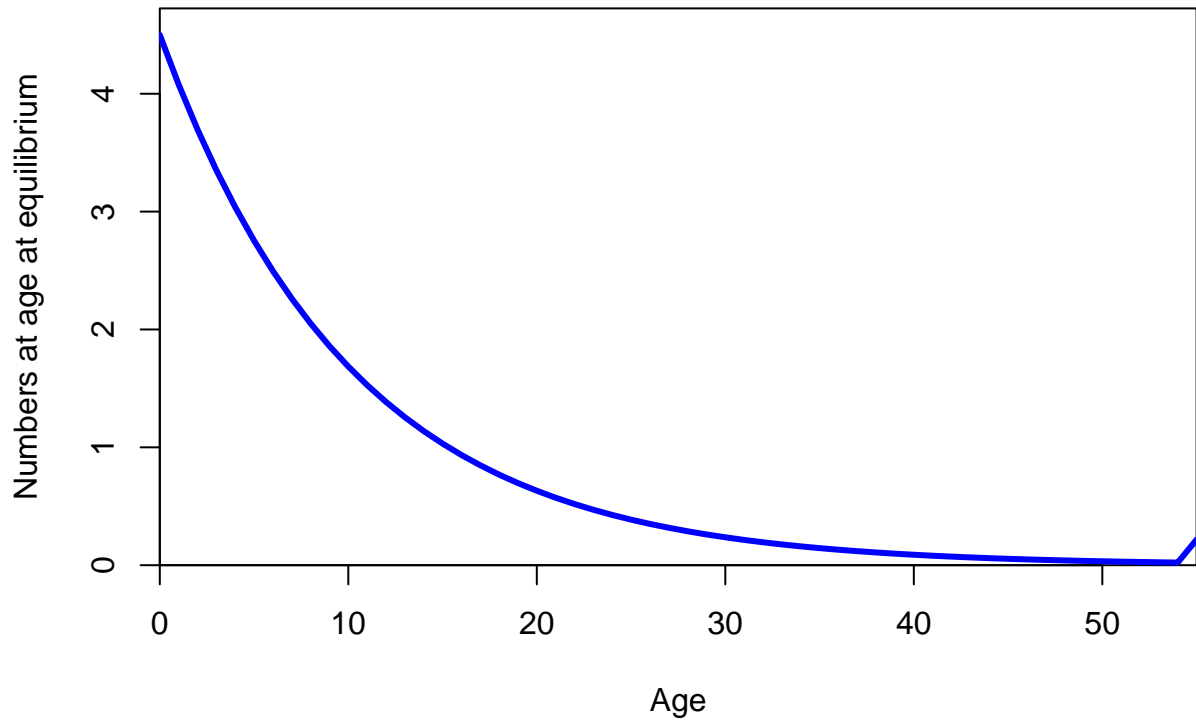






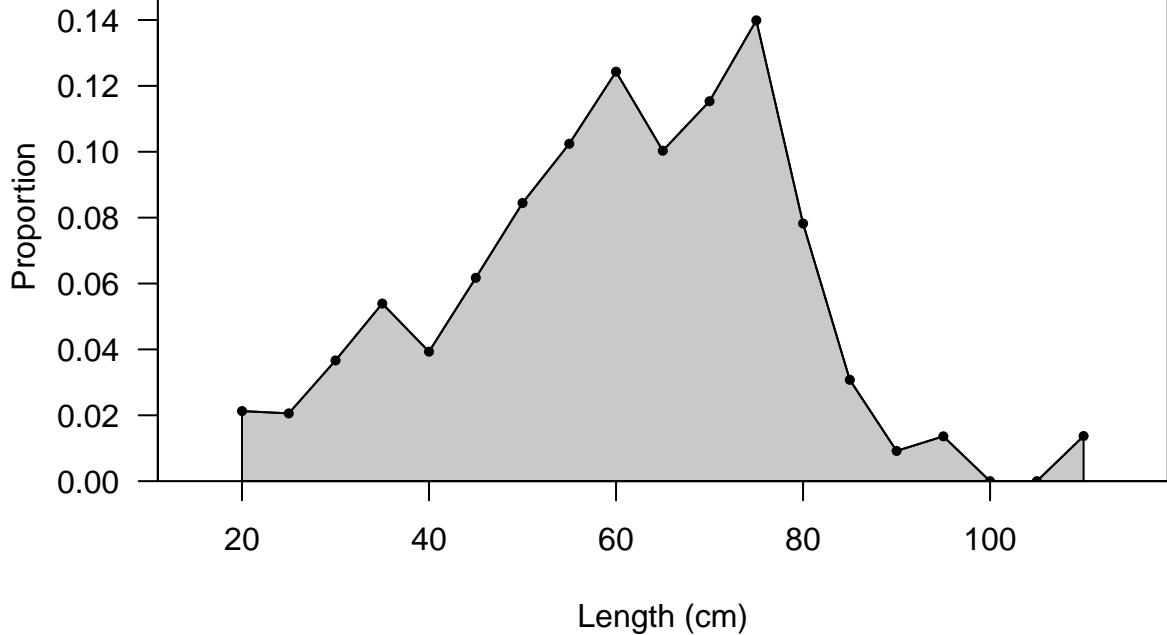






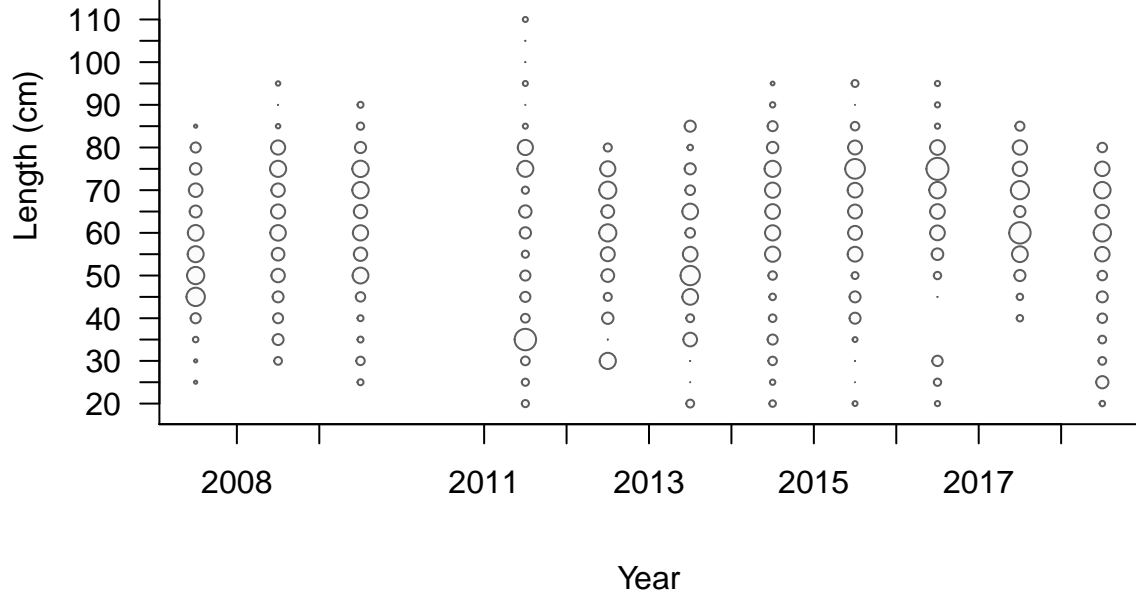
FISHERY

Sum of N adj.=285

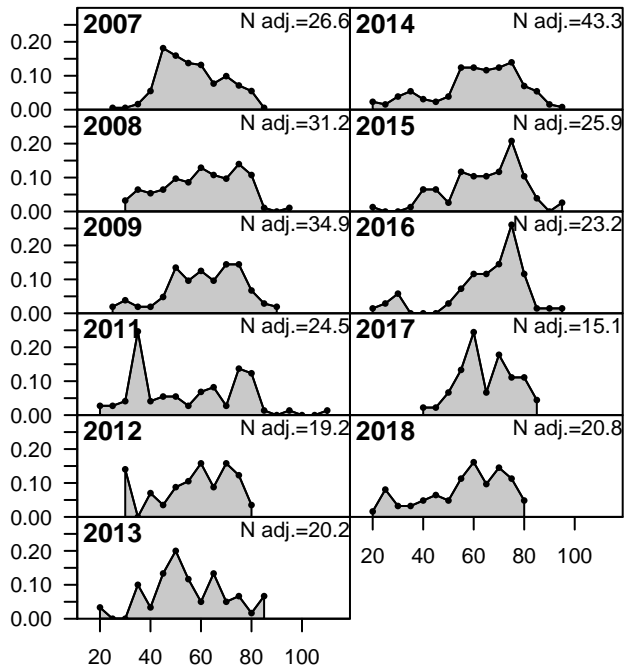


FISHERY

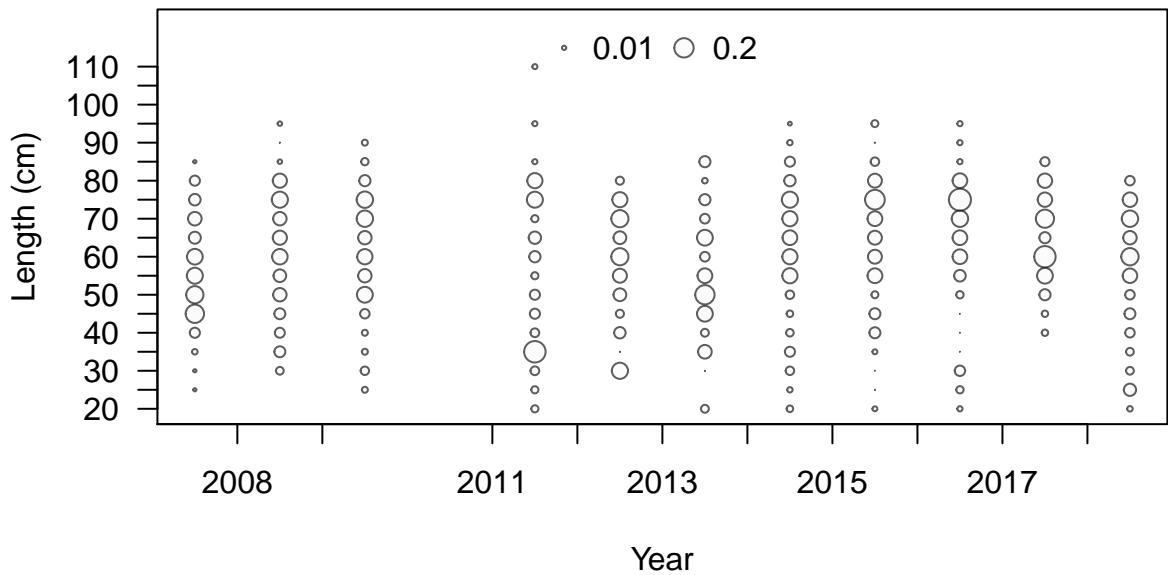
◦ 0.01 ○ 0.2



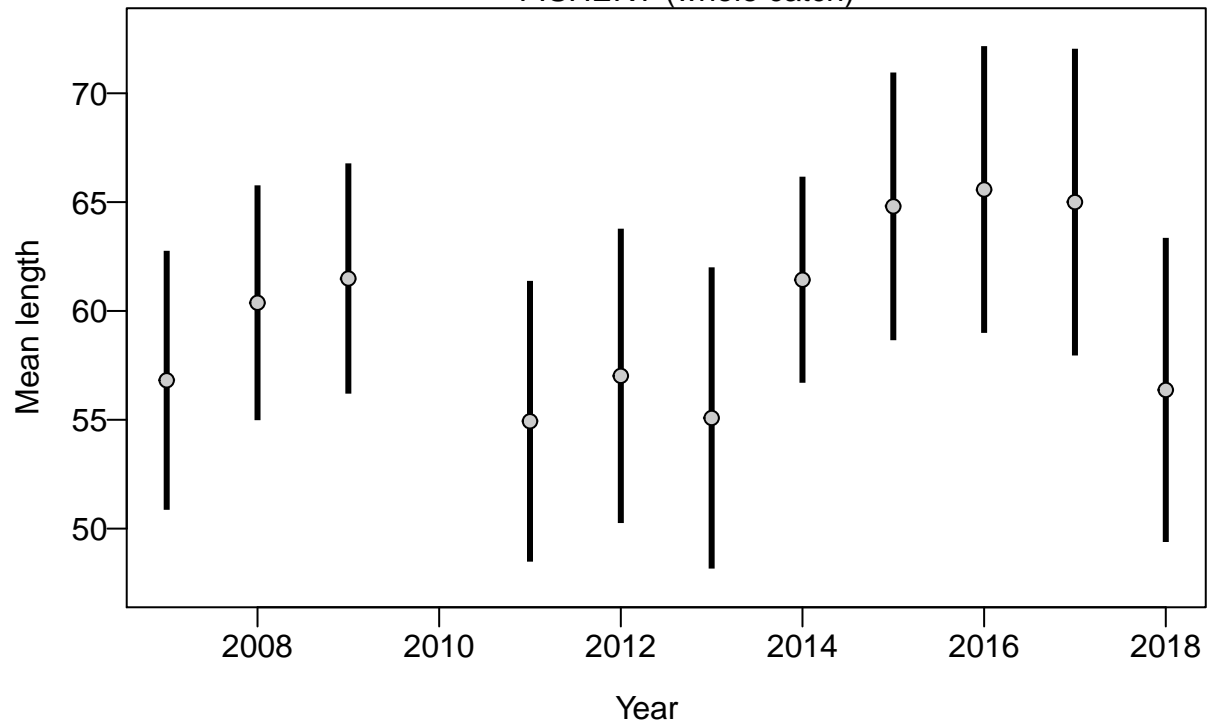
Proportion



Length (cm)

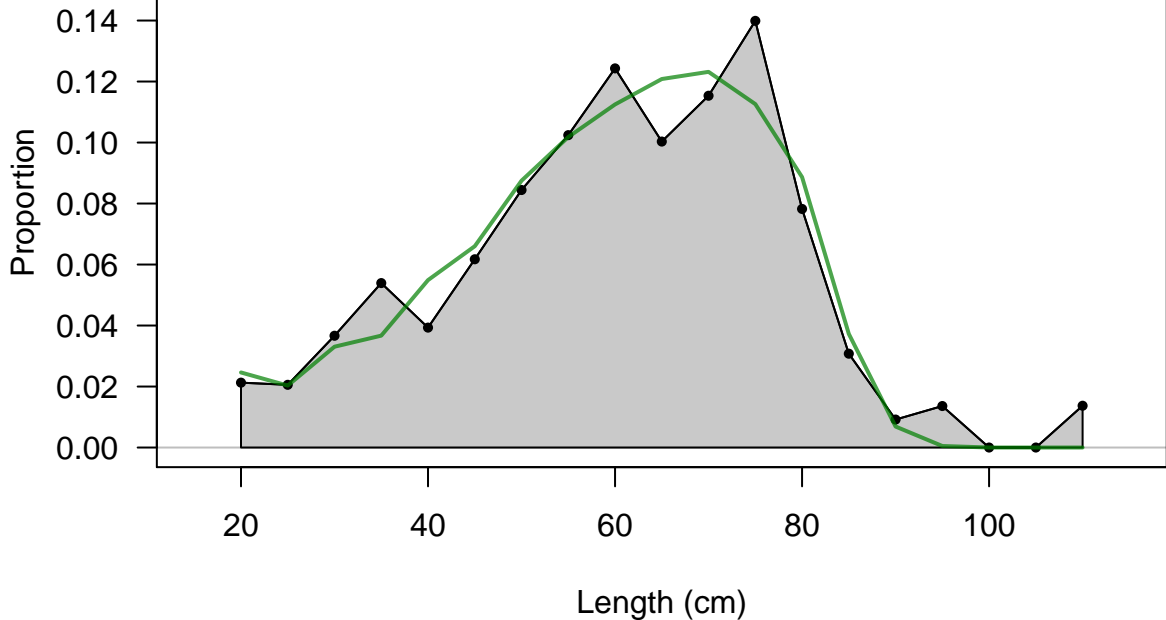


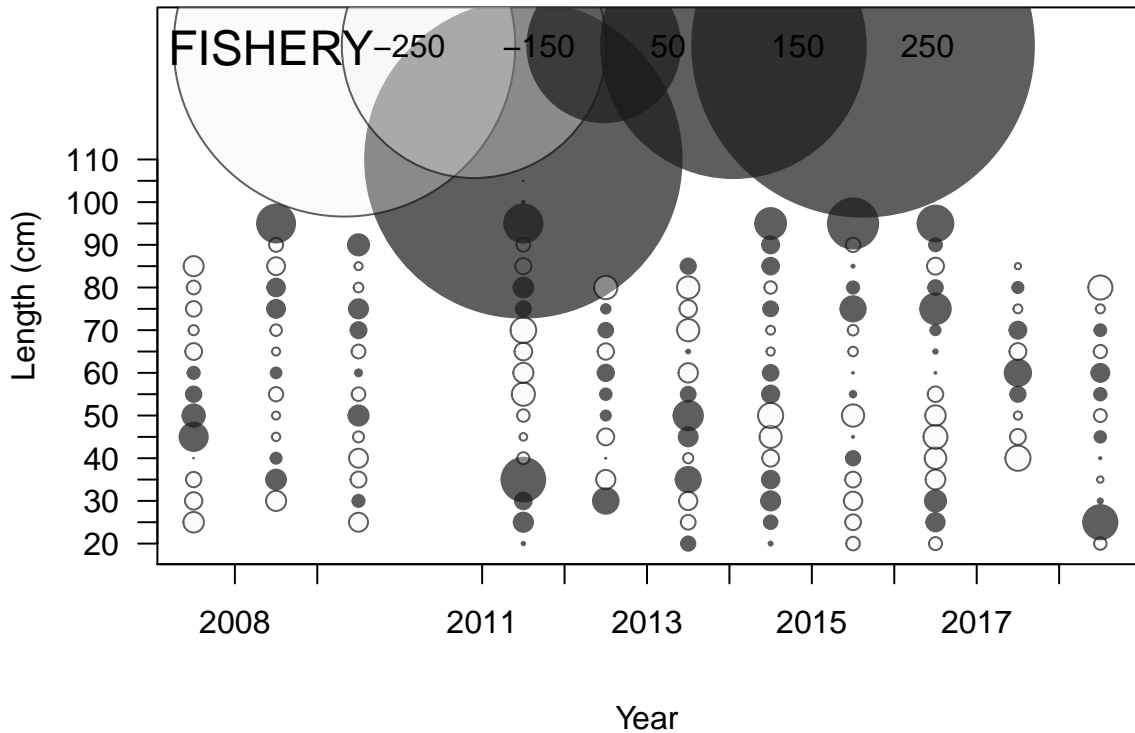
FISHERY (whole catch)



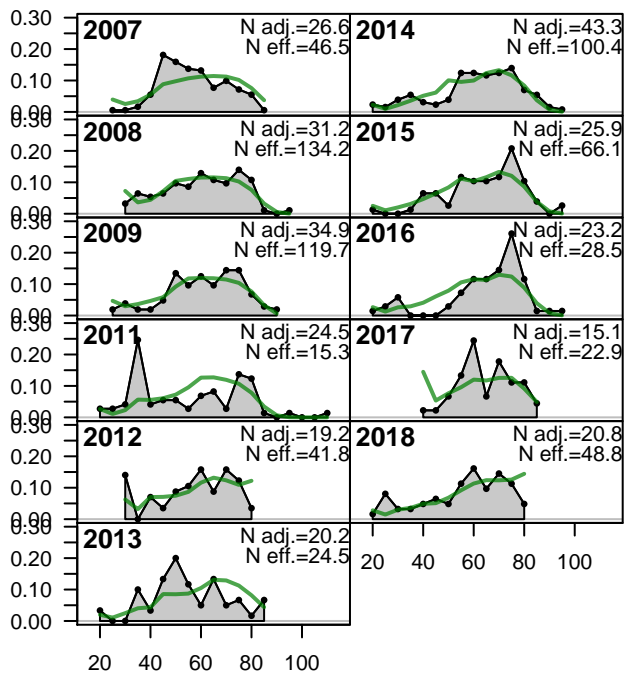
FISHERY

Sum of N adj.=285
Sum of N eff.=648.6

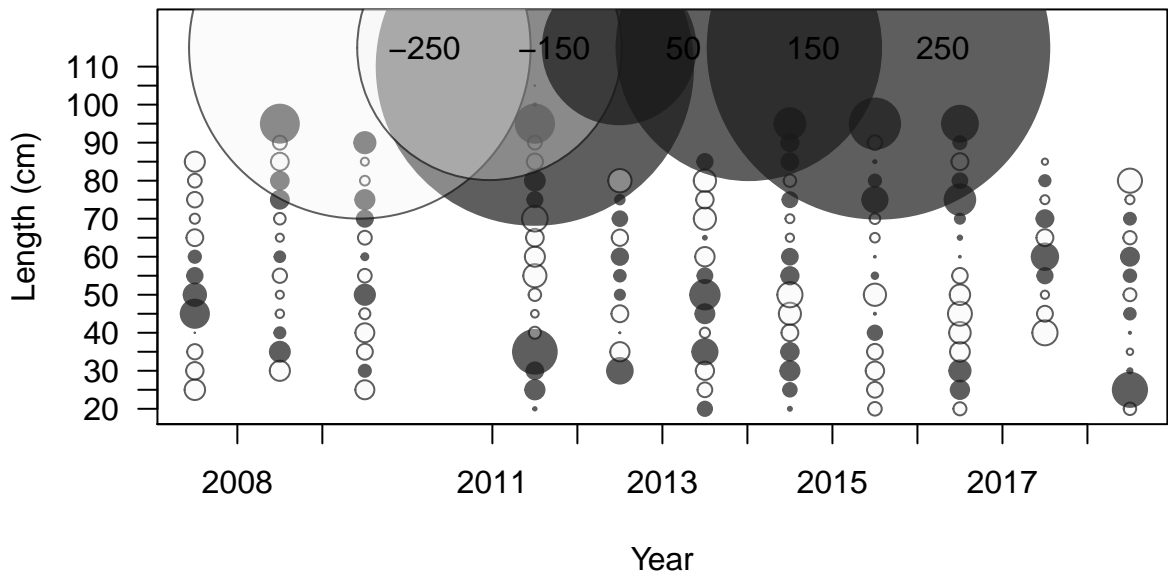




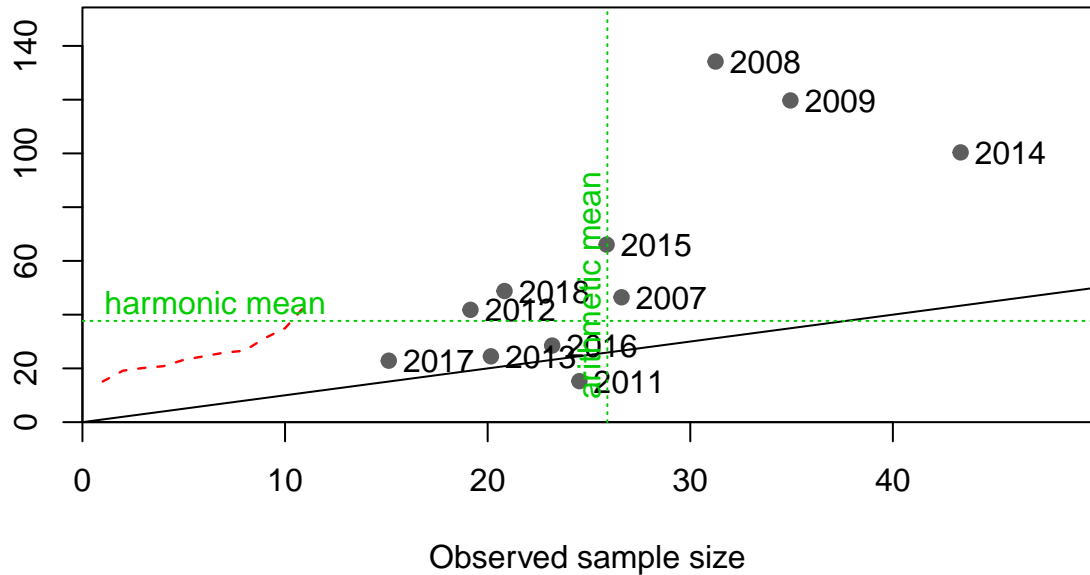
Proportion



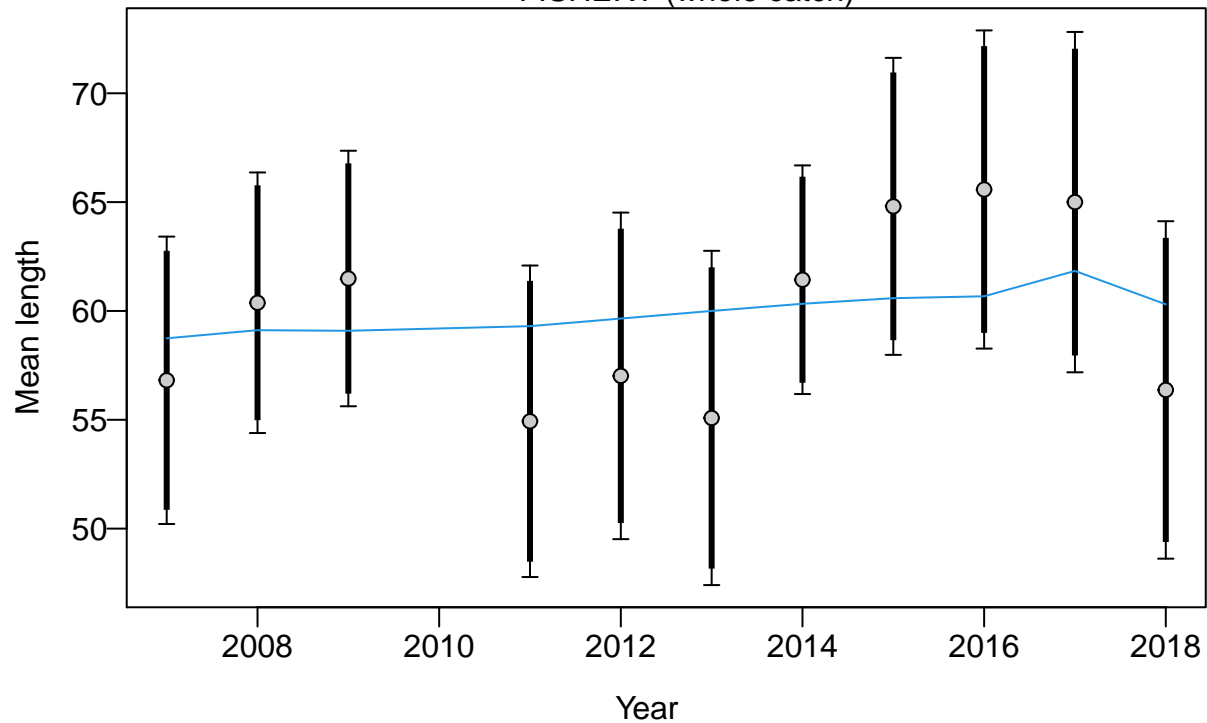
Length (cm)

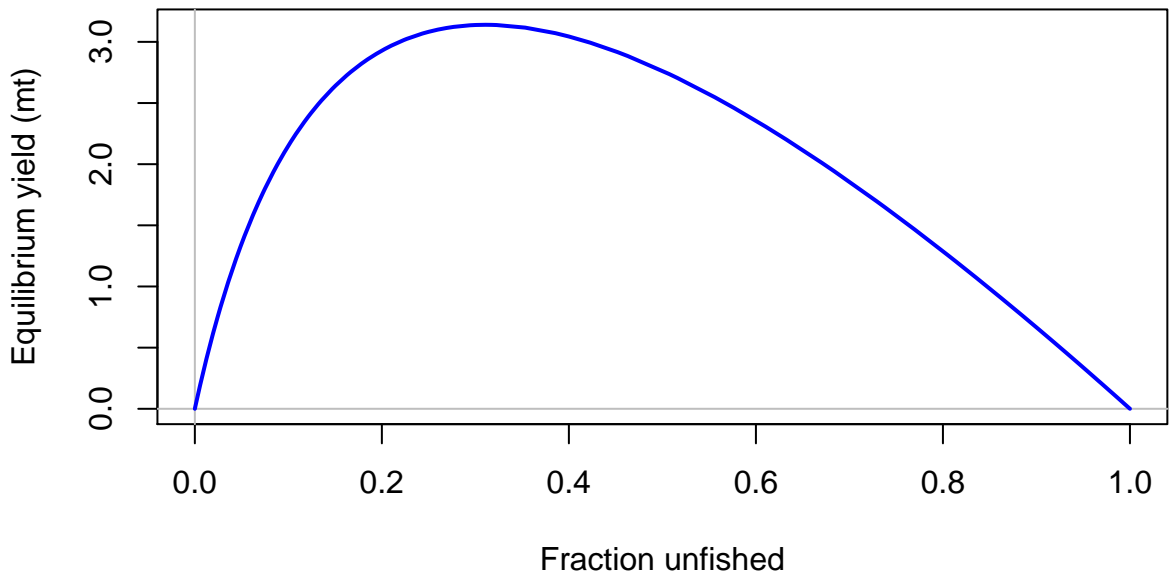


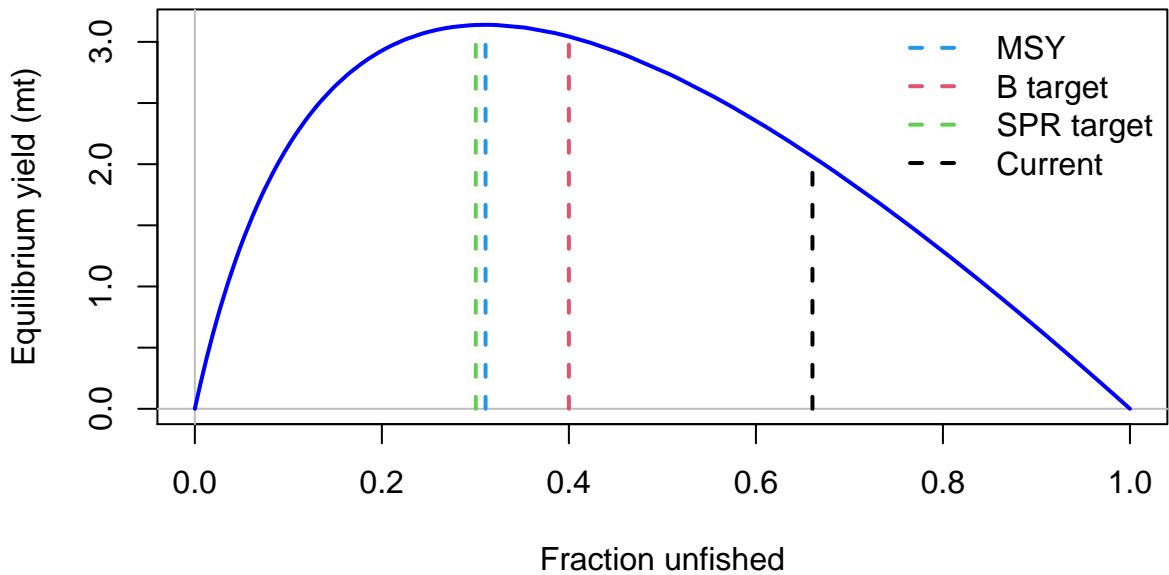
Effective sample size

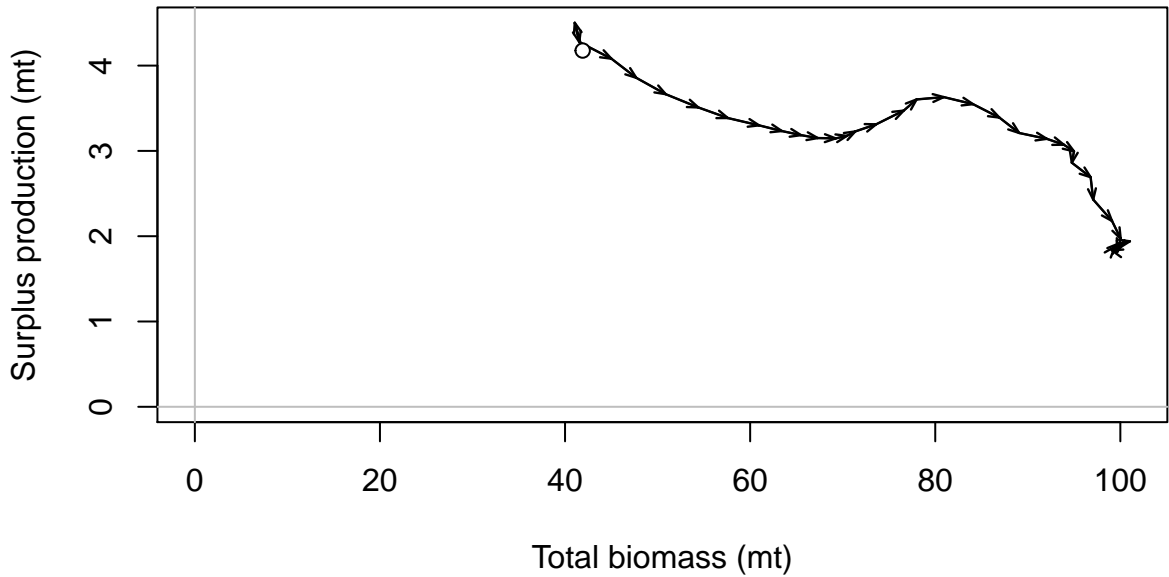


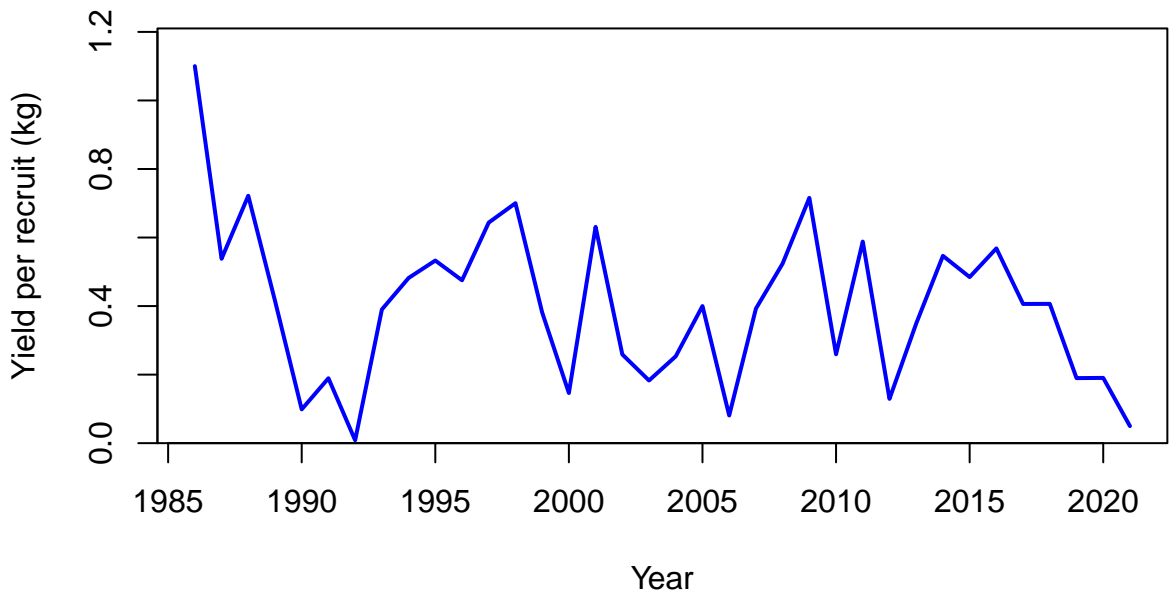
FISHERY (whole catch)

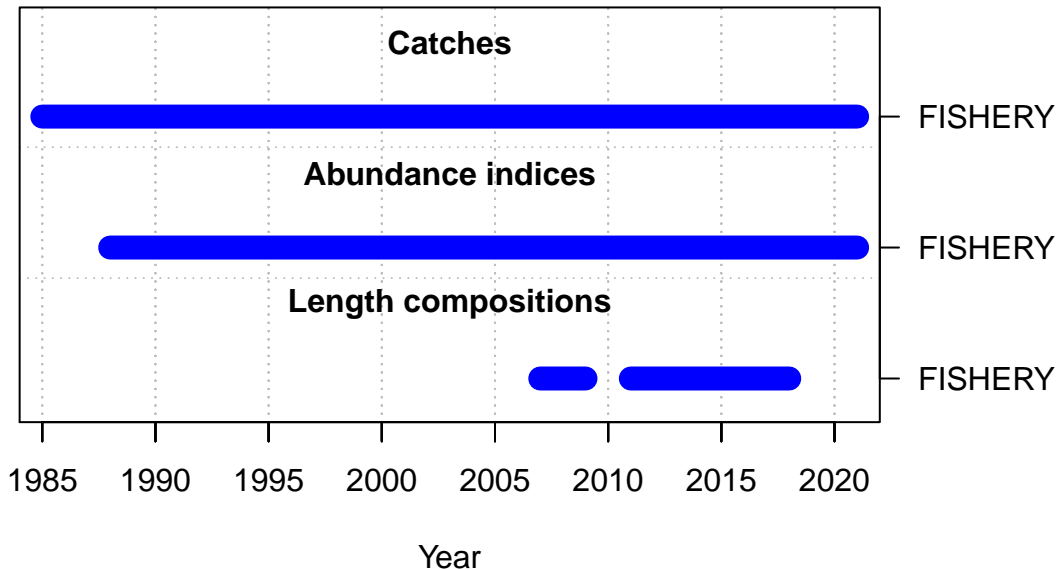


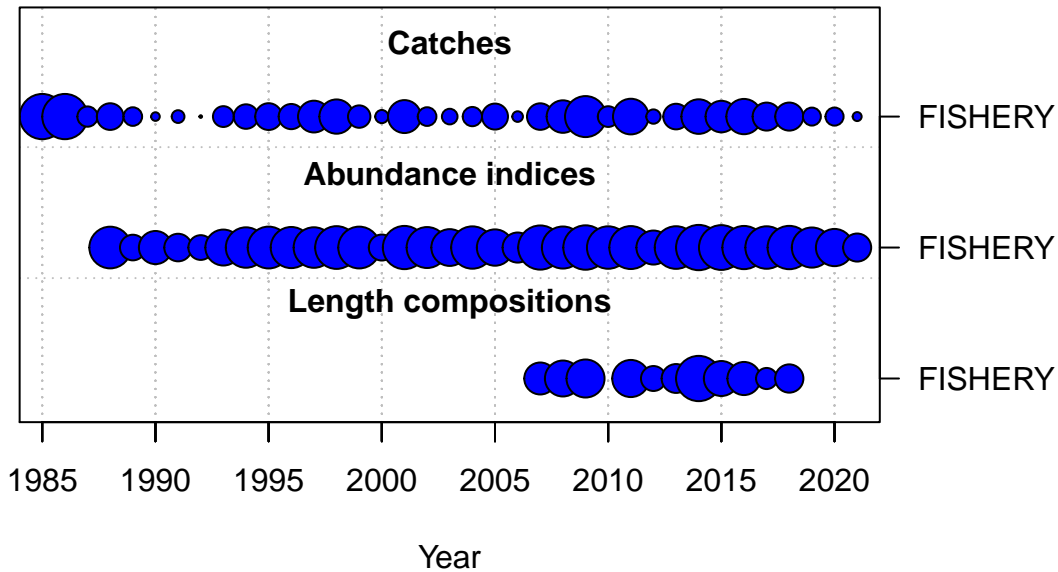








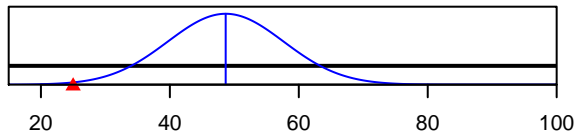




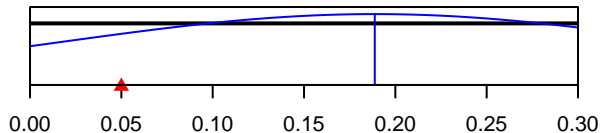
SR_LN(R0)



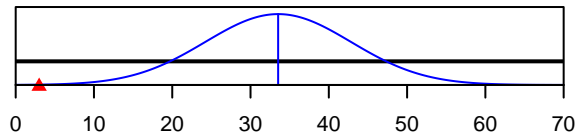
Size_inflection_FISHERY(1)



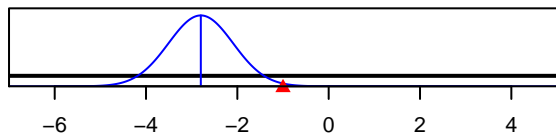
InitF_seas_1_flt_1FISHERY



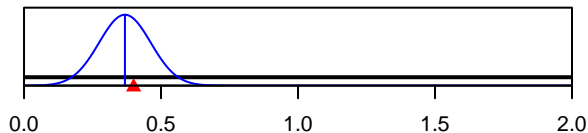
Size_95%width_FISHERY(1)



LnQ_base_FISHERY(1)



Q_extraSD_FISHERY(1)



Parameter value