

Plots created using the 'r4ss' package in R

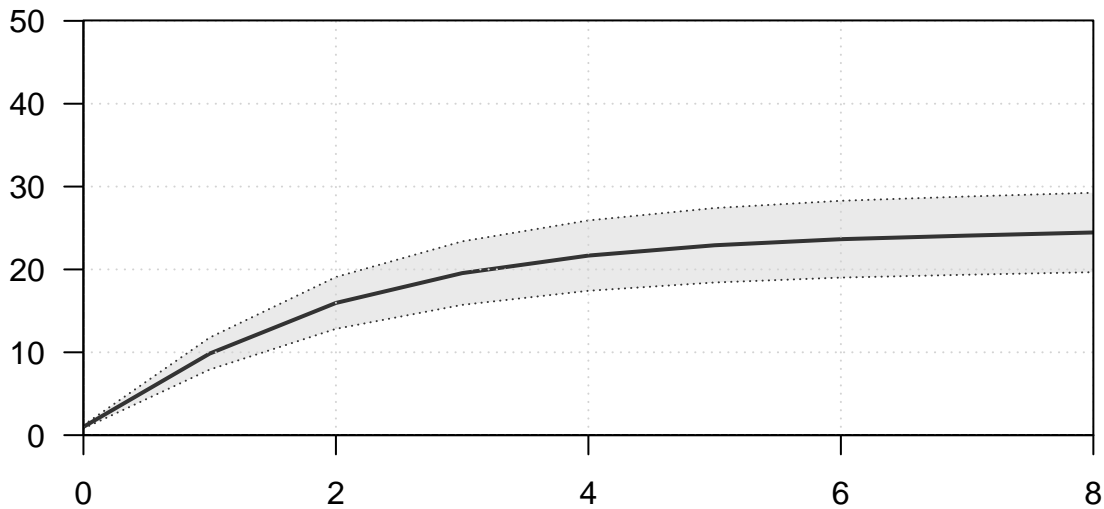
Stock Synthesis version: 3.30.19.0

StartTime: Wed Jun 29 15:12:29 2022

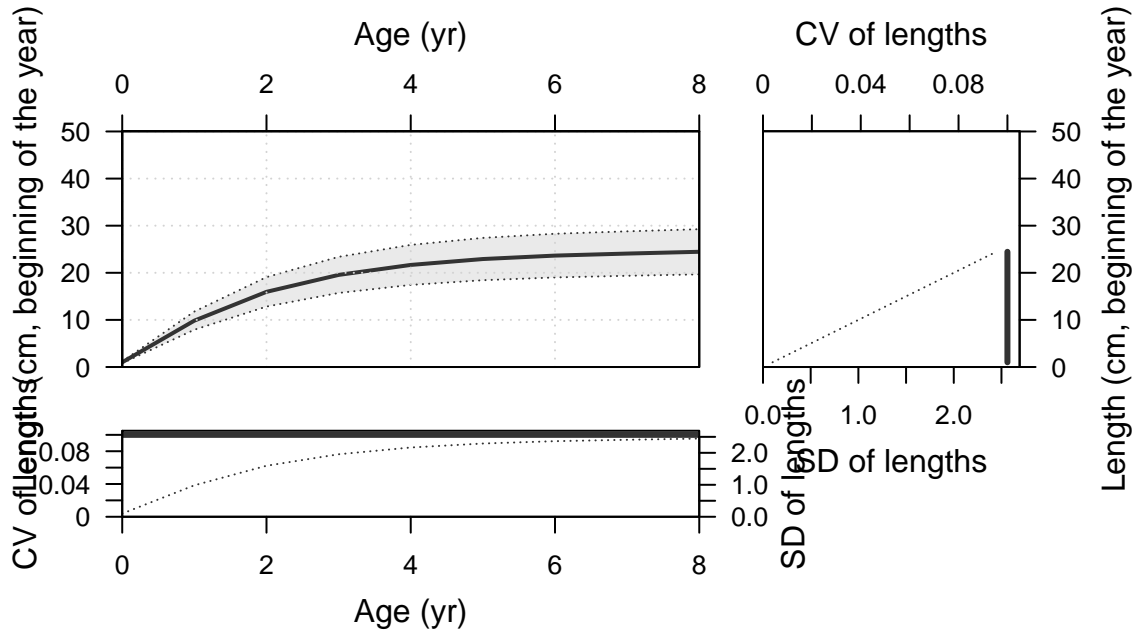
Data_File: data.ss

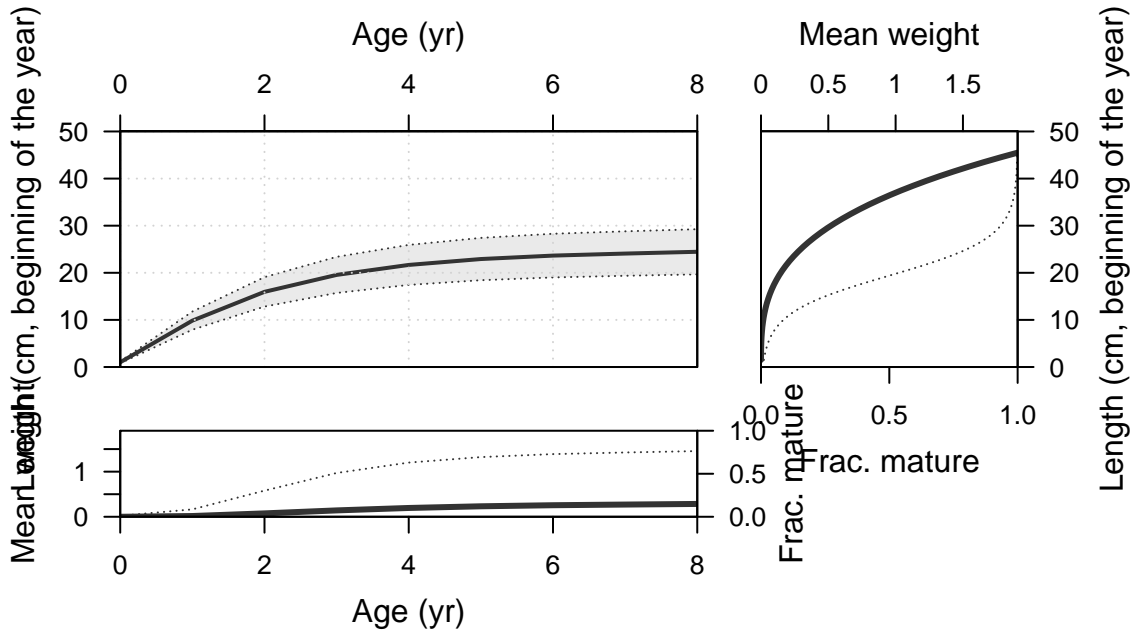
Control_File: control.ss

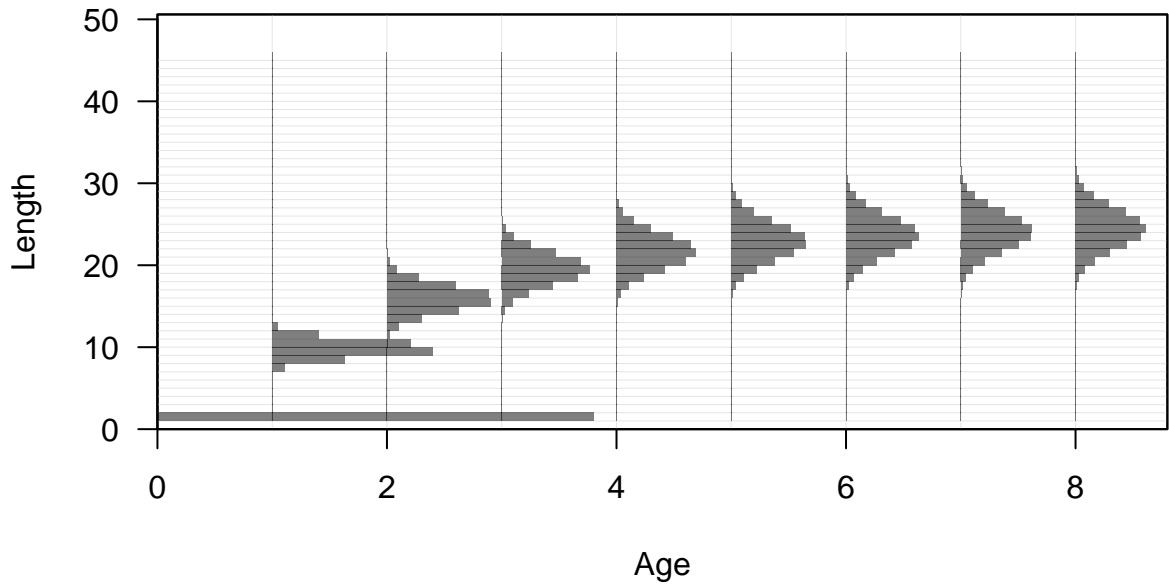
Length (cm, beginning of the year)

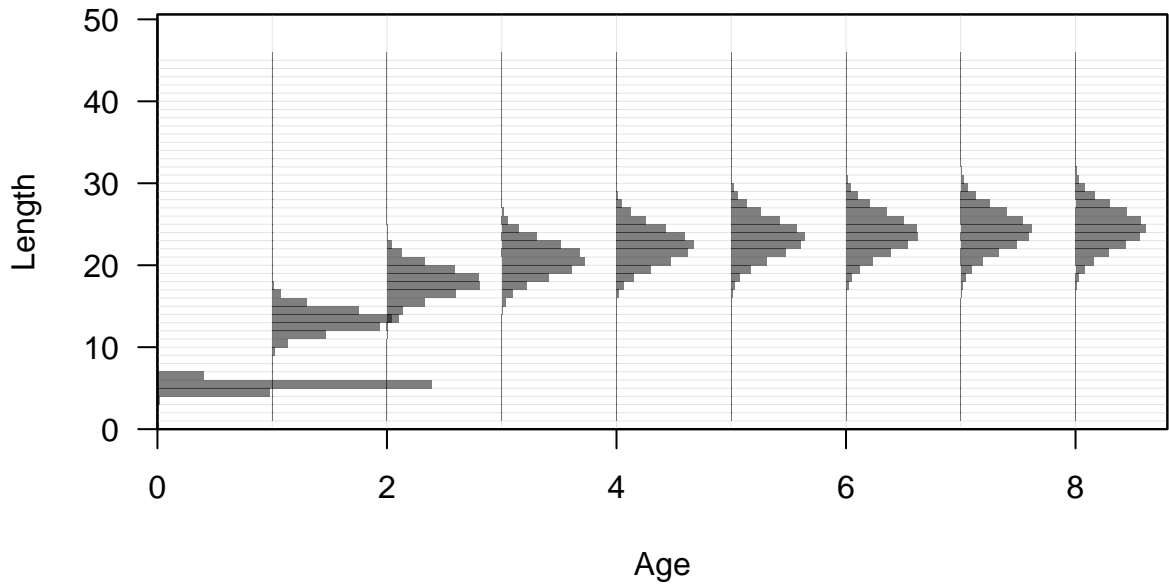


Age (yr)

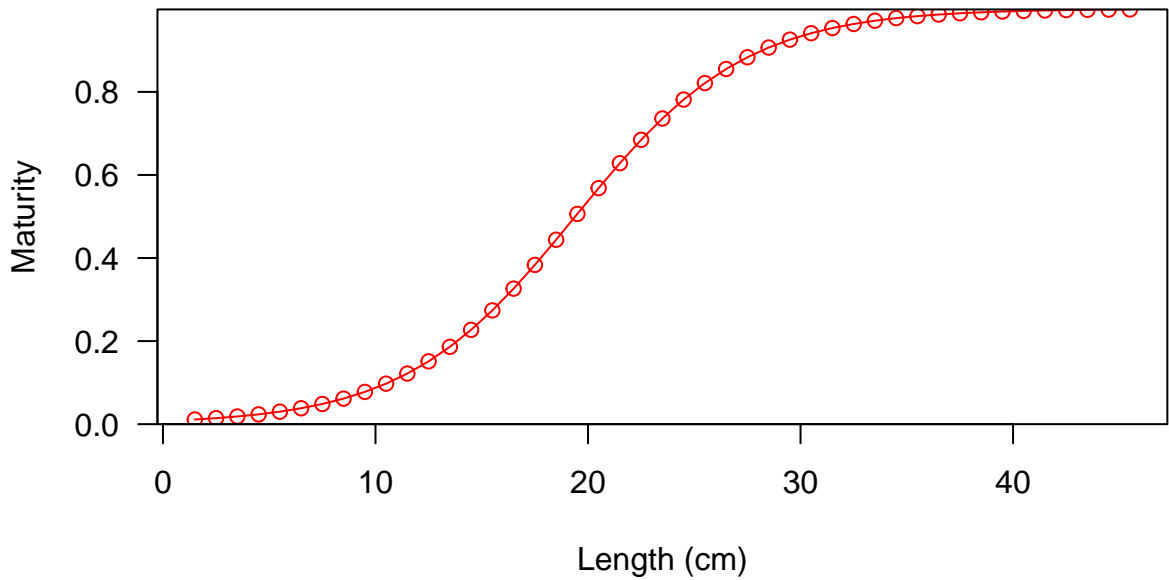




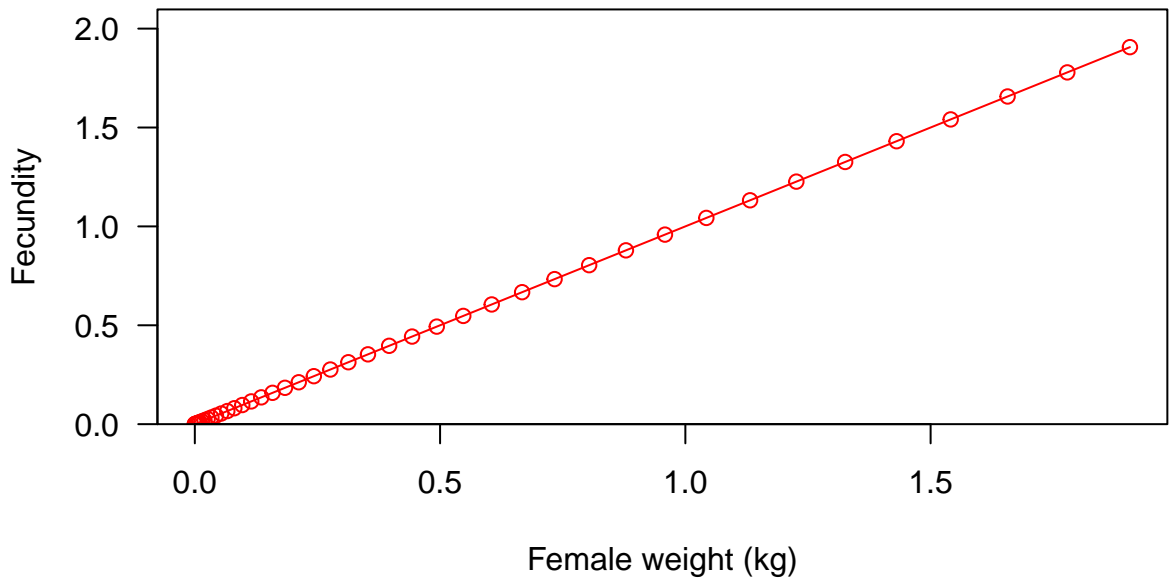




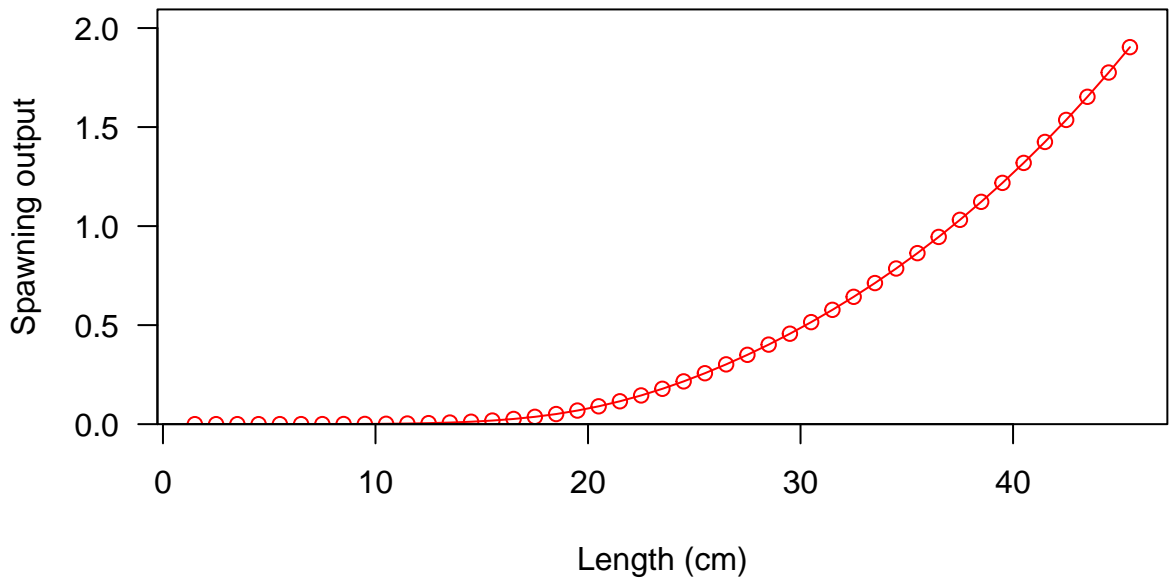


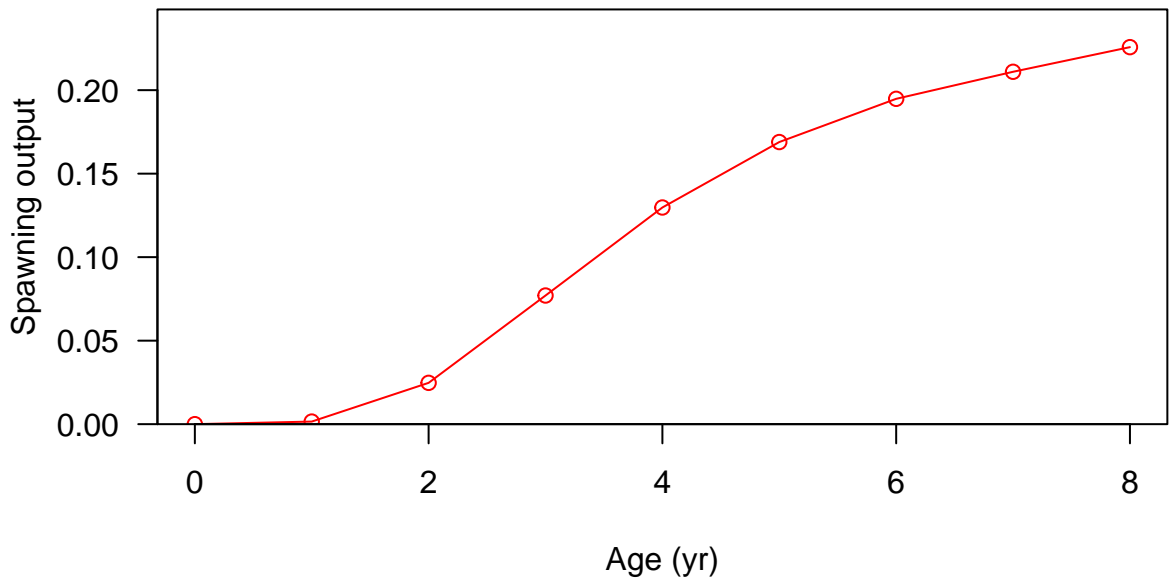




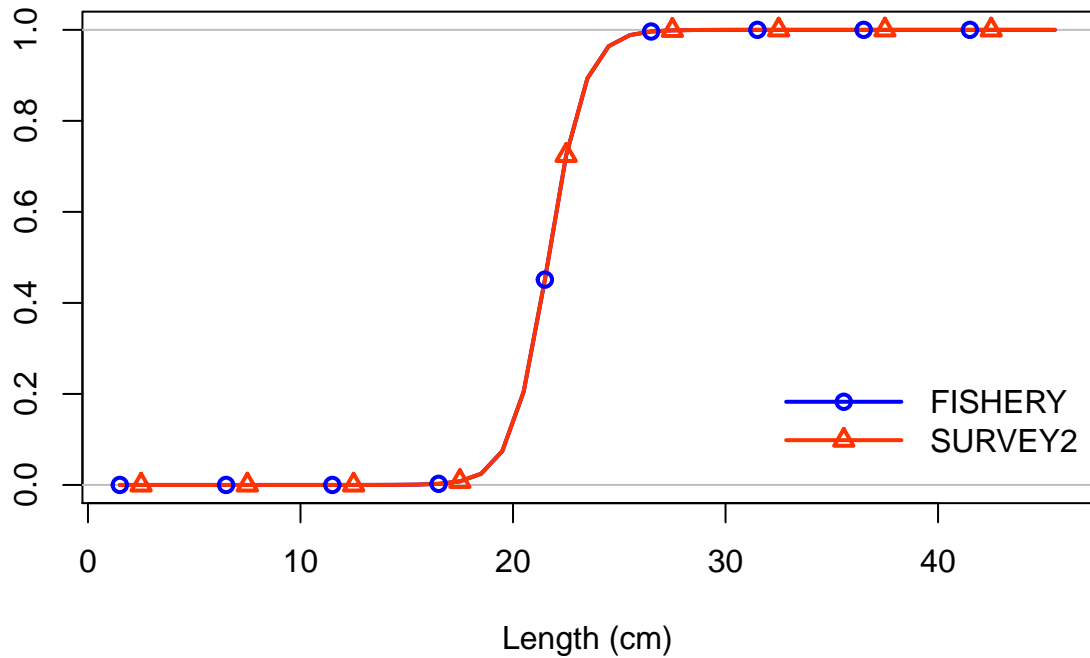




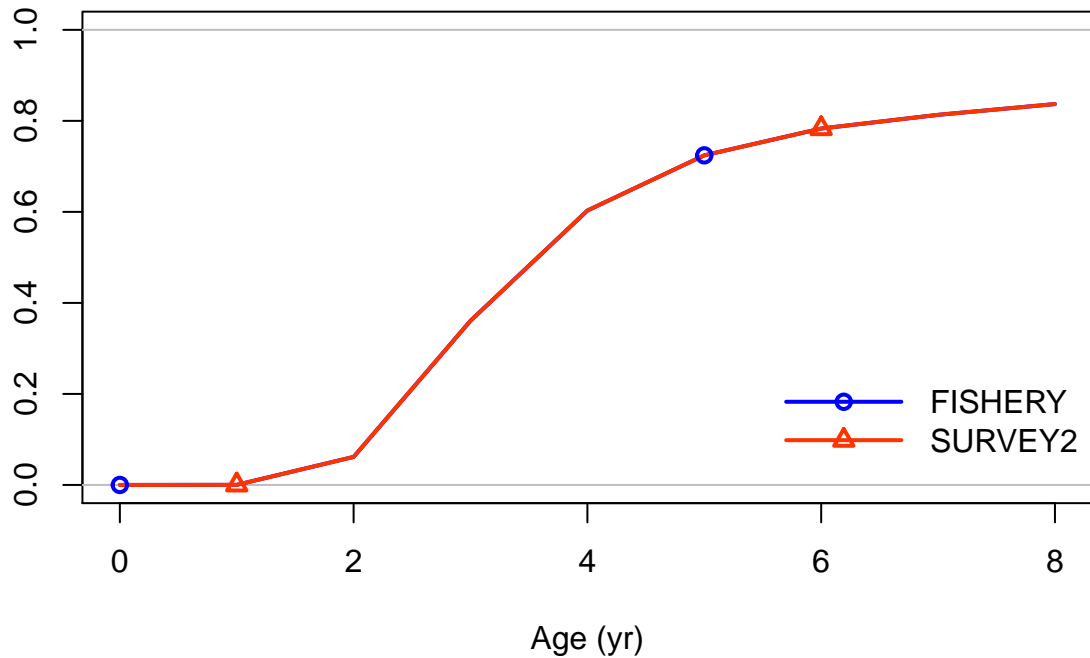




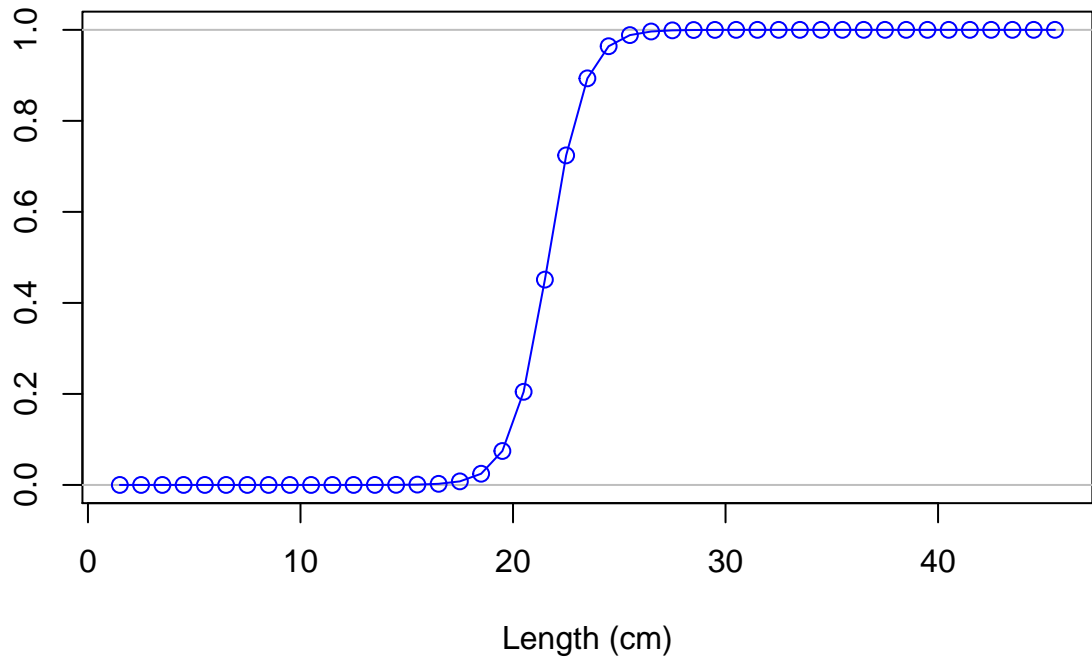
Selectivity



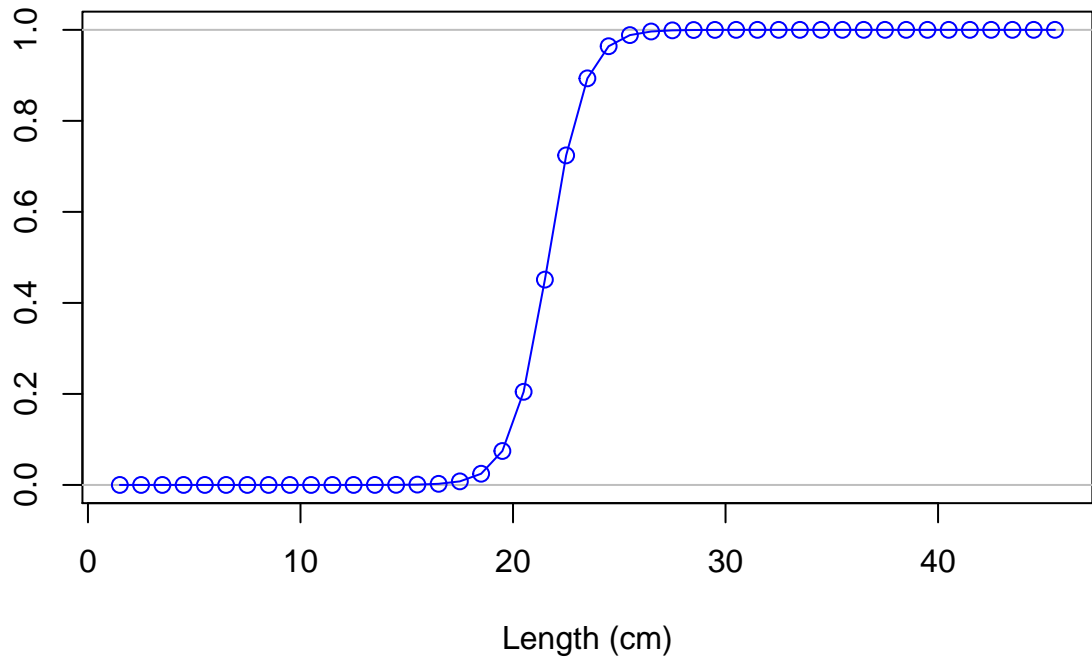
Selectivity

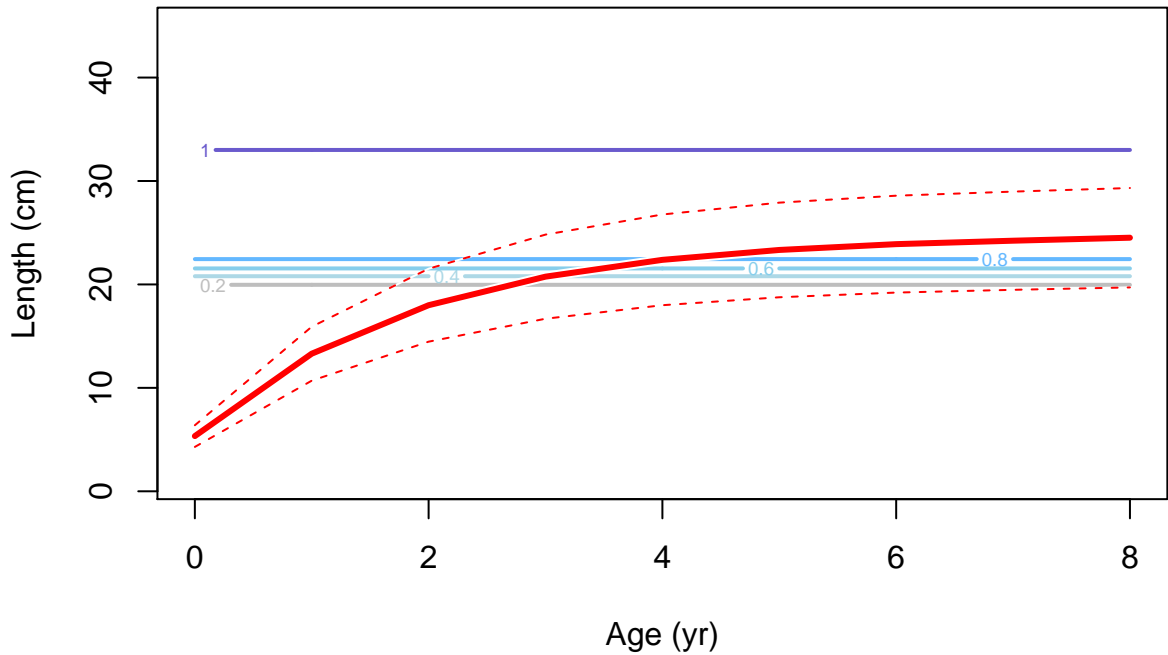


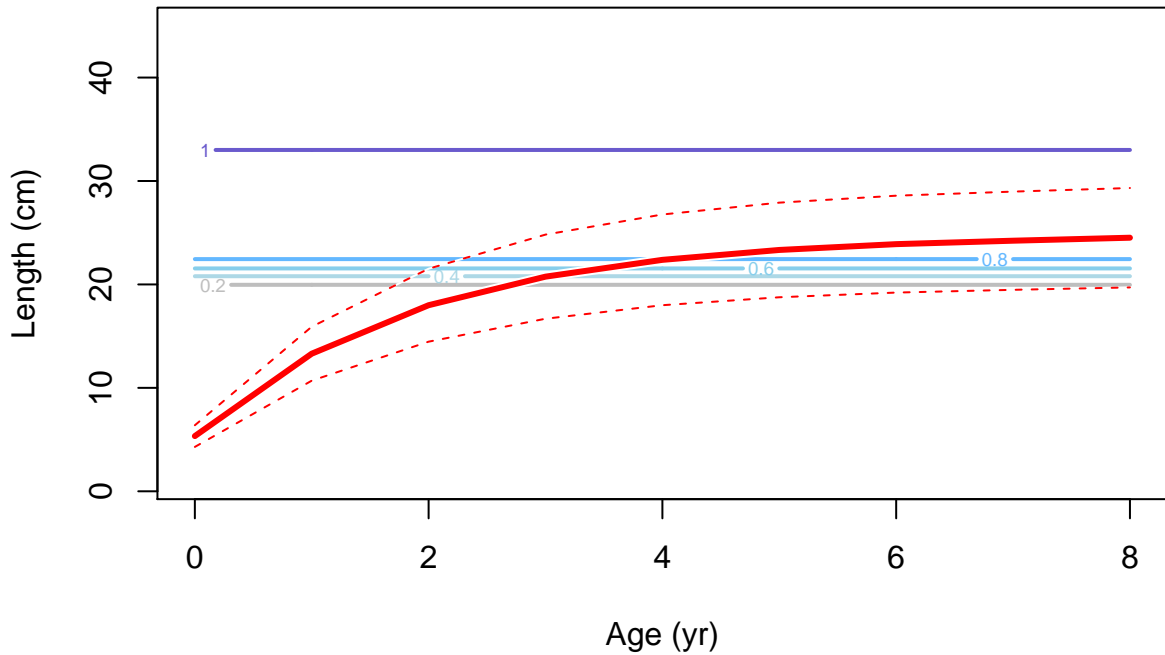
Selectivity



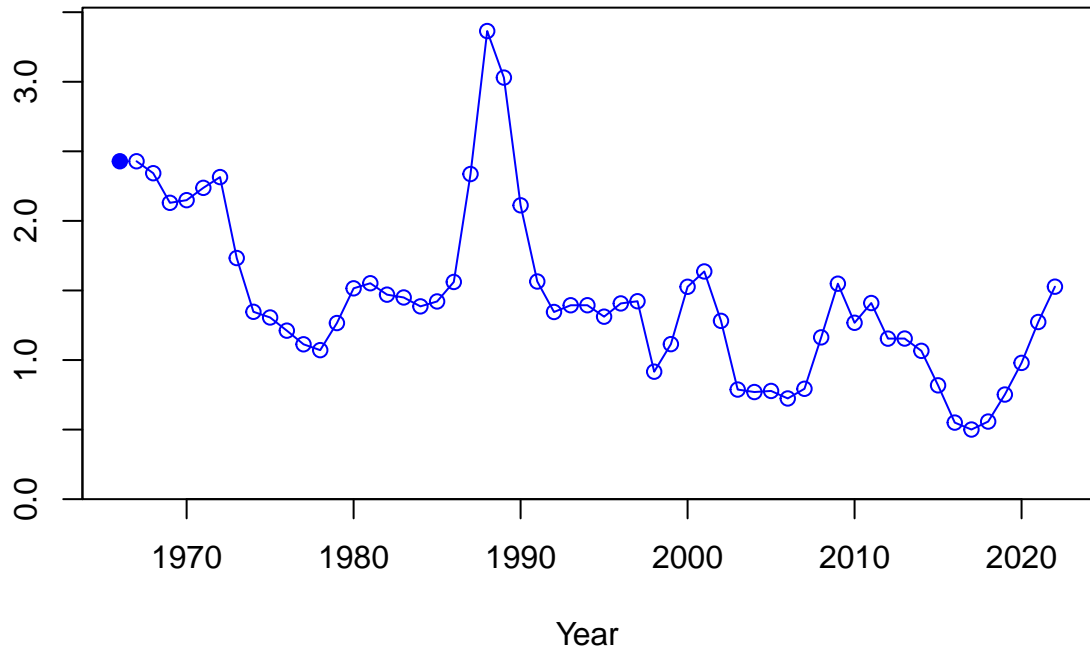
Selectivity



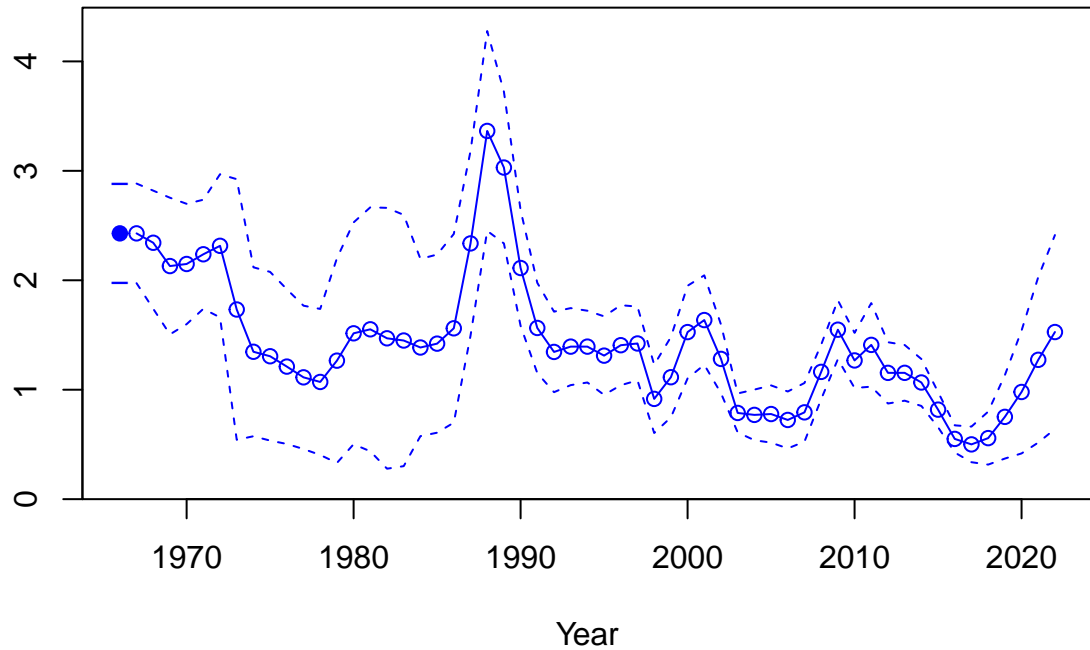




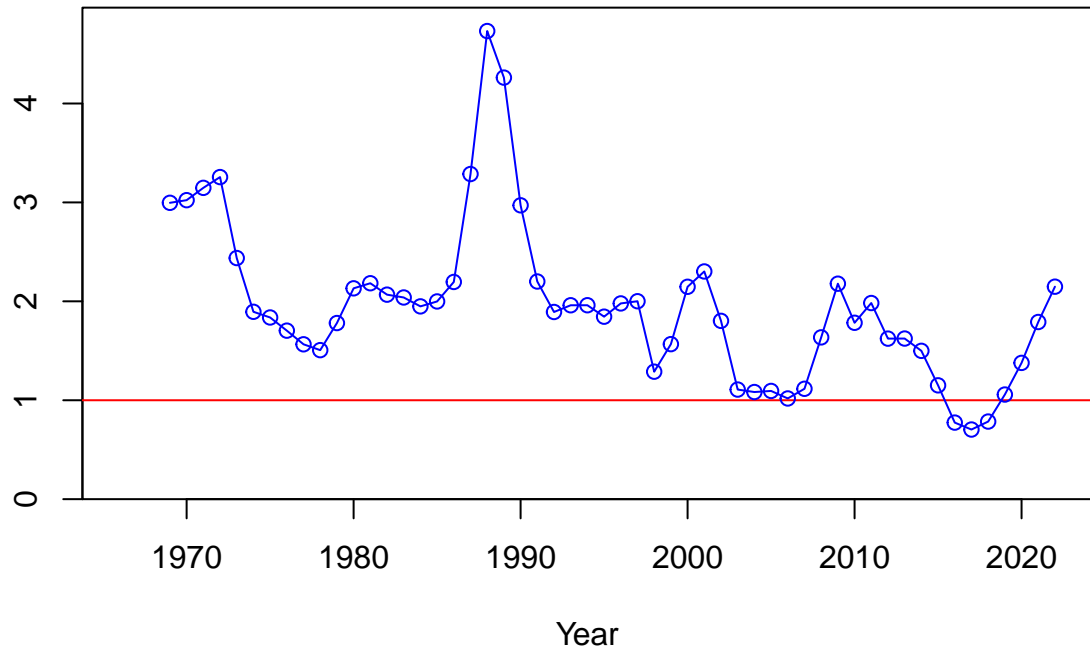
Spawning biomass (mt)



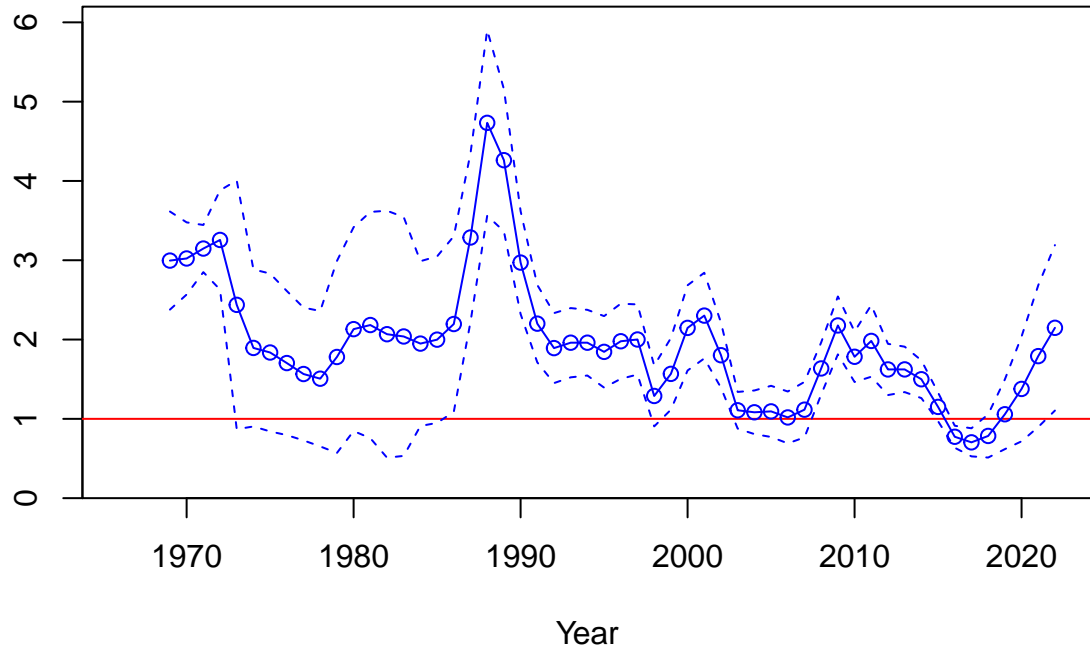
Spawning biomass (mt)

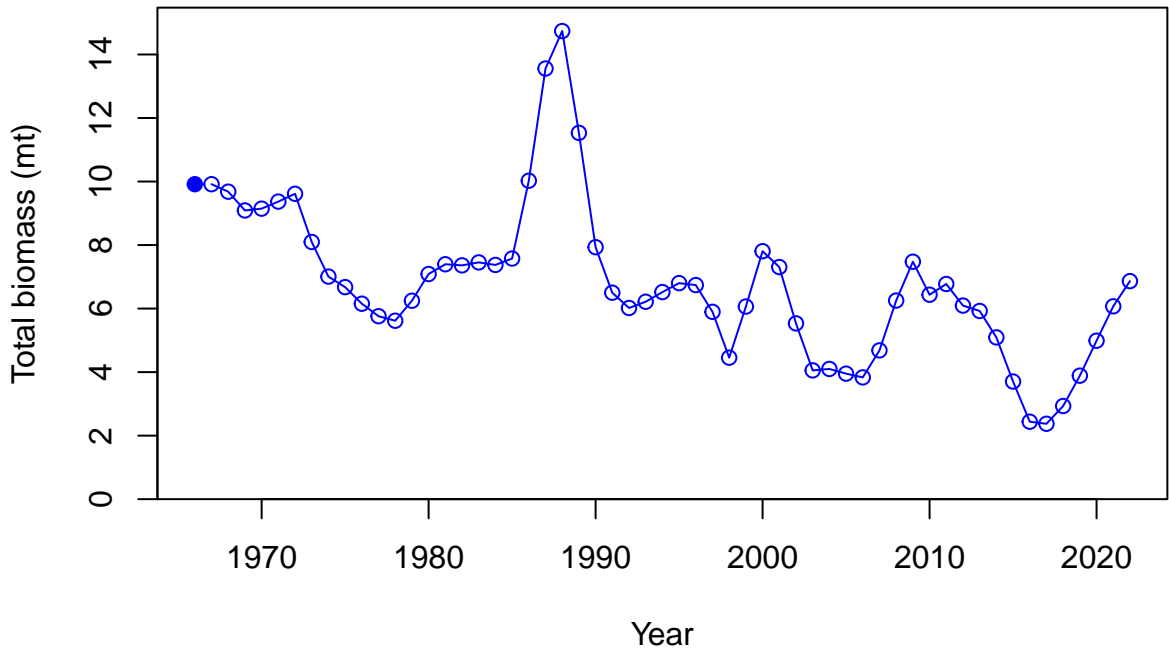


Relative spawning biomass: B/B_{MSY}

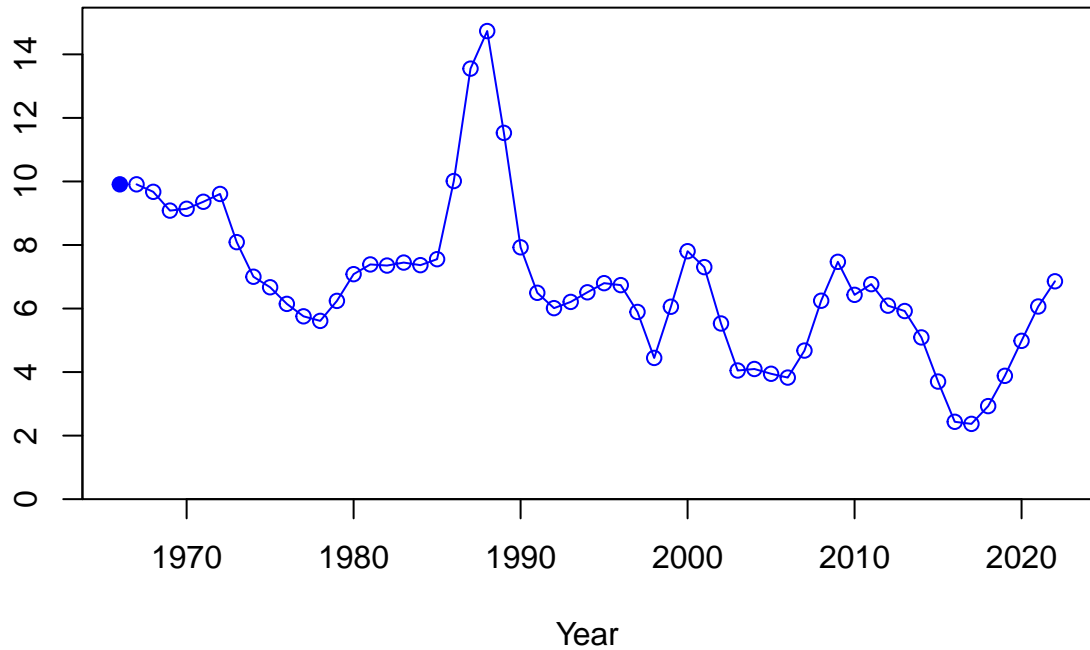


Relative spawning biomass: B/B_{MSY}

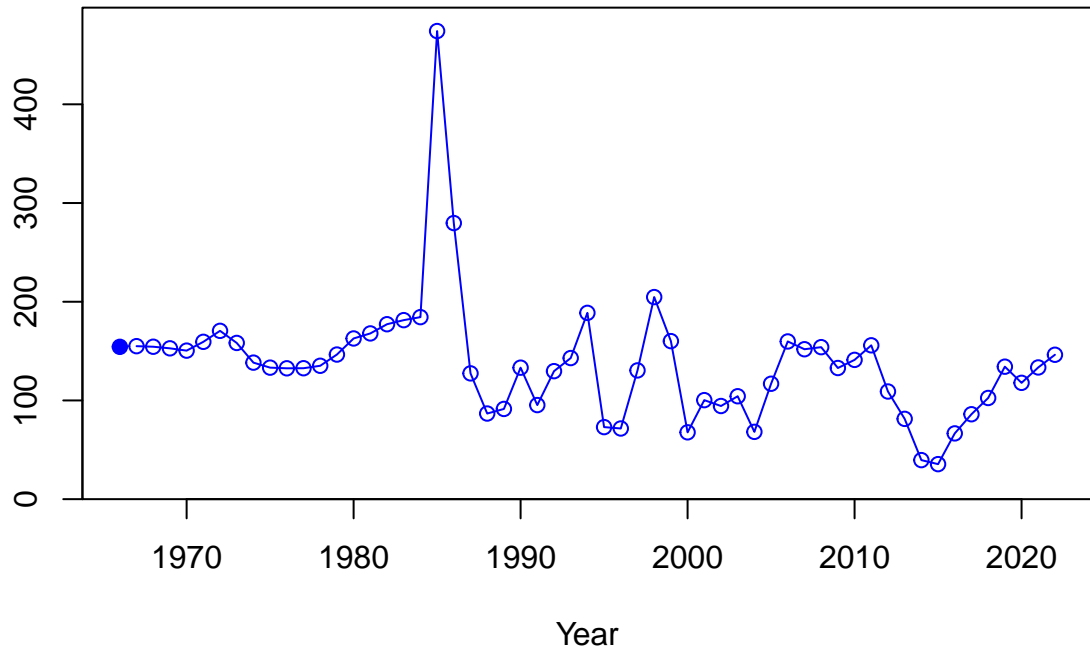




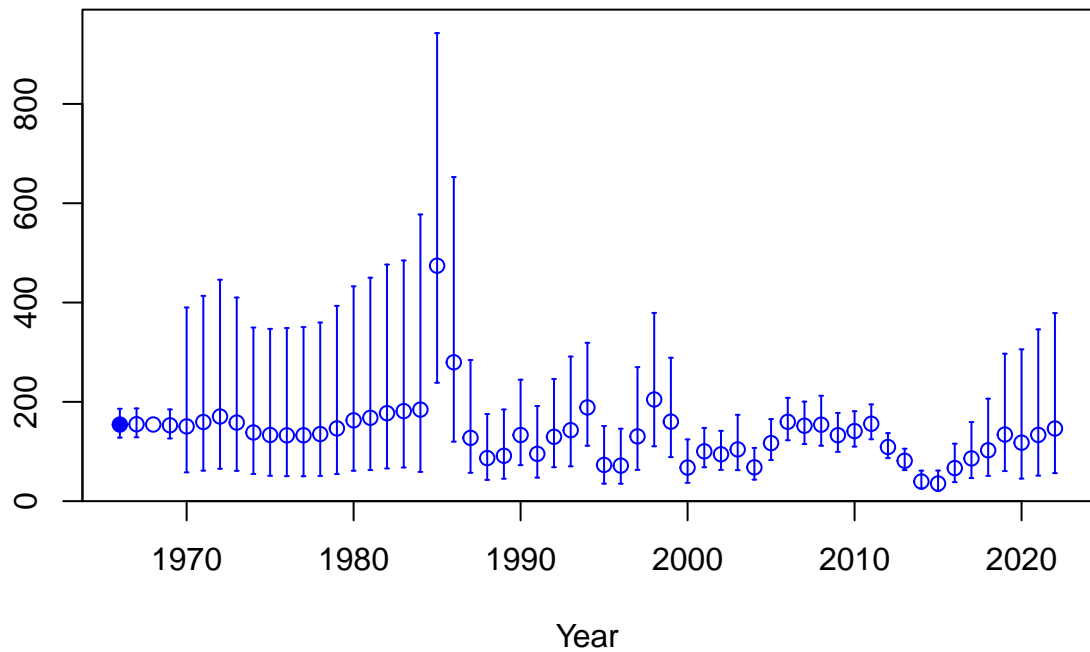
Summary biomass (mt)



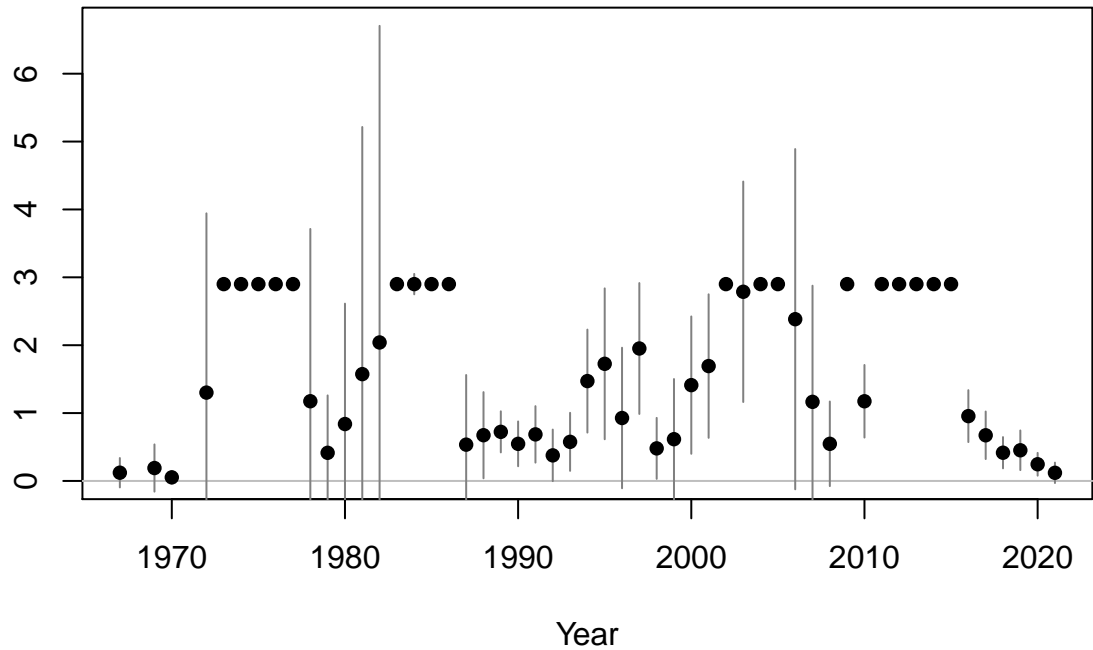
Age-0 recruits (1,000s)

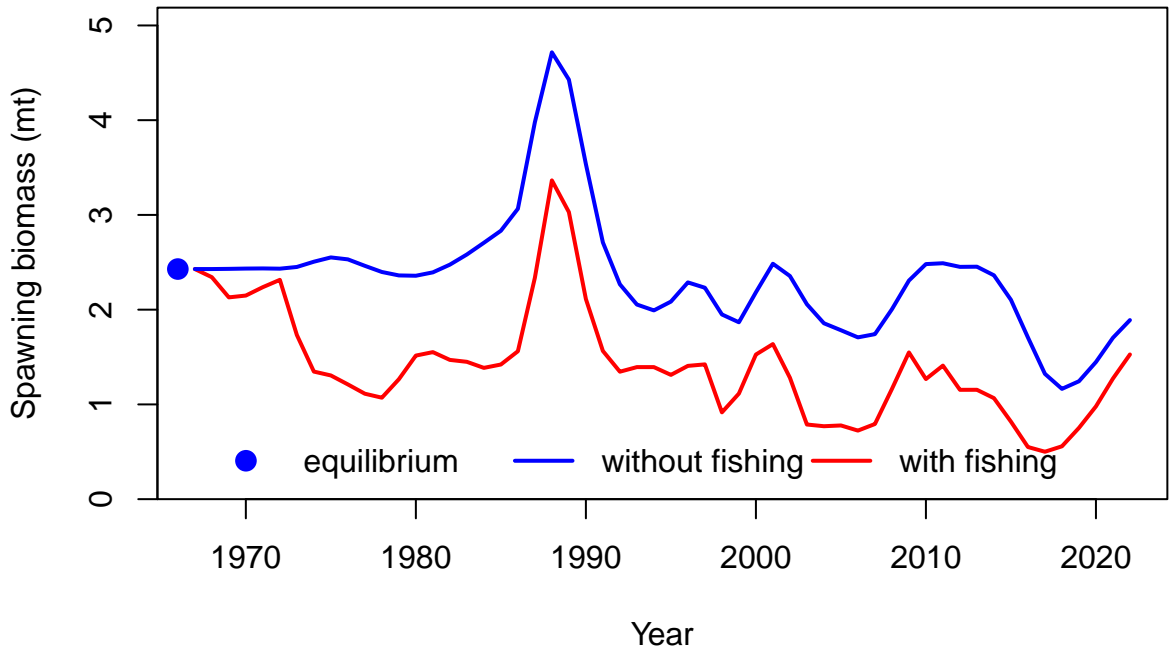


Age-0 recruits (1,000s)

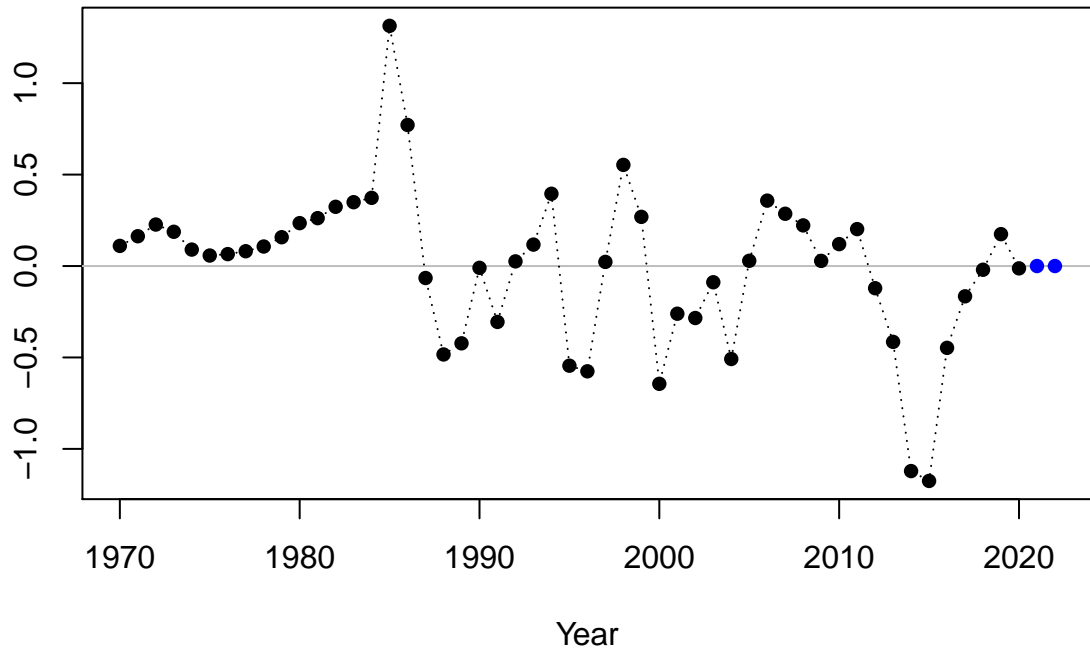


Summary Fishing Mortality

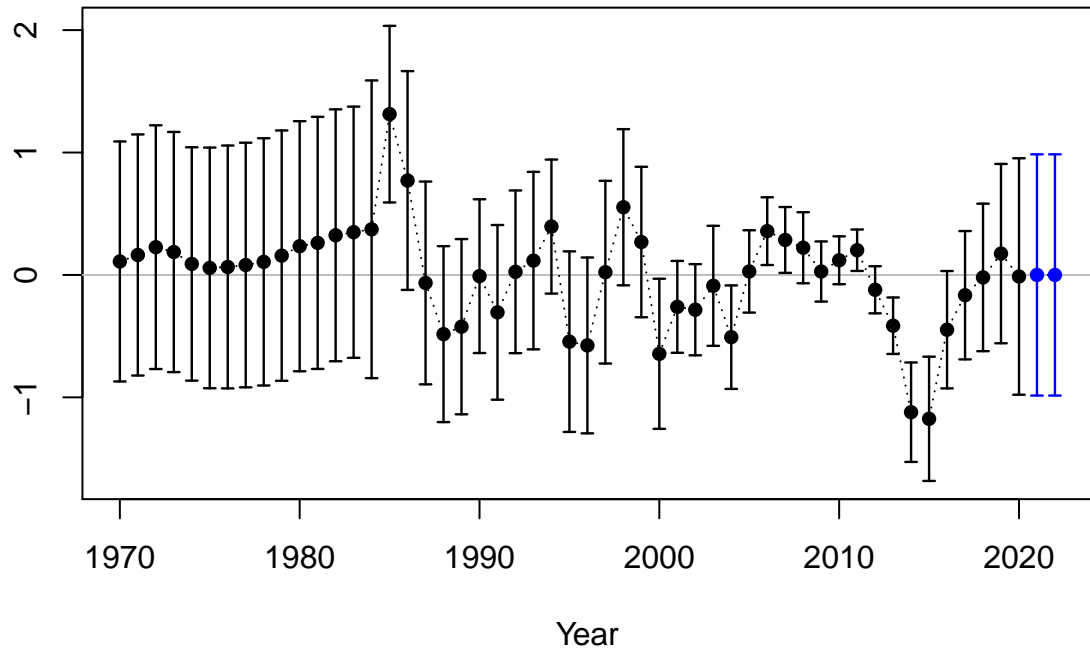




Log recruitment deviation

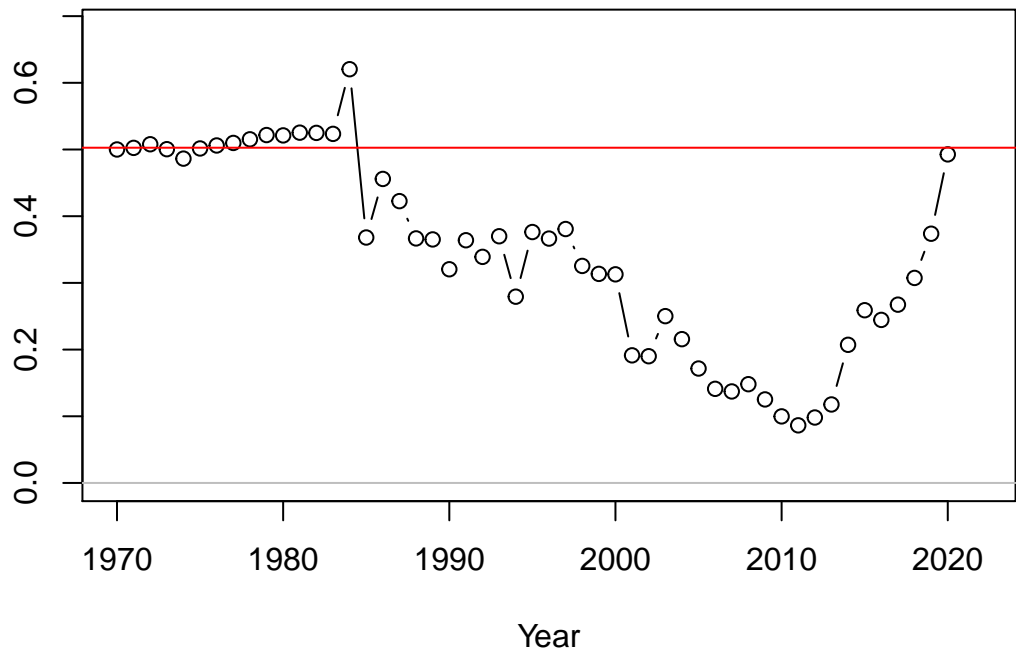


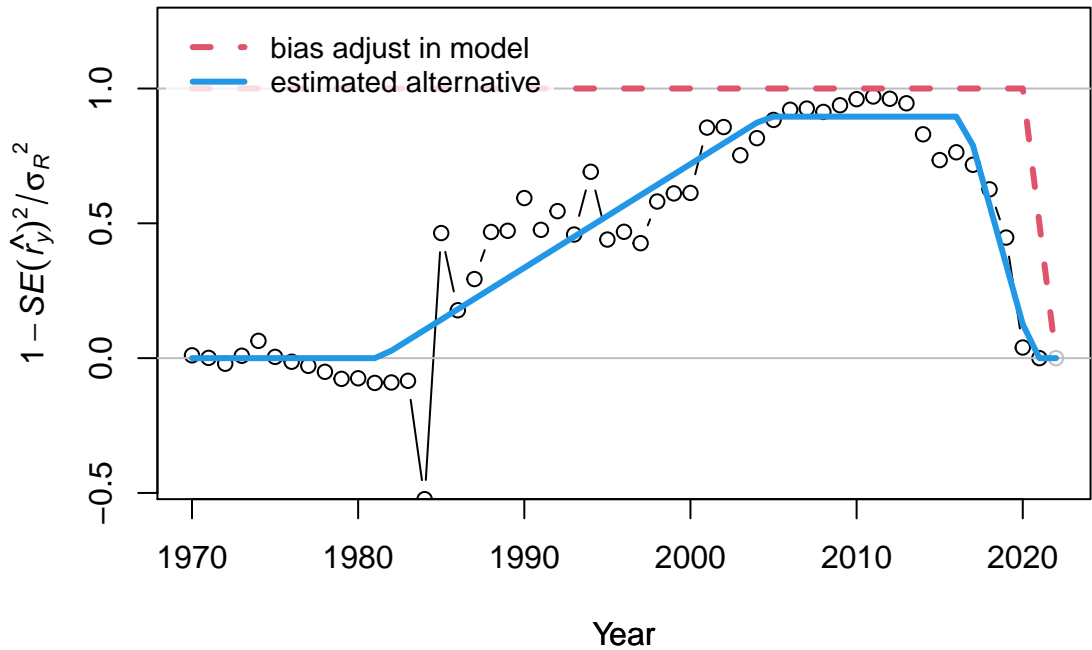
Log recruitment deviation

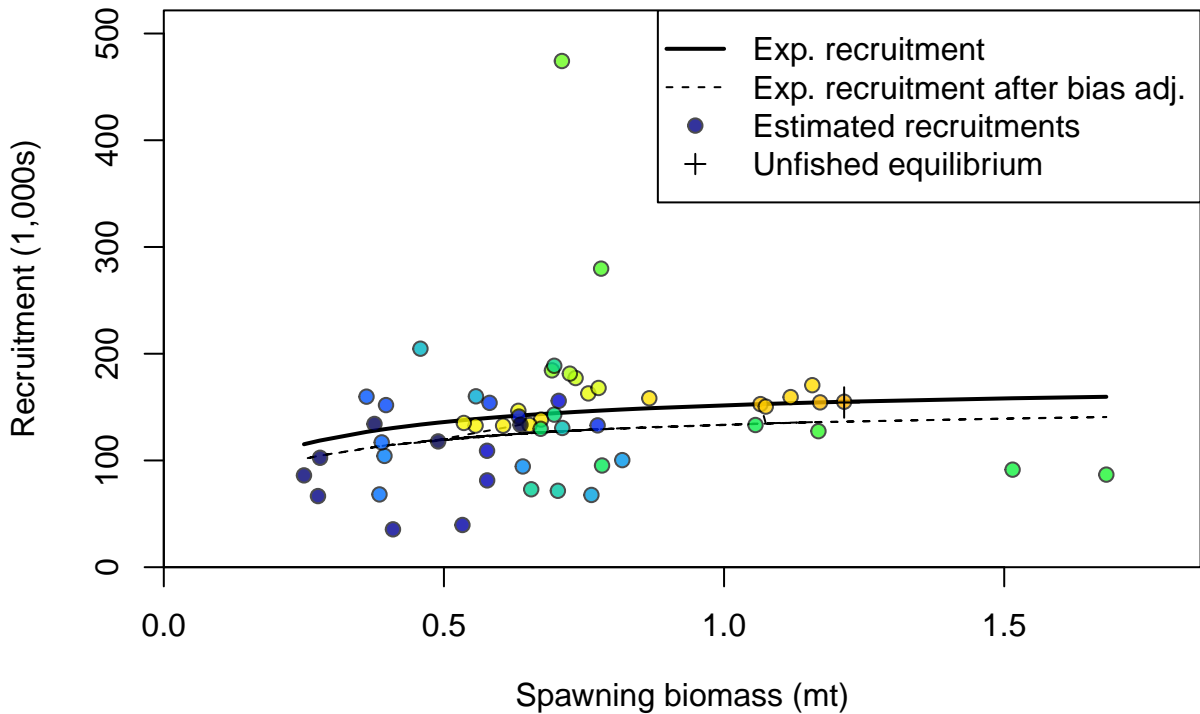


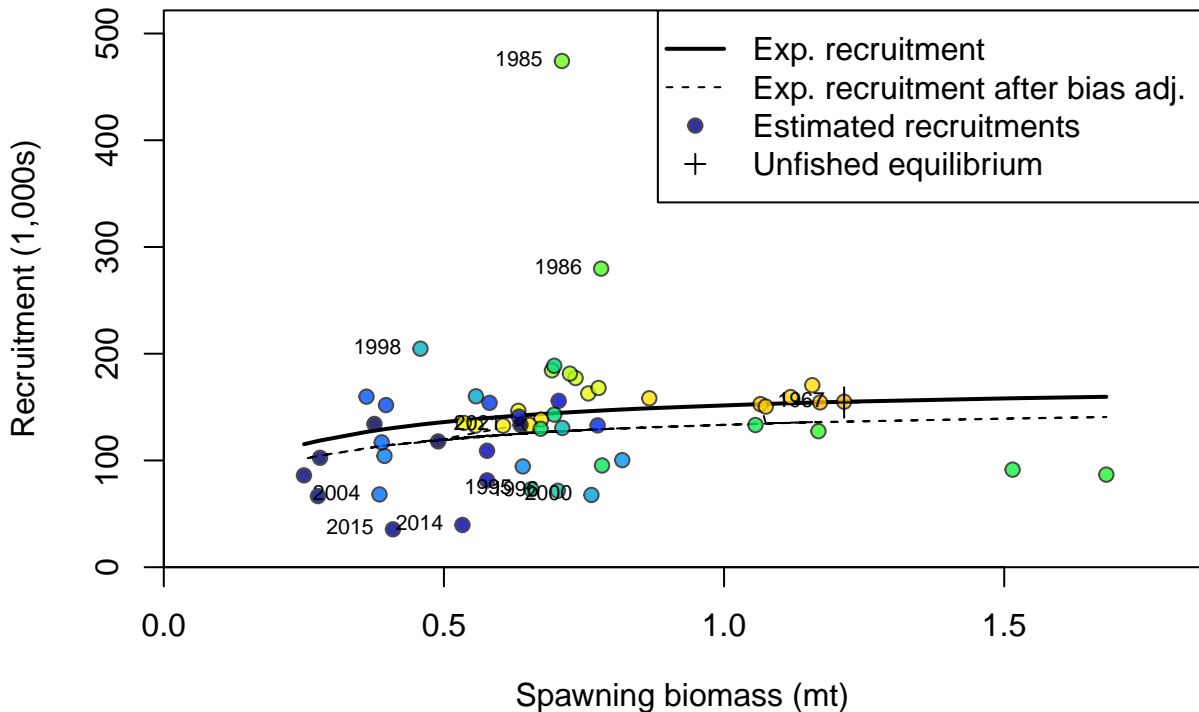
Recruitment deviation variance

Asymptotic standard error estimate

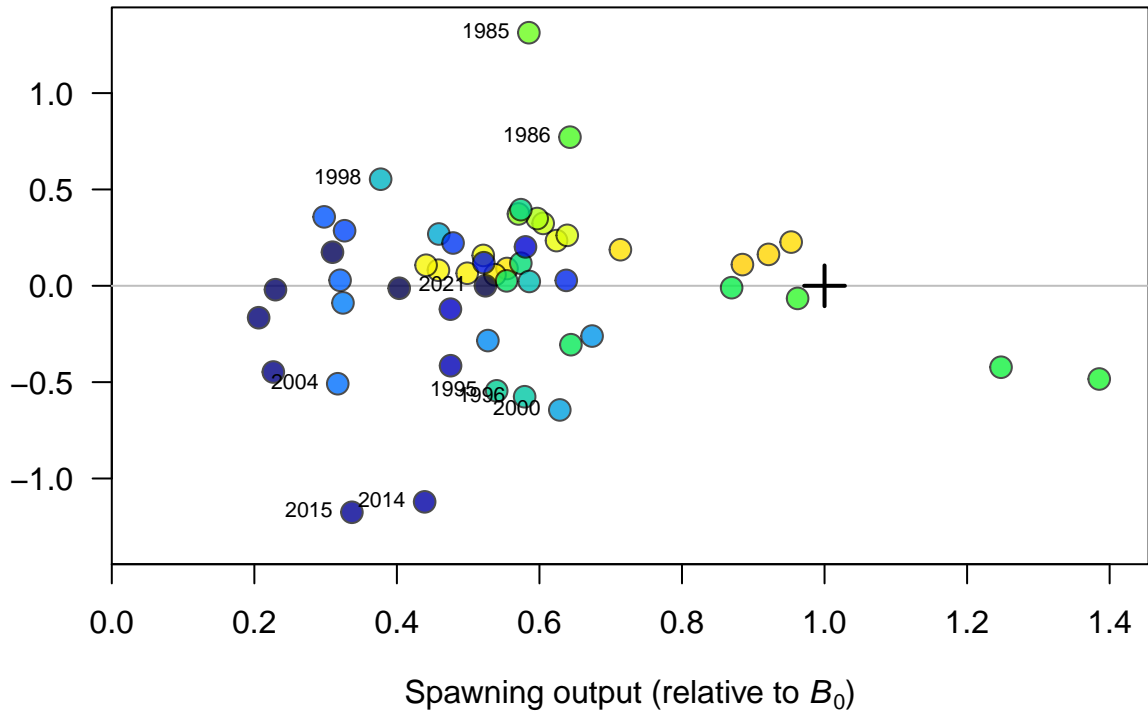


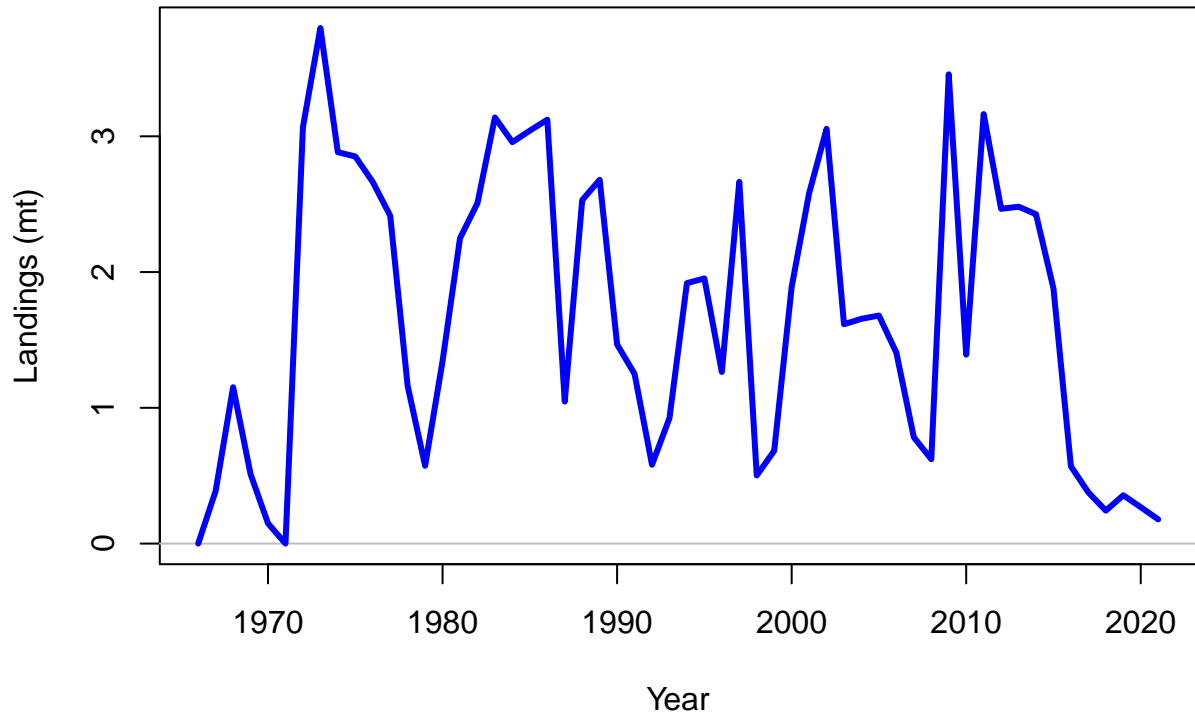


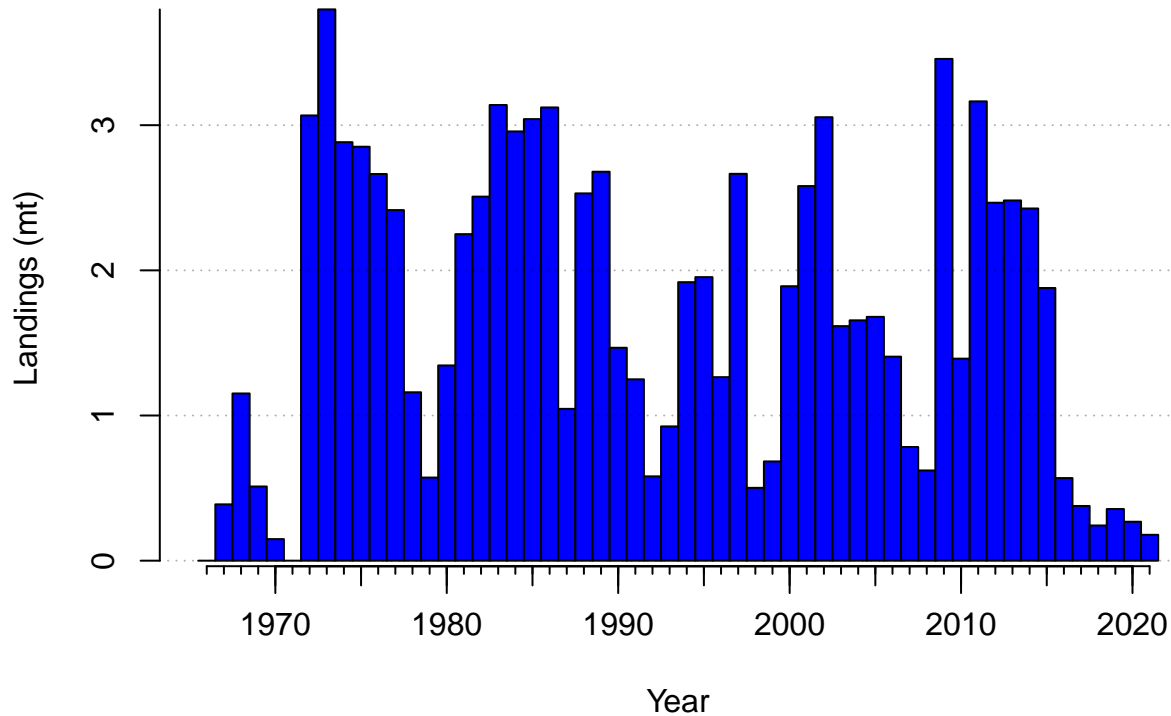




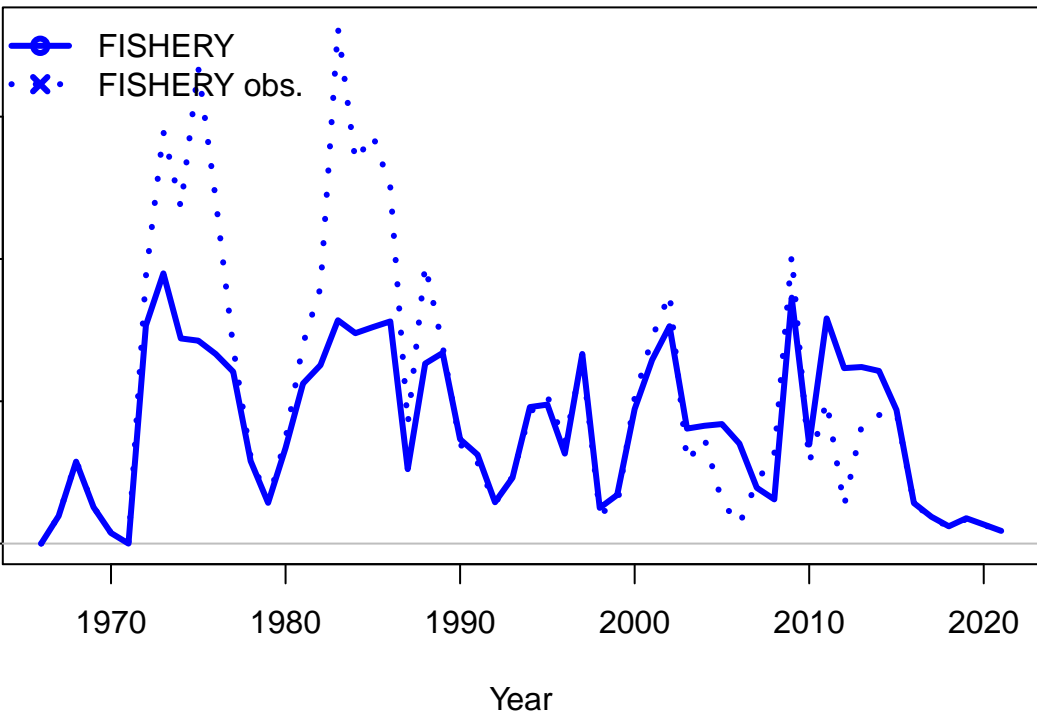
Log recruitment deviation

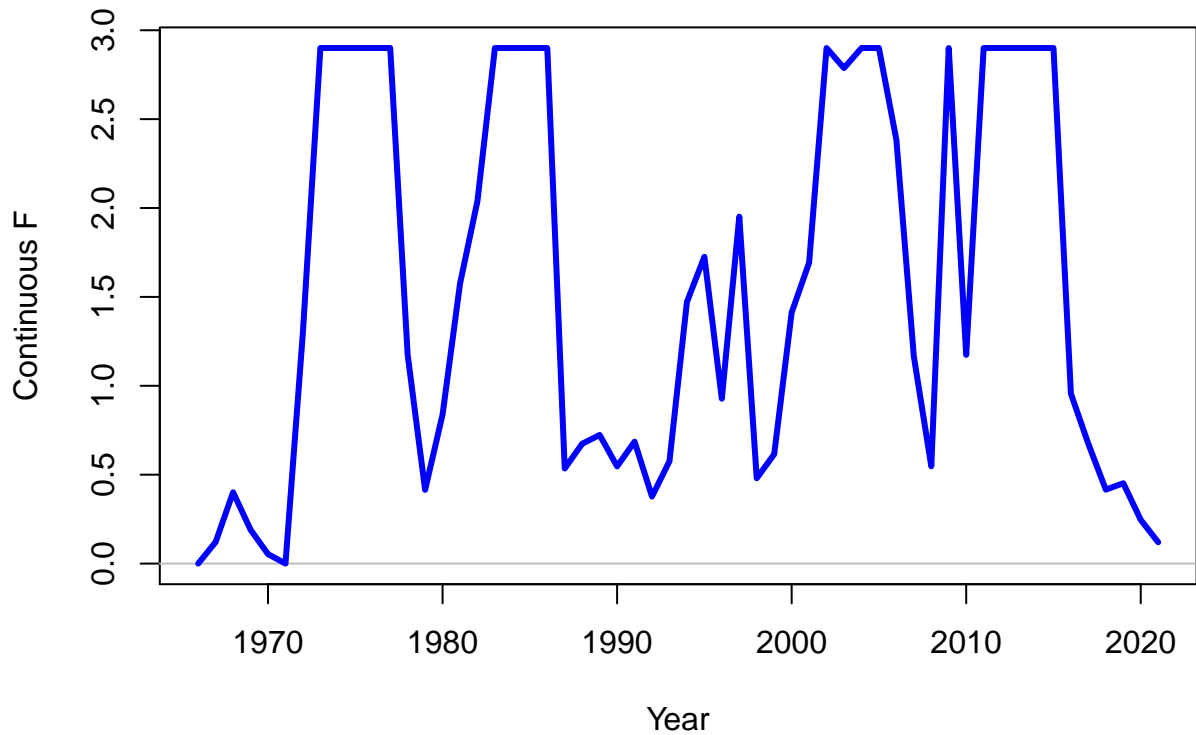




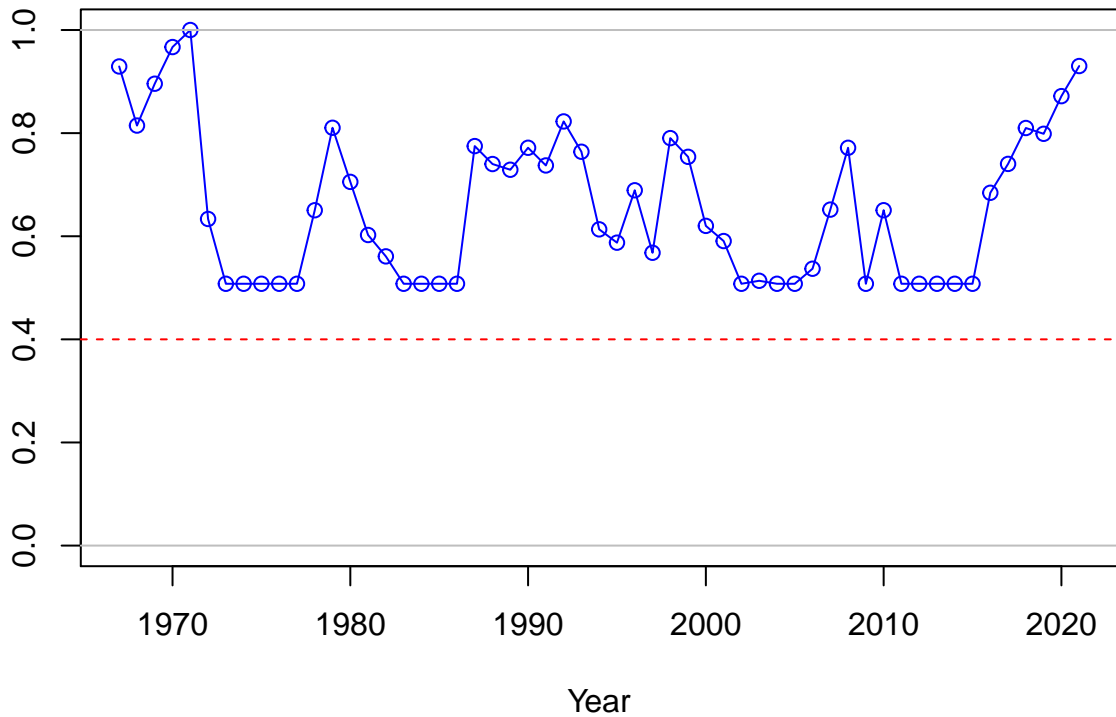


Observed and expected Landings (mt)

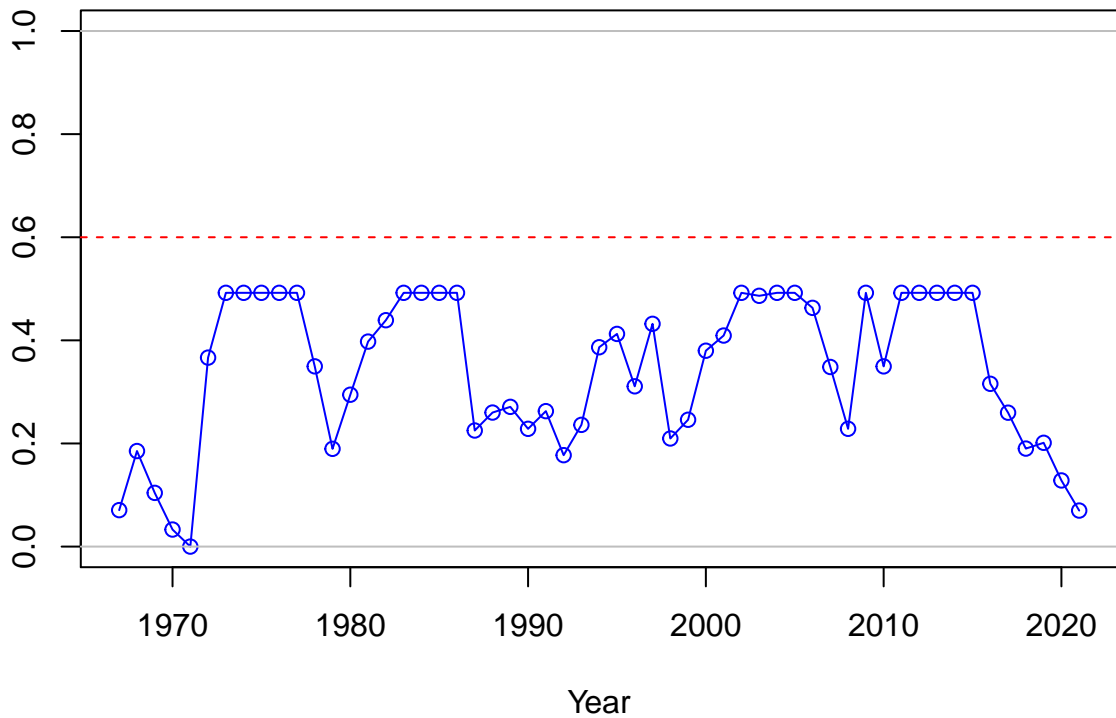




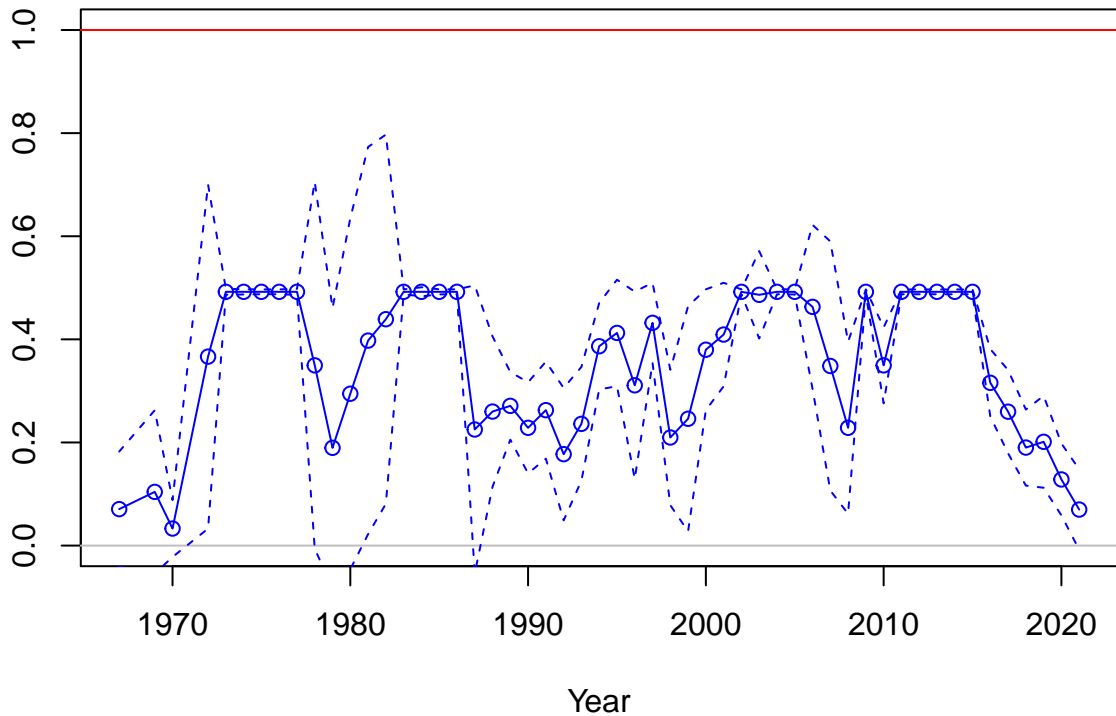
SPR



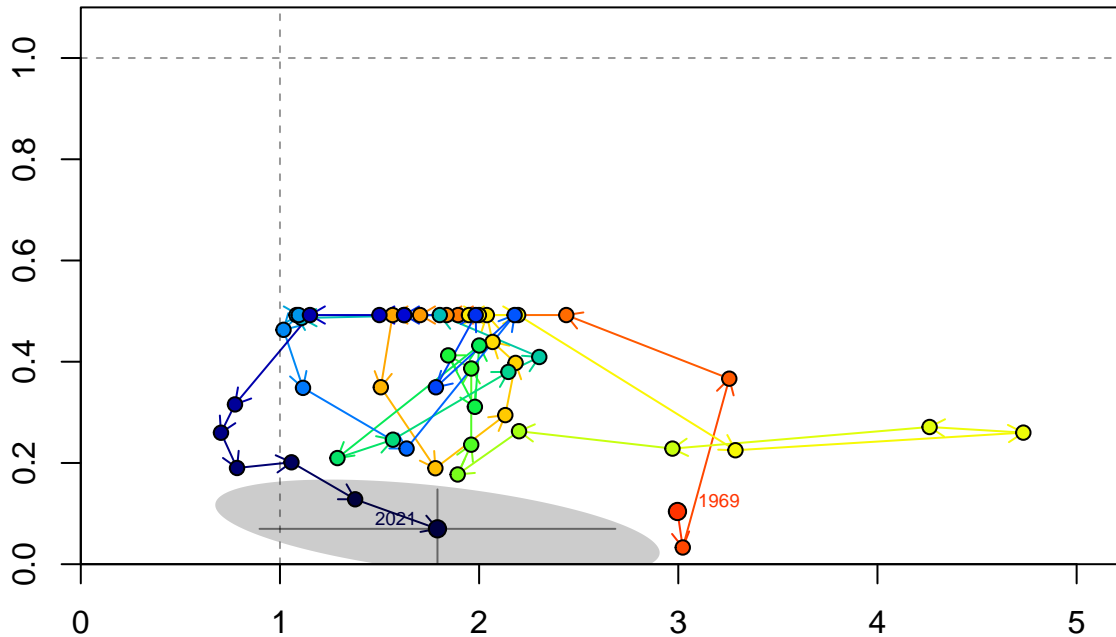
1-SPR



Fishing intensity: 1-SPR

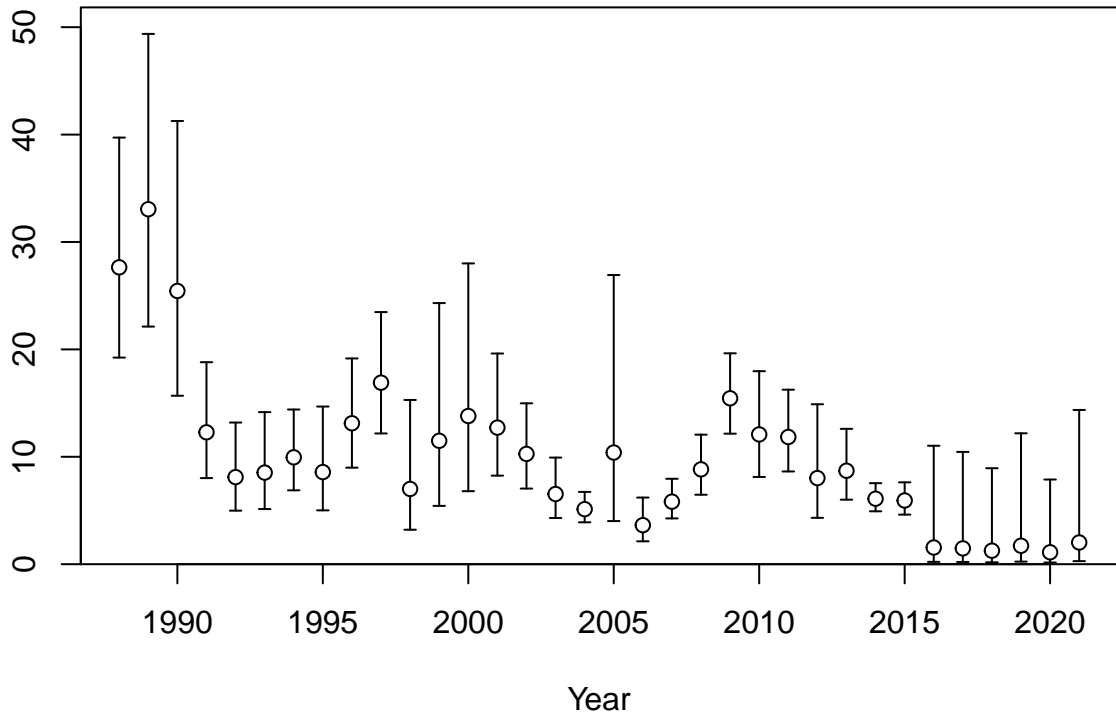


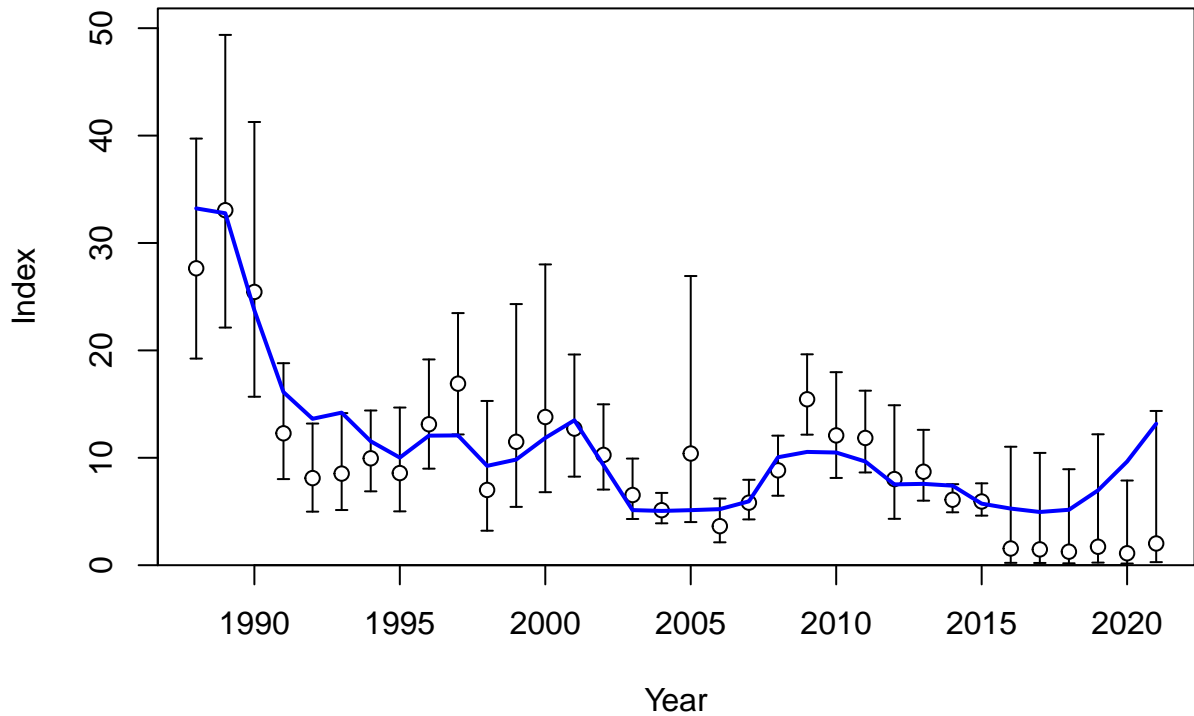
Fishing intensity: 1-SPR

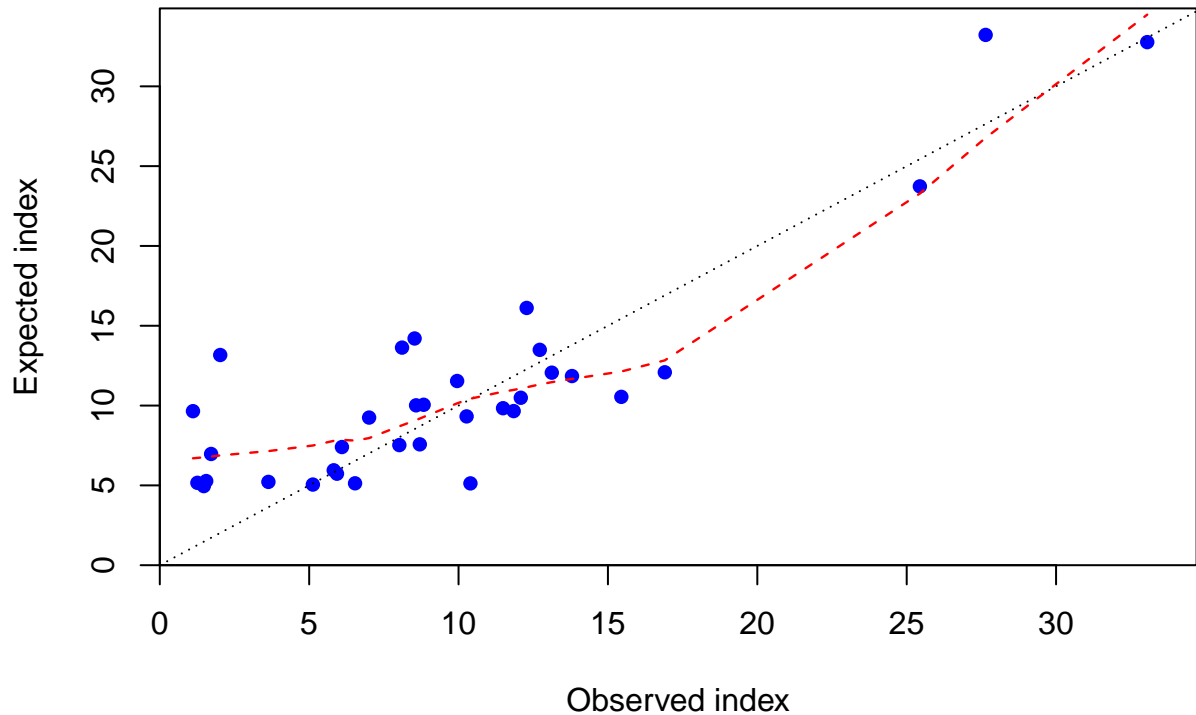


Relative spawning output: B/B_{MSY}

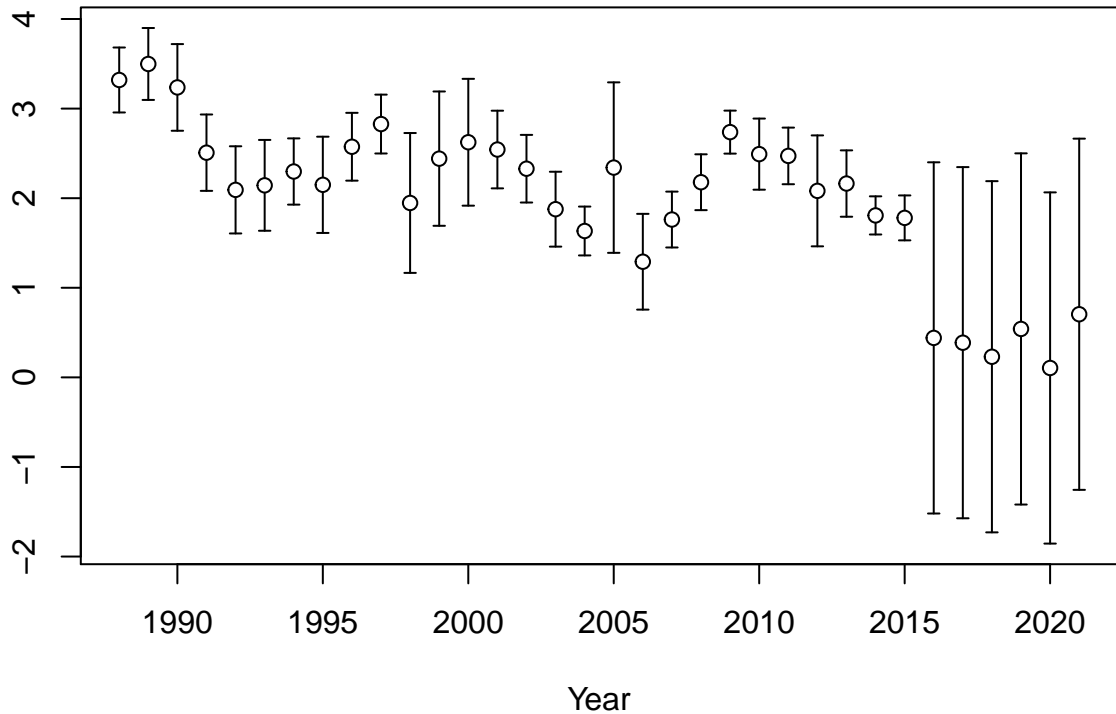
Index



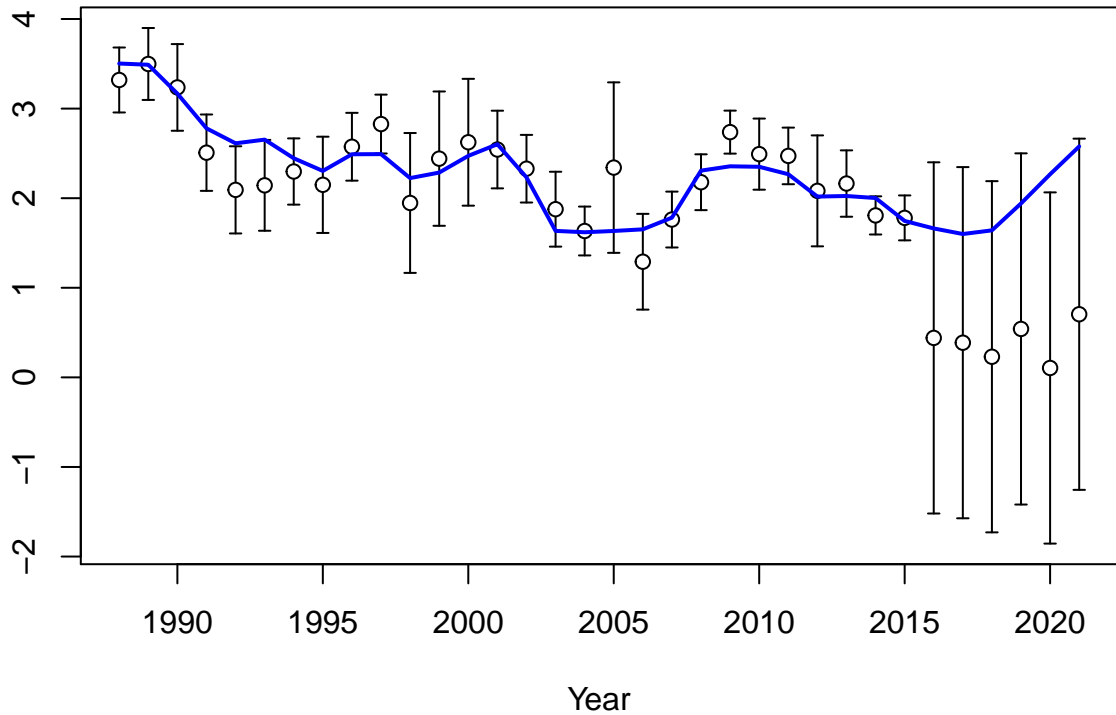


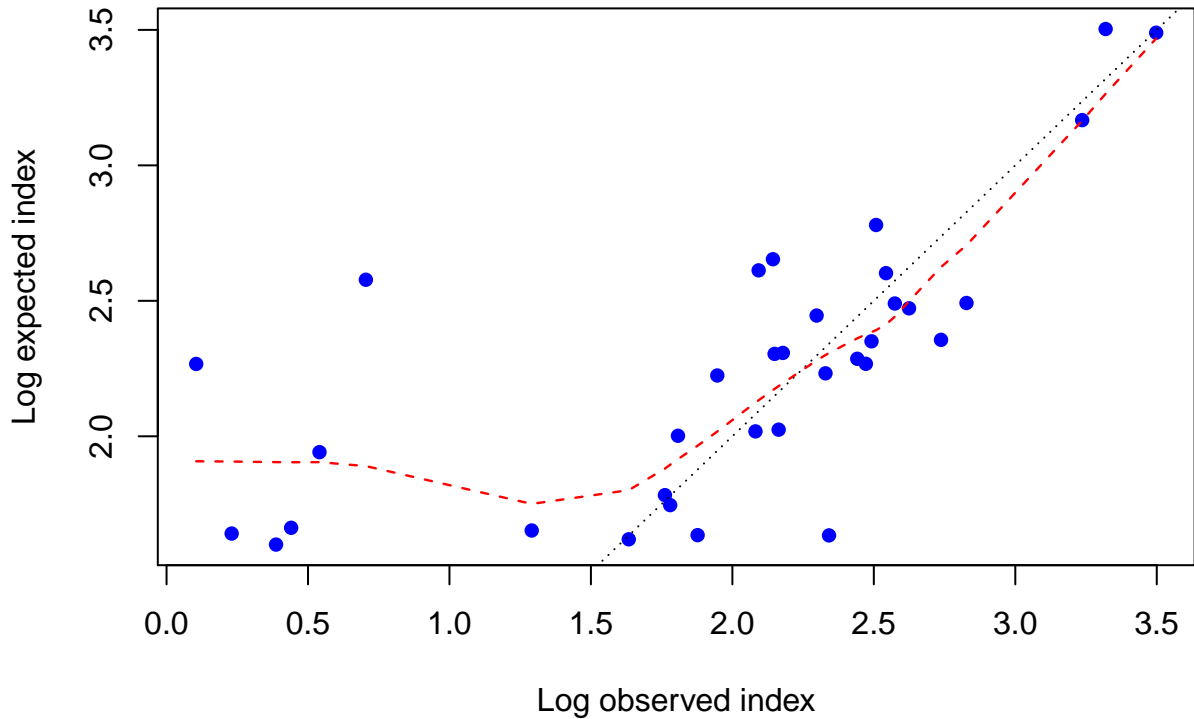


Log index



Log index





Effective catchability

8.849028
8.849024
8.849020

0.5

1.0

1.5

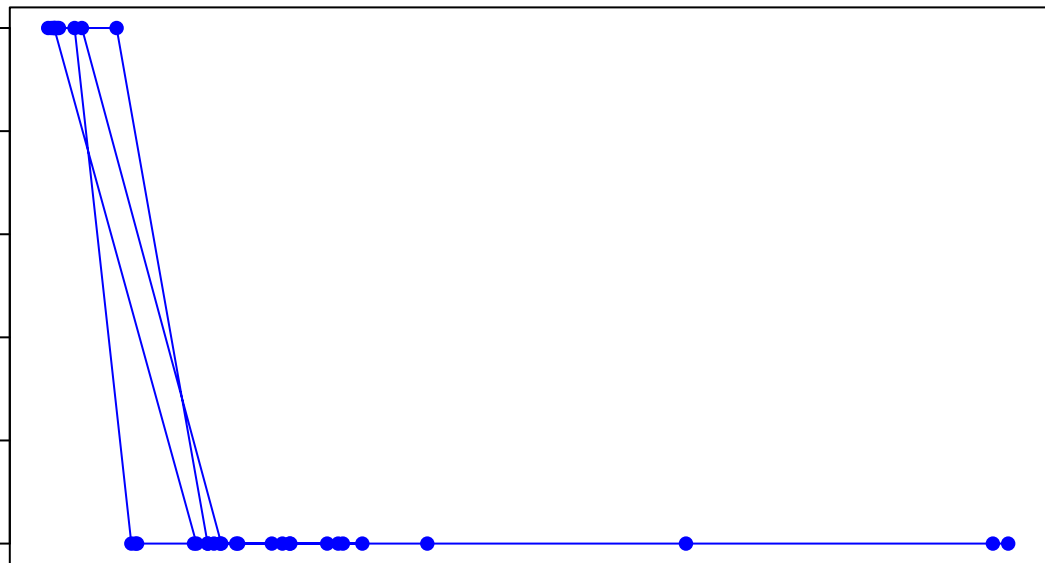
2.0

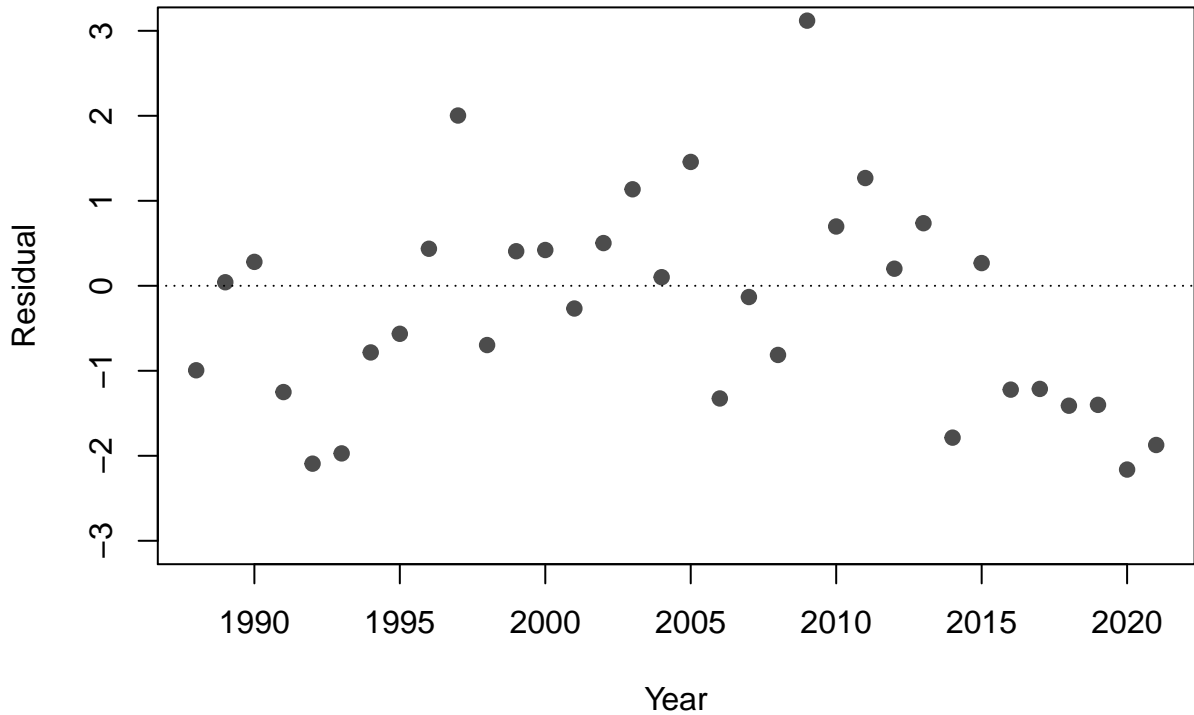
2.5

3.0

3.5

Vulnerable biomass





Deviation

2
1
0
-1
-2

1990

1995

2000

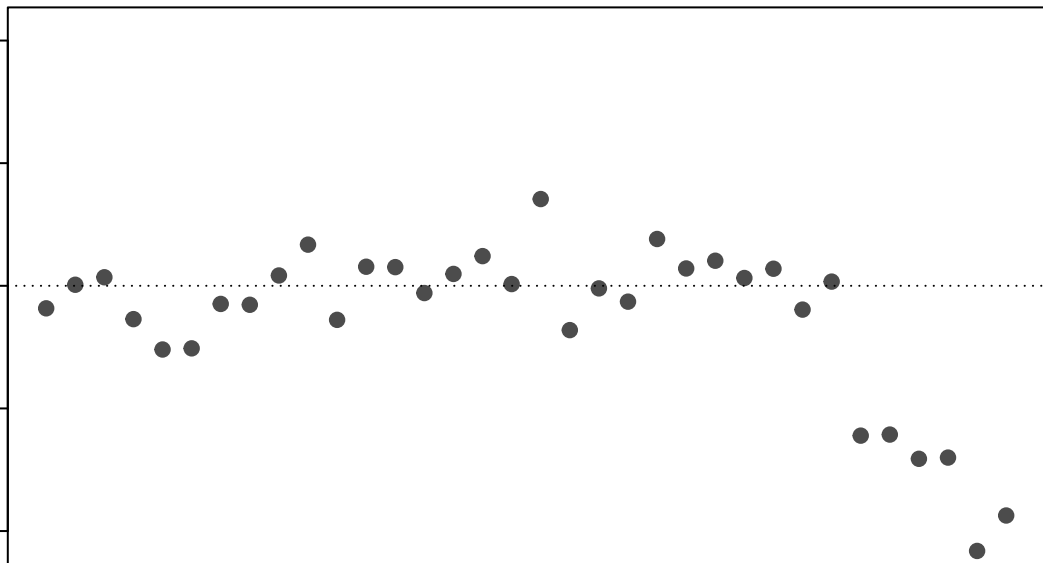
2005

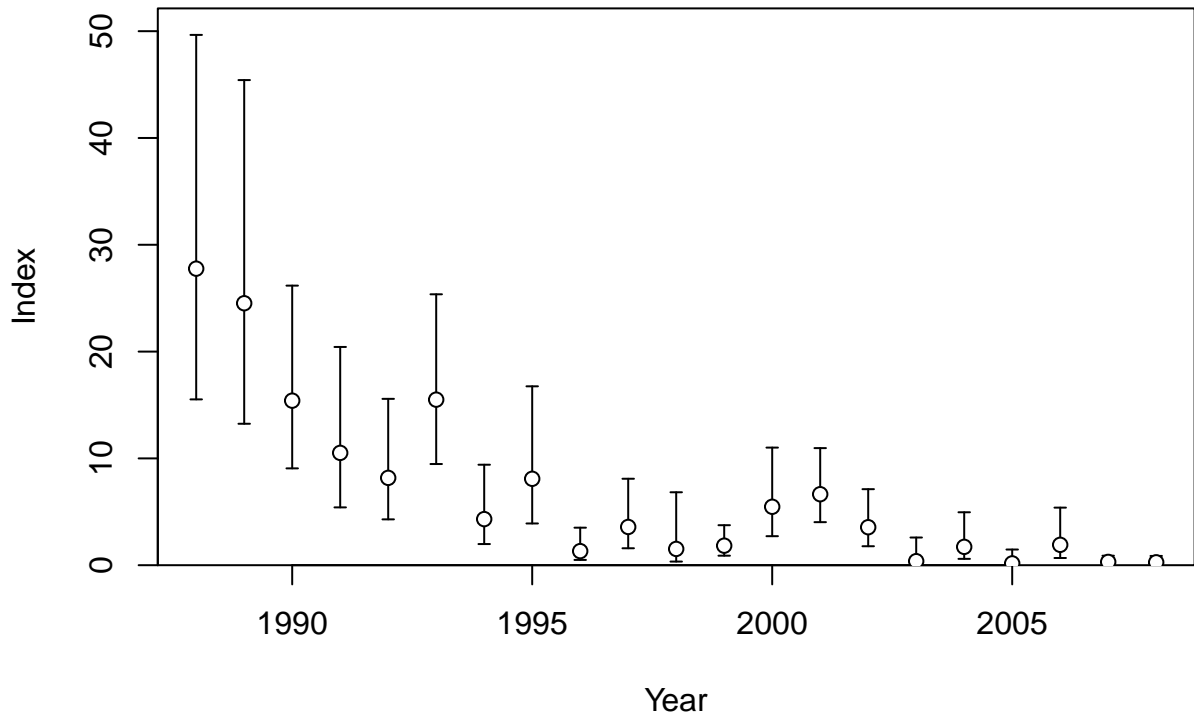
2010

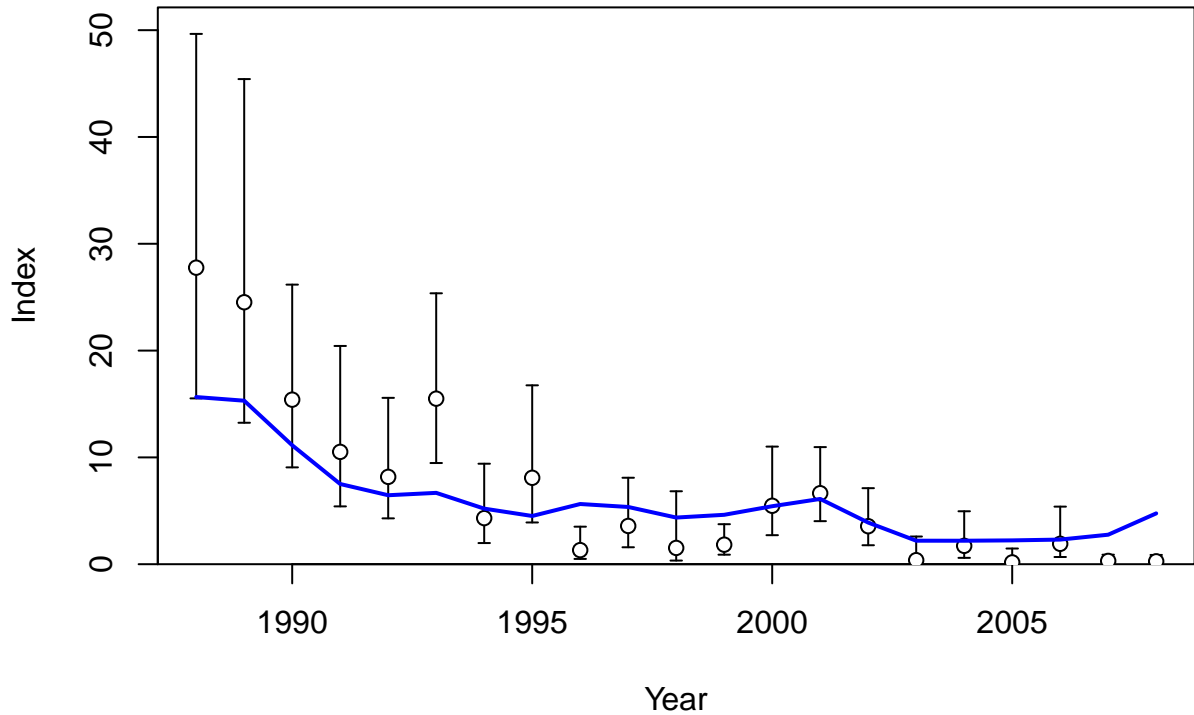
2015

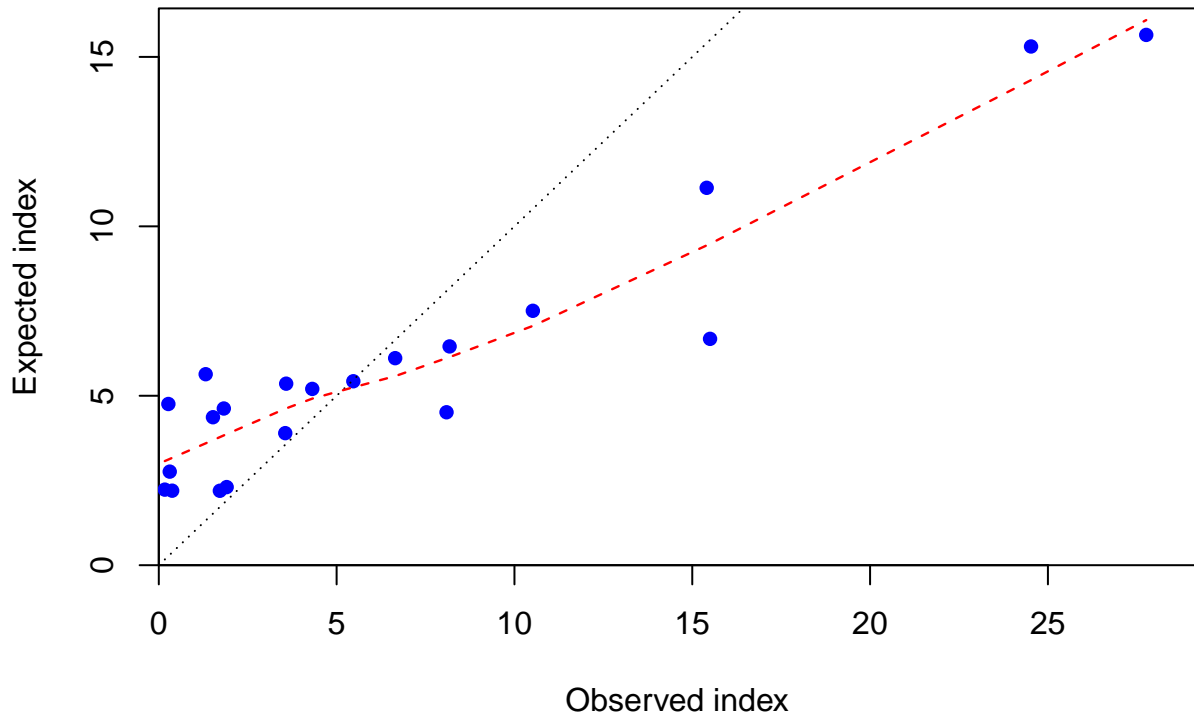
2020

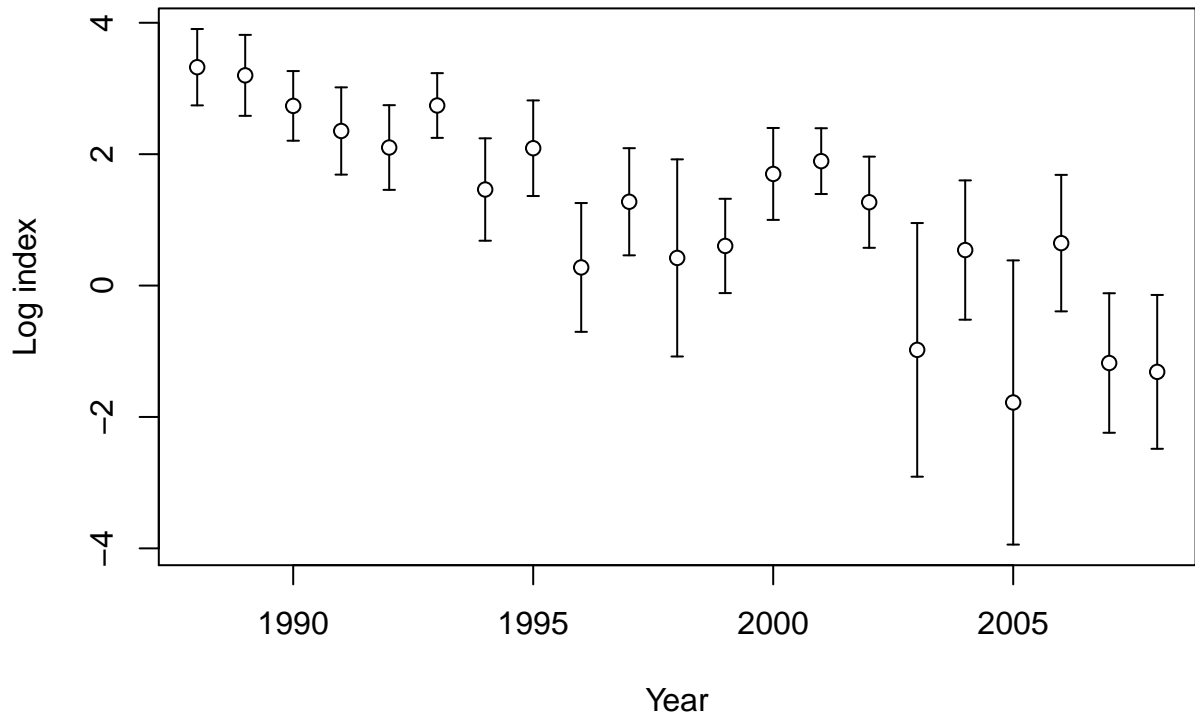
Year

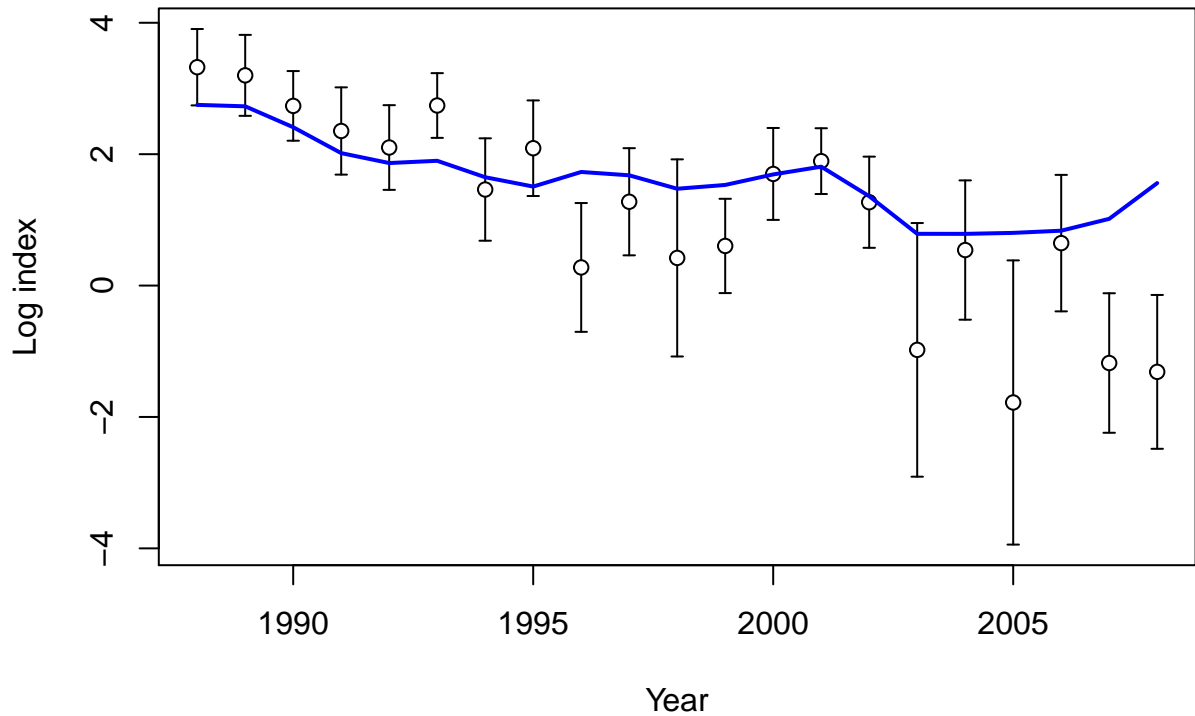


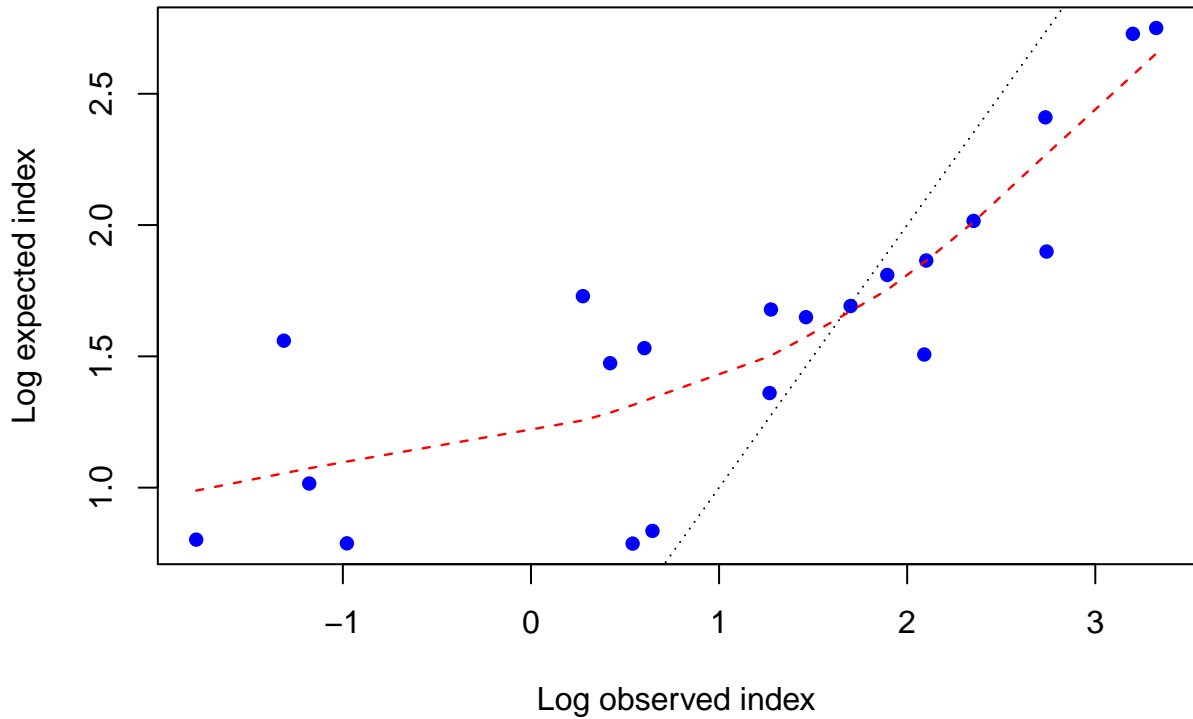


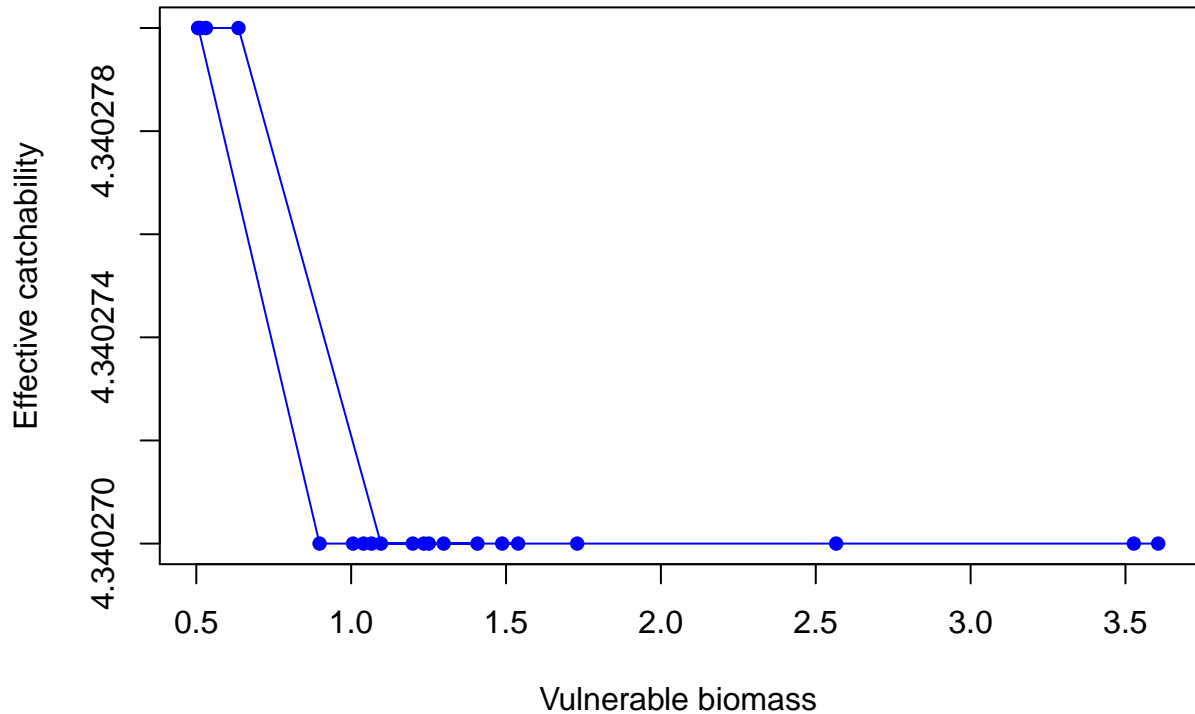


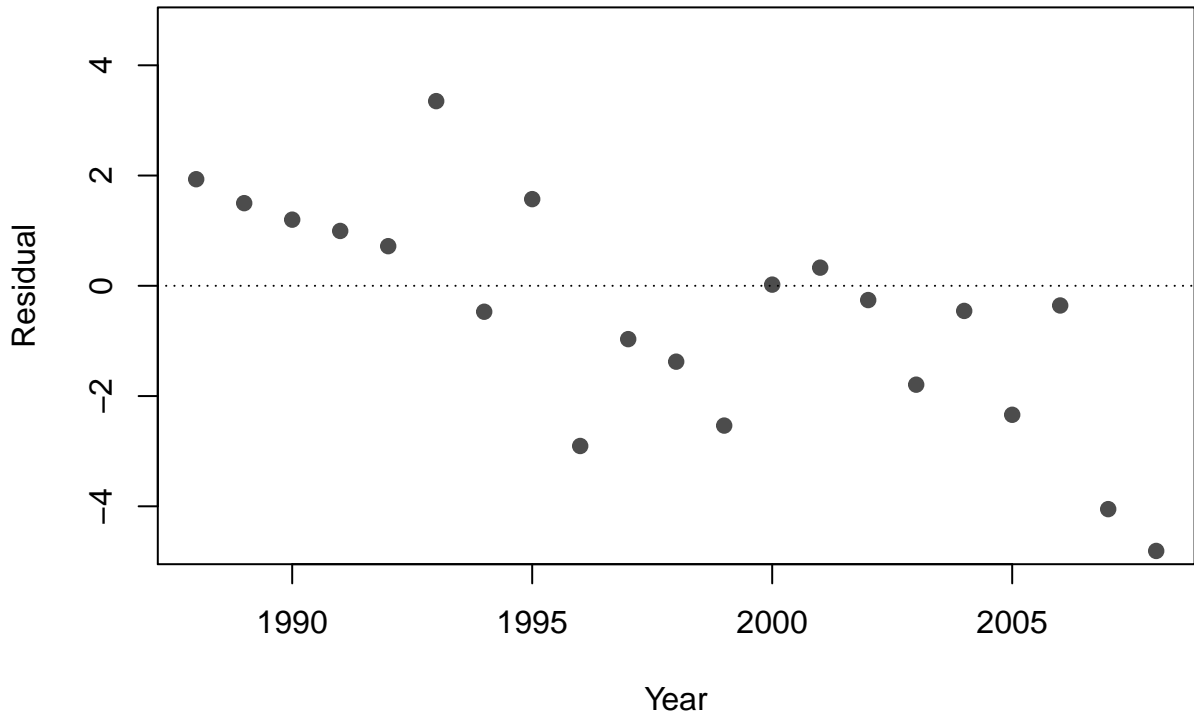




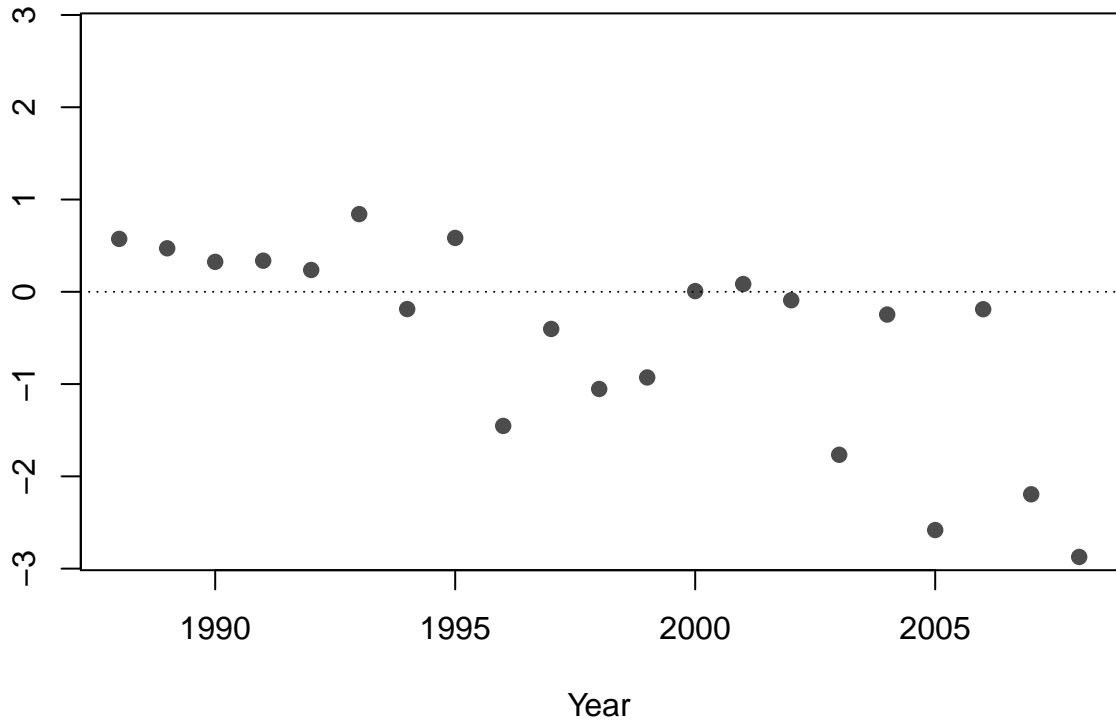




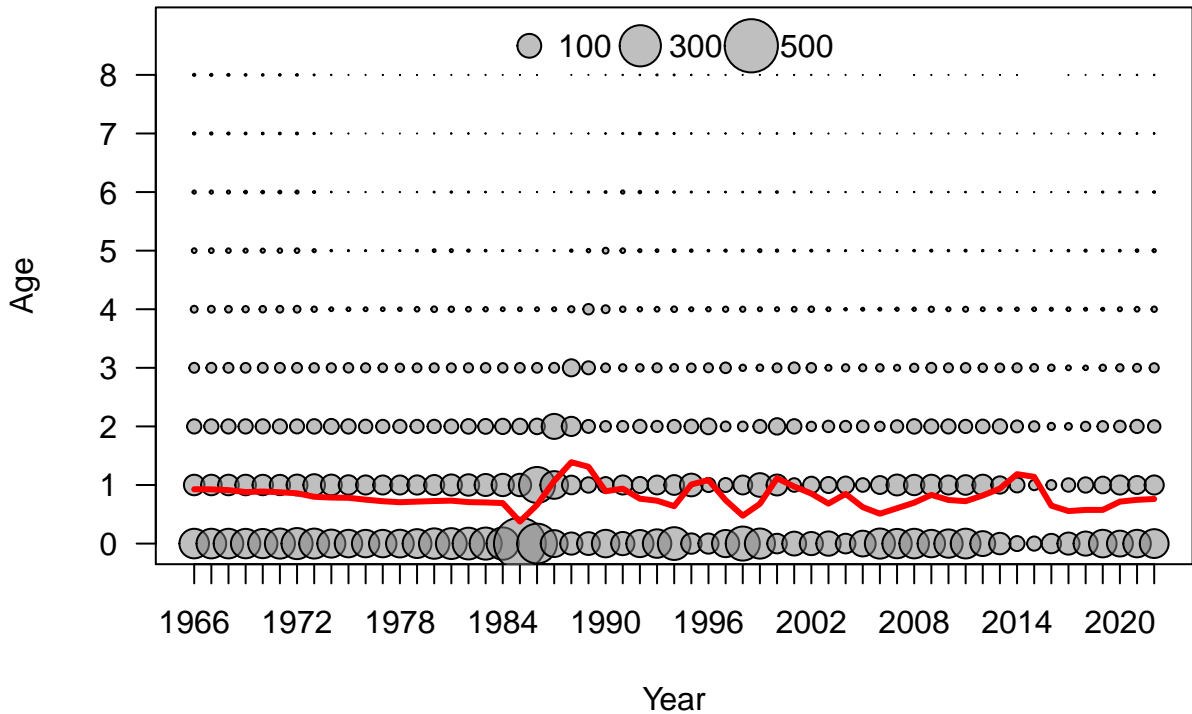




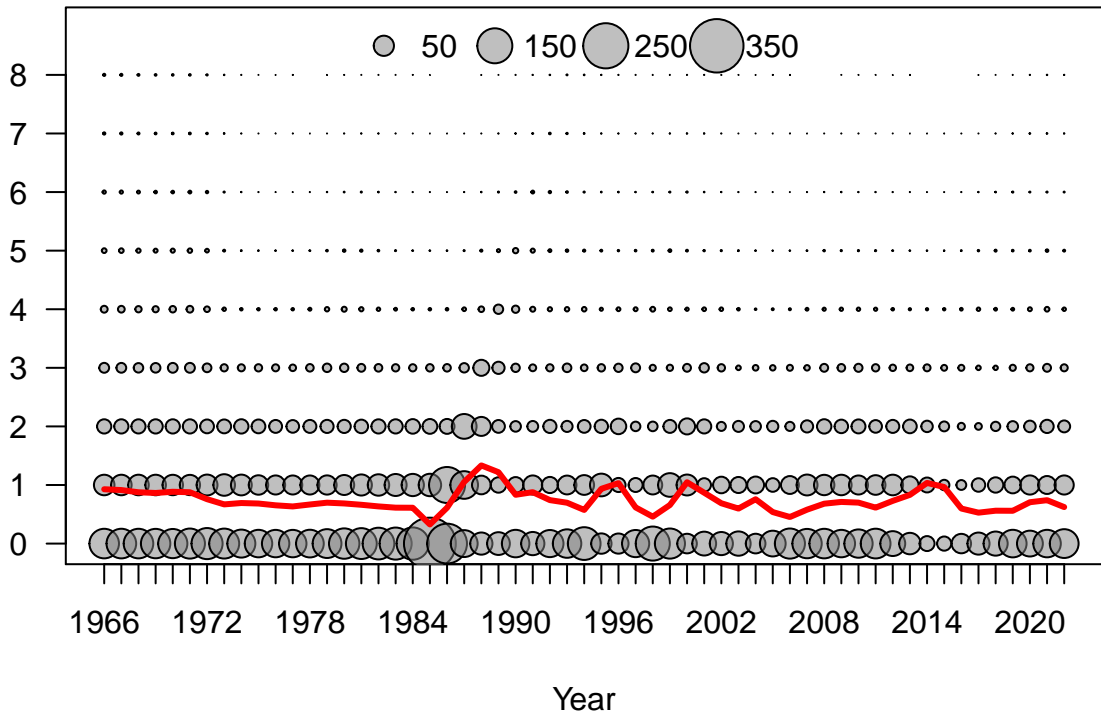
Deviation



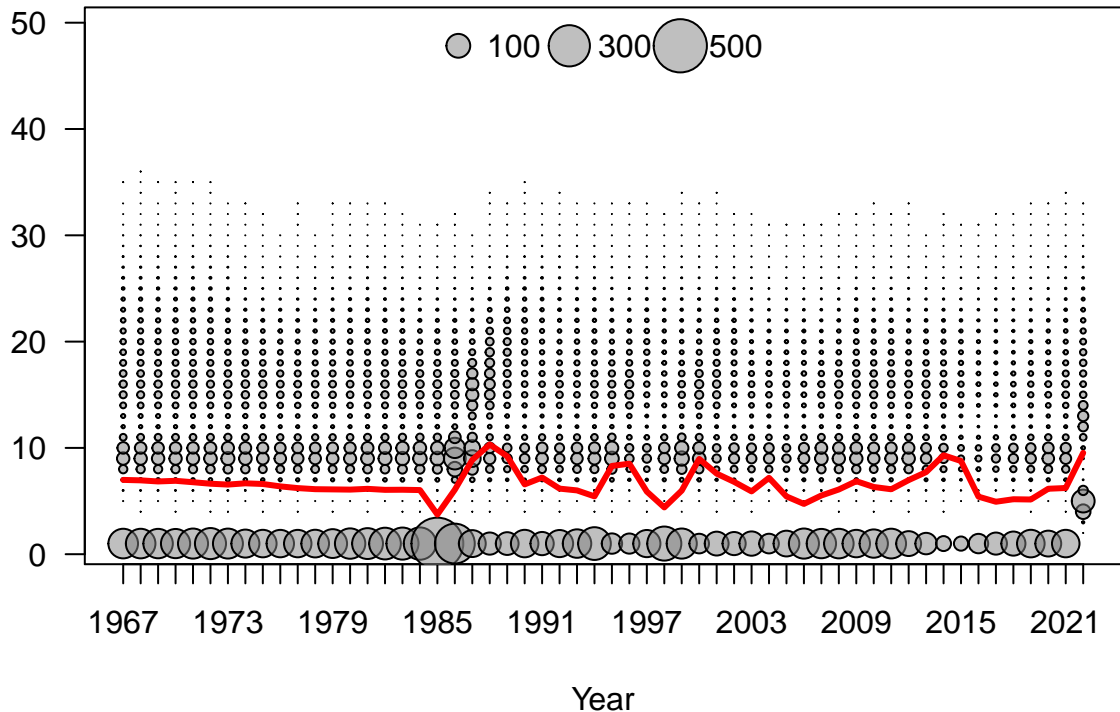


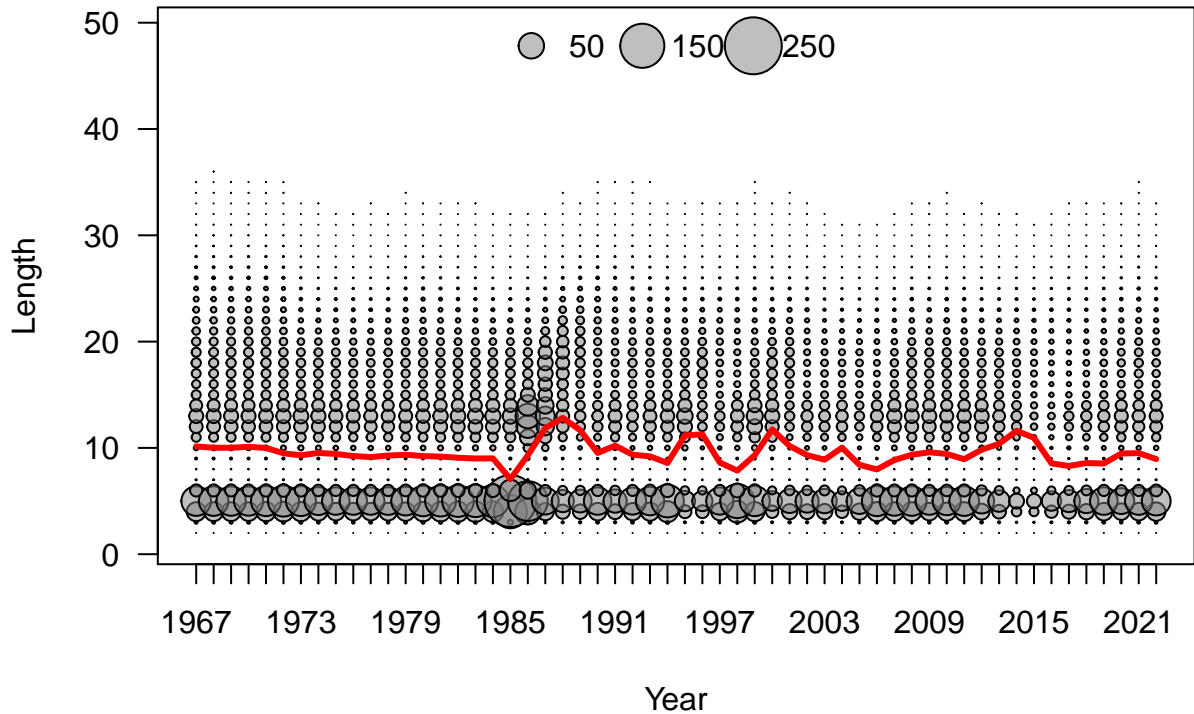


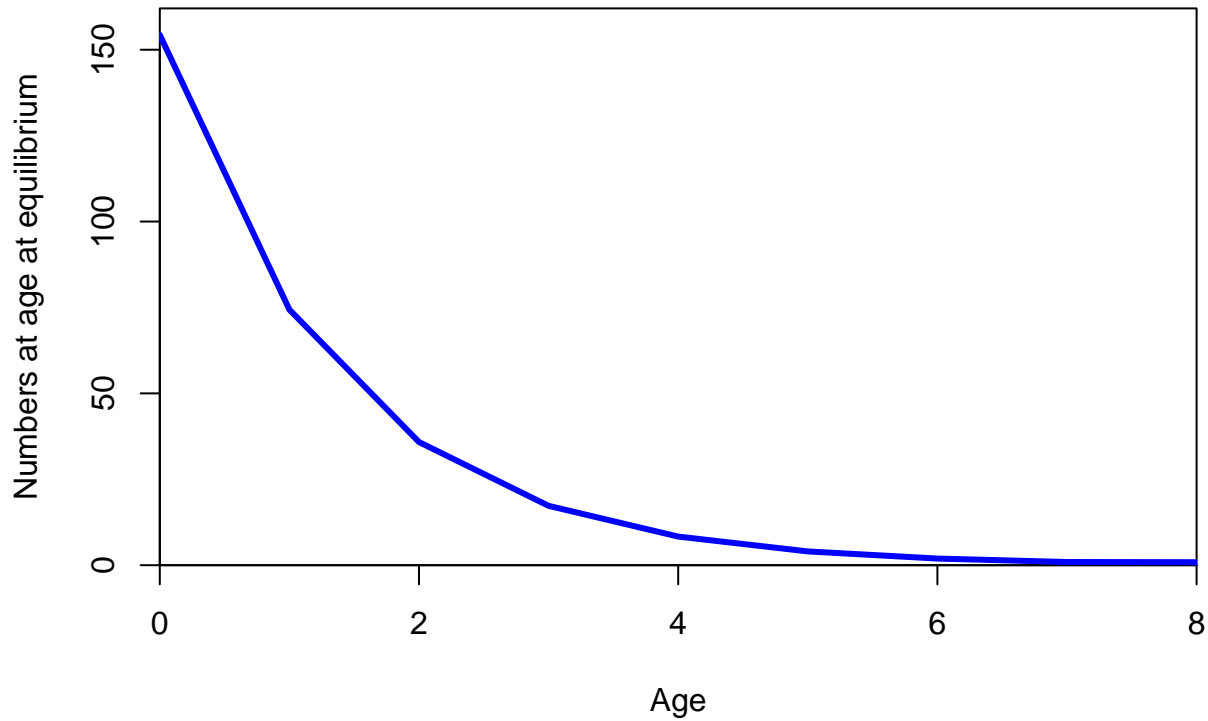
Age



Length

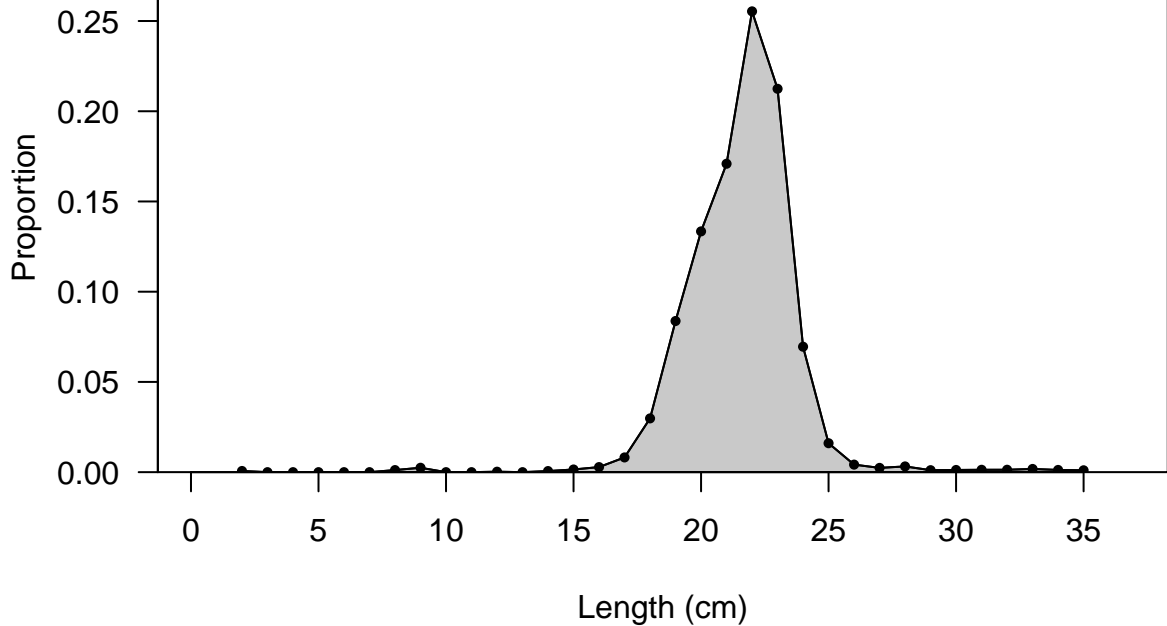


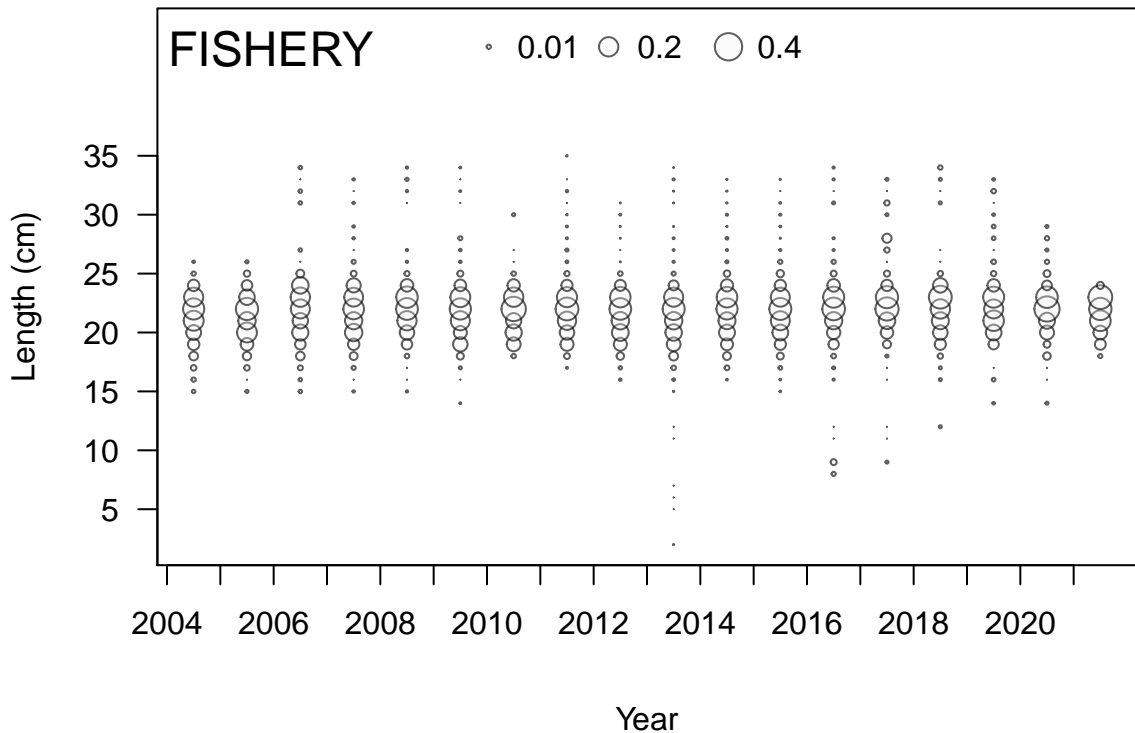


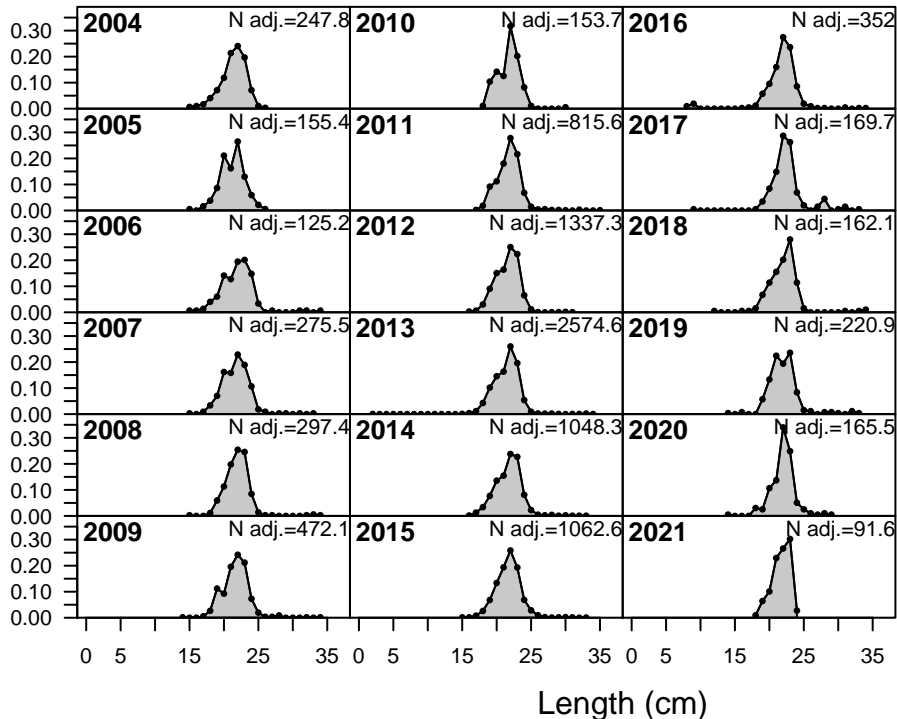


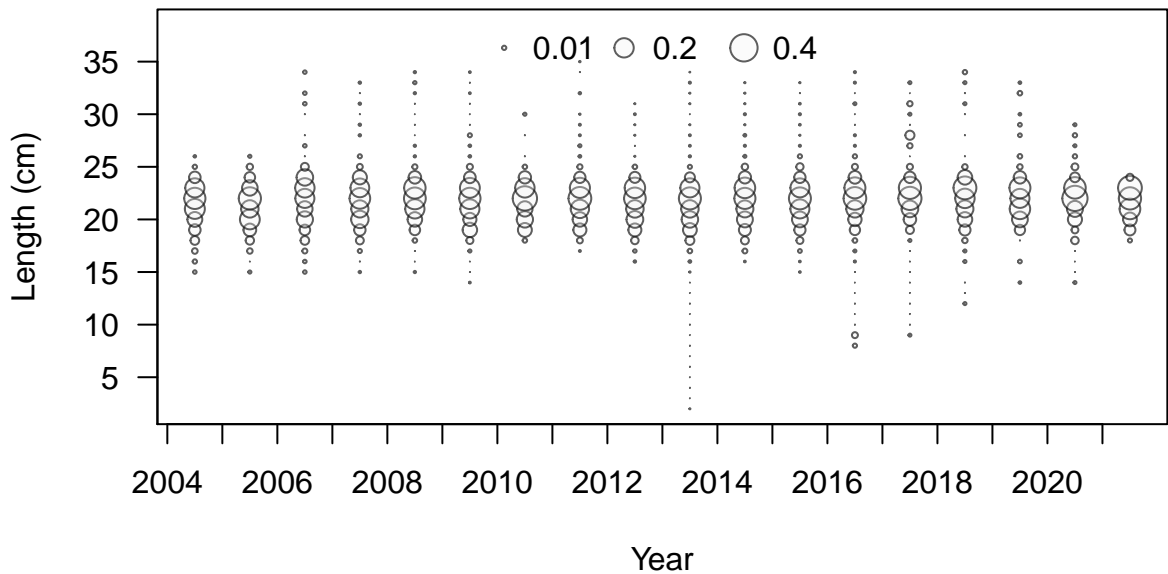
FISHERY

Sum of N adj.=9727.2

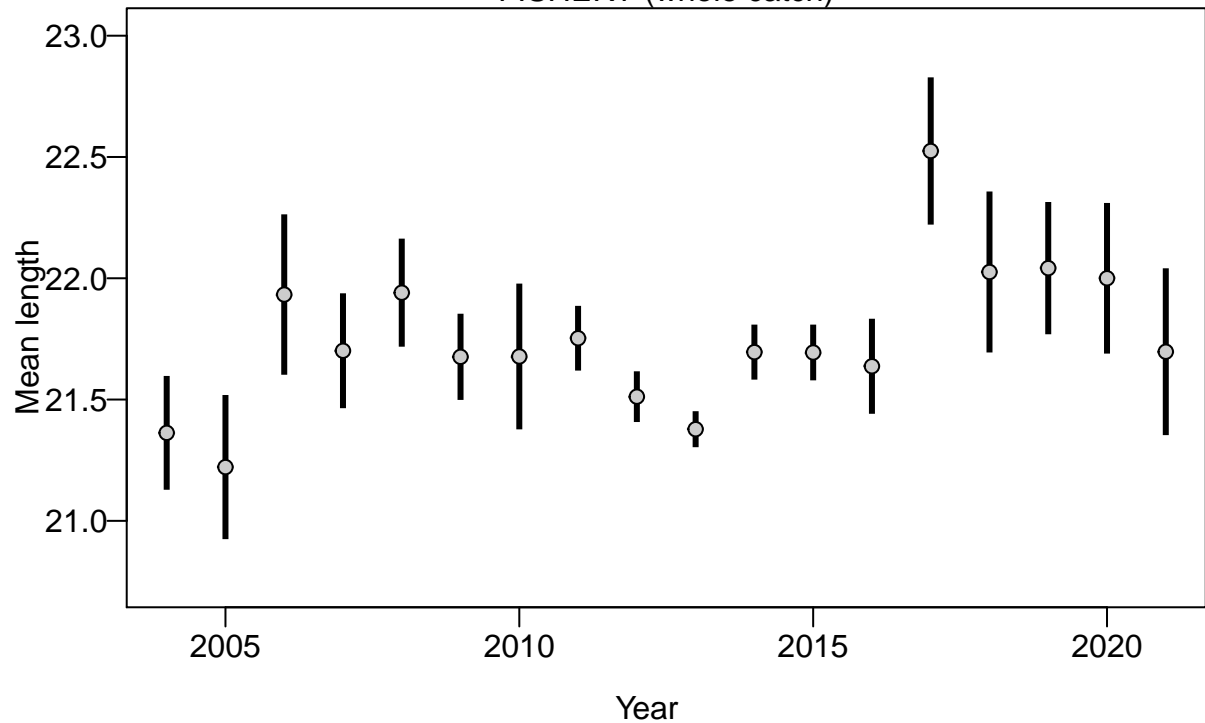


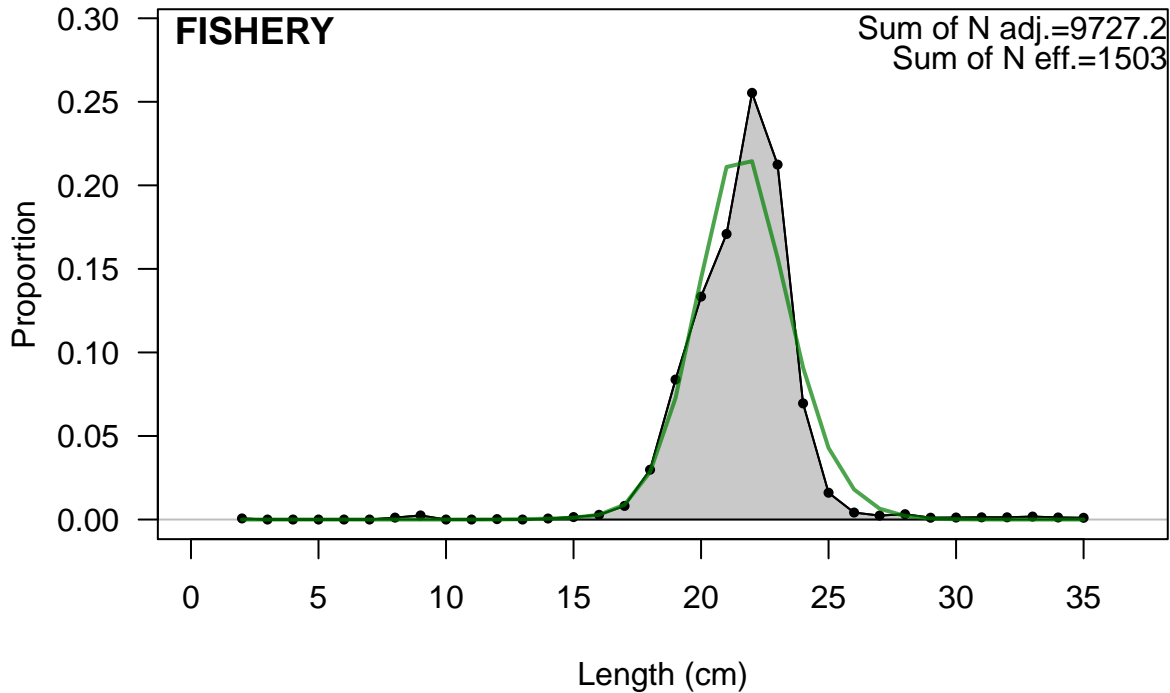


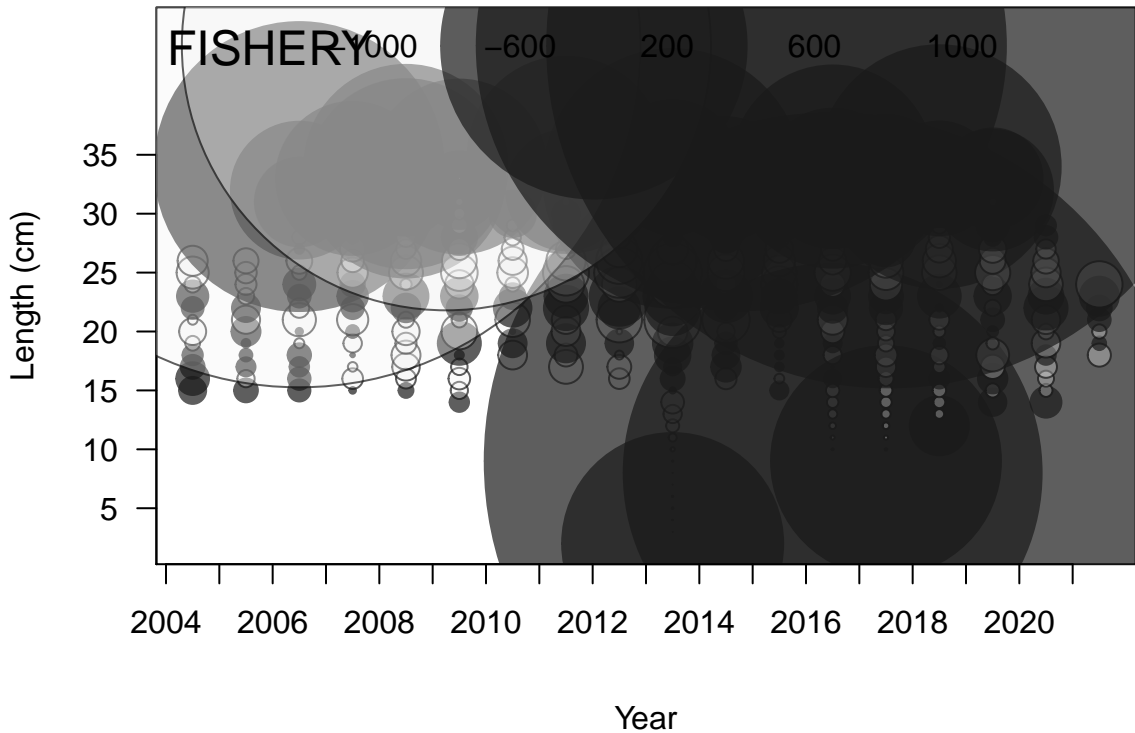


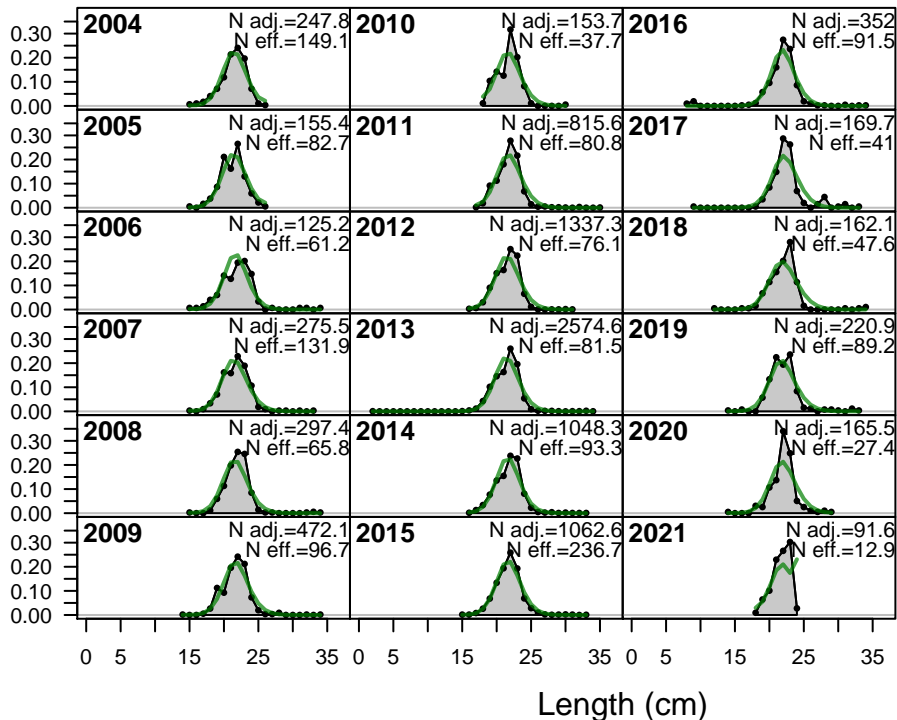


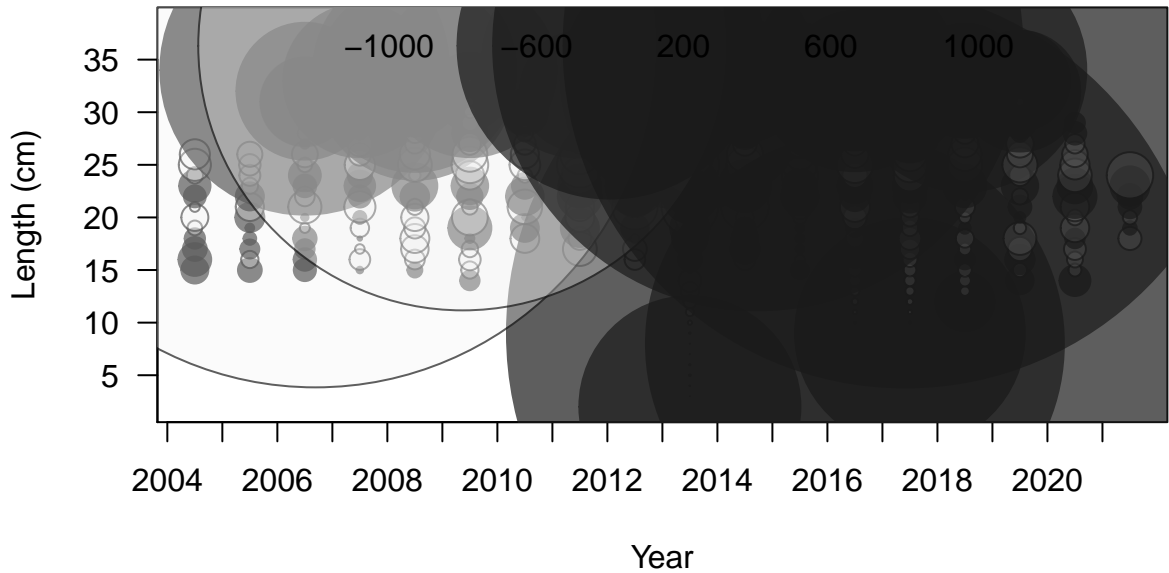
FISHERY (whole catch)



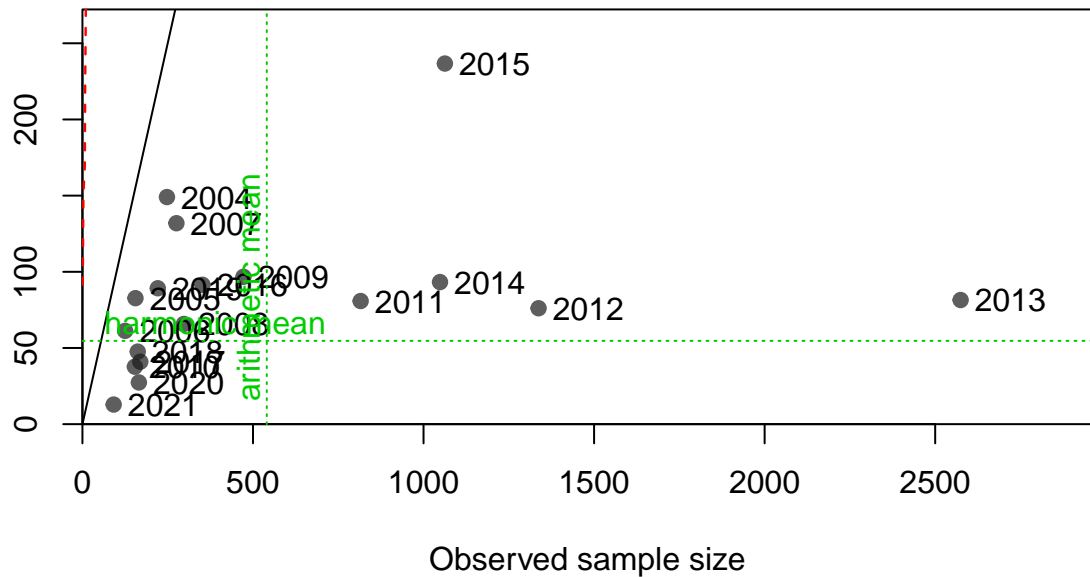




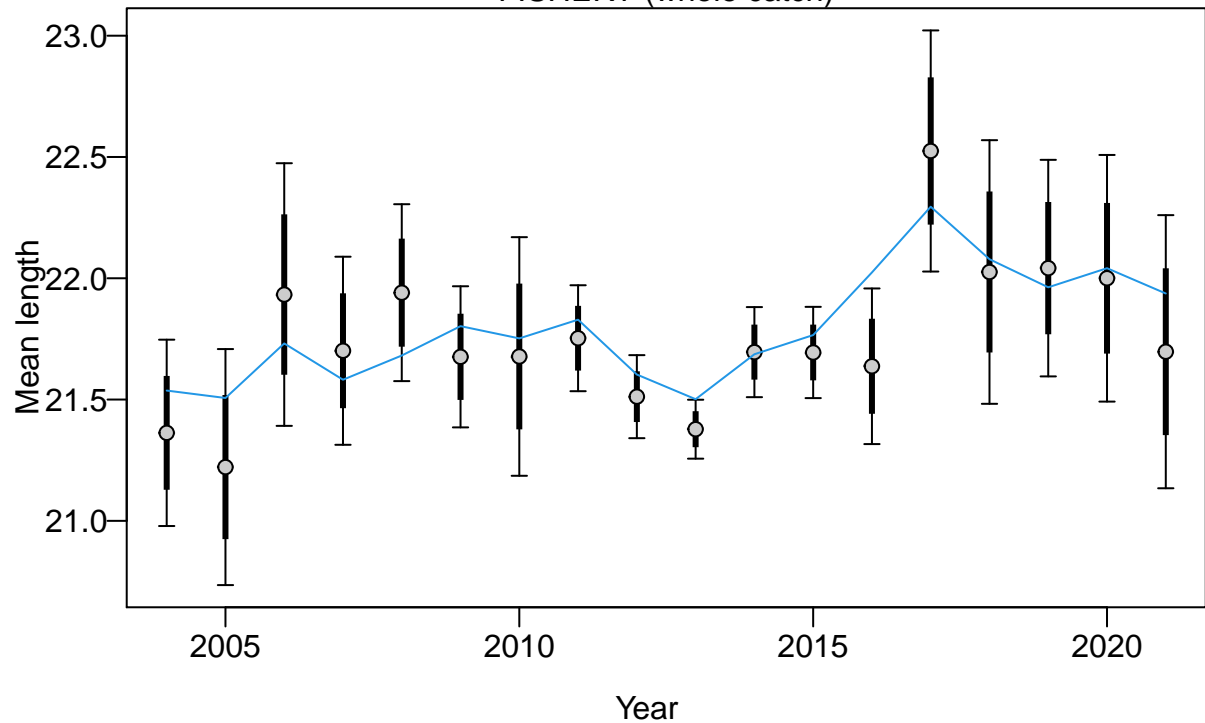


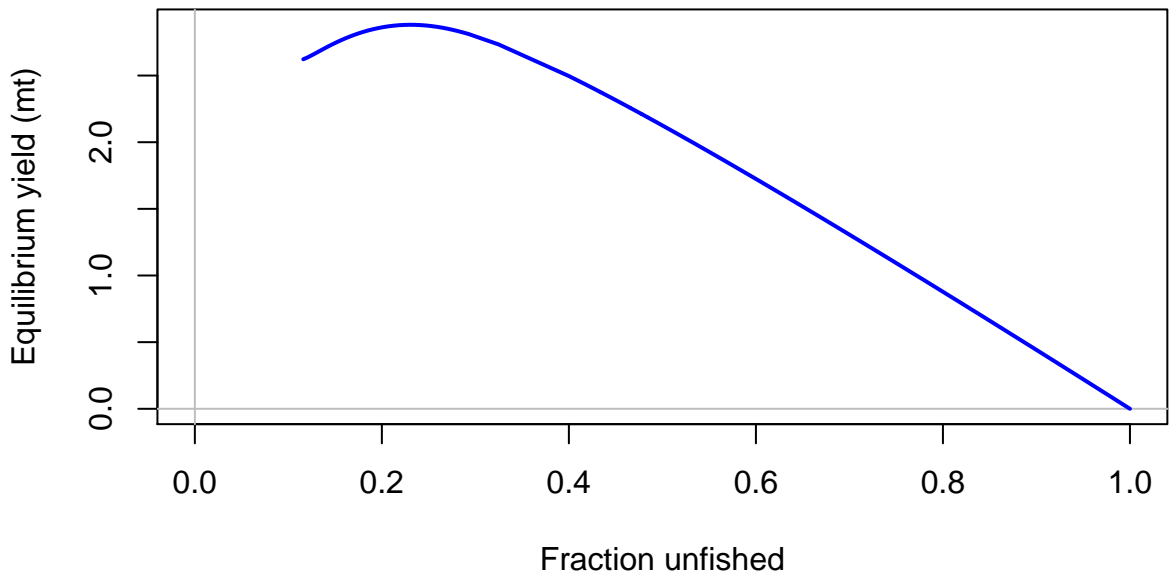


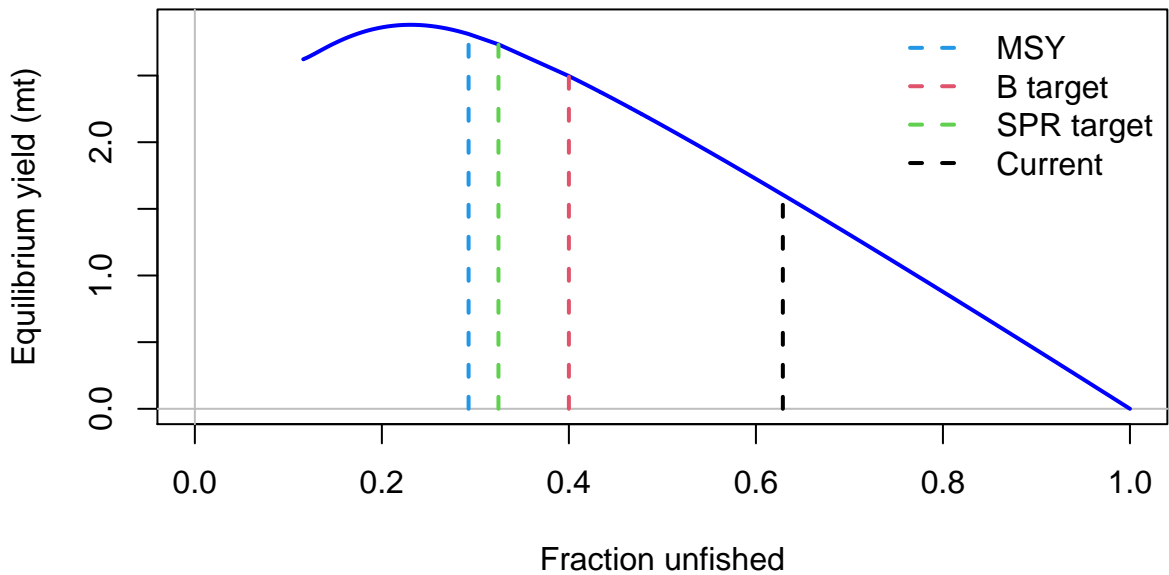
Effective sample size

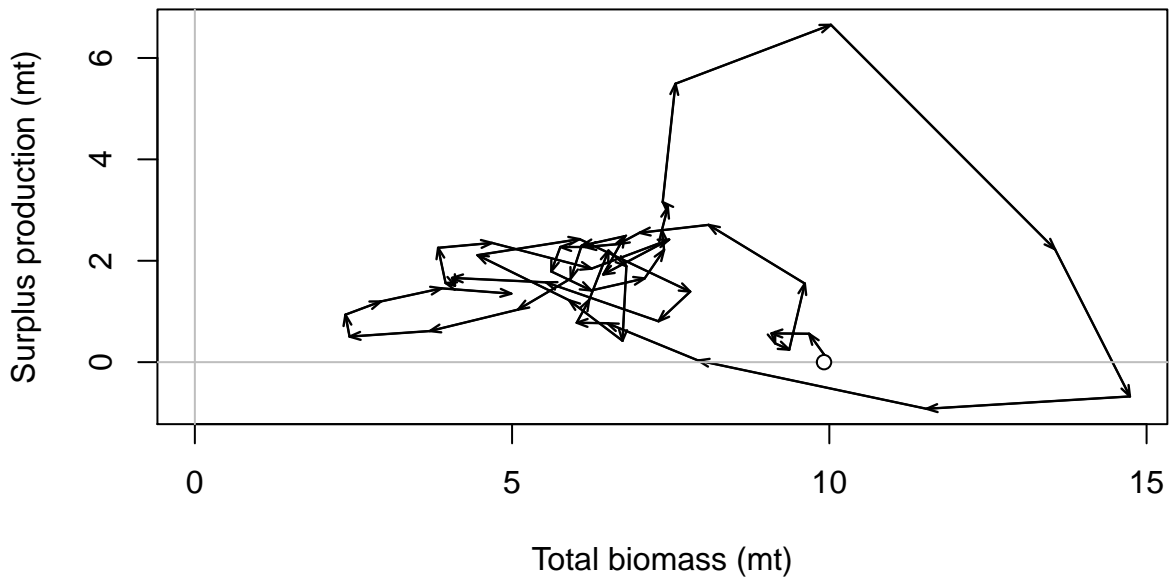


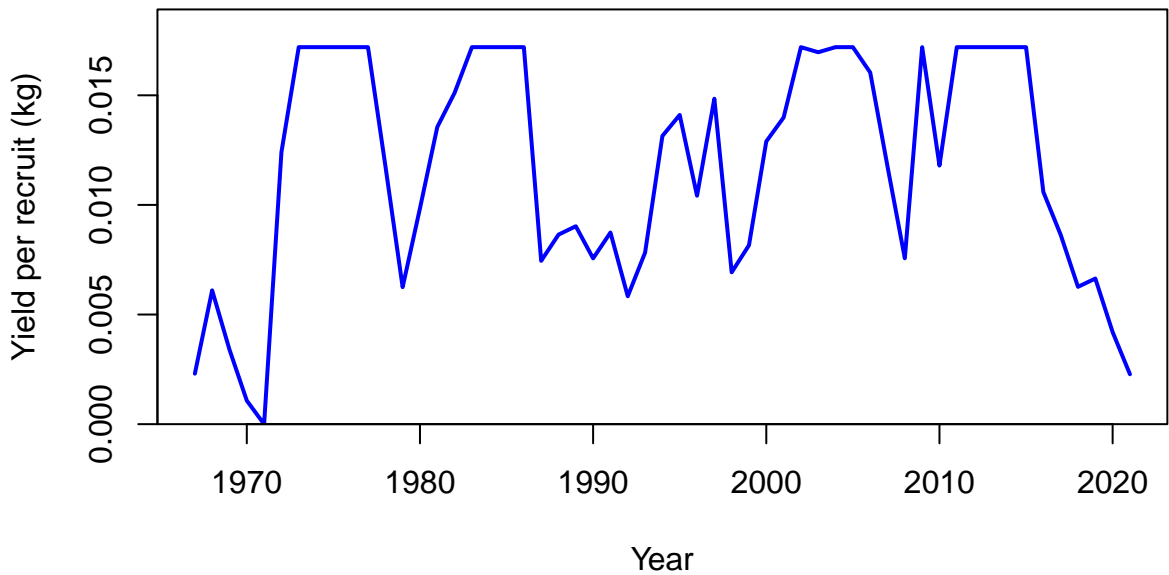
FISHERY (whole catch)

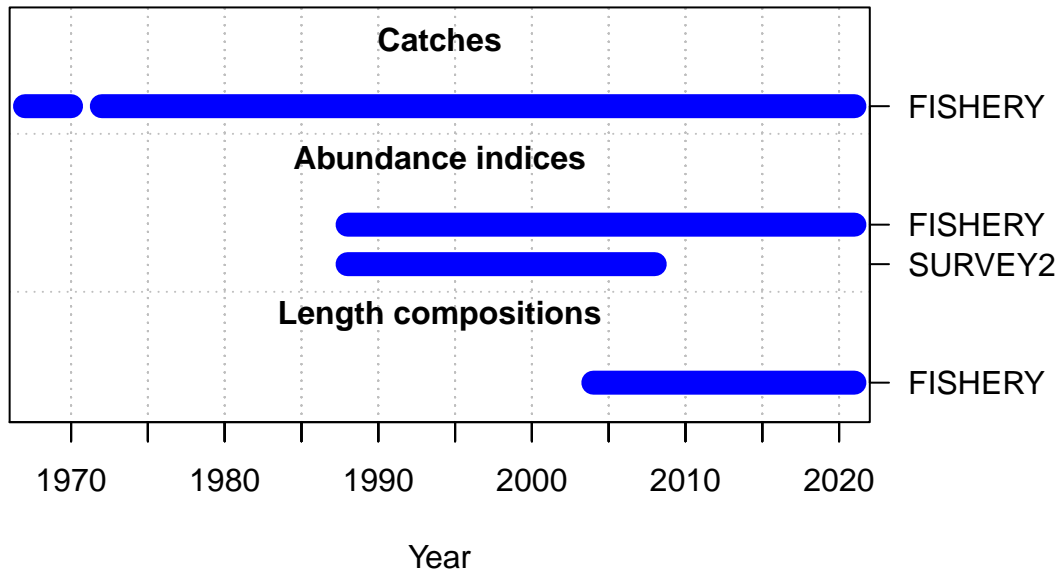


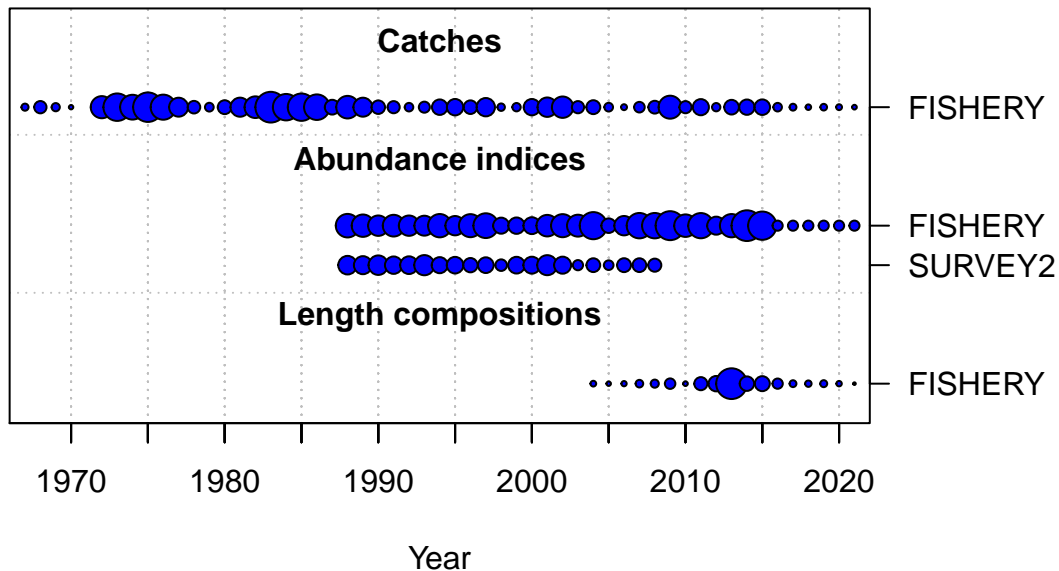




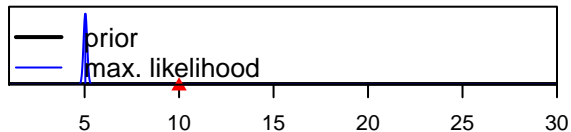




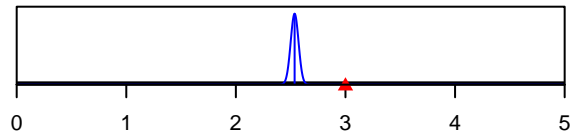




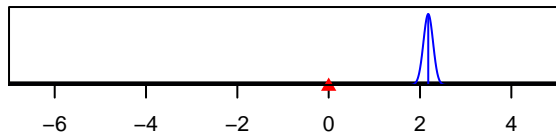
SR_LN(R0)



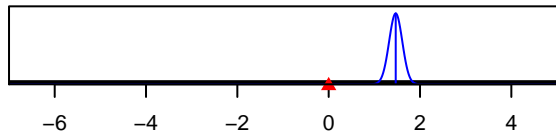
Size_95%width_FISHERY(1)



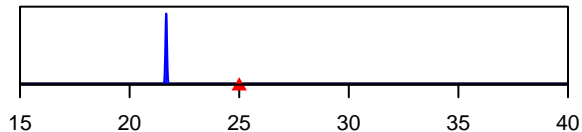
LnQ_base_FISHERY(1)



LnQ_base_SURVEY2(2)



Size_inflection_FISHERY(1)



Parameter value