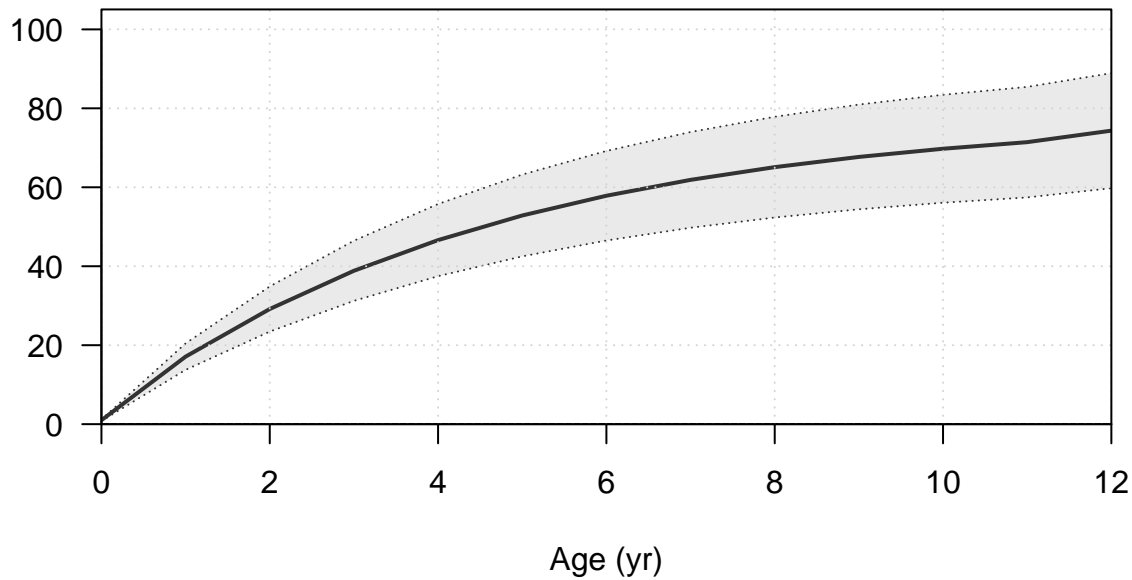
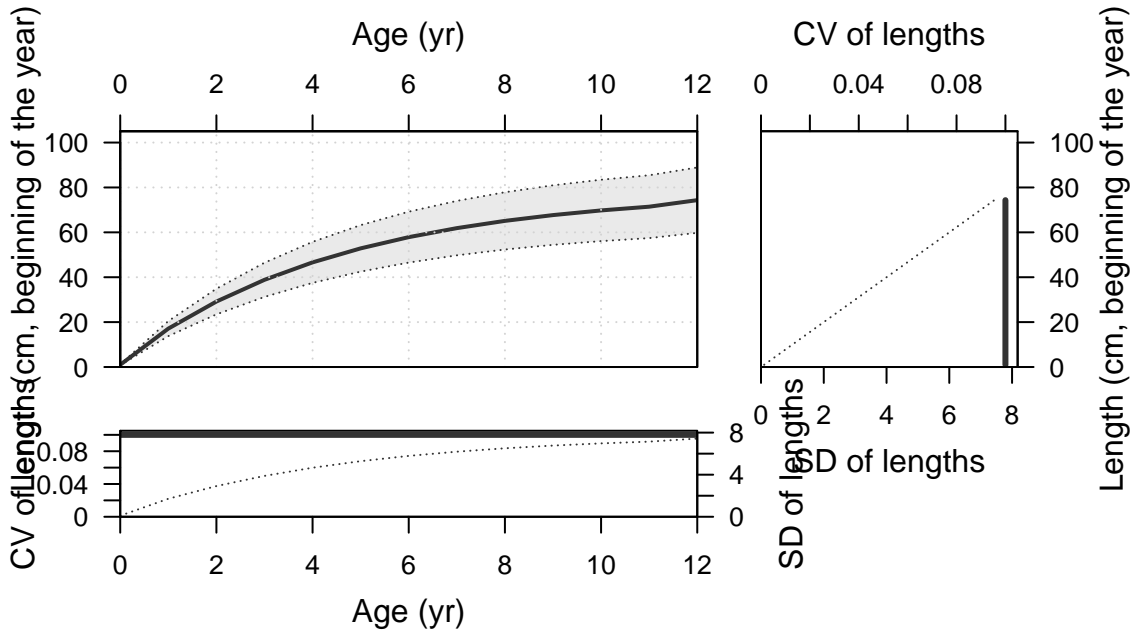
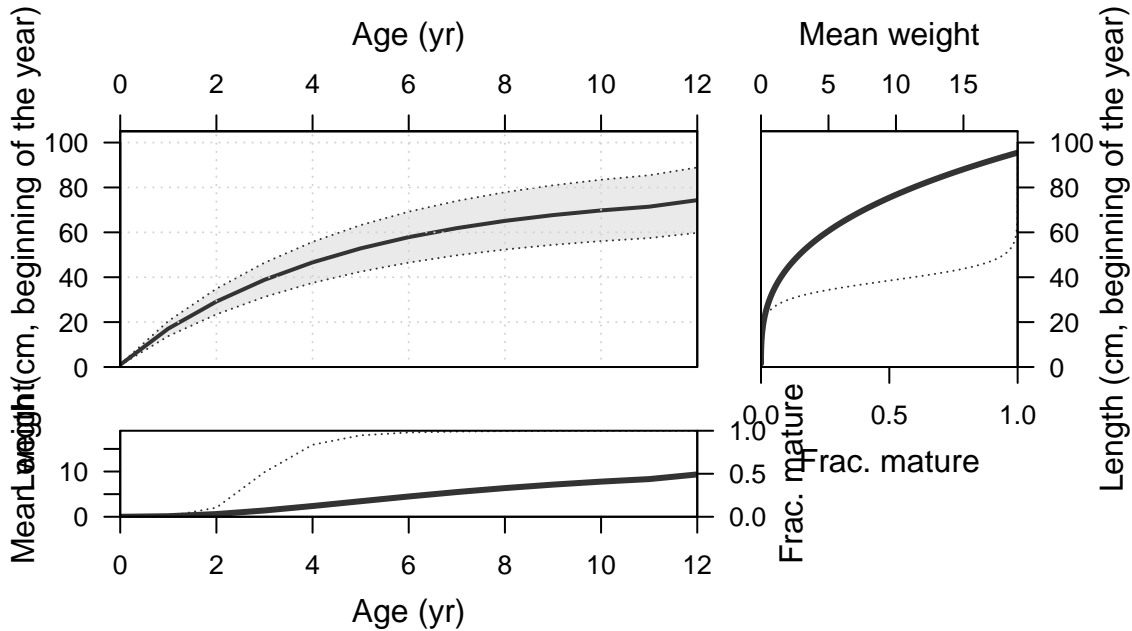


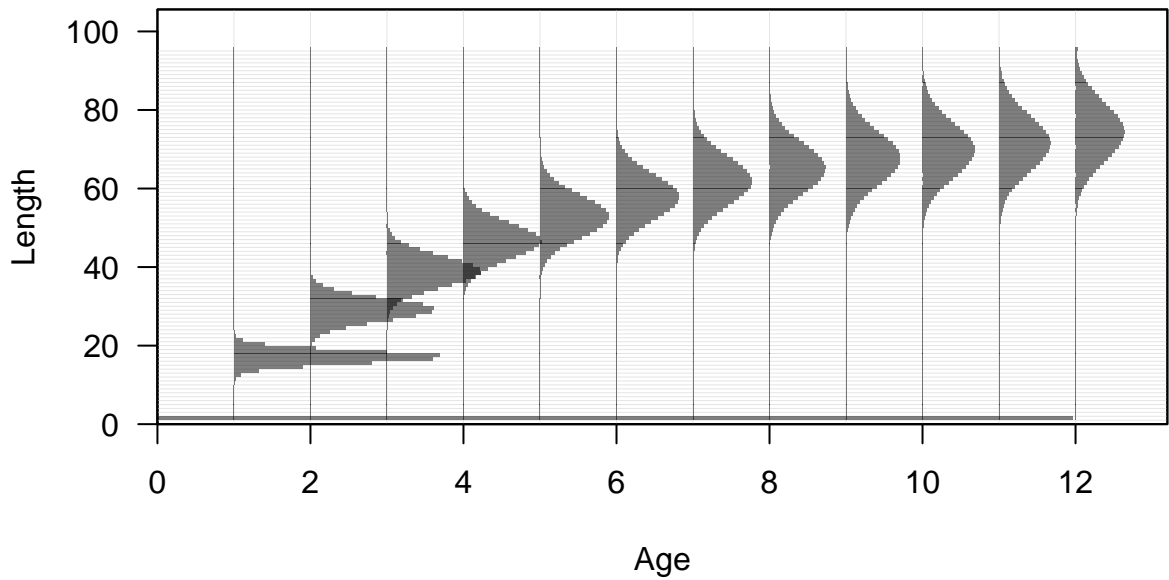
Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Mon Jul 11 16:25:44 2022  
Data\_File: data.ss  
Control\_File: control.ss

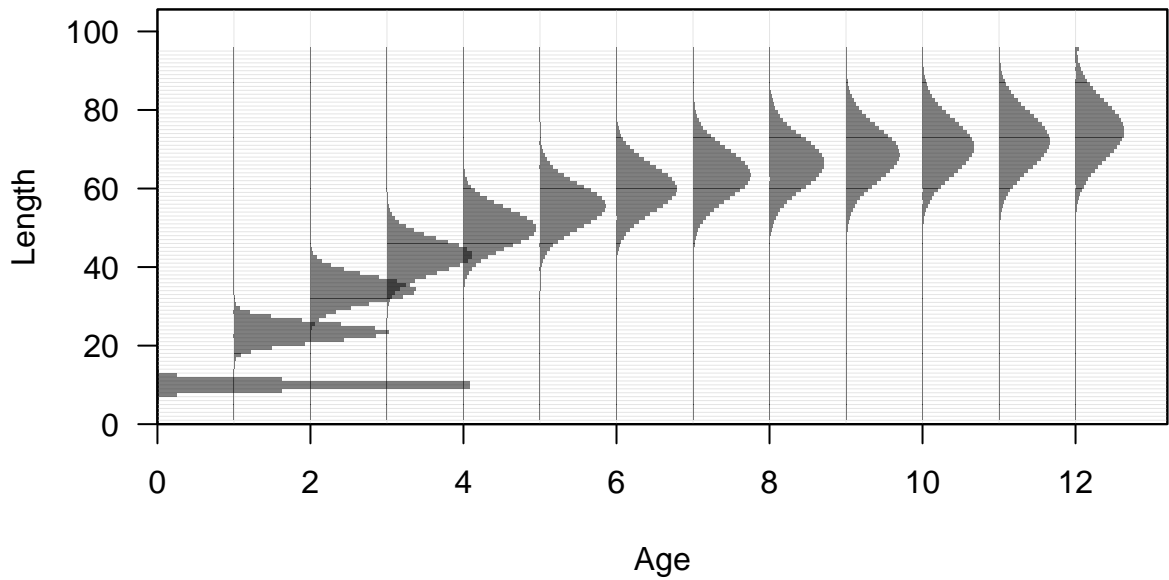
Length (cm, beginning of the year)



















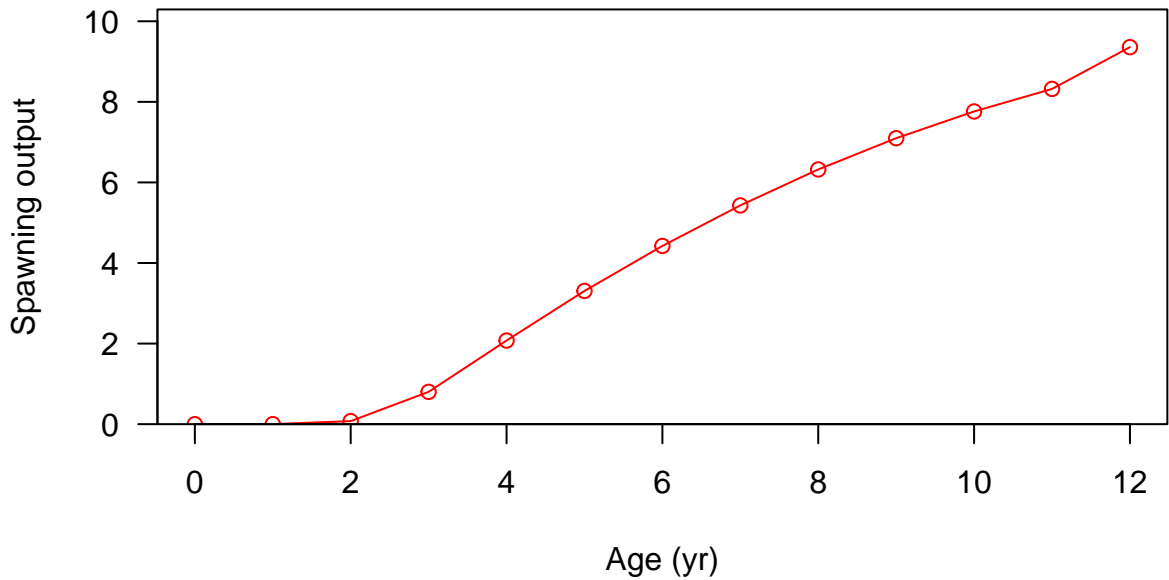
Fecundity



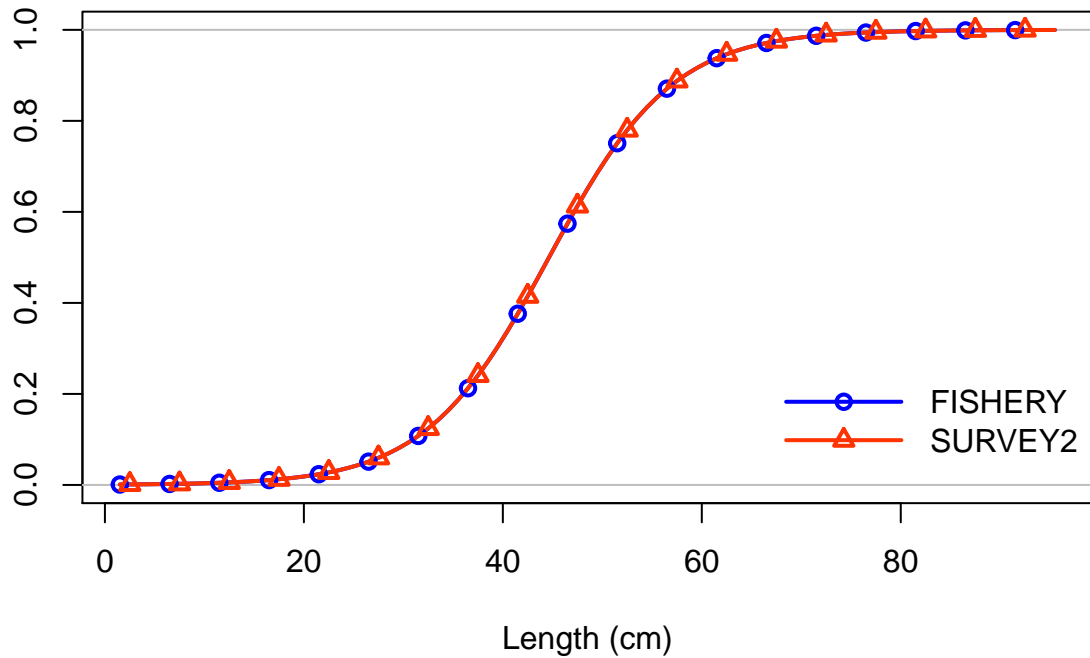


Spawning output

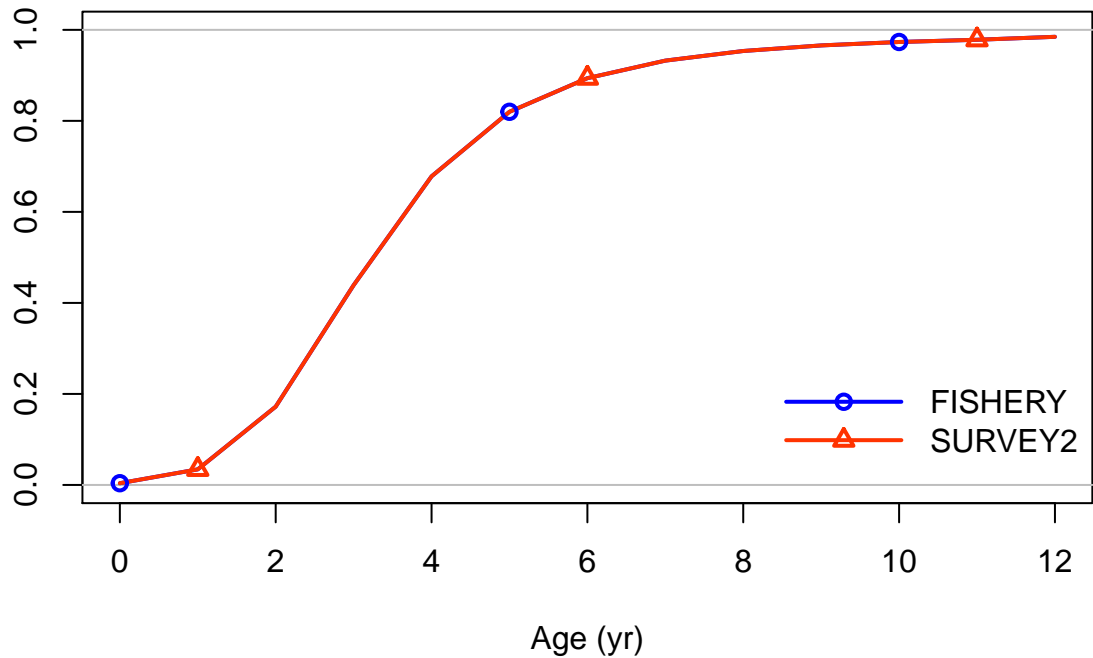




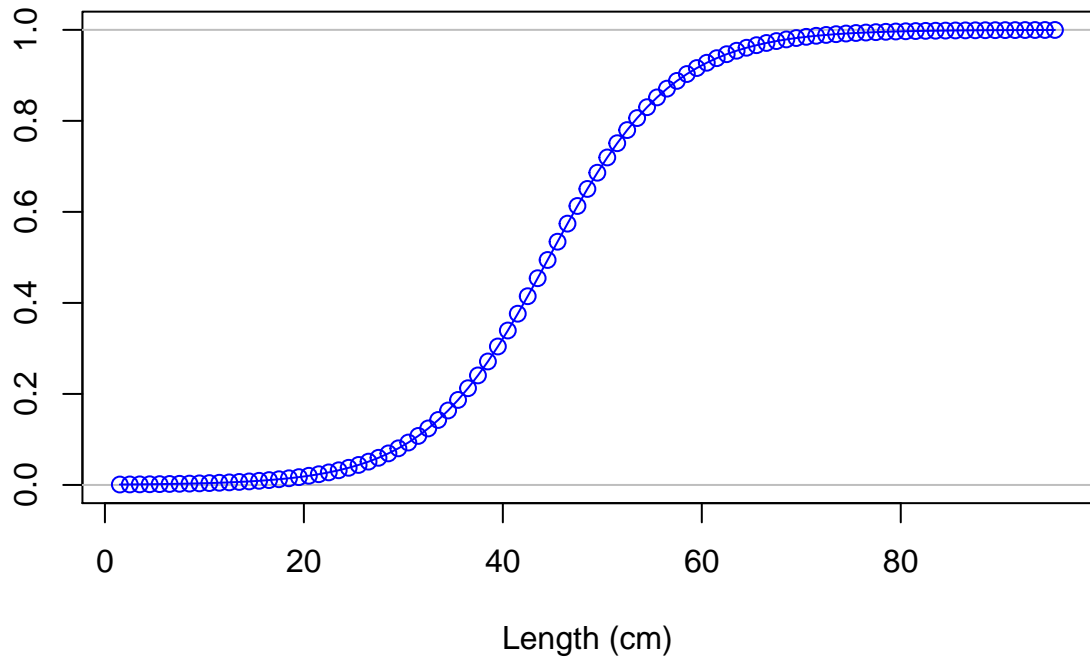
Selectivity



Selectivity

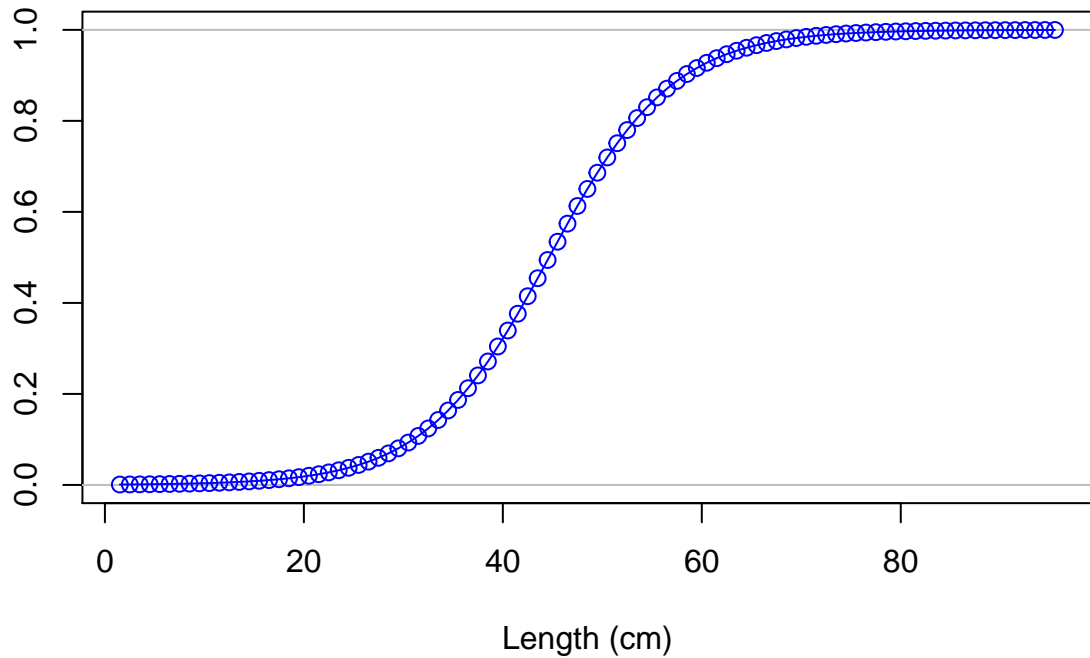


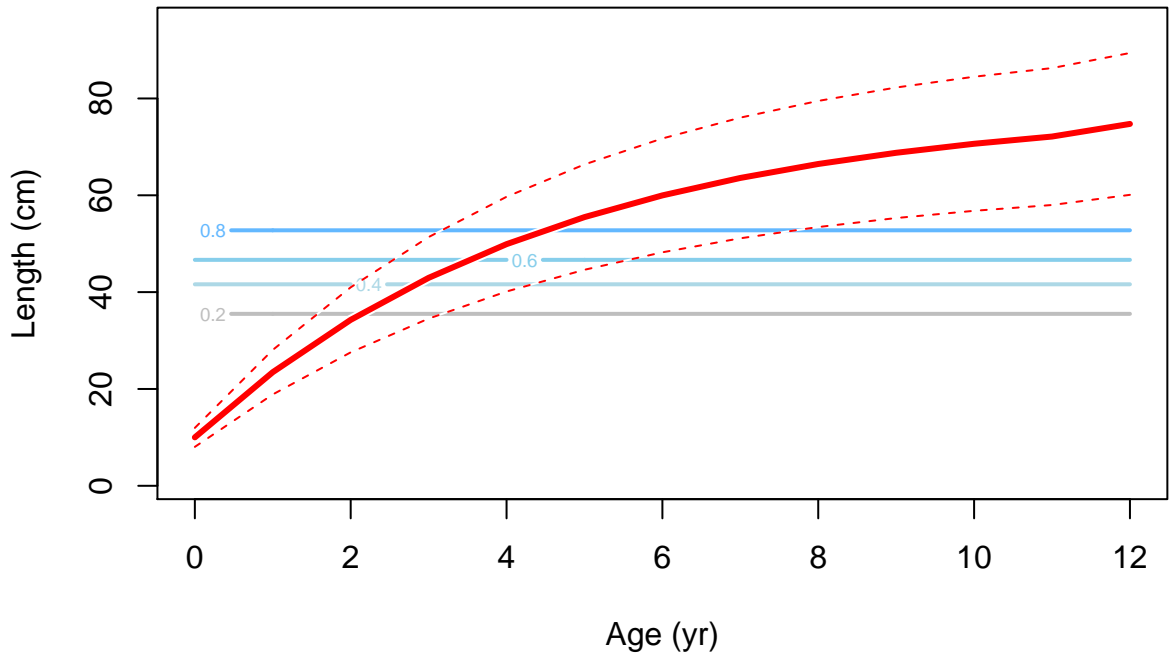
Selectivity

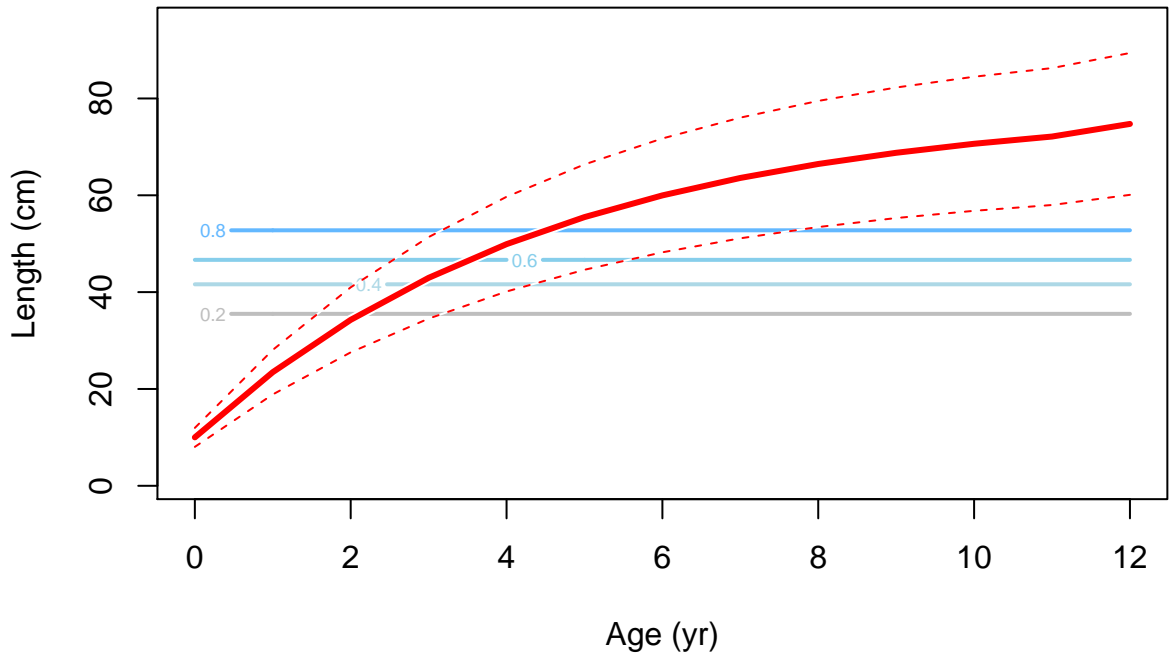


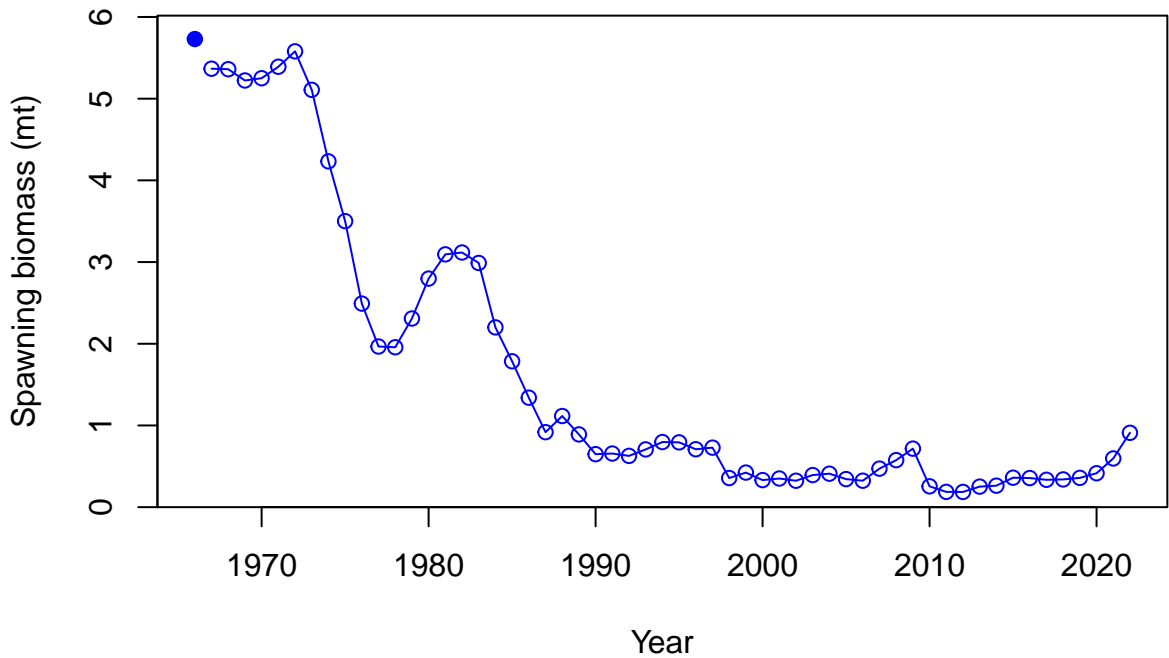


Selectivity

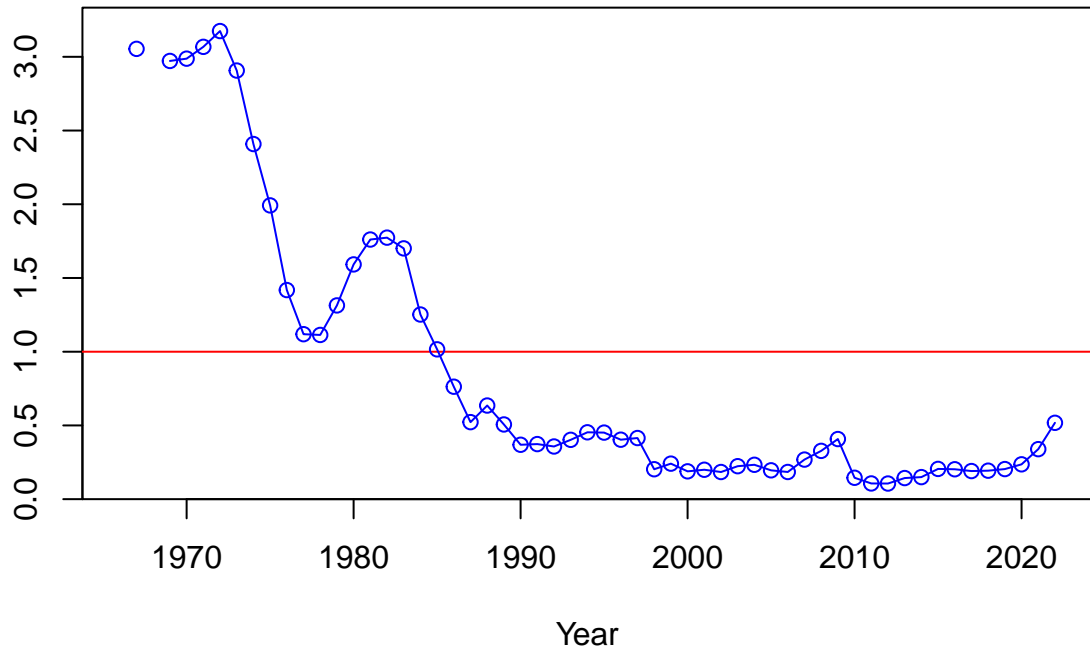


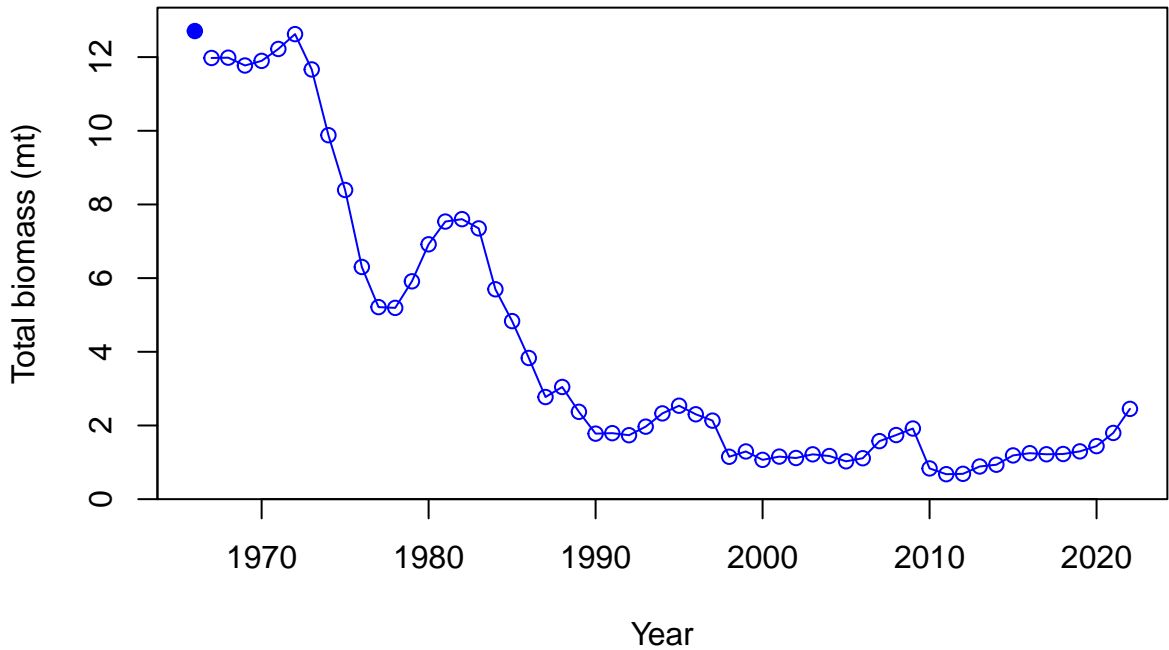


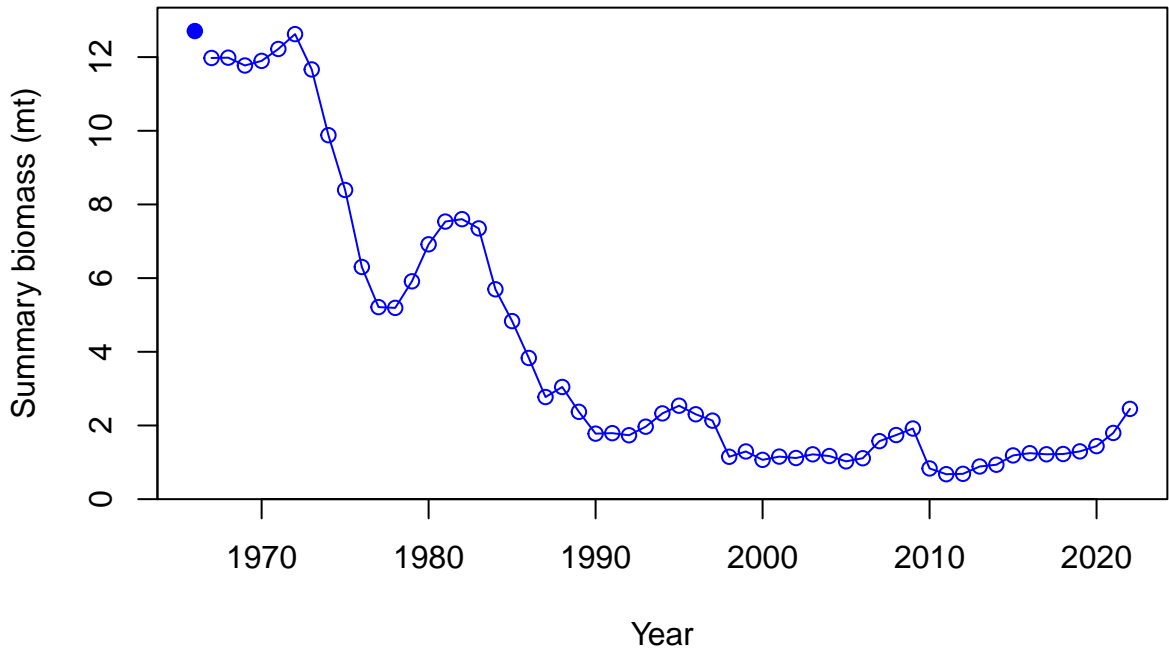




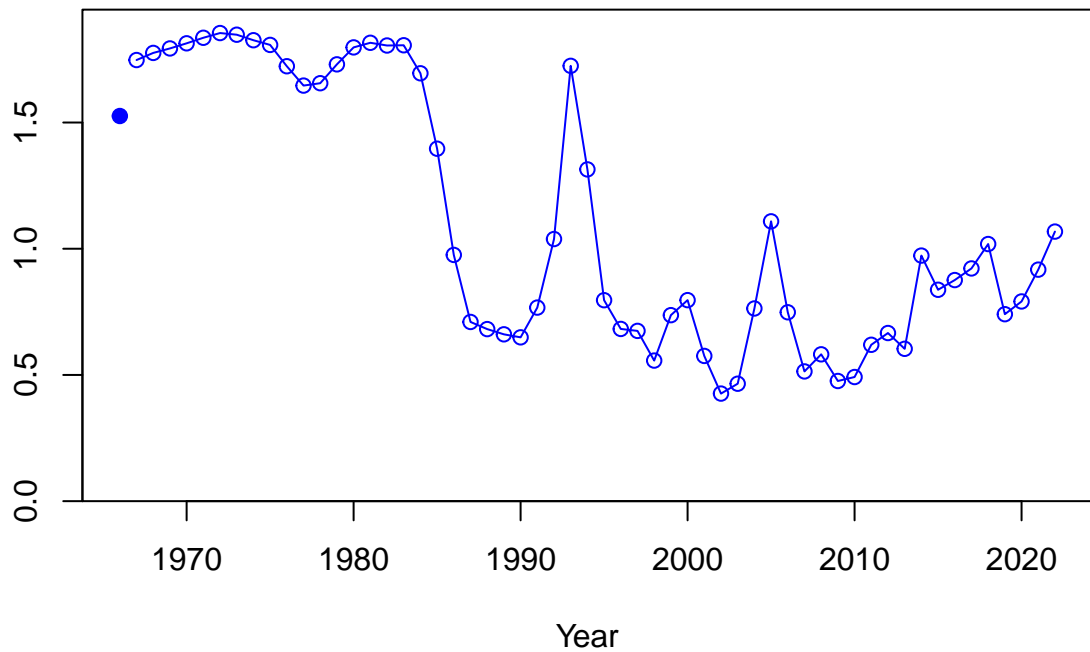
Relative spawning biomass:  $B/B_{MSY}$





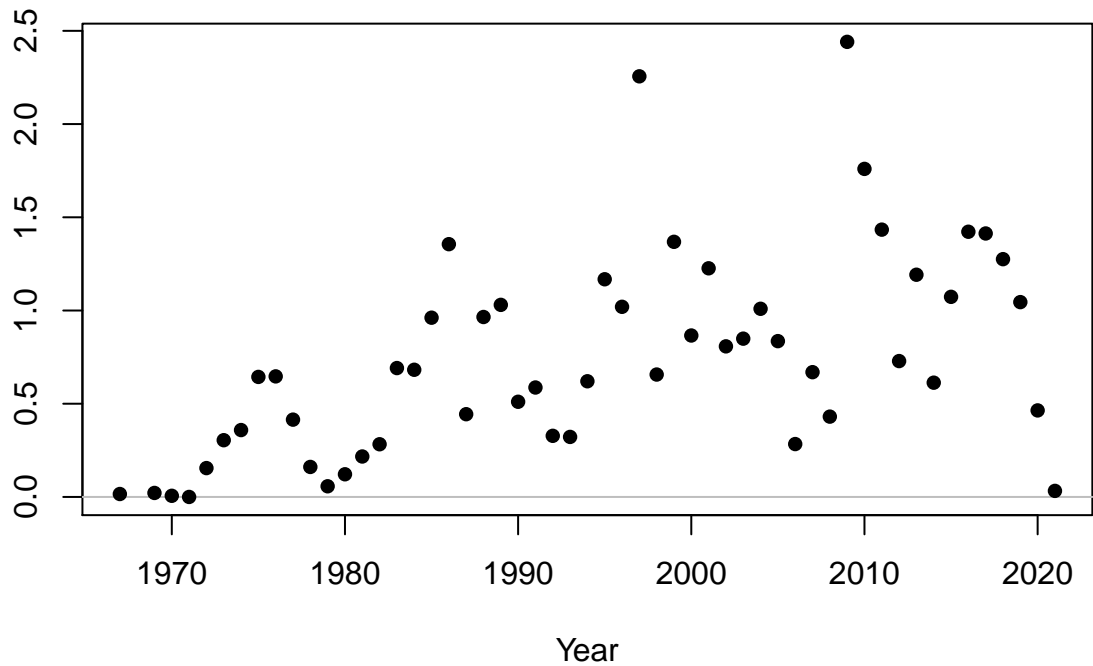


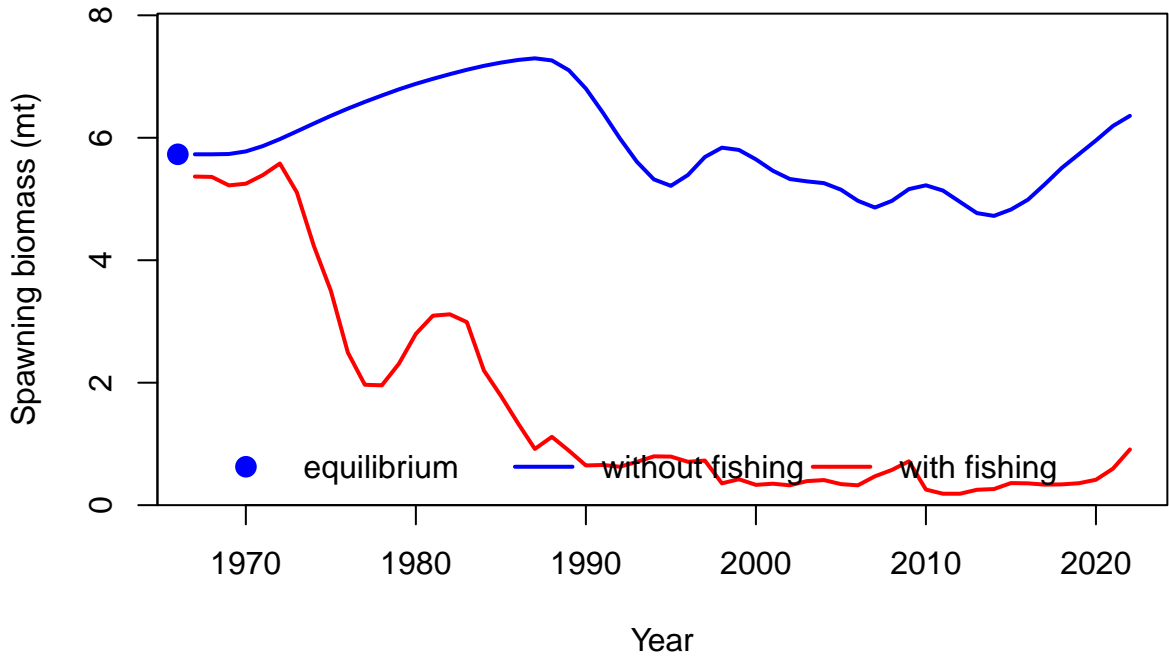
Age-0 recruits (1,000s)



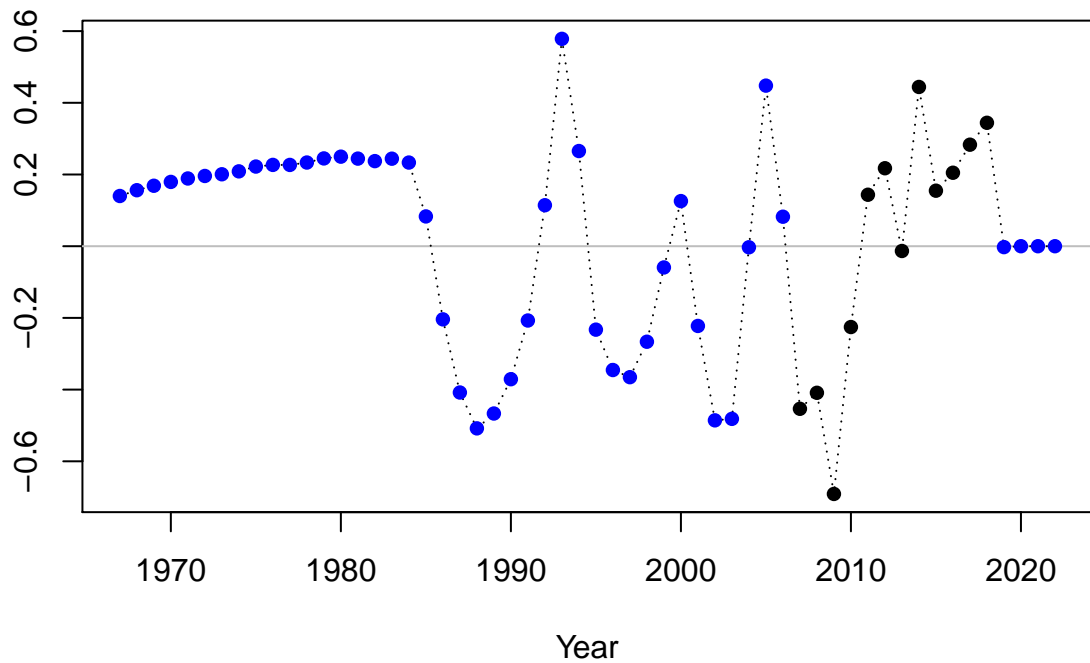


Summary Fishing Mortality

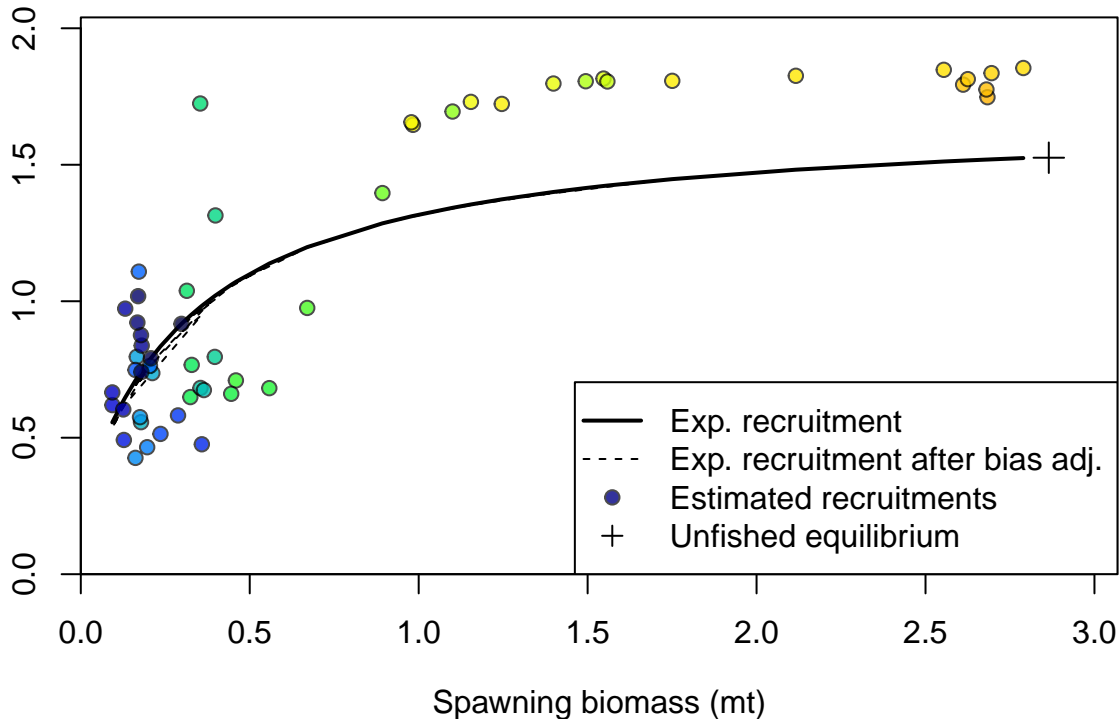




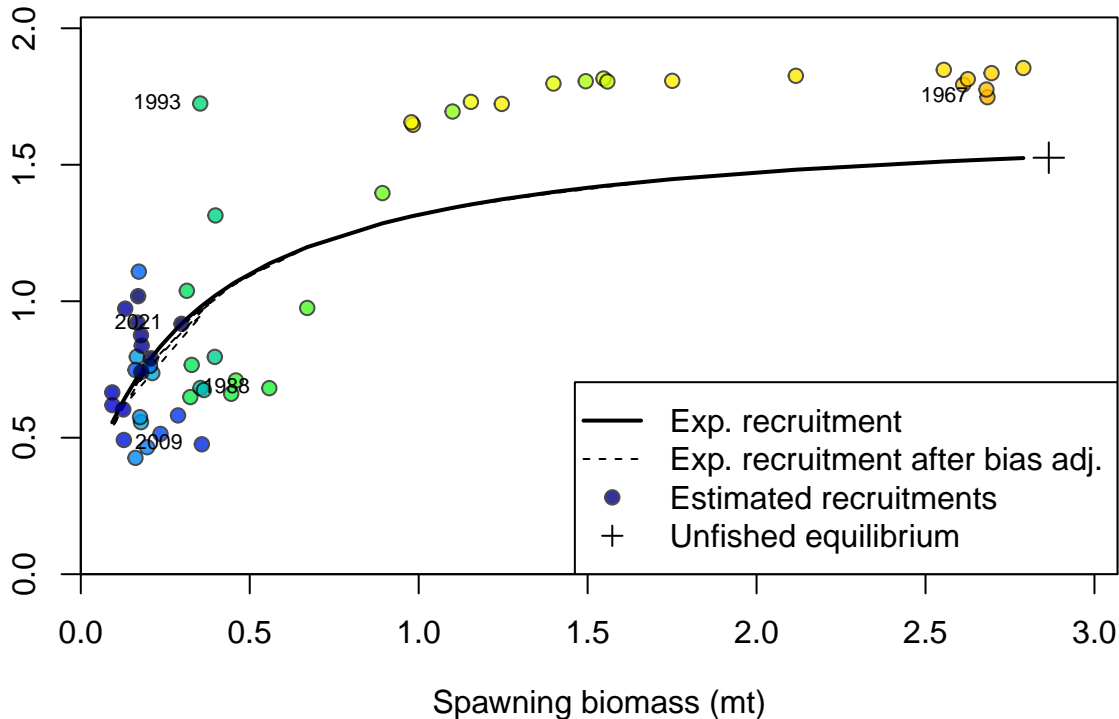
Log recruitment deviation

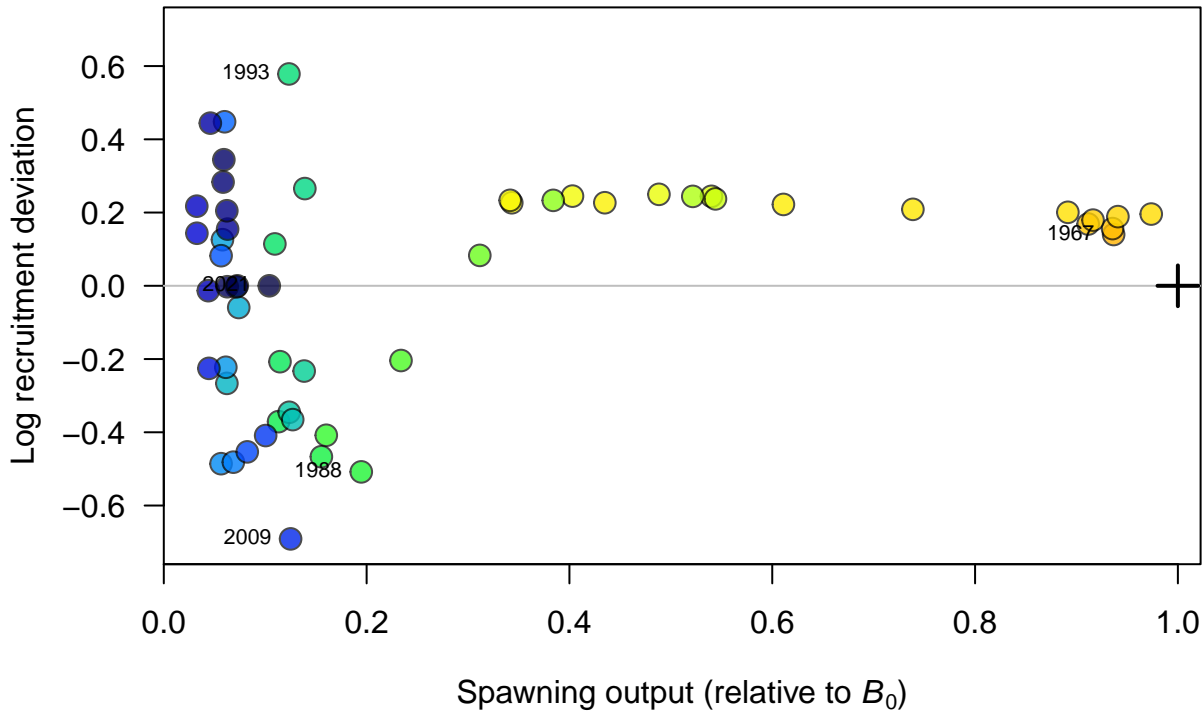


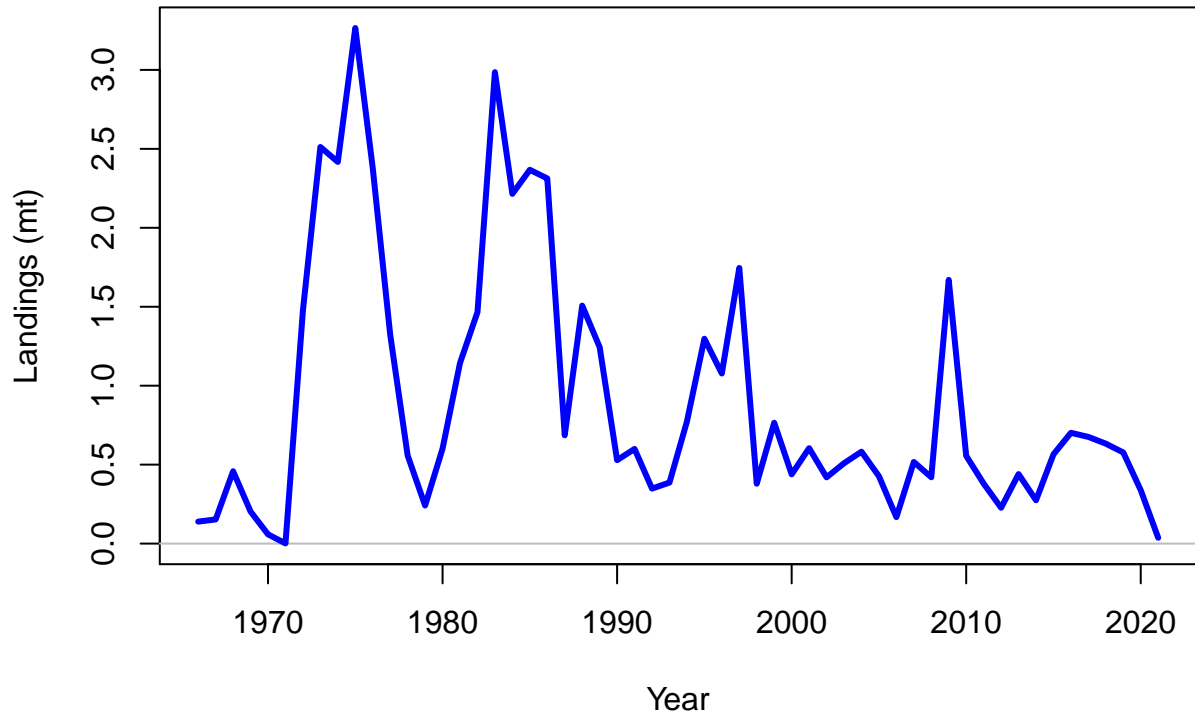
Recruitment (1,000s)

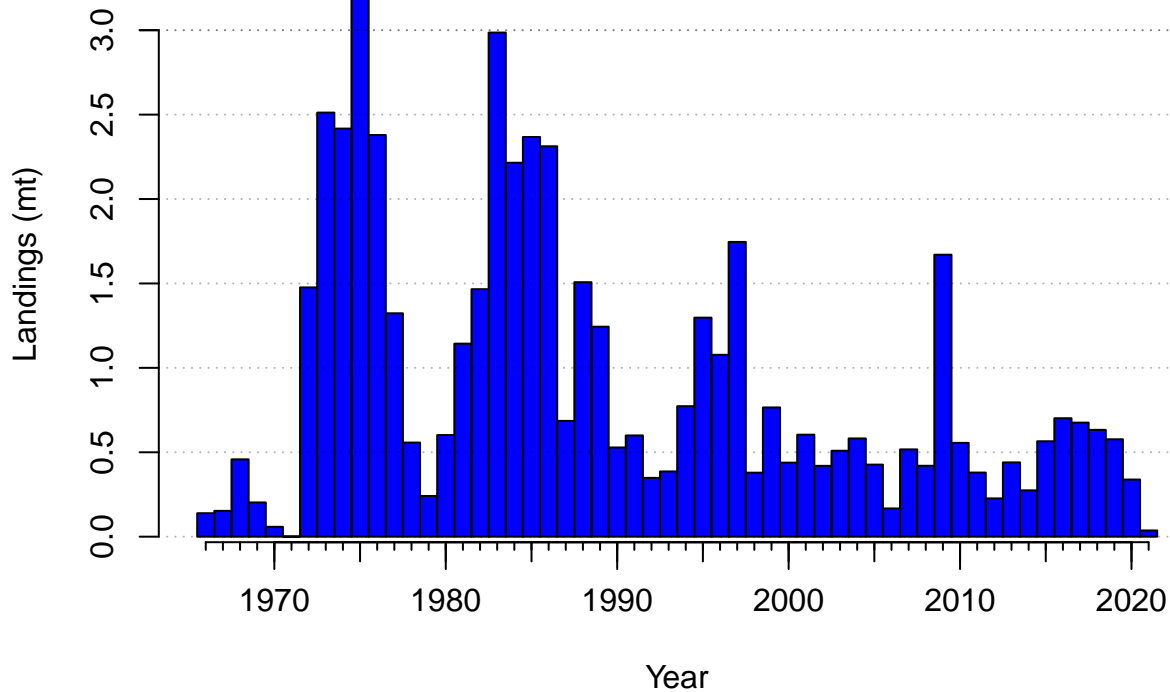


Recruitment (1,000s)





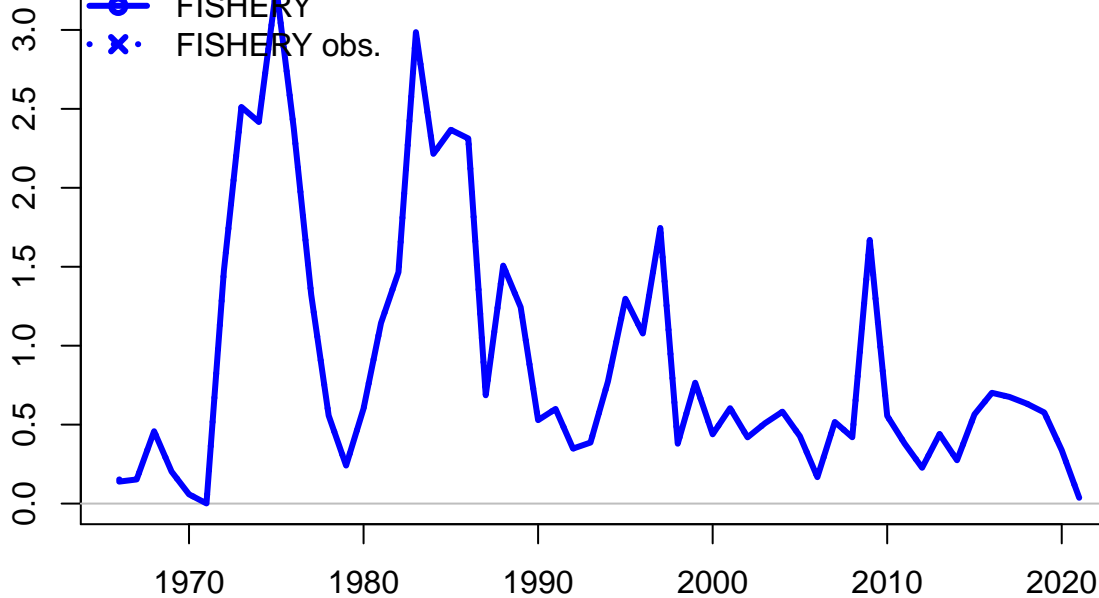






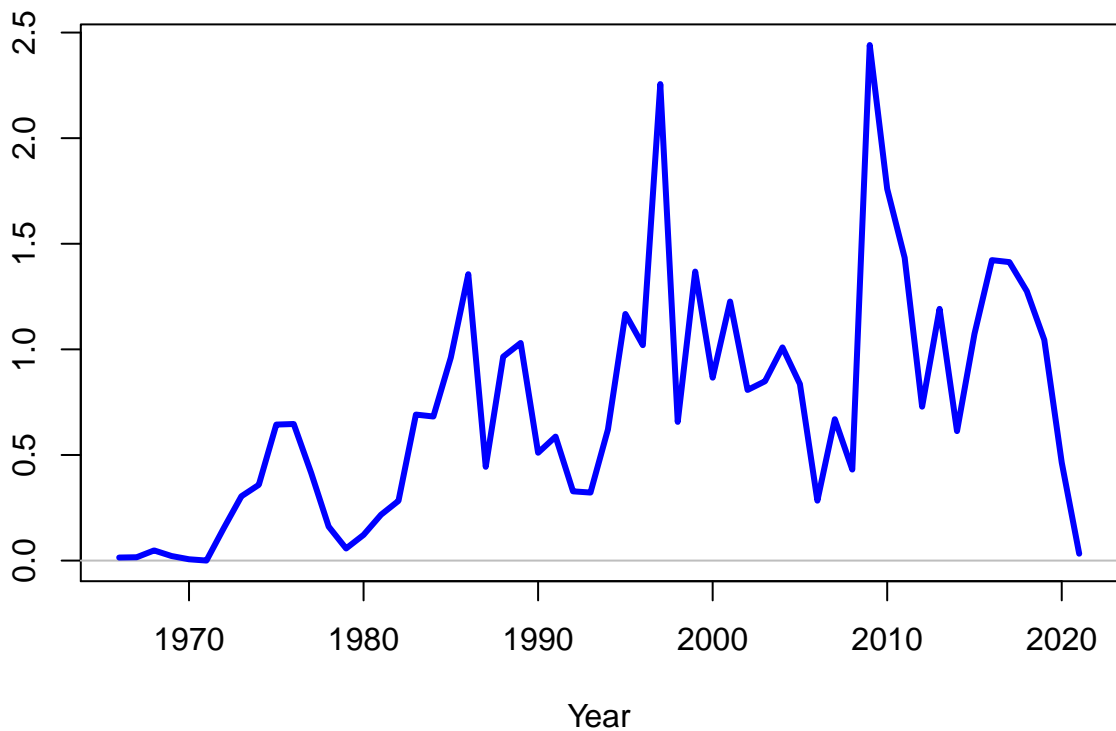
Observed and expected Landings (mt)

FISHERY  
FISHERY obs.

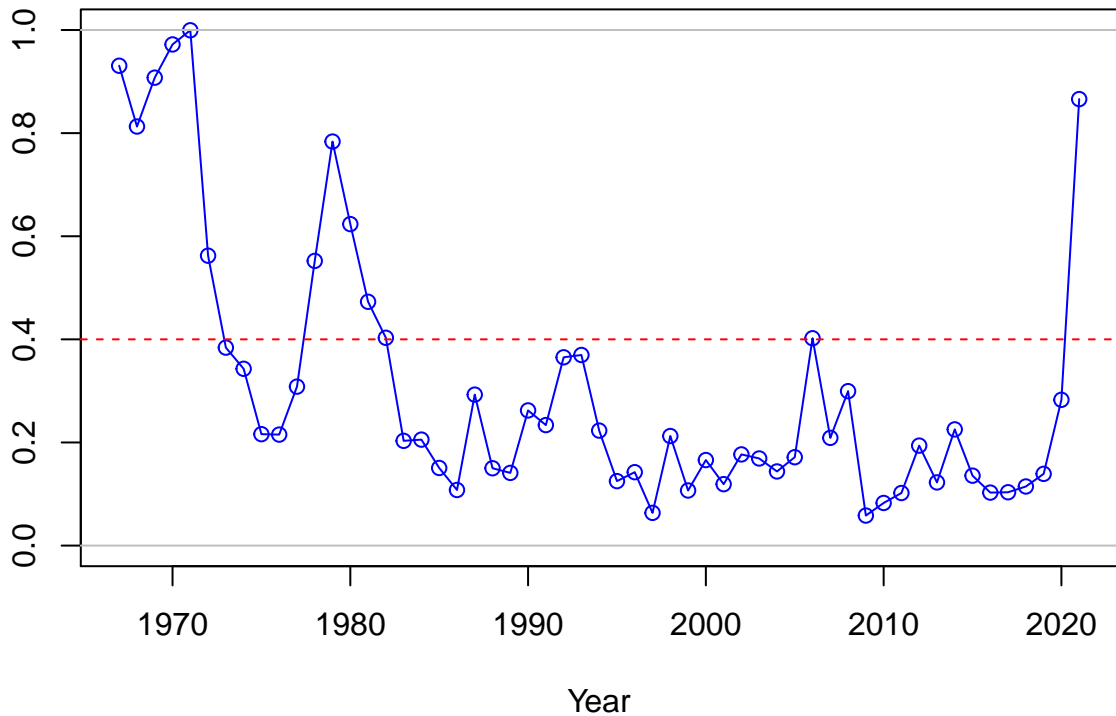


Year

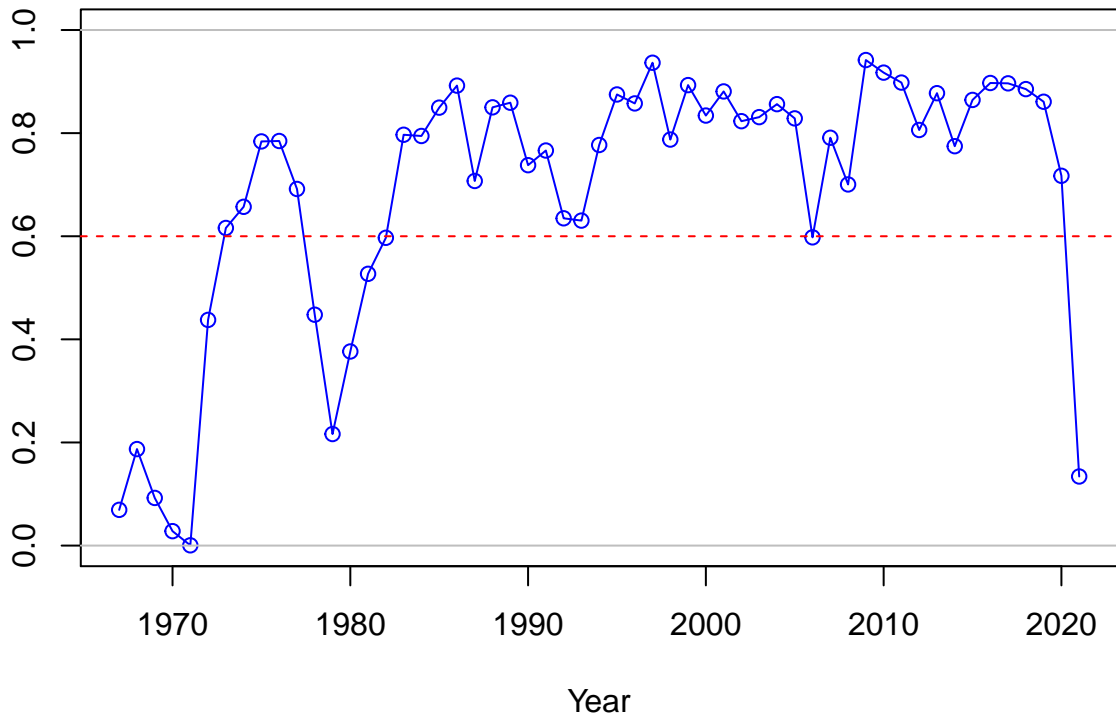
Continuous F



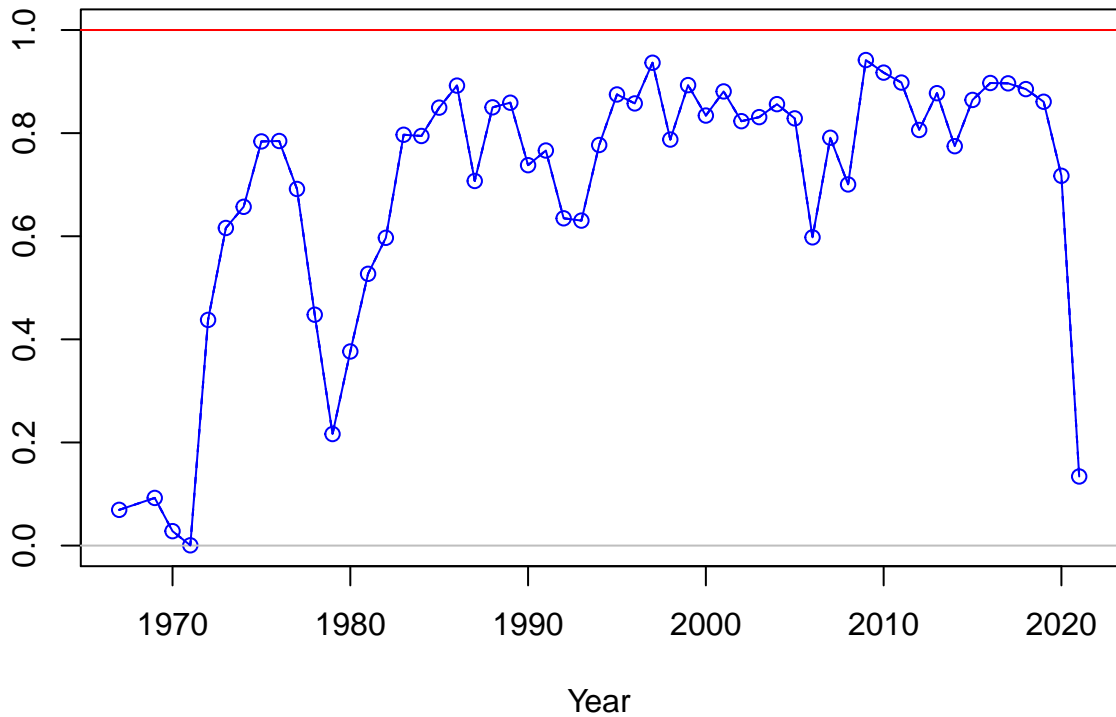
SPR



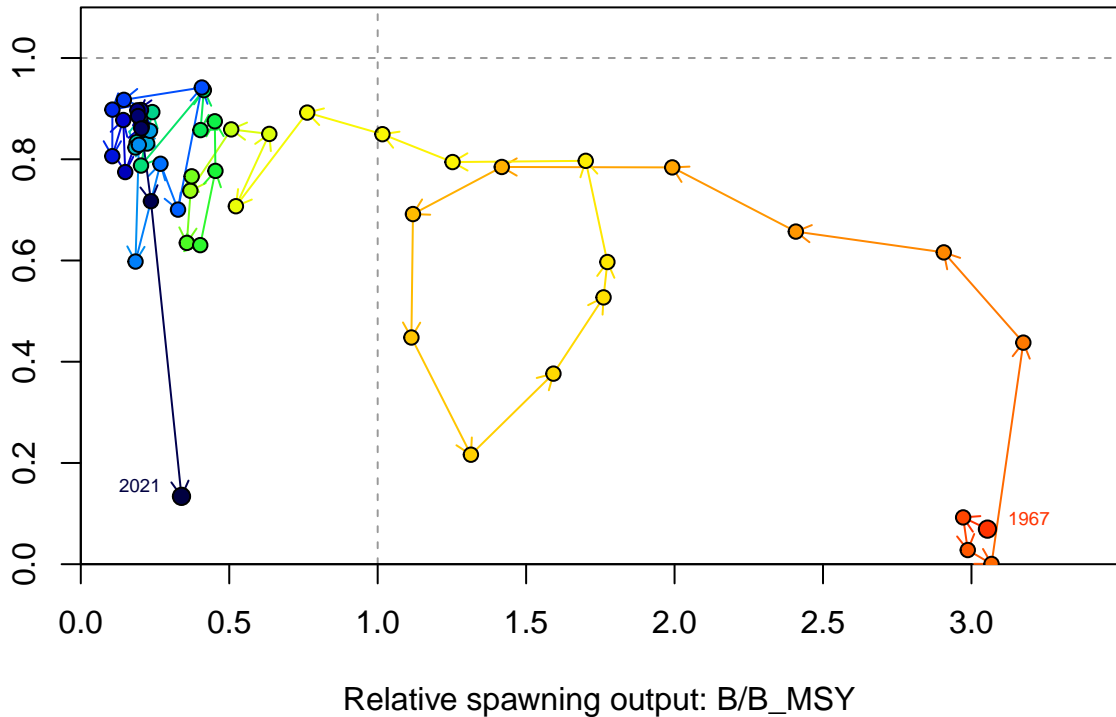
1-SPR



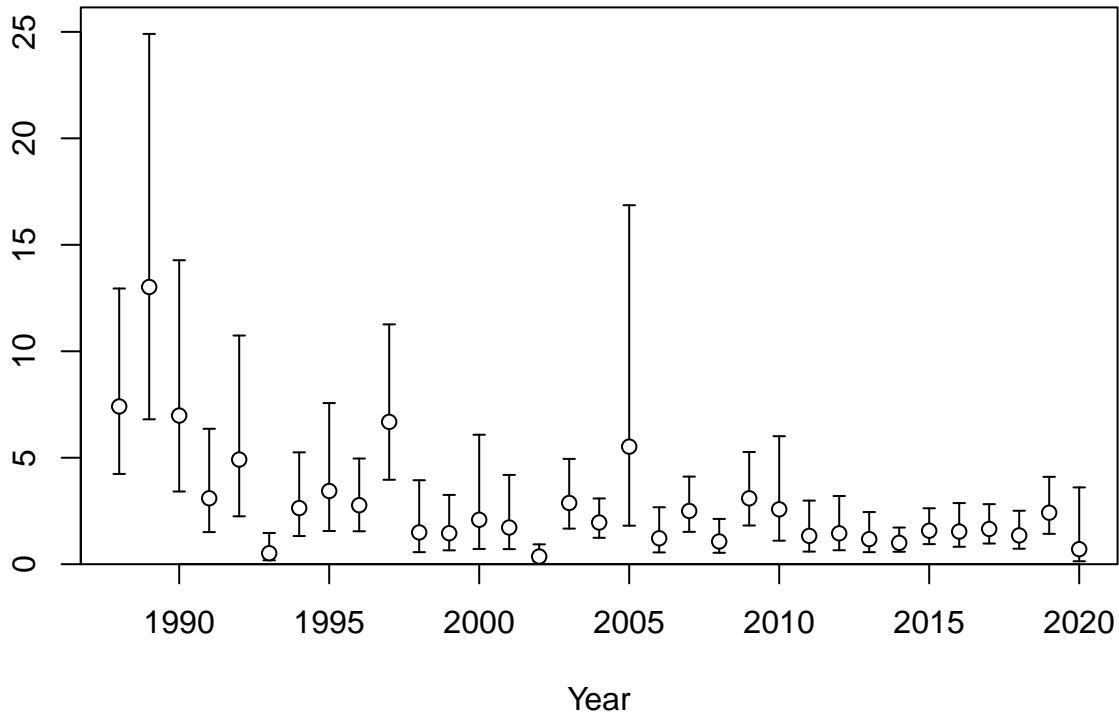
Fishing intensity: 1-SPR



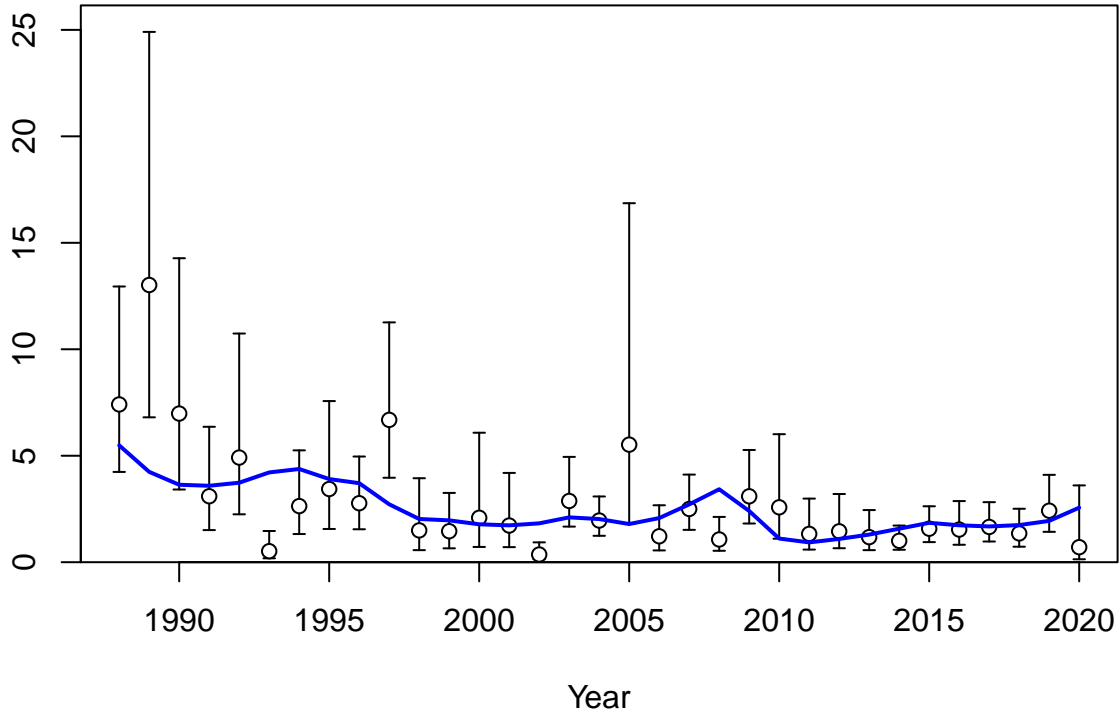
Fishing intensity: 1-SPR



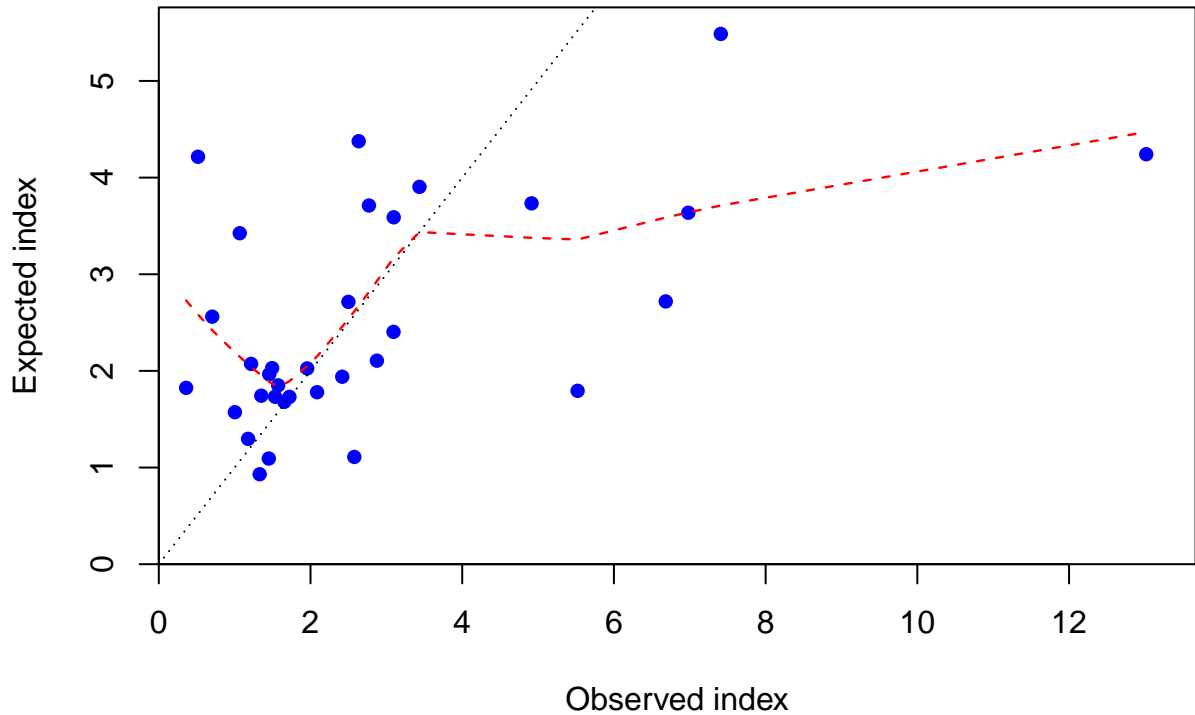
Index

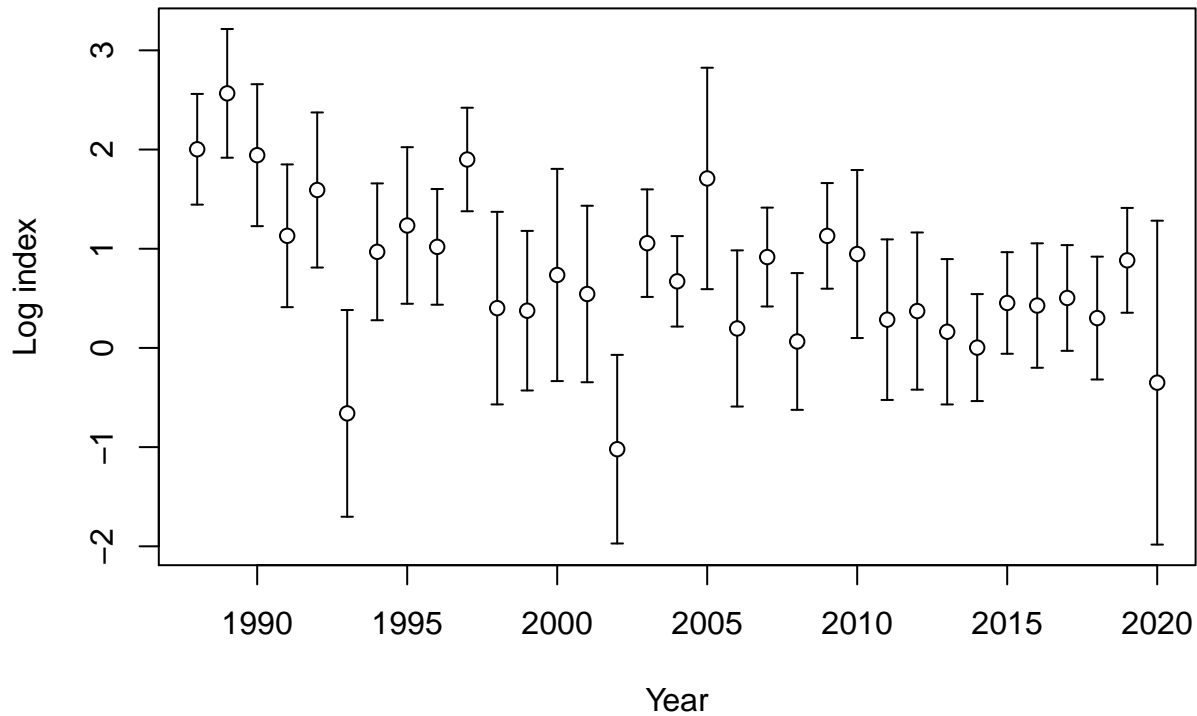


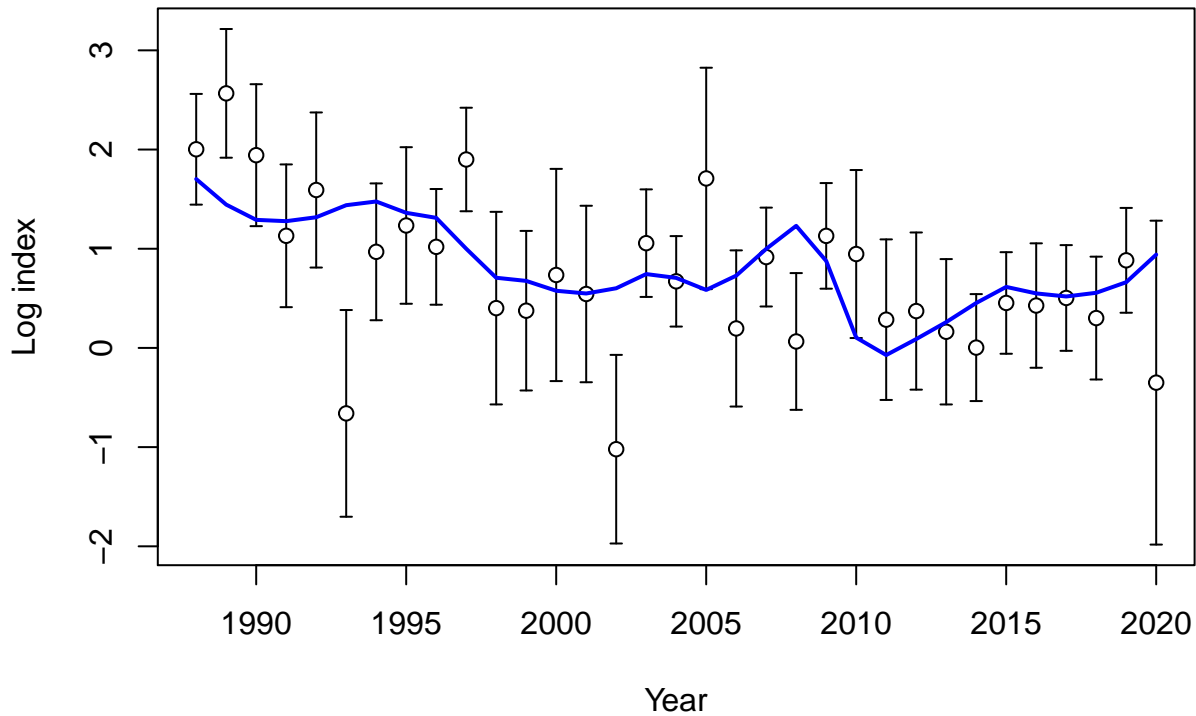
Index

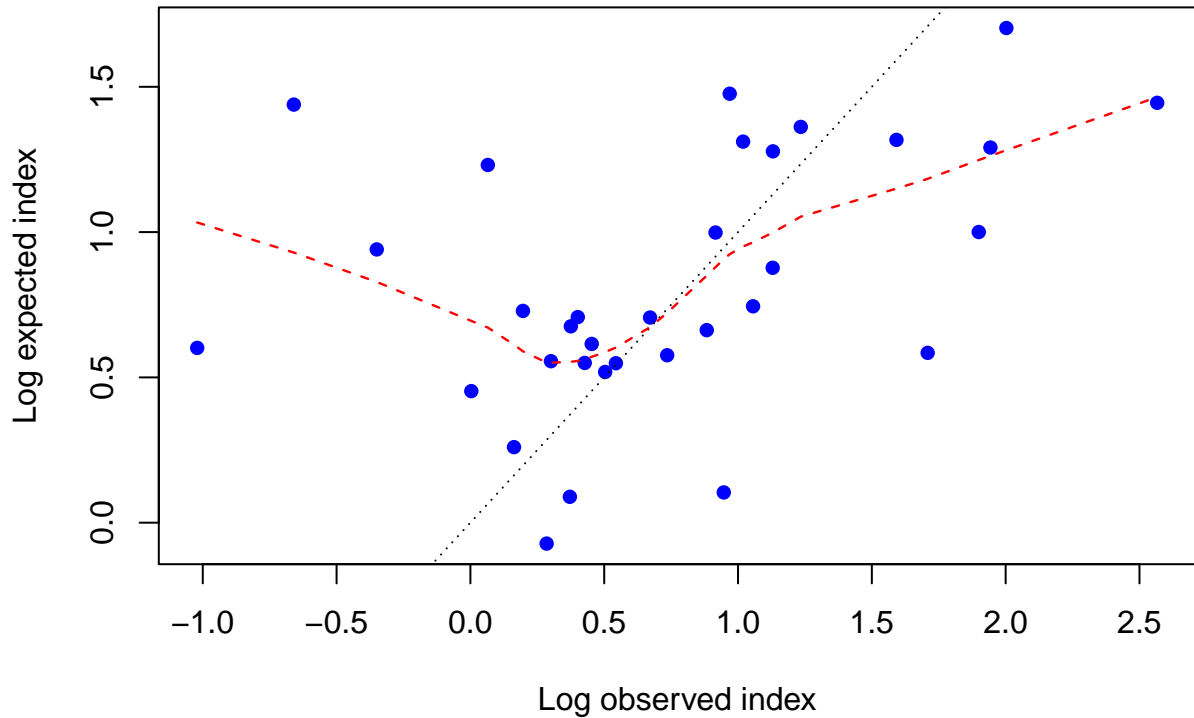












Effective catchability

3.513638  
3.513634  
3.513630

0.4

0.6

0.8

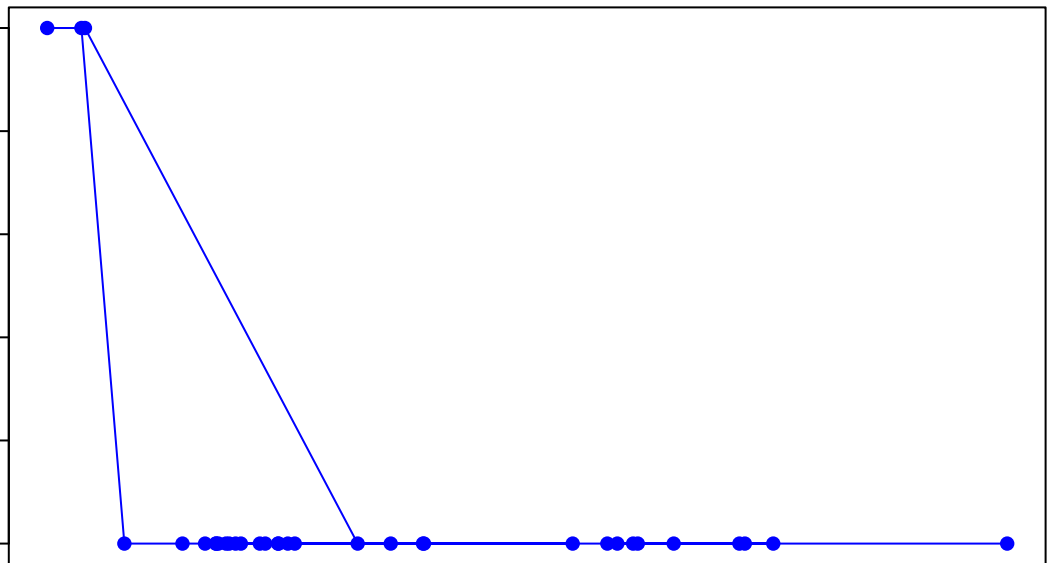
1.0

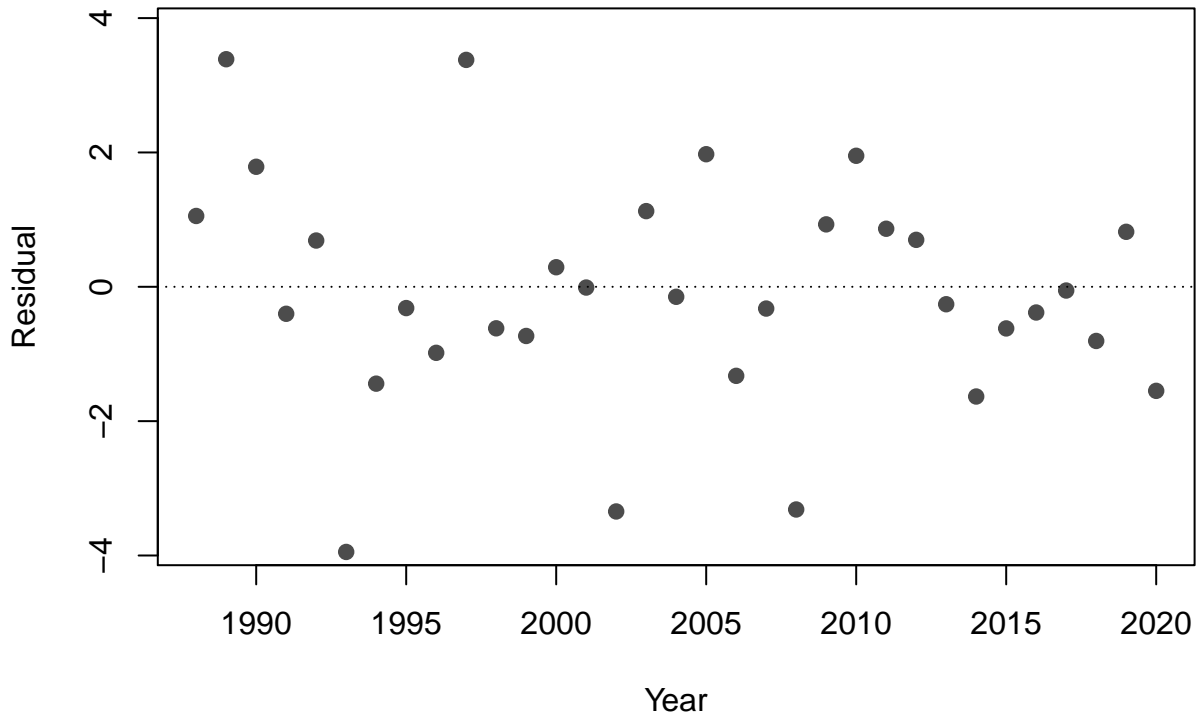
1.2

1.4

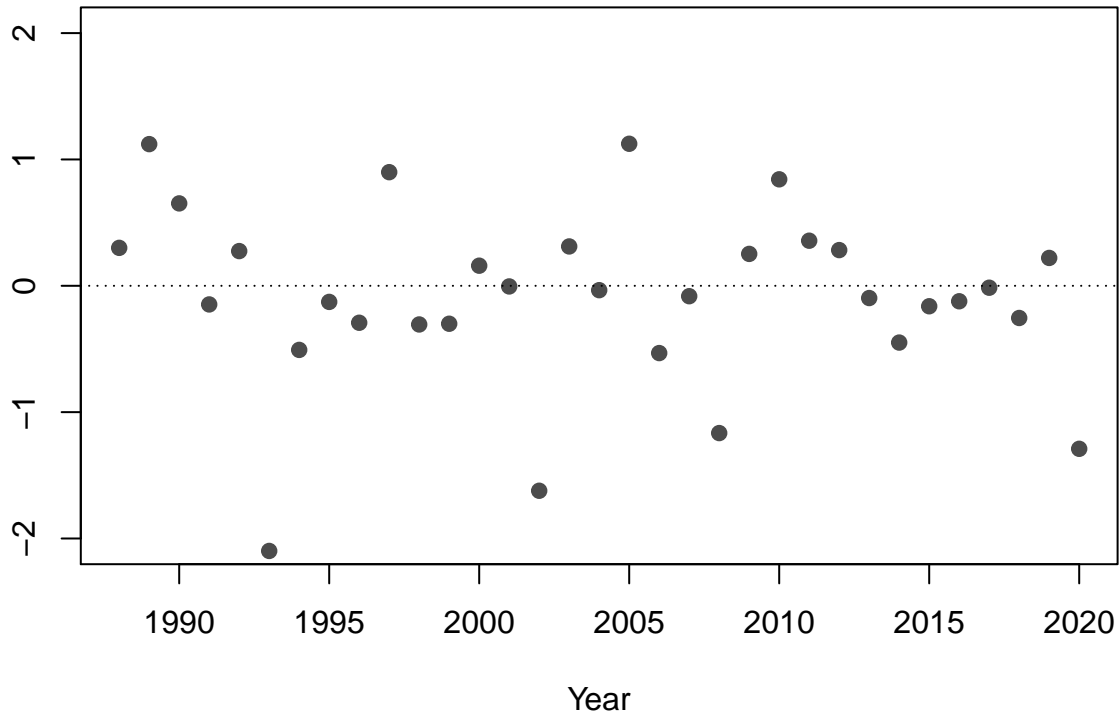
1.6

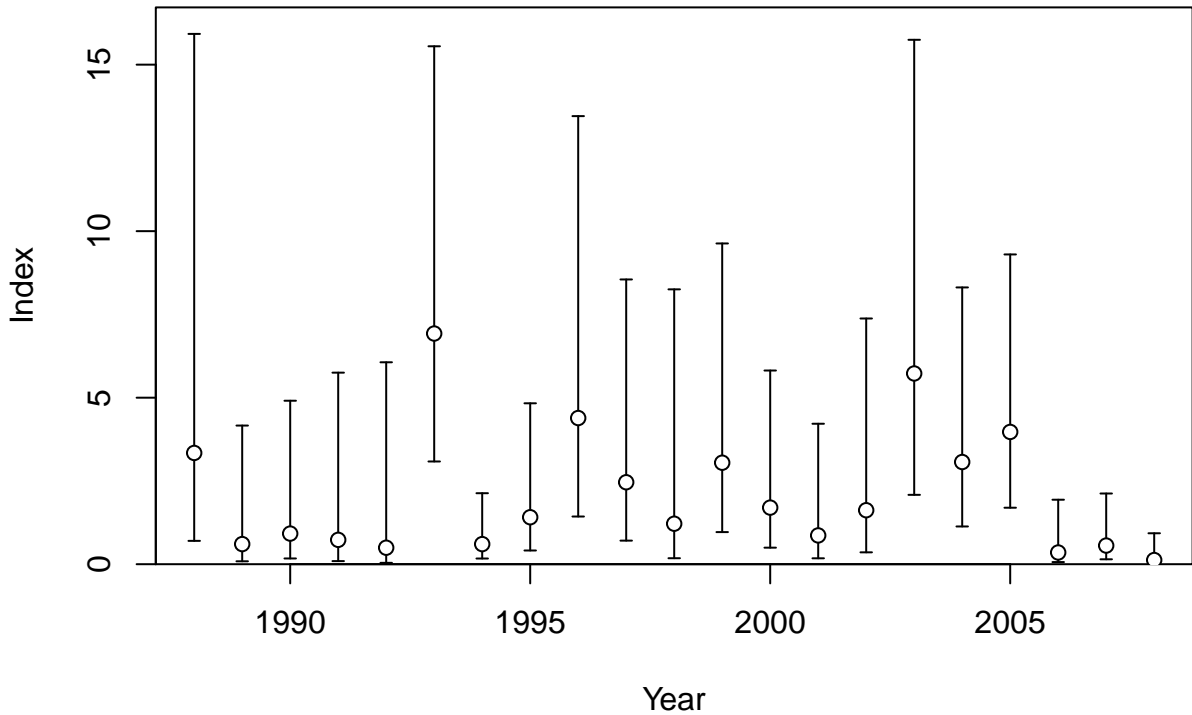
Vulnerable biomass



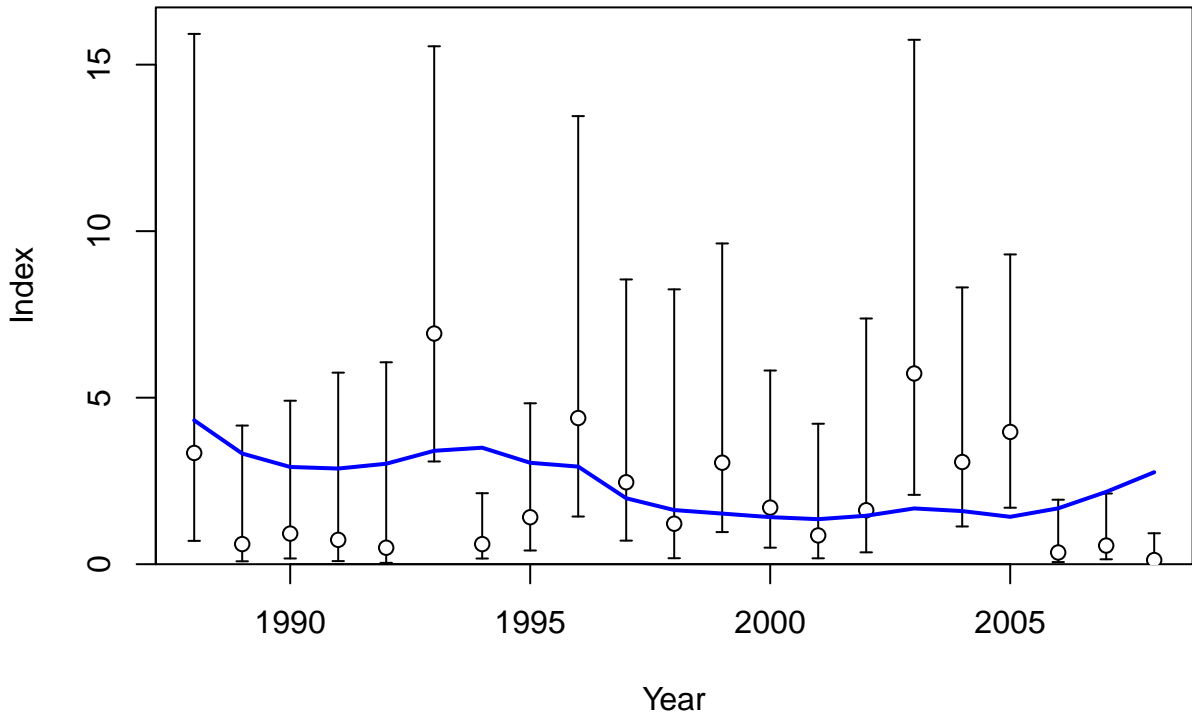


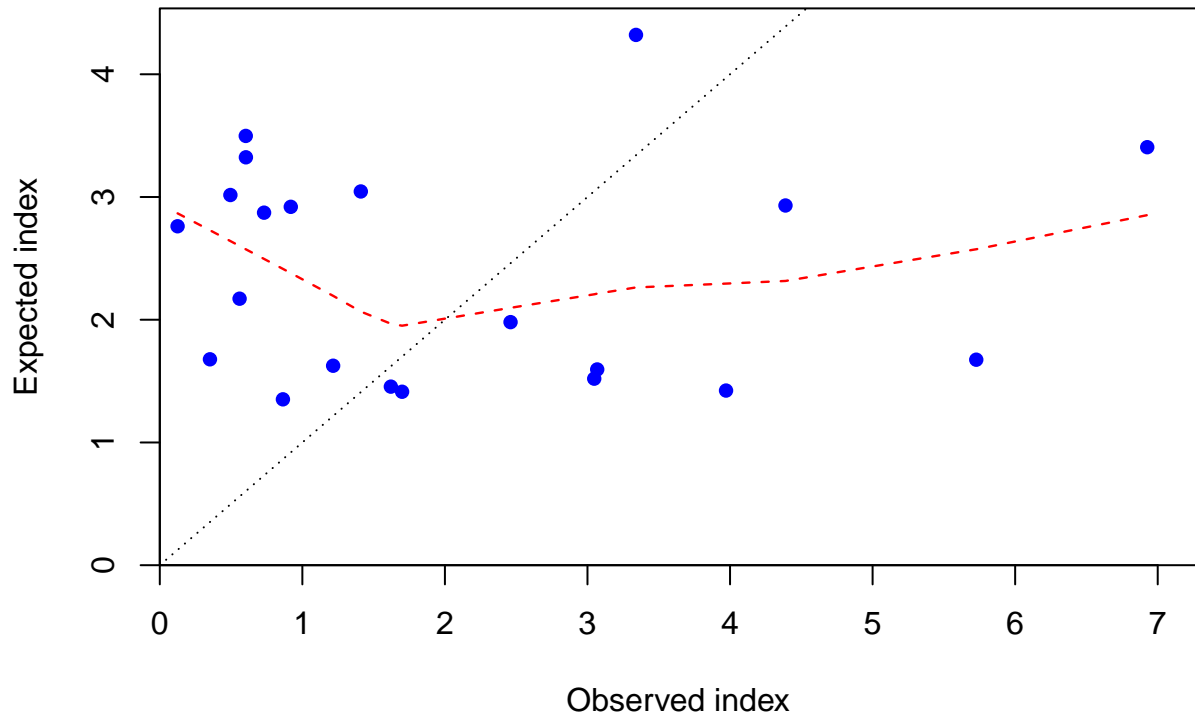
Deviation



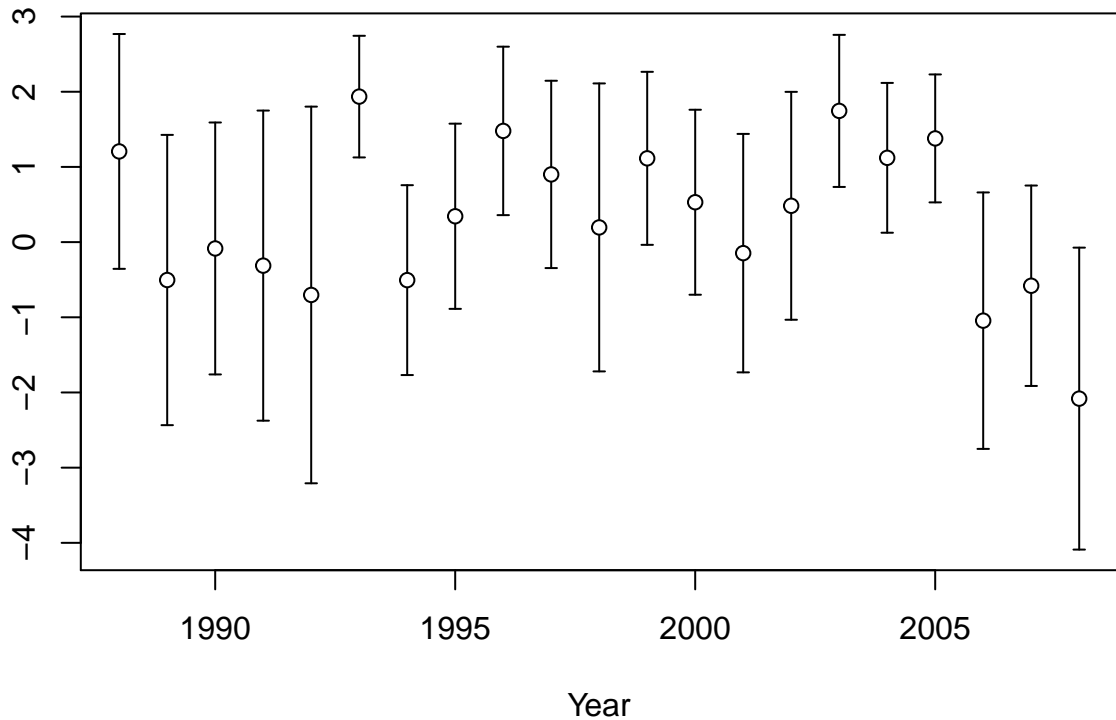




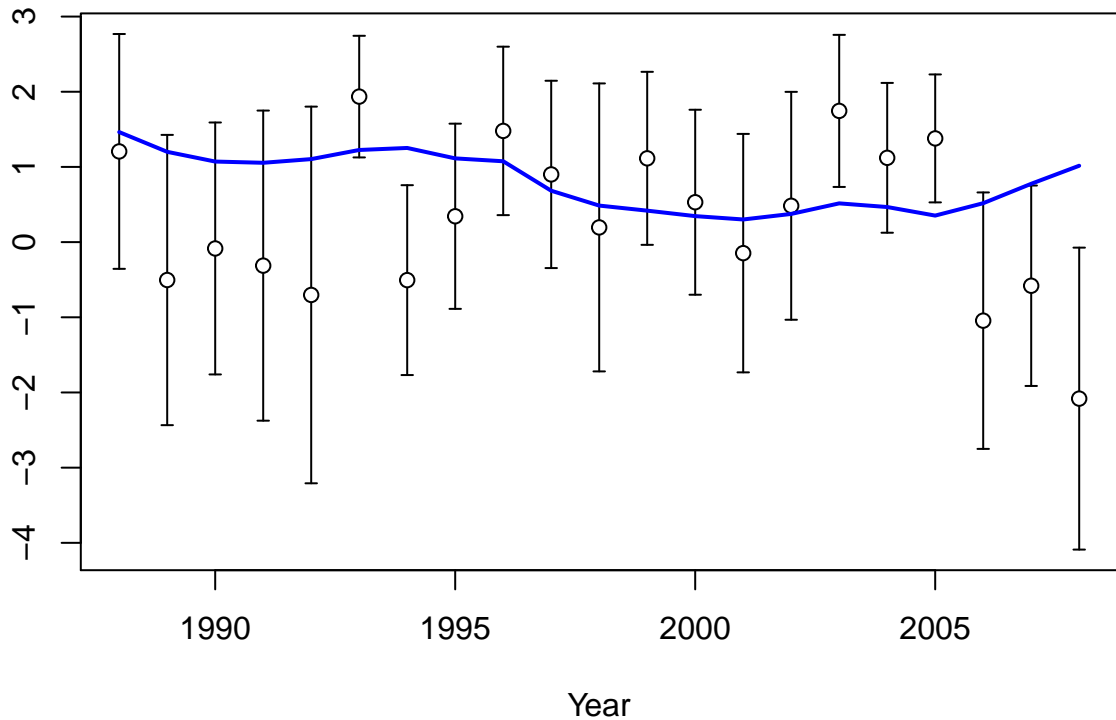


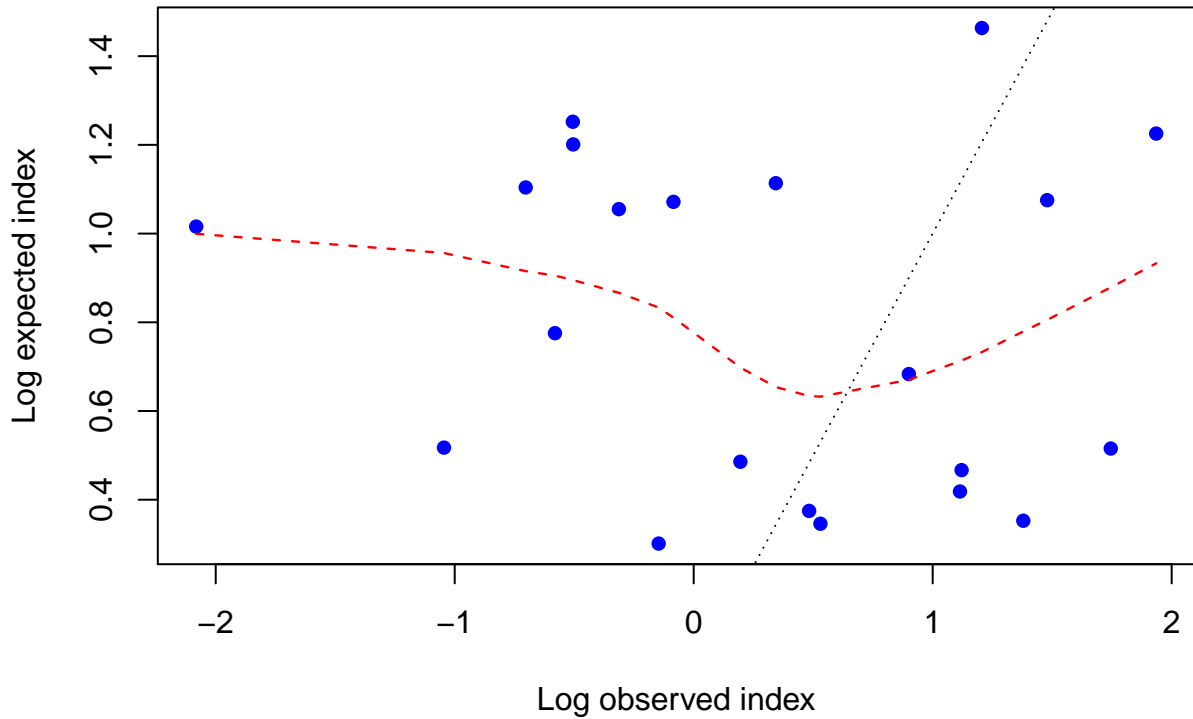


Log index



Log index





Effective catchability

2.868888  
2.868884  
2.868880

0.6

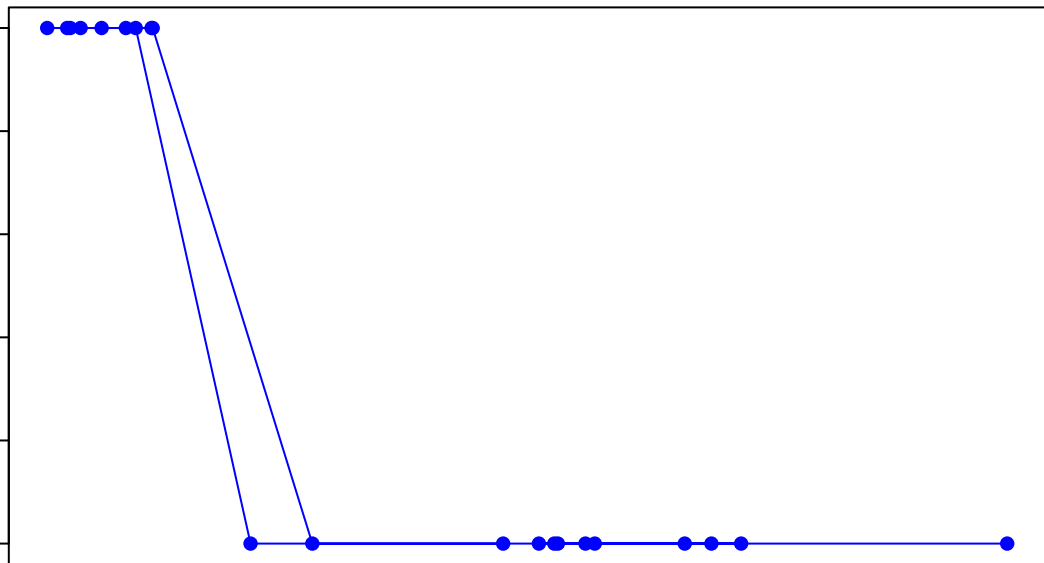
0.8

1.0

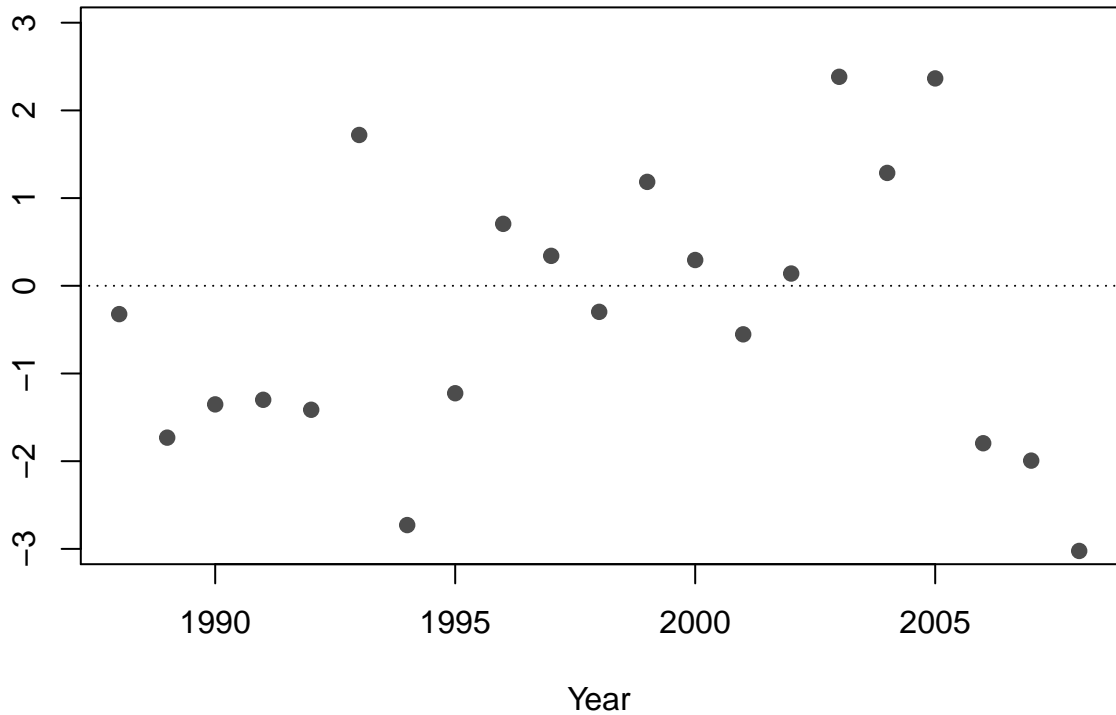
1.2

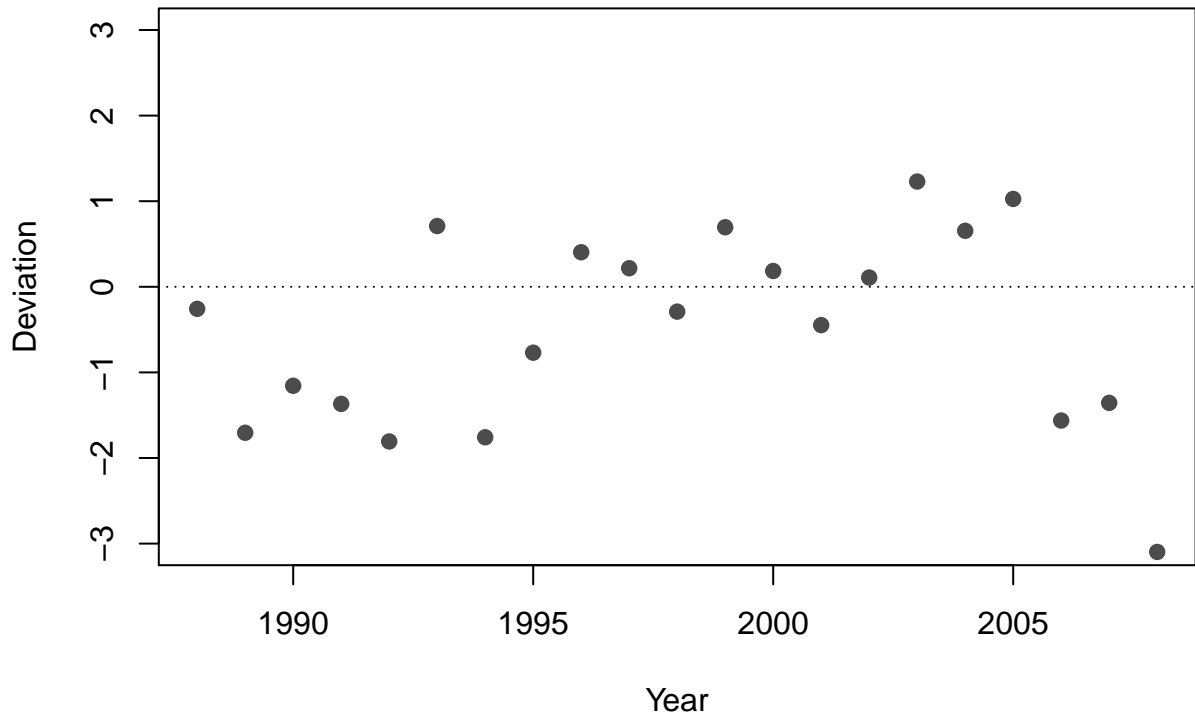
1.4

Vulnerable biomass

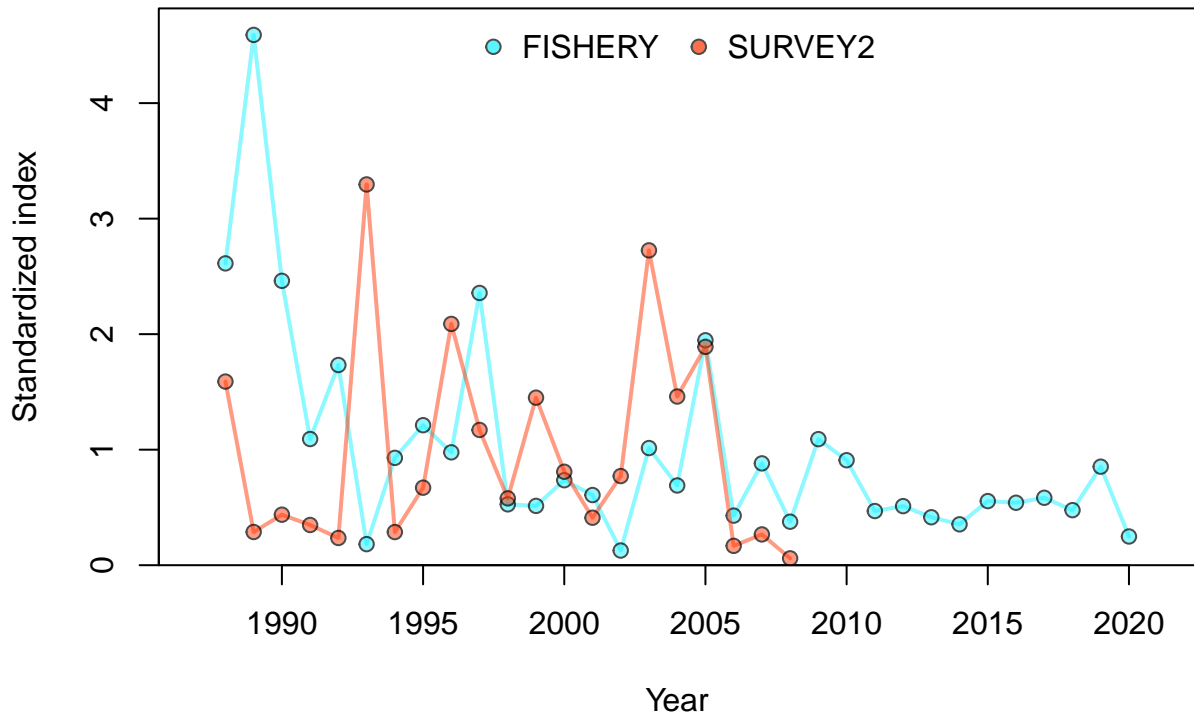


Residual

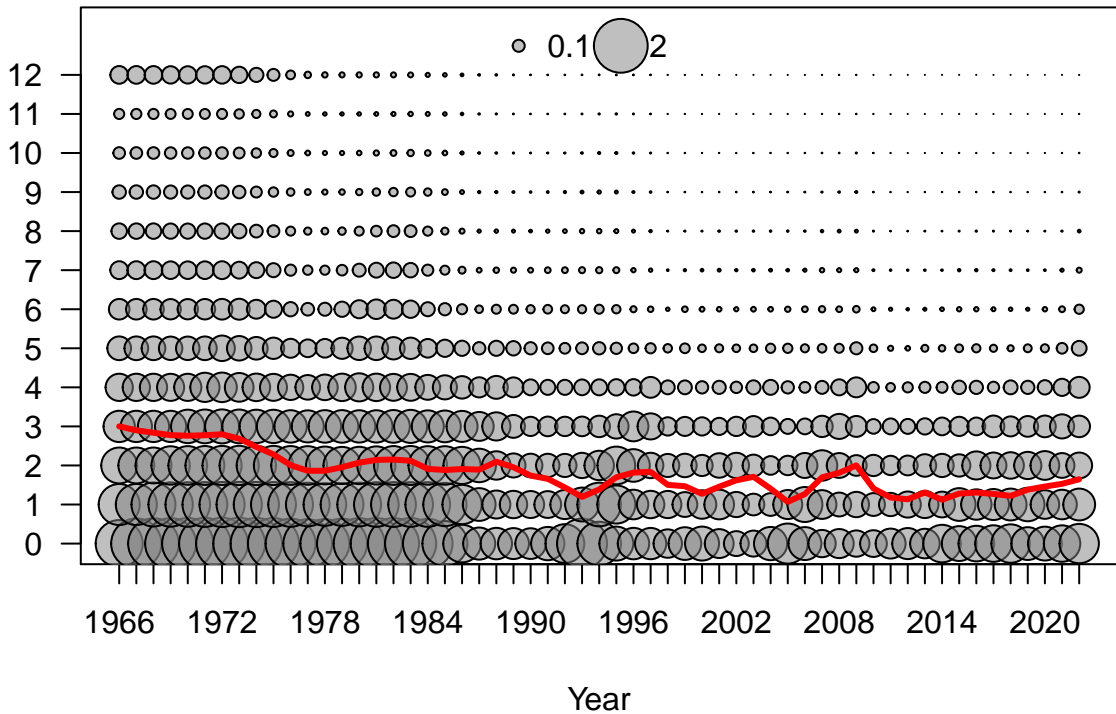




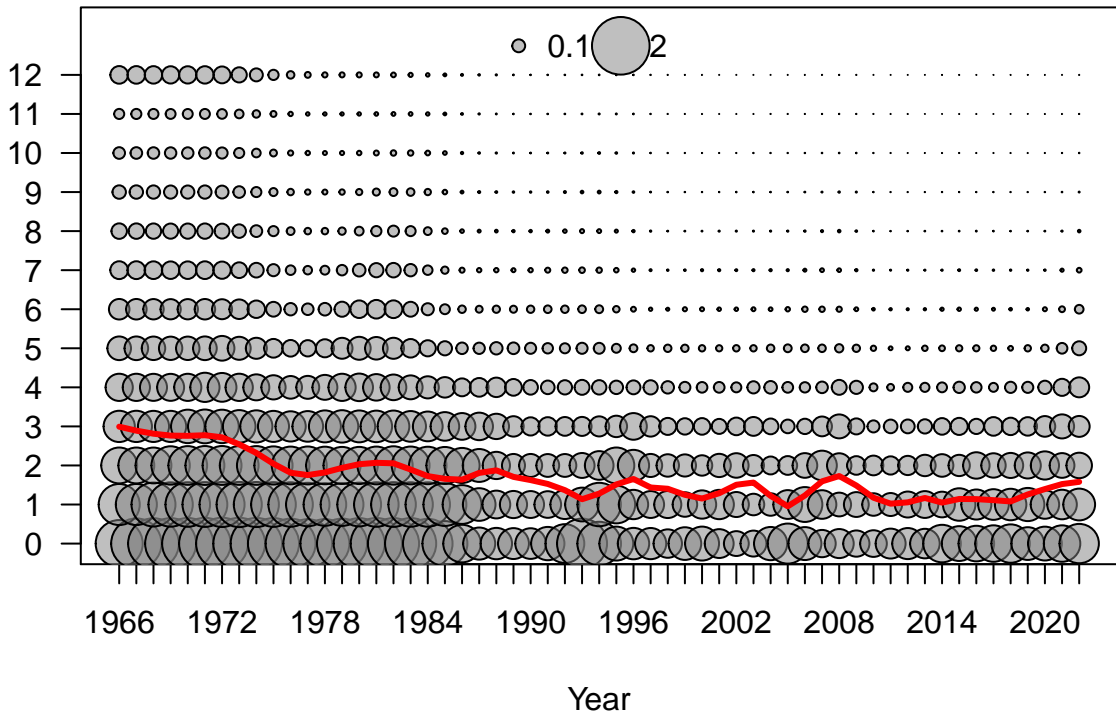


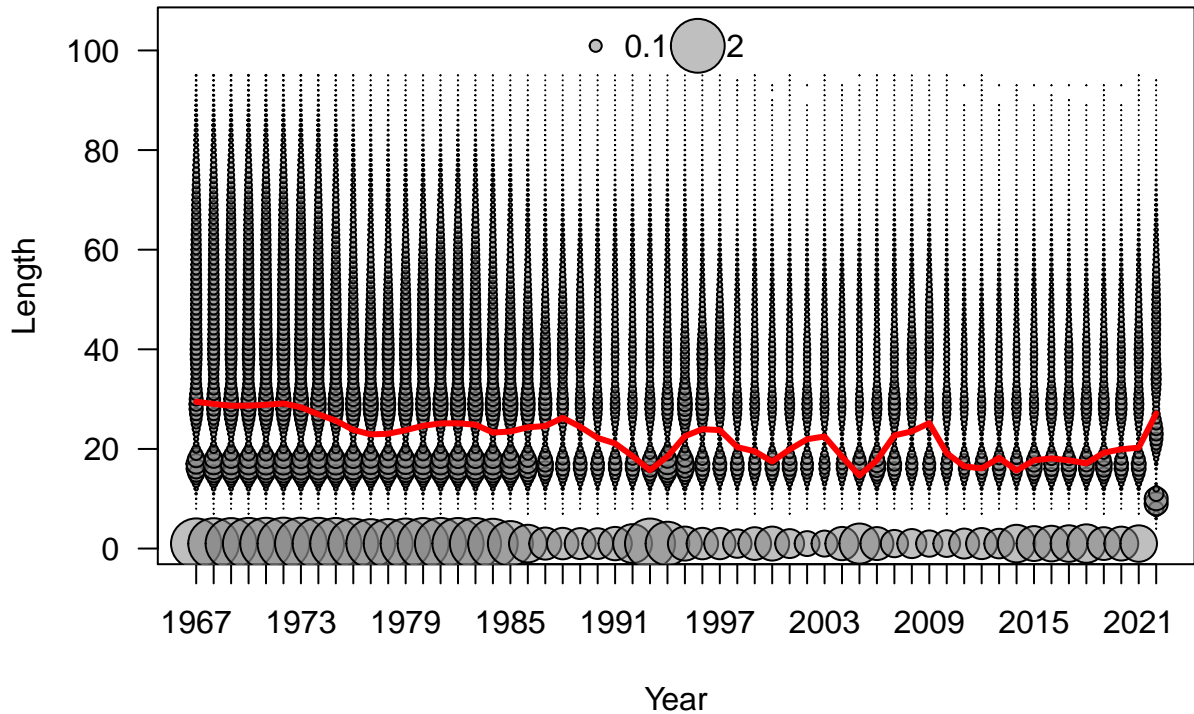


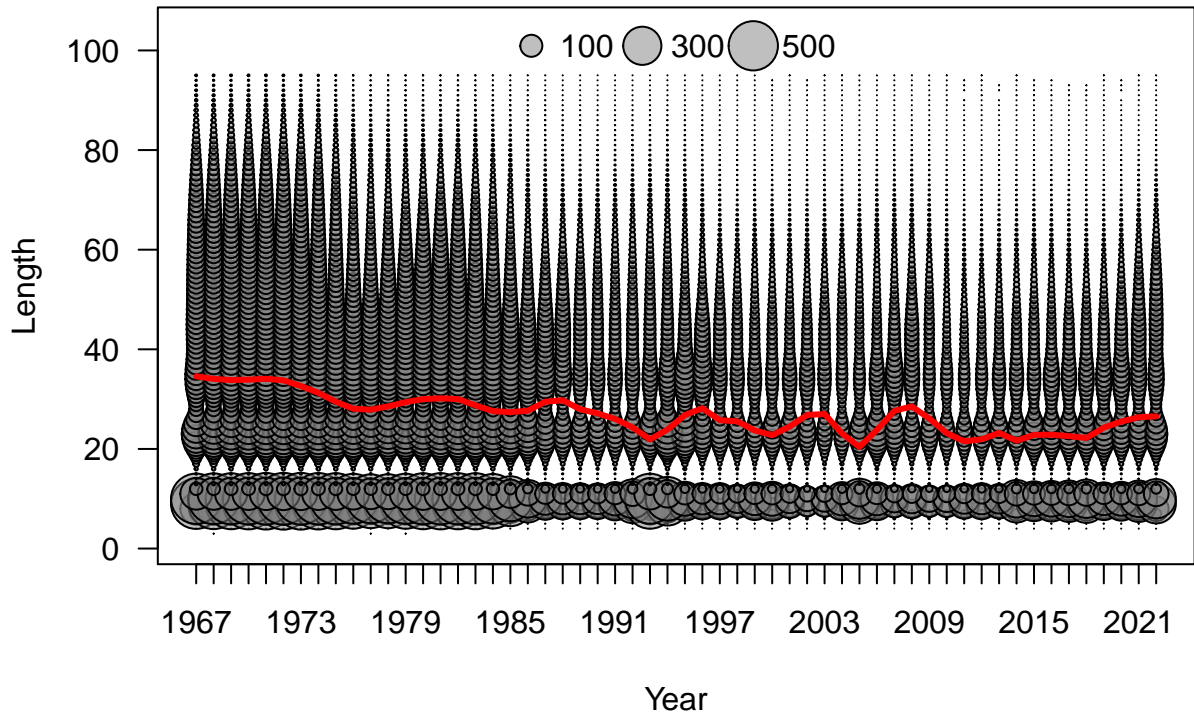
Age

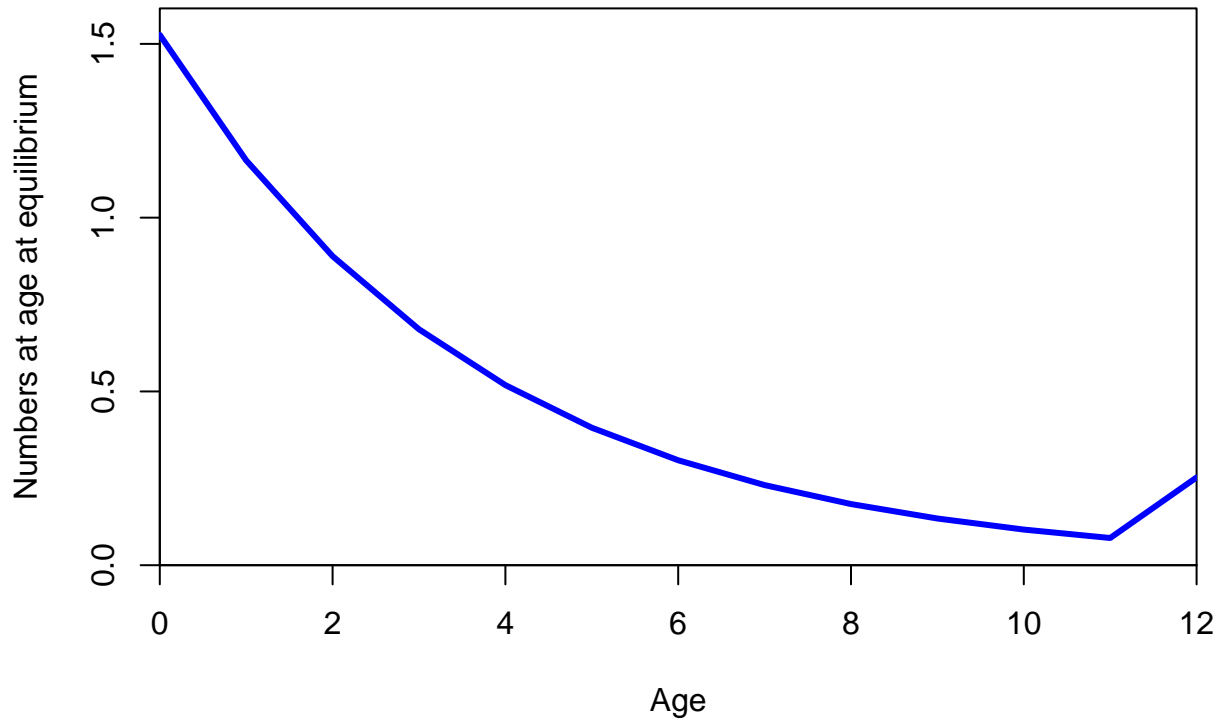


Age



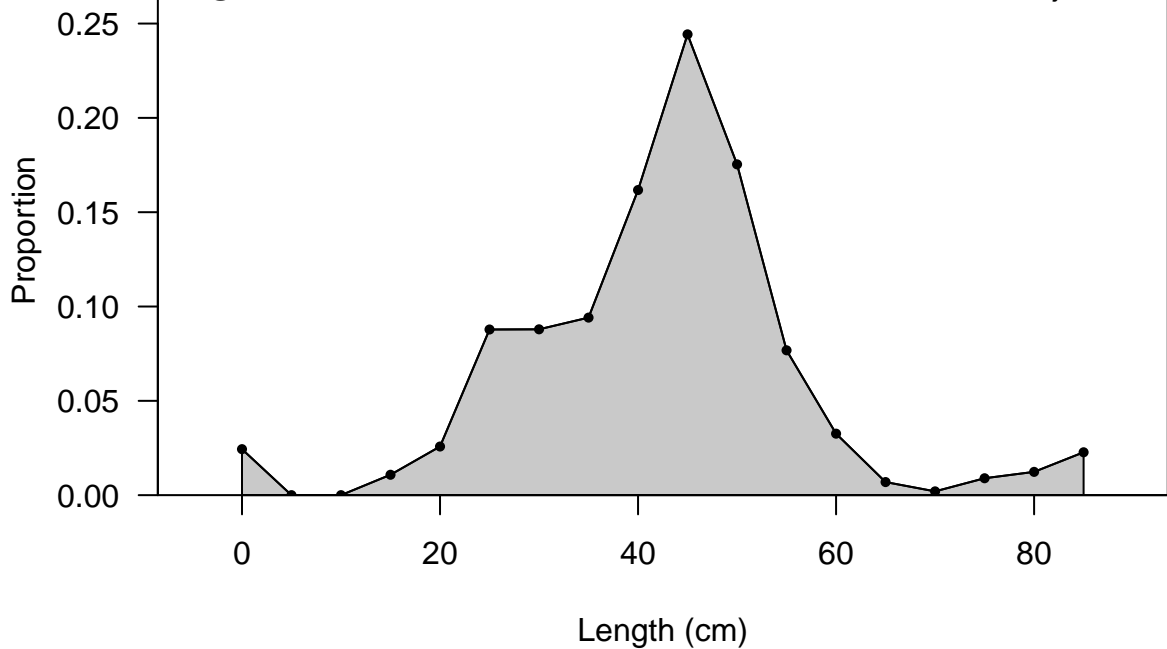


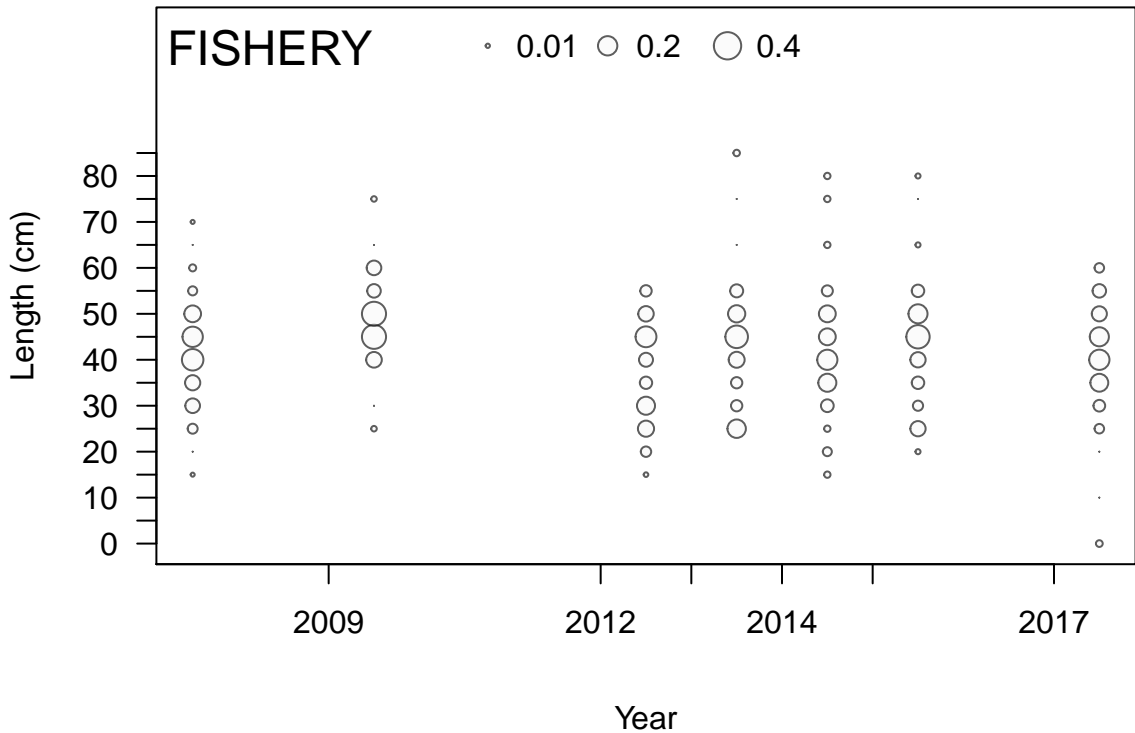




# FISHERY

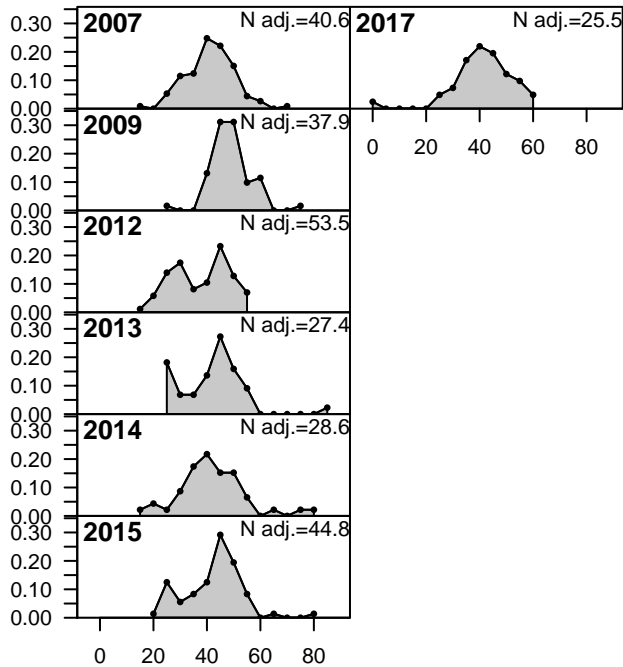
Sum of N adj.=258.1



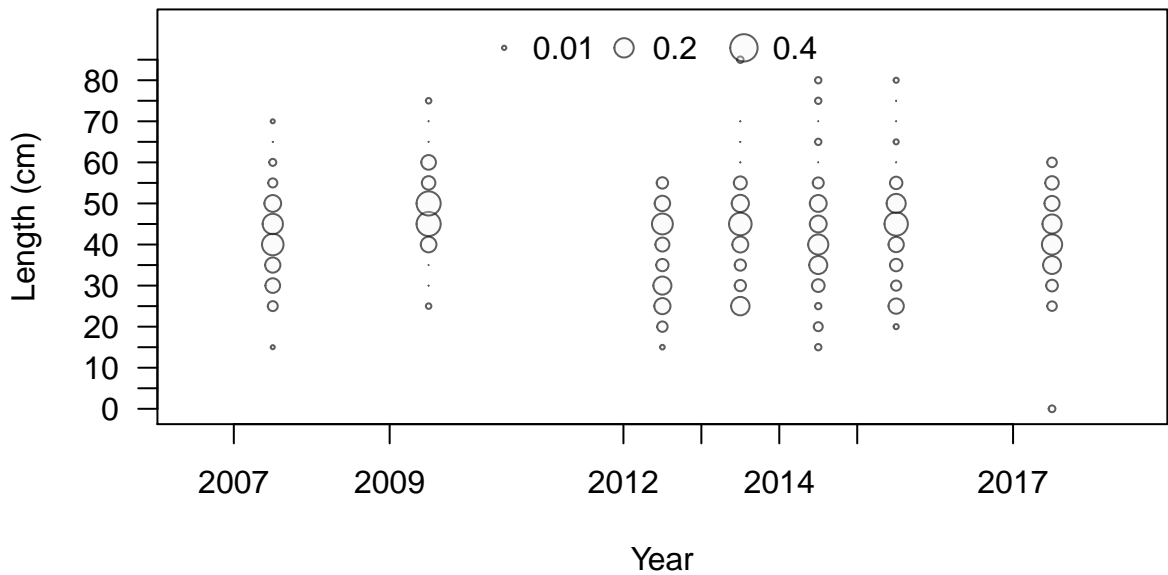




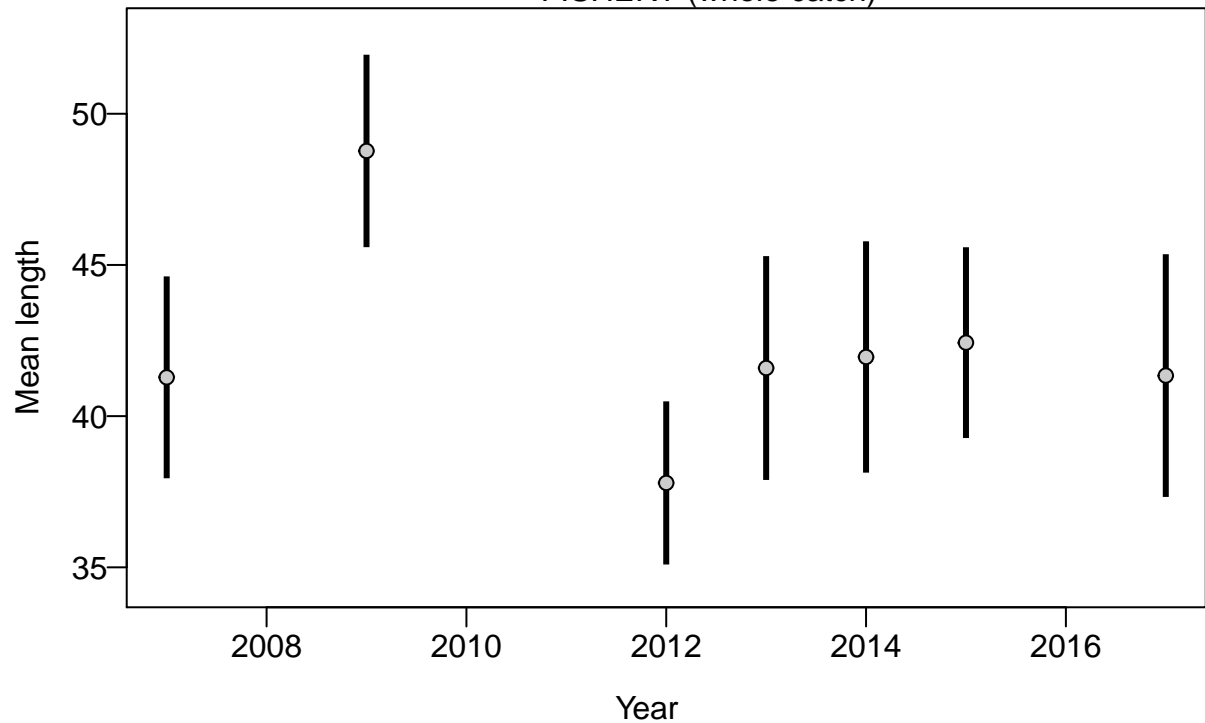
Proportion



Length (cm)

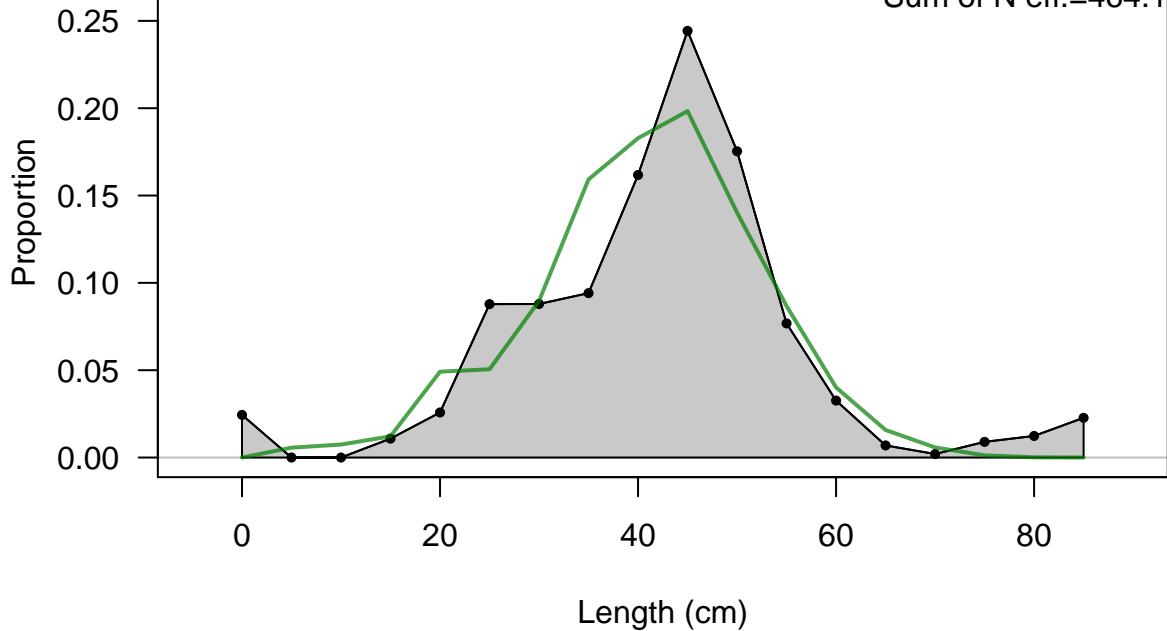


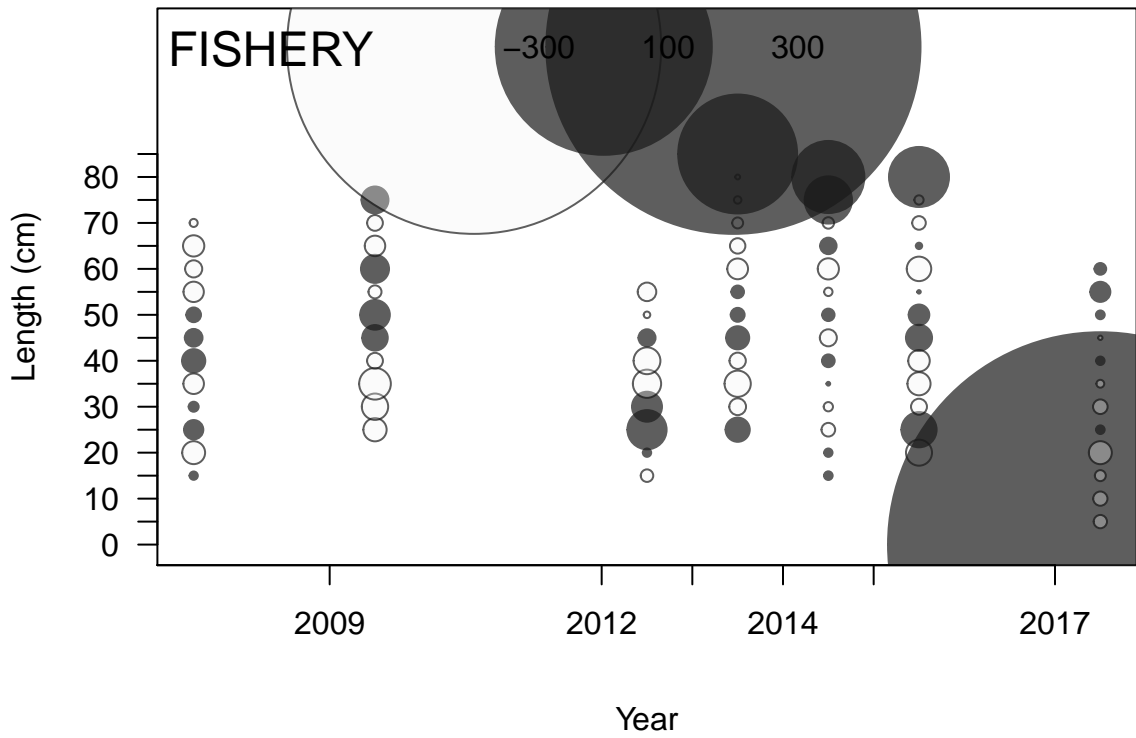
FISHERY (whole catch)



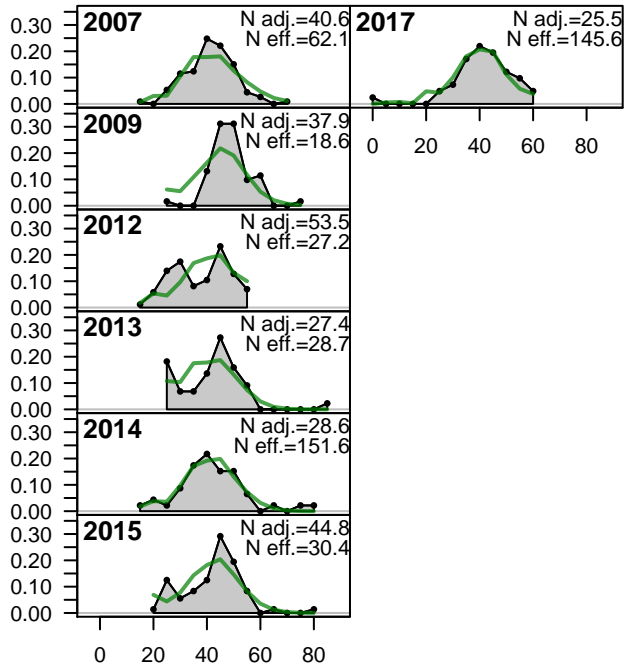
# FISHERY

Sum of N adj.=258.1  
Sum of N eff.=464.1

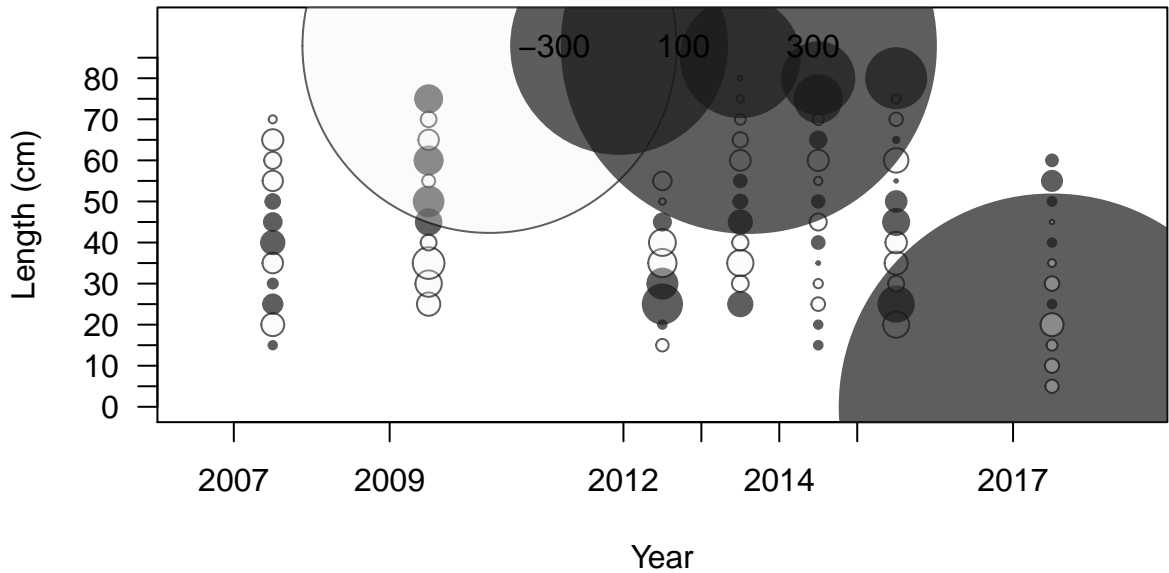




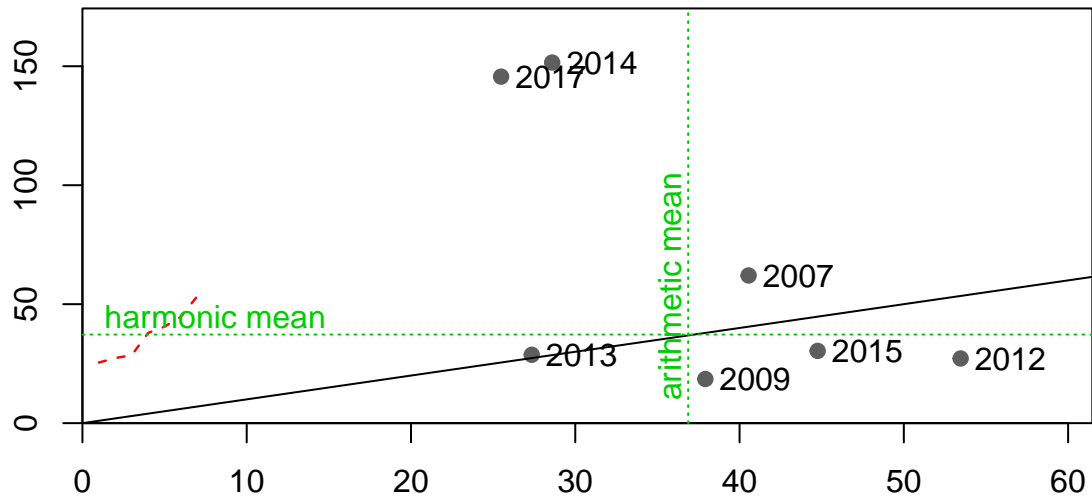
Proportion



Length (cm)



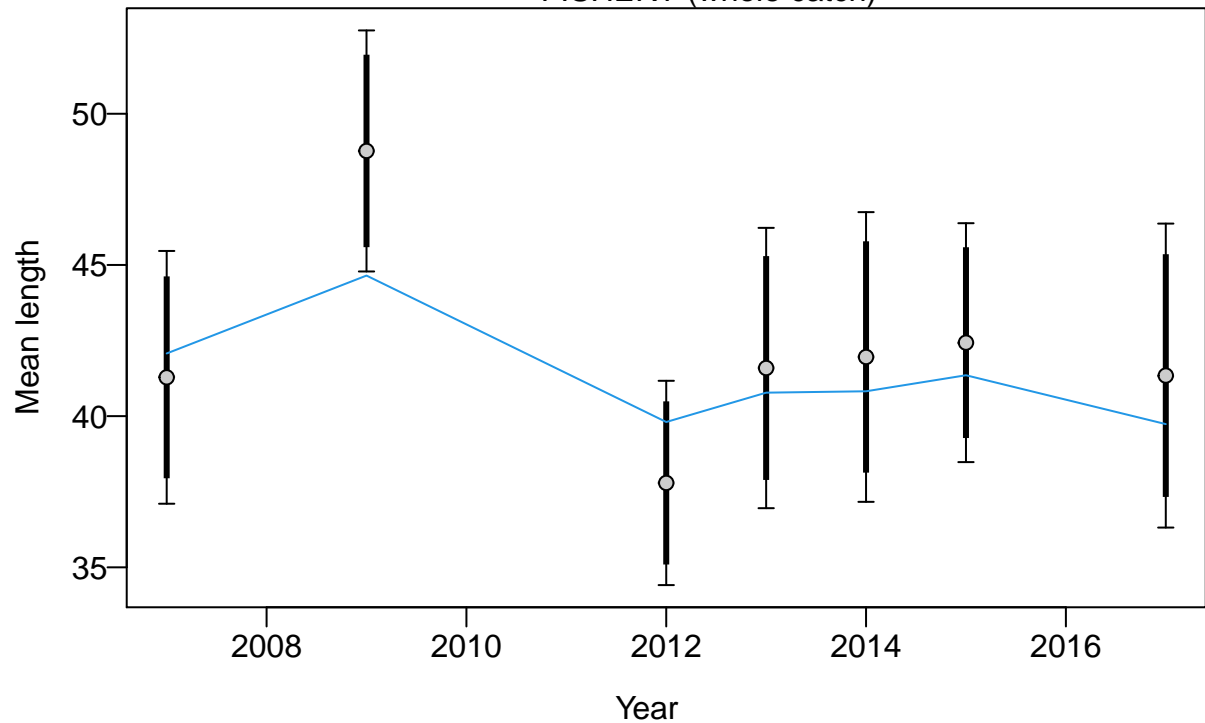
Effective sample size

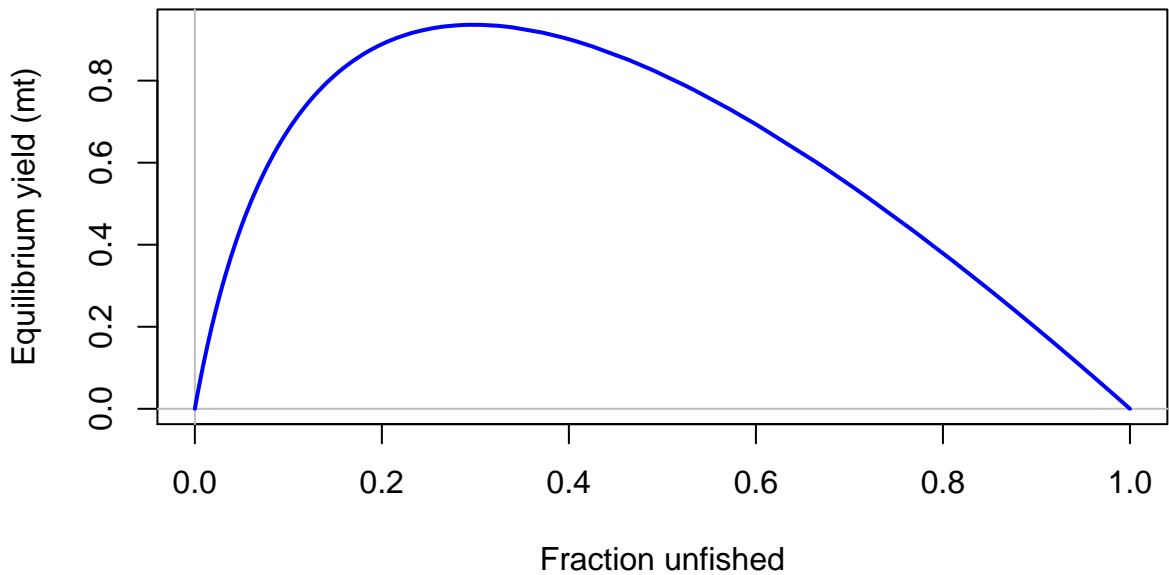


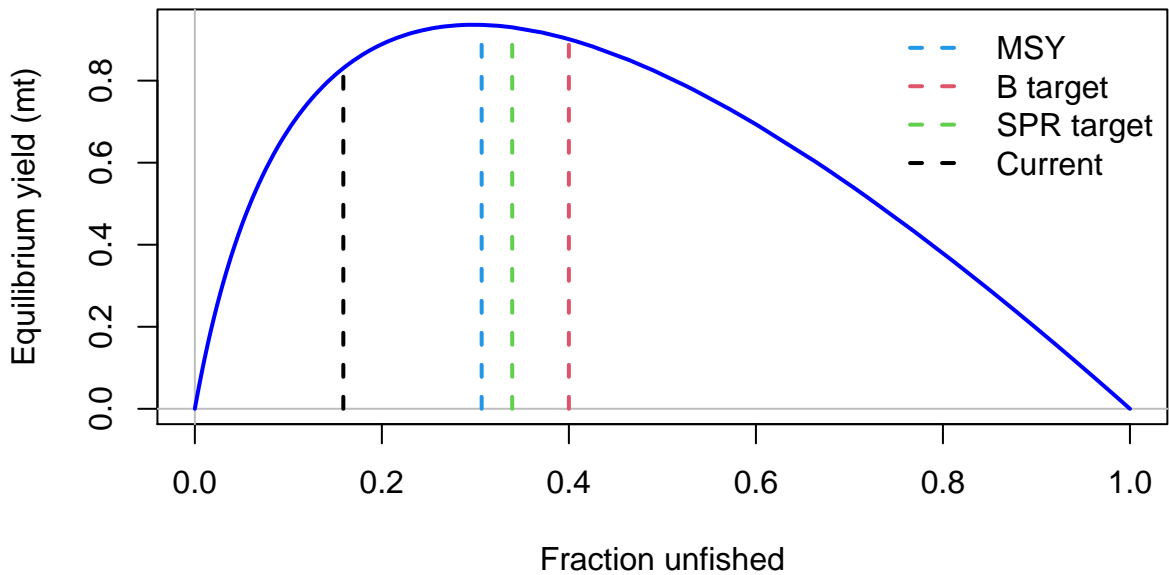
Observed sample size

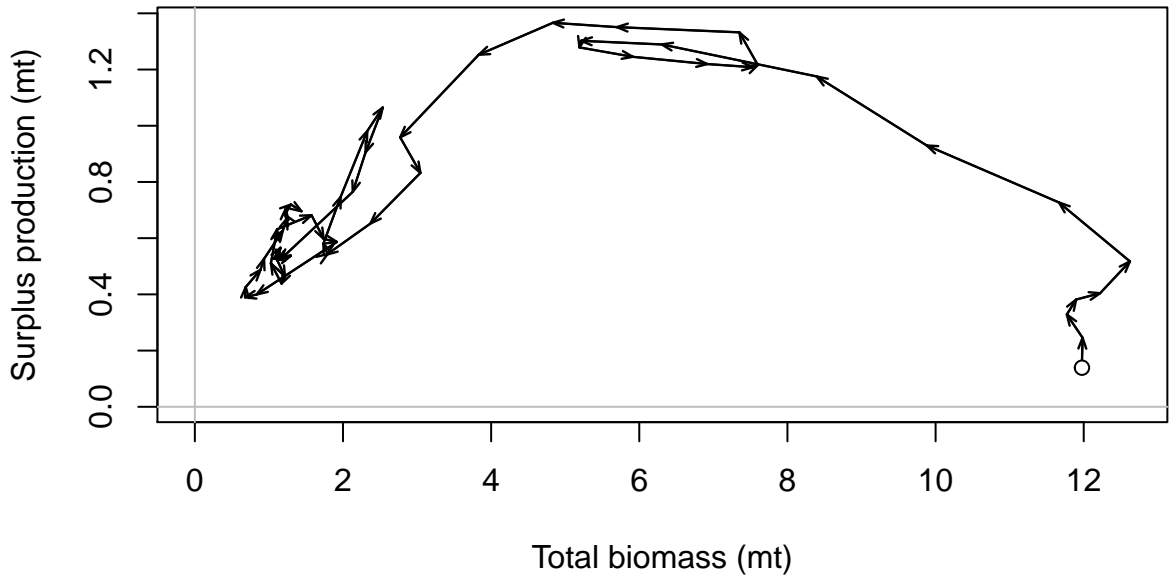


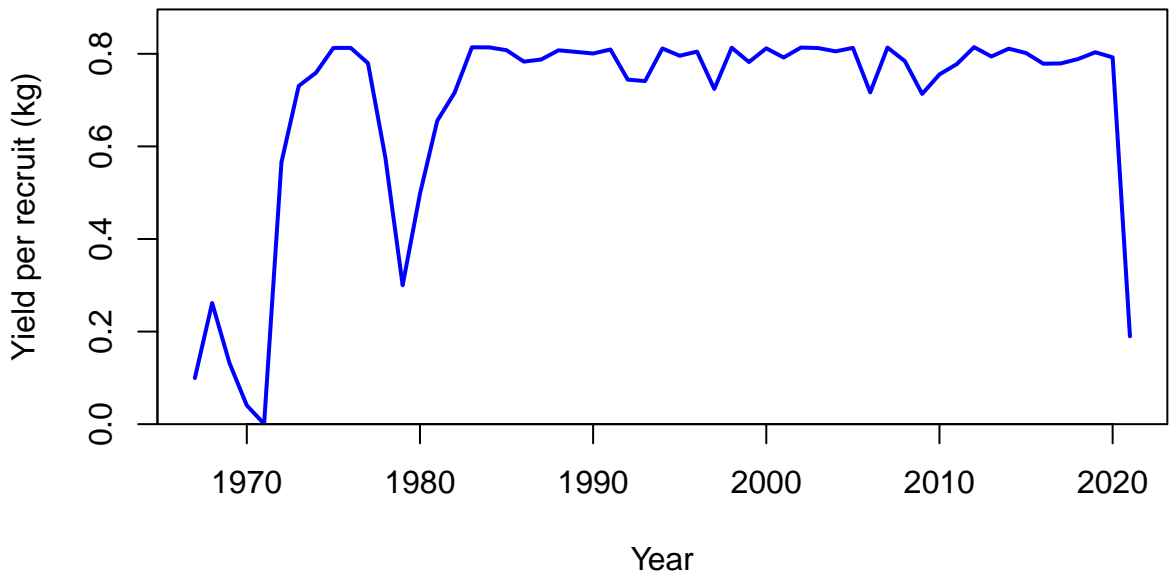
FISHERY (whole catch)

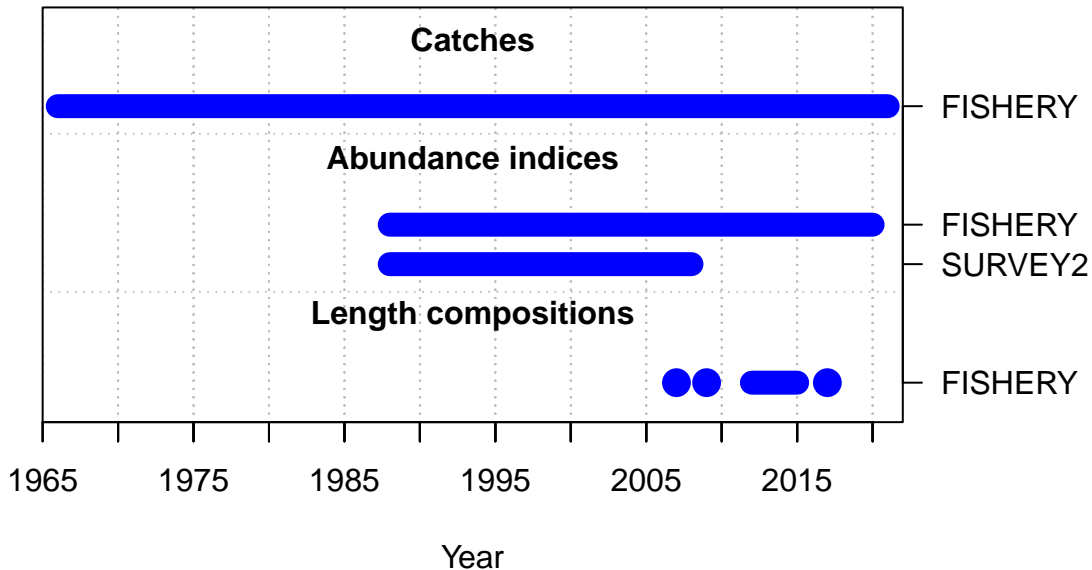


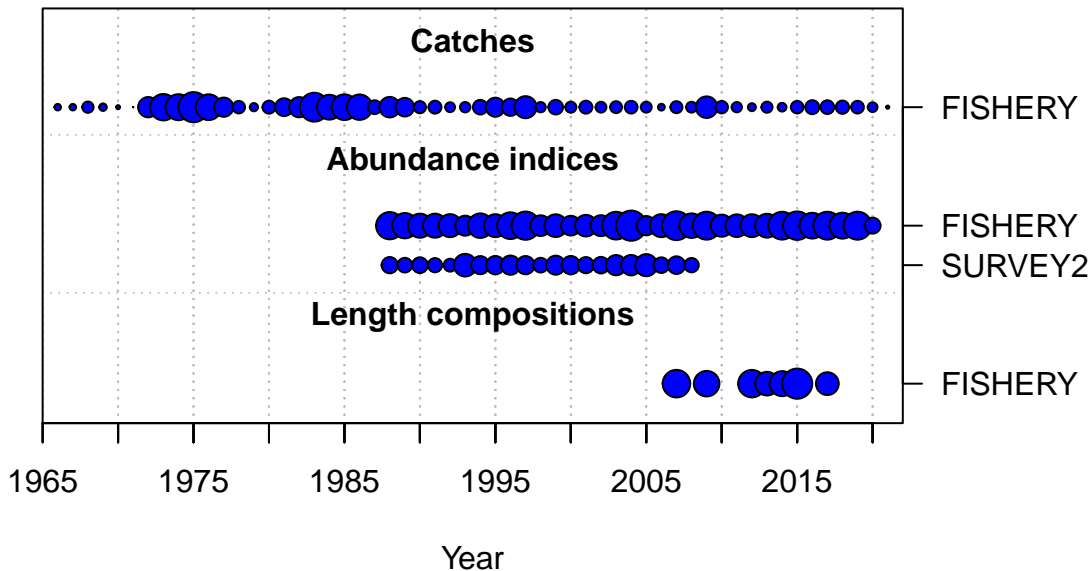






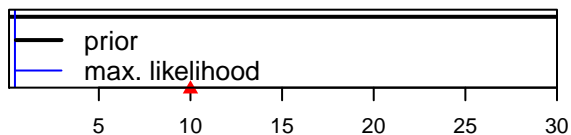




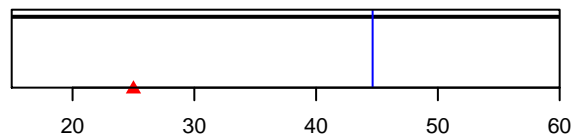


Density

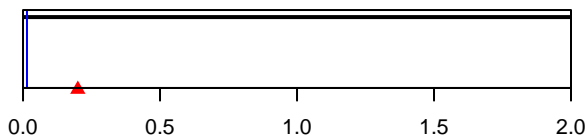
SR\_LN(R0)



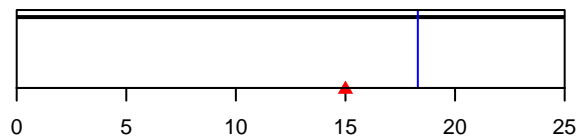
Size\_inflection\_FISHERY(1)



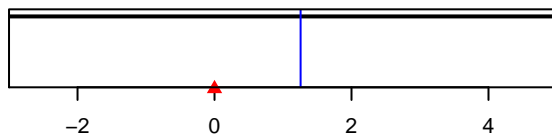
InitF\_seas\_1\_flt\_1FISHERY



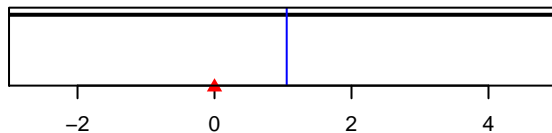
Size\_95%width\_FISHERY(1)



LnQ\_base\_FISHERY(1)



LnQ\_base\_SURVEY2(2)



Parameter value