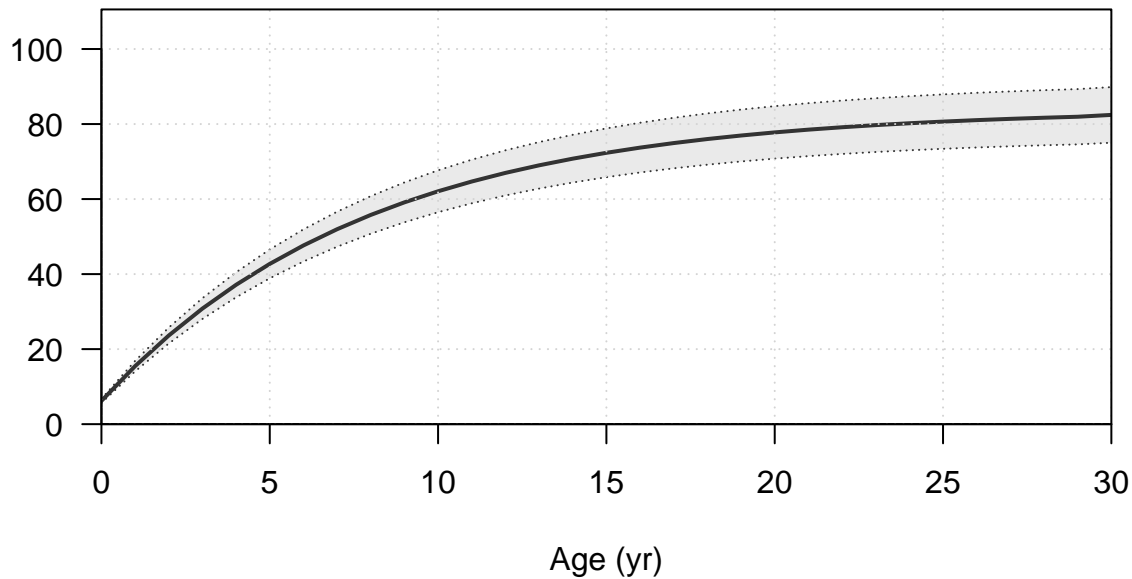
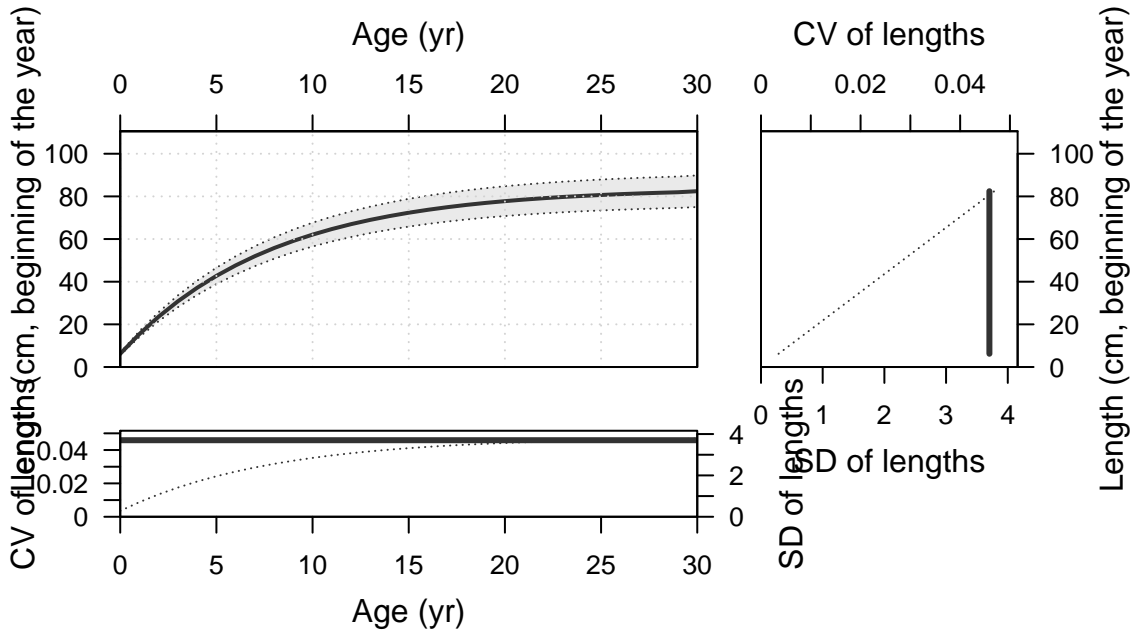
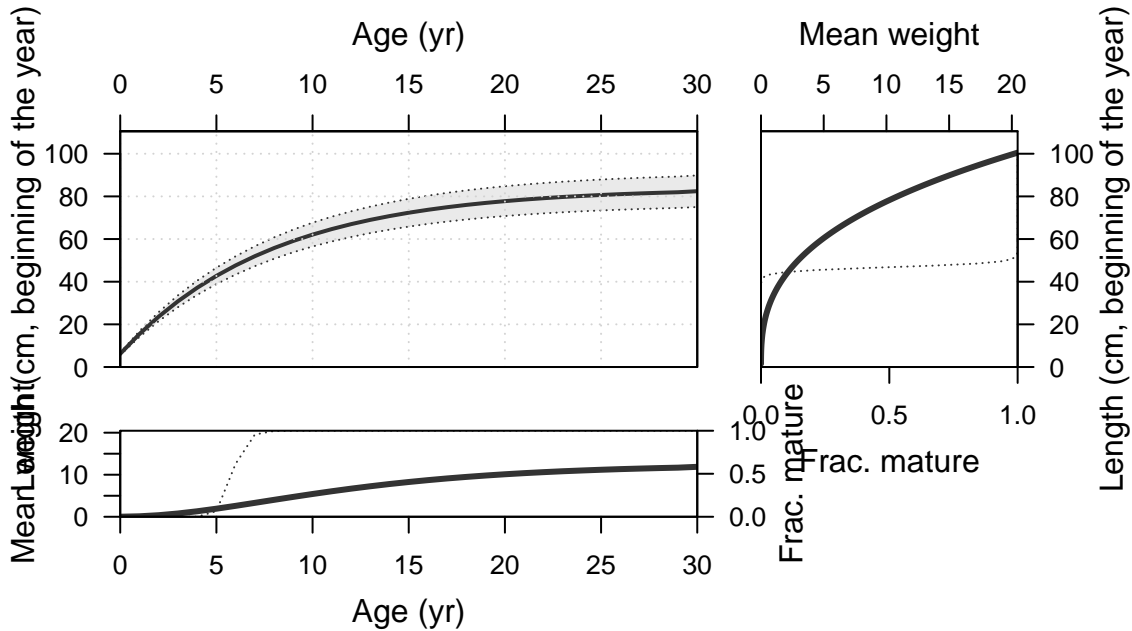


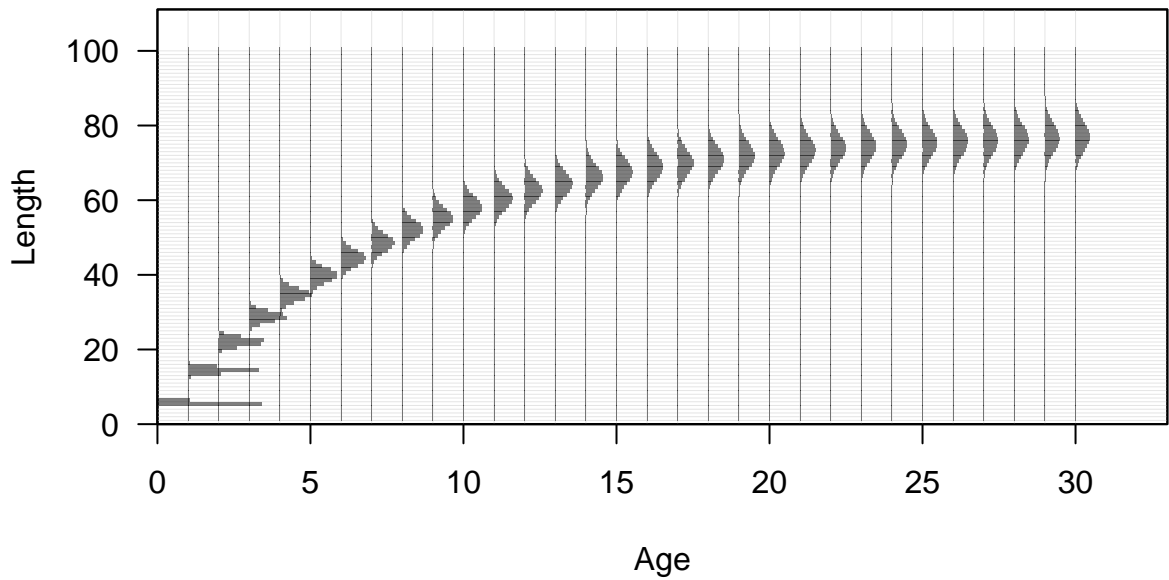
Plots created using the 'r4ss' package in R
Stock Synthesis version: 3.30.19.0
StartTime: Thu Aug 11 11:33:53 2022
Data_File: data.ss
Control_File: control.ss

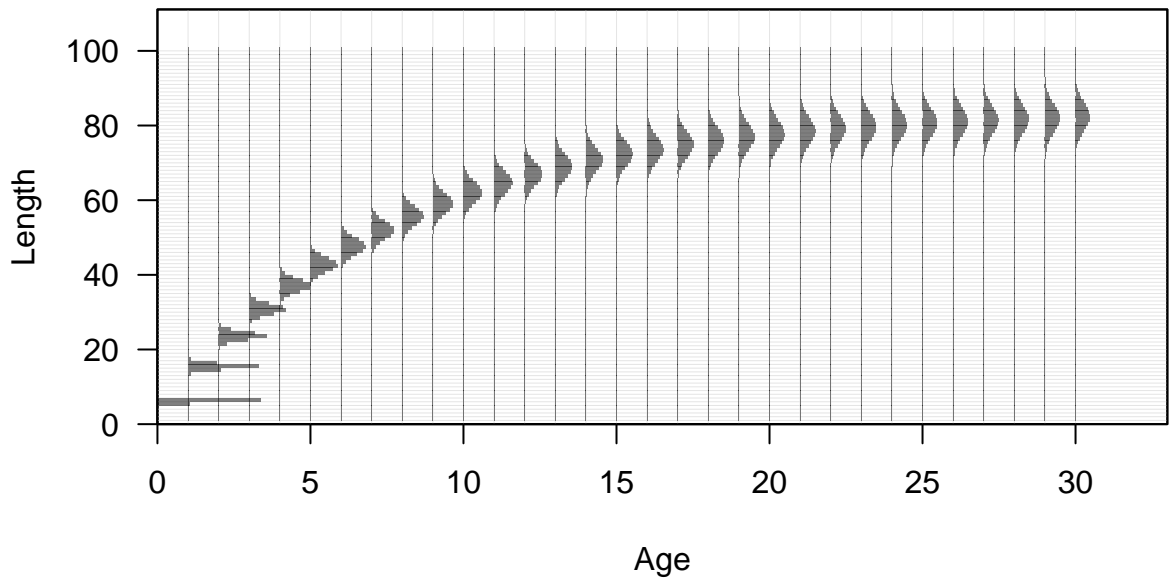
Length (cm, beginning of the year)

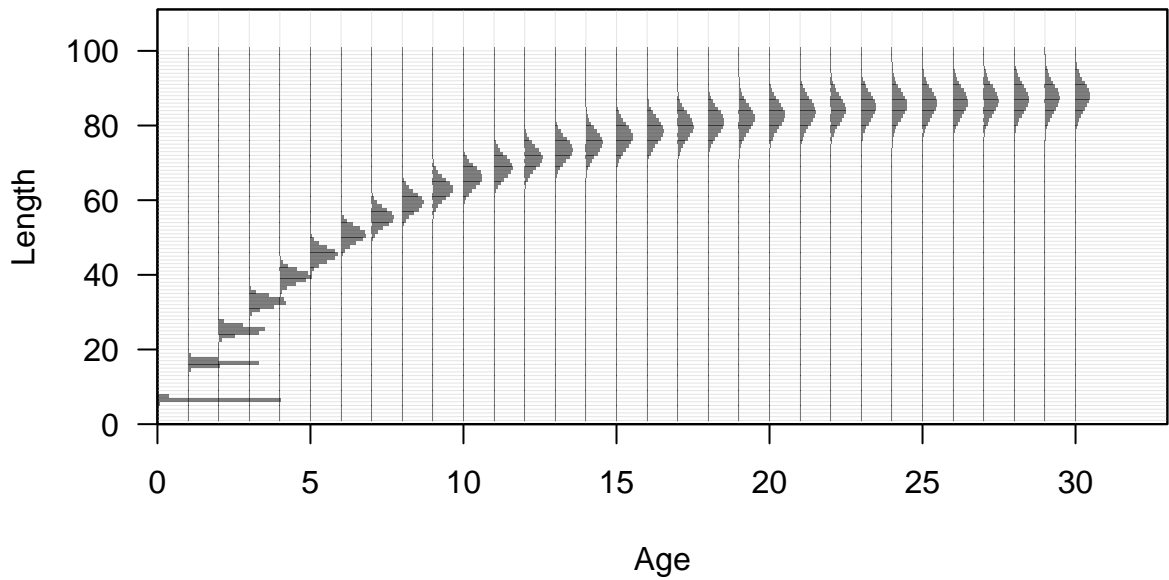


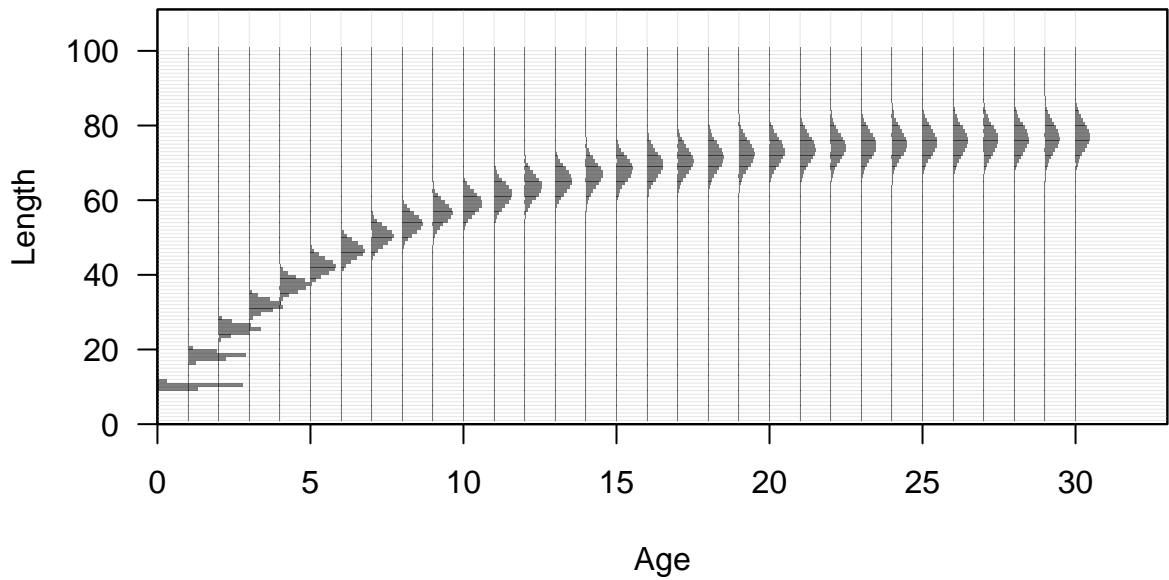


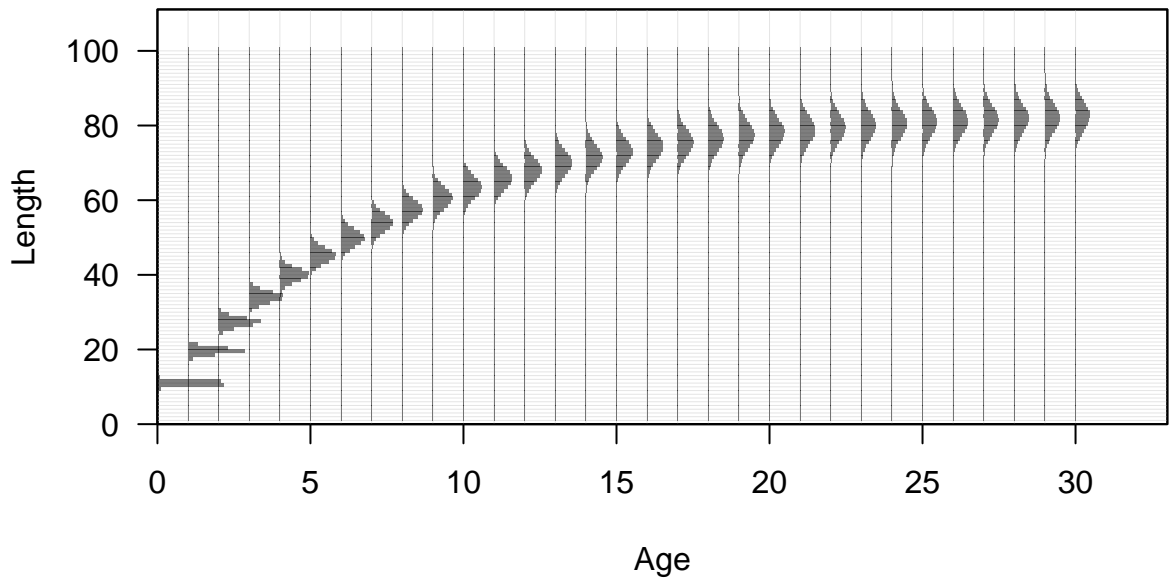


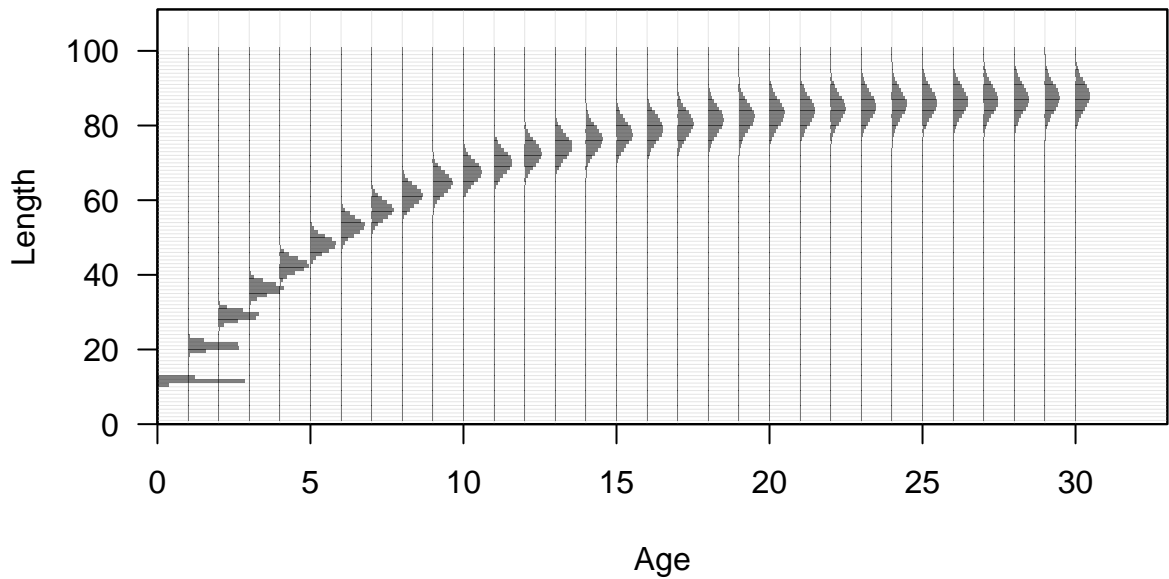


















Fecundity



Fecundity

20

15

10

5

0

0

20

40

60

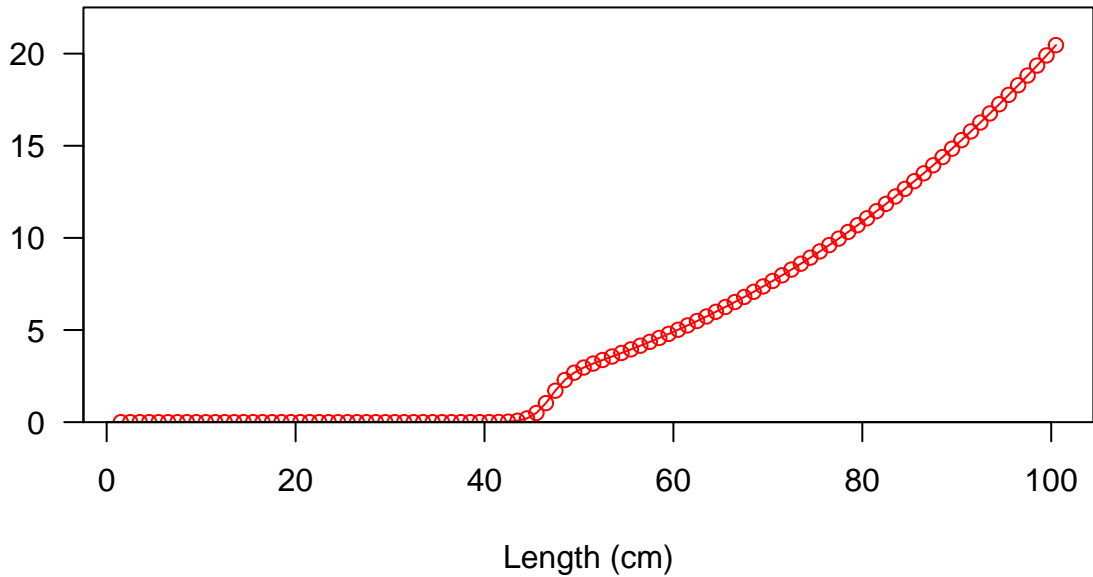
80

100

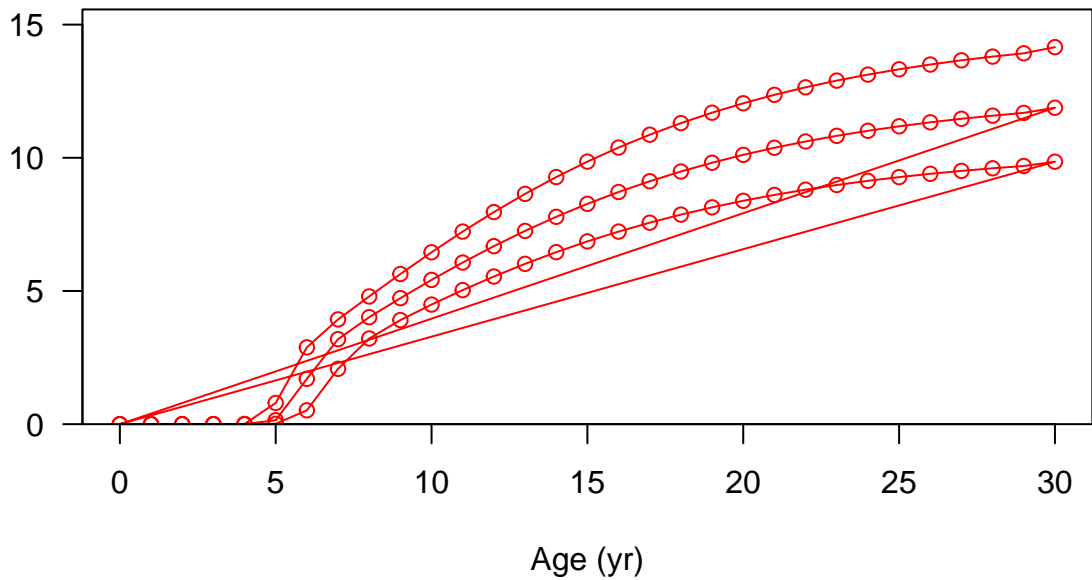
Female length (cm)



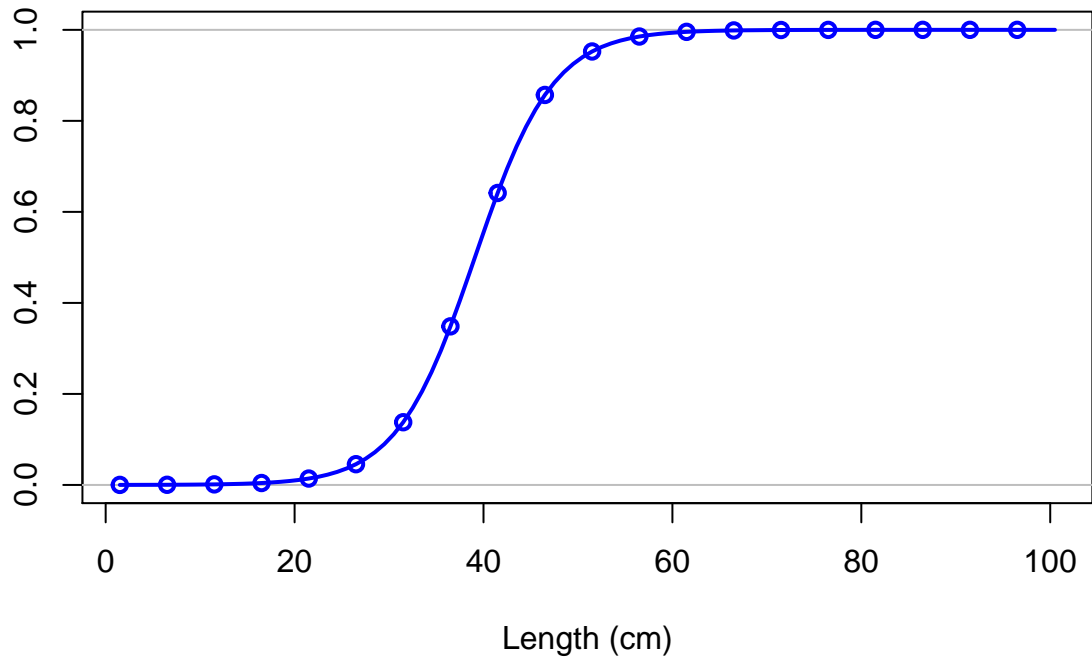
Spawning output



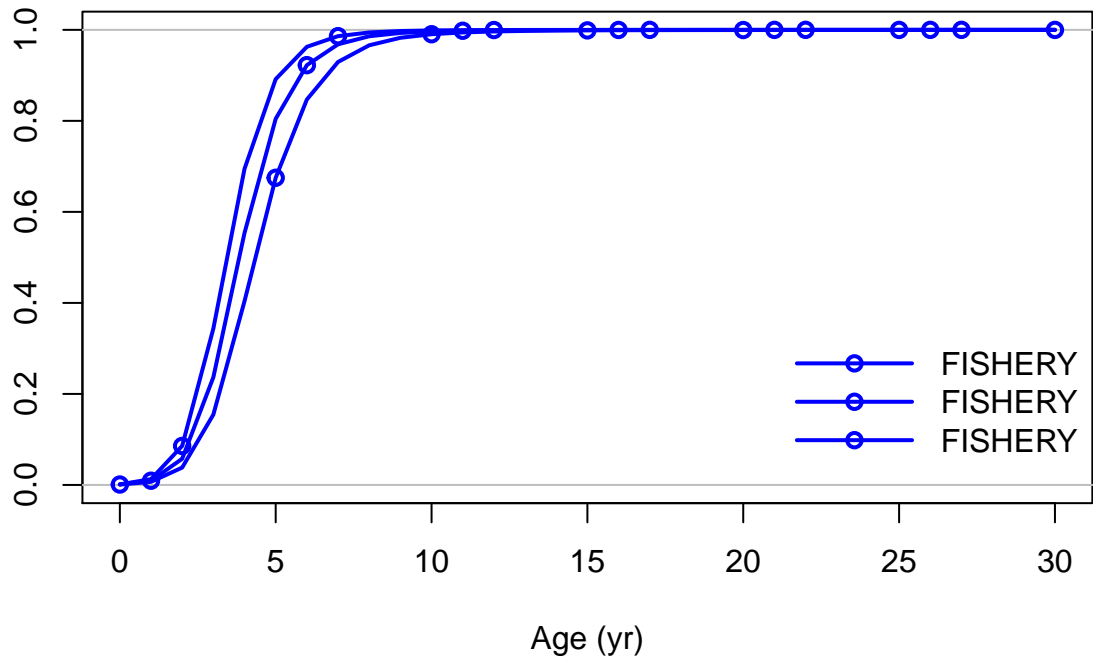
Spawning output



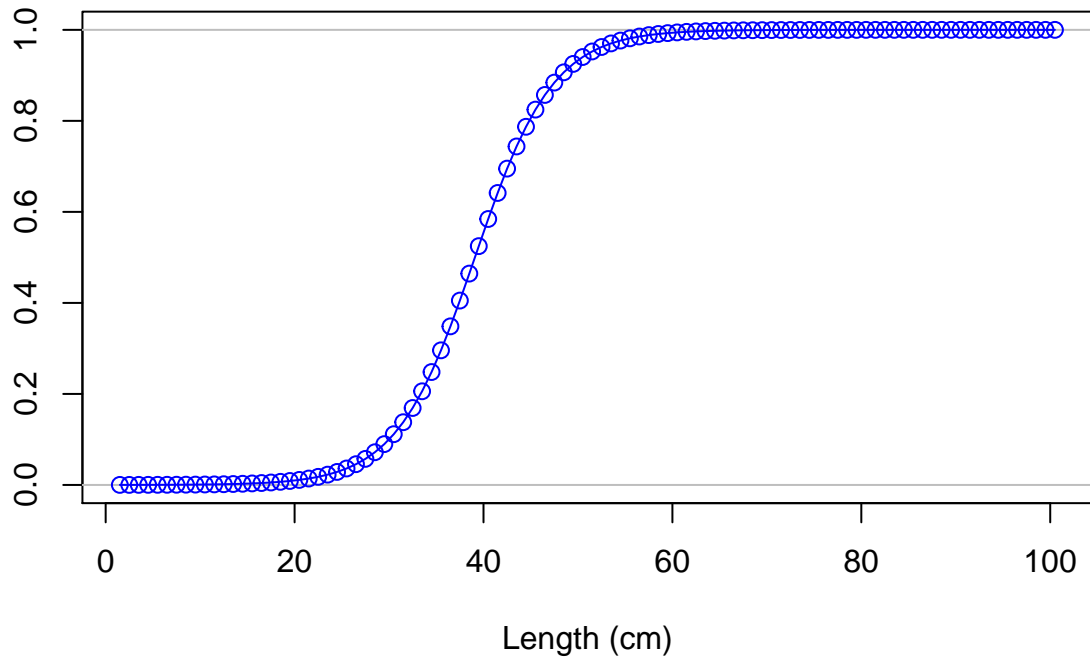
Selectivity

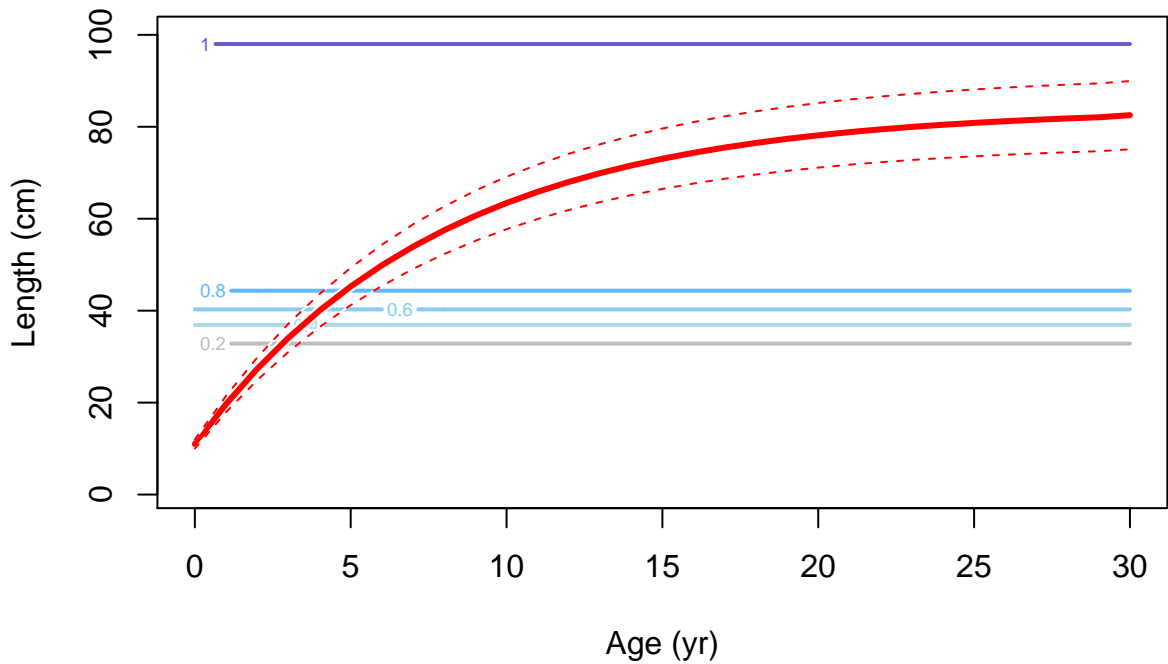


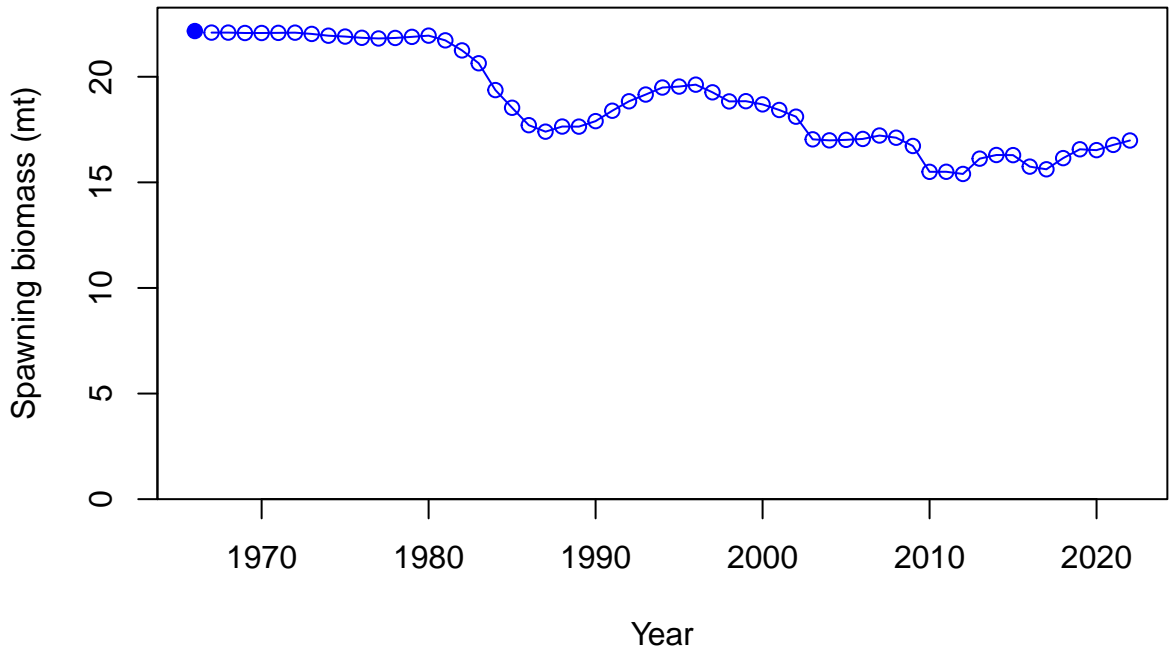
Selectivity



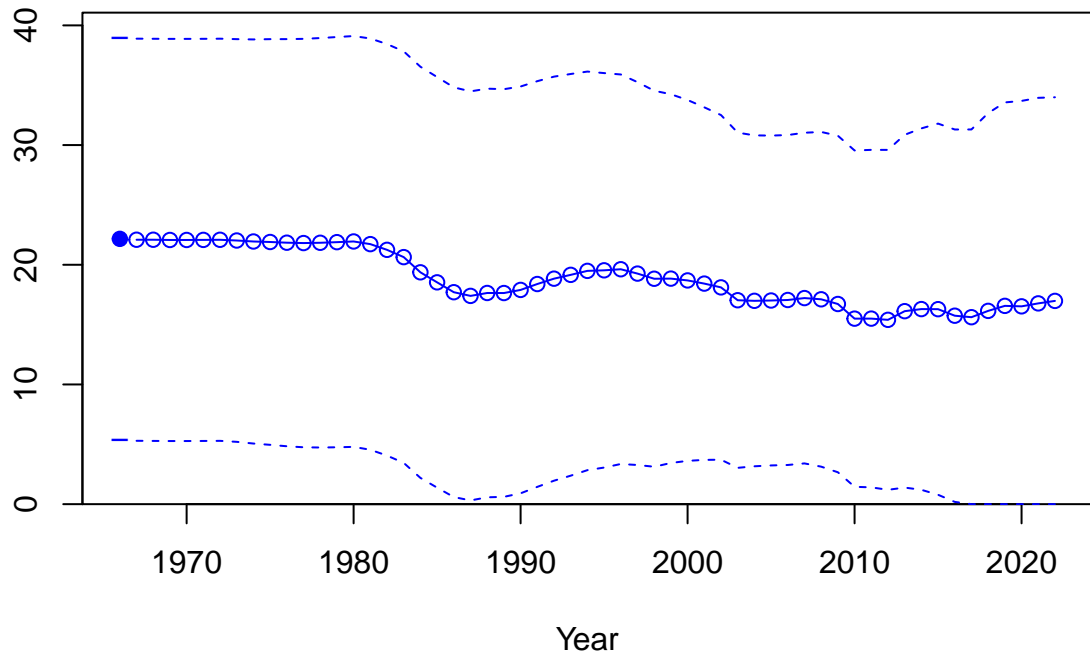
Selectivity



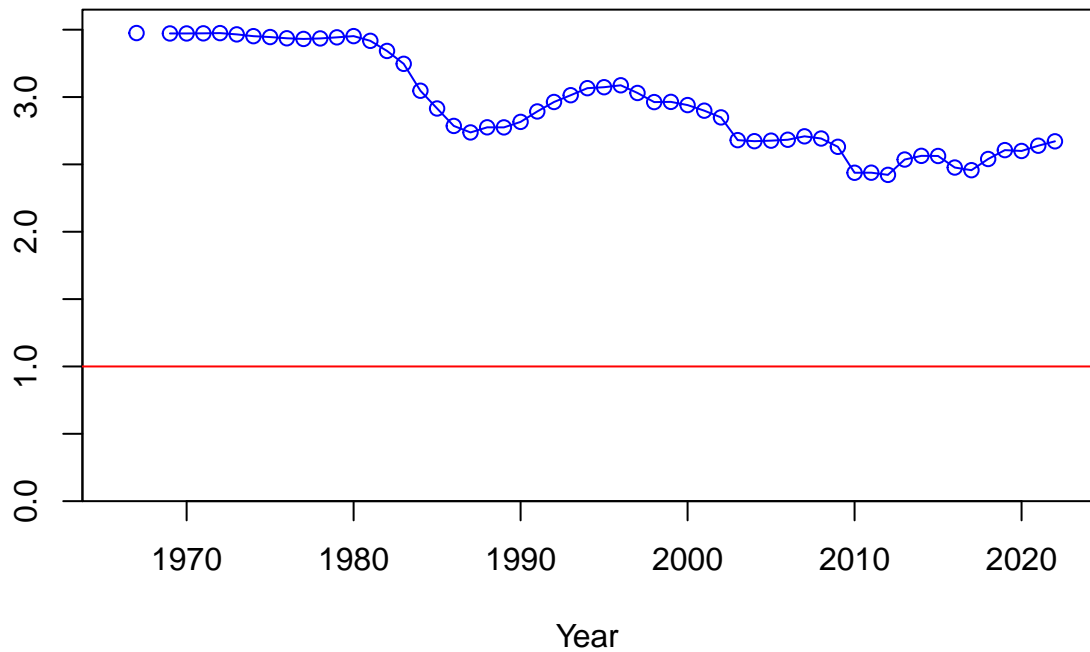




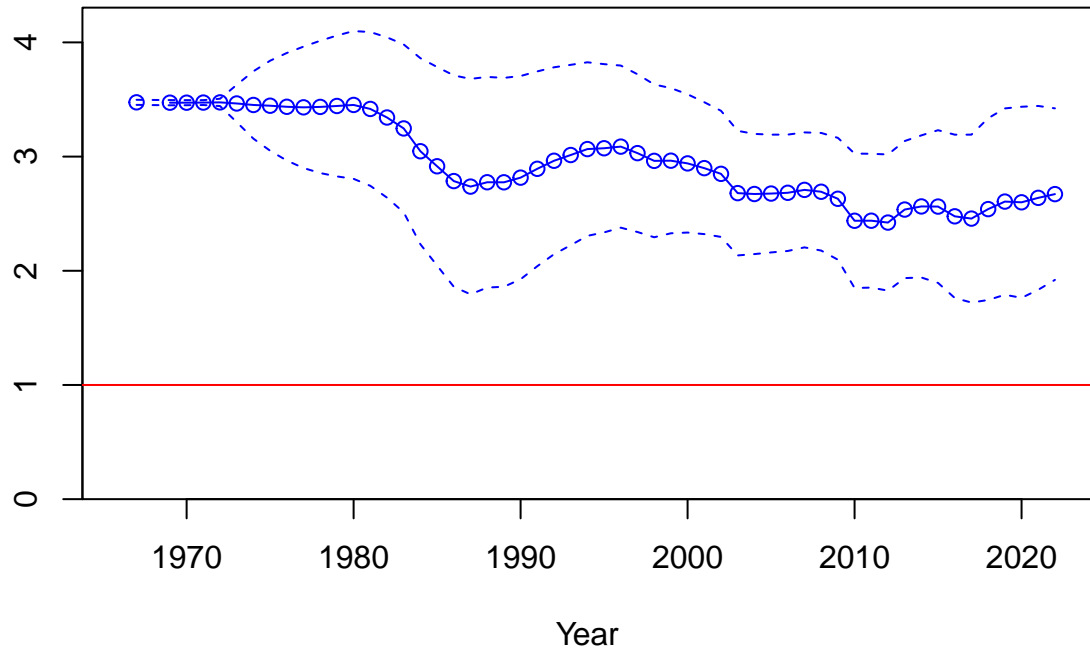
Spawning biomass (mt)

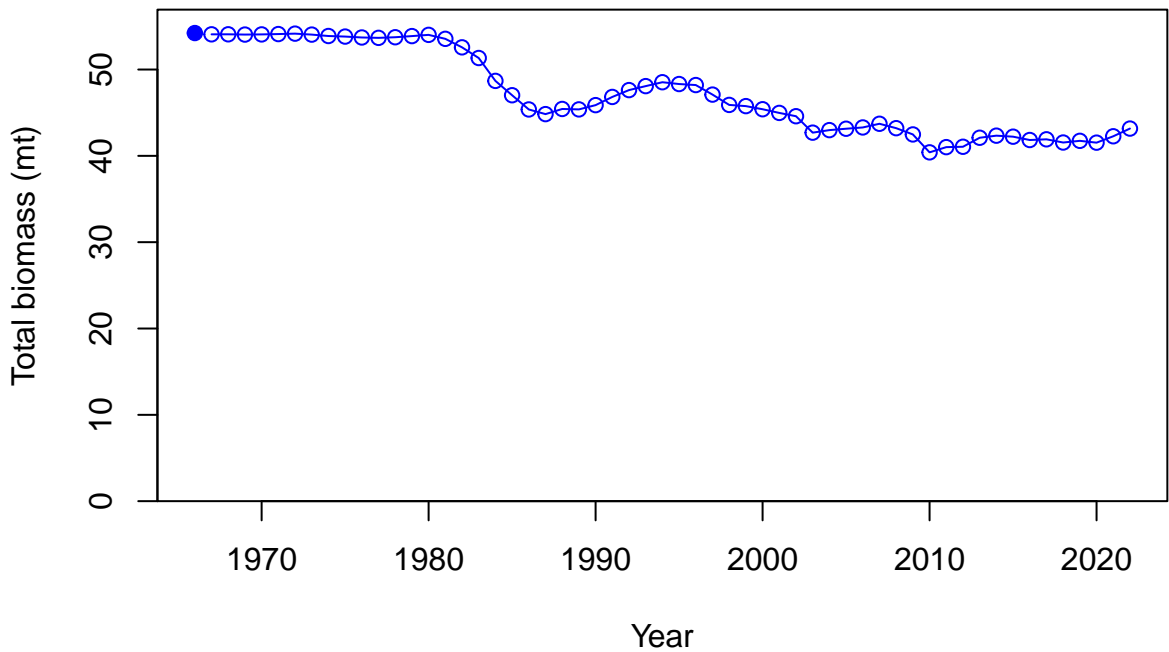


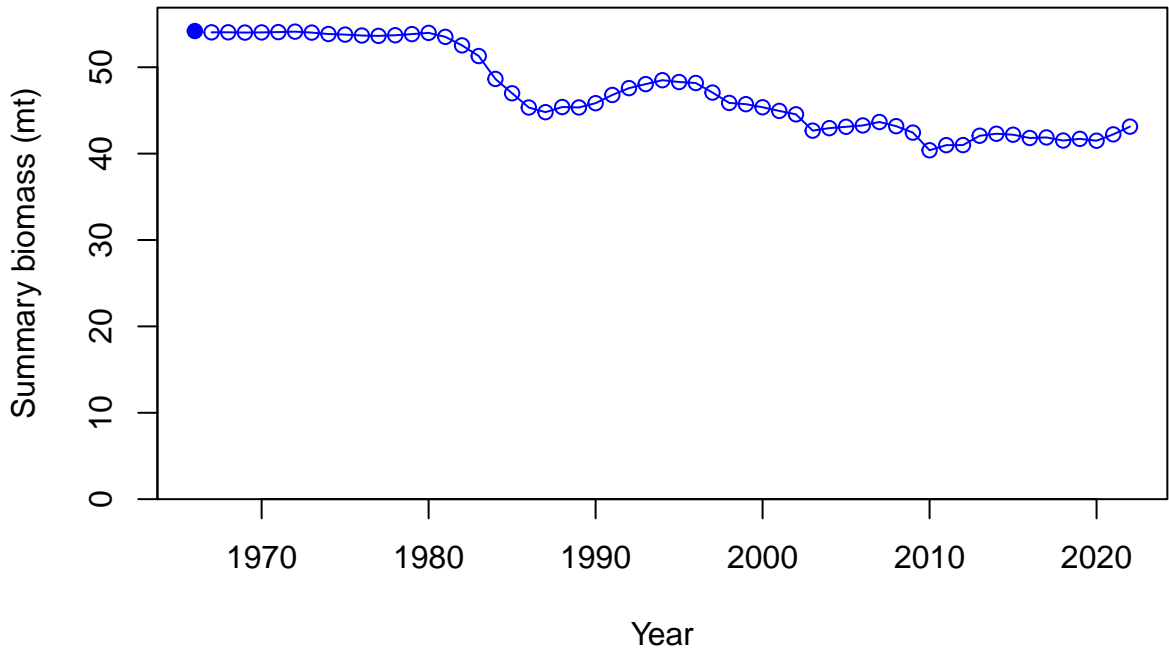
Relative spawning biomass: B/B_{MSY}



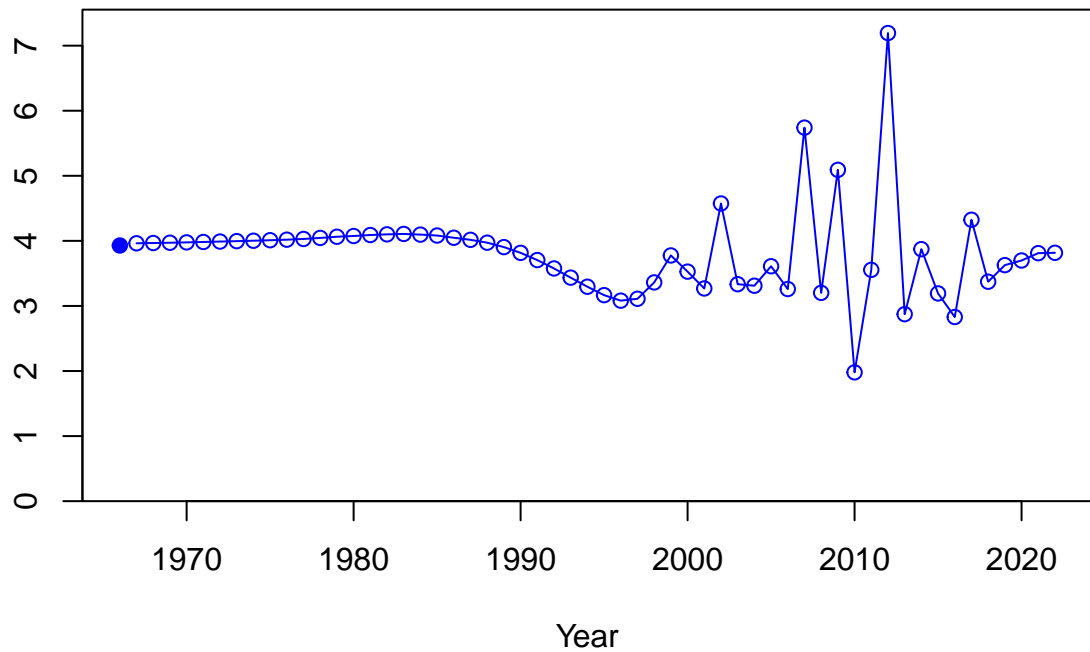
Relative spawning biomass: B/B_{MSY}



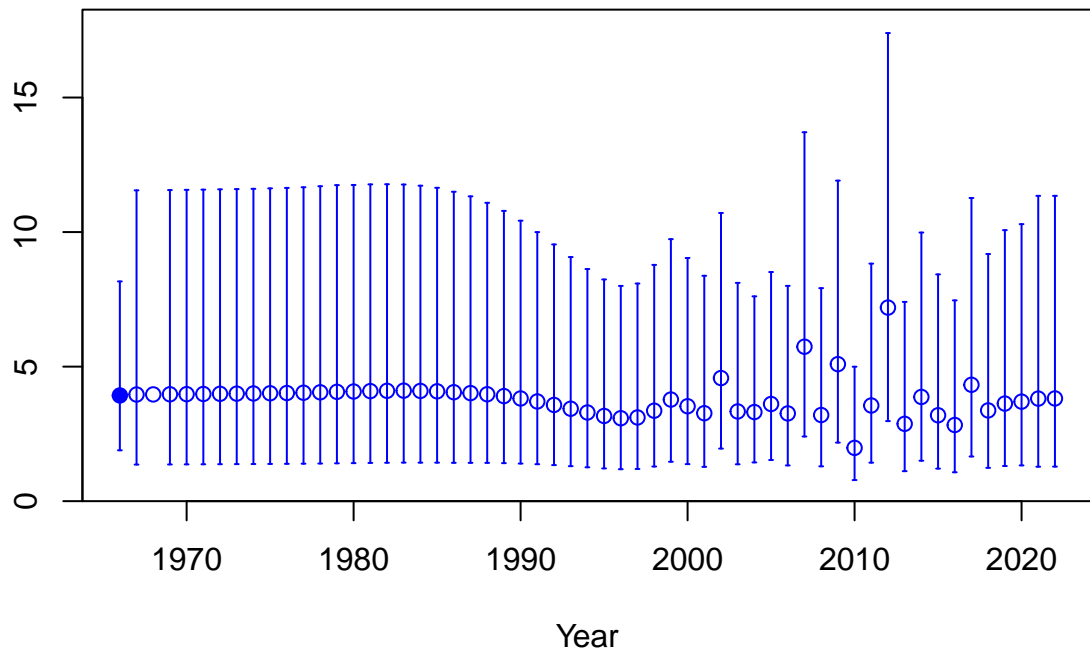




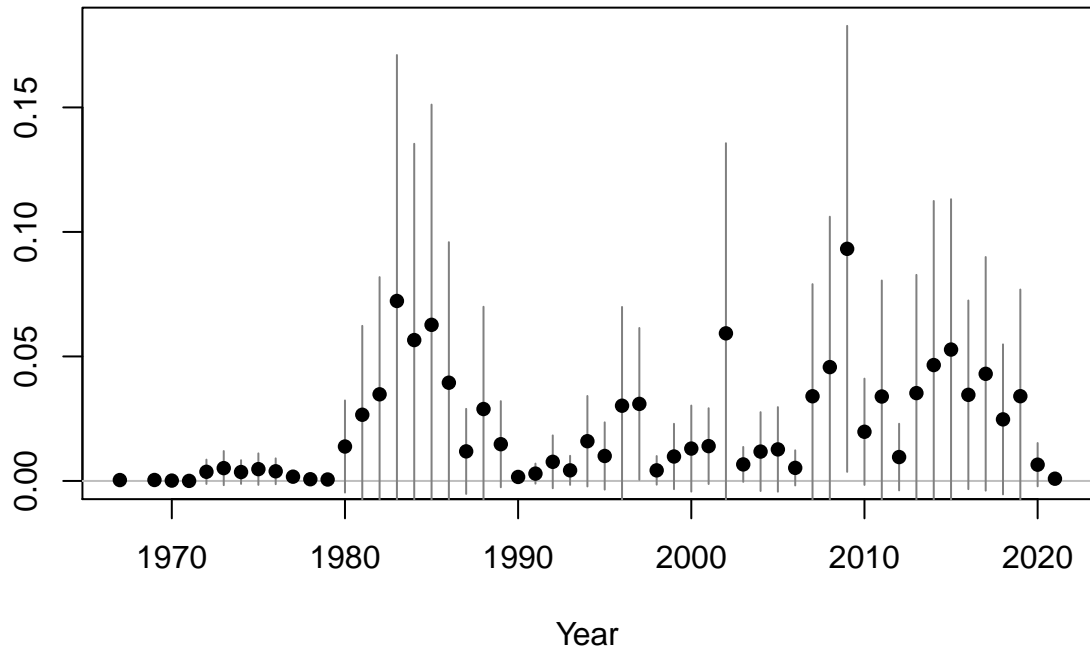
Age-0 recruits (1,000s)

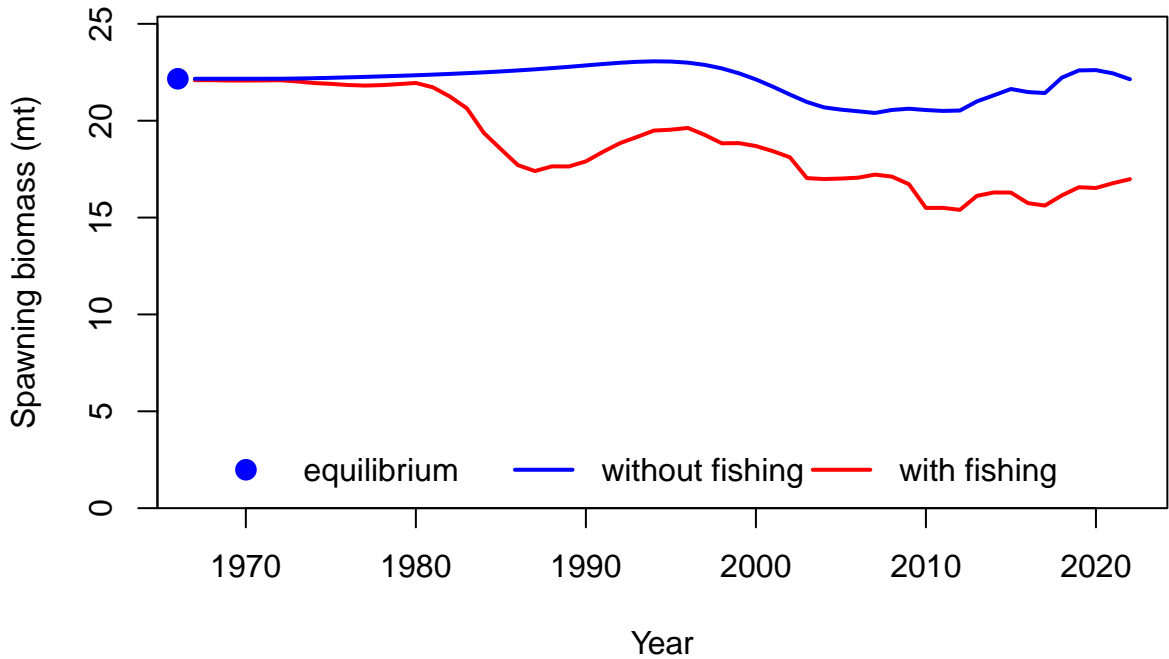


Age-0 recruits (1,000s)

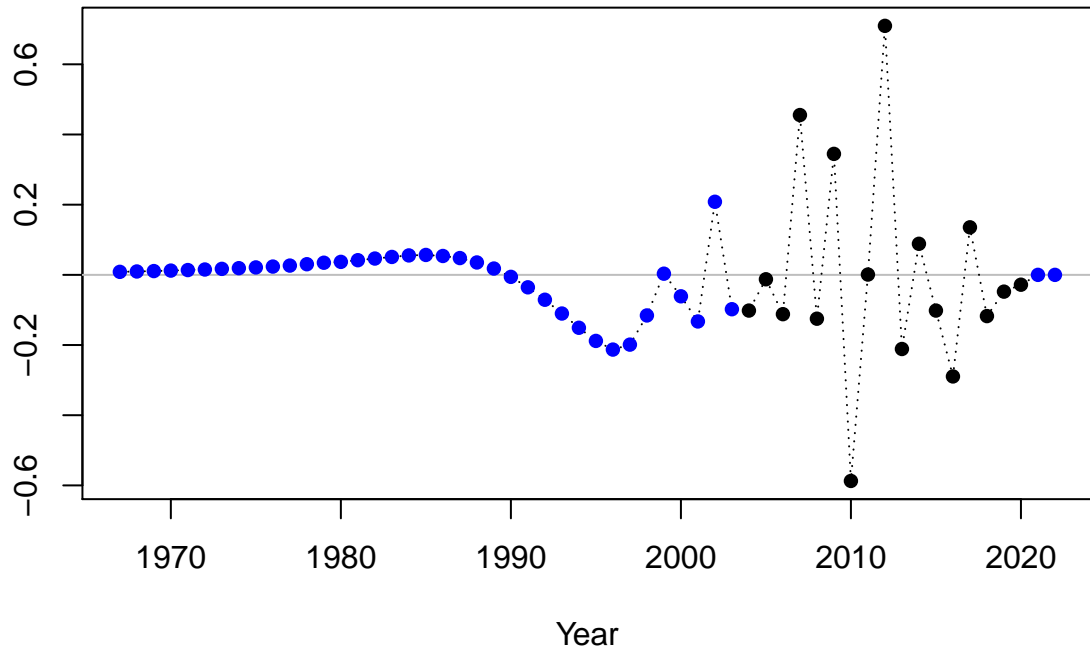


Summary Fishing Mortality

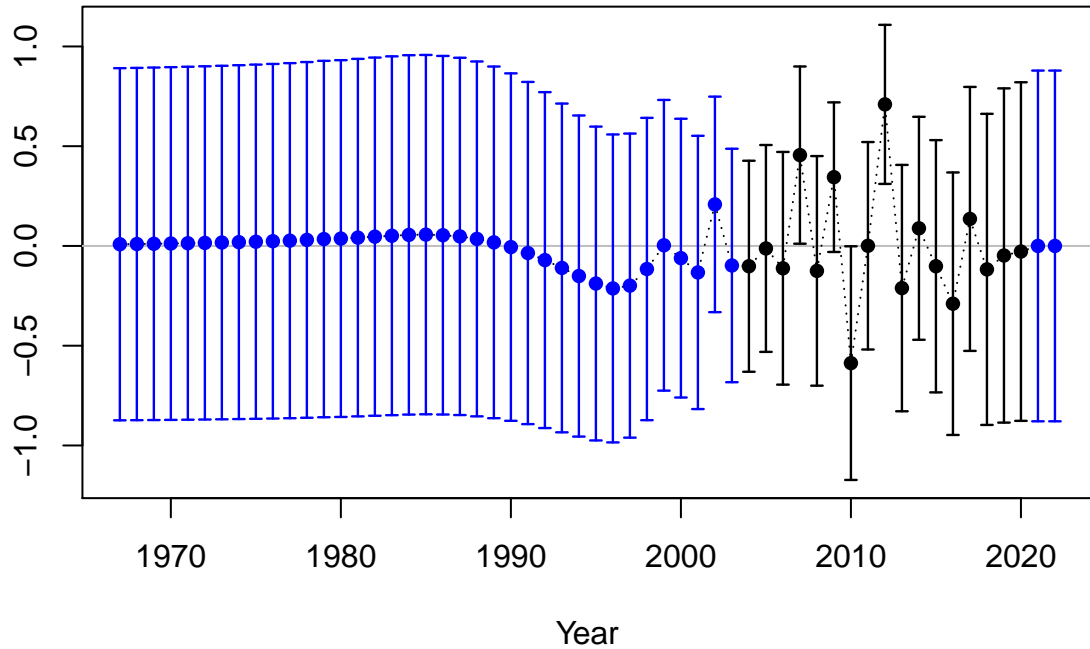




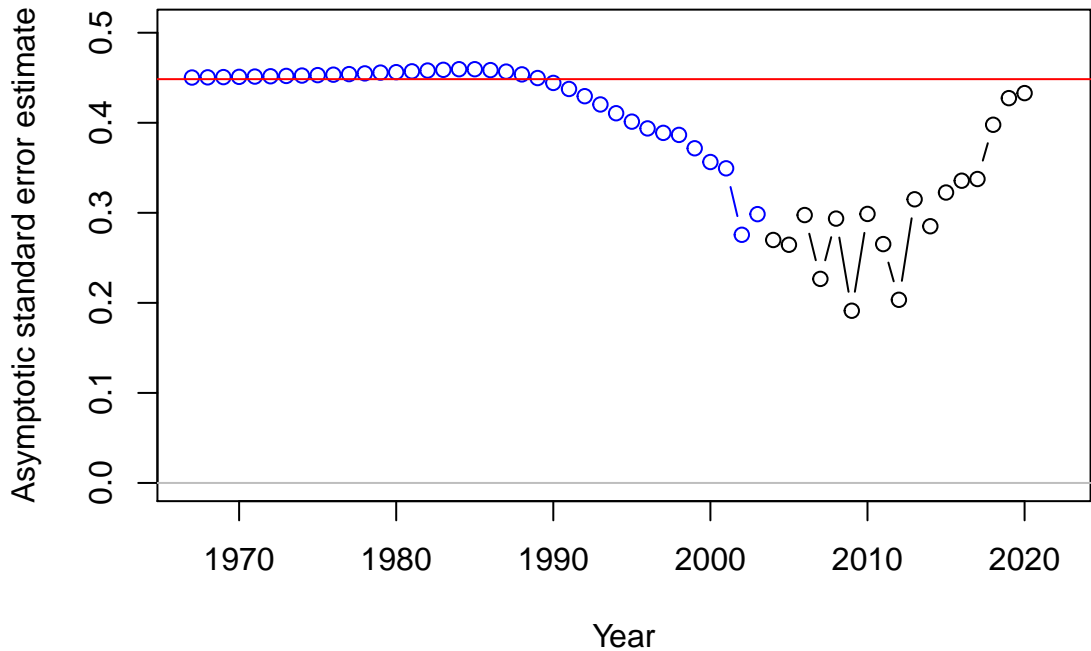
Log recruitment deviation

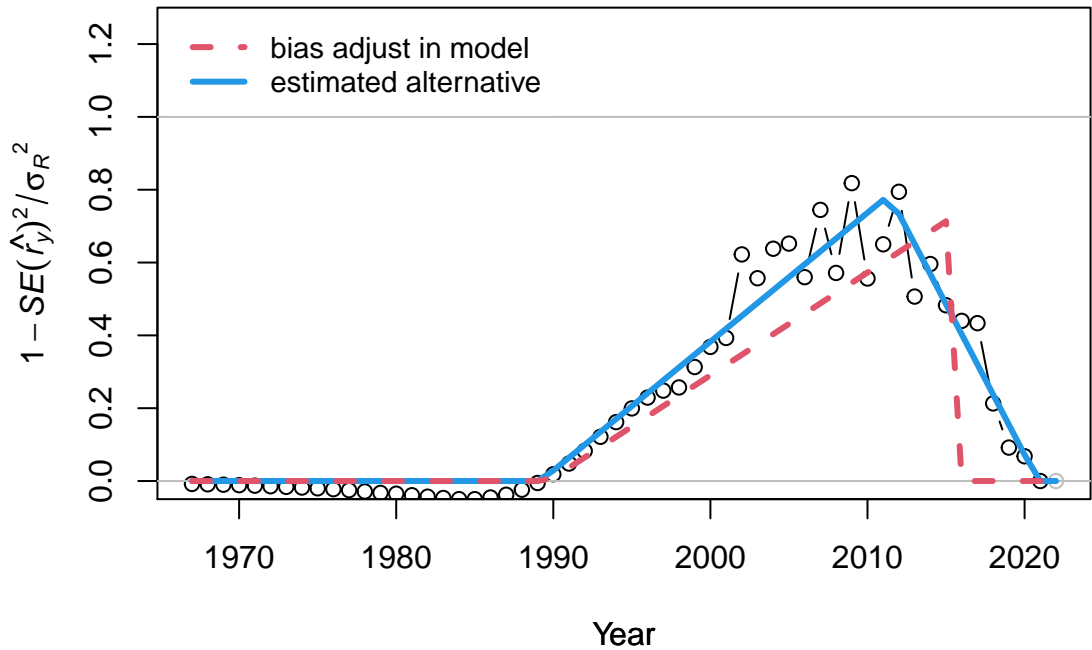


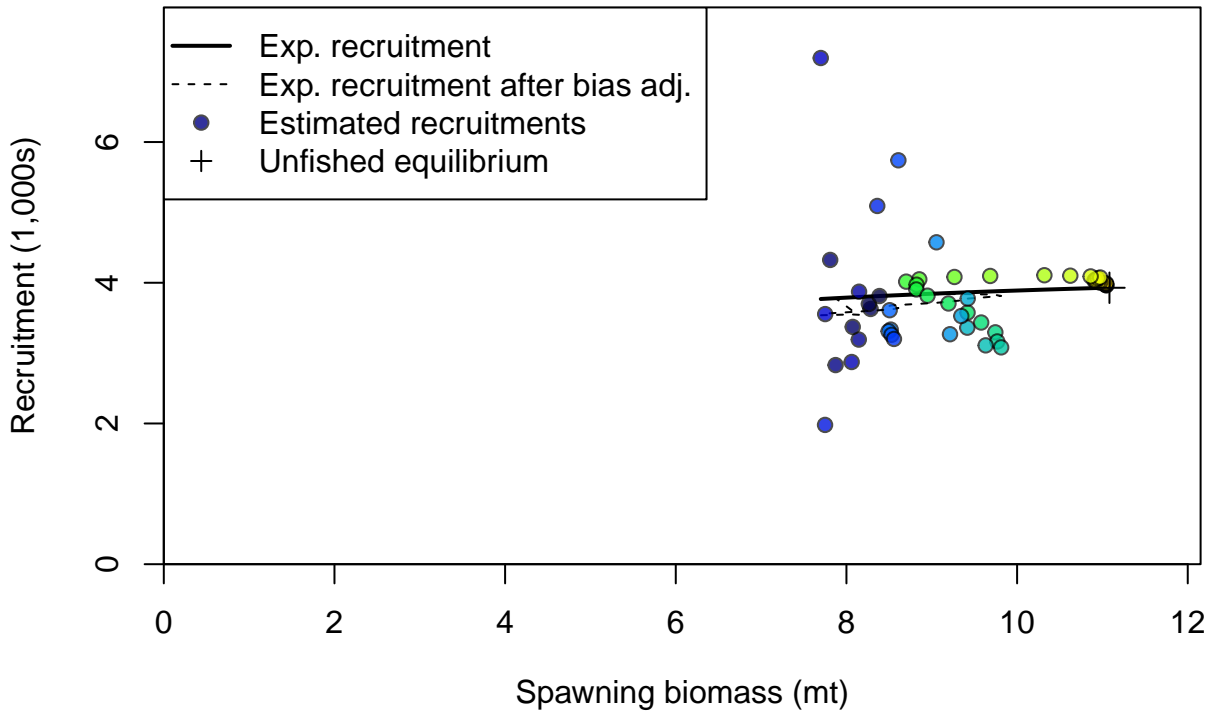
Log recruitment deviation

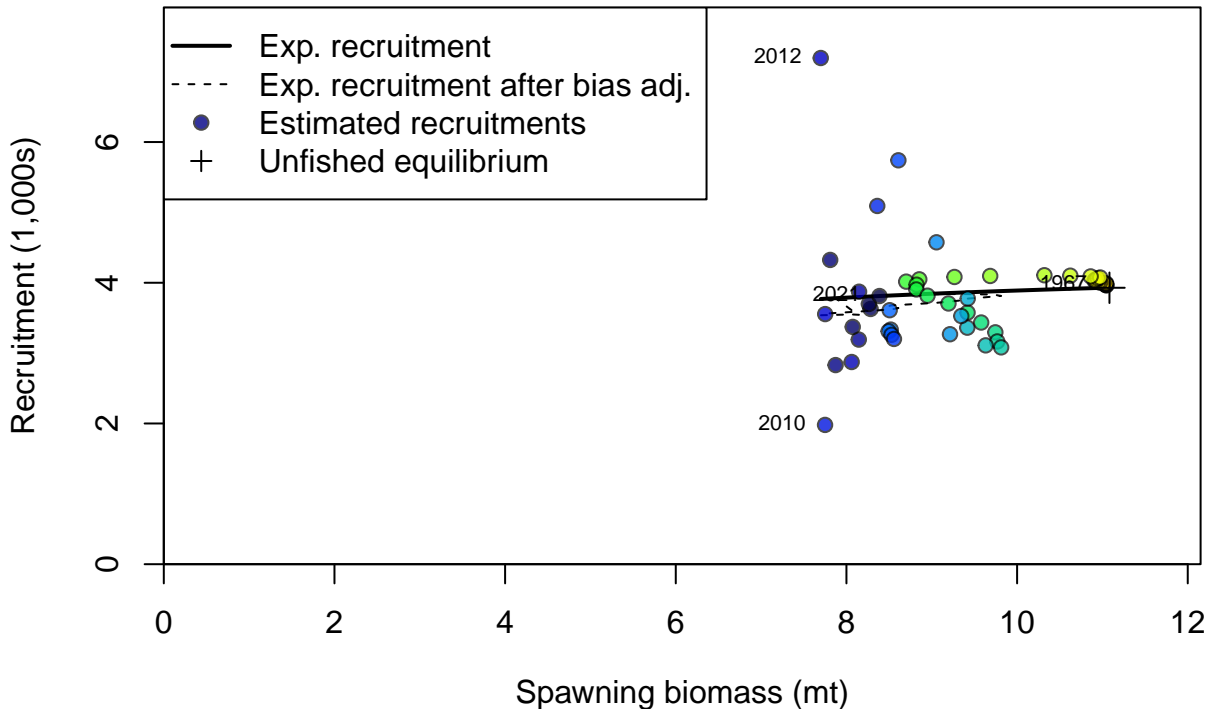


Recruitment deviation variance









Log recruitment deviation

0.5
0.0
-0.5

0.0

0.2

0.4

0.6

0.8

1.0

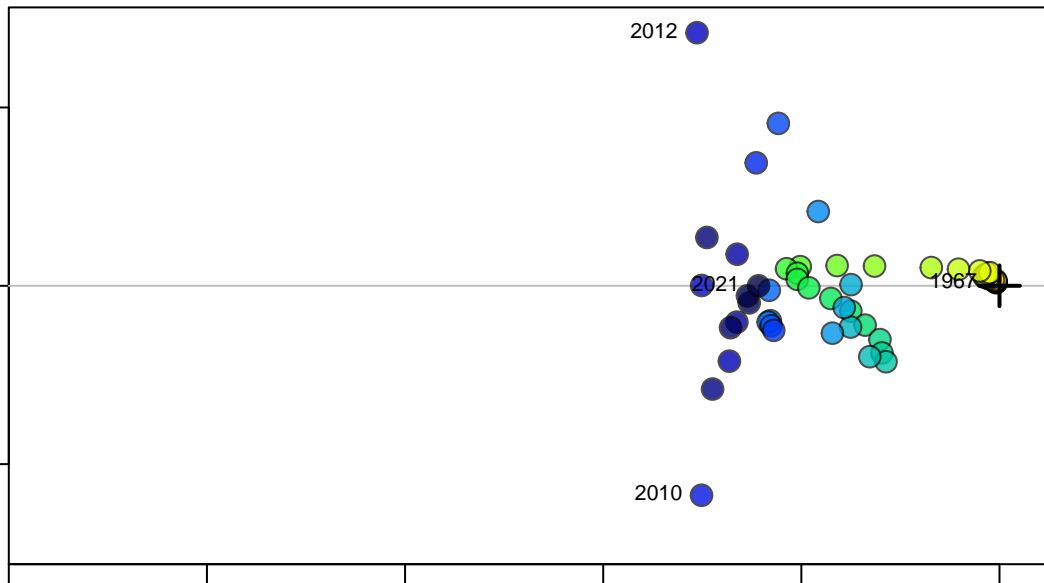
Spawning output (relative to B_0)

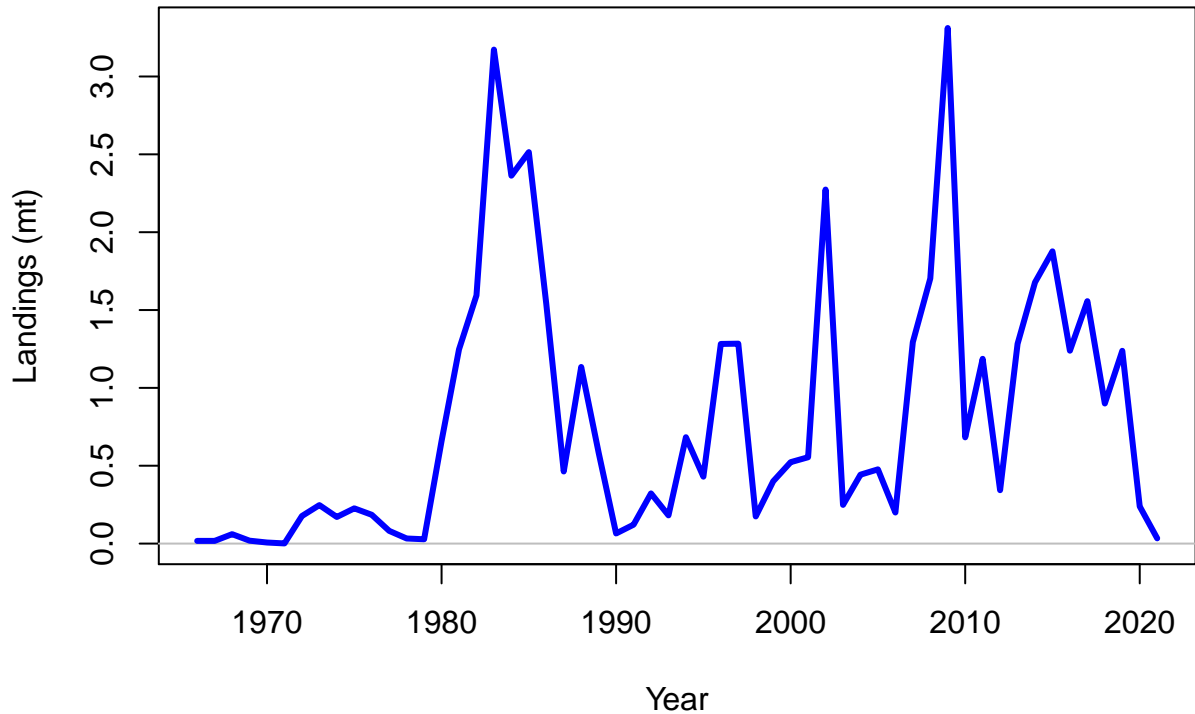
2012

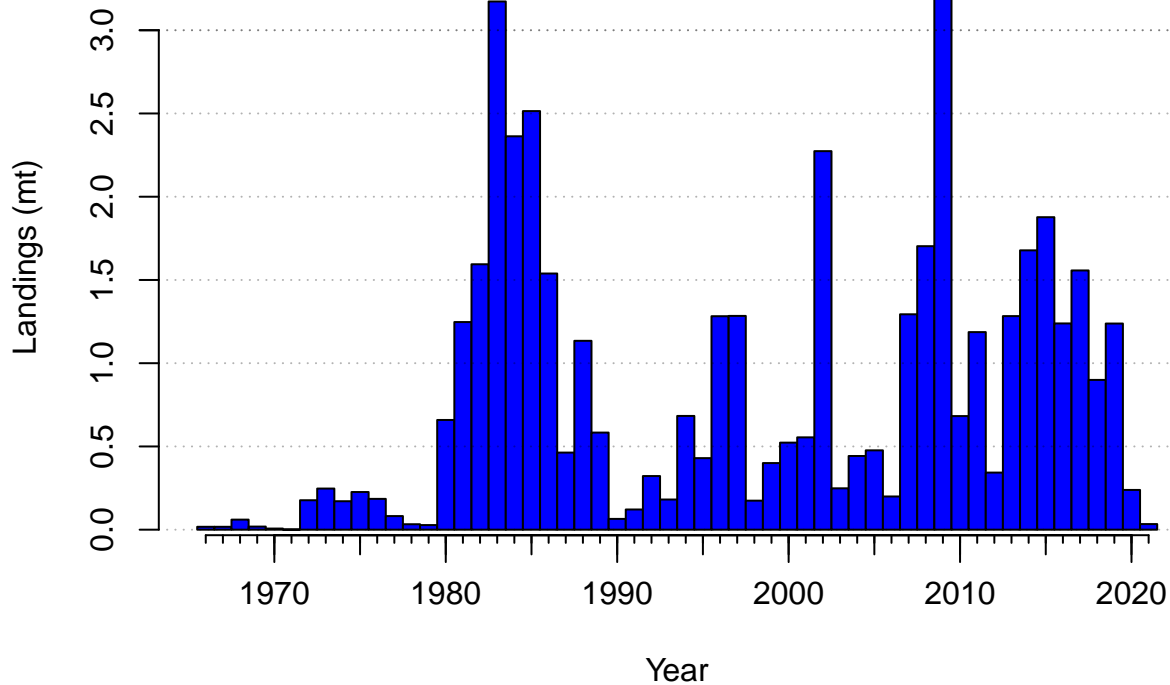
2010

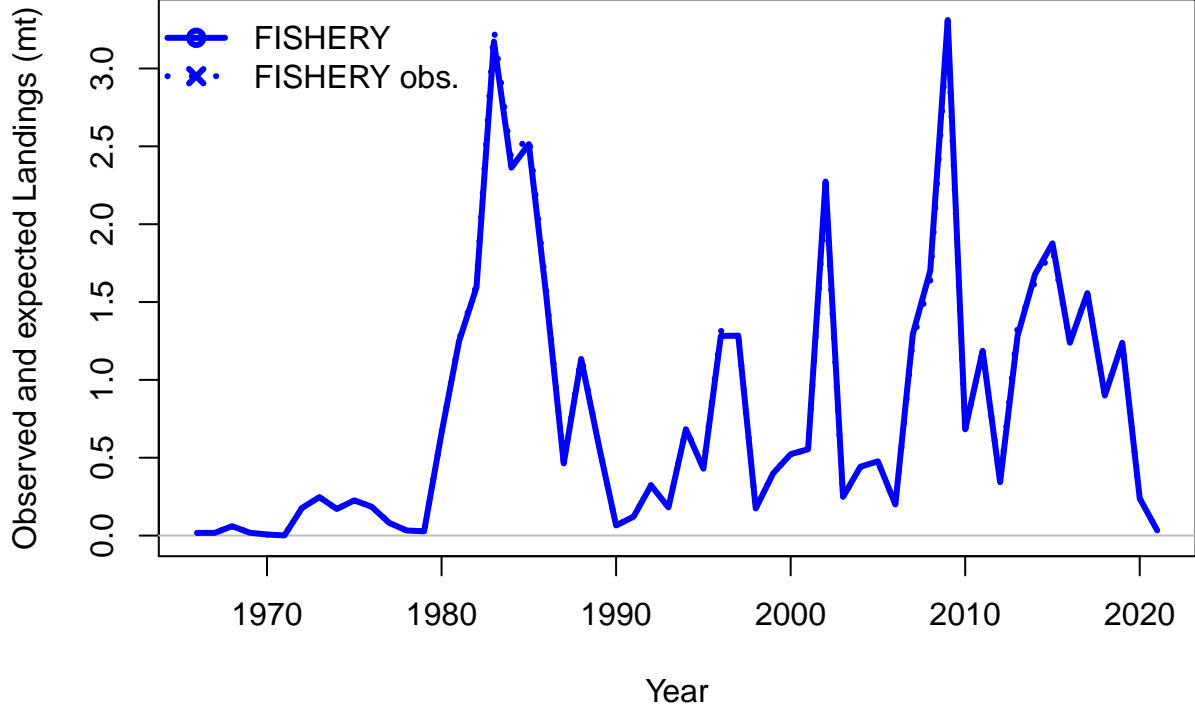
2021

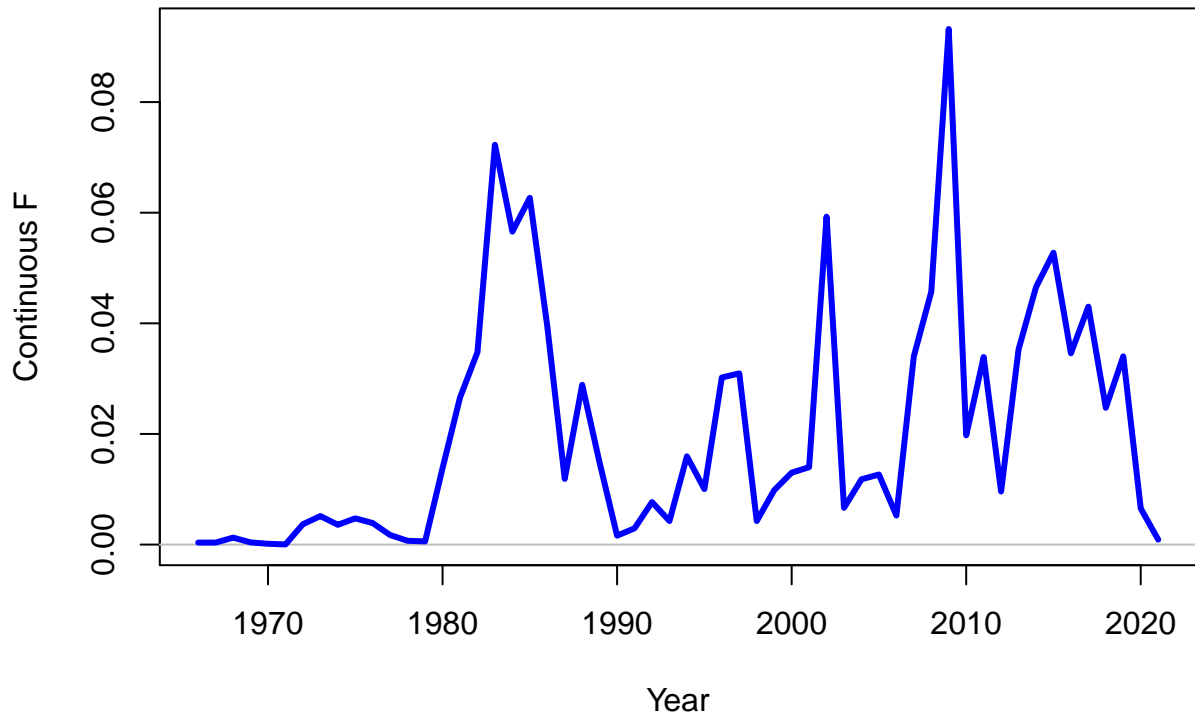
1967



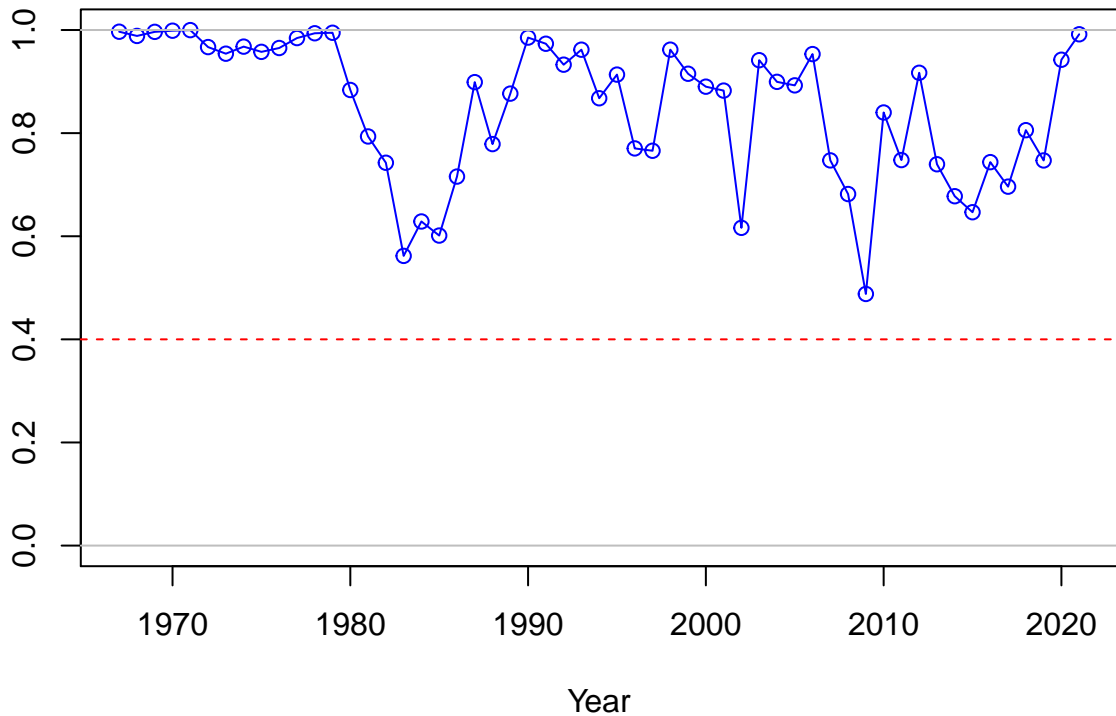




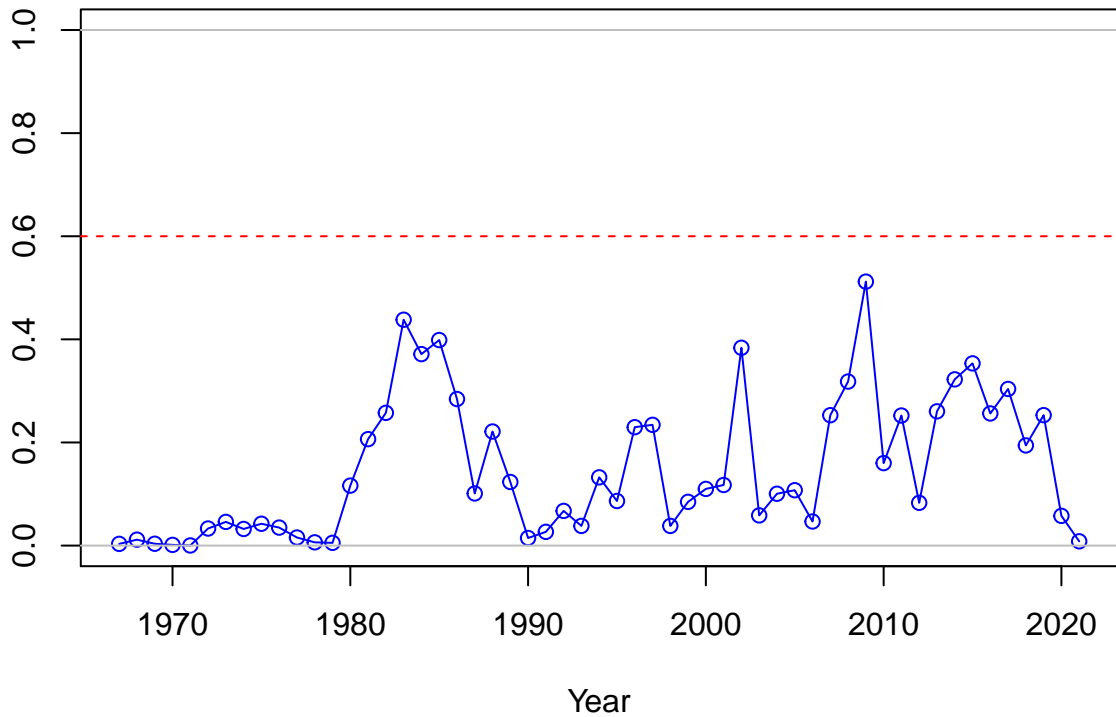




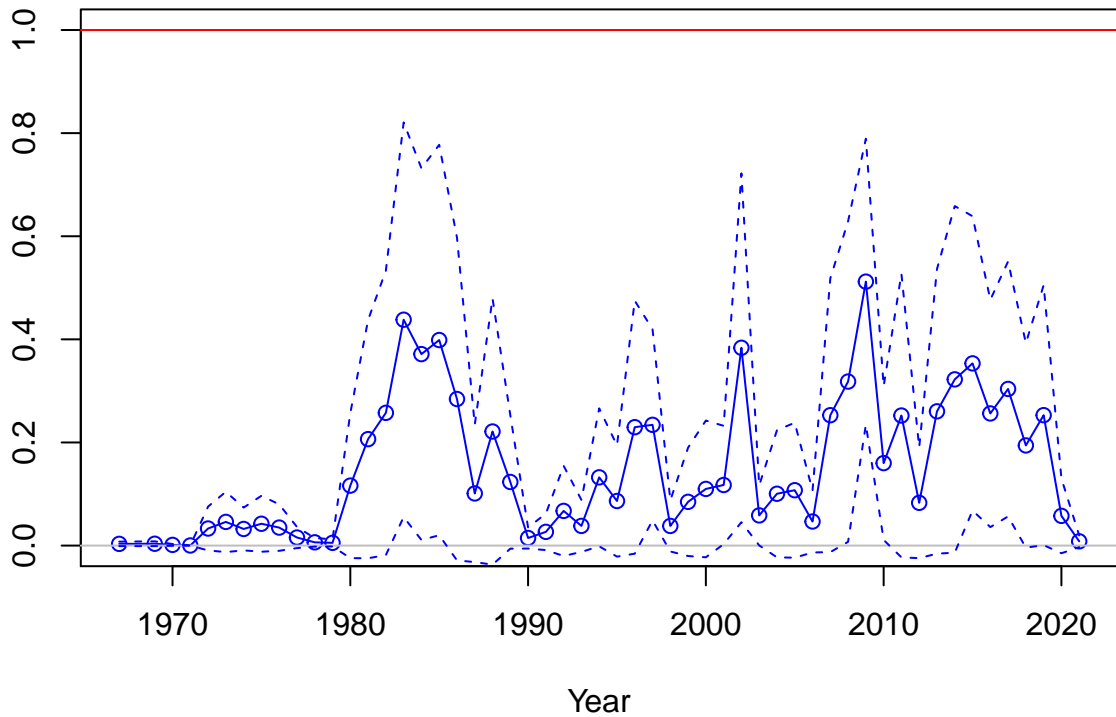
SPR



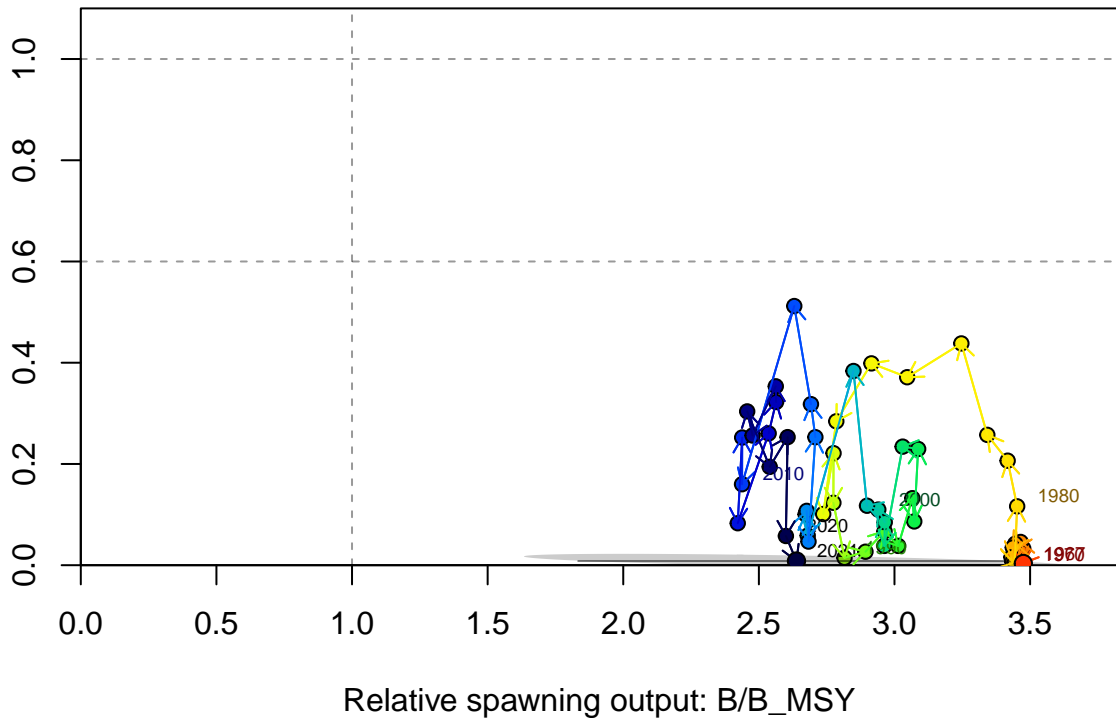
1-SPR



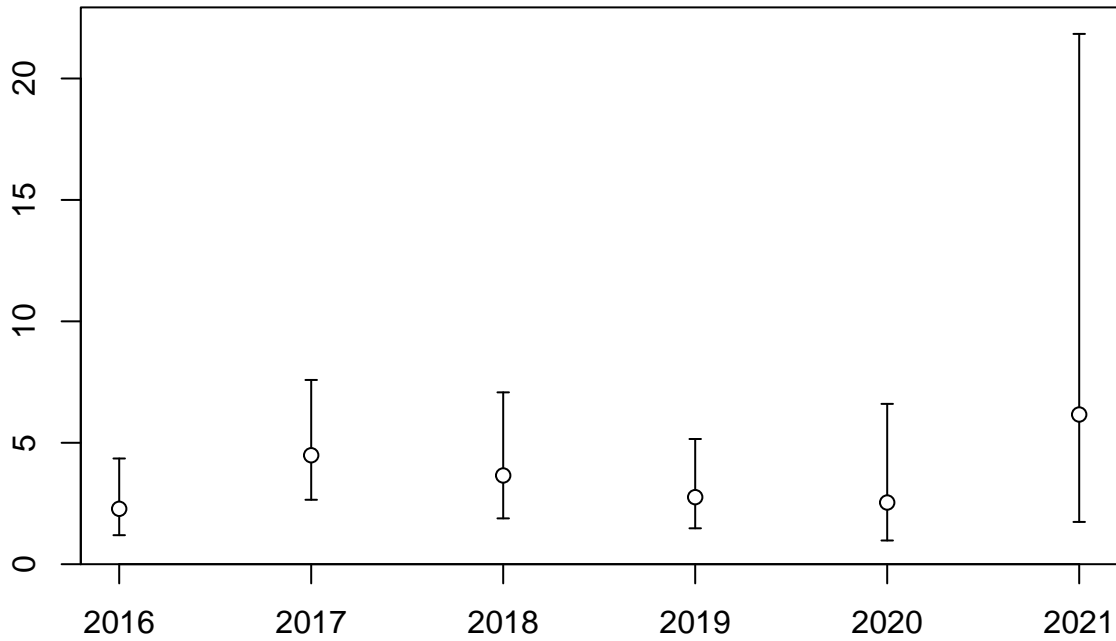
Fishing intensity: 1-SPR



Fishing intensity: 1-SPR

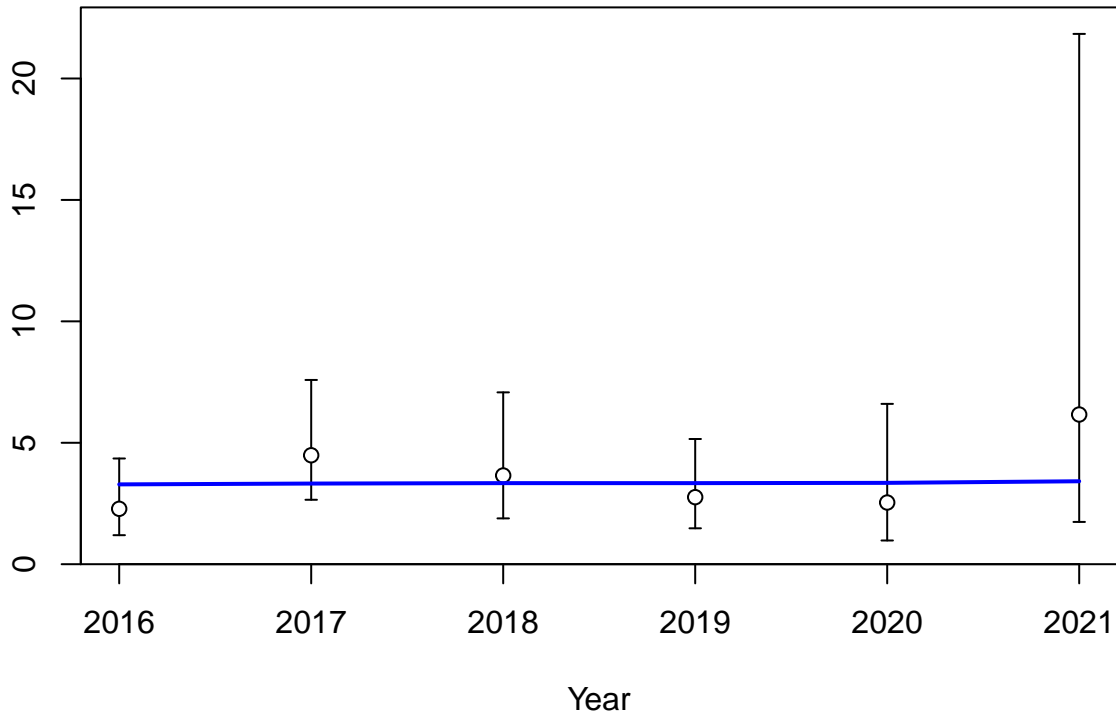


Index

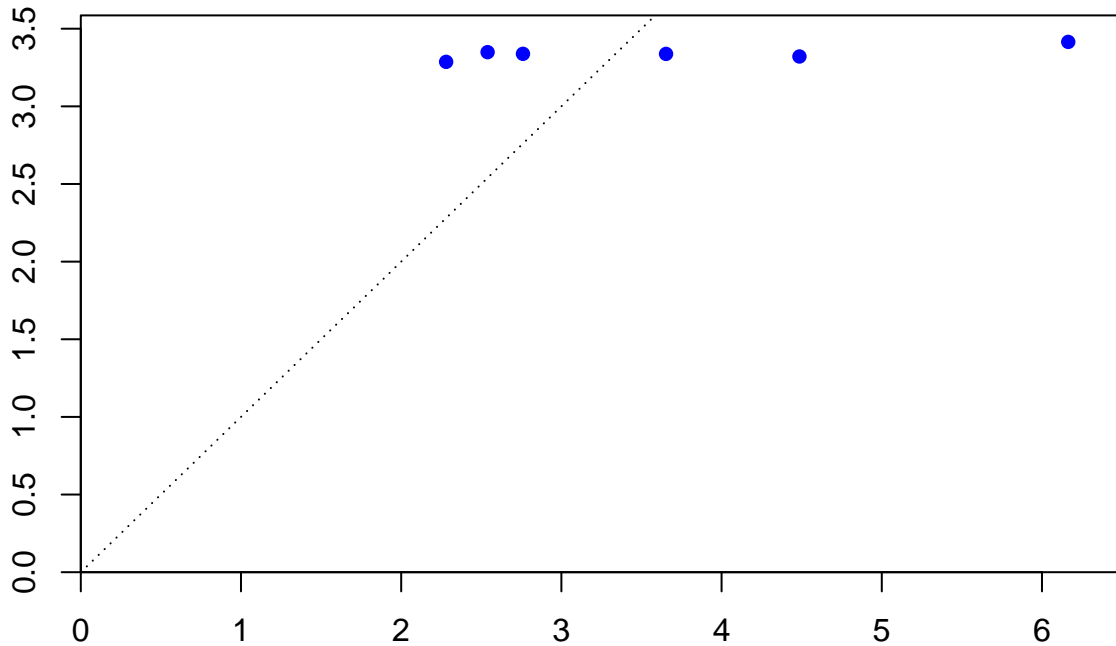


Year

Index



Expected index



Observed index

Log index

3.0
2.5
2.0
1.5
1.0
0.5
0.0

2016

2017

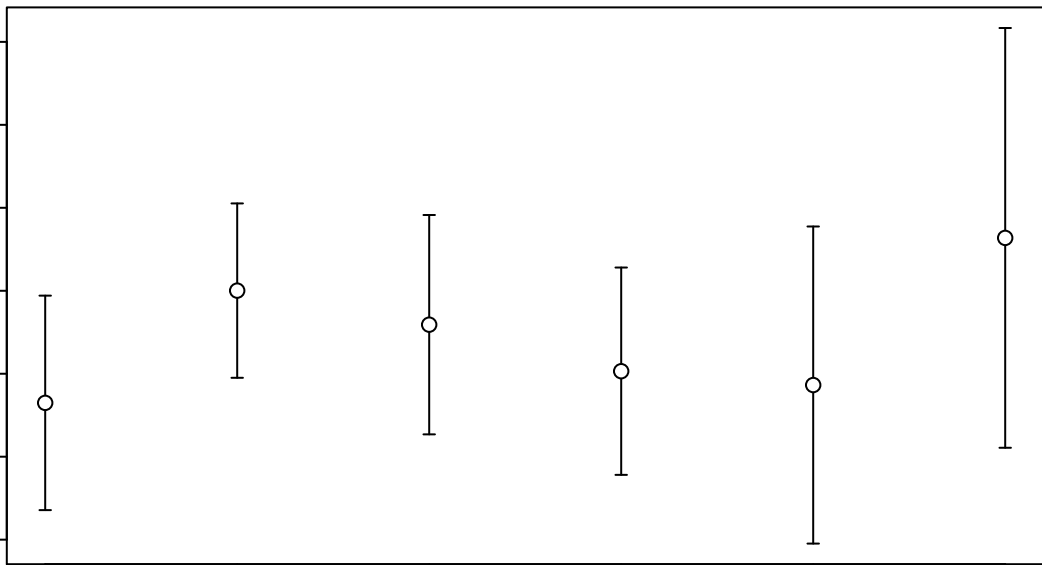
2018

2019

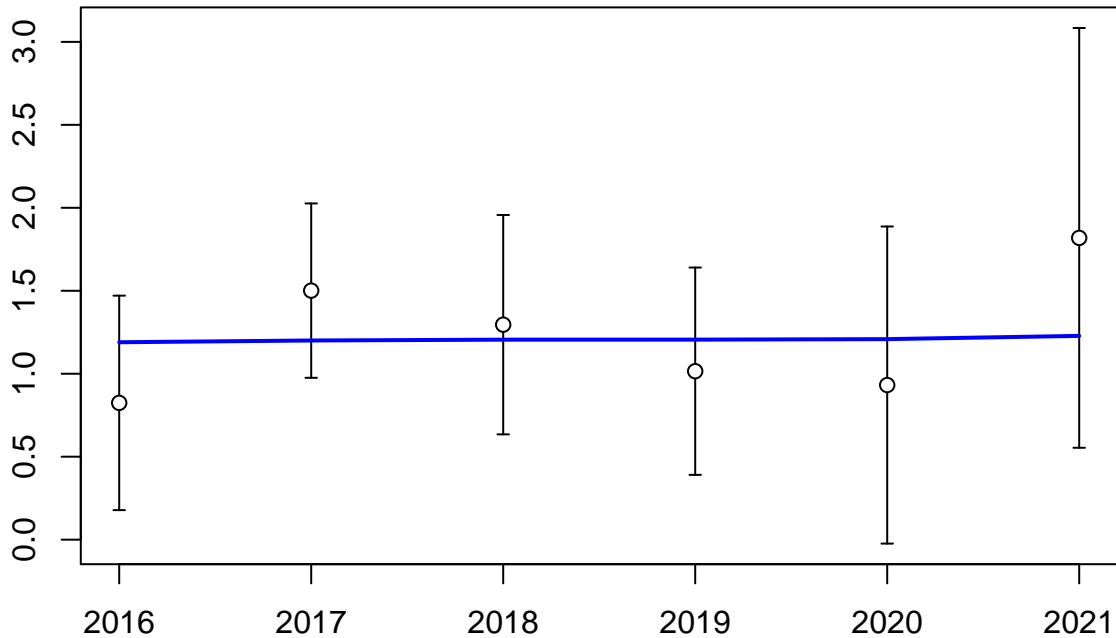
2020

2021

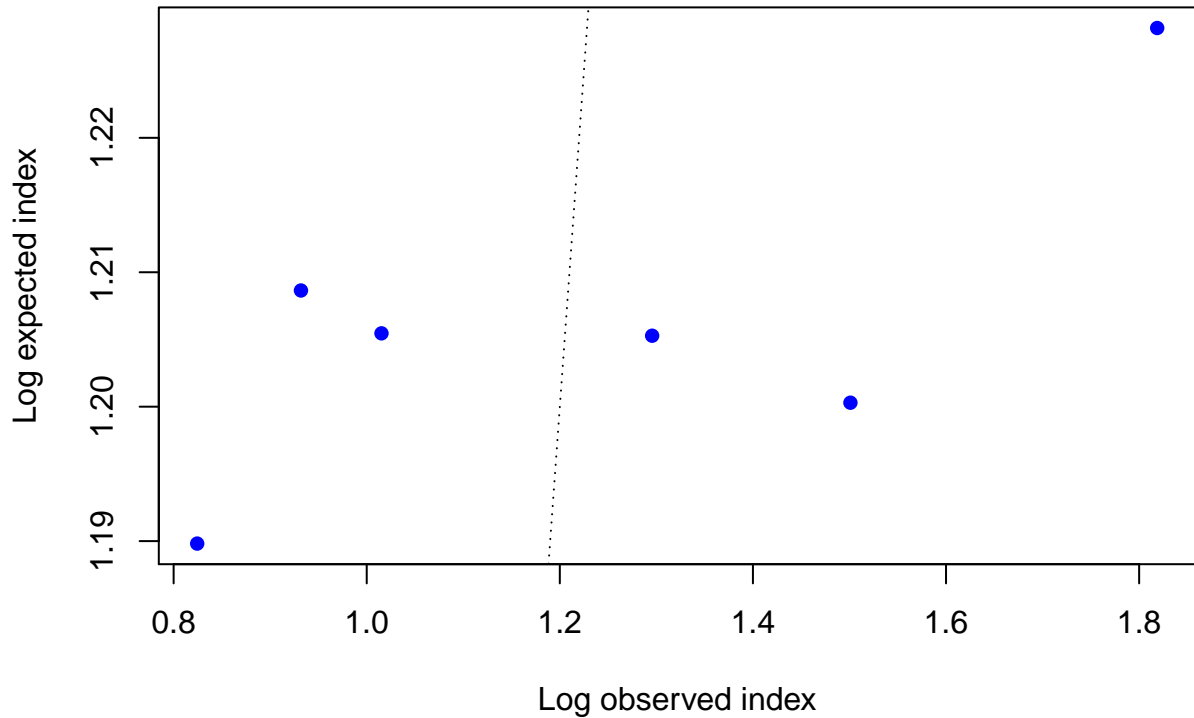
Year

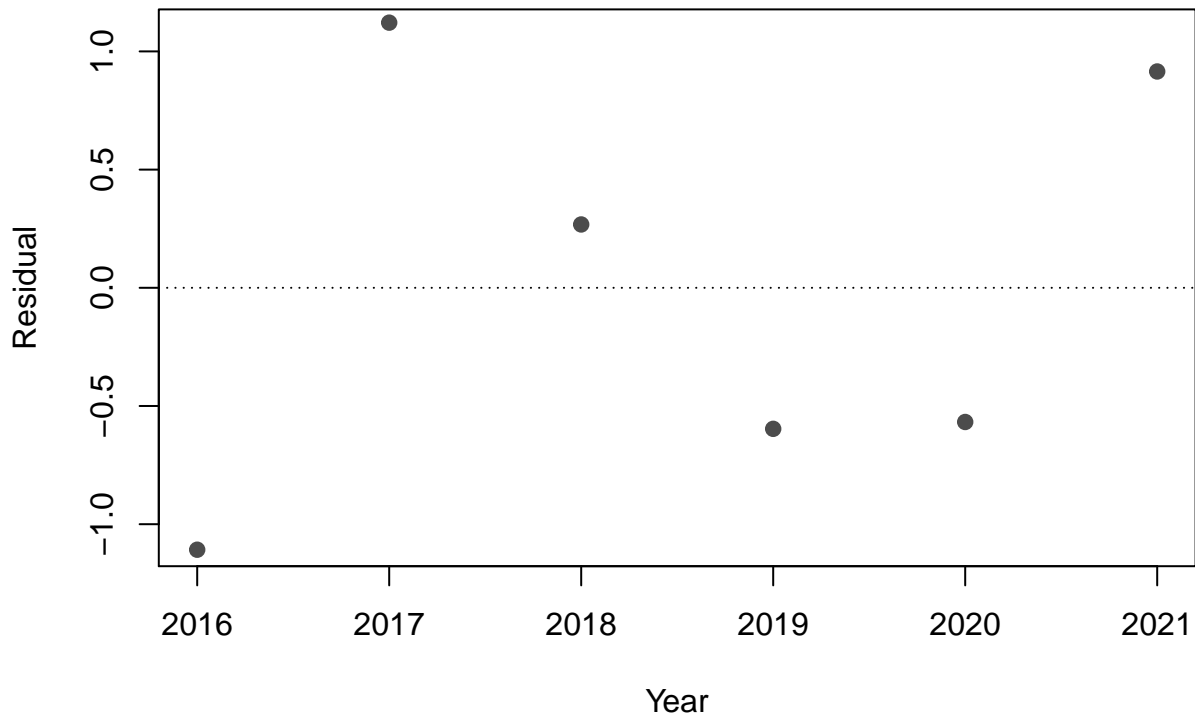


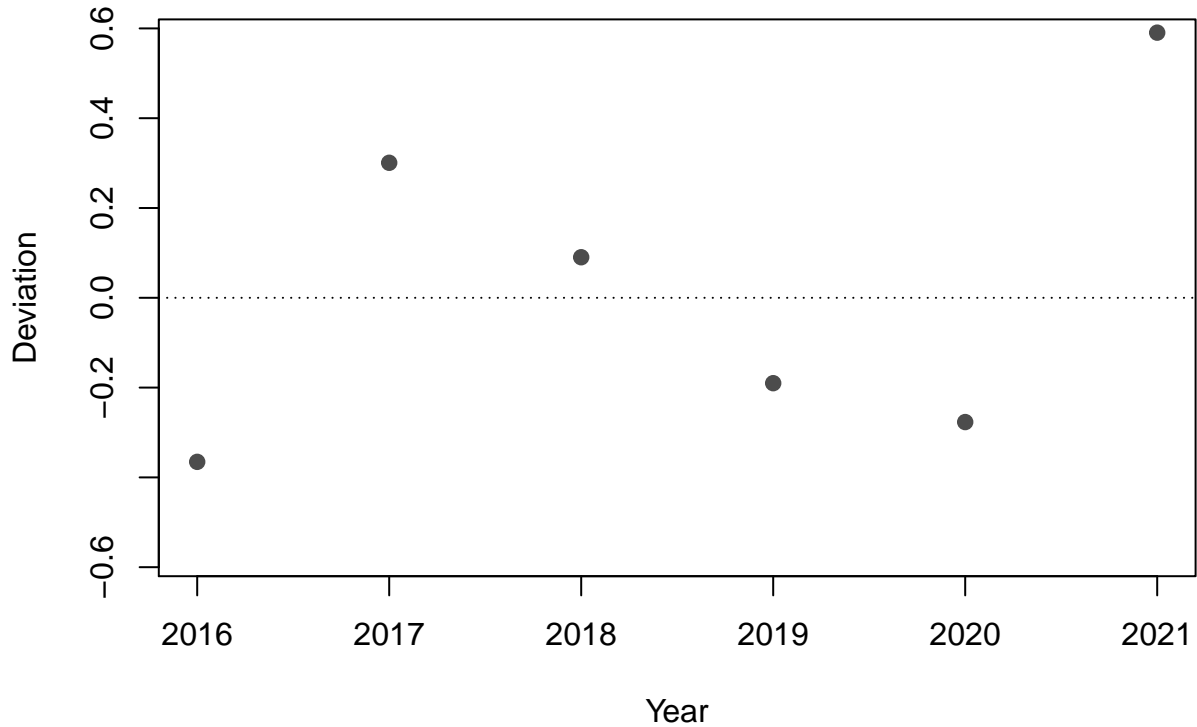
Log index

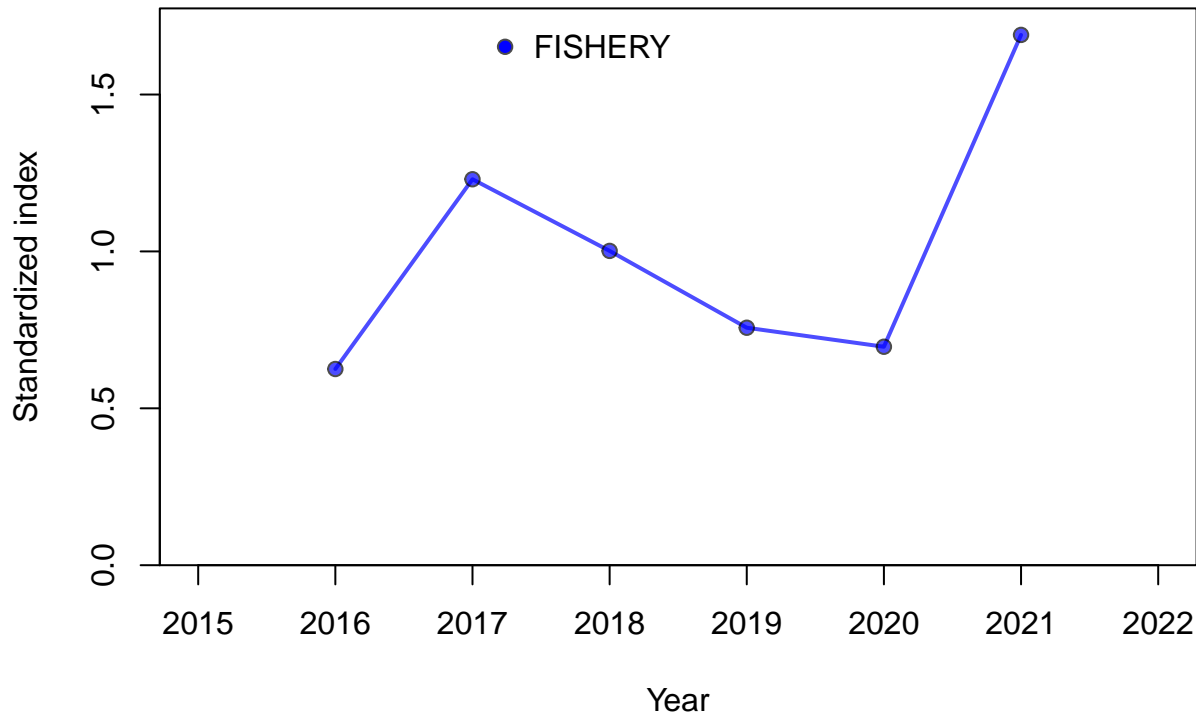


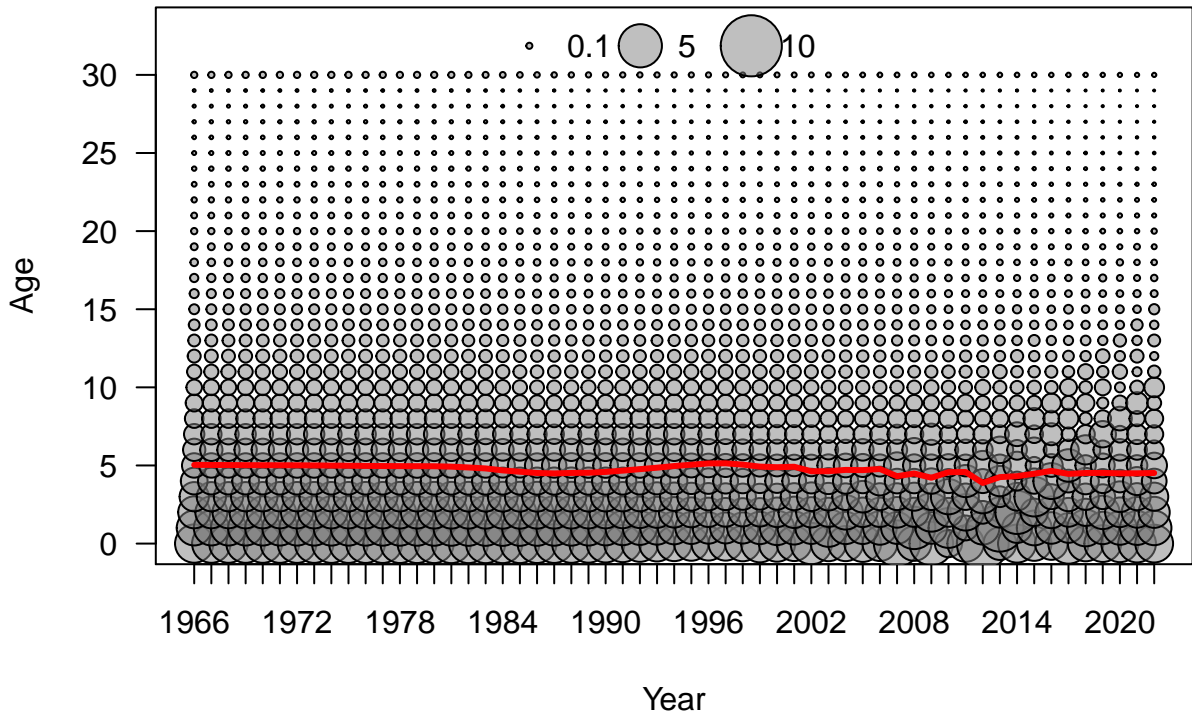
Year

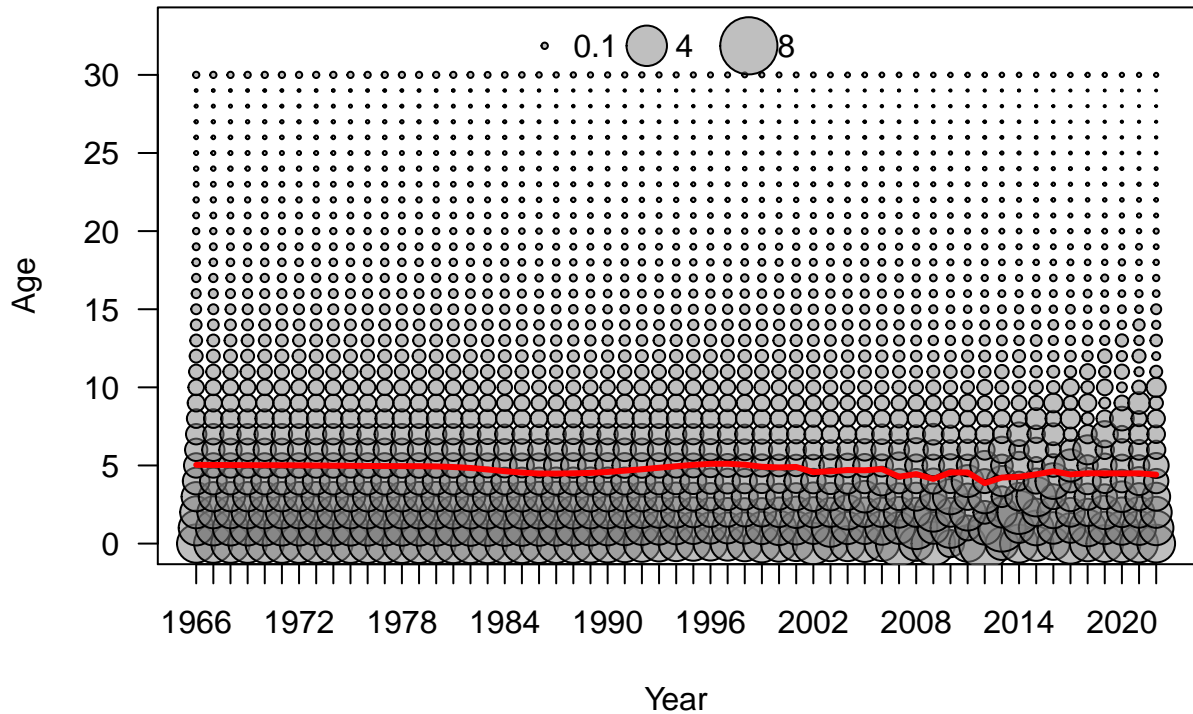


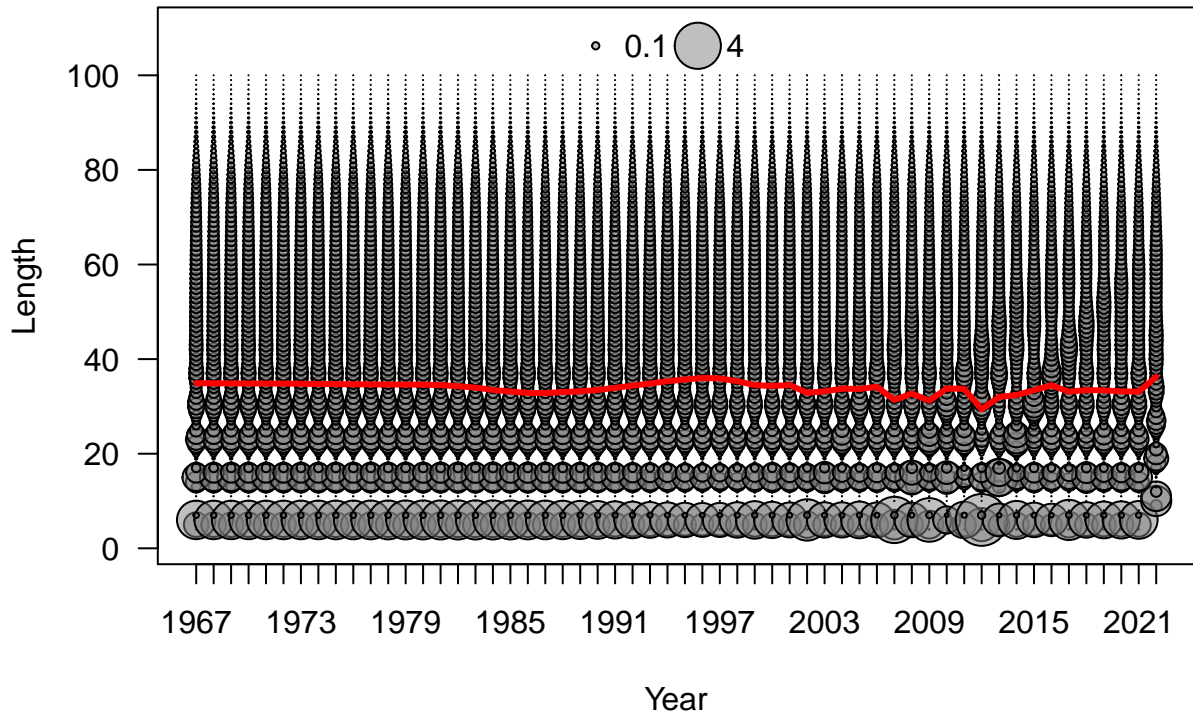


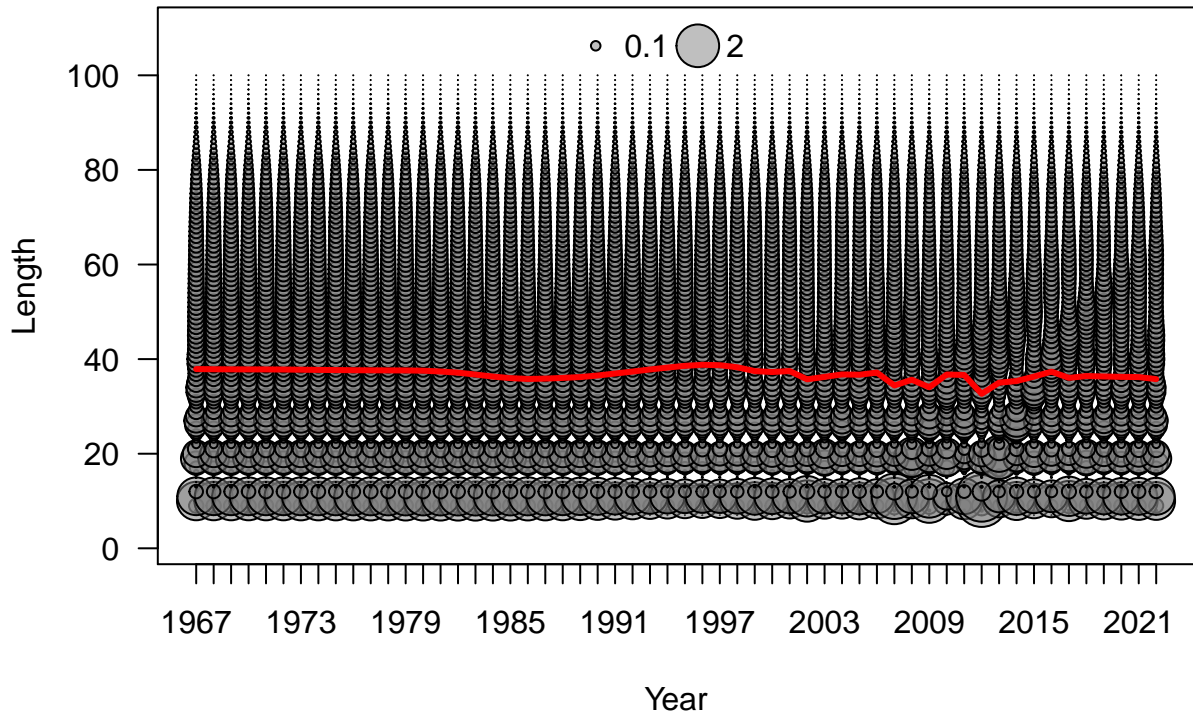


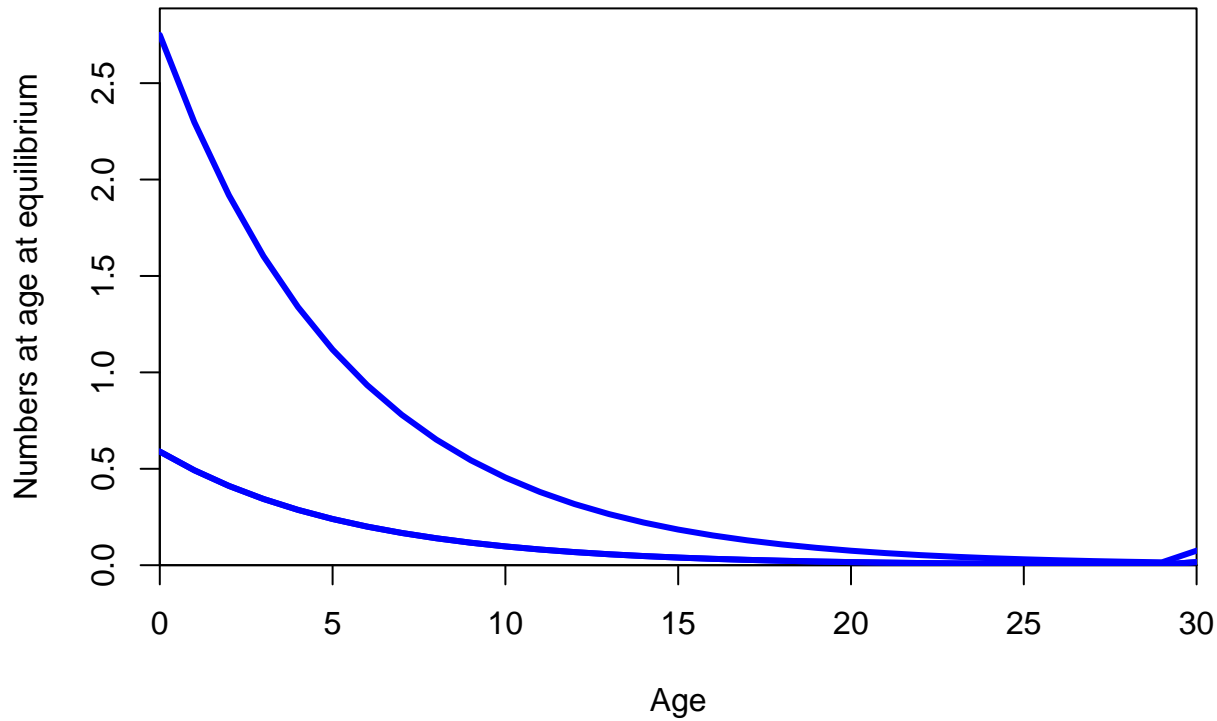






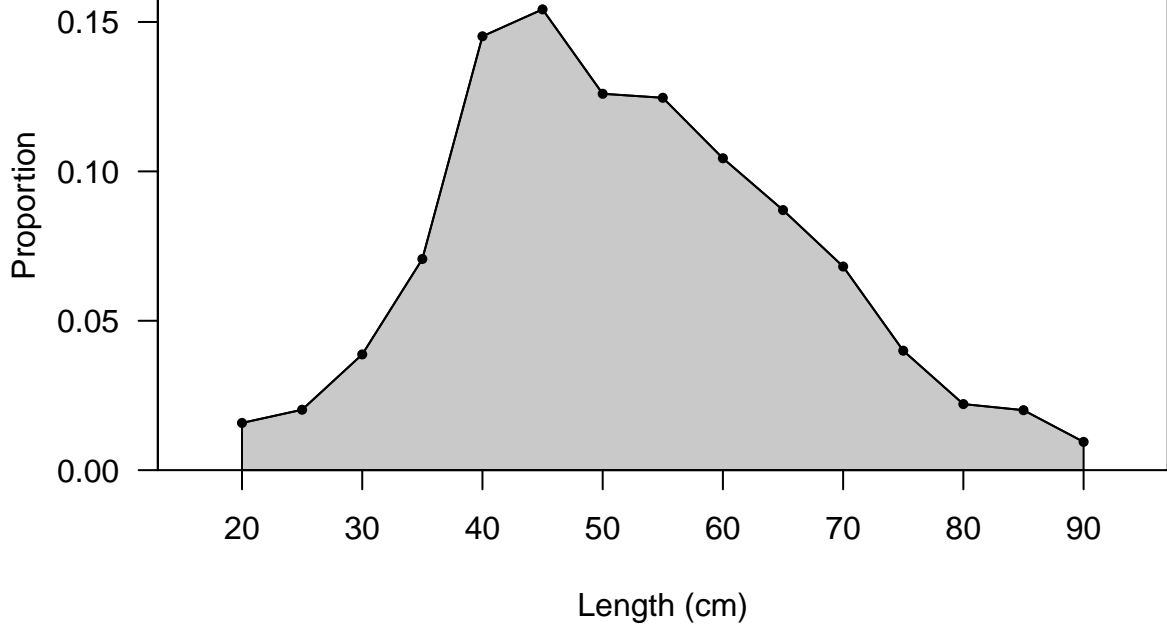






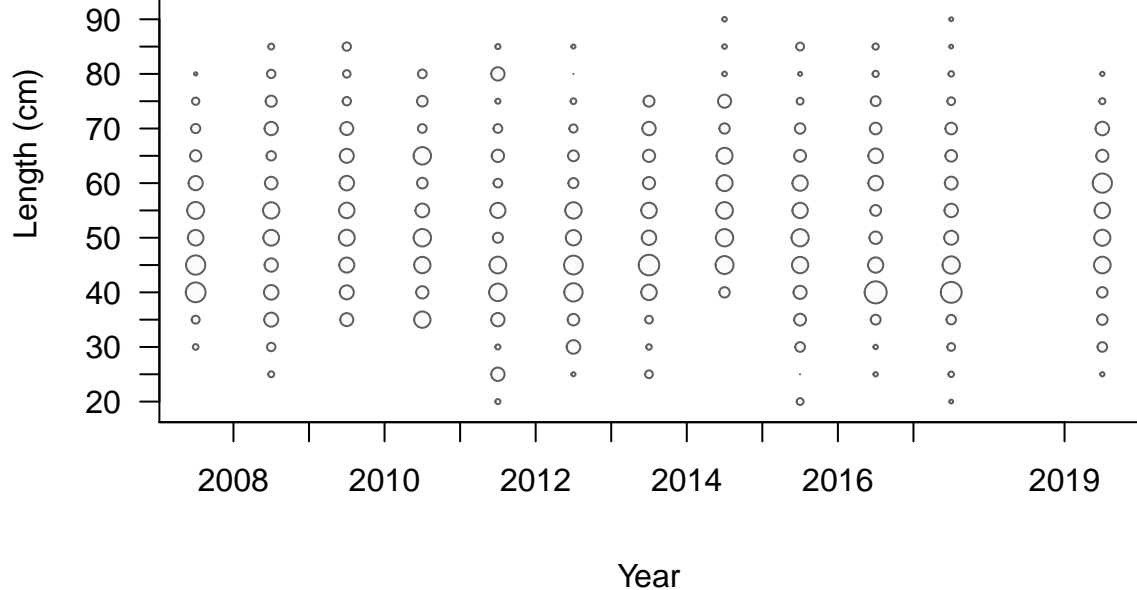
FISHERY

Sum of N adj.=970.8

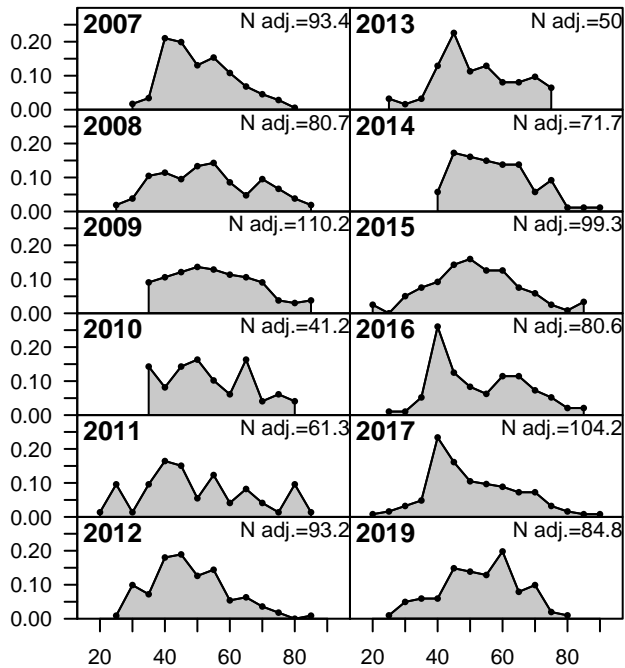


FISHERY

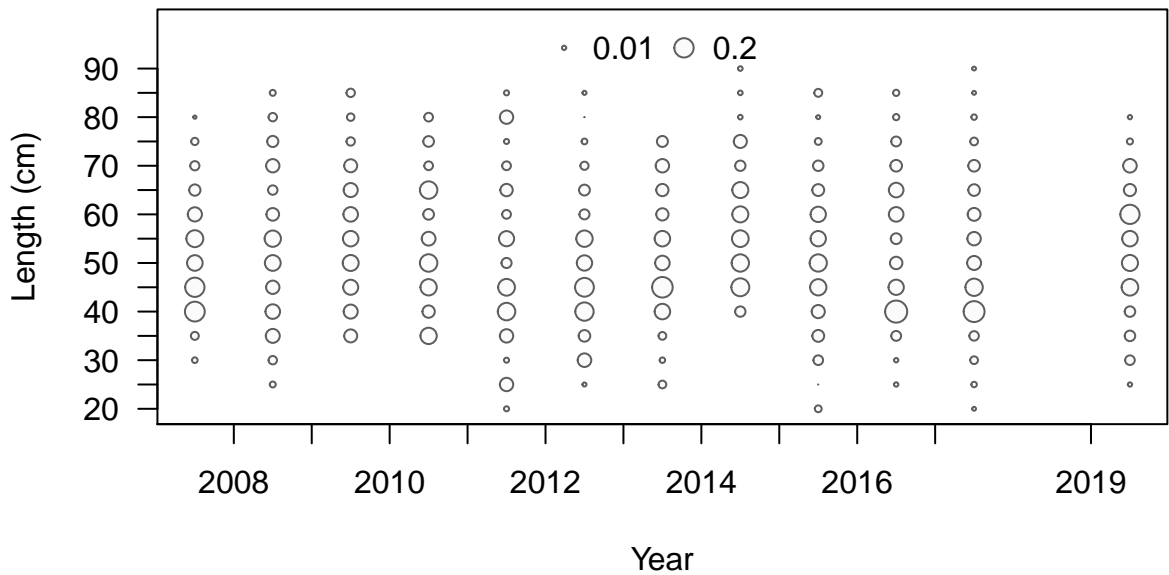
◦ 0.01 ○ 0.2



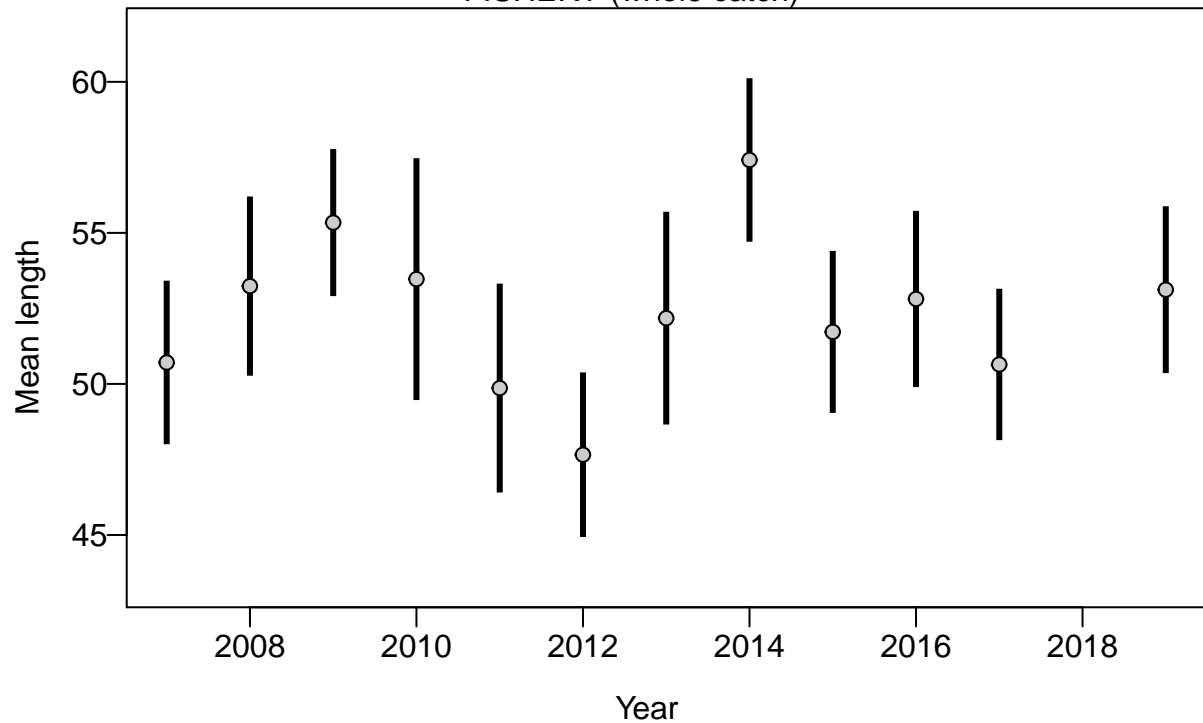
Proportion



Length (cm)

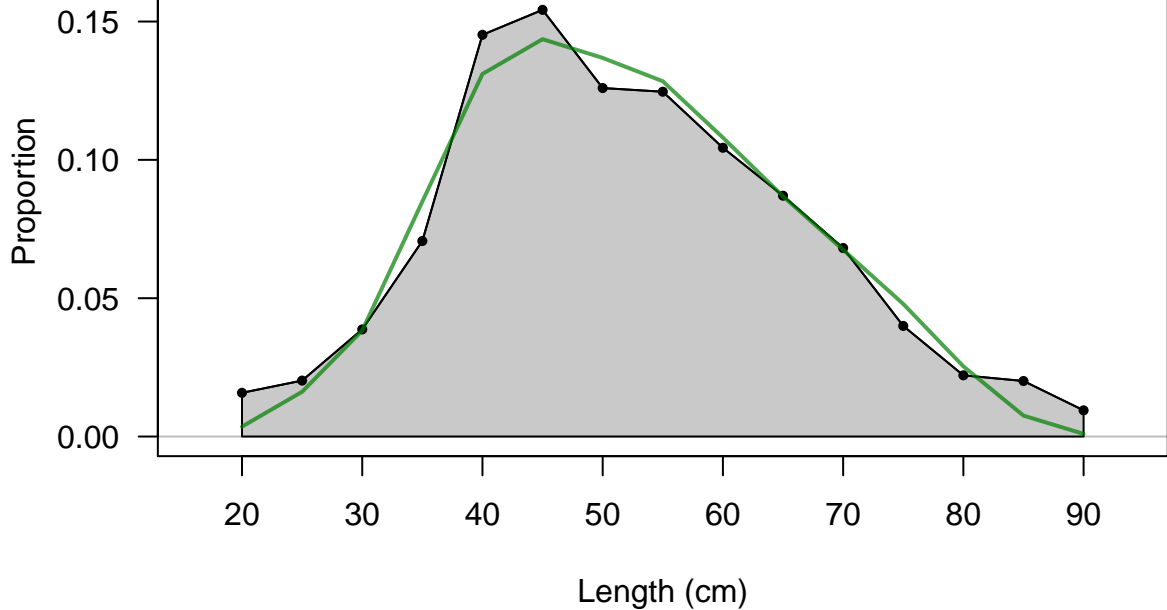


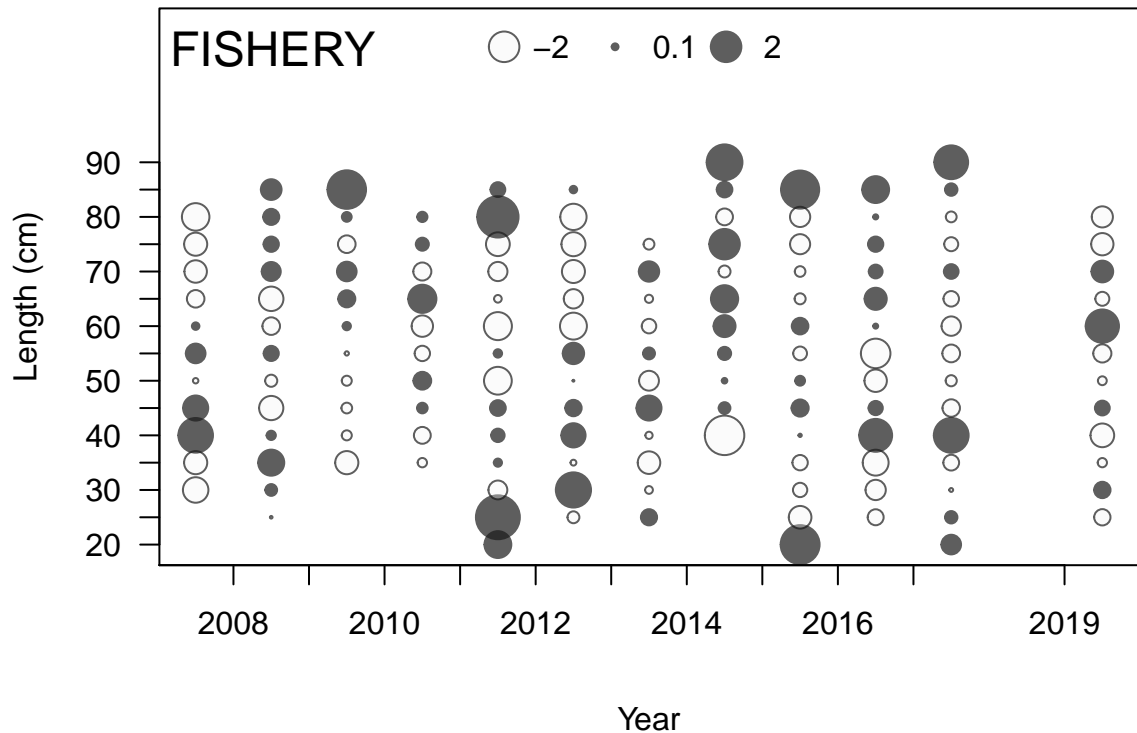
FISHERY (whole catch)



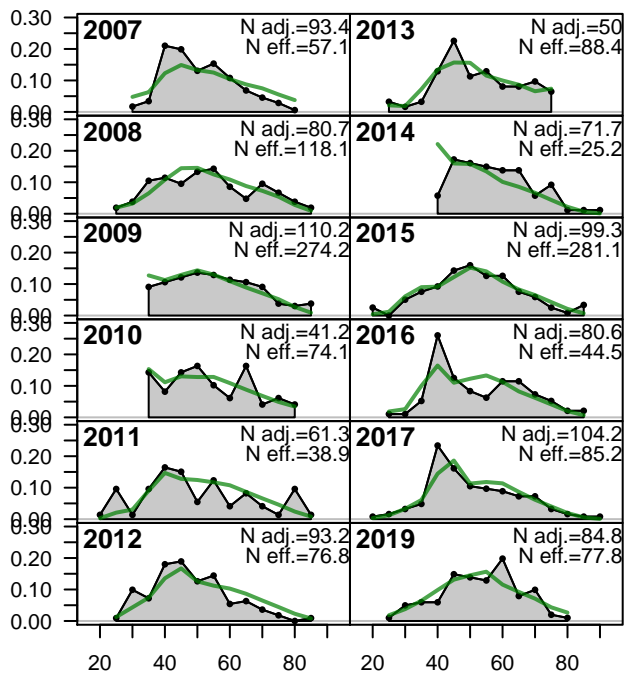
FISHERY

Sum of N adj.=970.8
Sum of N eff.=1241.3

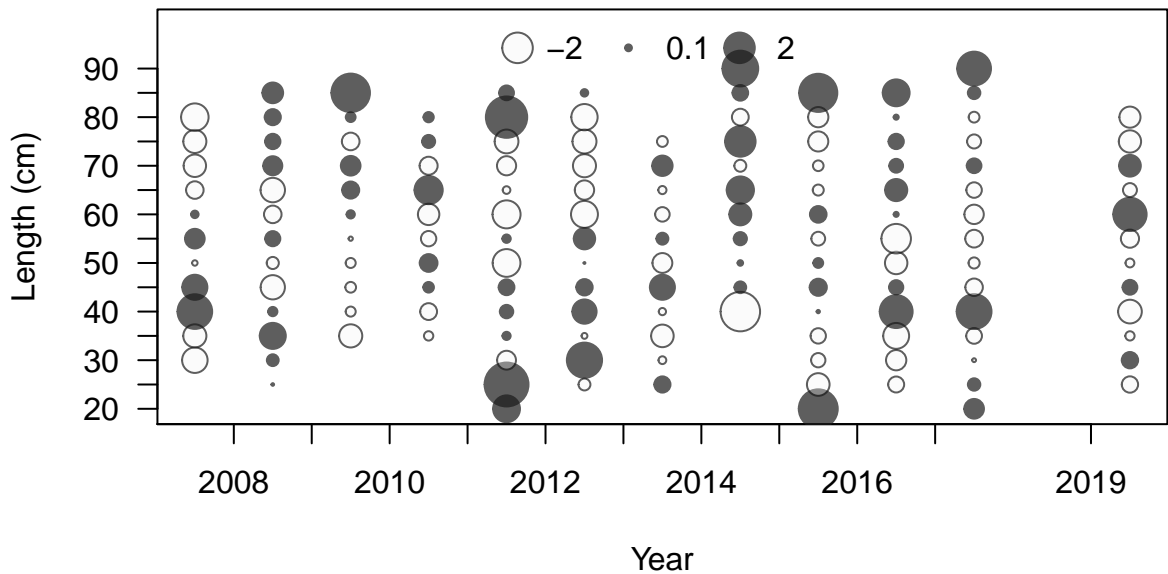




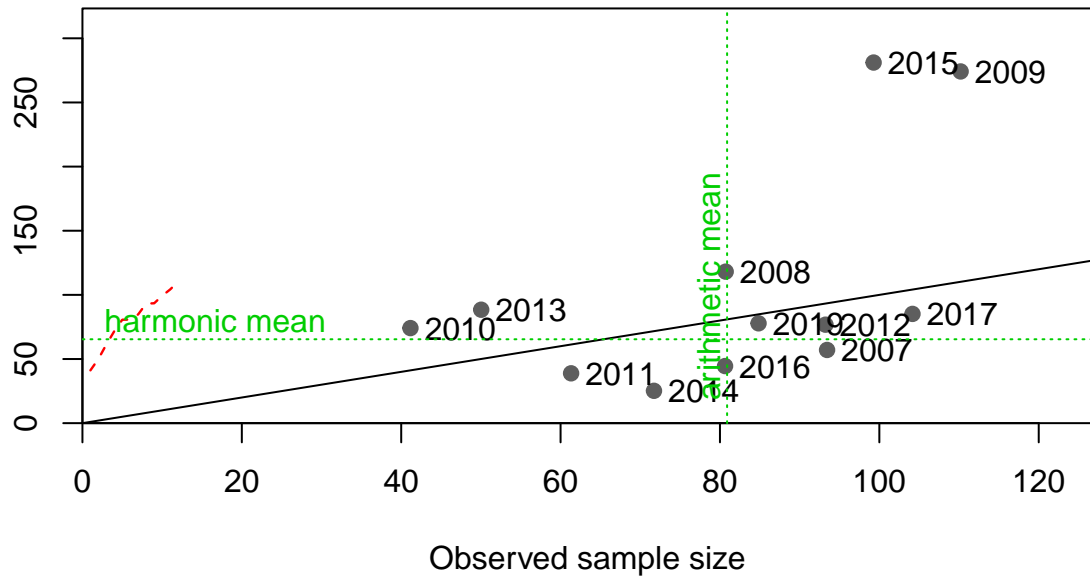
Proportion



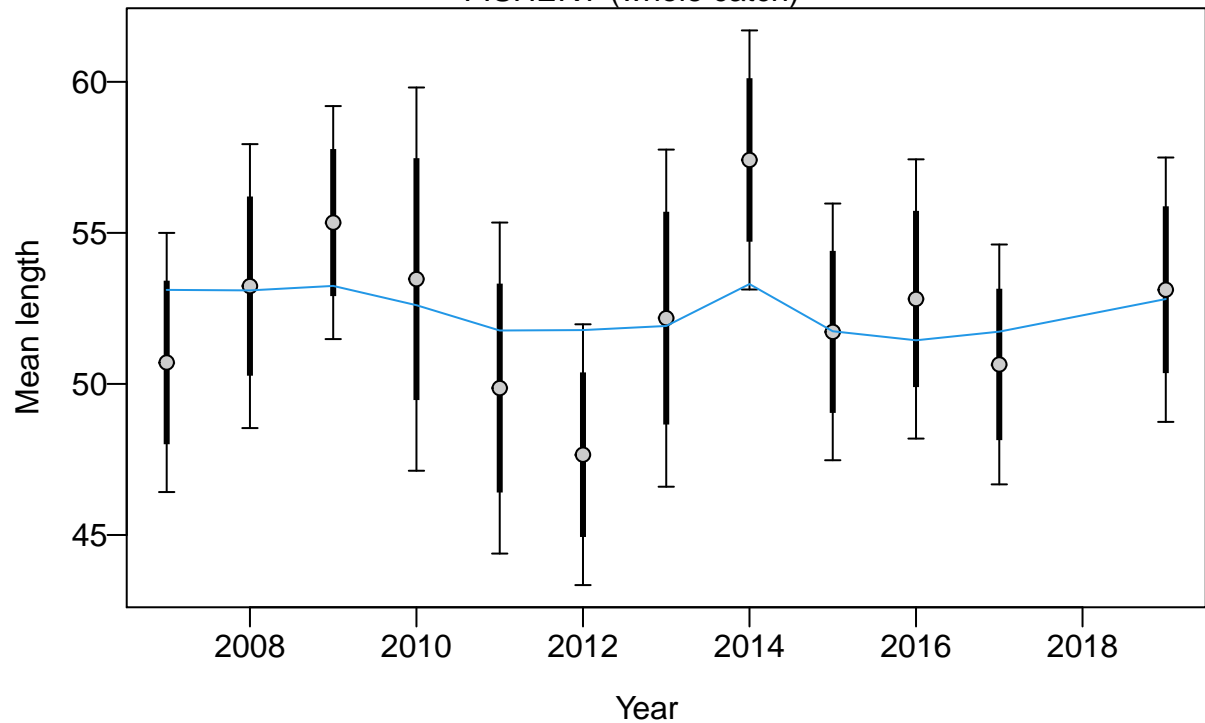
Length (cm)

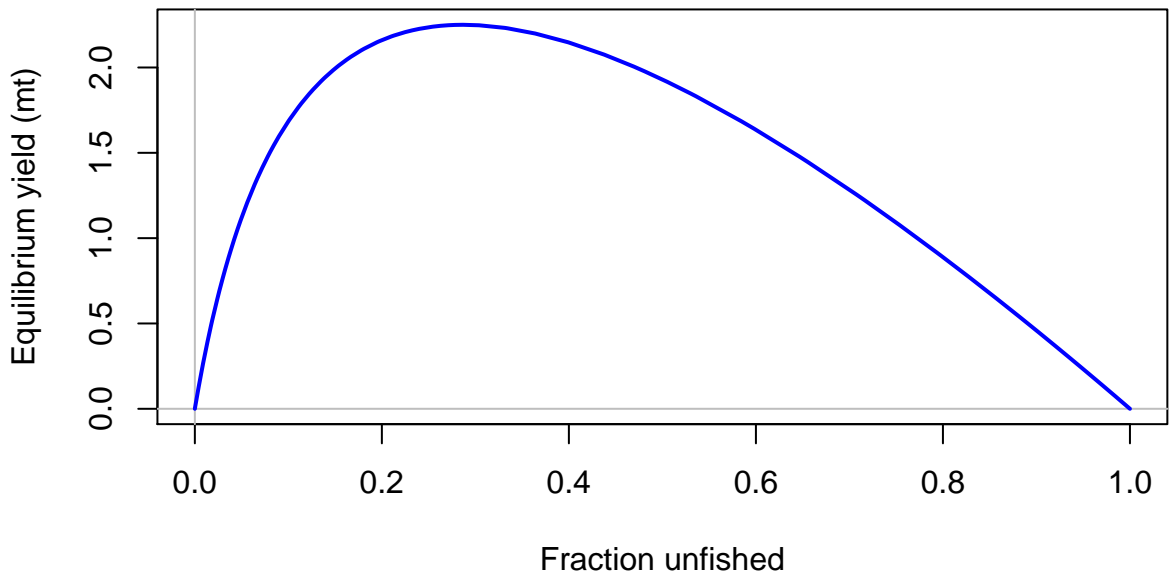


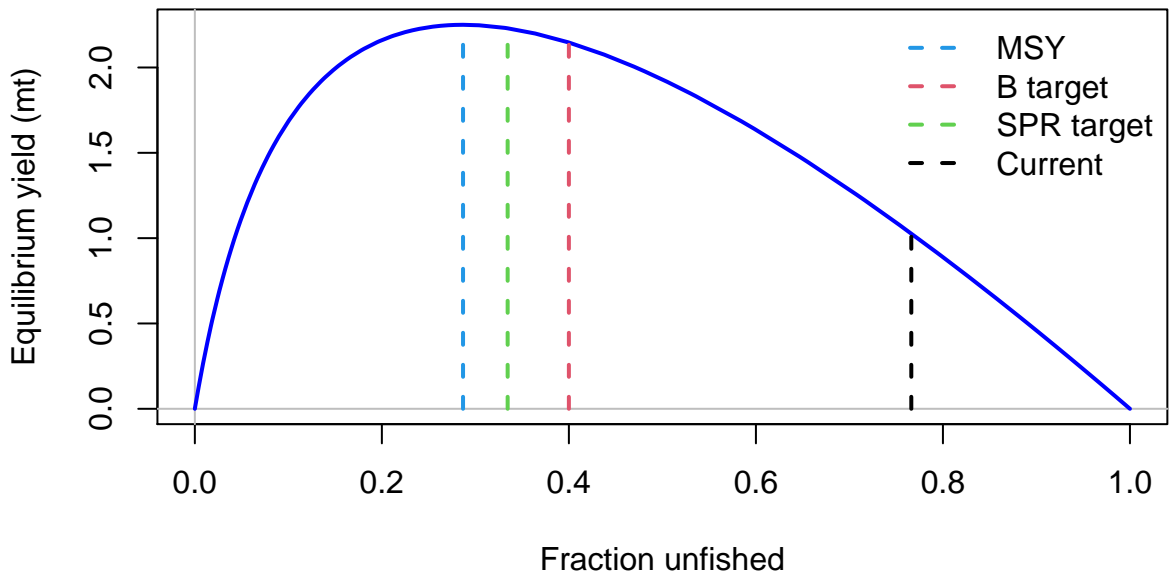
Effective sample size

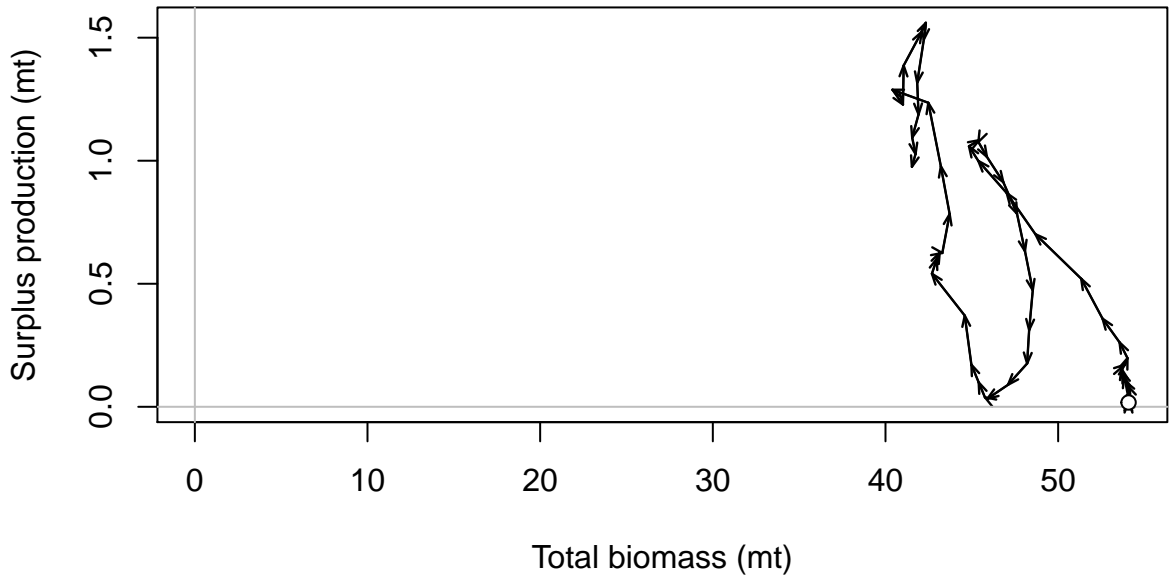


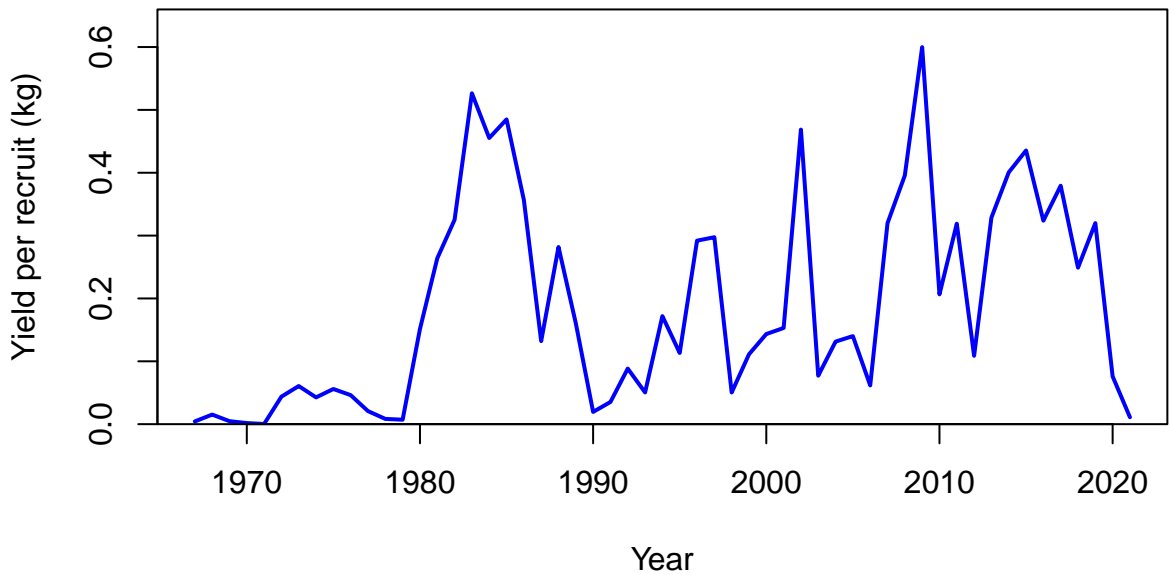
FISHERY (whole catch)

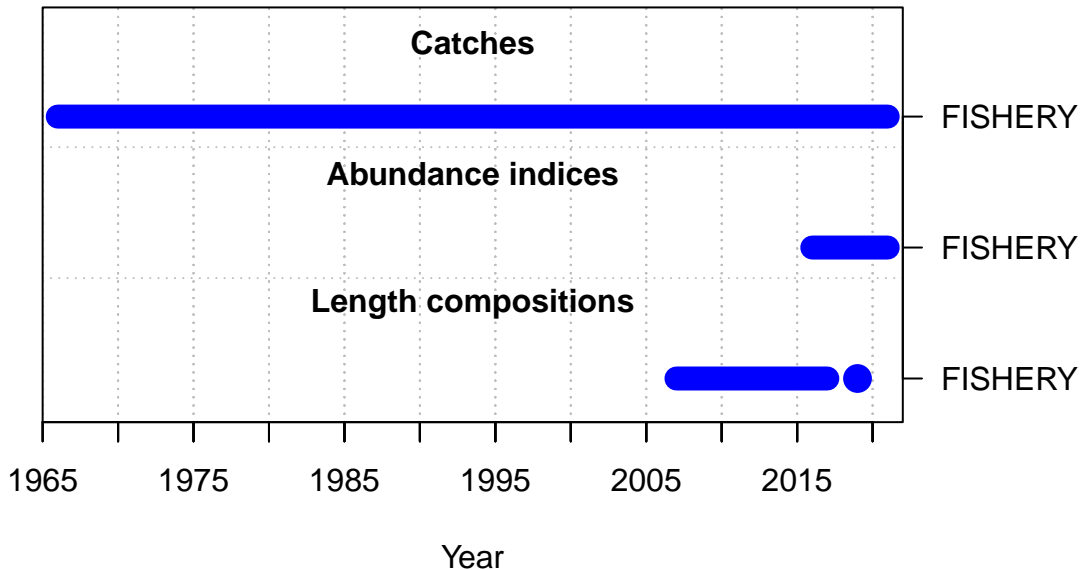


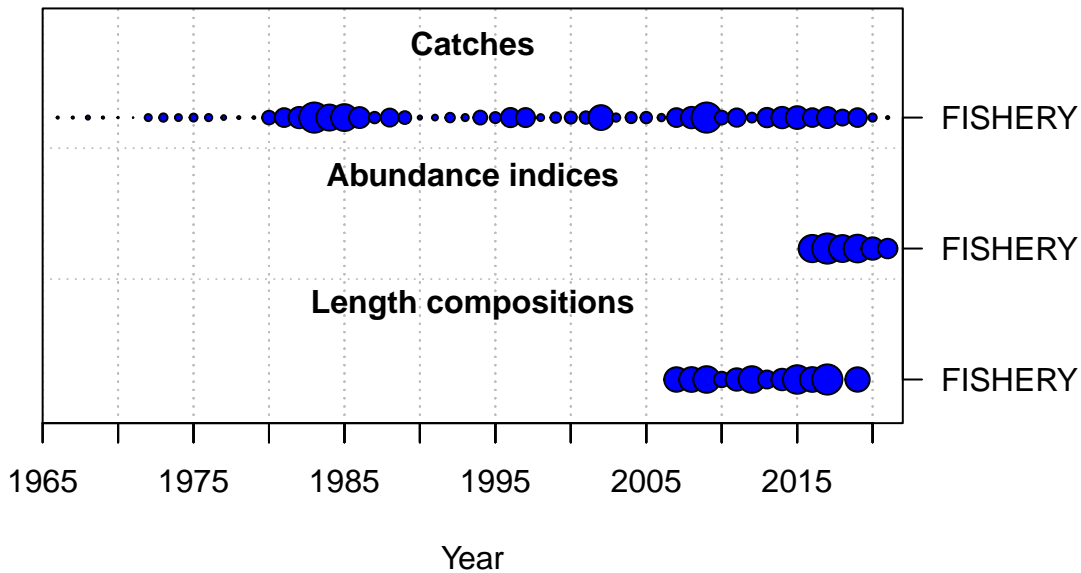






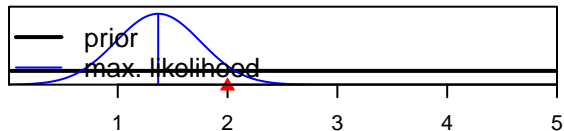




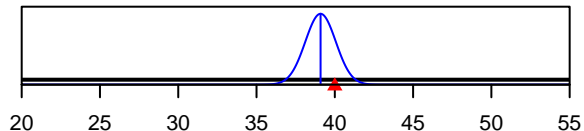


Density

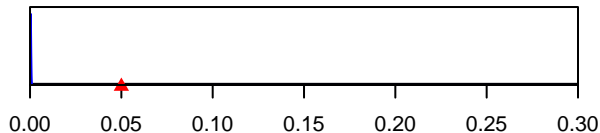
SR_LN(R0)



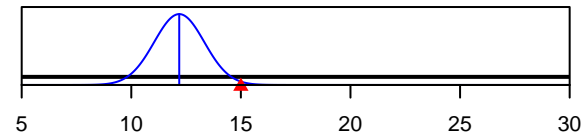
Size_inflection_FISHERY(1)



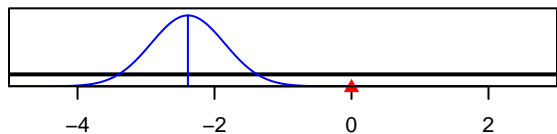
InitF_seas_1flt_1FISHERY



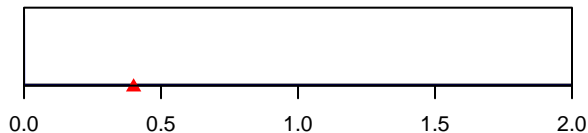
Size_95%width_FISHERY(1)



LnQ_base_FISHERY(1)



Q_extraSD_FISHERY(1)



Parameter value