

Plots created using the 'r4ss' package in R
Stock Synthesis version: 3.30.19.0
StartTime: Tue Jul 12 09:28:59 2022
Data_File: data.ss
Control_File: control.ss

Length (cm, beginning of the year)

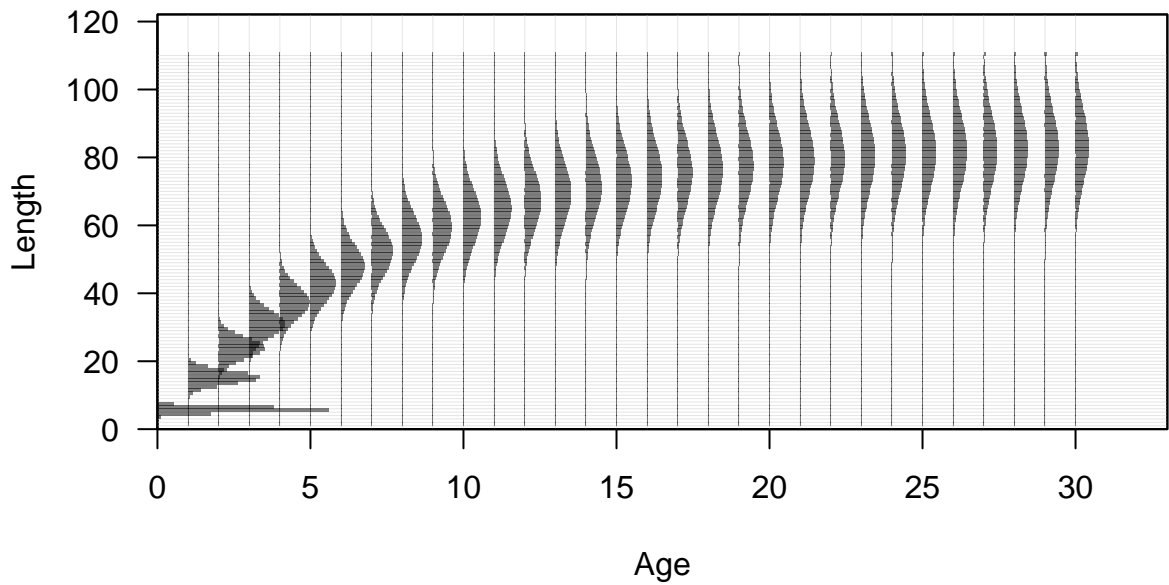


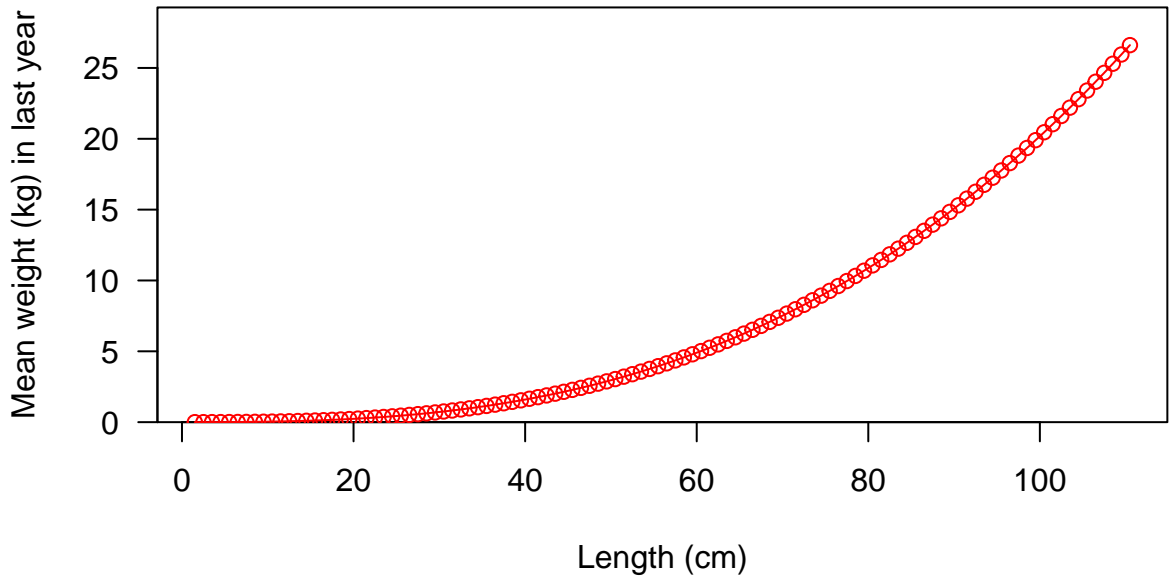
Age (yr)





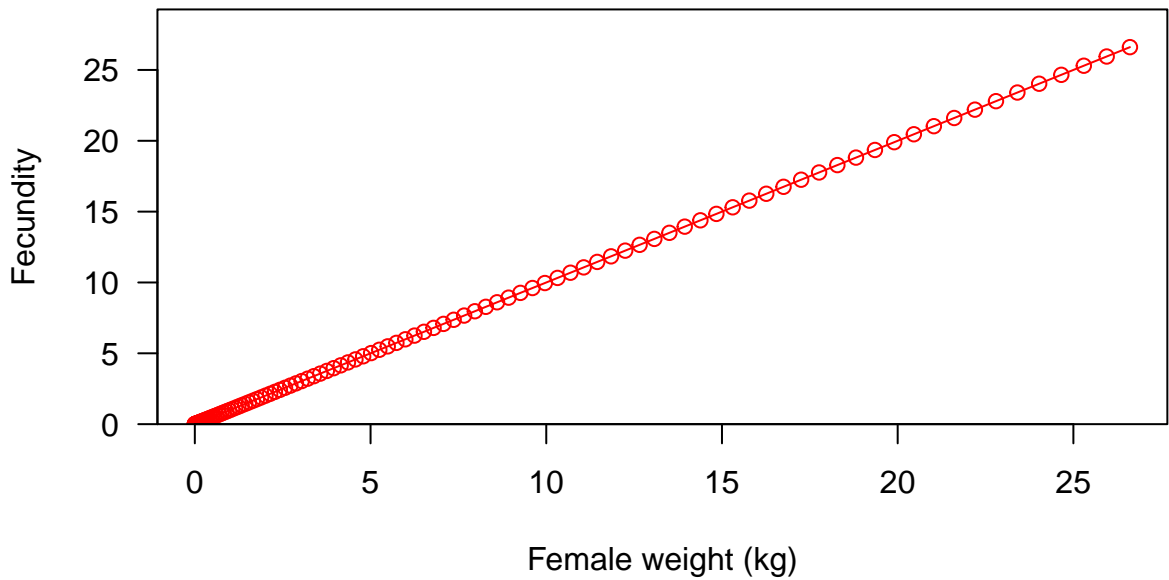




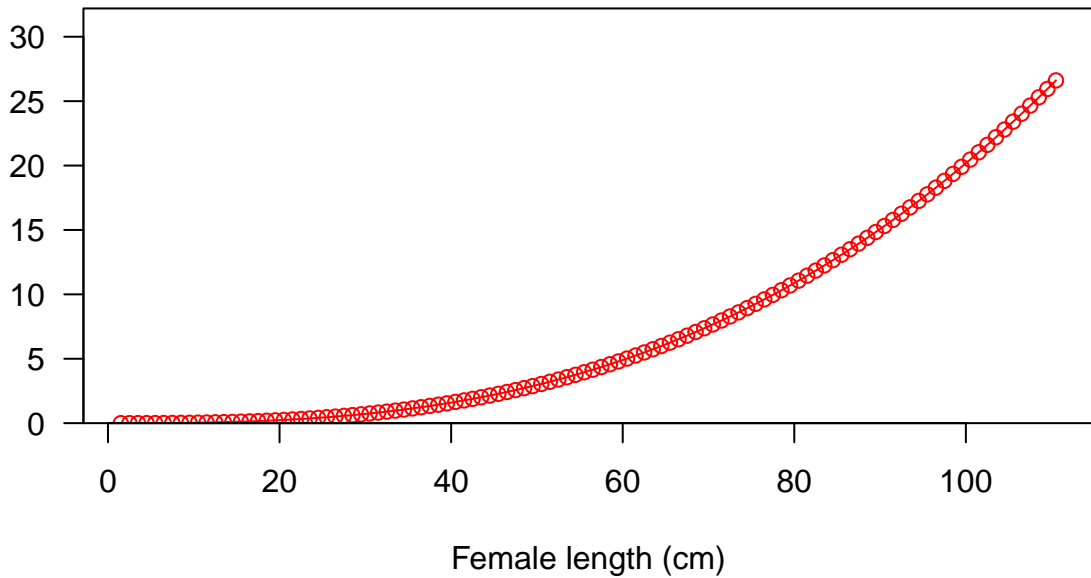








Fecundity



Spawning output

25
20
15
10
5
0

0

20

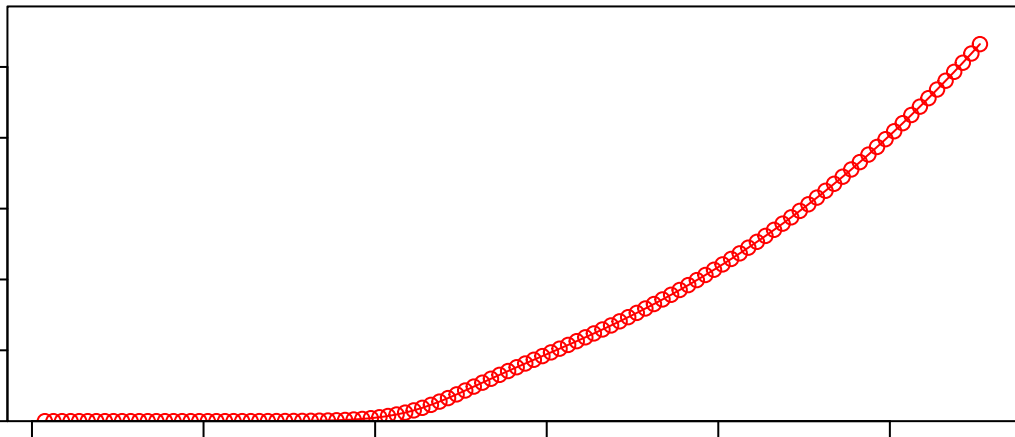
40

60

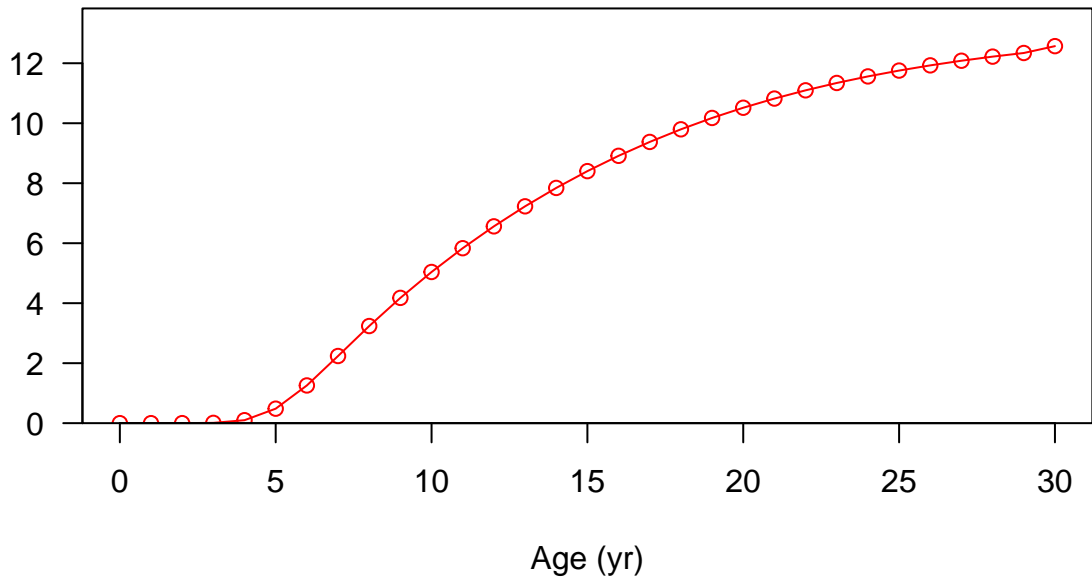
80

100

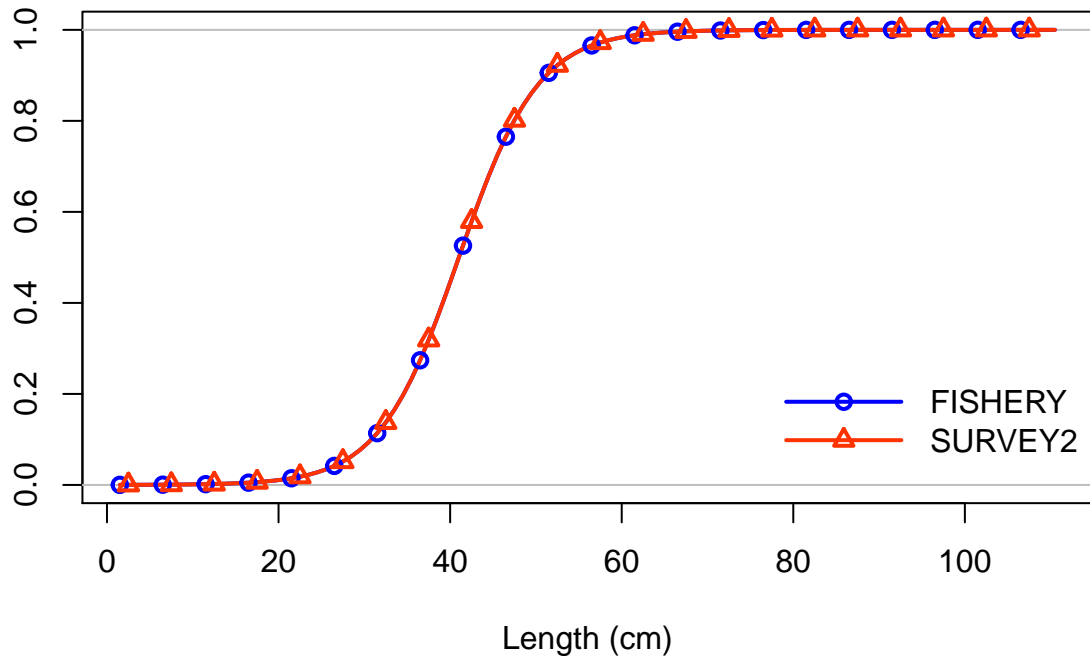
Length (cm)



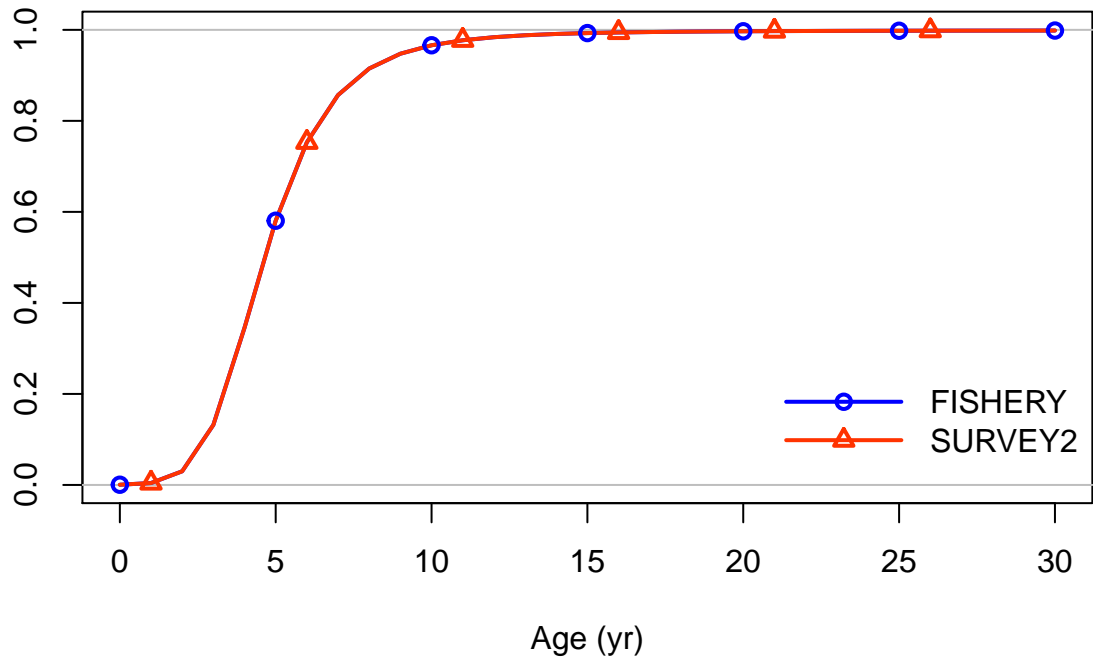
Spawning output



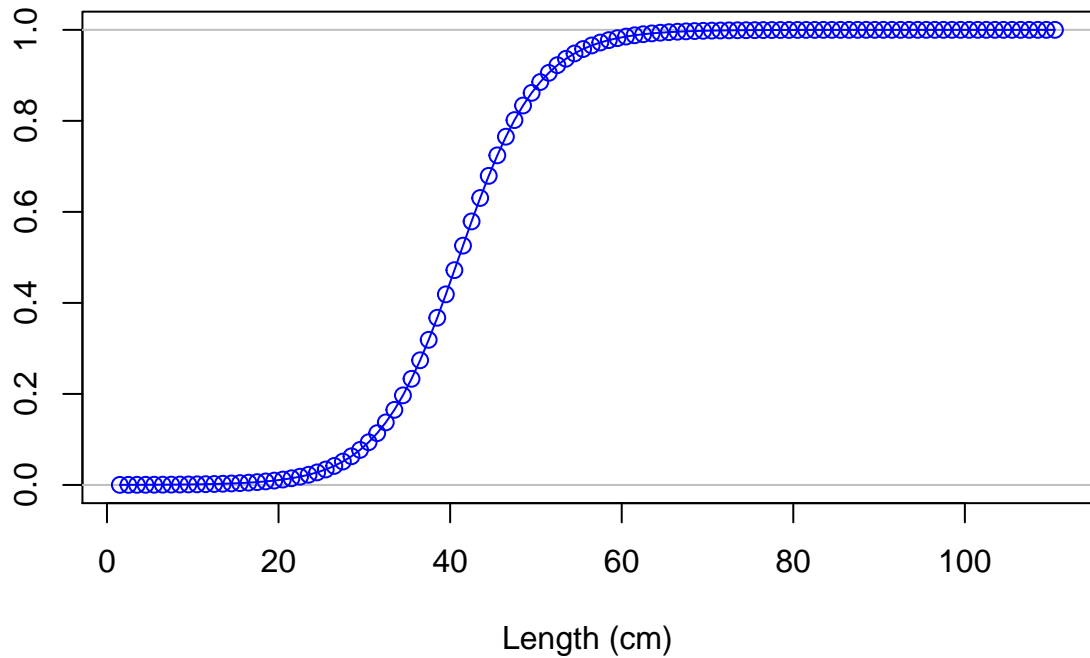
Selectivity



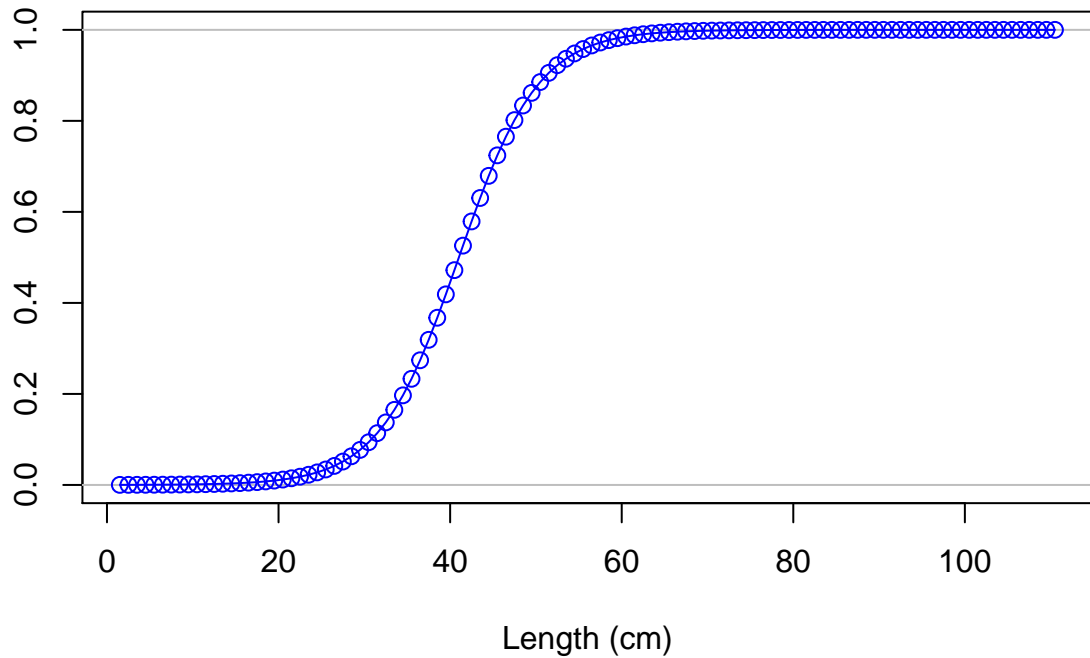
Selectivity

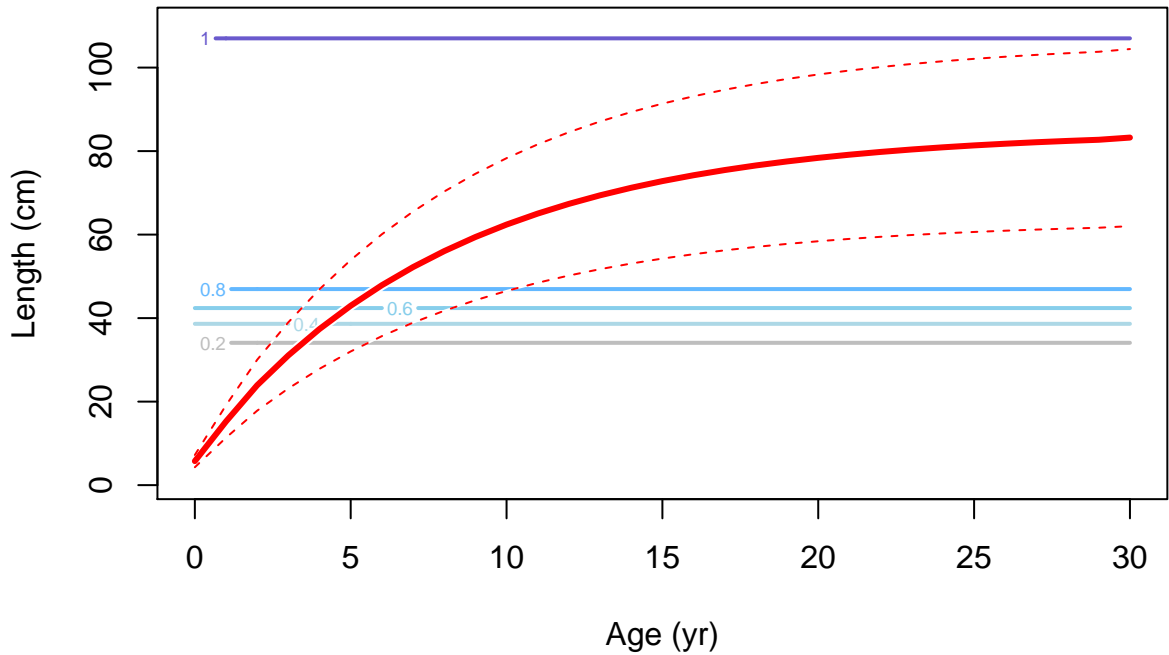


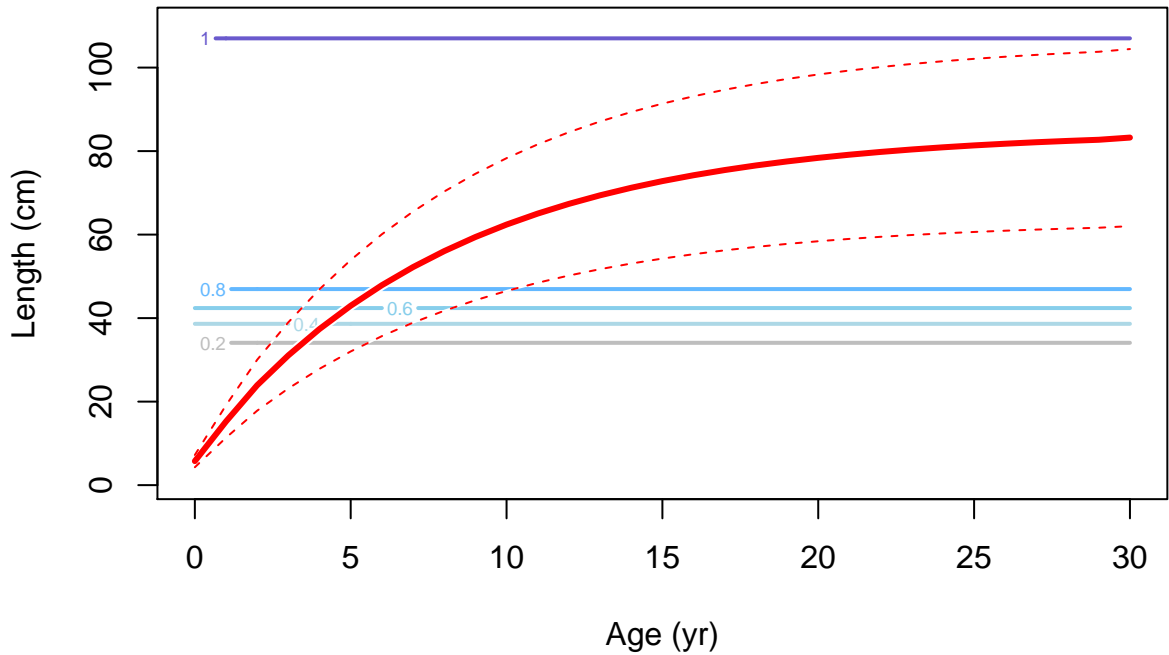
Selectivity



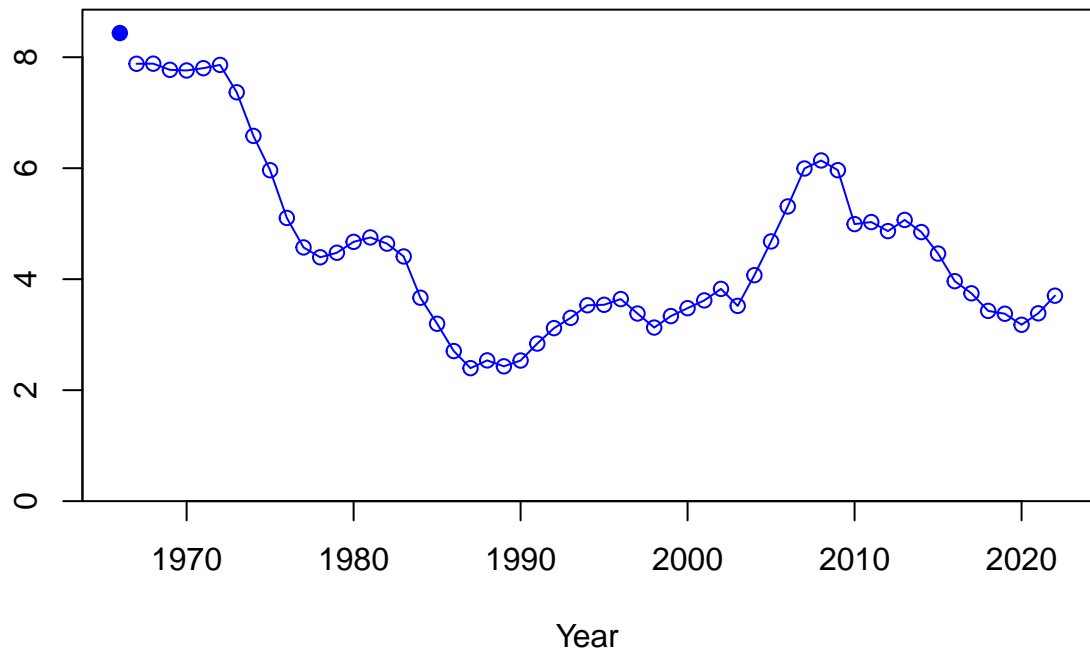
Selectivity



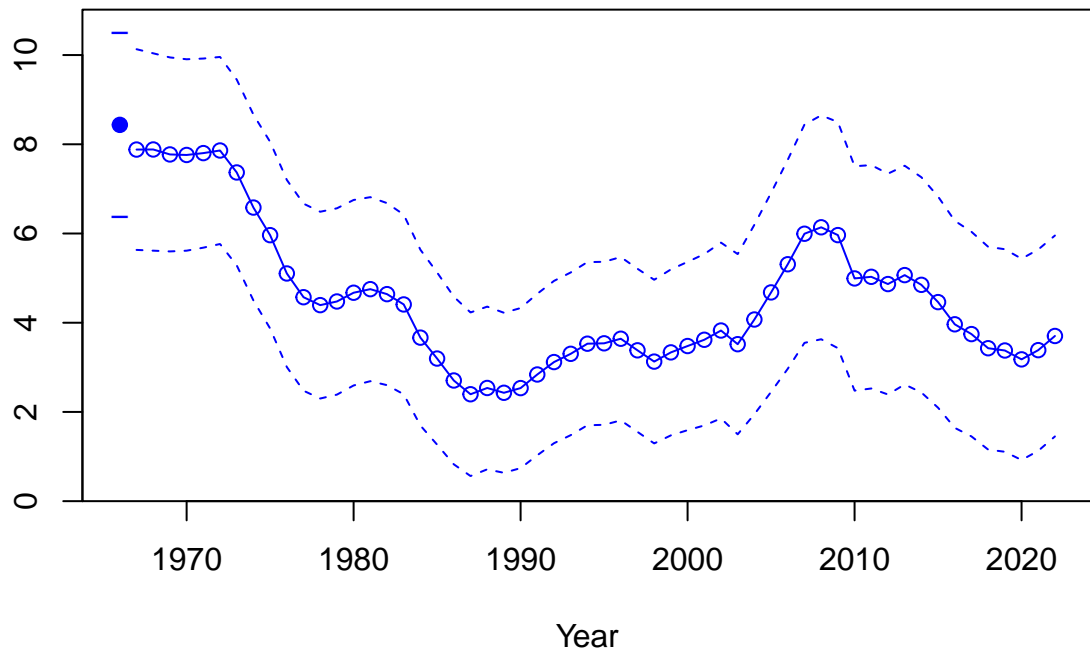




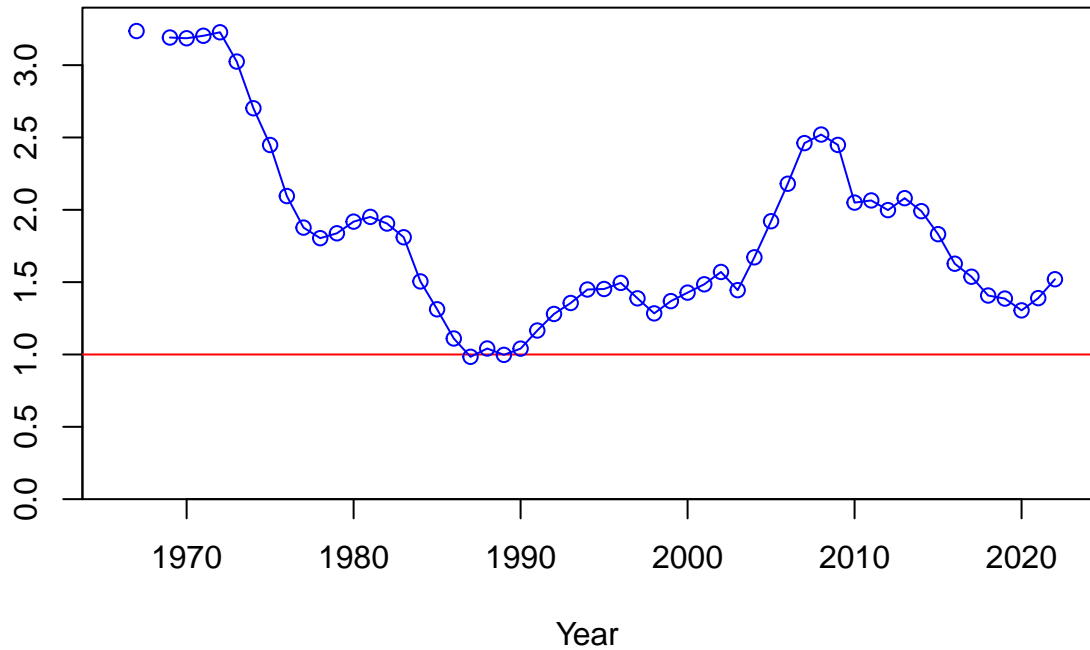
Spawning biomass (mt)



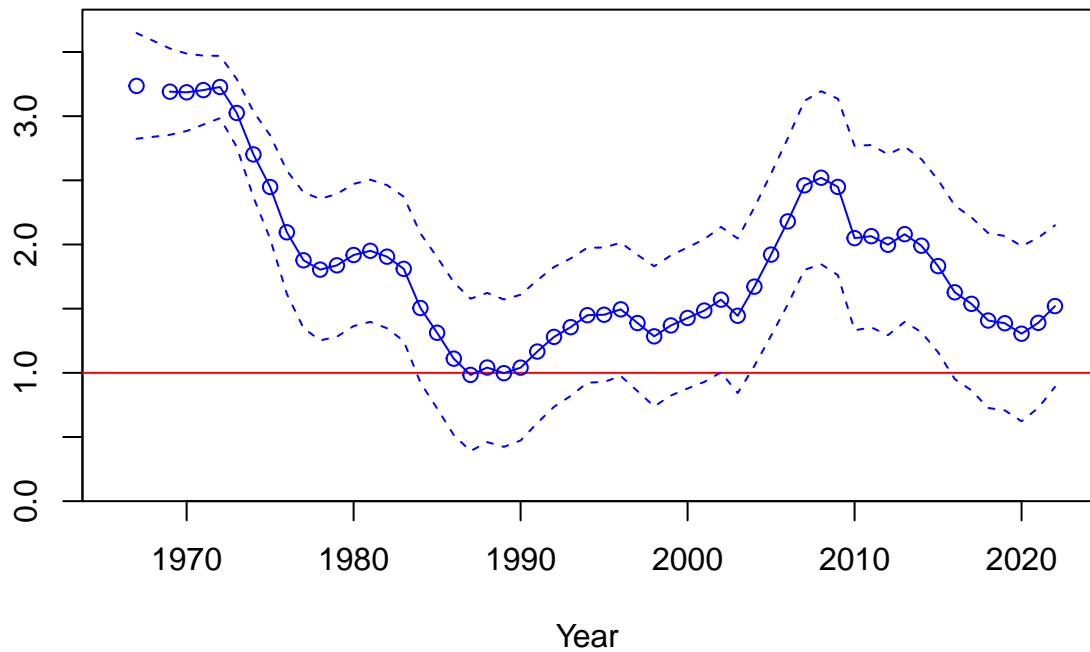
Spawning biomass (mt)

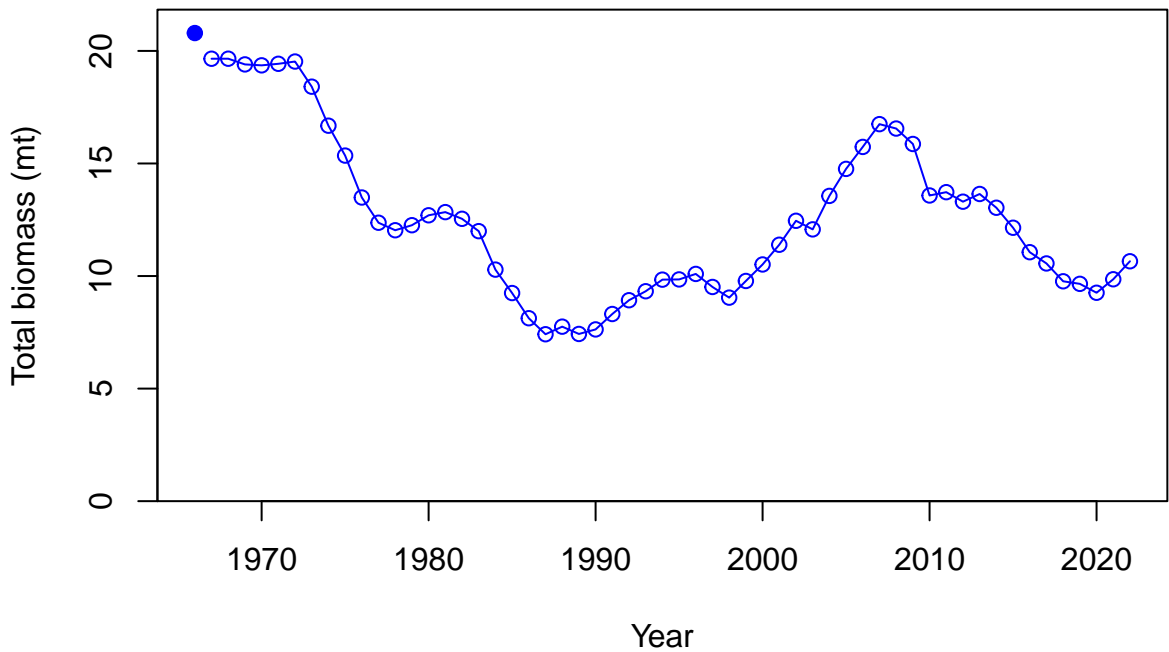


Relative spawning biomass: B/B_{MSY}

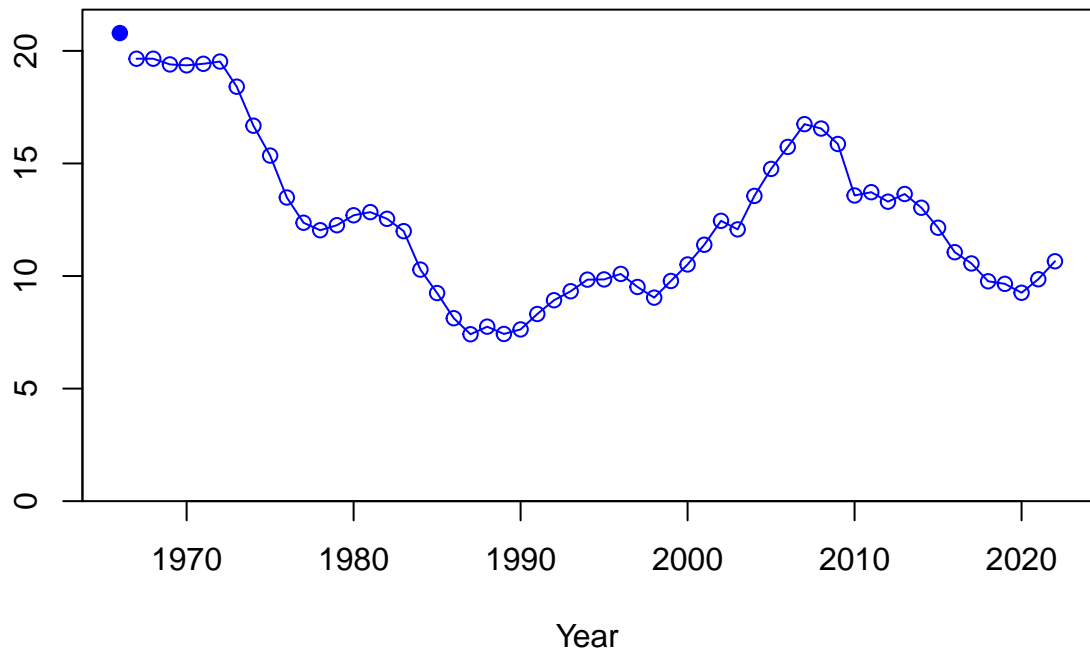


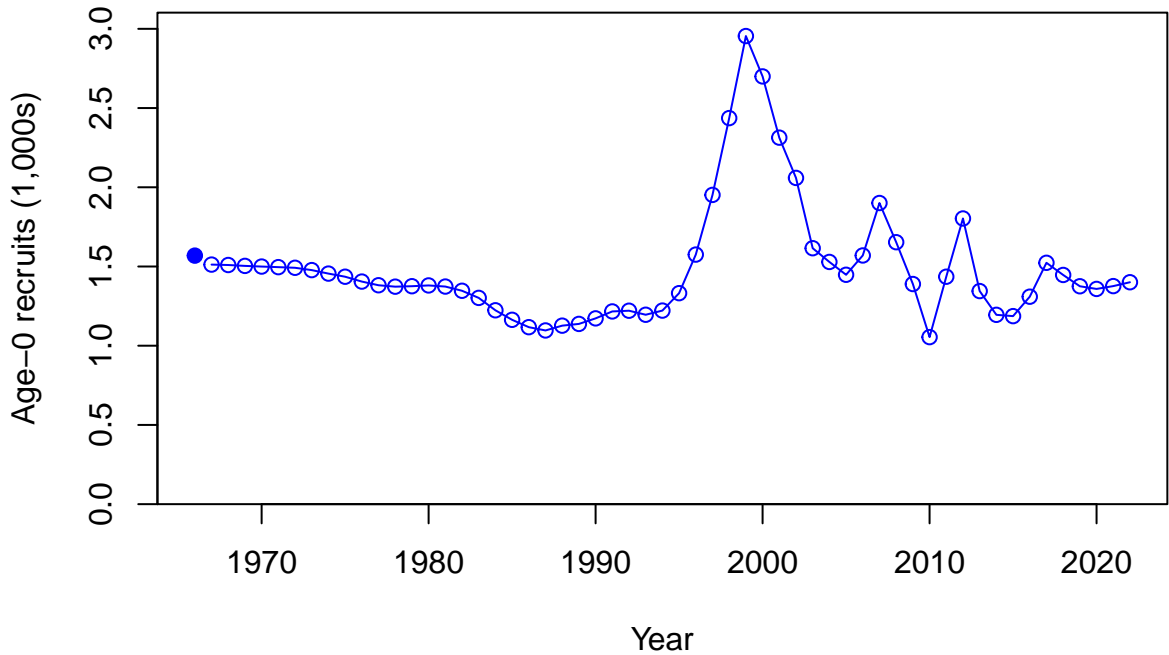
Relative spawning biomass: B/B_{MSY}



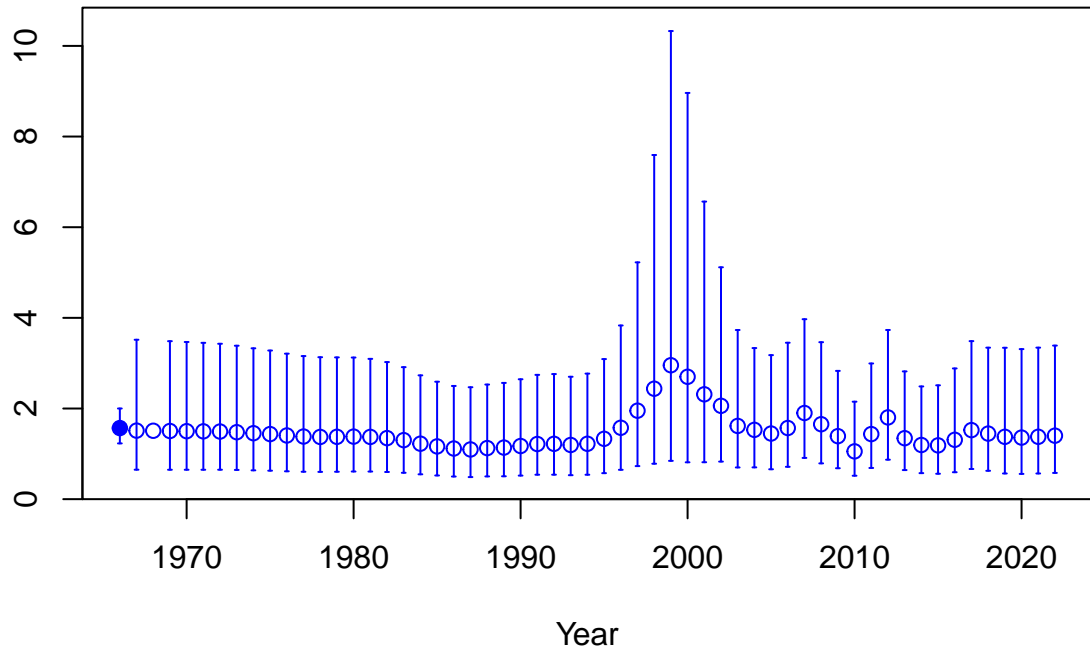


Summary biomass (mt)

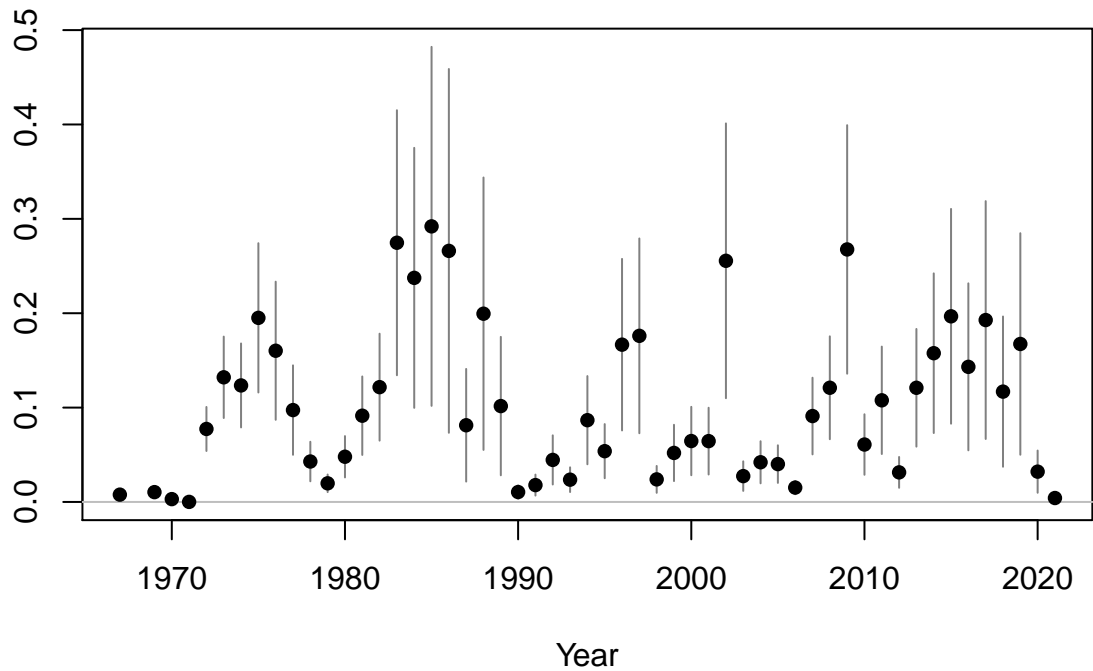


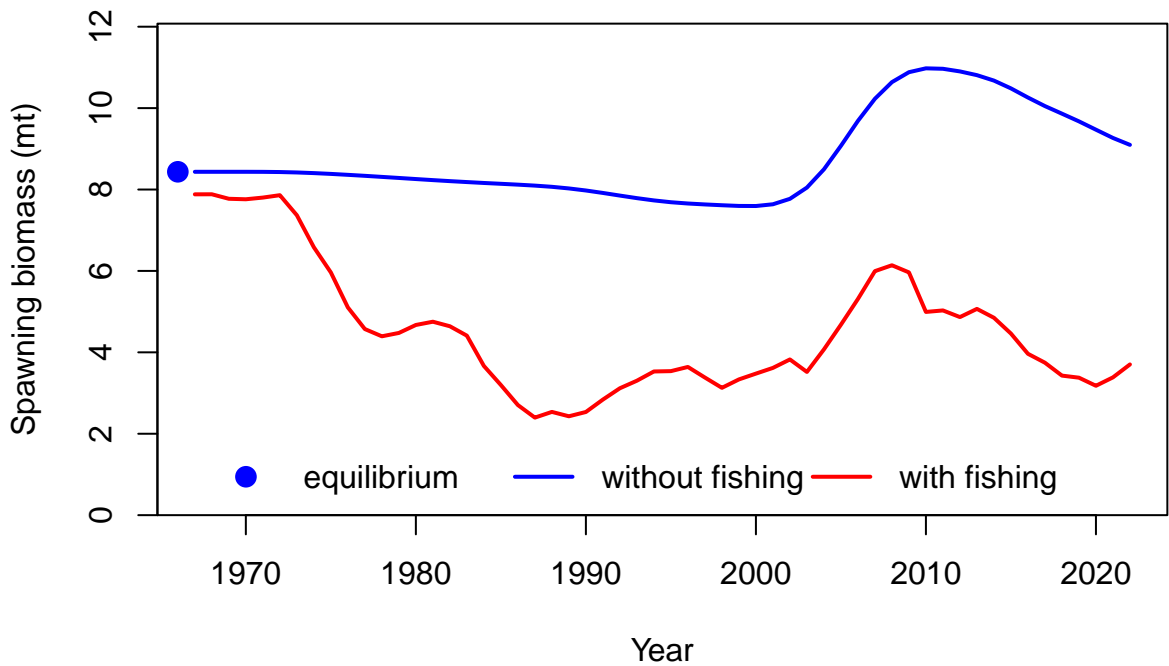


Age-0 recruits (1,000s)

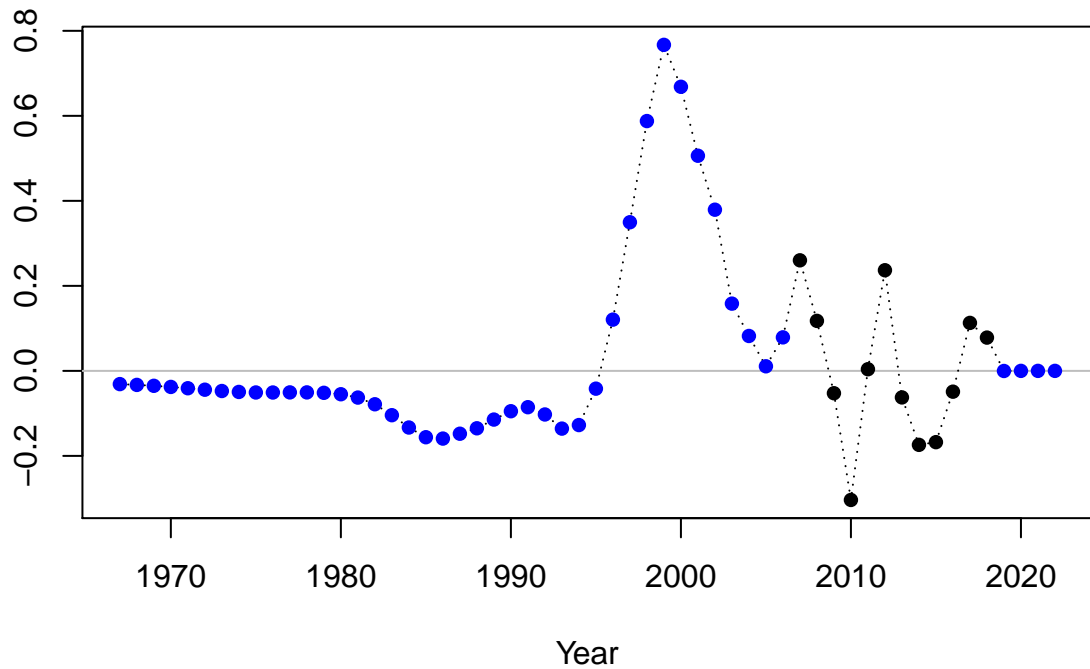


Summary Fishing Mortality

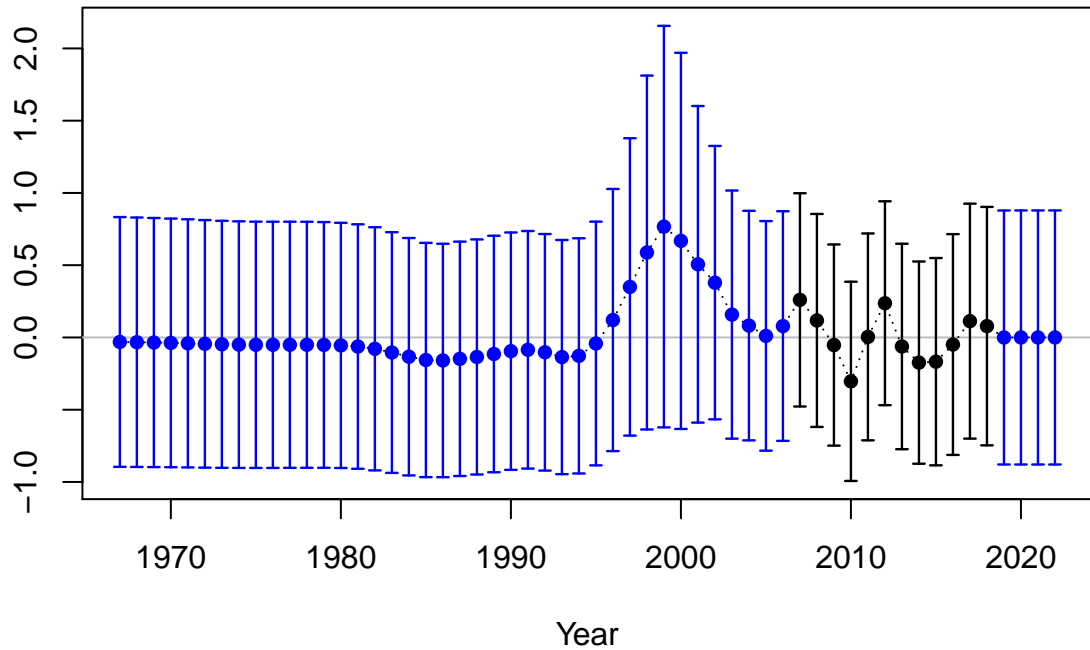




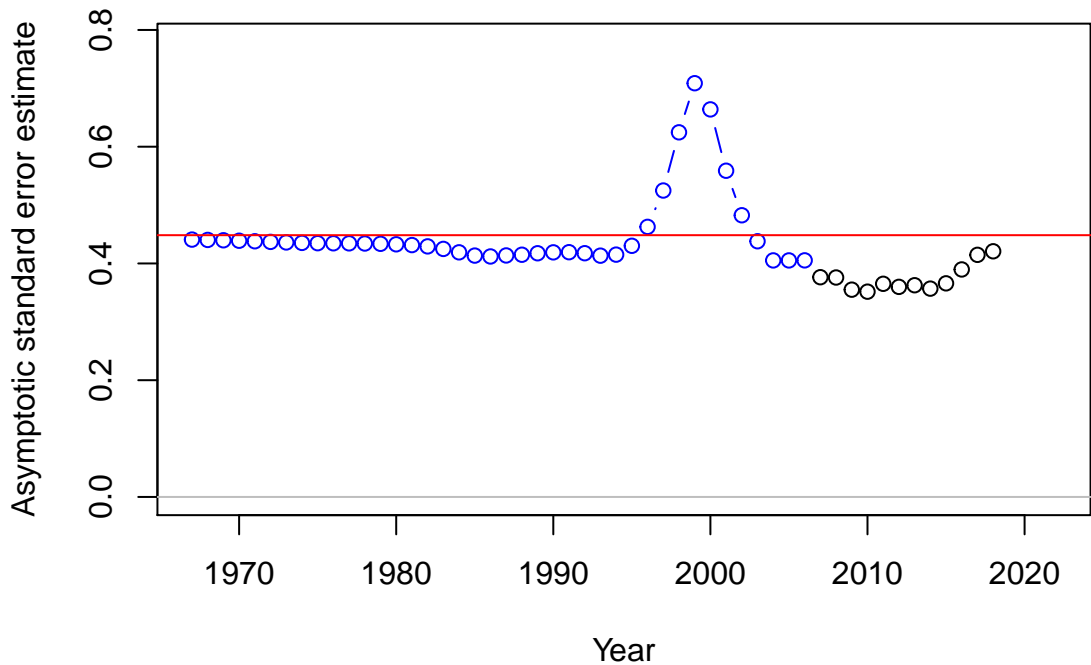
Log recruitment deviation

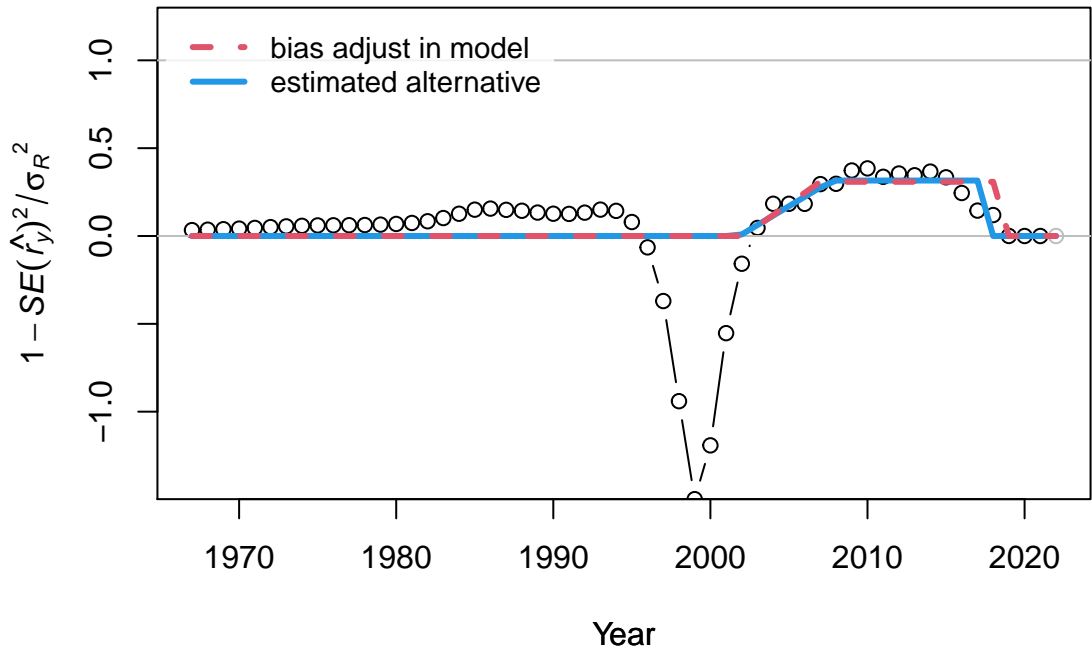


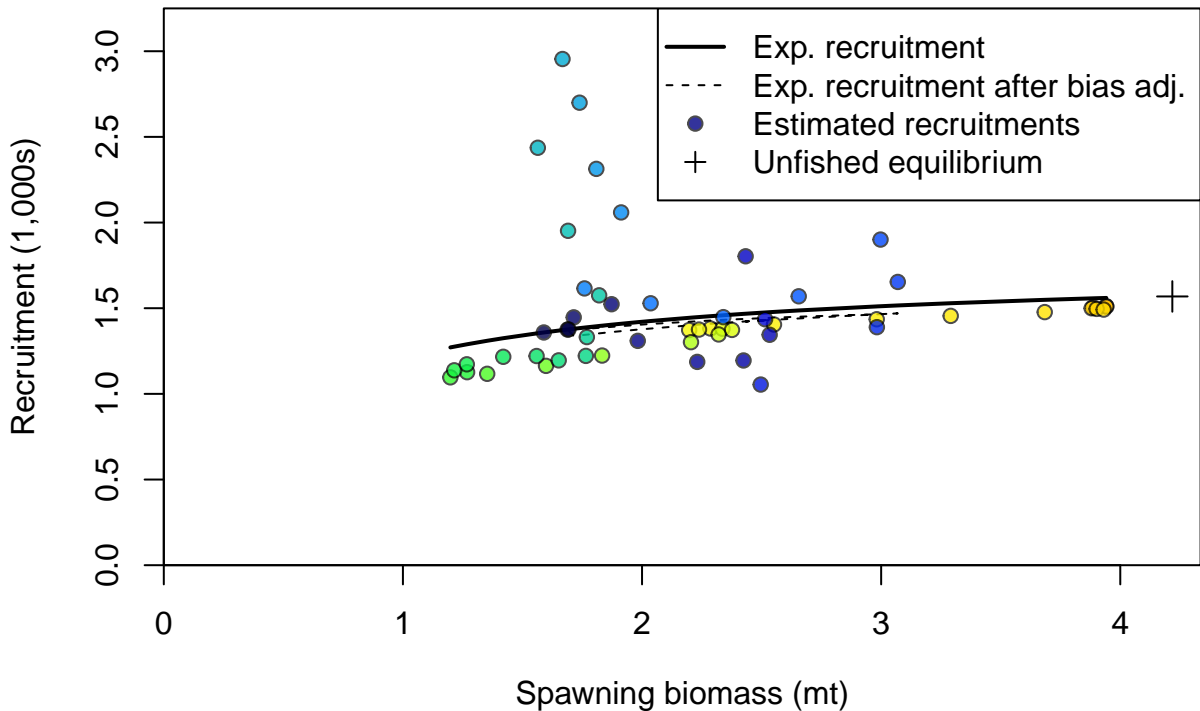
Log recruitment deviation

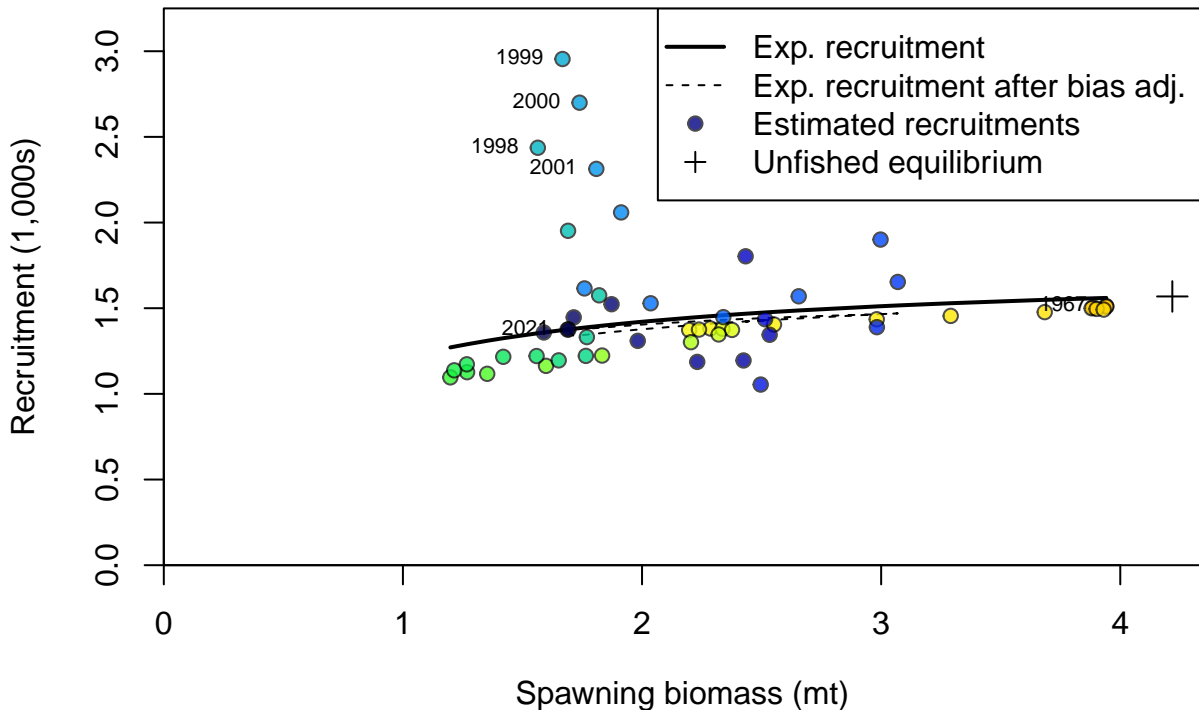


Recruitment deviation variance









Log recruitment deviation

0.5

0.0

-0.5

0.0

0.2

0.4

0.6

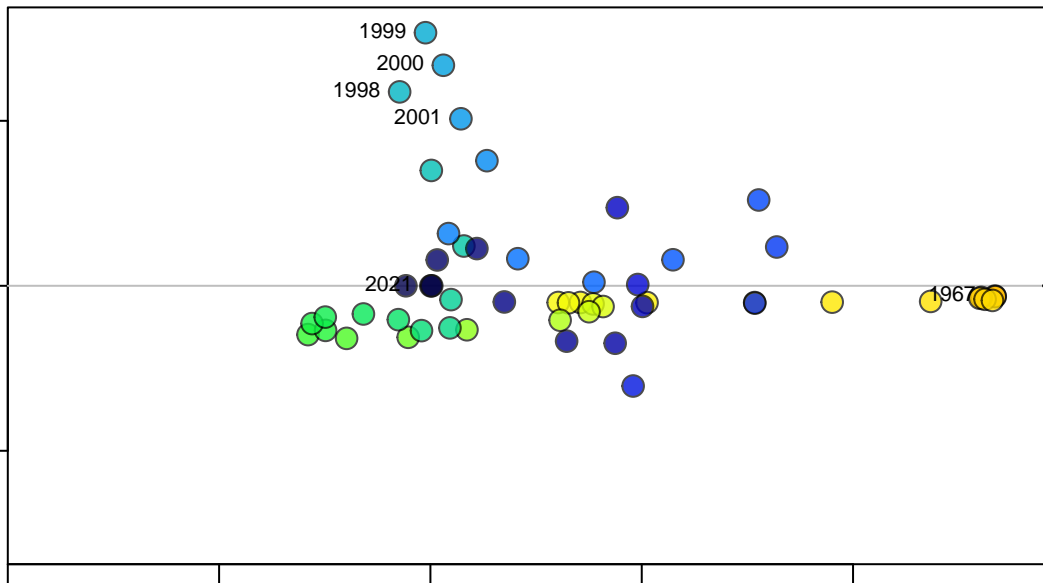
0.8

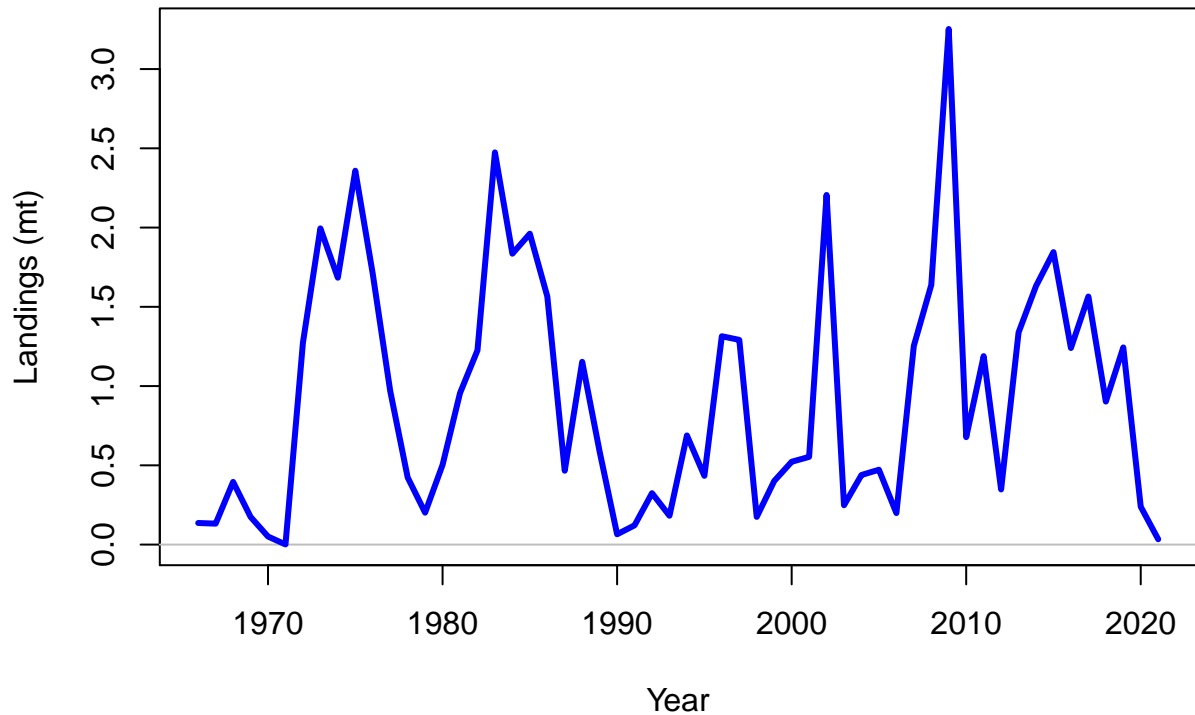
Spawning output (relative to B_0)

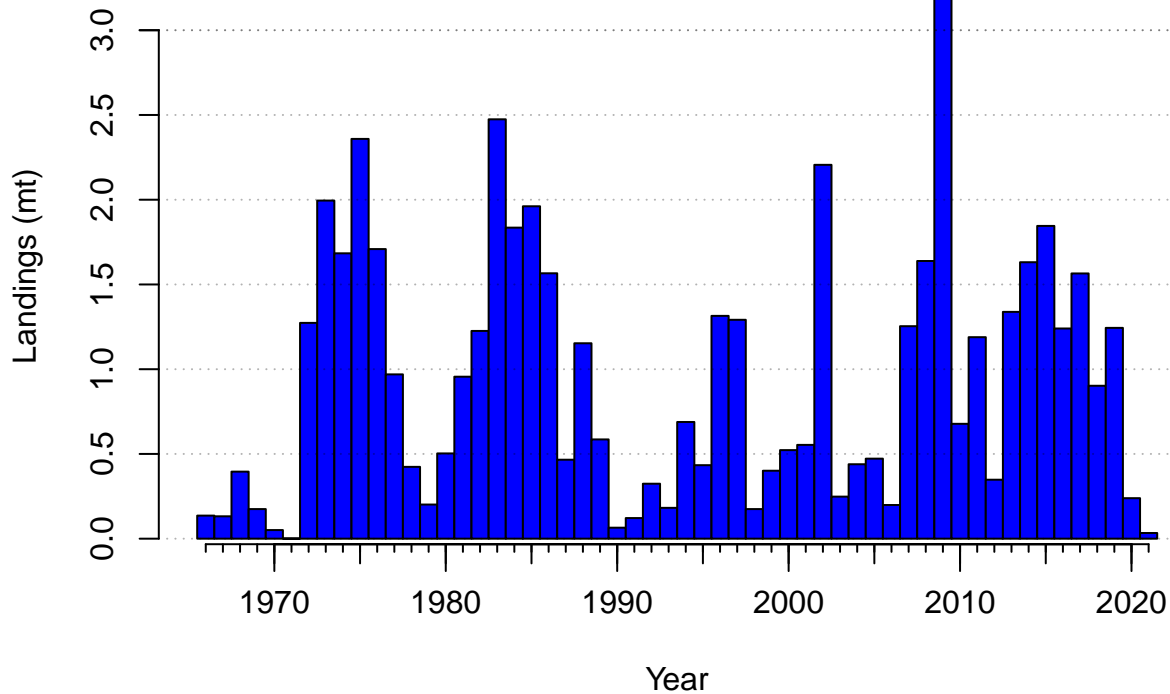
1999
2000
1998
2001

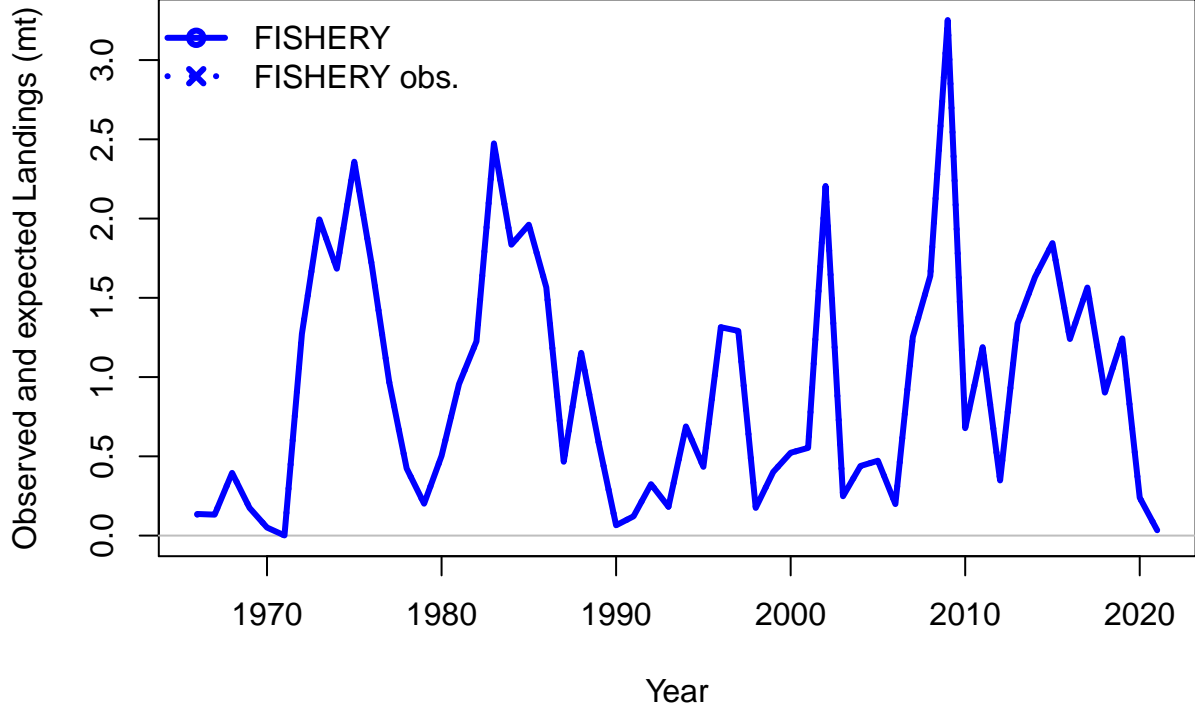
2021

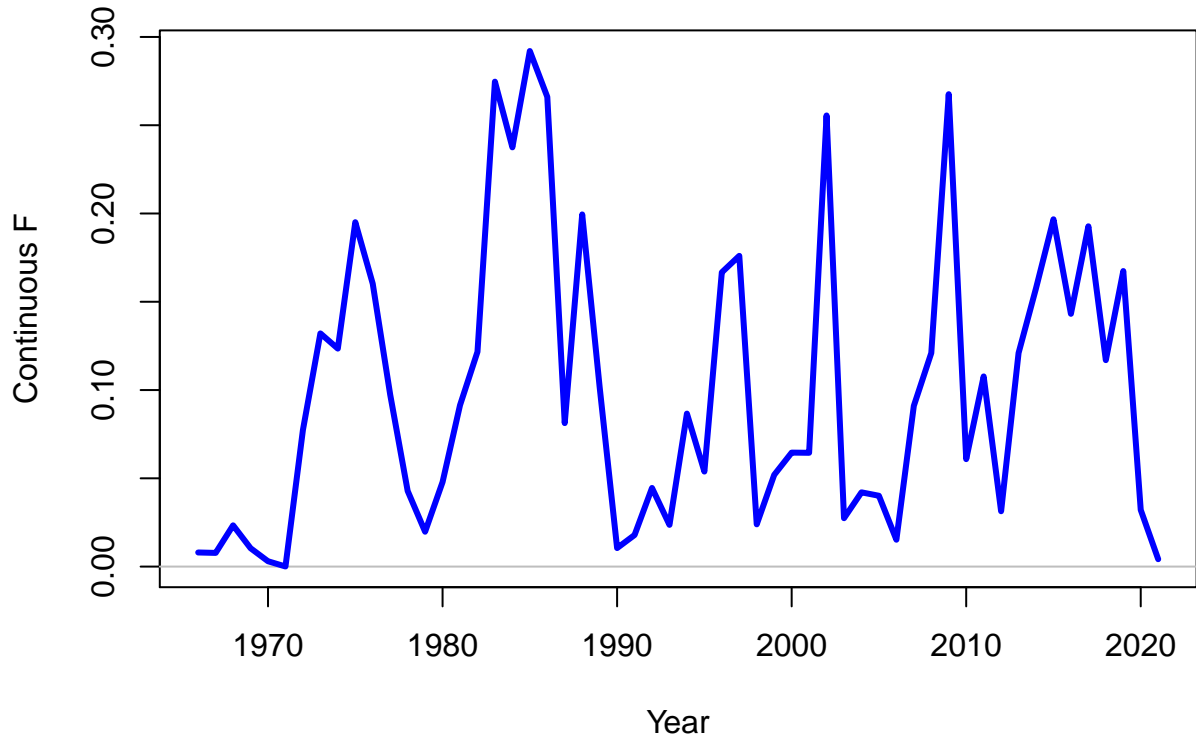
1967



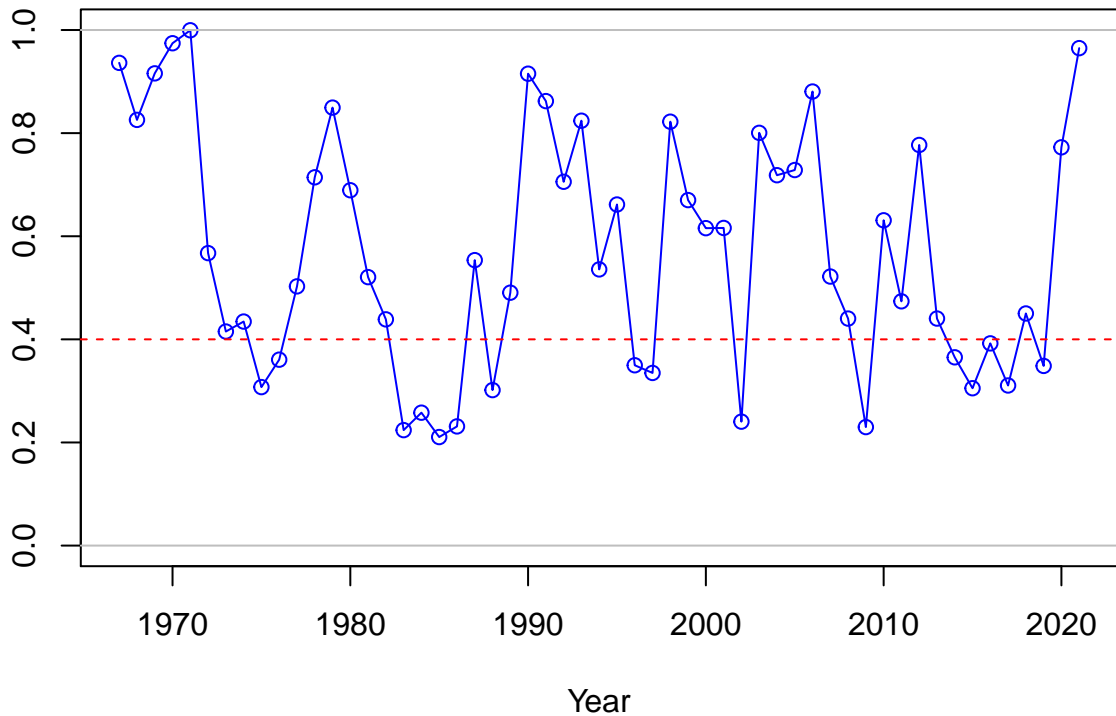


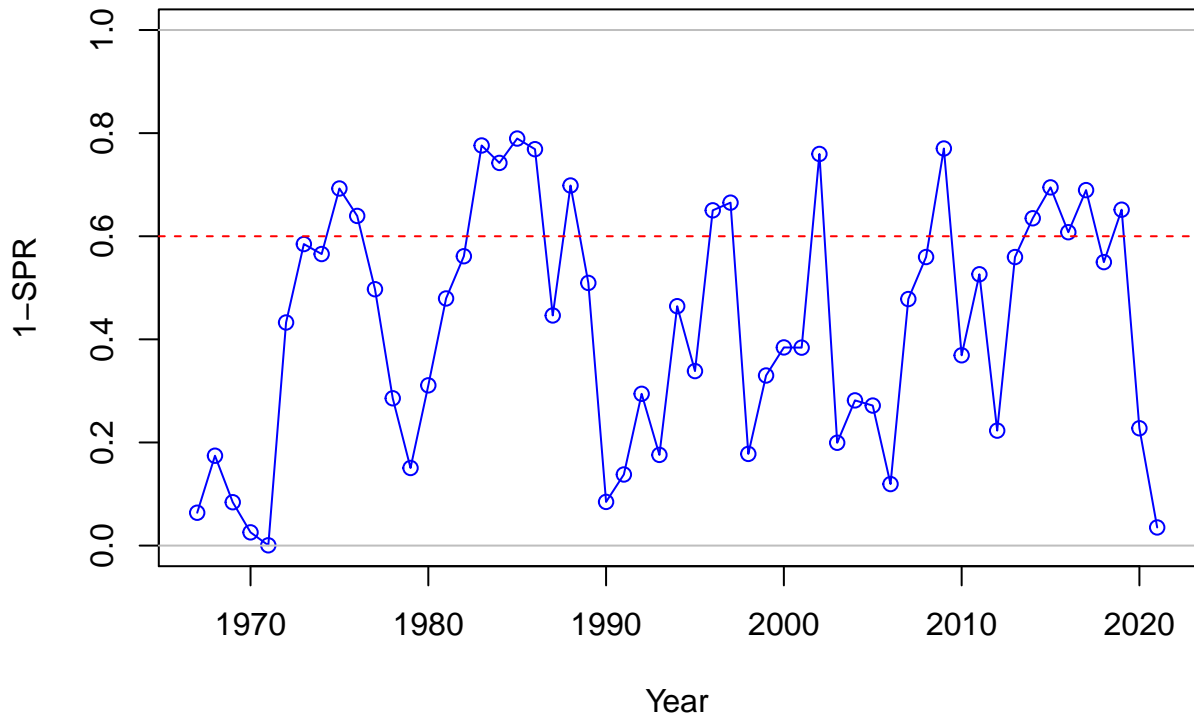




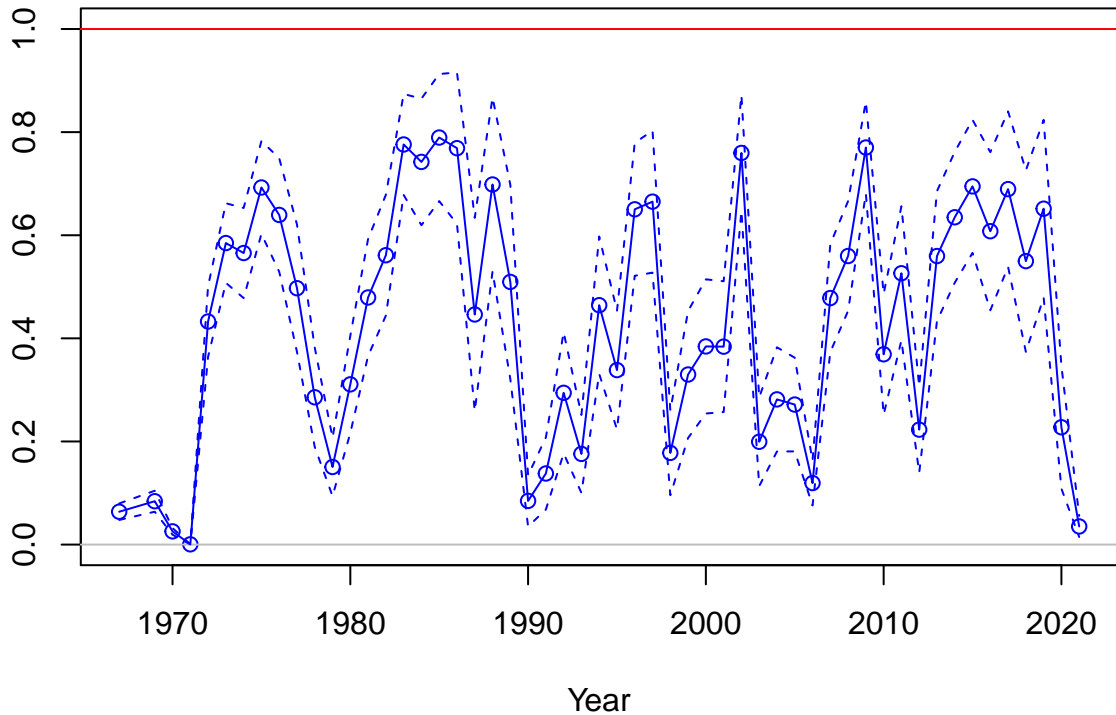


SPR

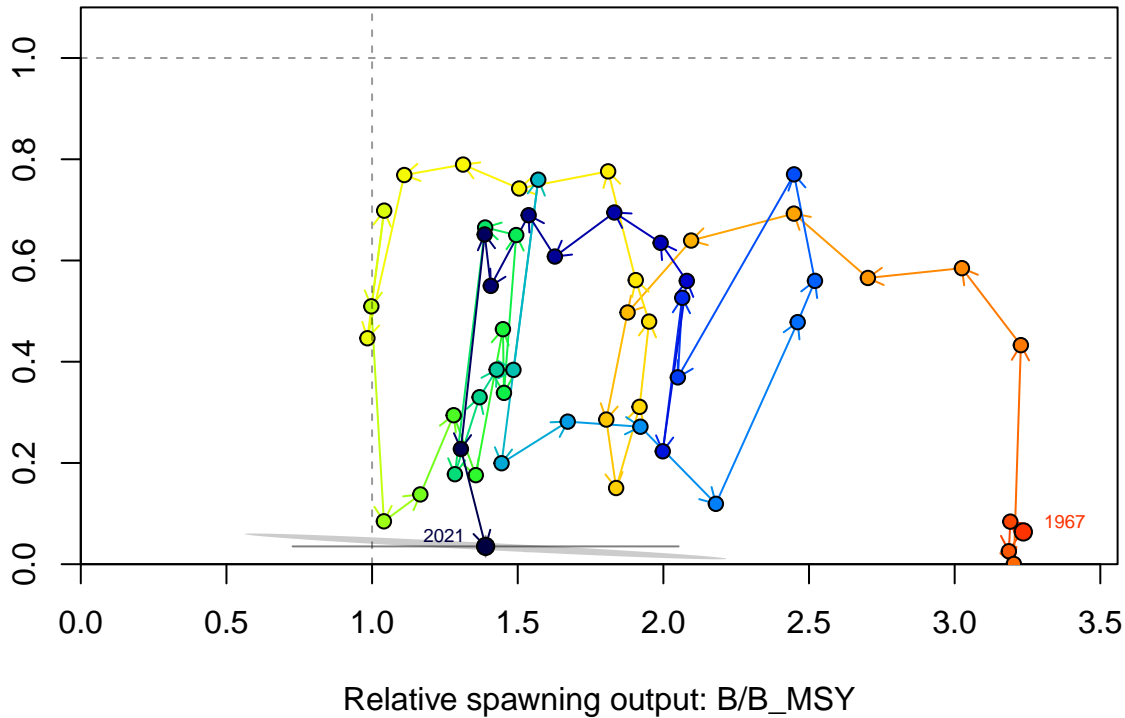




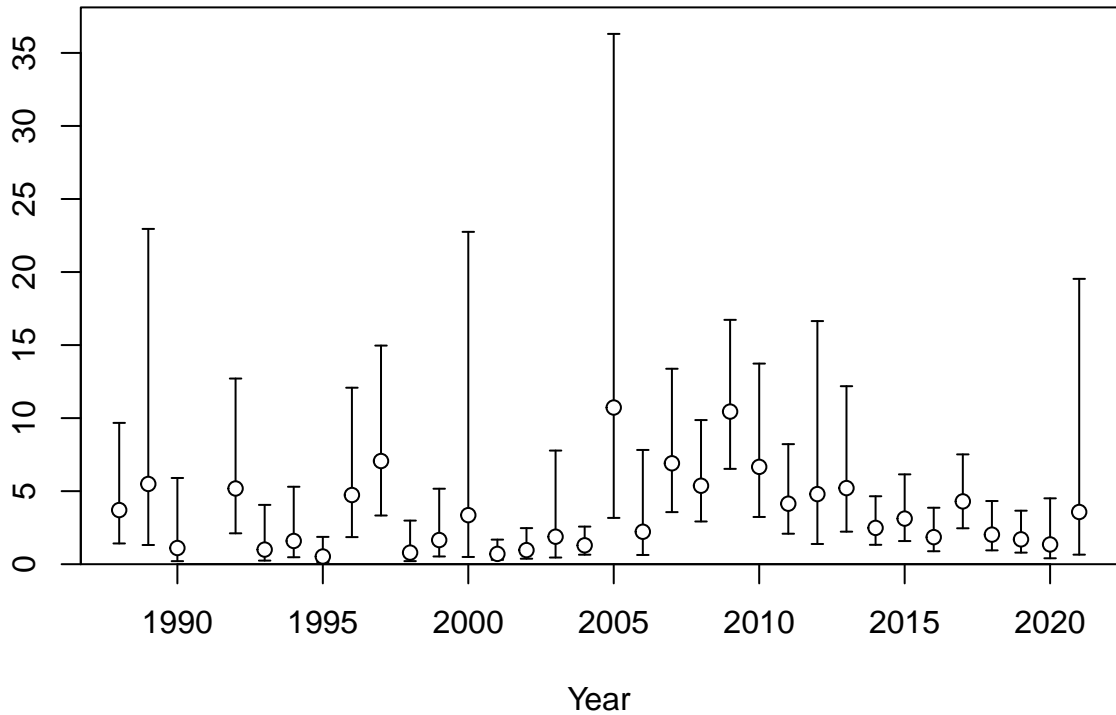
Fishing intensity: 1-SPR



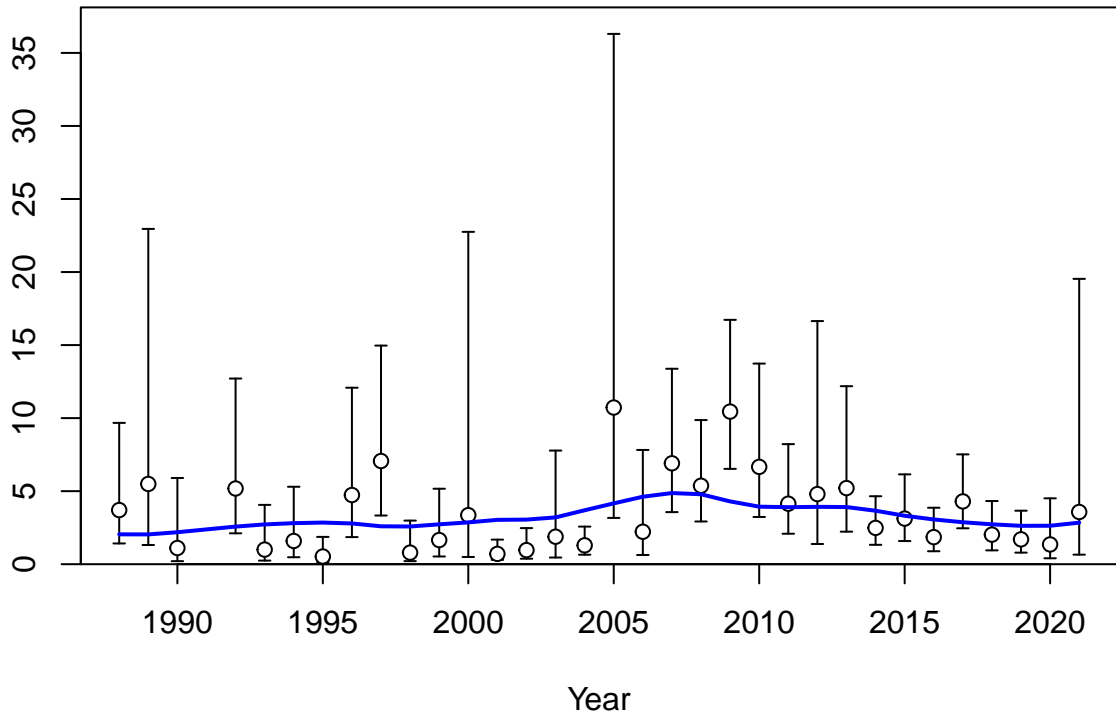
Fishing intensity: 1-SPR

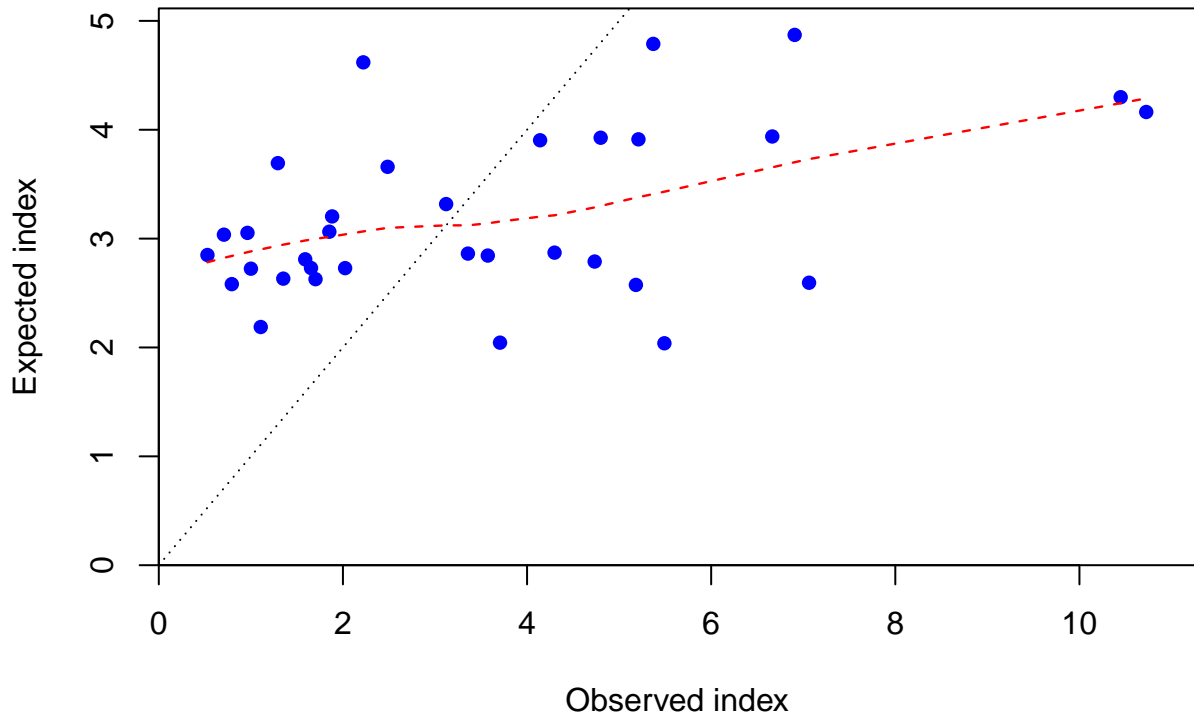


Index



Index





Log index

3
2
1
0
-1
-2

1990

1995

2000

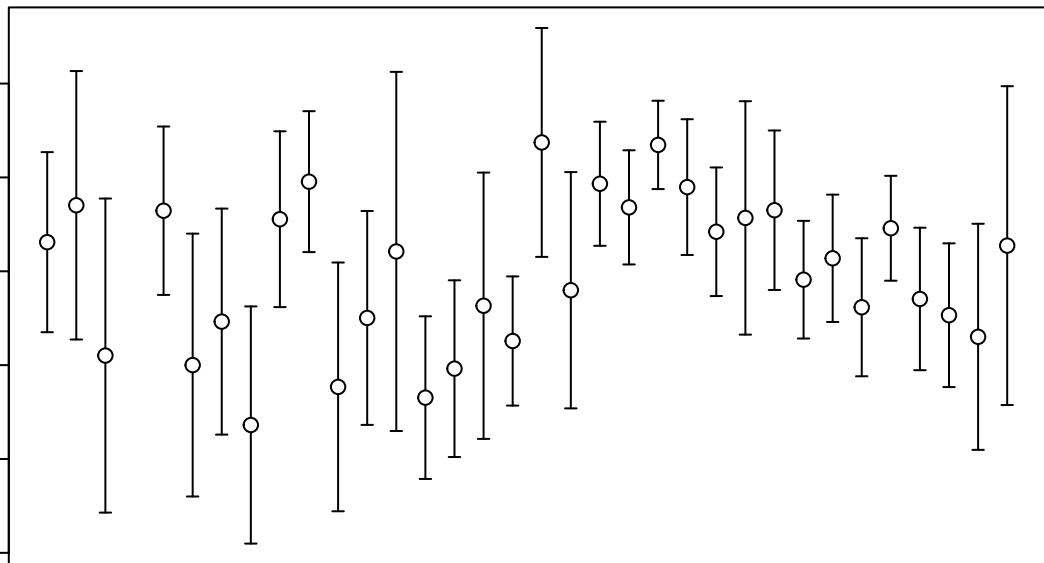
2005

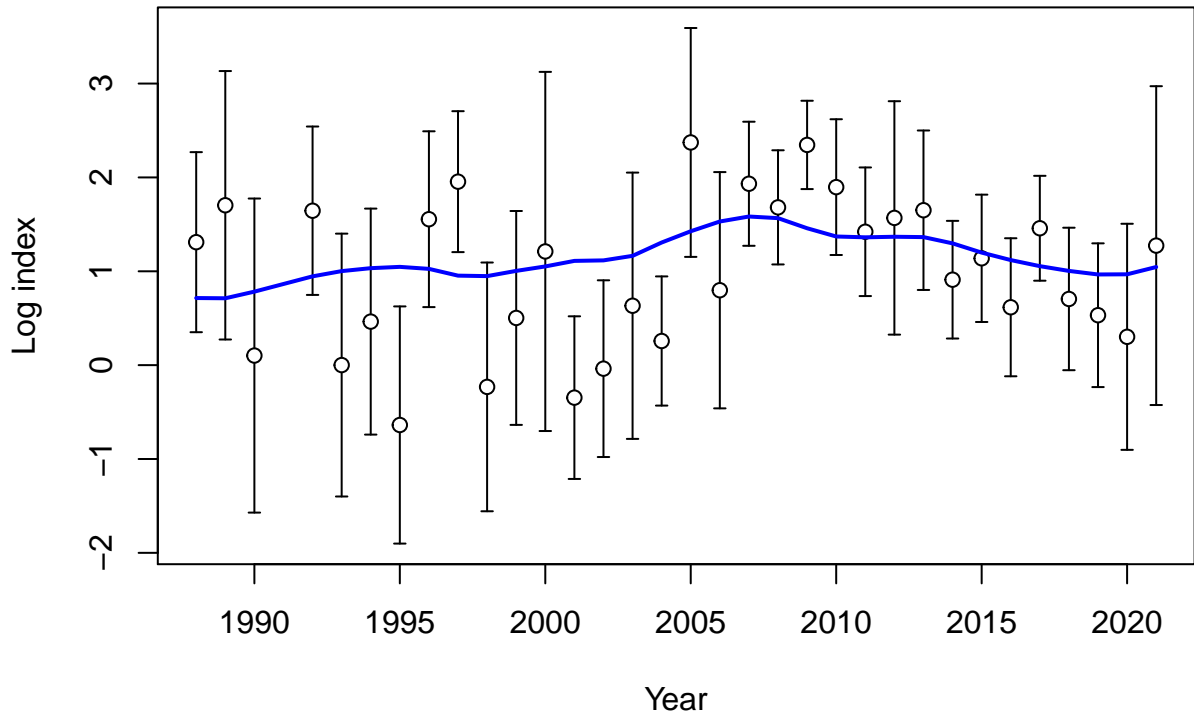
2010

2015

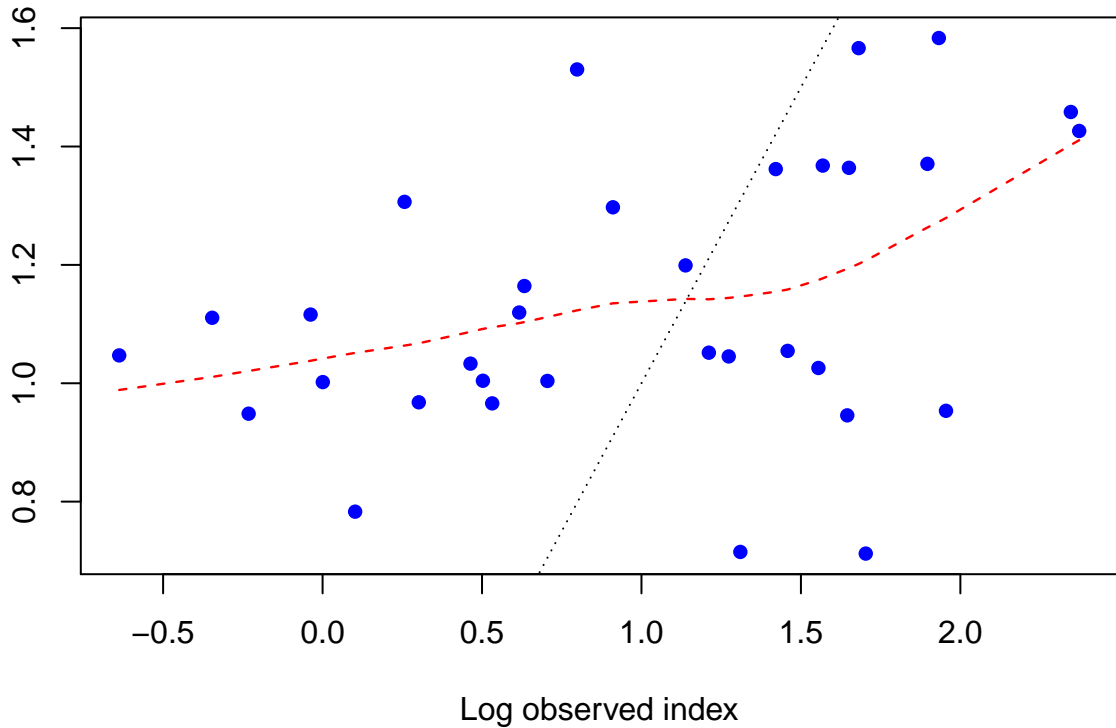
2020

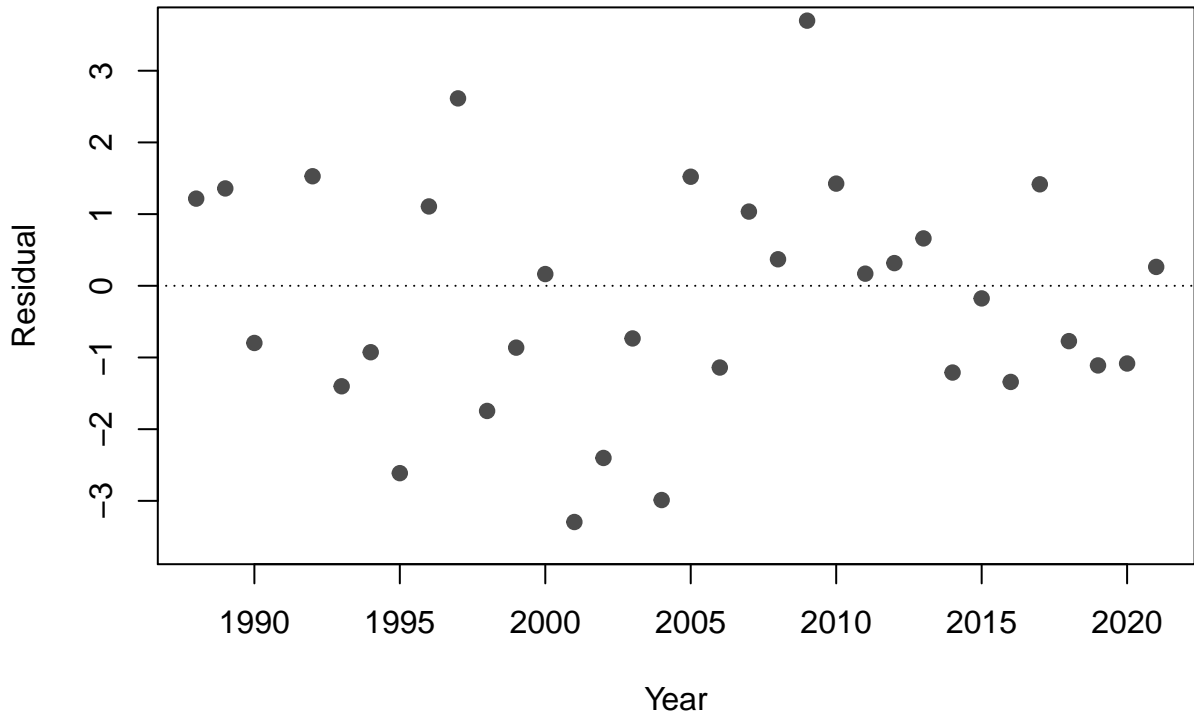
Year

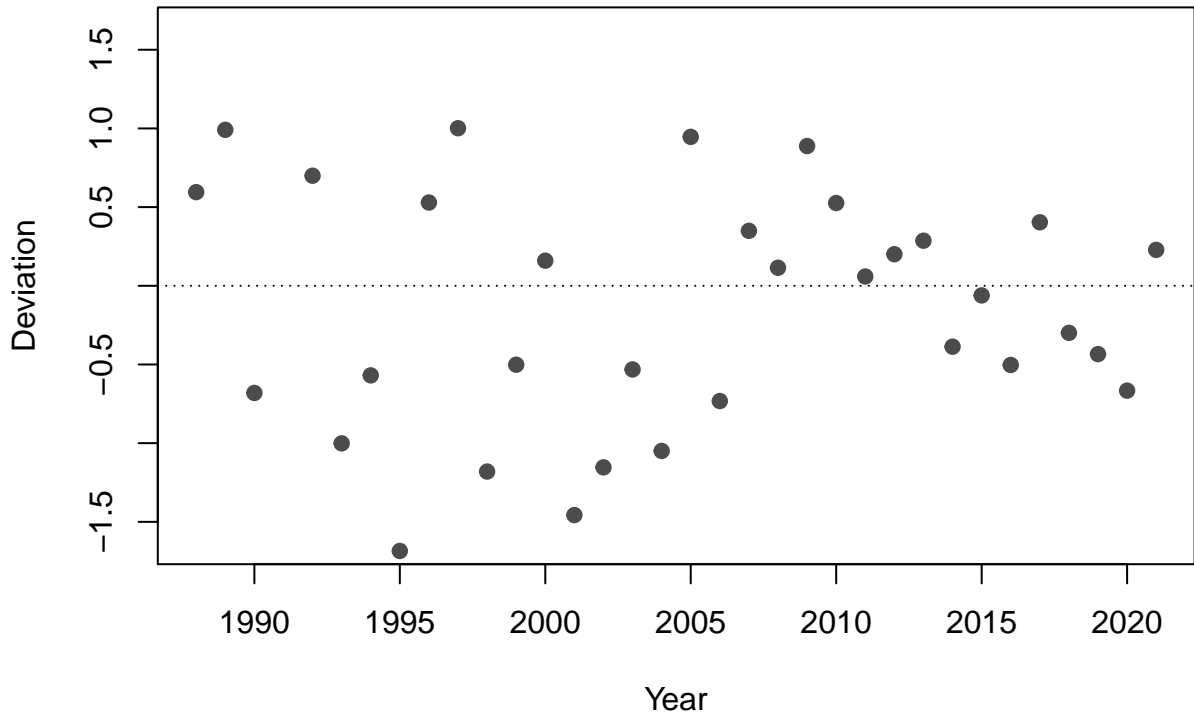


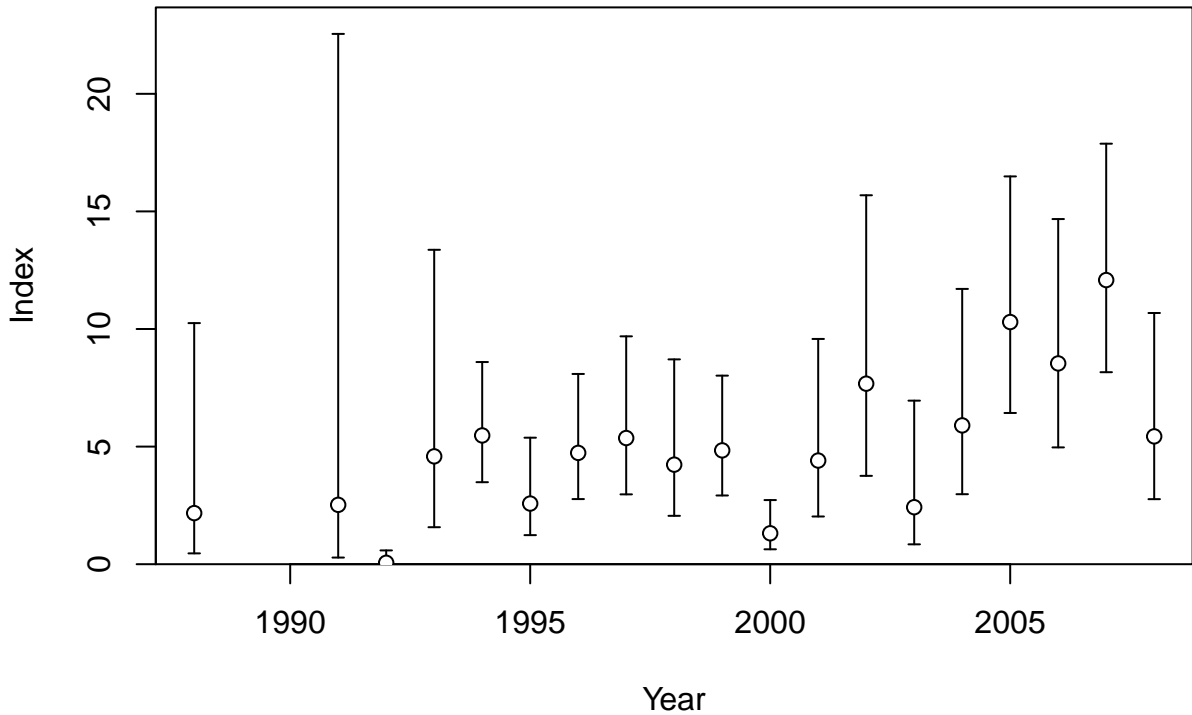


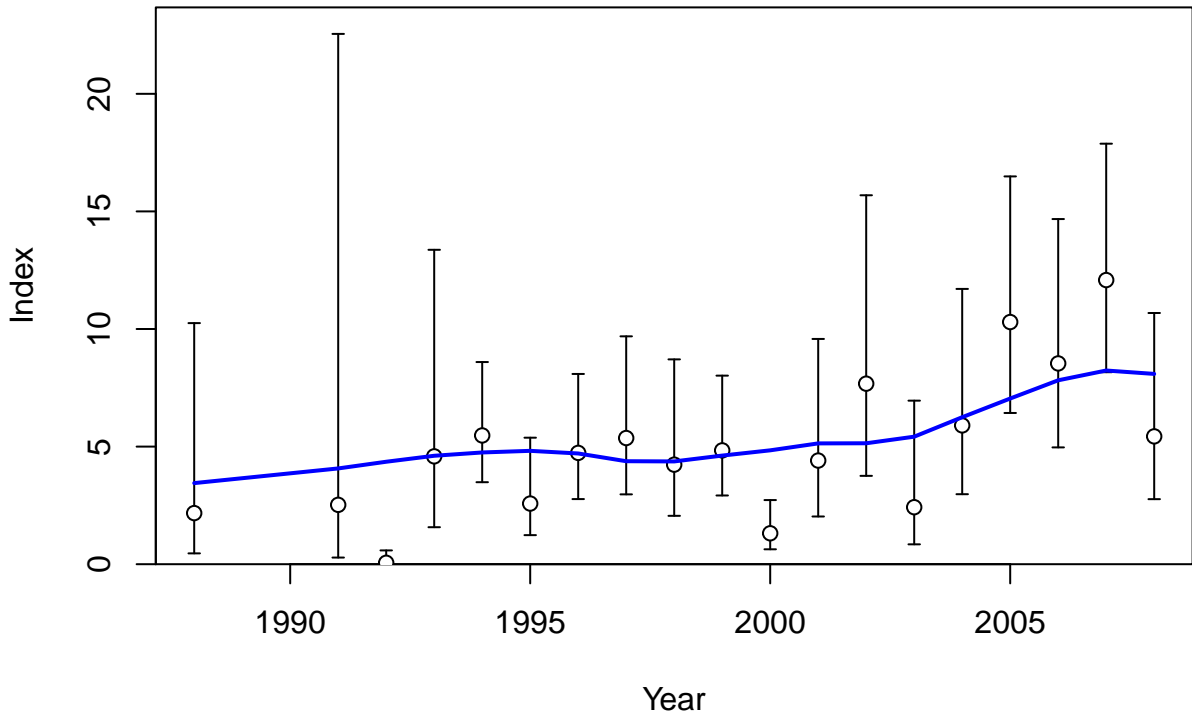
Log expected index

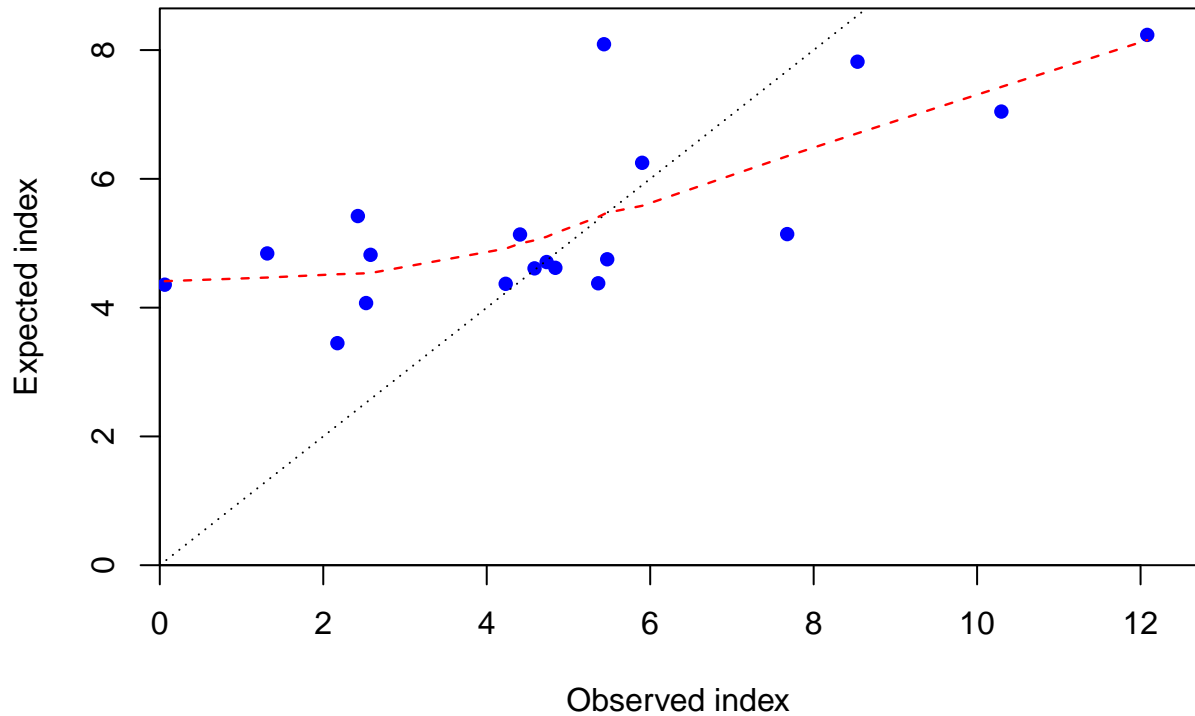


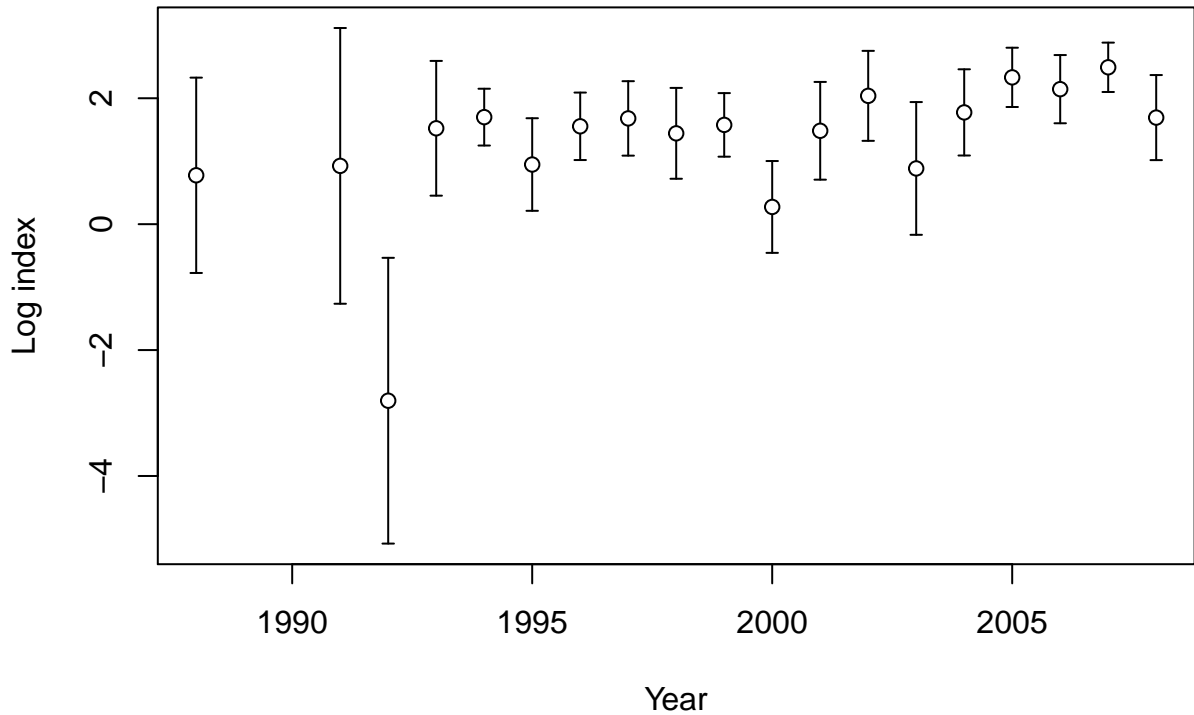


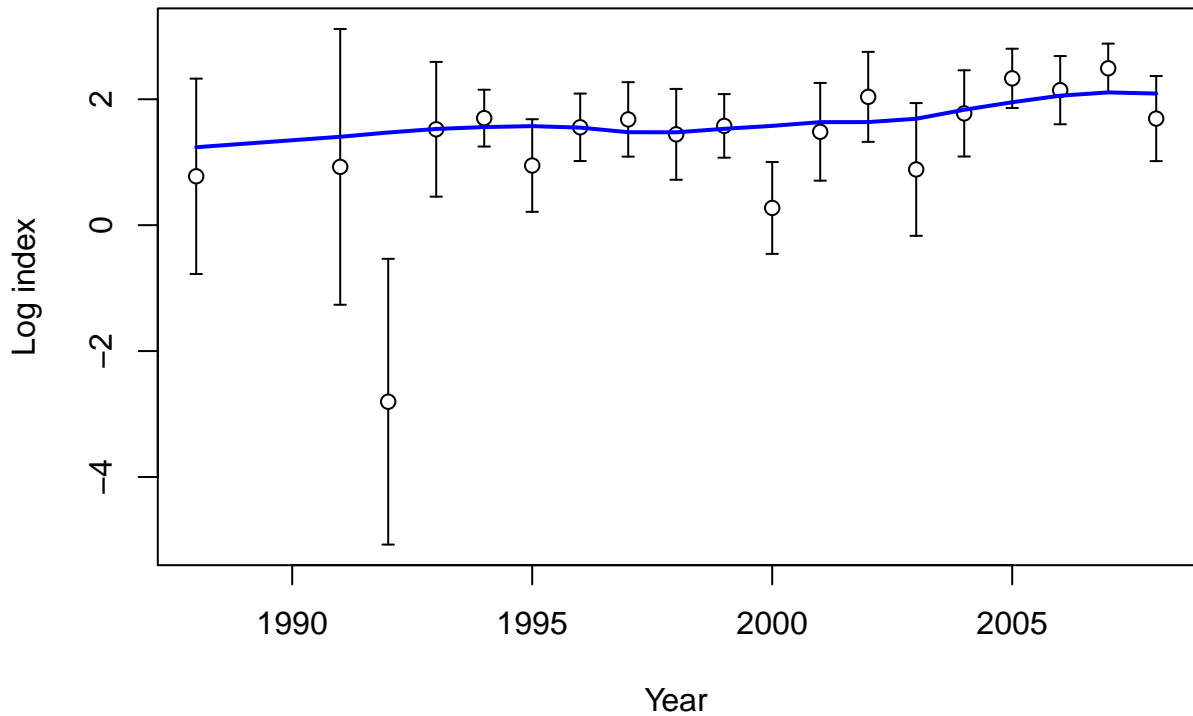


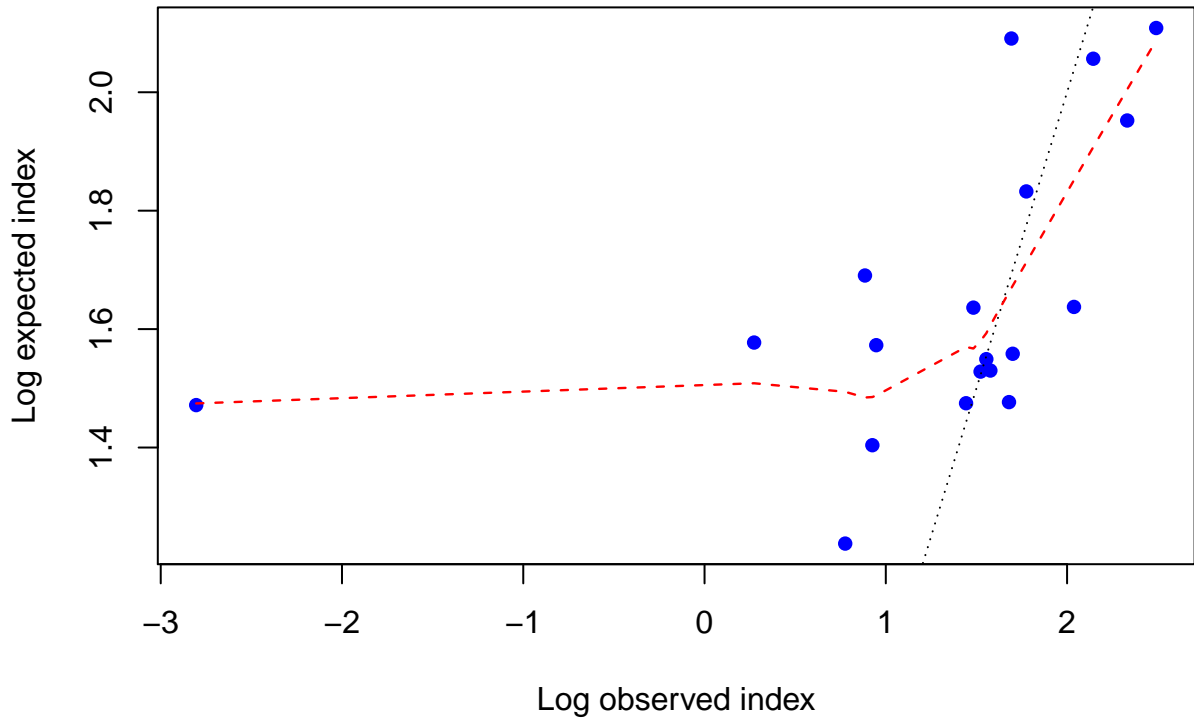


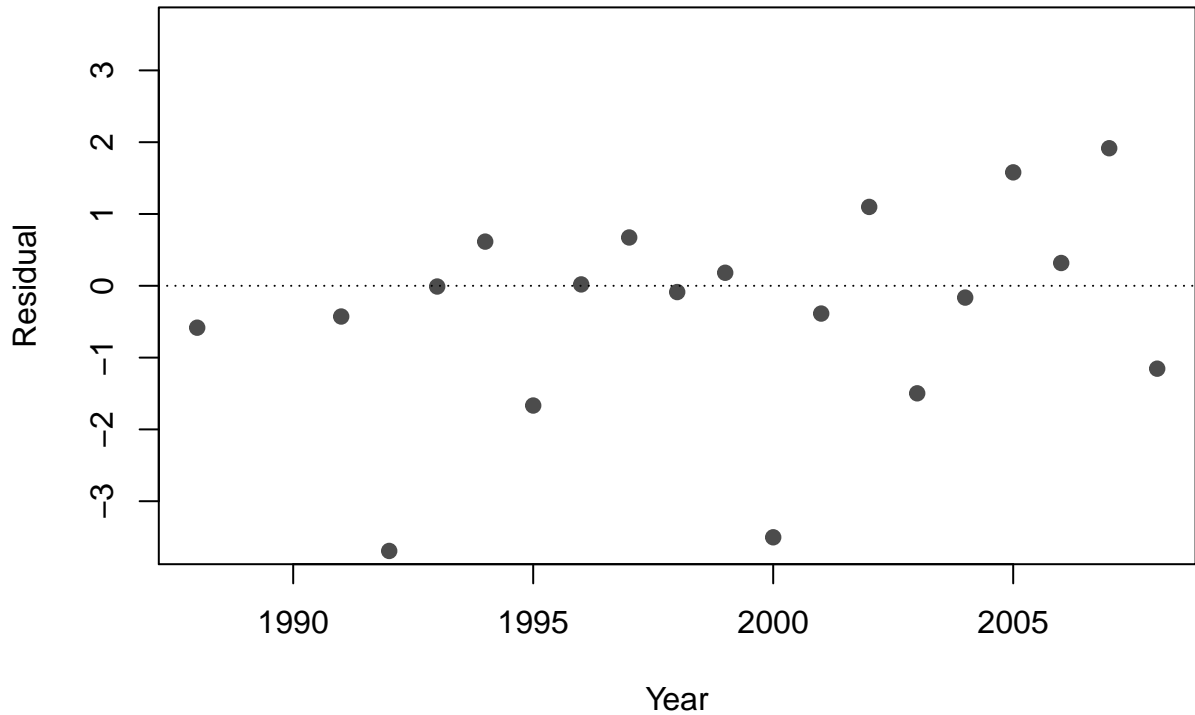




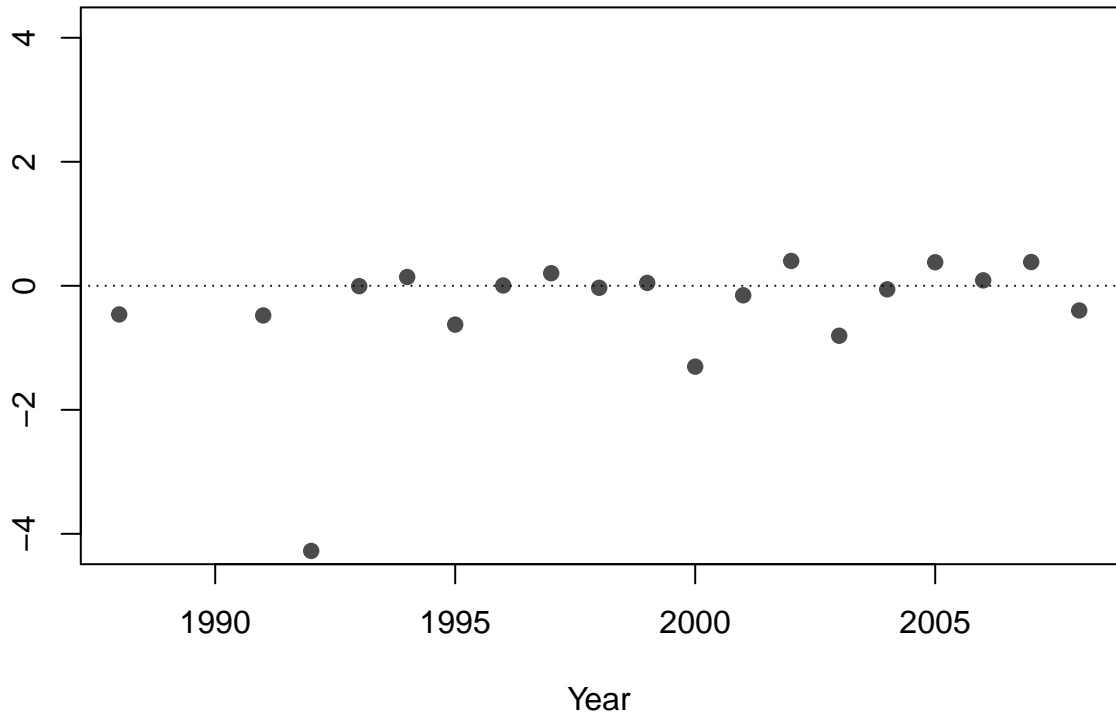




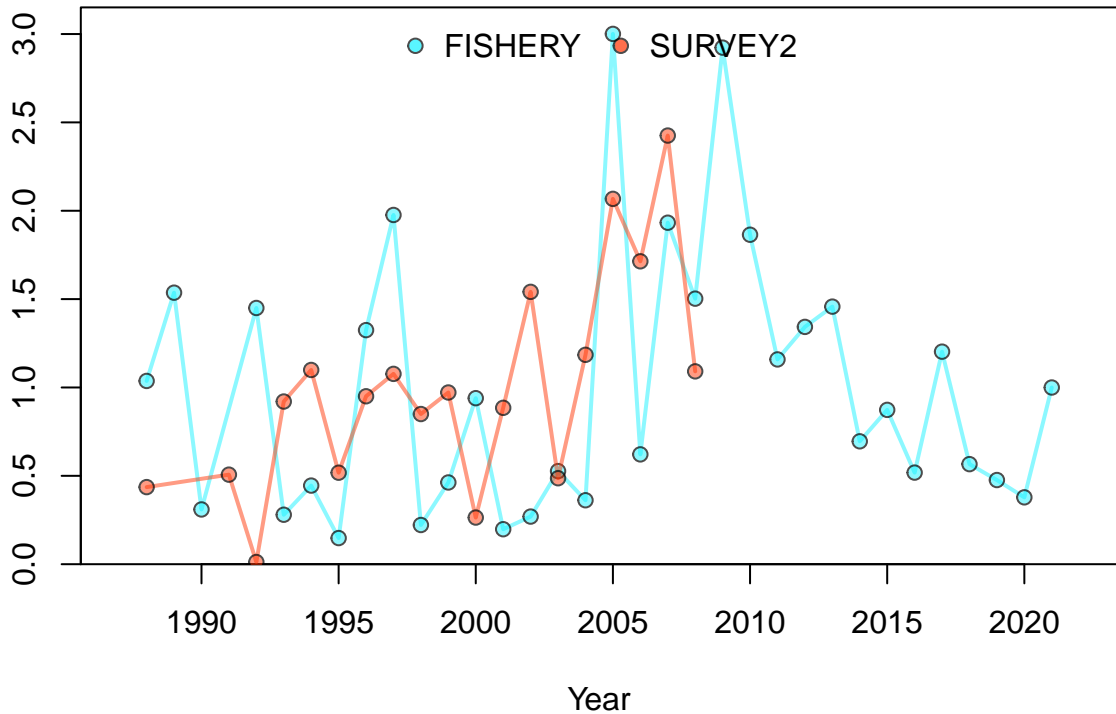


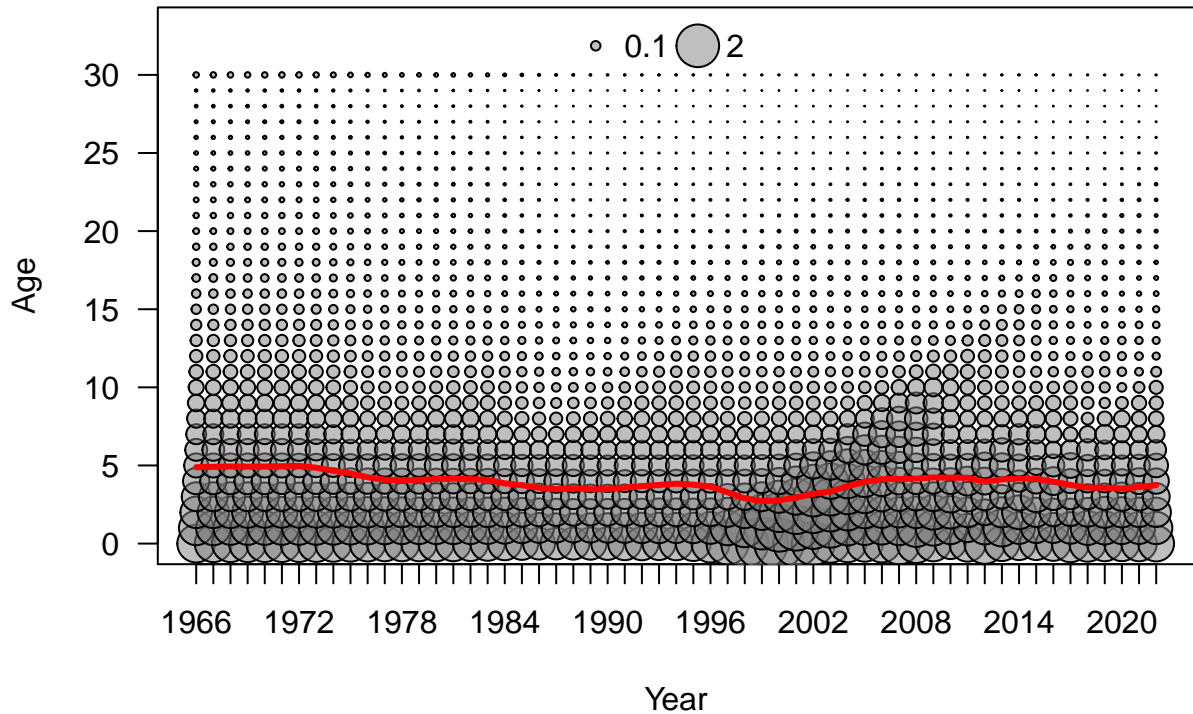


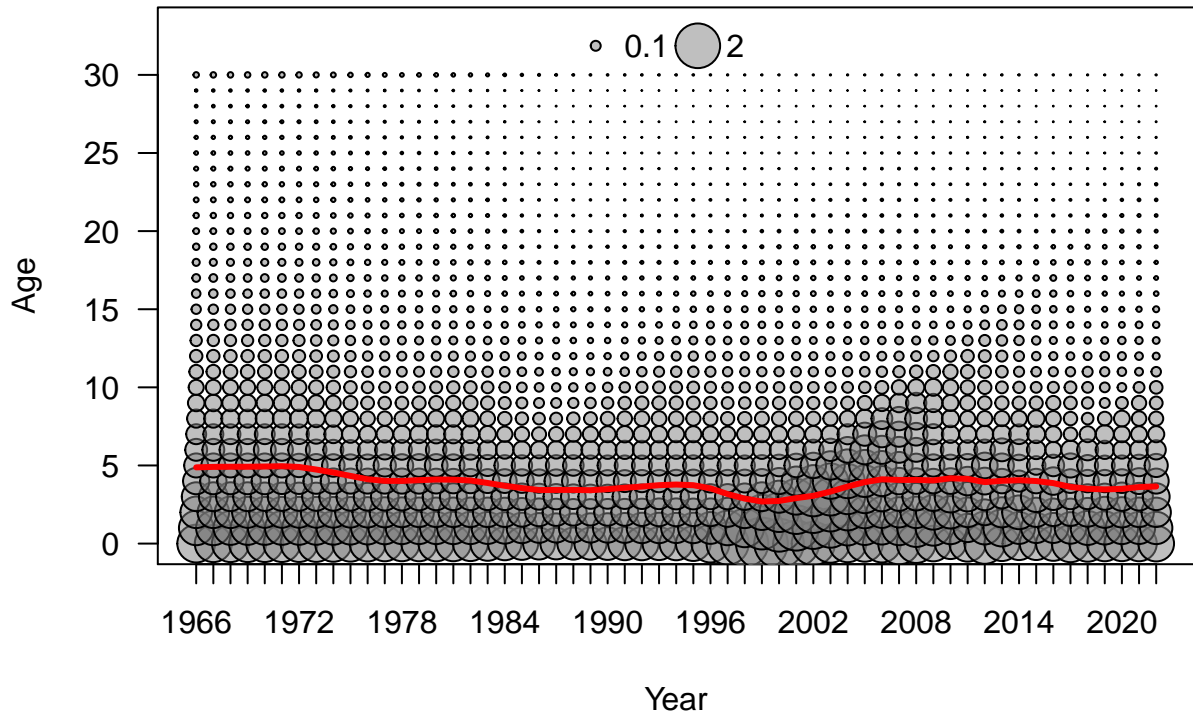
Deviation



Standardized index







Length

120

100

80

60

40

20

0

○ 0.1 ● 2

1967

1973

1979

1985

1991

1997

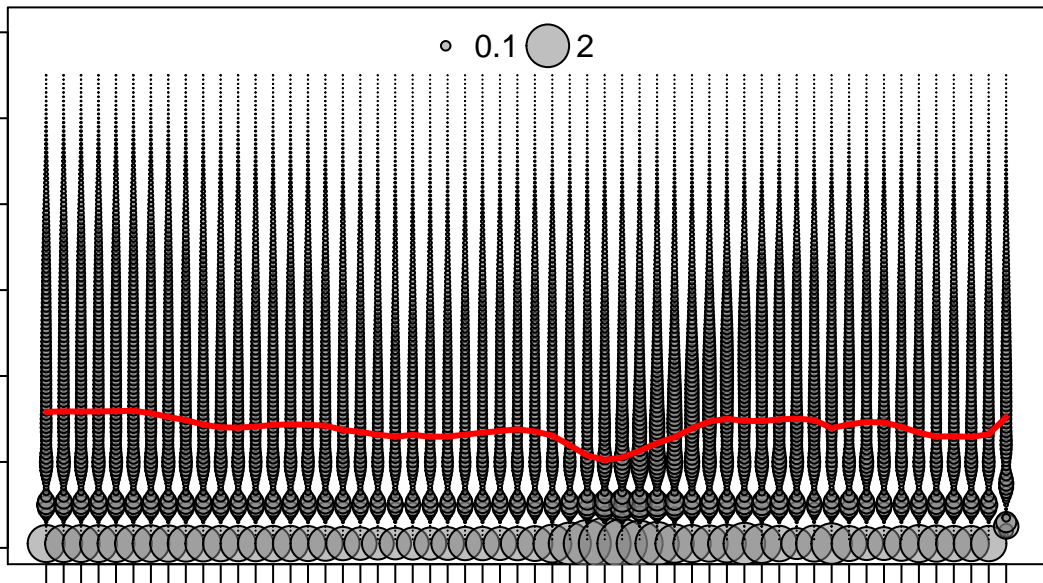
2003

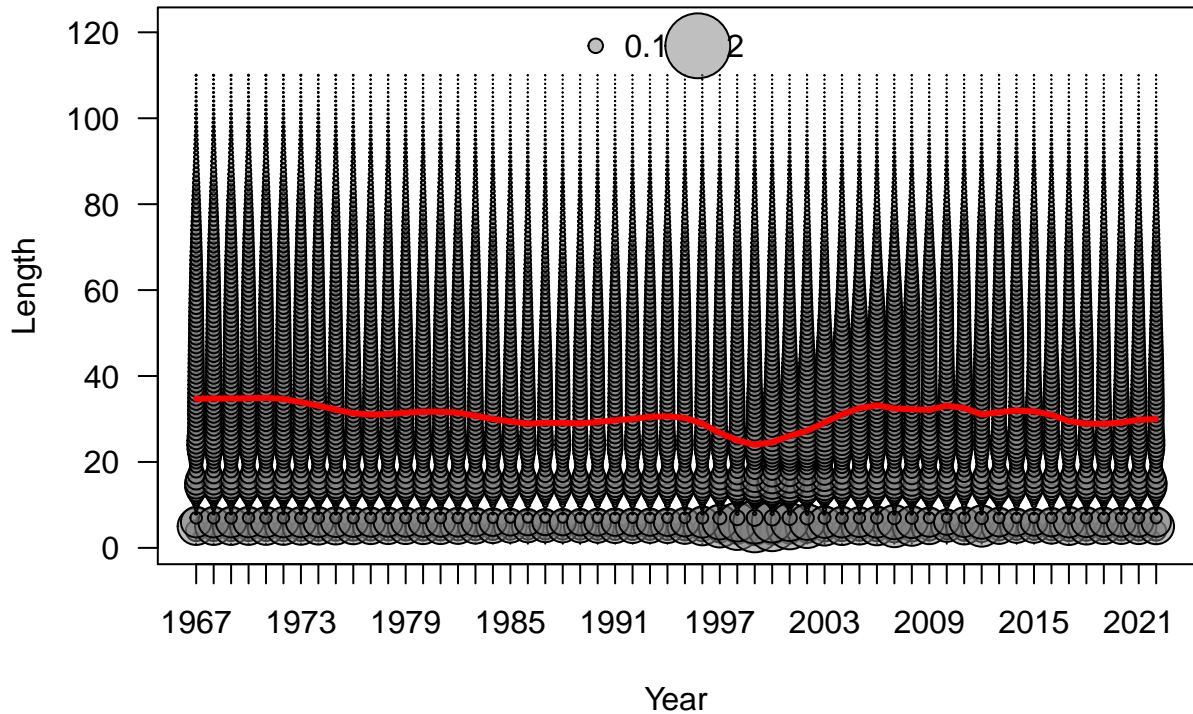
2009

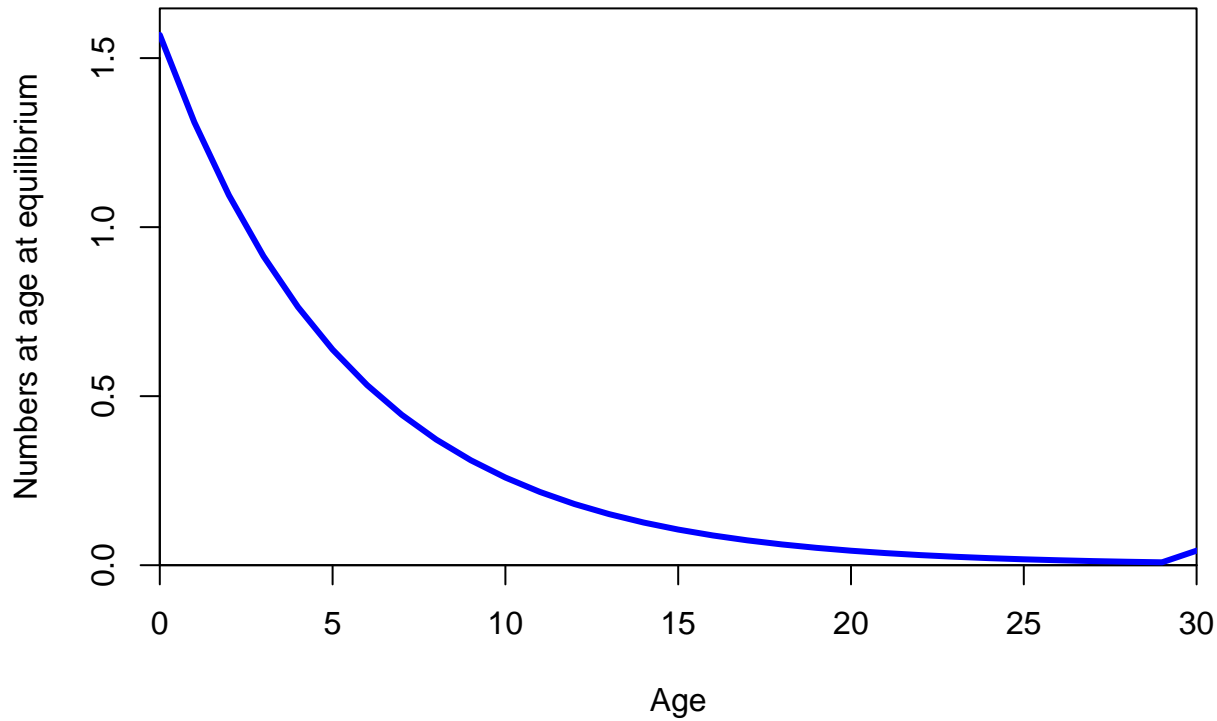
2015

2021

Year

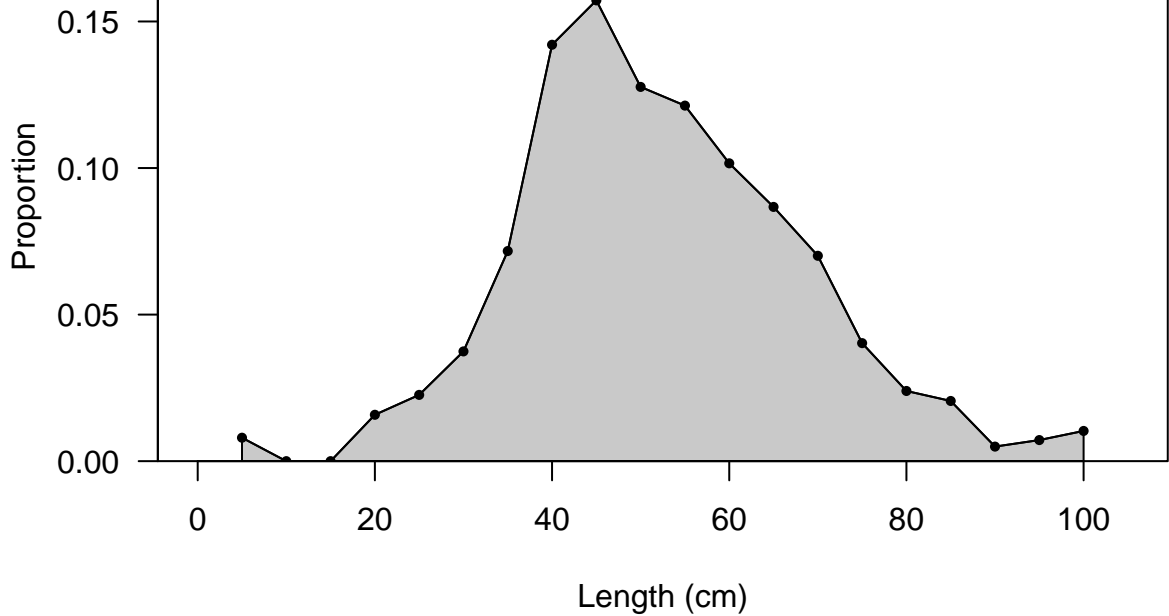


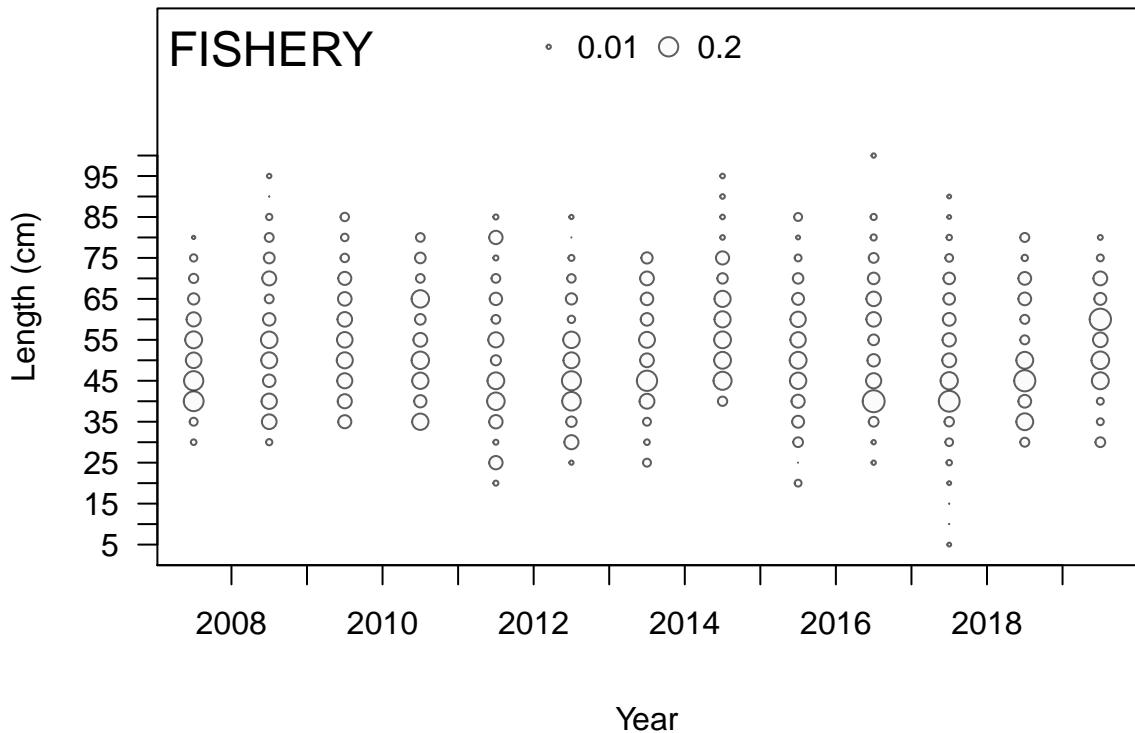


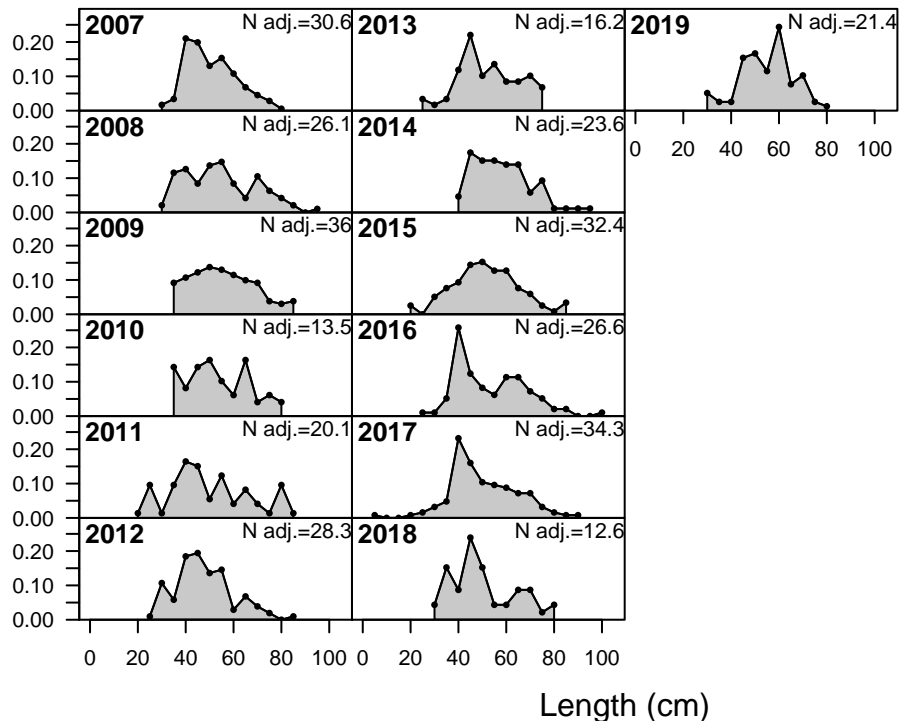


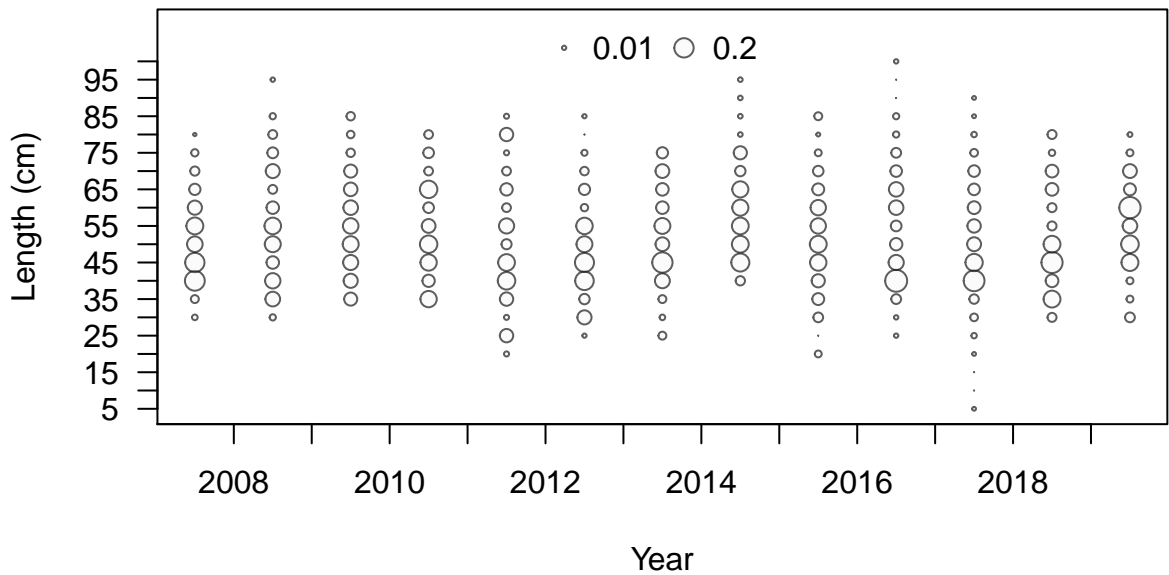
FISHERY

Sum of N adj.=321.7

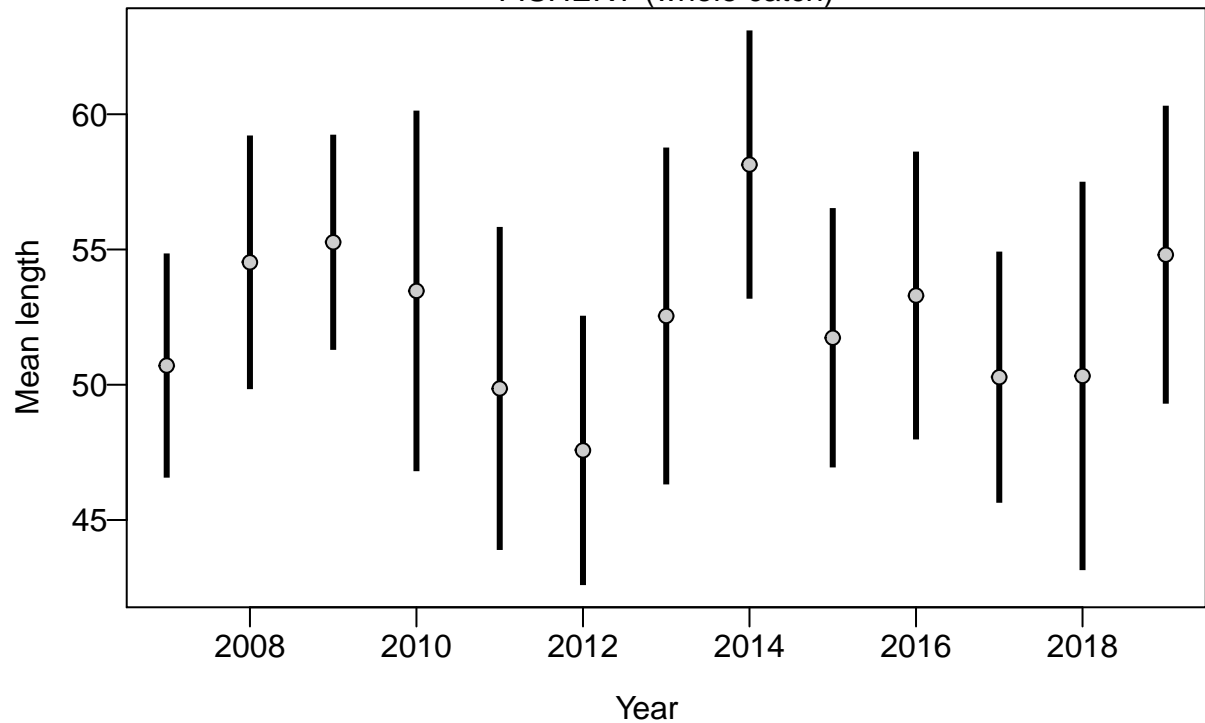






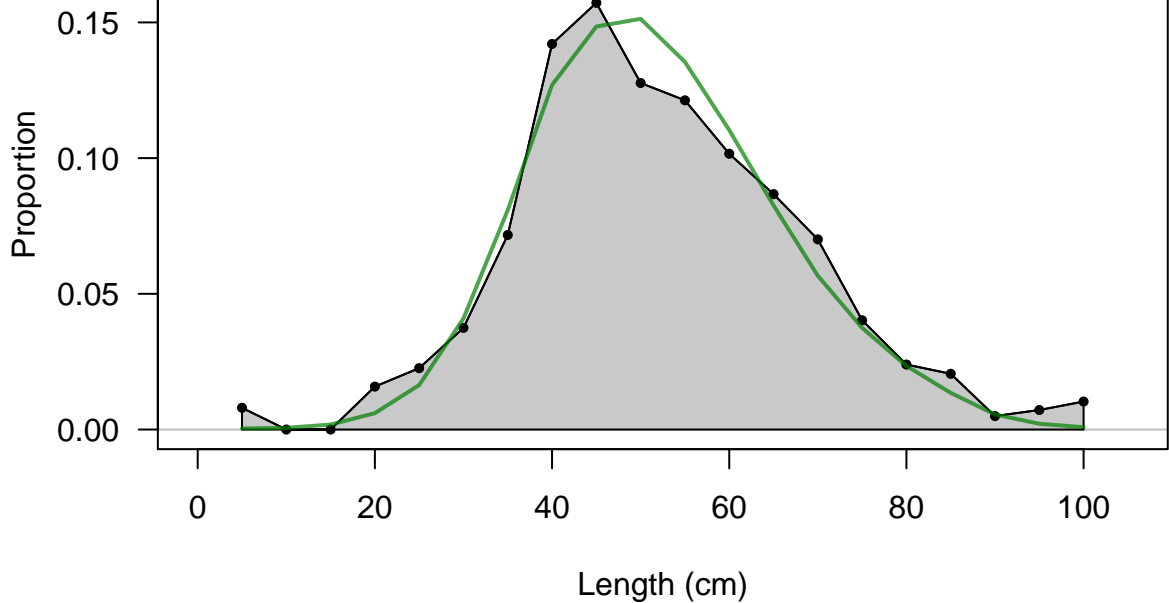


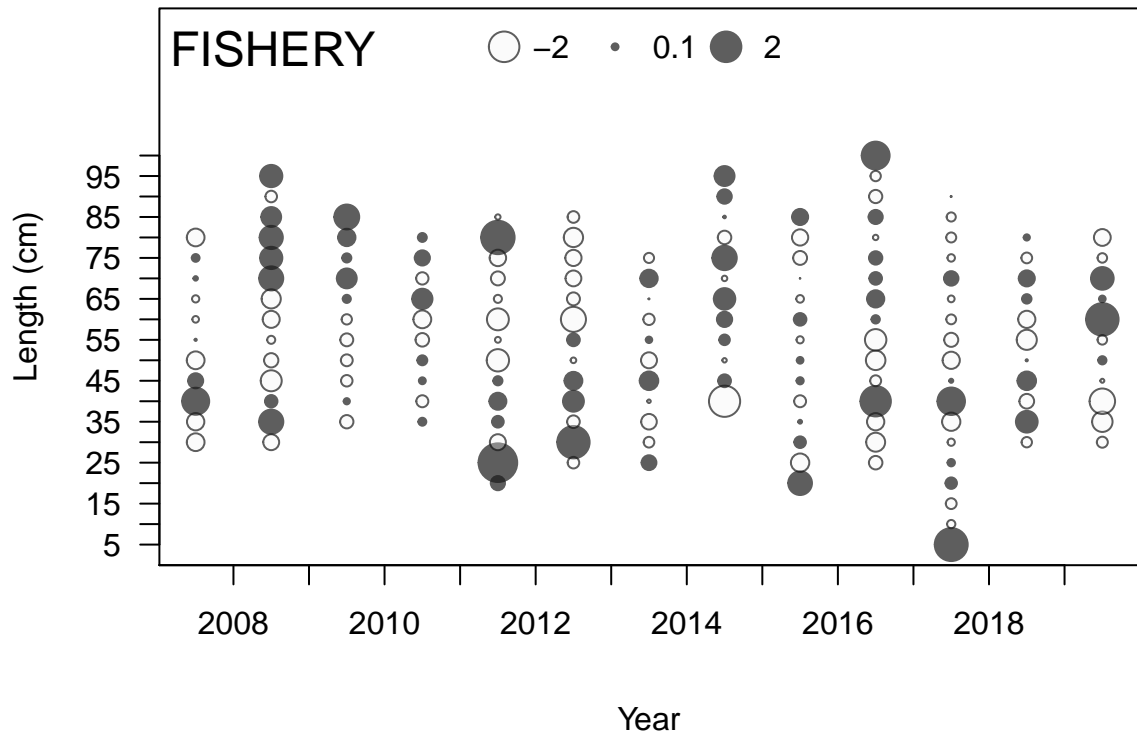
FISHERY (whole catch)



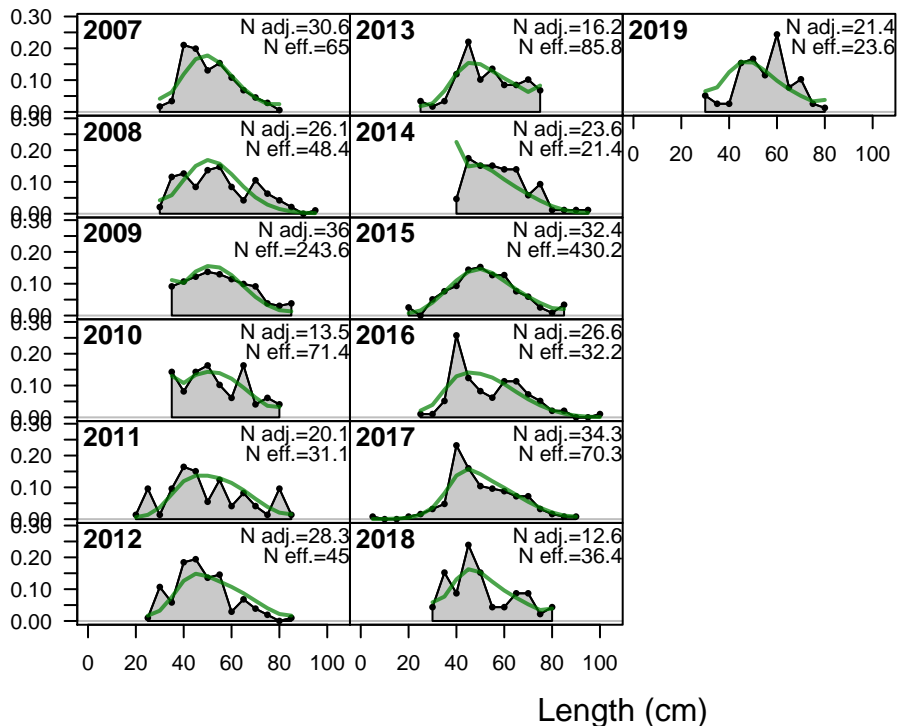
FISHERY

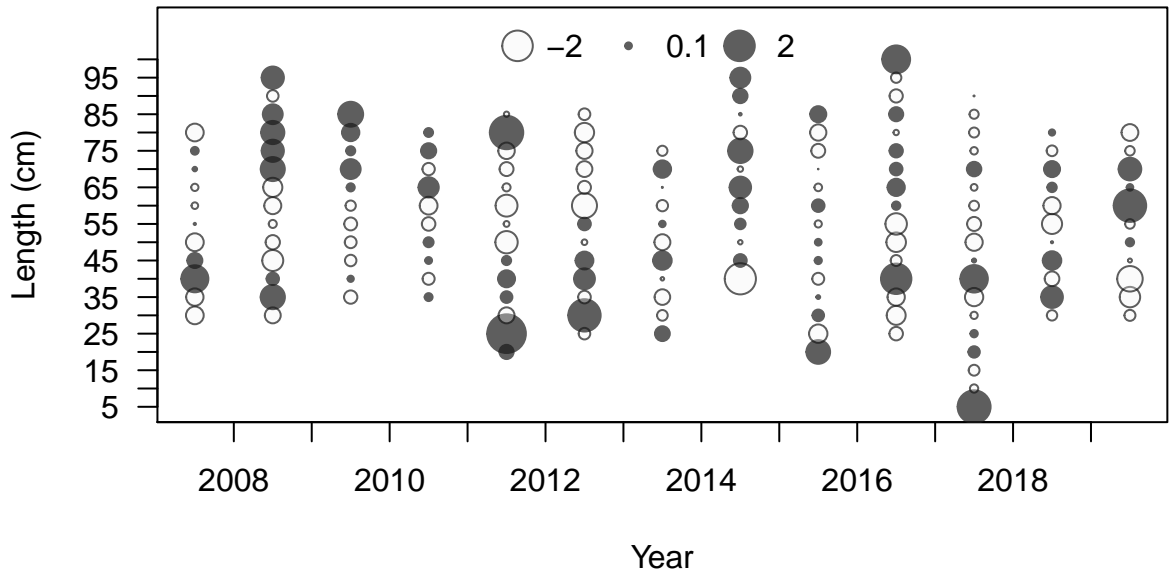
Sum of N adj.=321.7
Sum of N eff.=1204.5



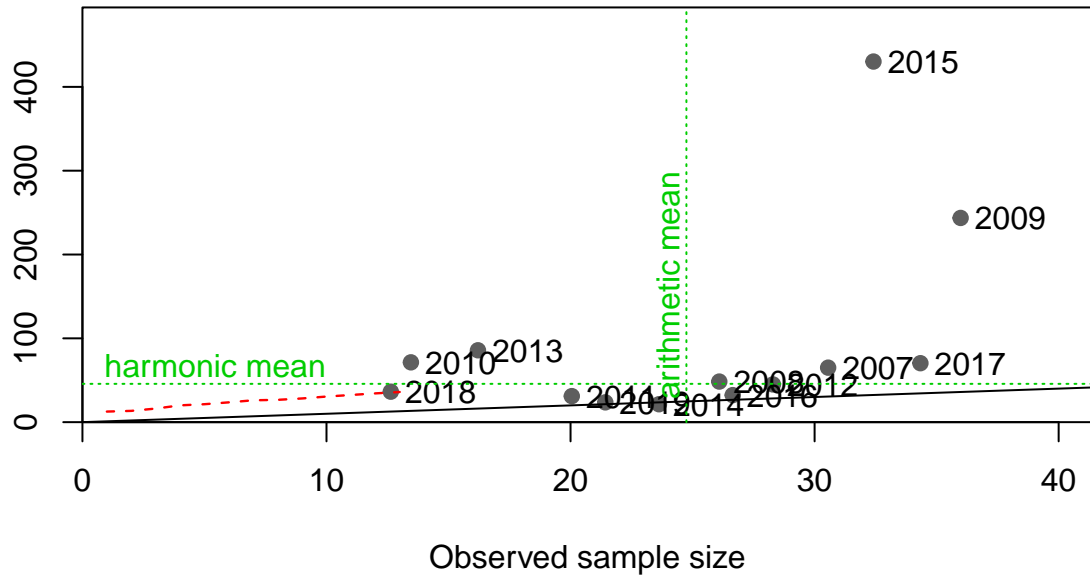


Proportion

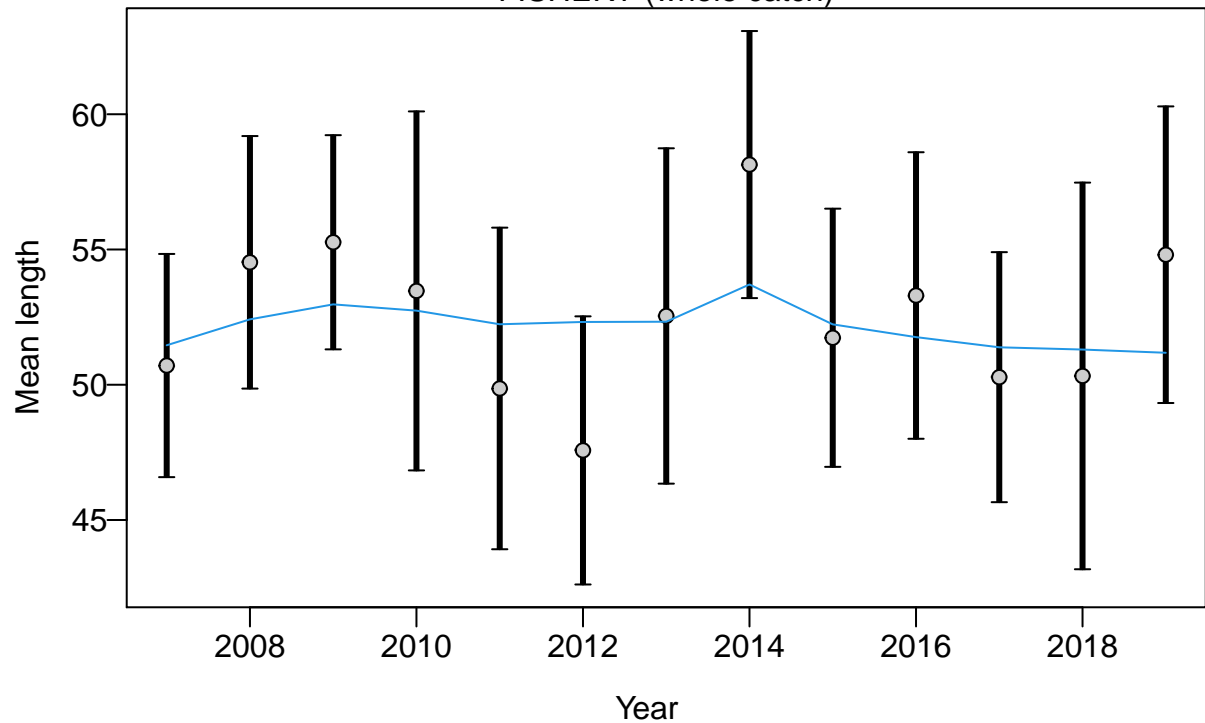


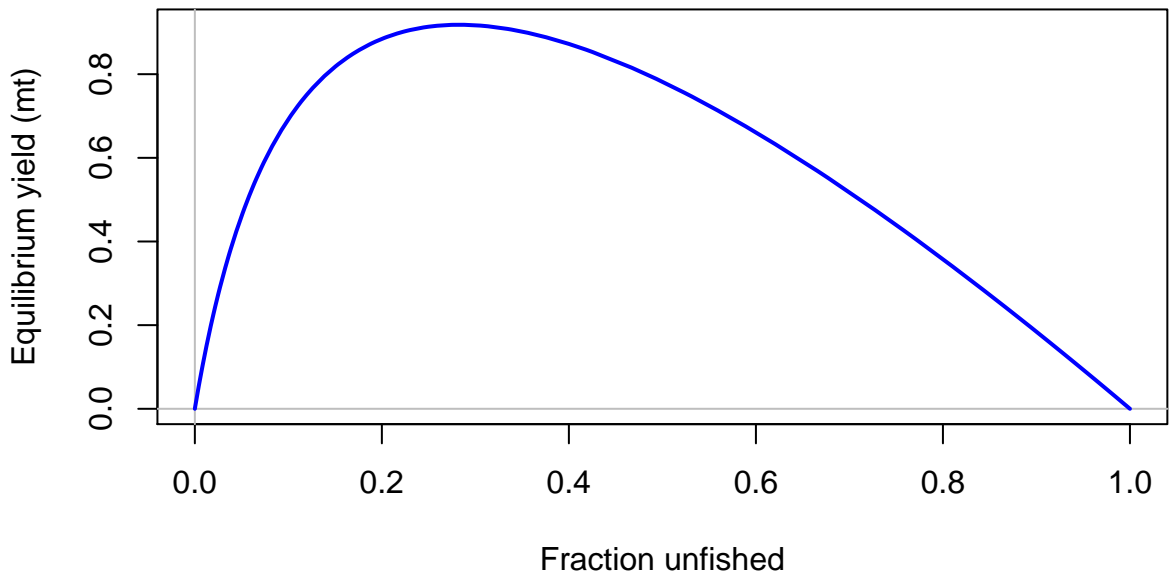


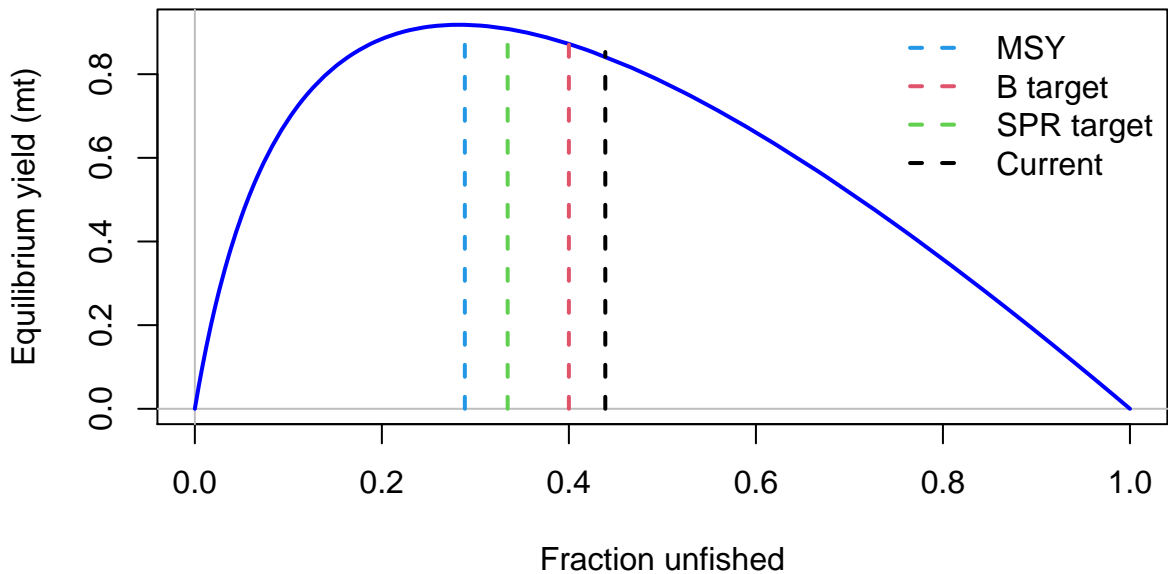
Effective sample size

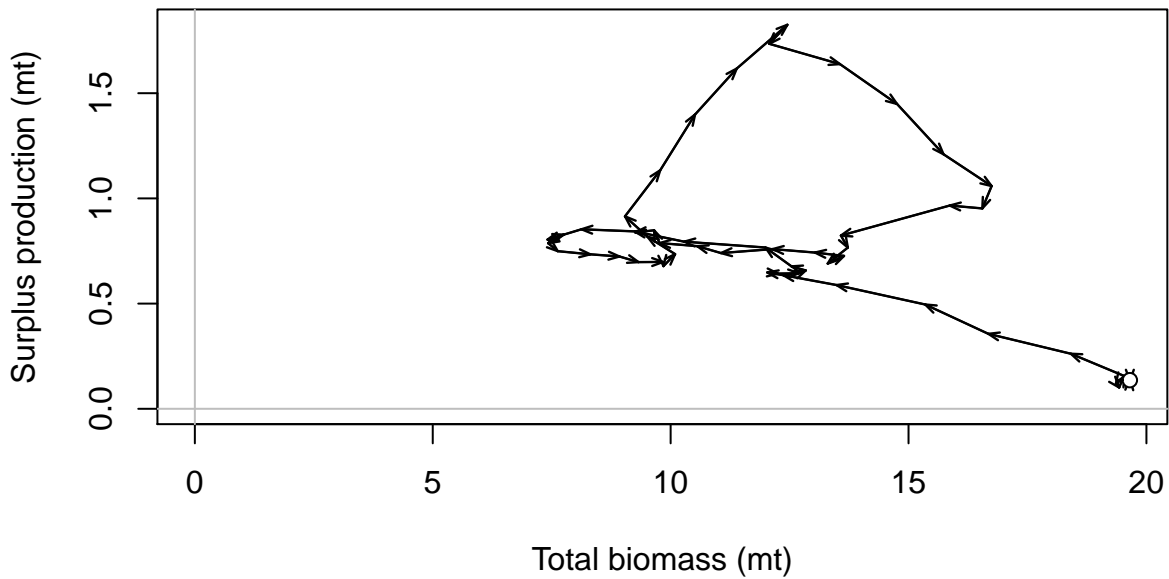


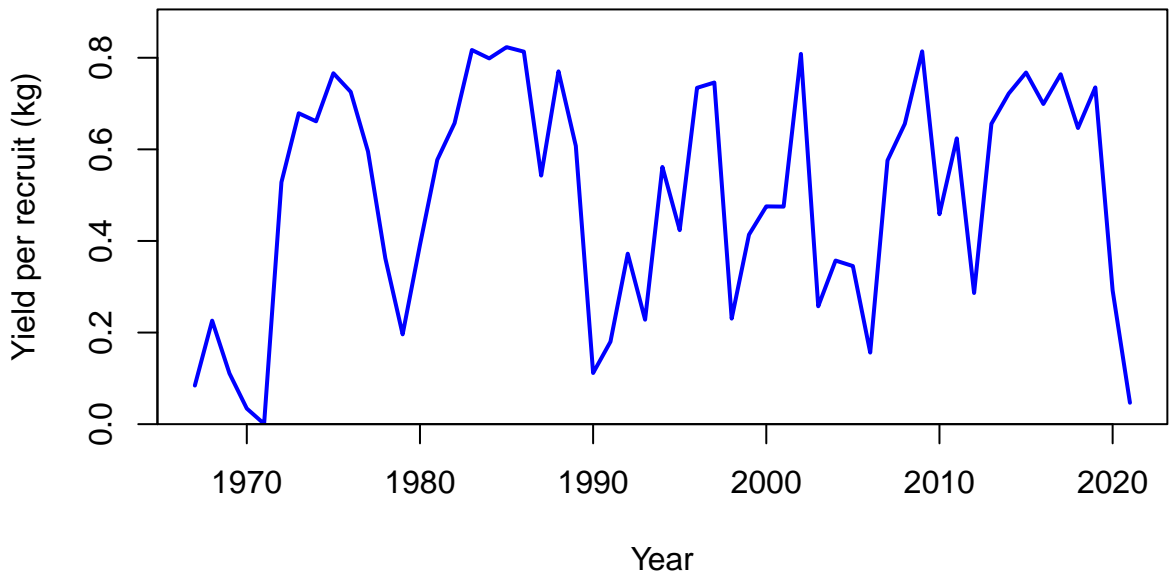
FISHERY (whole catch)

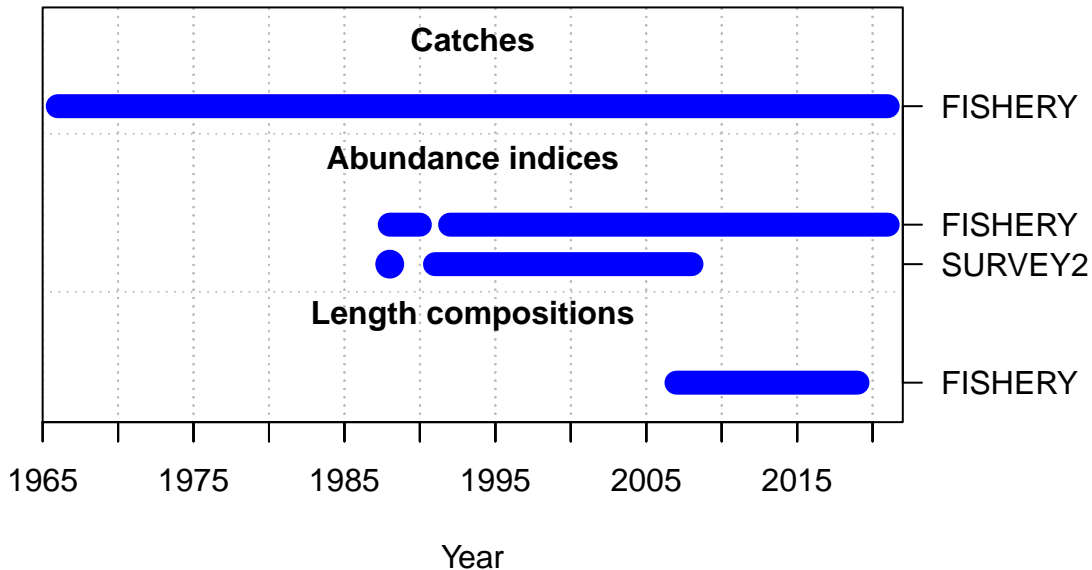


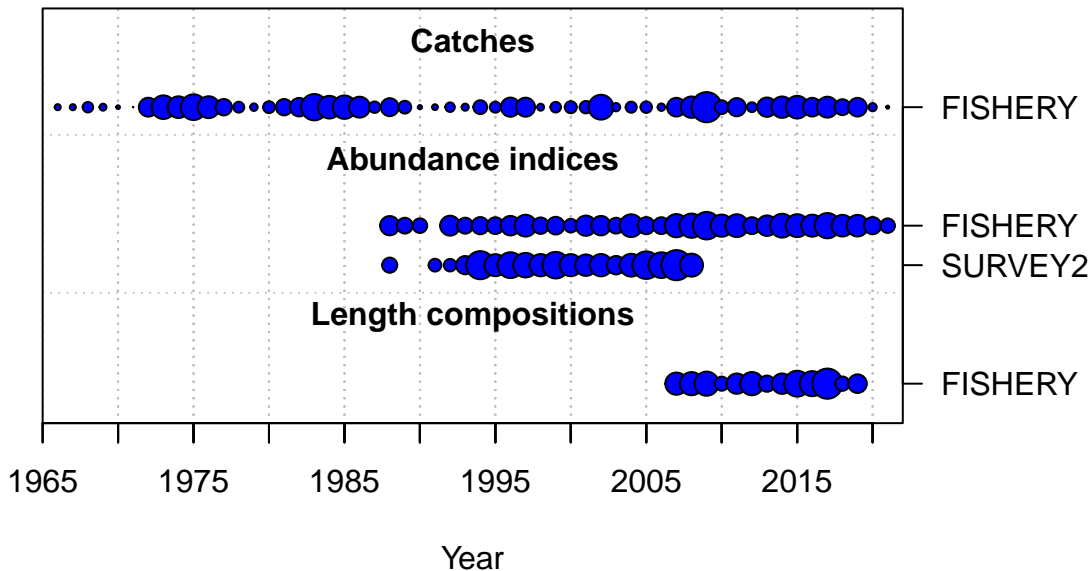




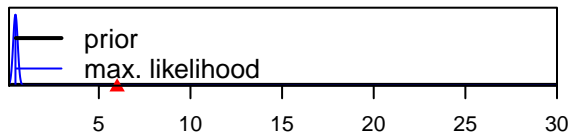




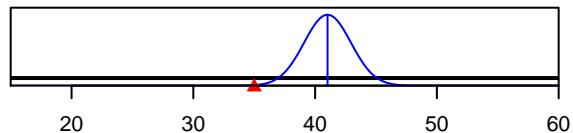




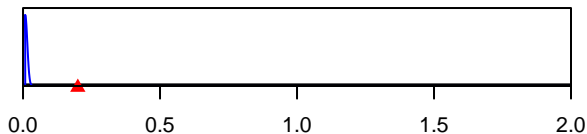
SR_LN(R0)



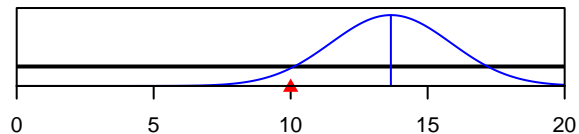
Size_inflection_FISHERY(1)



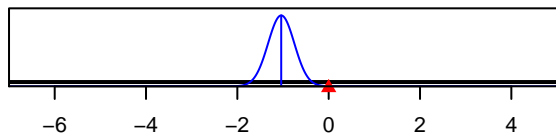
InitF_seas_1flt_1FISHERY



Size_95%width_FISHERY(1)



LnQ_base_FISHERY(1)



LnQ_base_SURVEY2(2)

