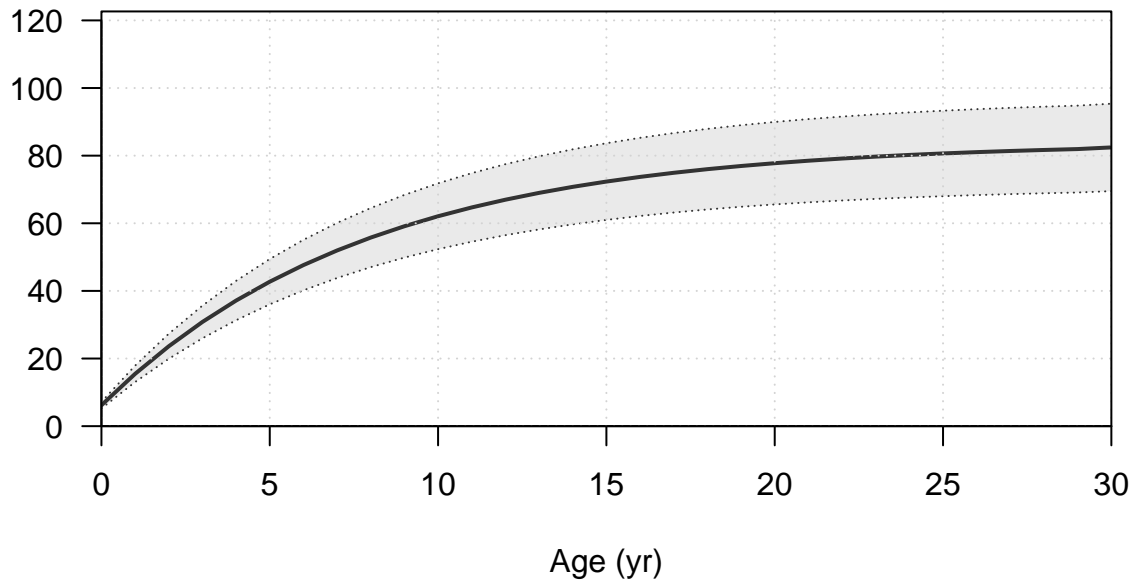
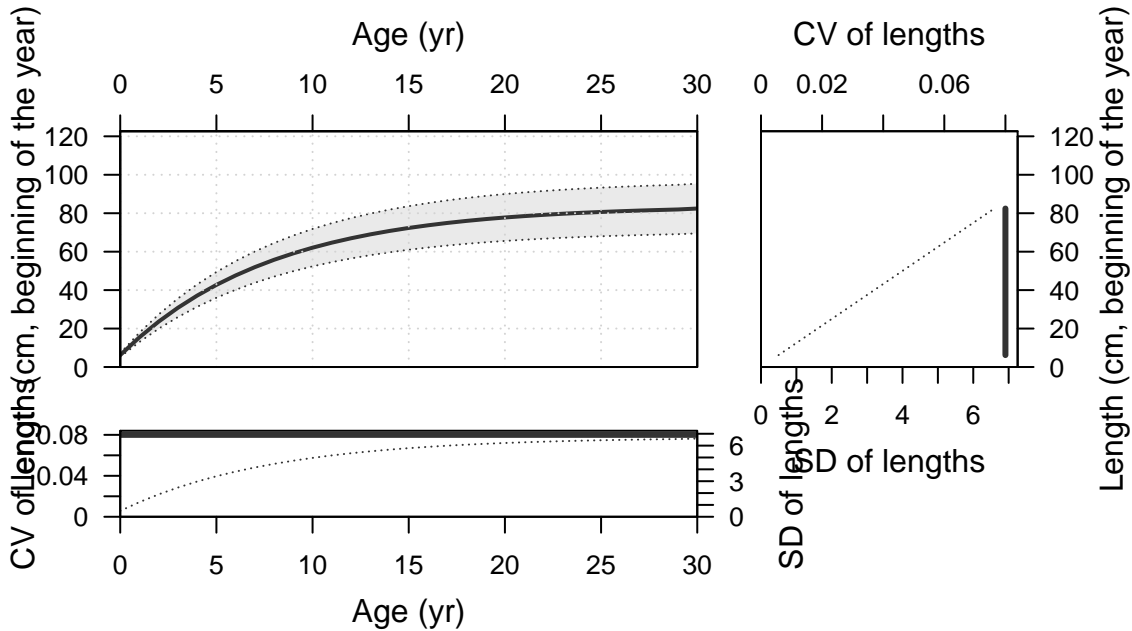
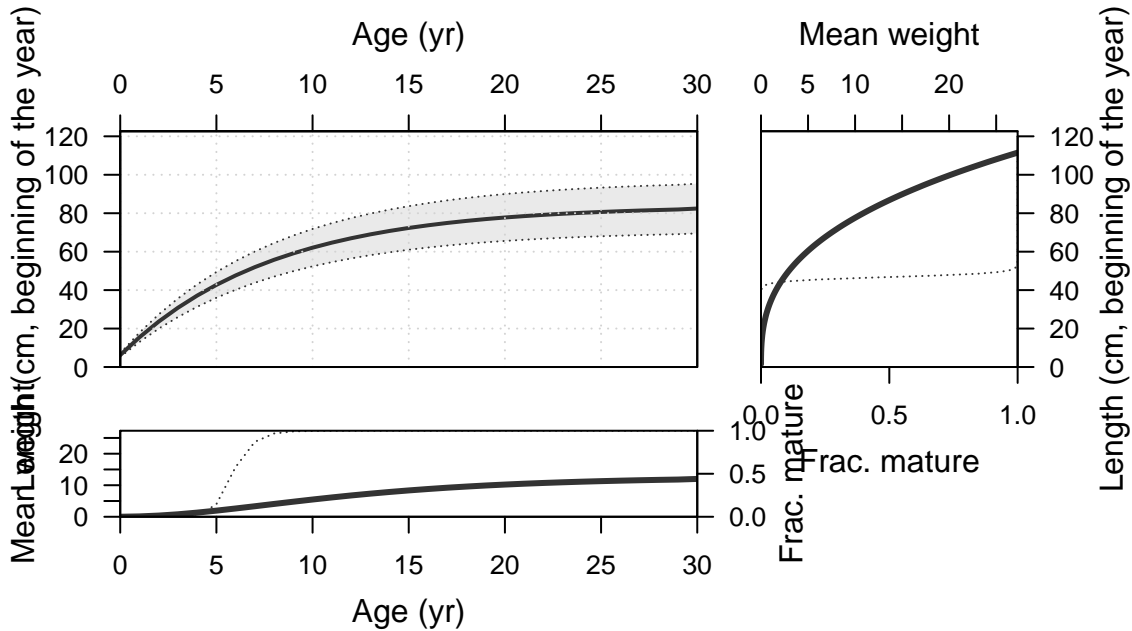


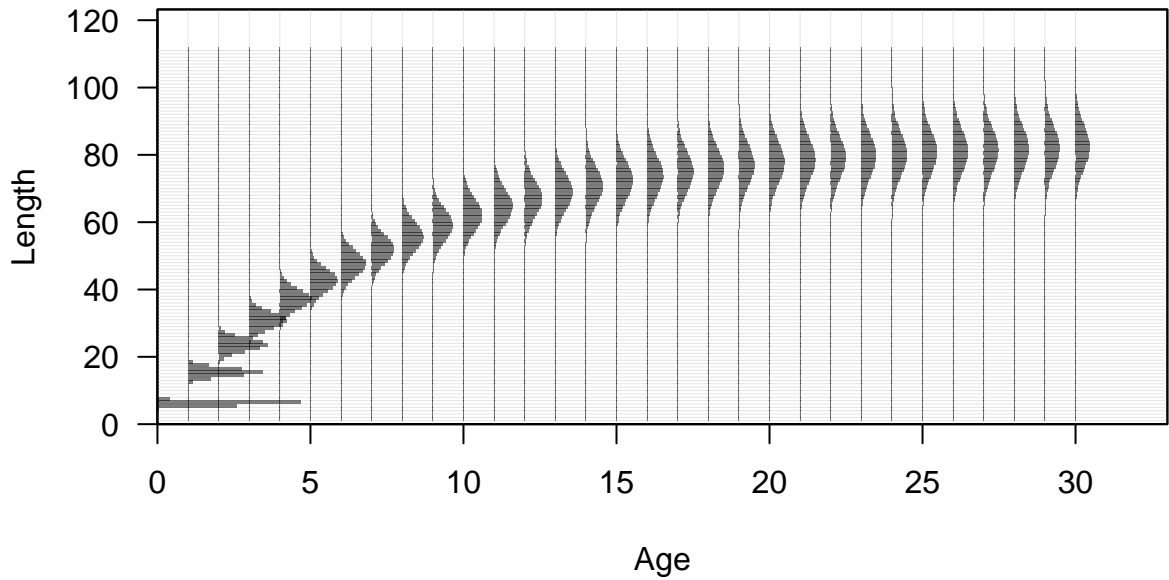
Plots created using the 'r4ss' package in R
Stock Synthesis version: 3.30.19.0
StartTime: Wed Jul 27 10:26:33 2022
Data_File: data.ss
Control_File: control.ss

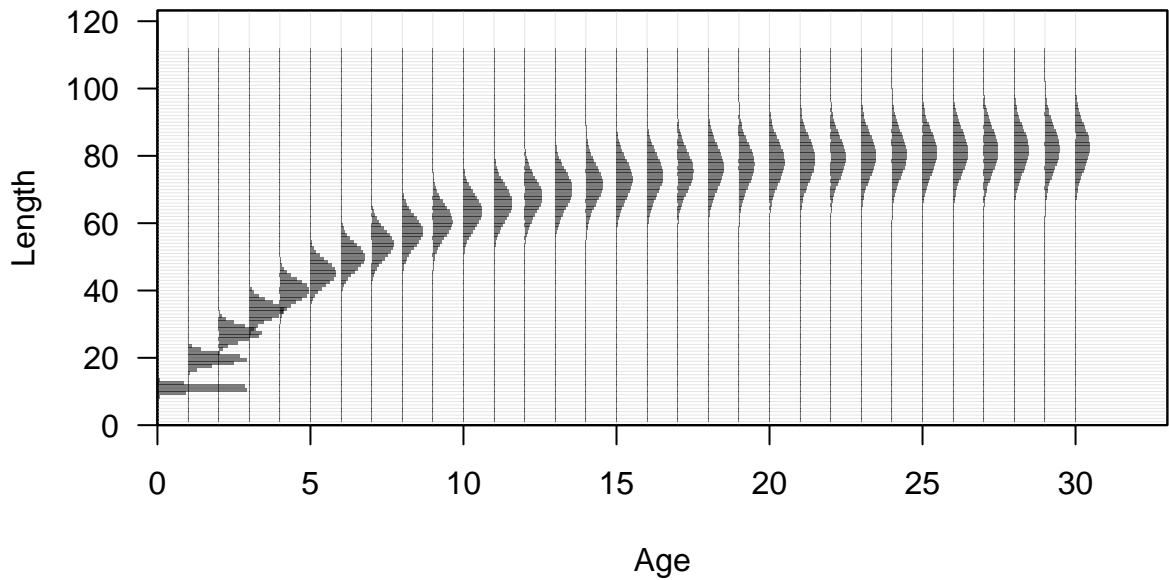
Length (cm, beginning of the year)

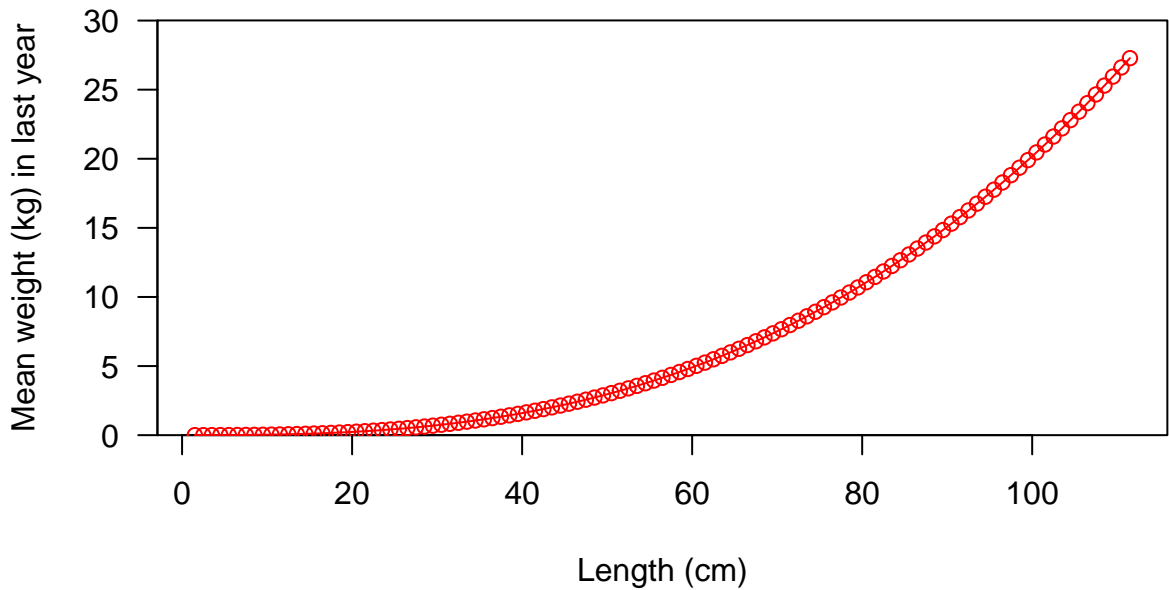


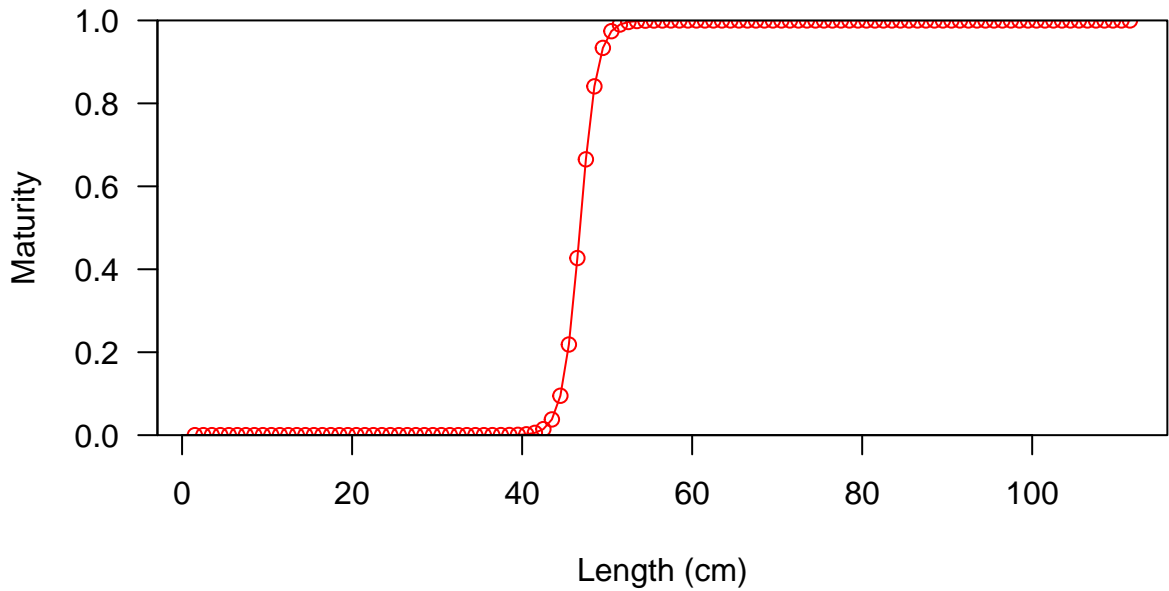


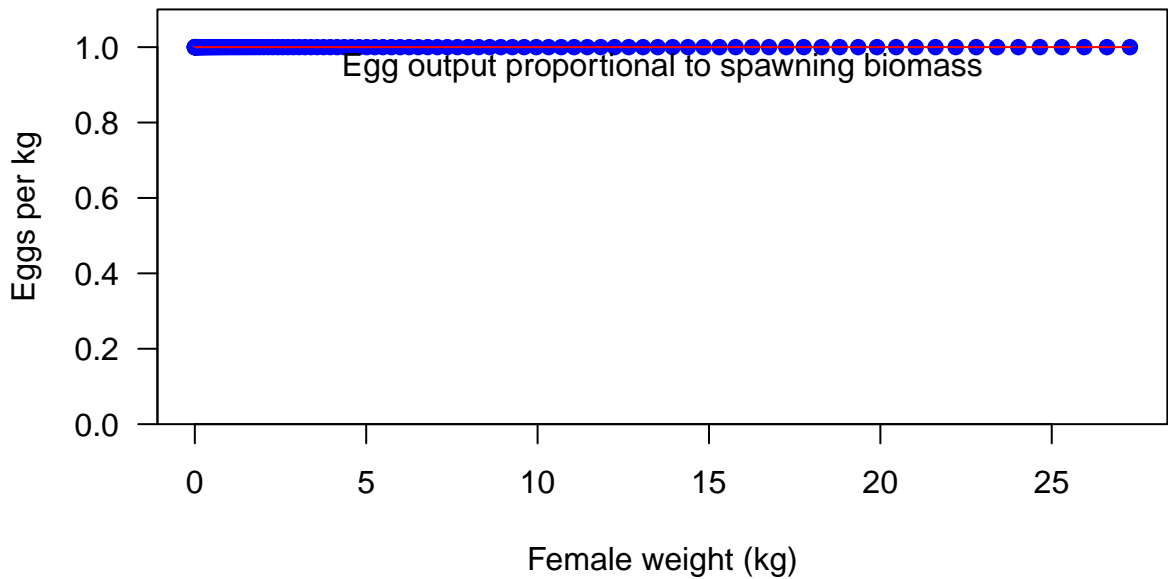


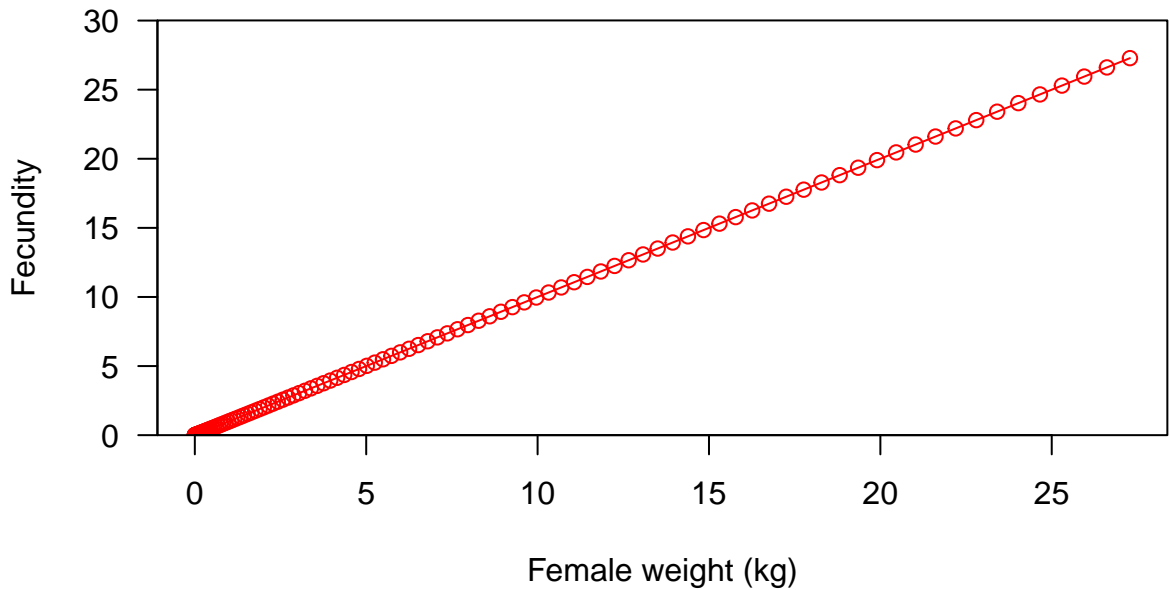












Fecundity

30
25
20
15
10
5
0

0

20

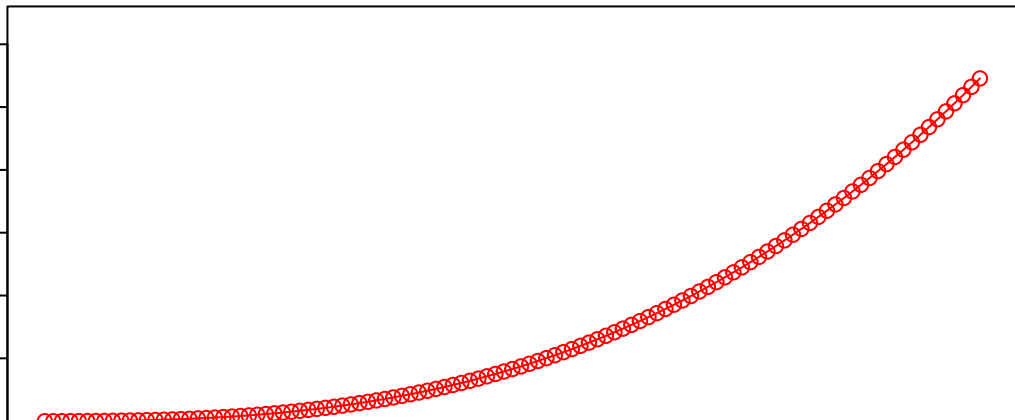
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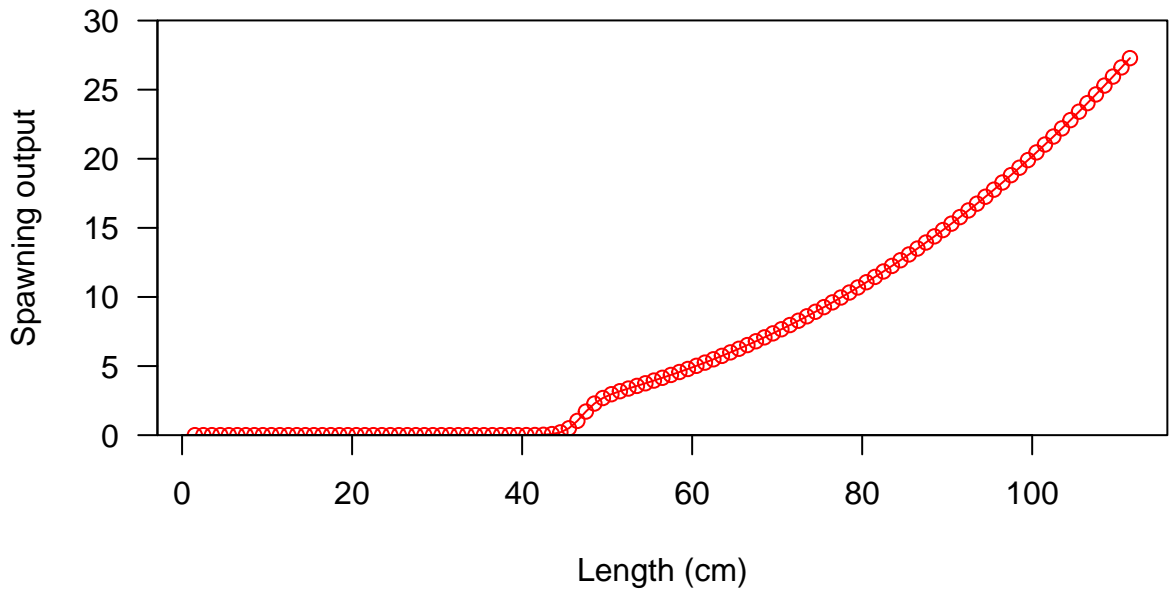
60

80

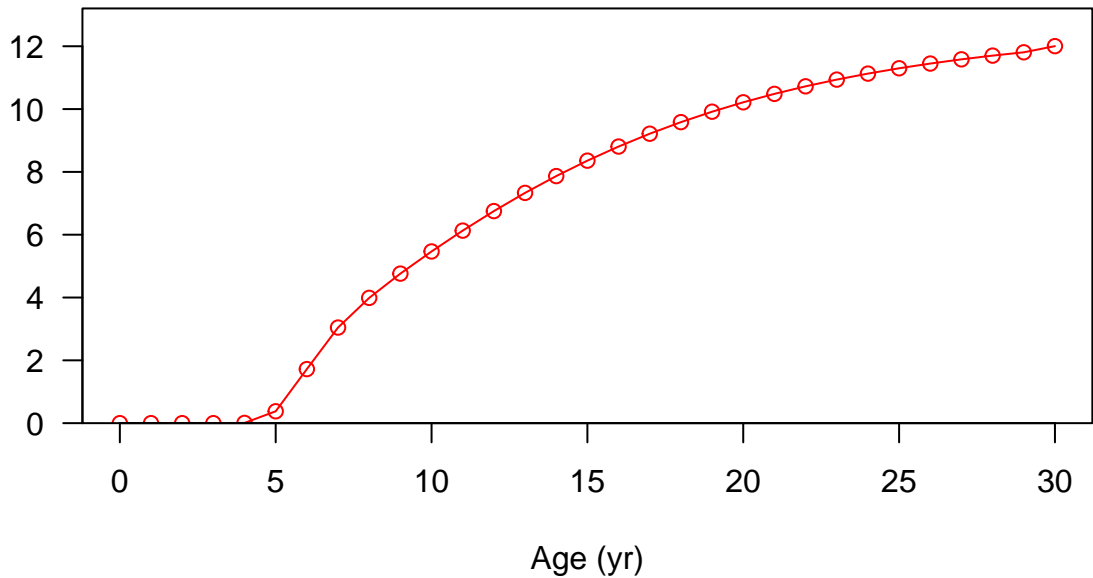
100

Female length (cm)

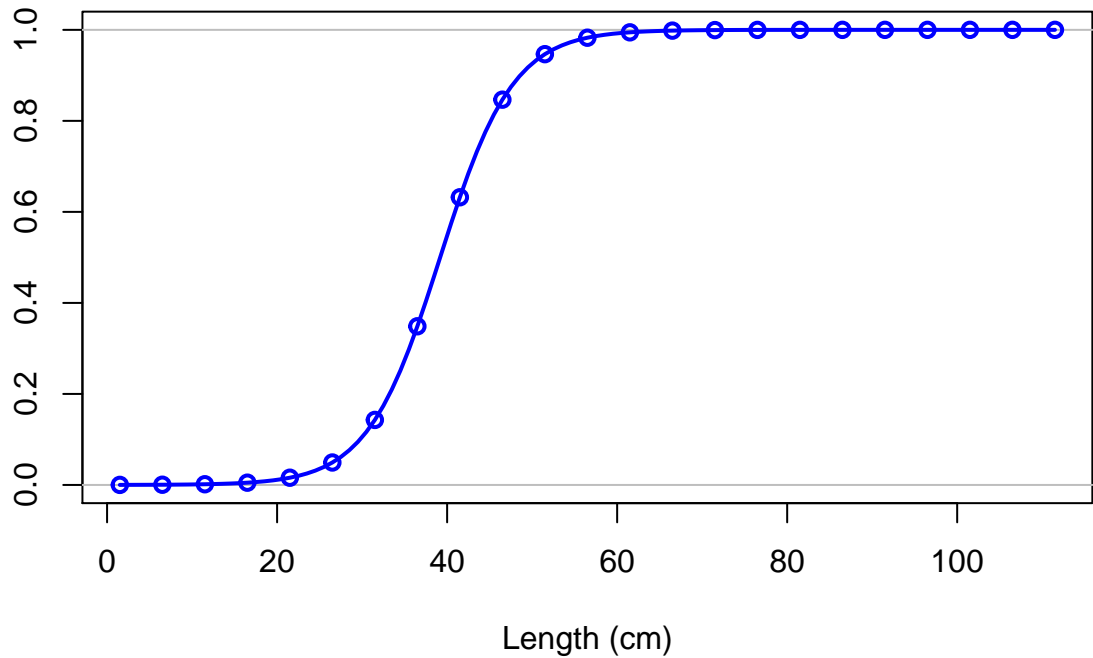




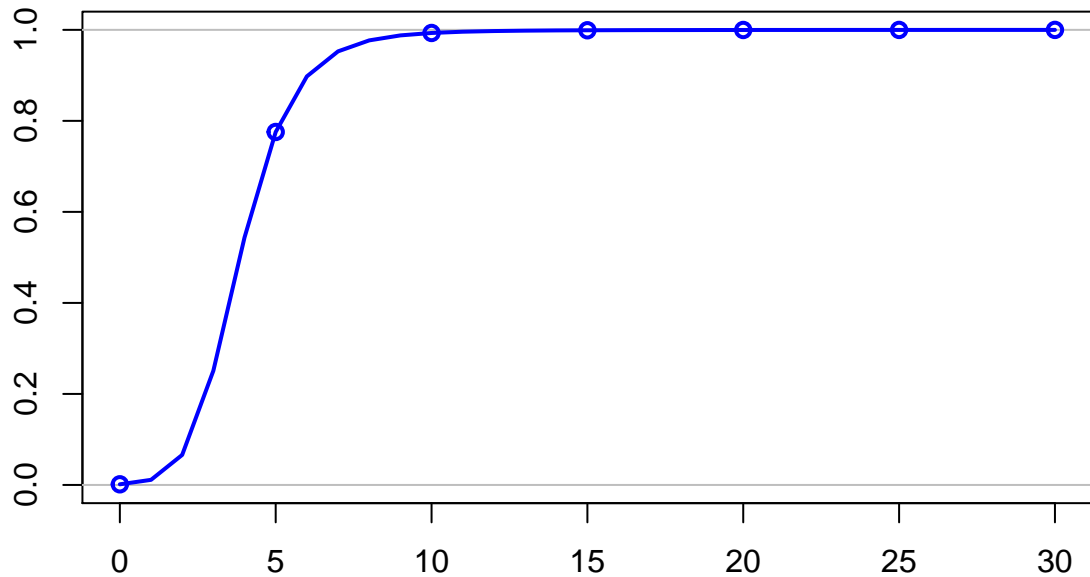
Spawning output



Selectivity

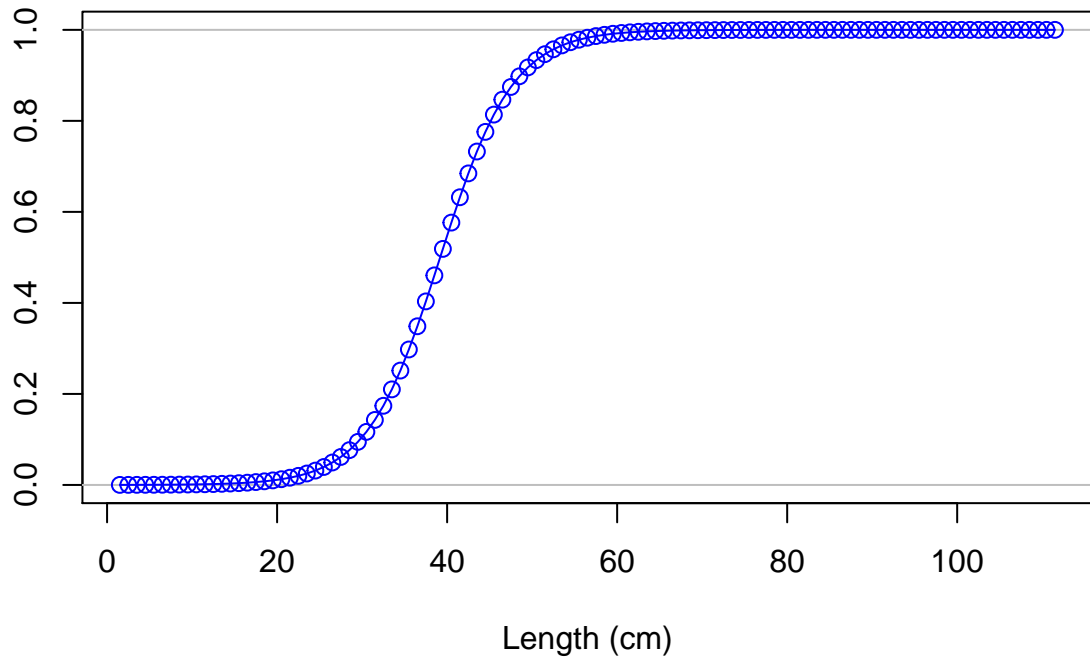


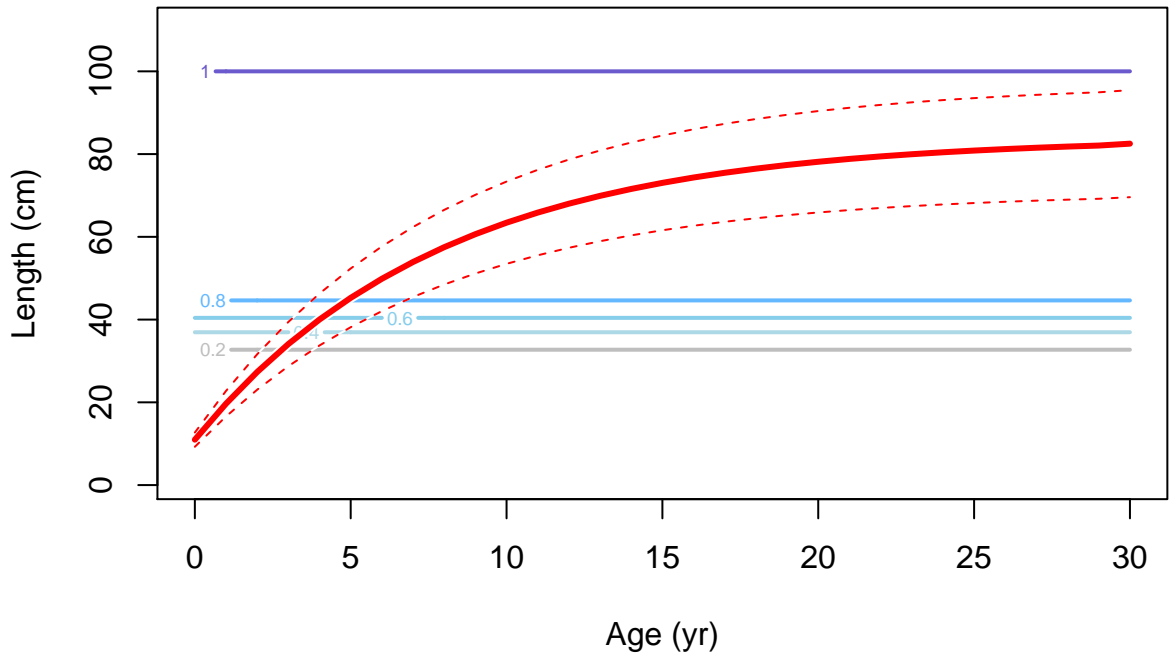
Selectivity



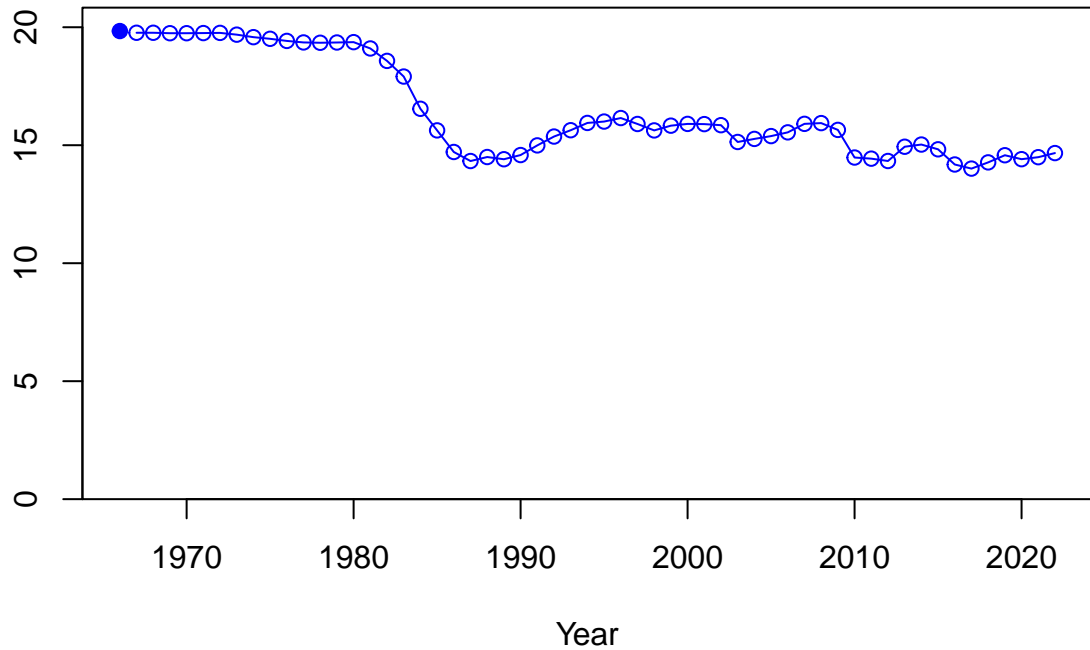
Age (yr)

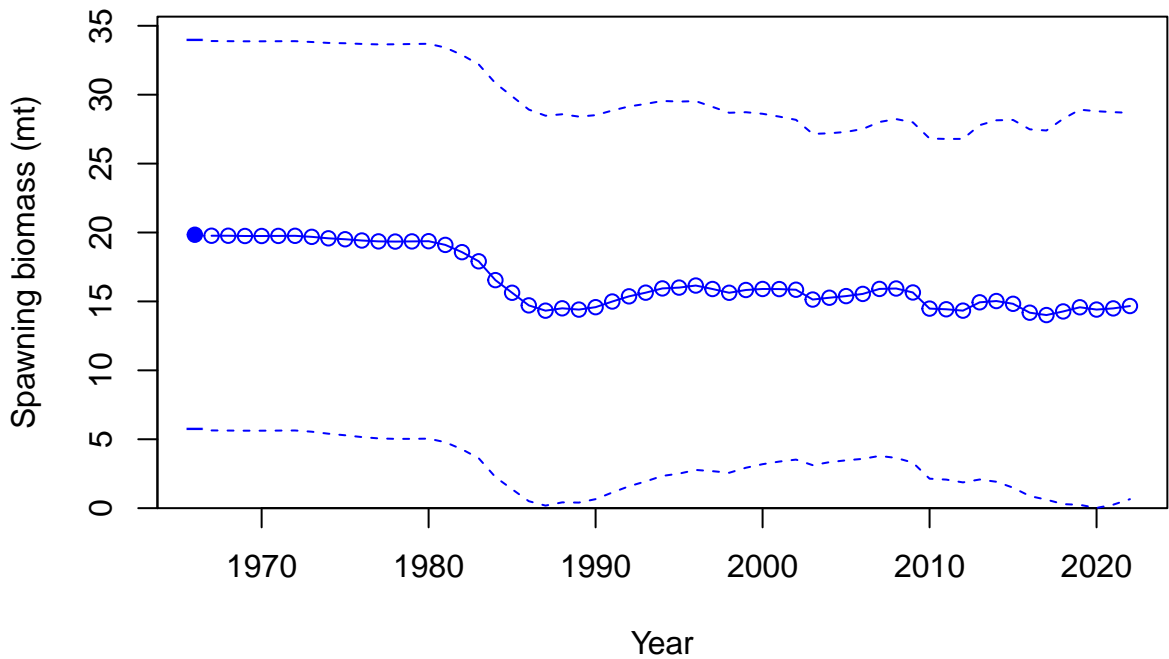
Selectivity



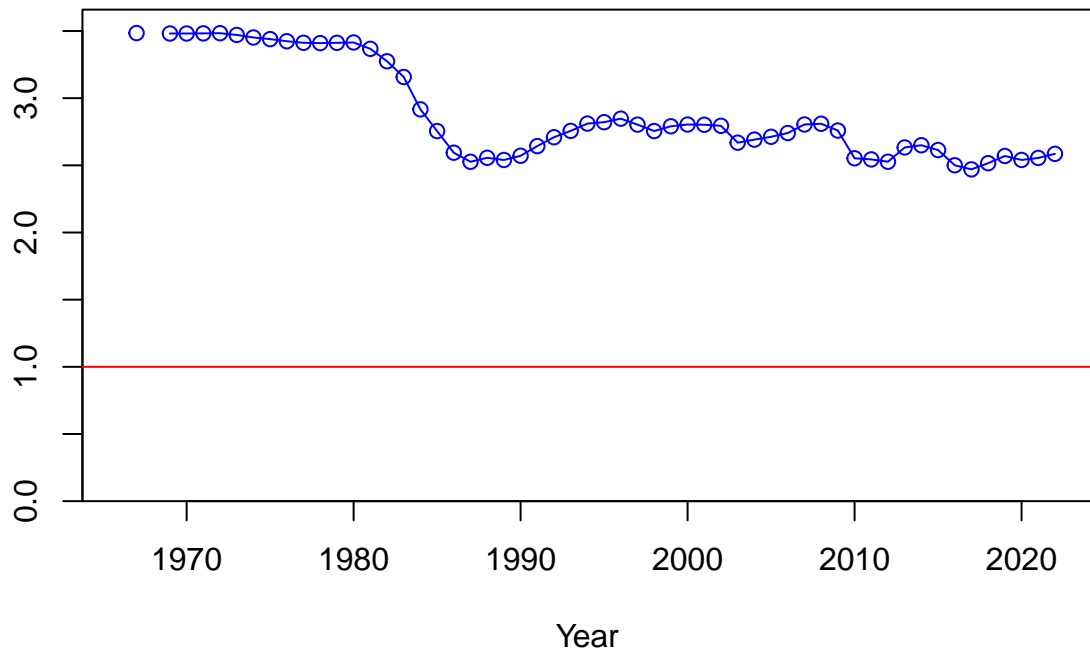


Spawning biomass (mt)

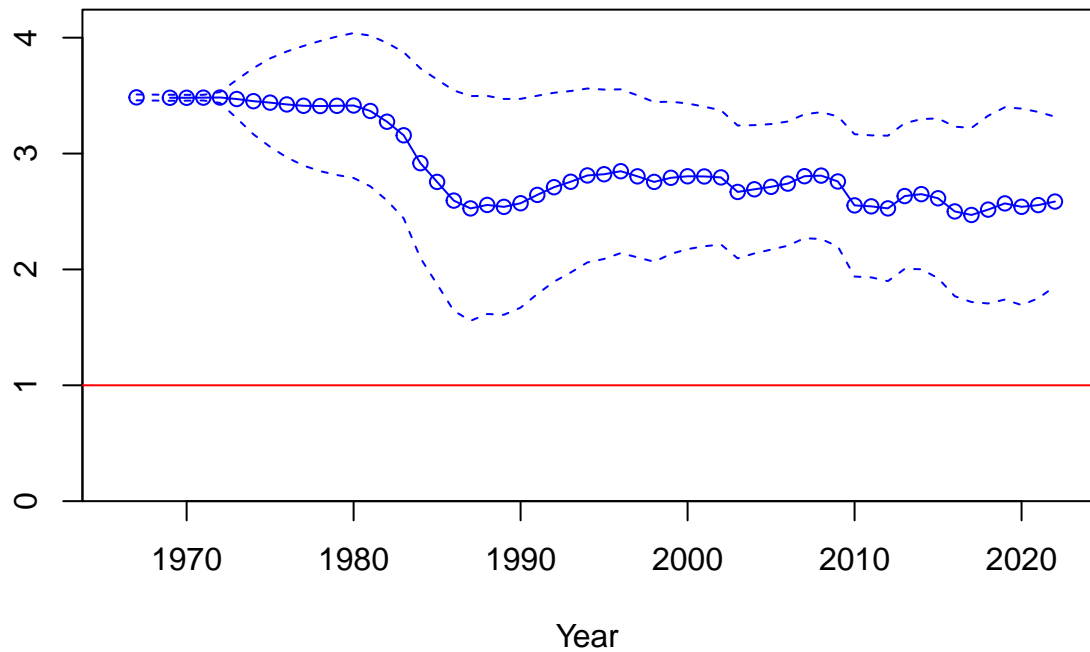


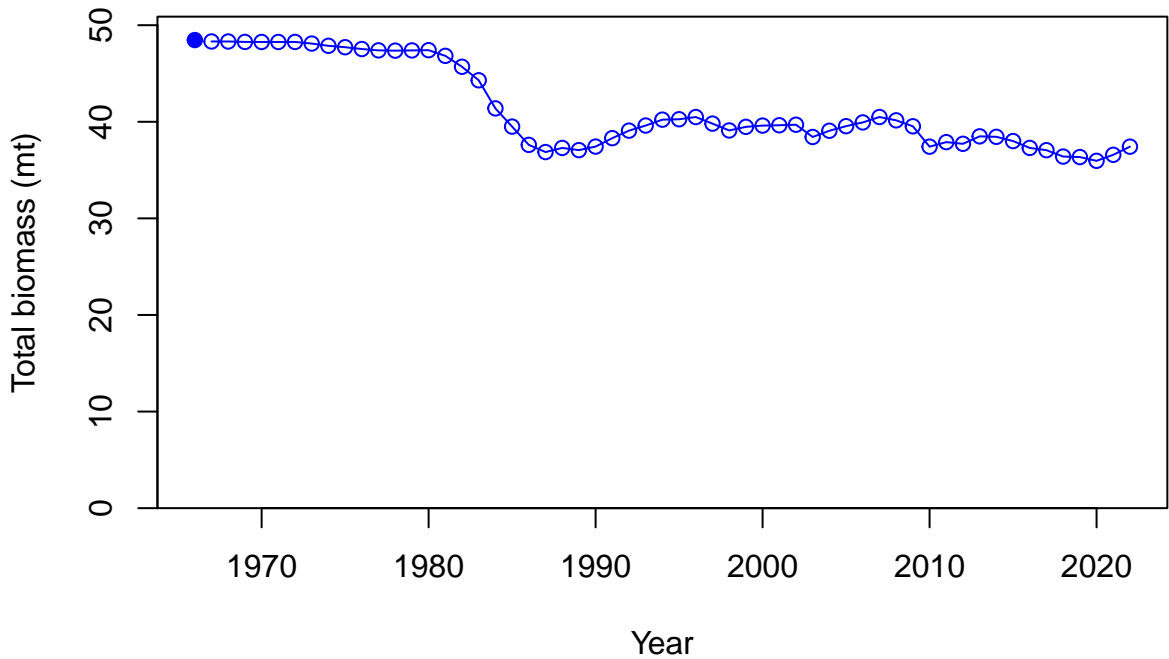


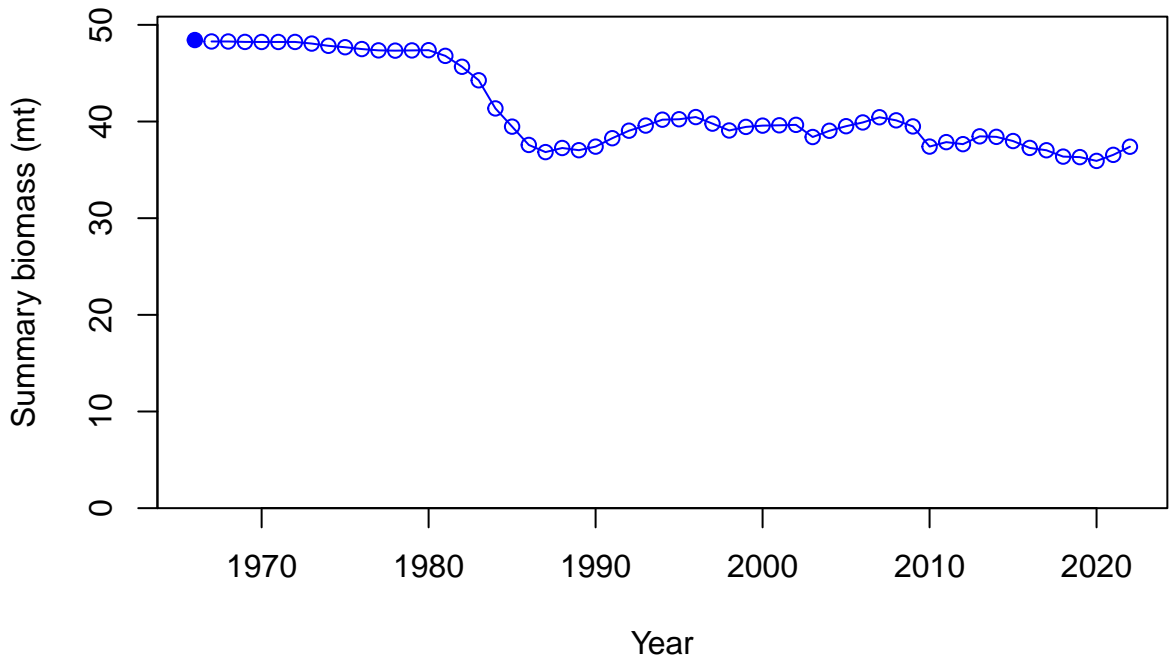
Relative spawning biomass: B/B_{MSY}

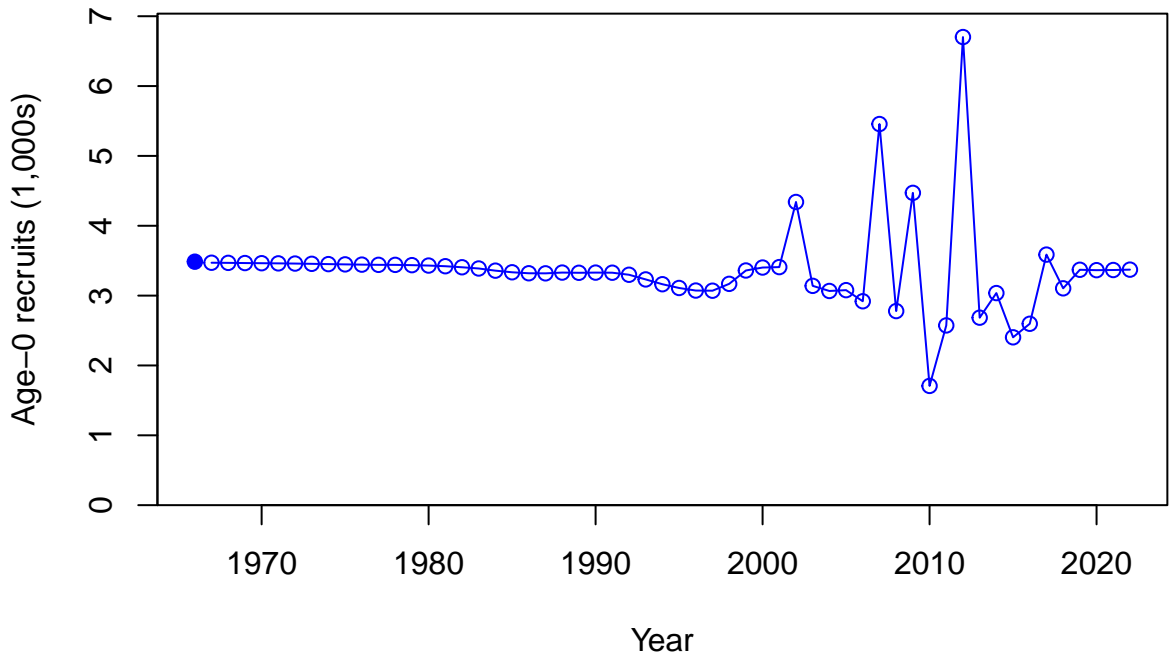


Relative spawning biomass: B/B_{MSY}









Age-0 recruits (1,000s)

15
10
5
0

1970

1980

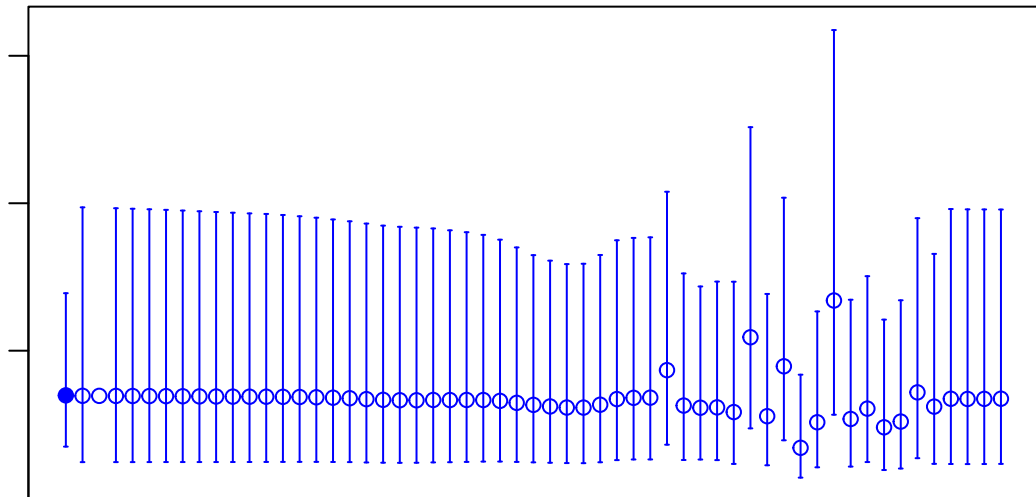
1990

2000

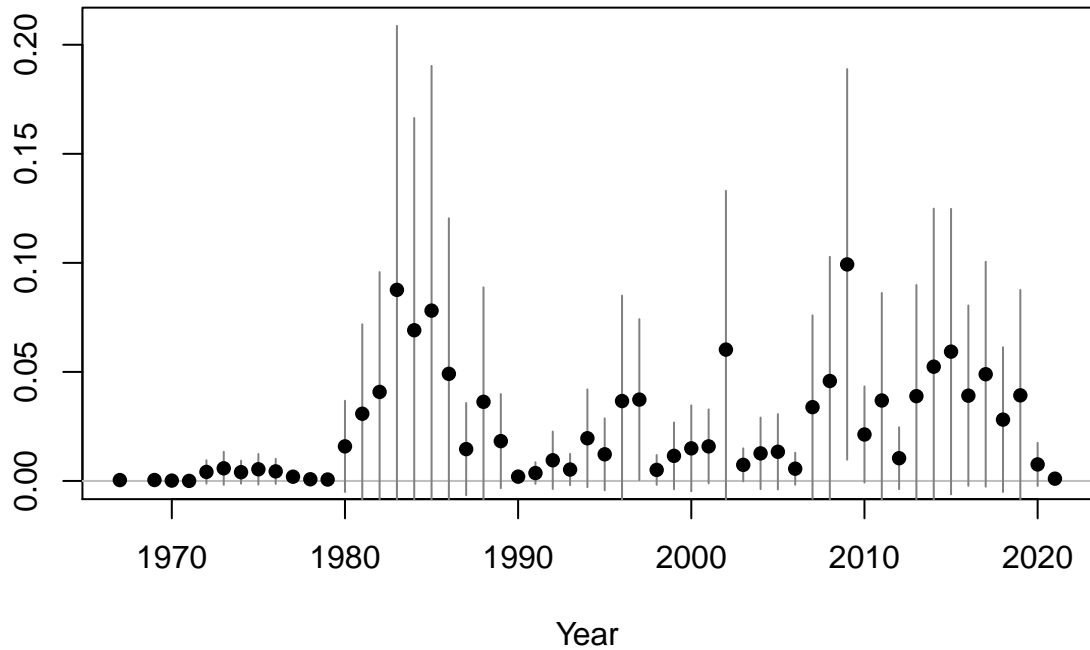
2010

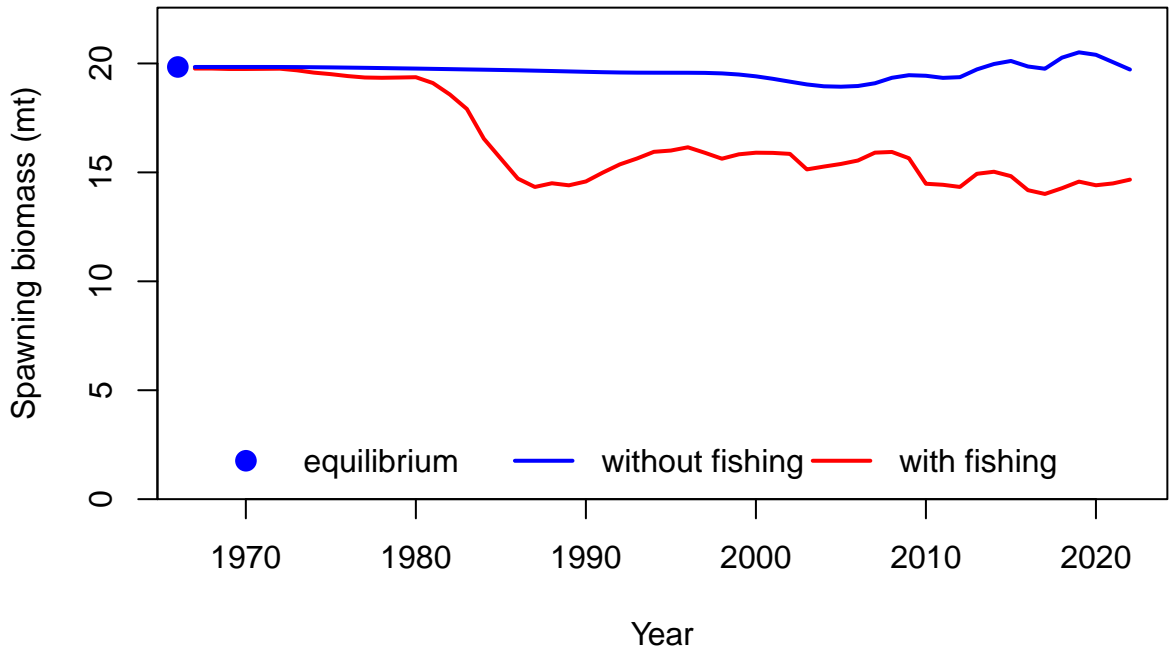
2020

Year

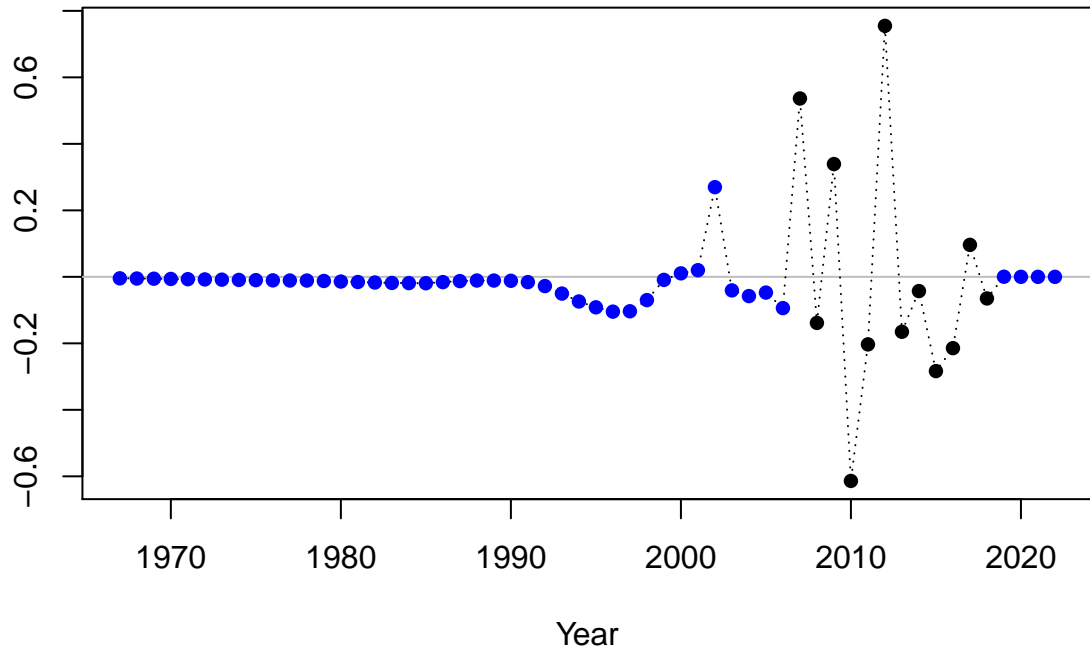


Summary Fishing Mortality

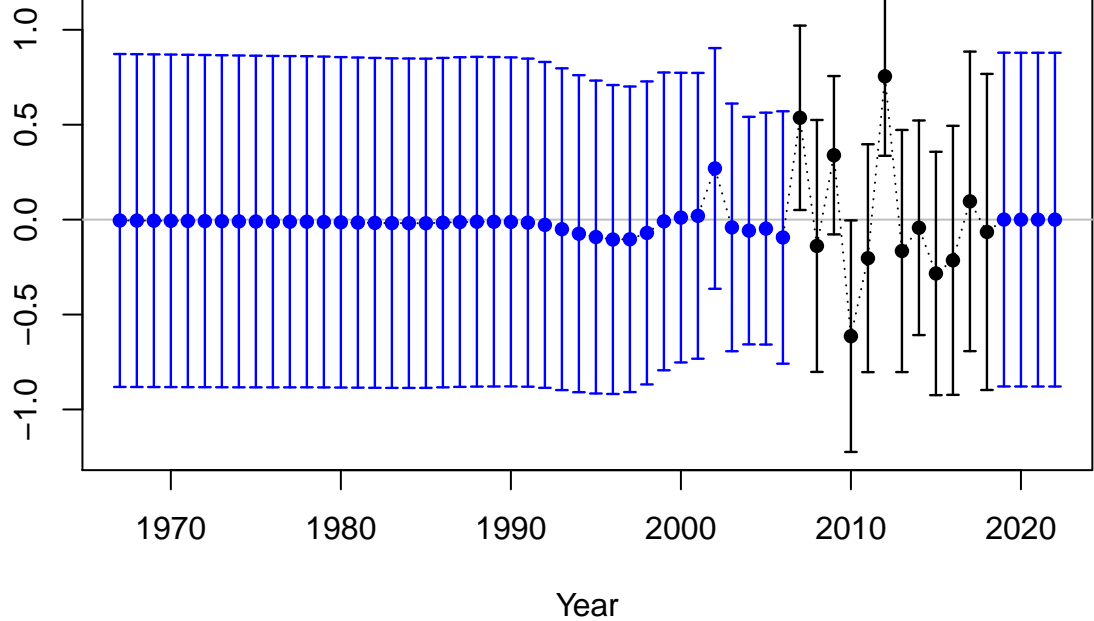




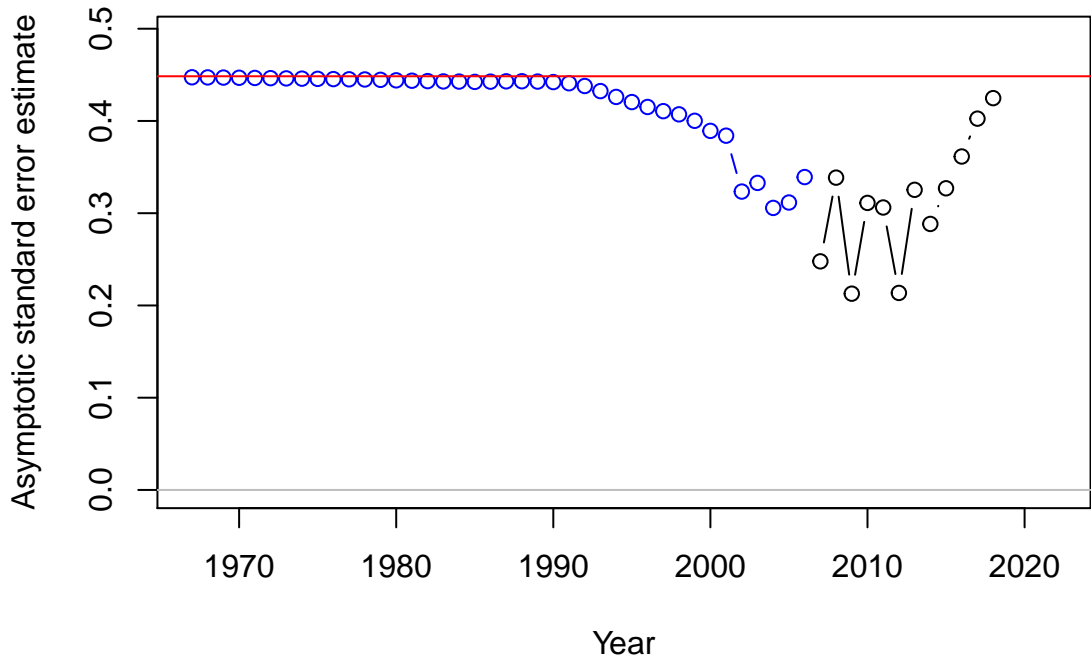
Log recruitment deviation

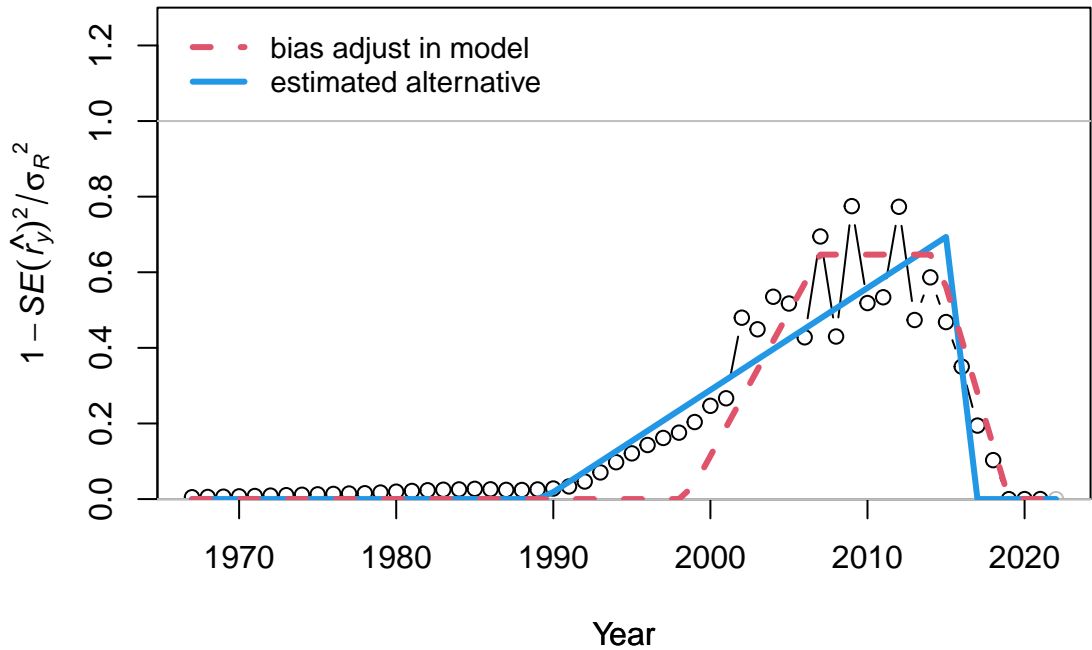


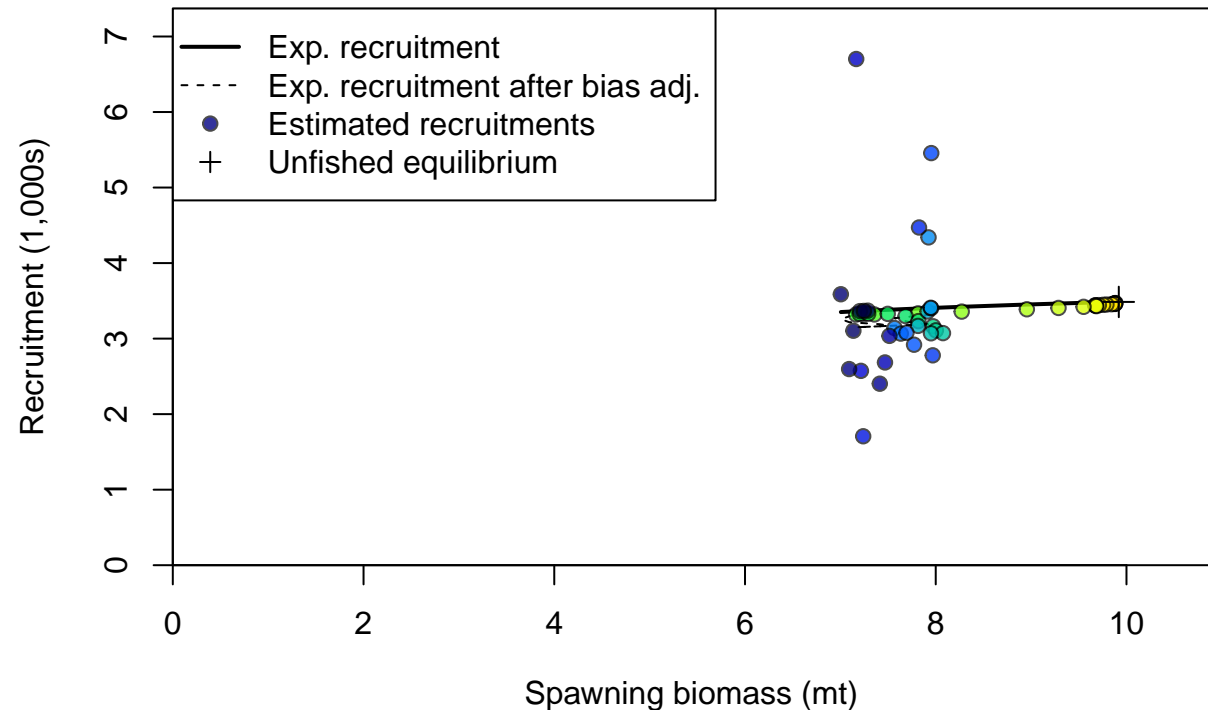
Log recruitment deviation

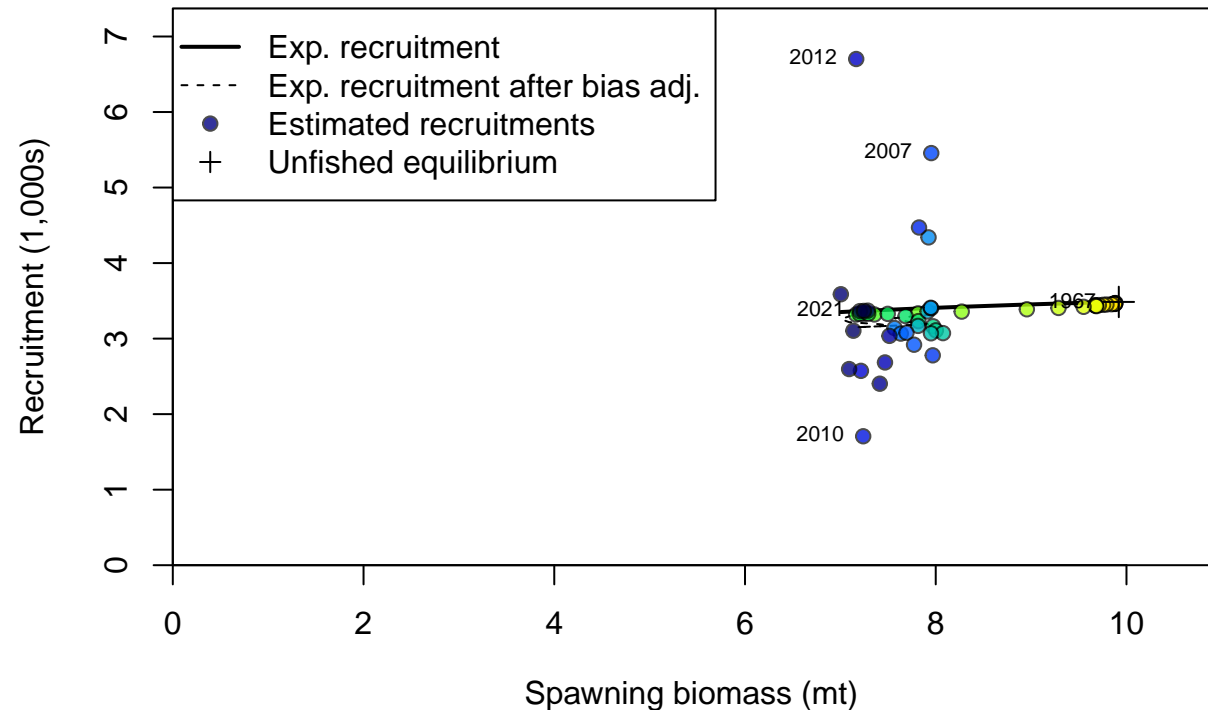


Recruitment deviation variance









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)

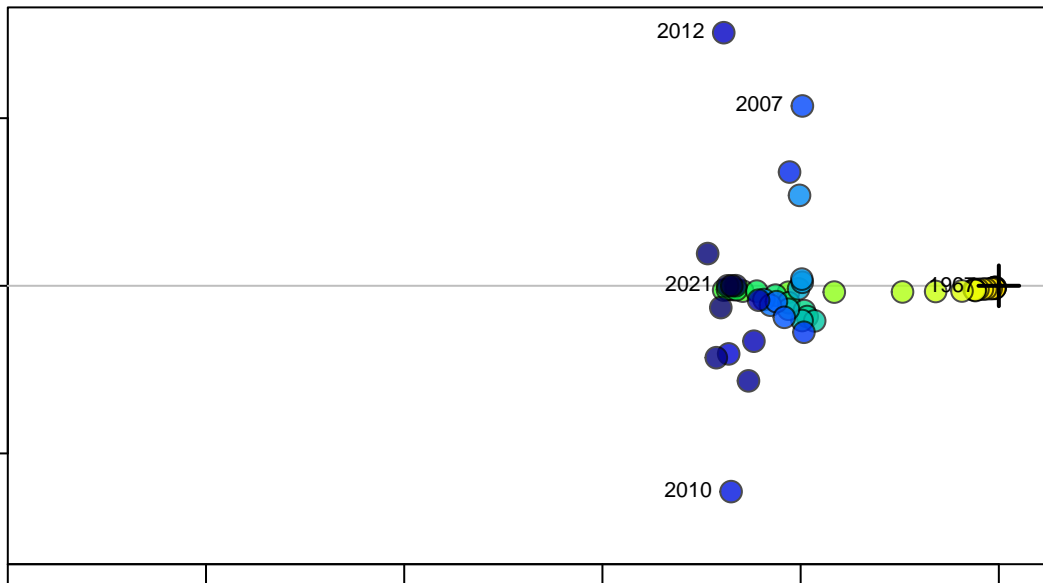
2012

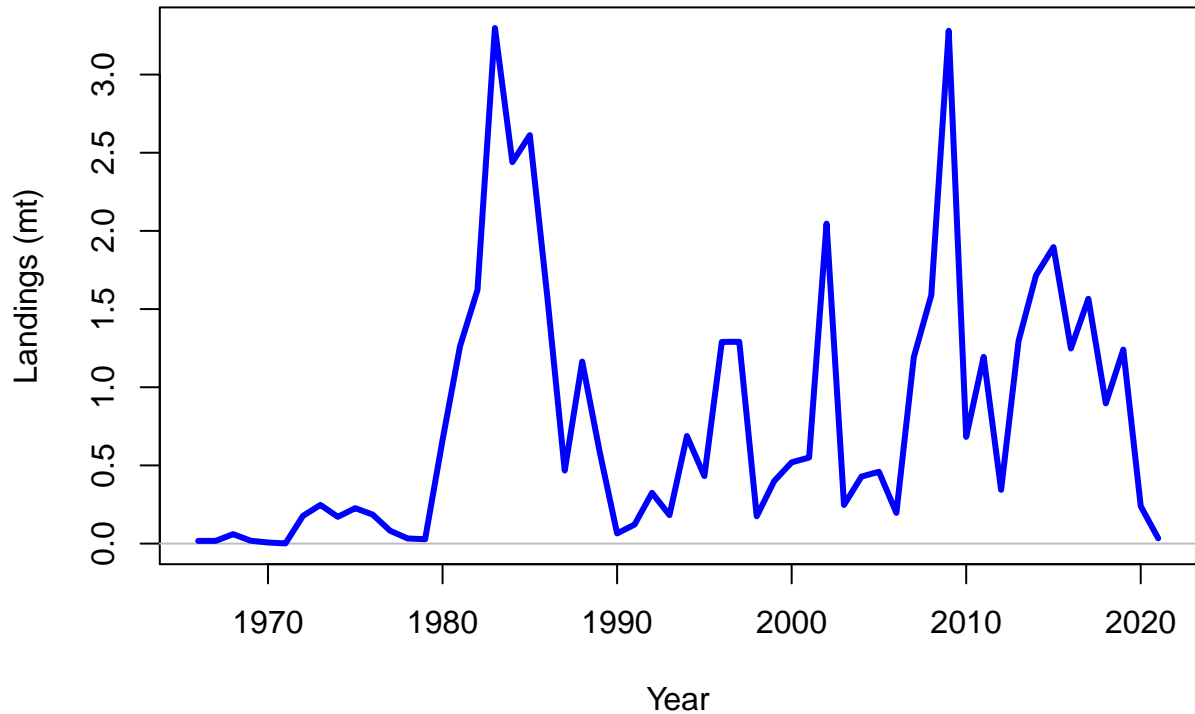
2007

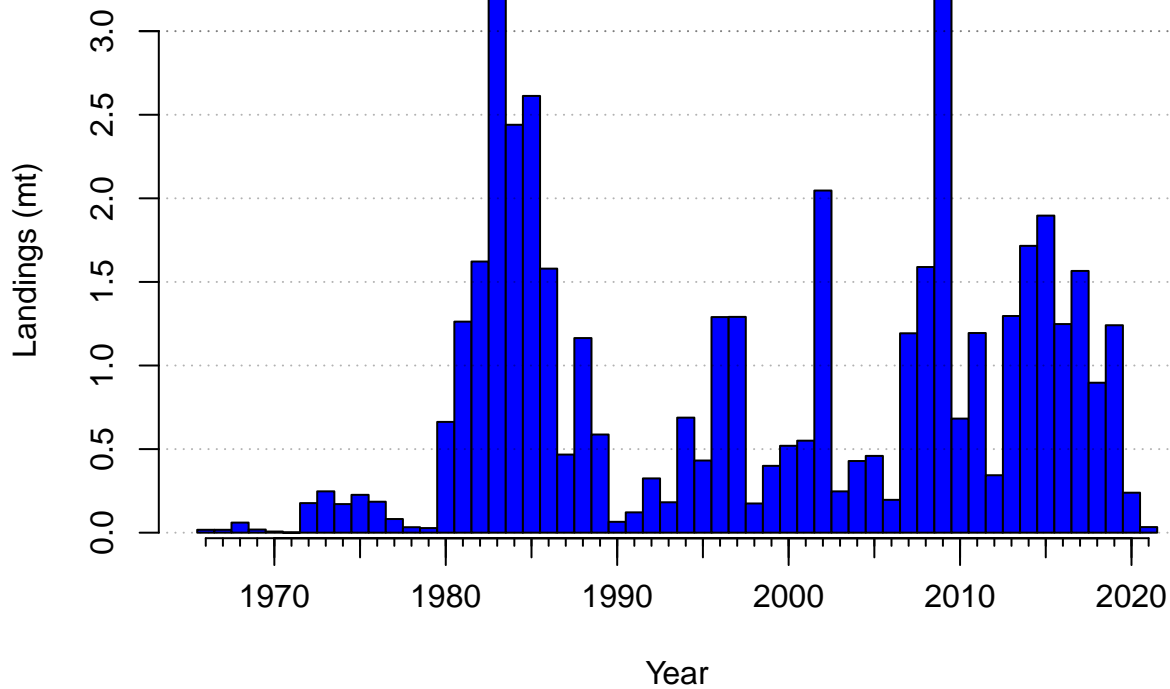
2021

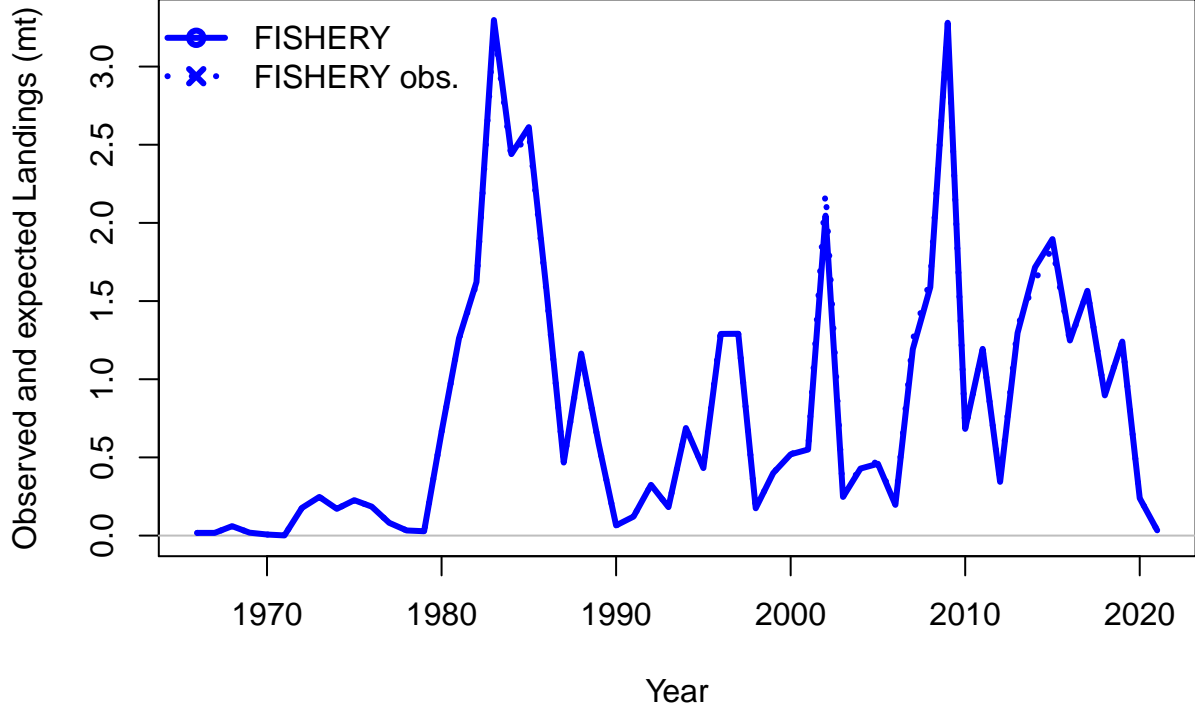
2010

1967

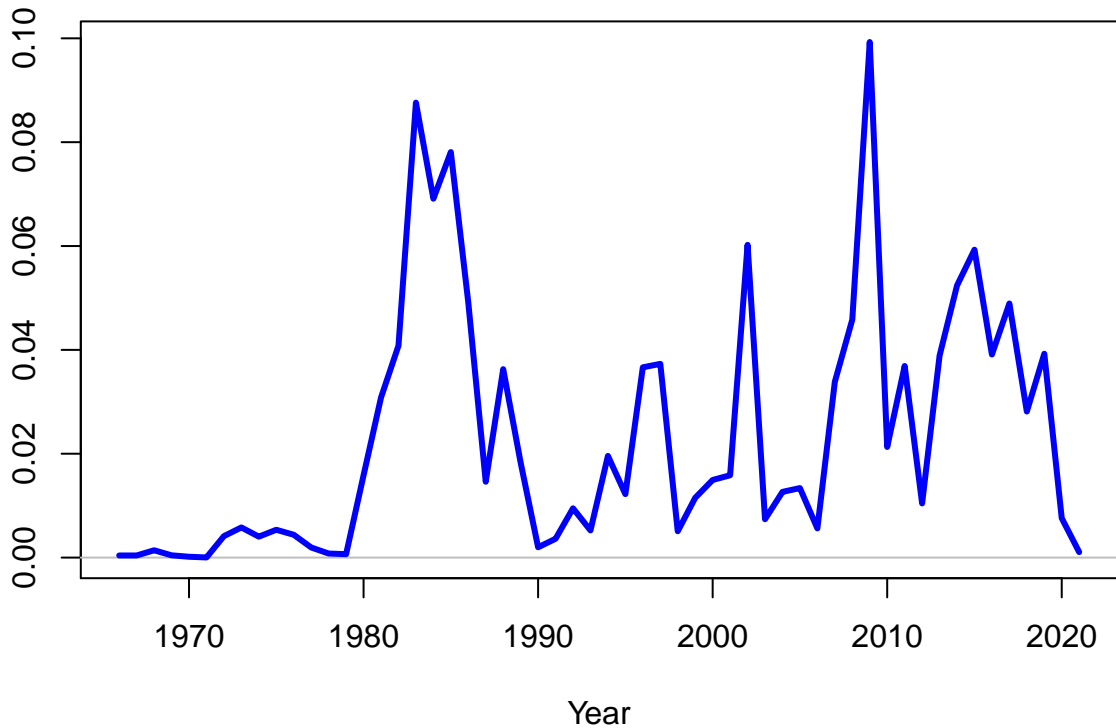




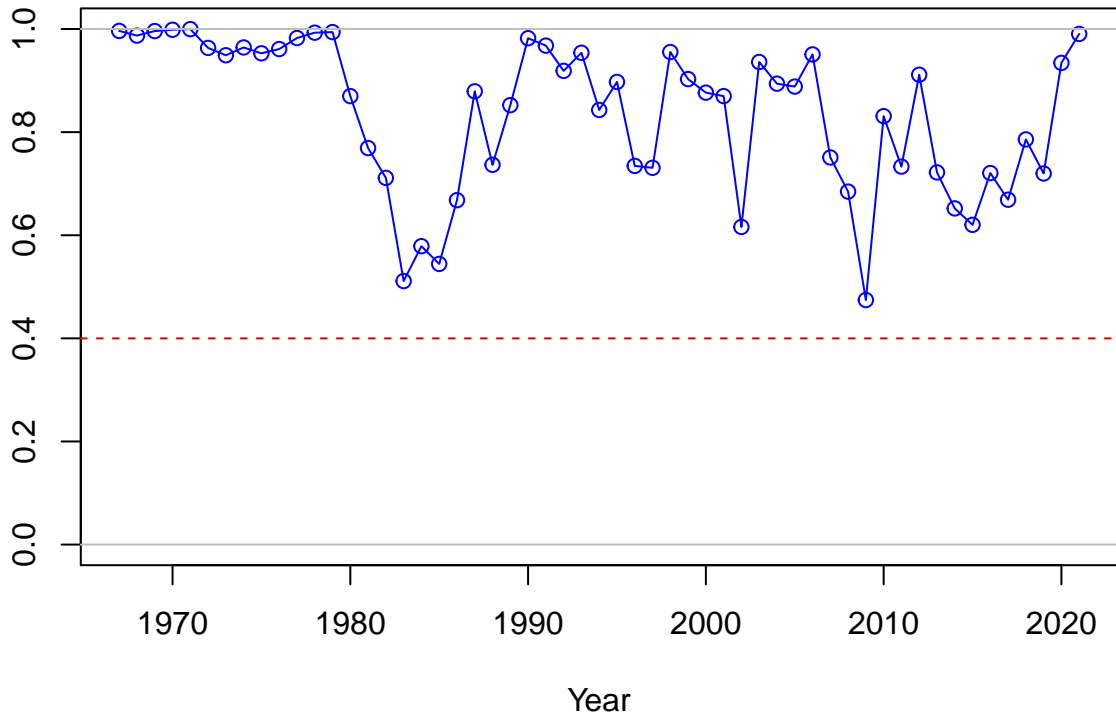


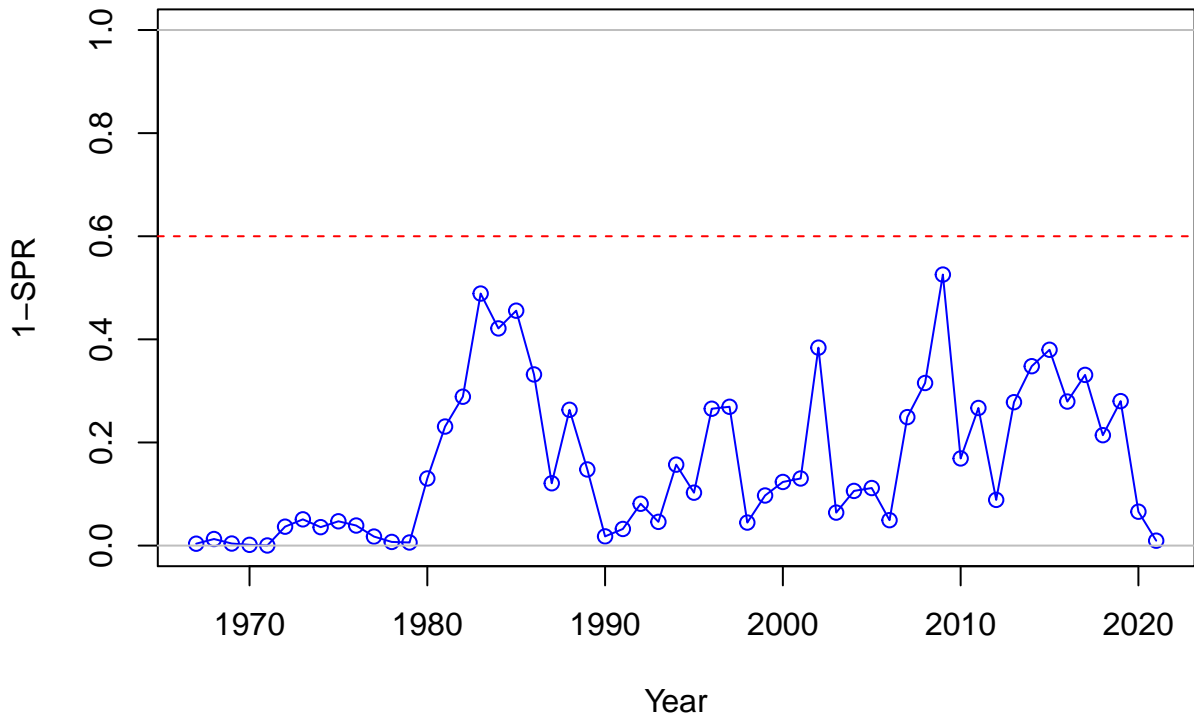


Continuous F

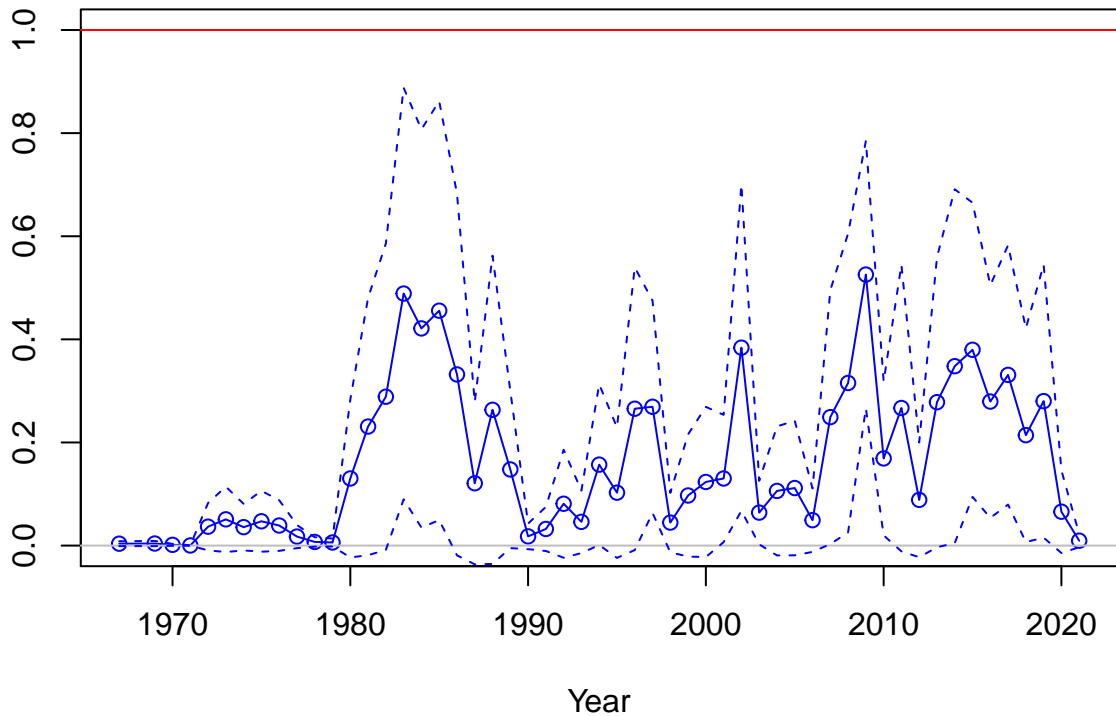


SPR

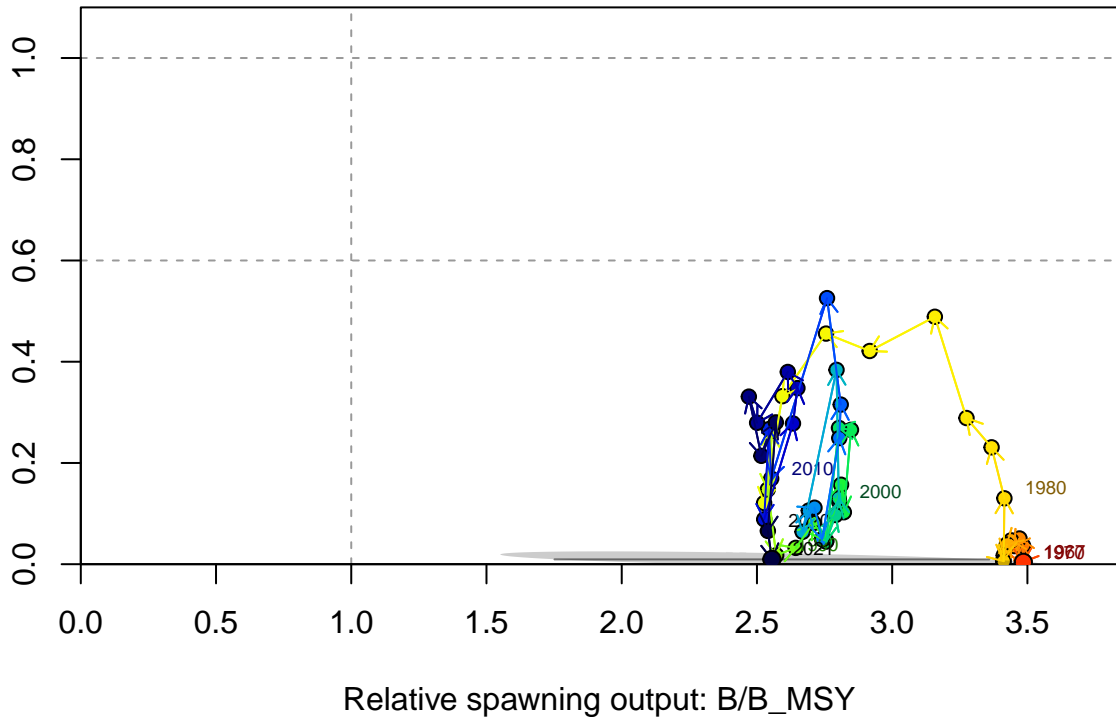




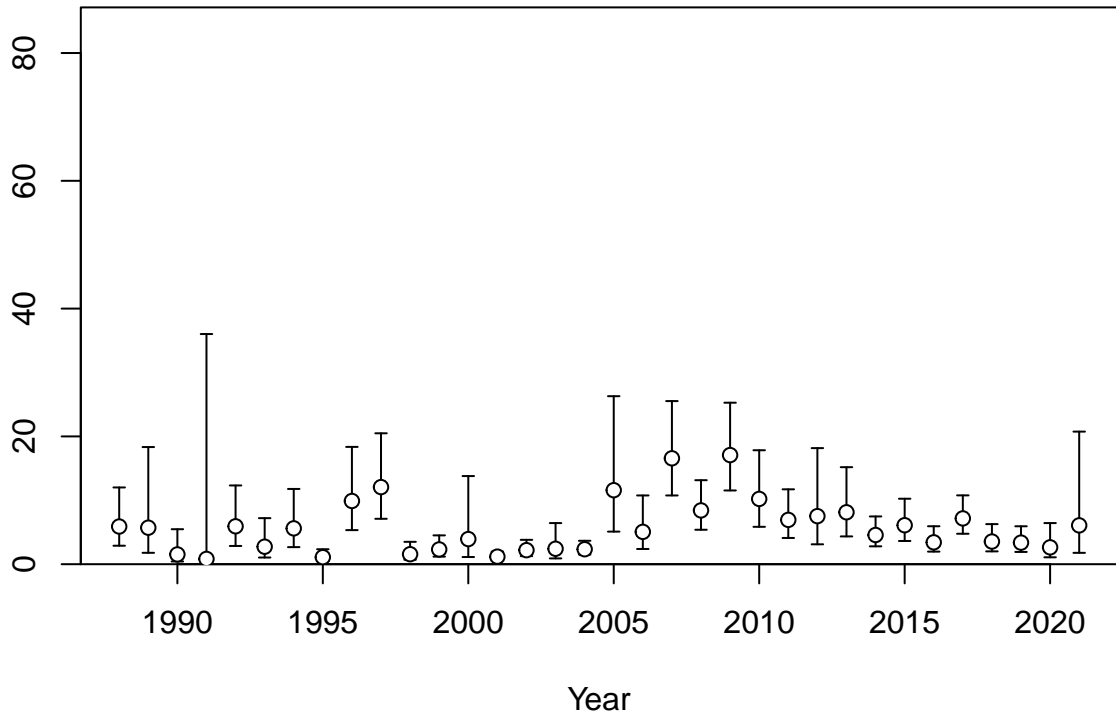
Fishing intensity: 1-SPR



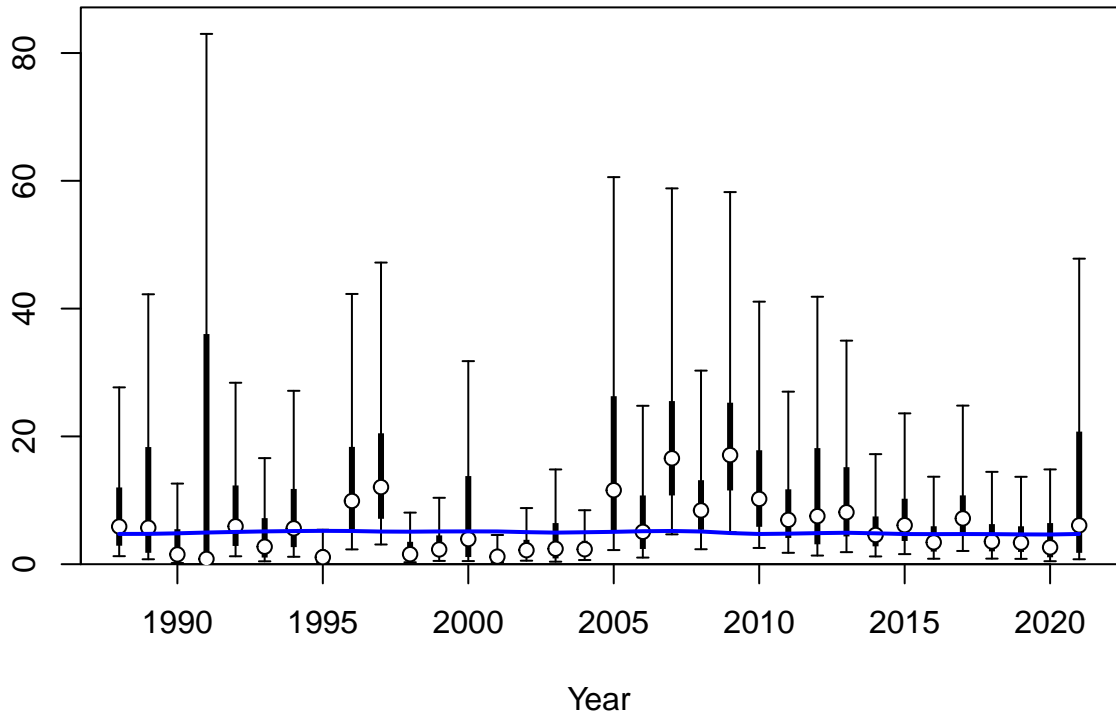
Fishing intensity: 1-SPR

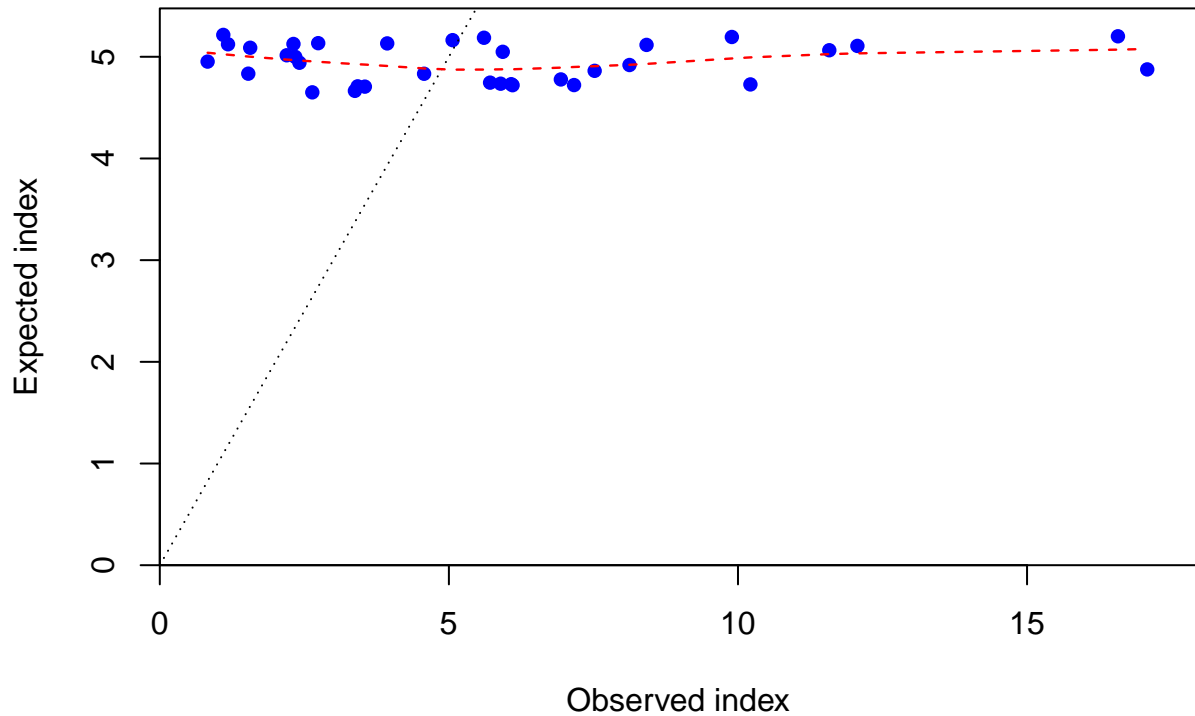


Index



Index





Log index

4
2
0
-2
-4

1990

1995

2000

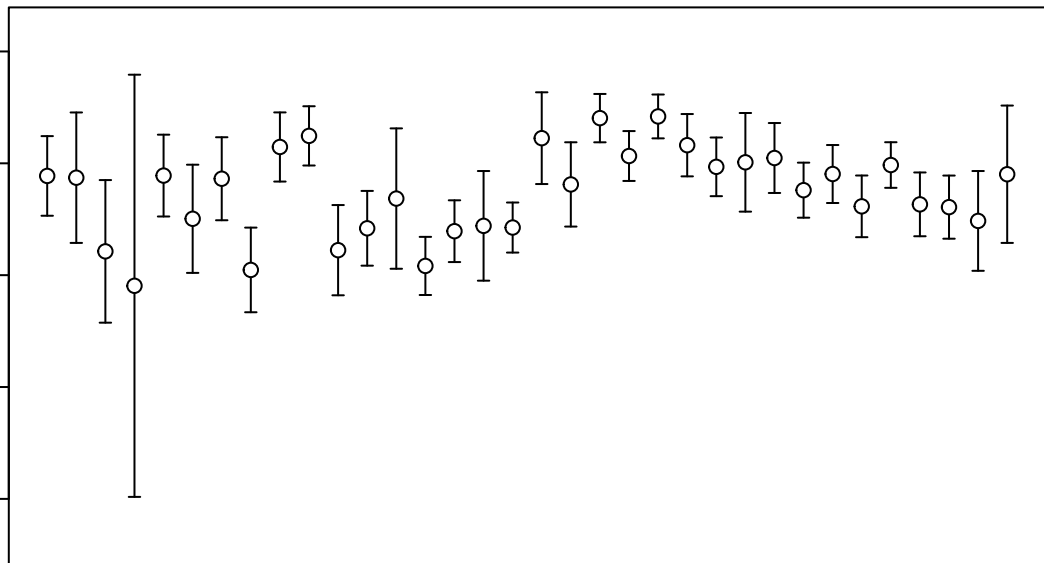
2005

2010

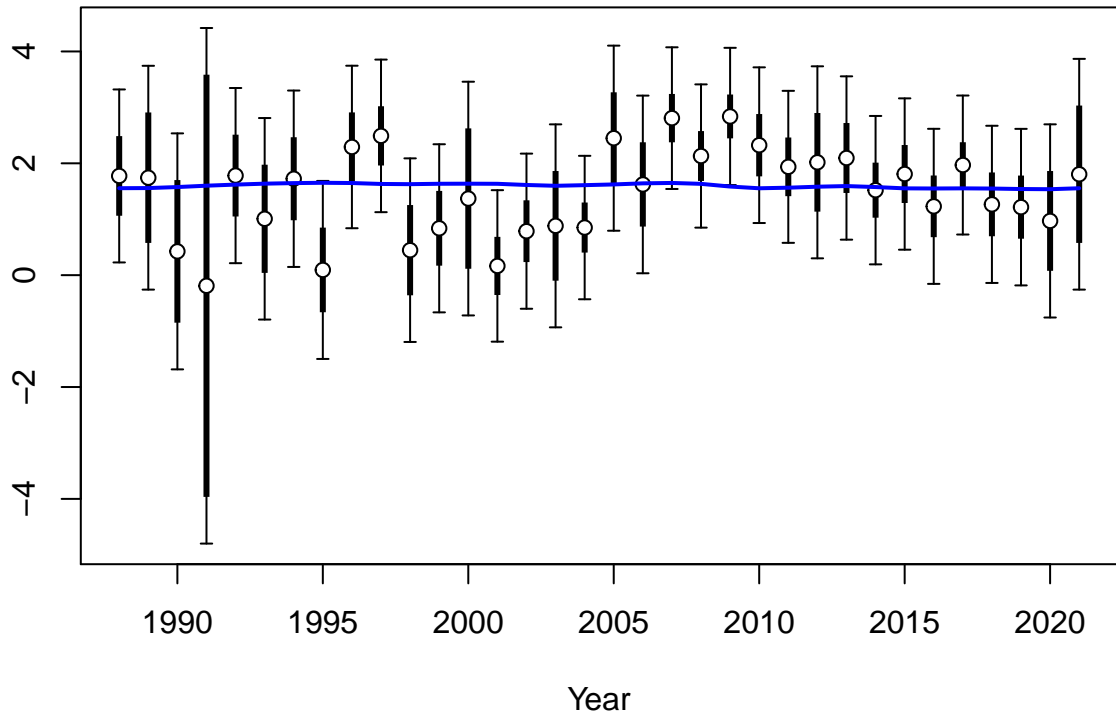
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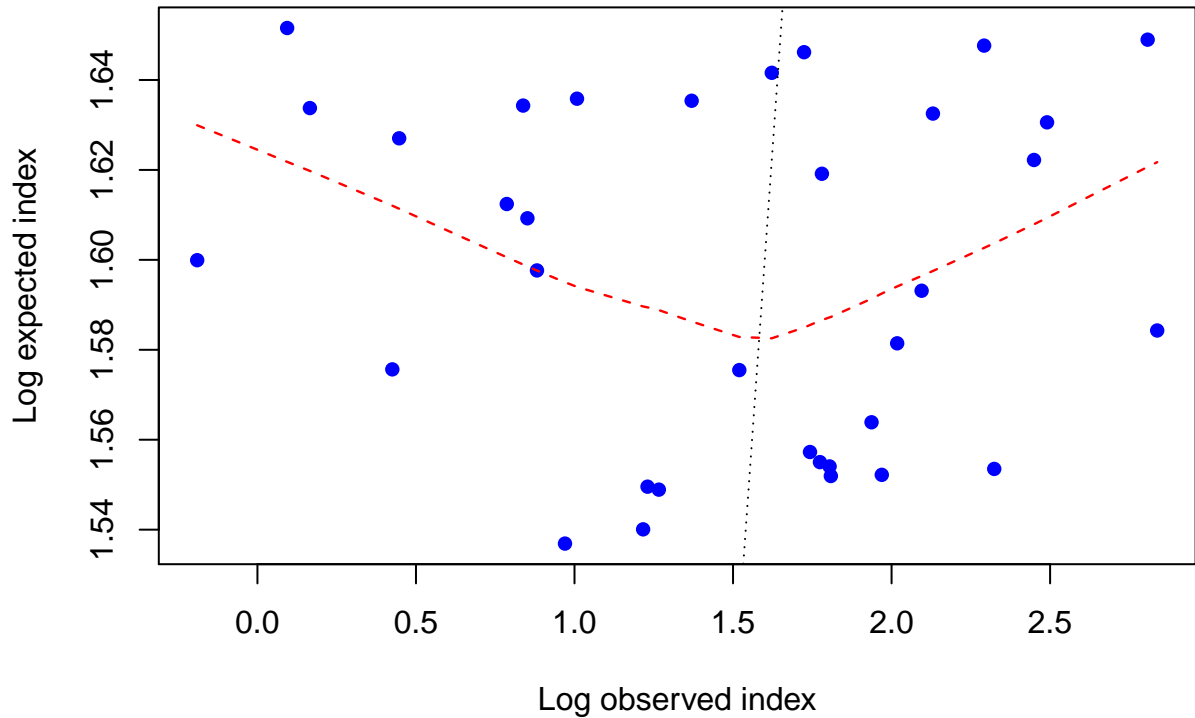
2020

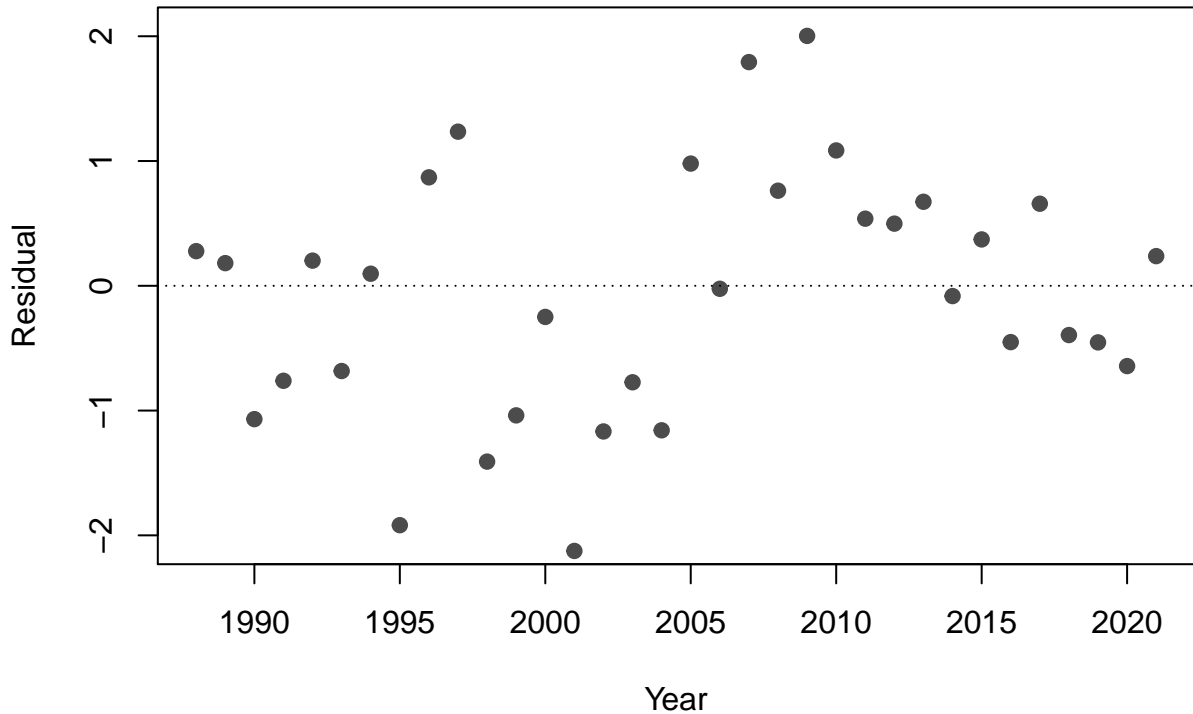
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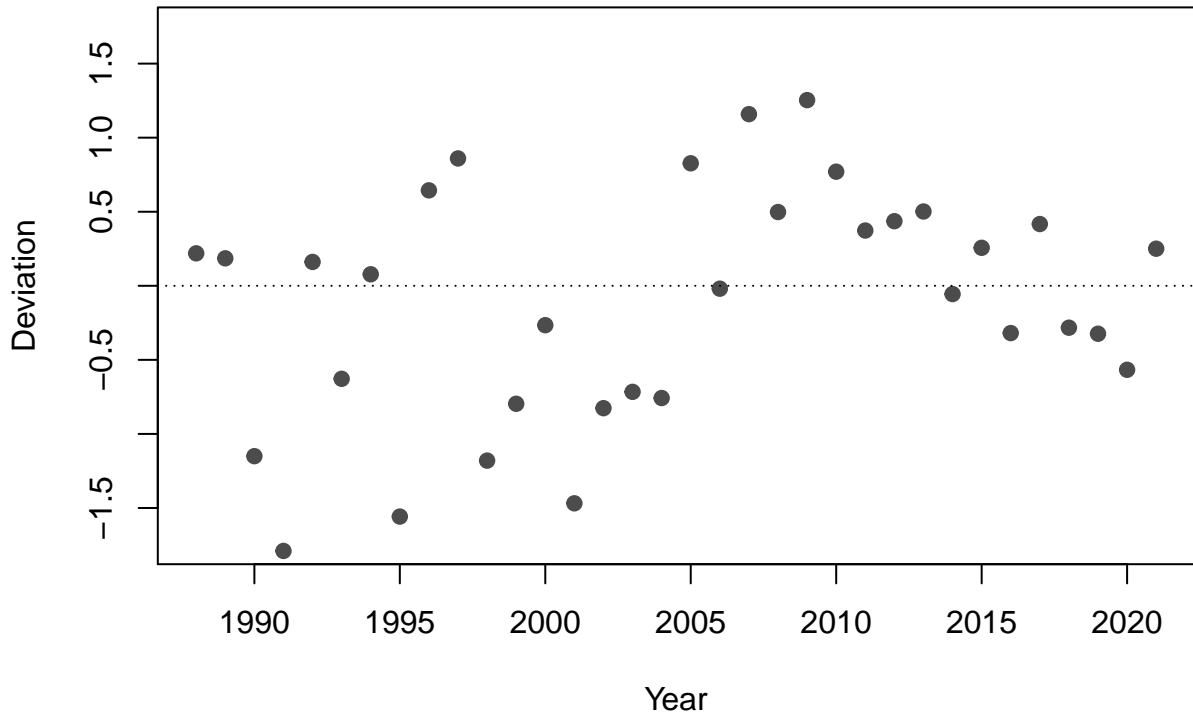


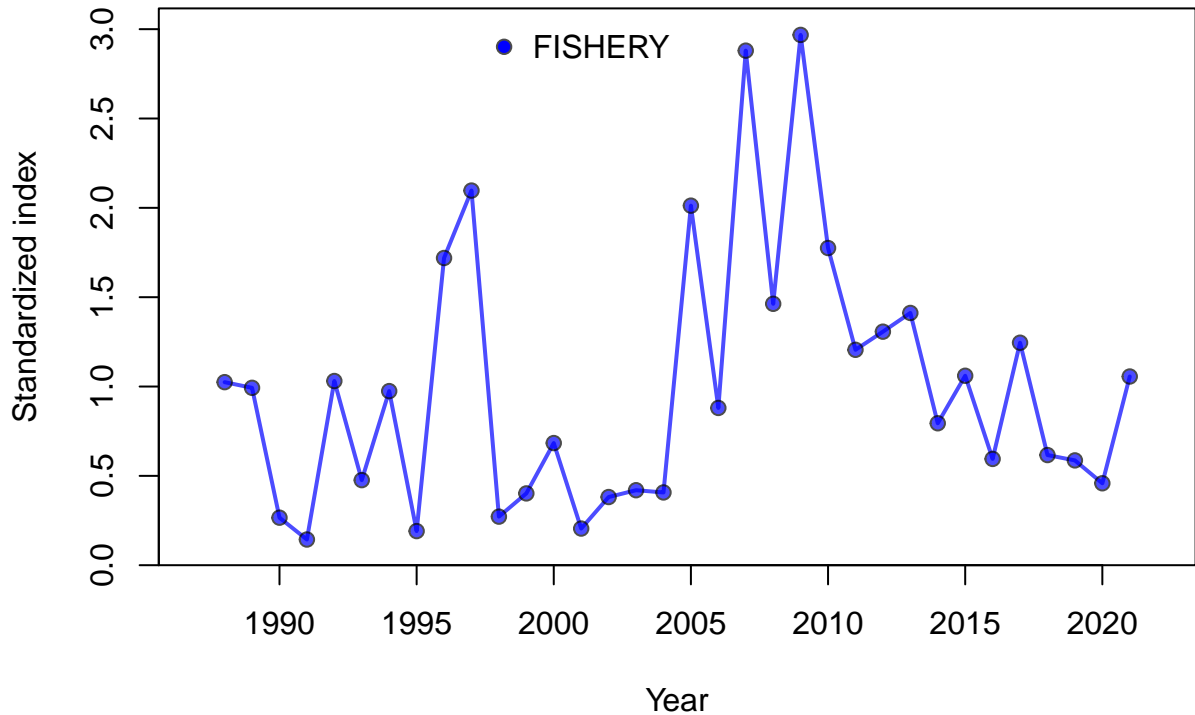
Log index

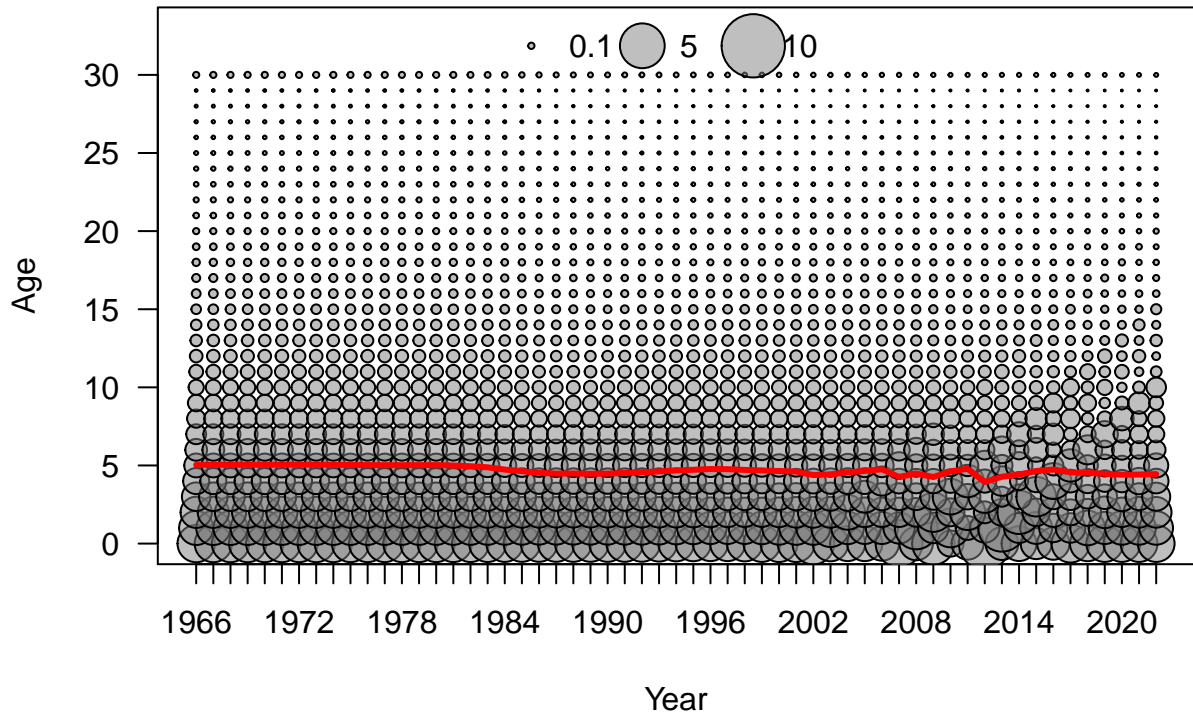


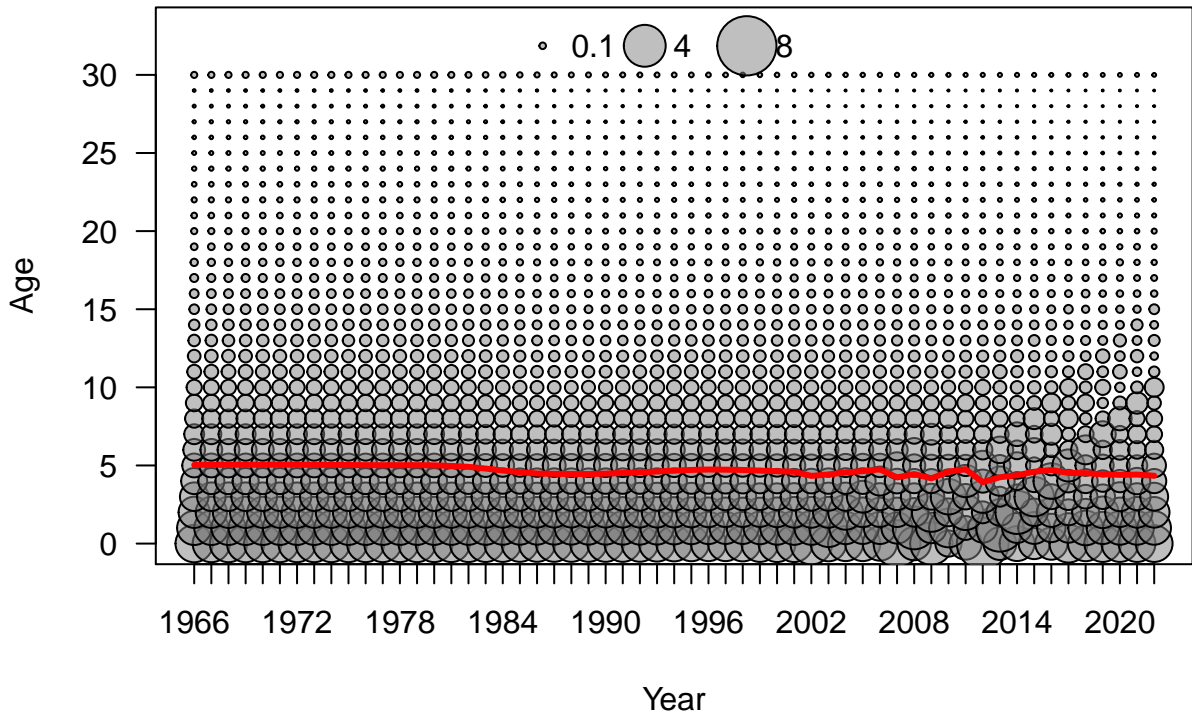












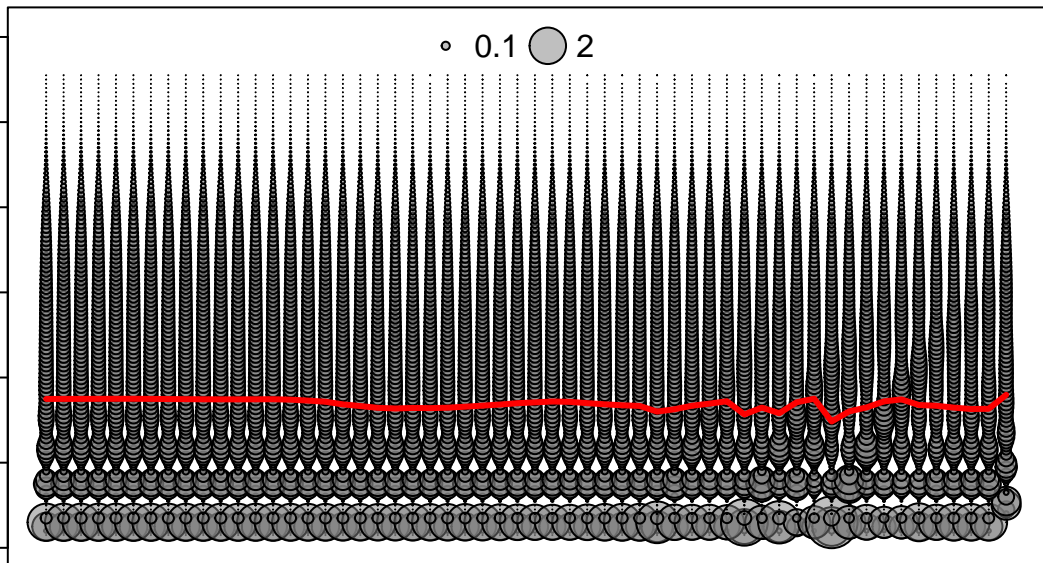
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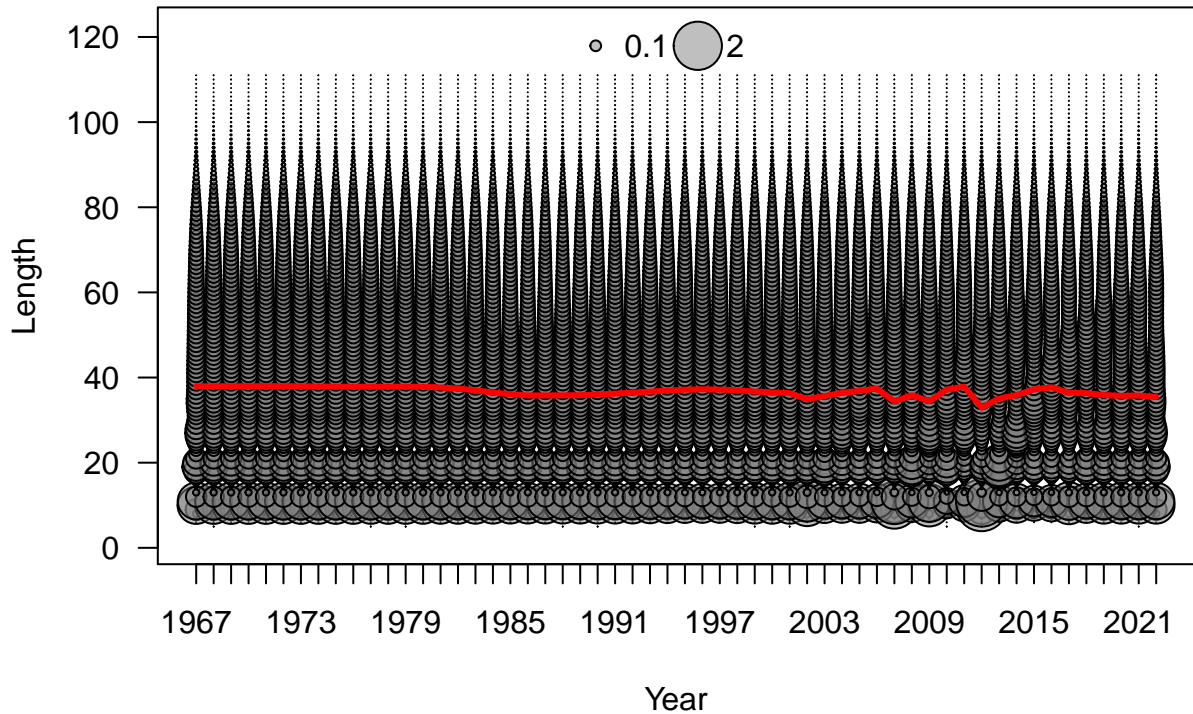
120
100
80
60
40
20
0

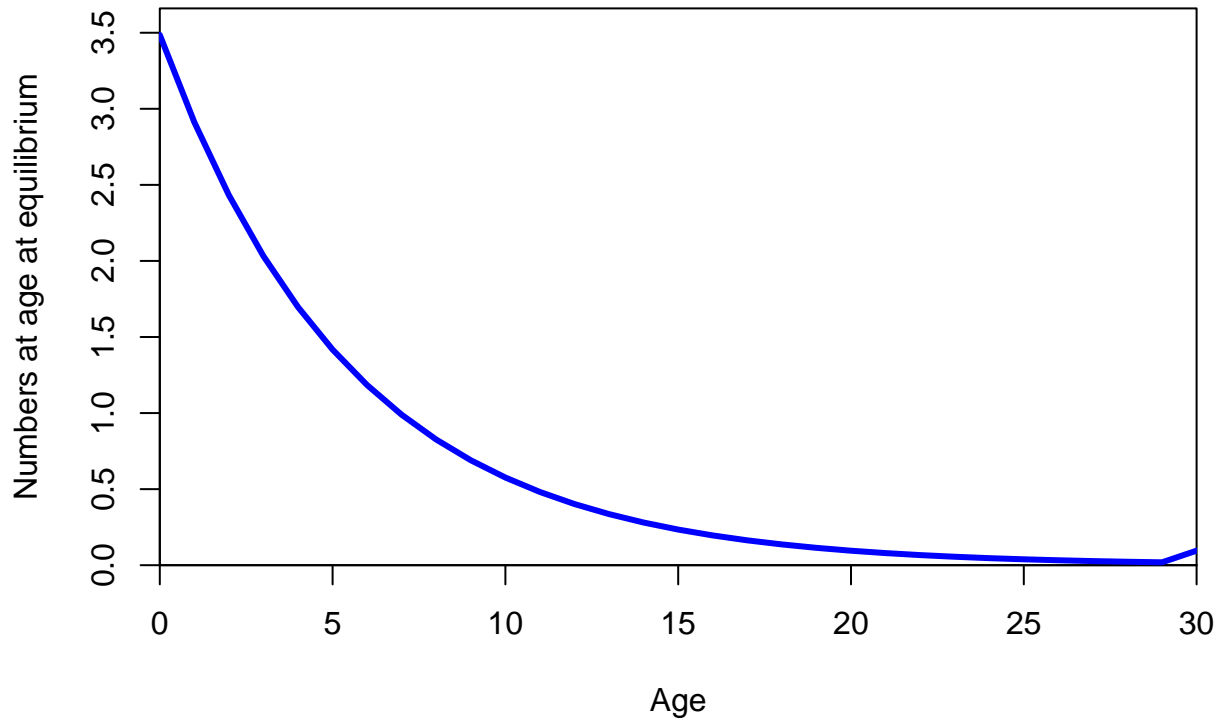
◦ 0.1 ● 2

1967 1973 1979 1985 1991 1997 2003 2009 2015 2021

Year

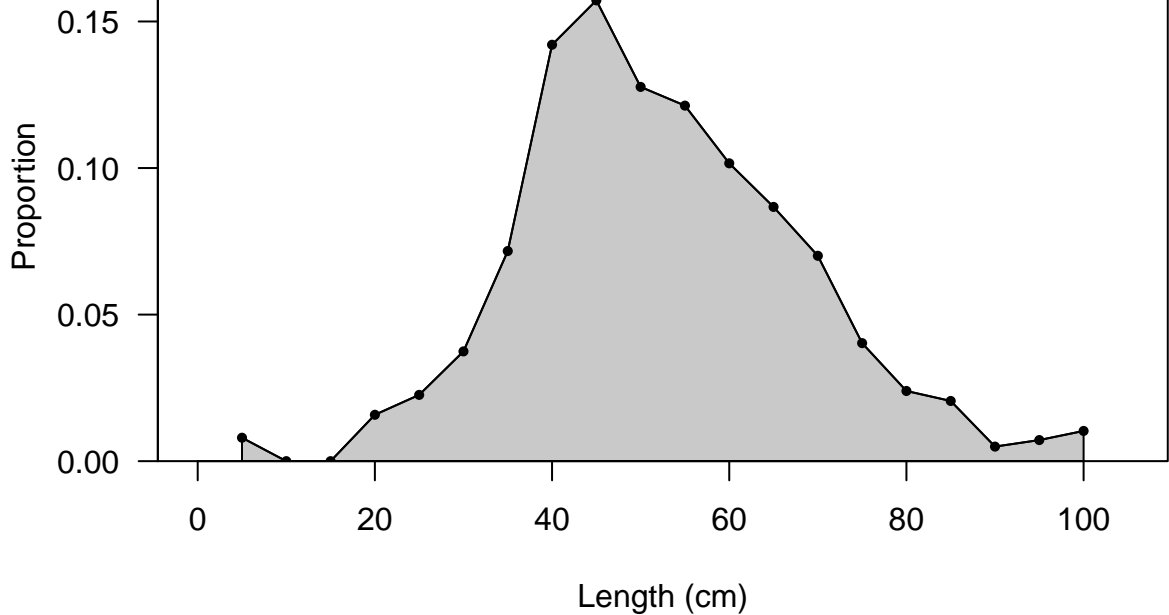


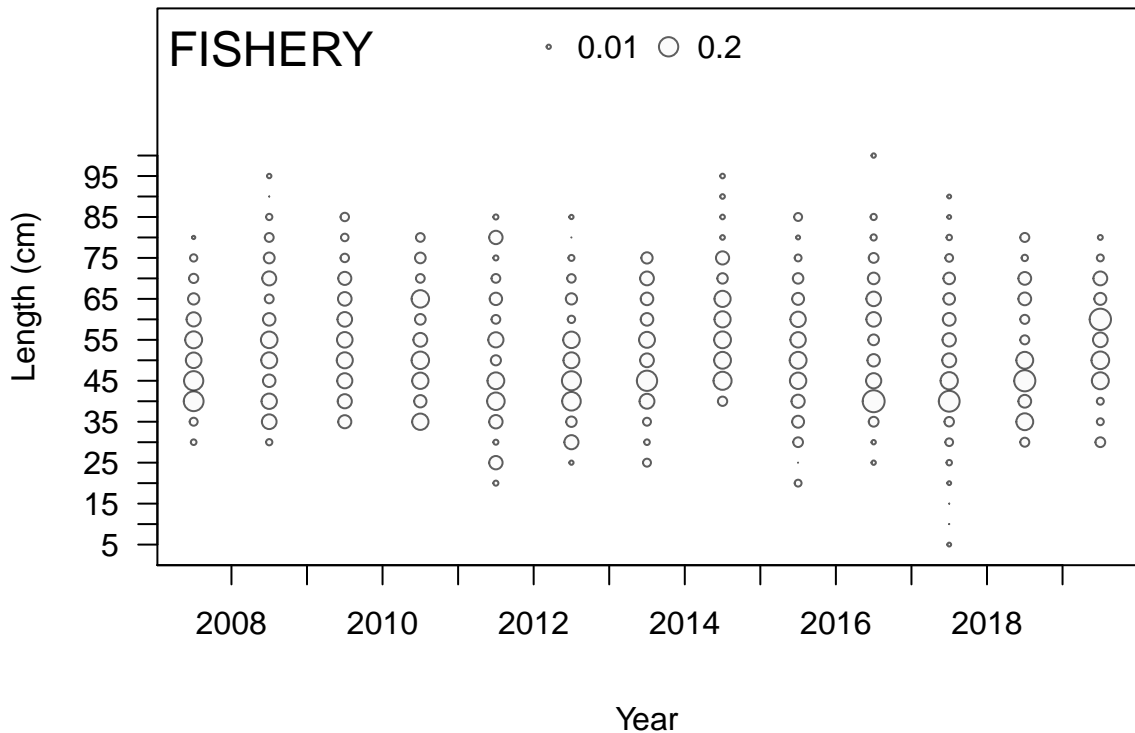




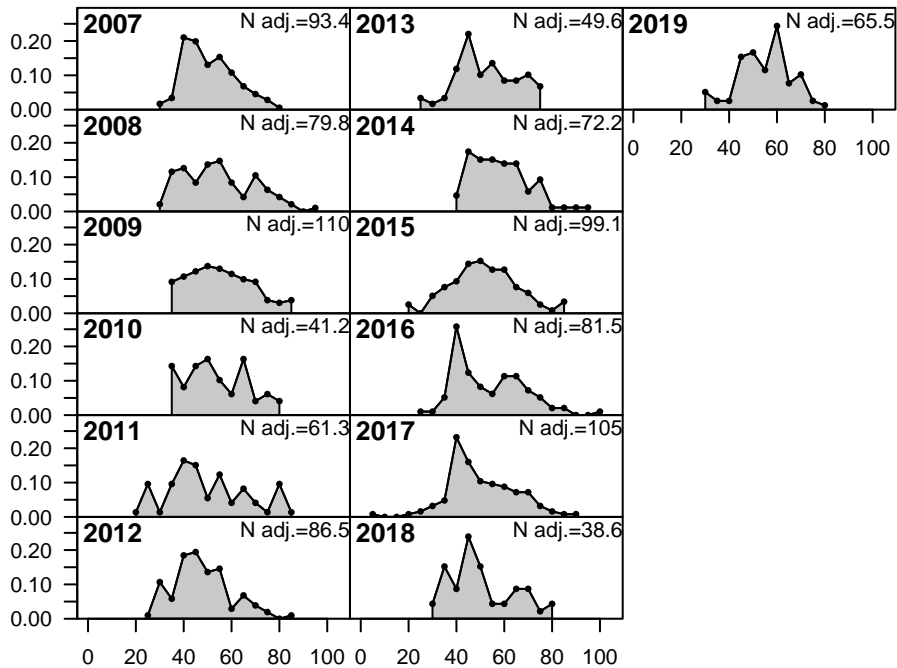
FISHERY

Sum of N adj.=983.8

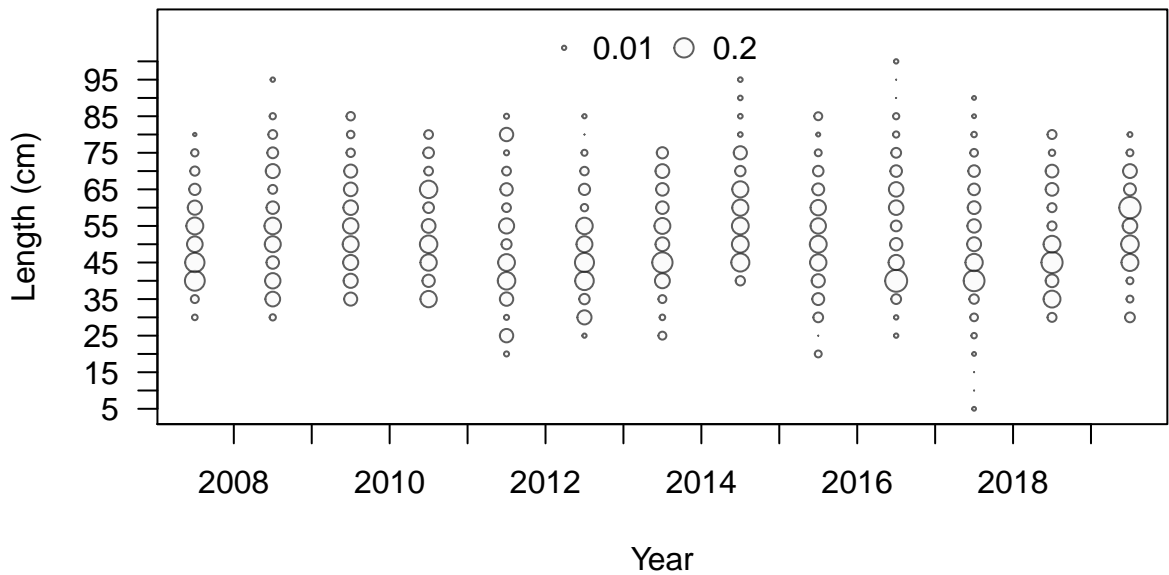




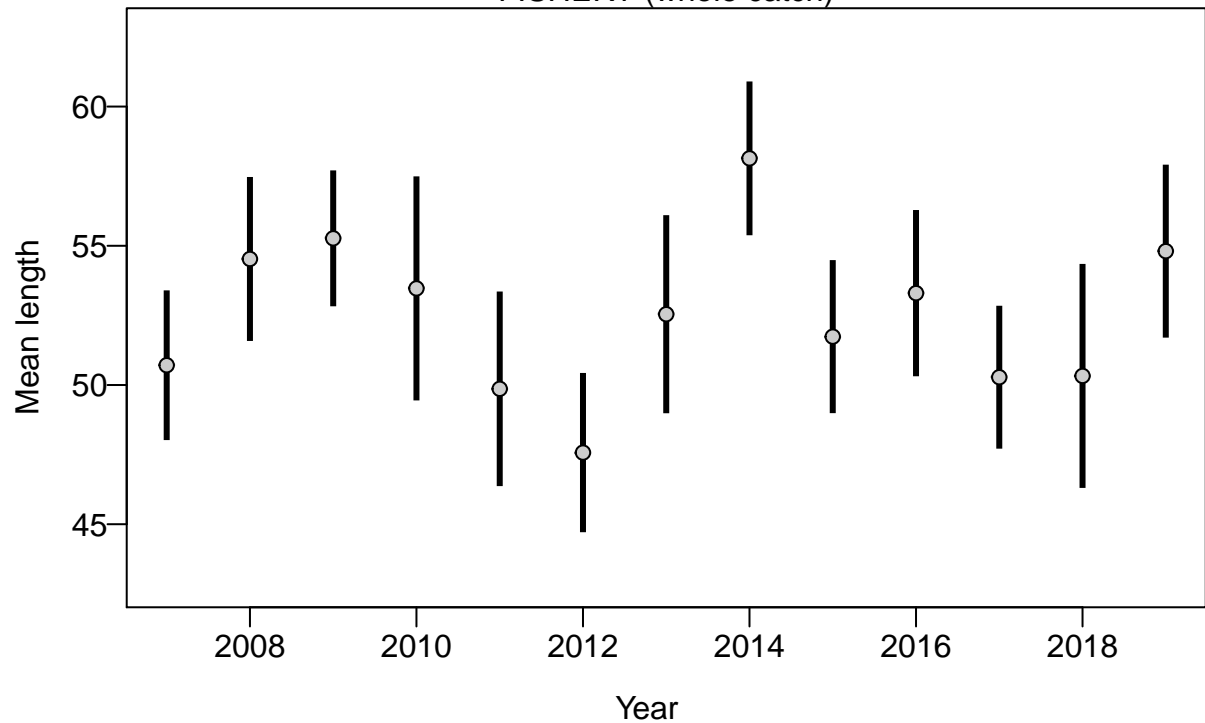
Proportion



Length (cm)

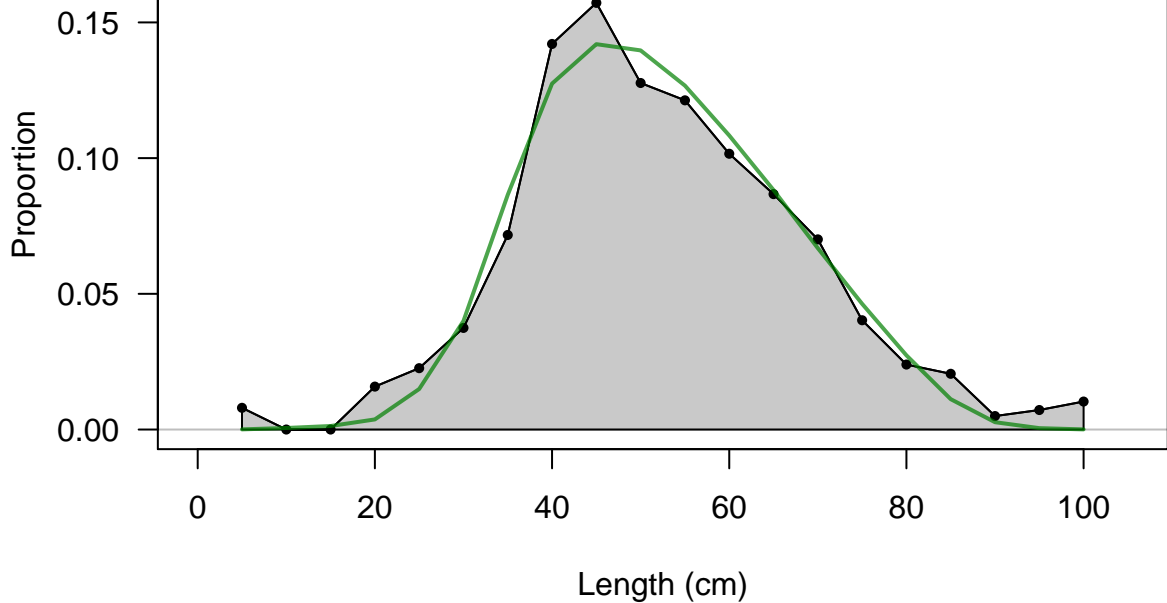


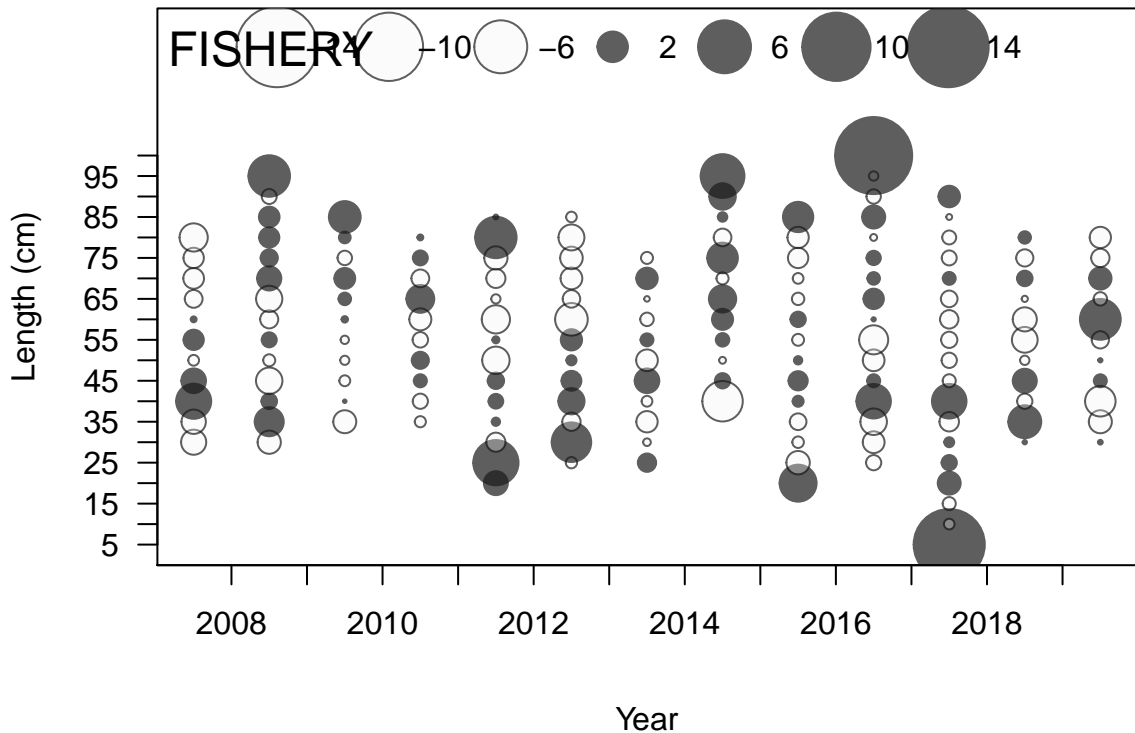
FISHERY (whole catch)



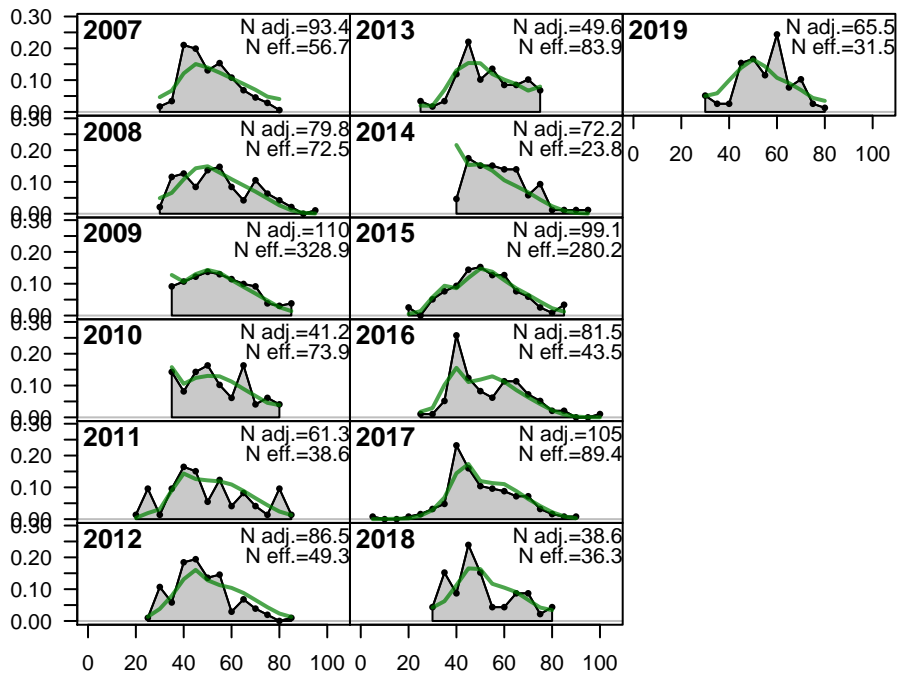
FISHERY

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Sum of N eff.=1208.5

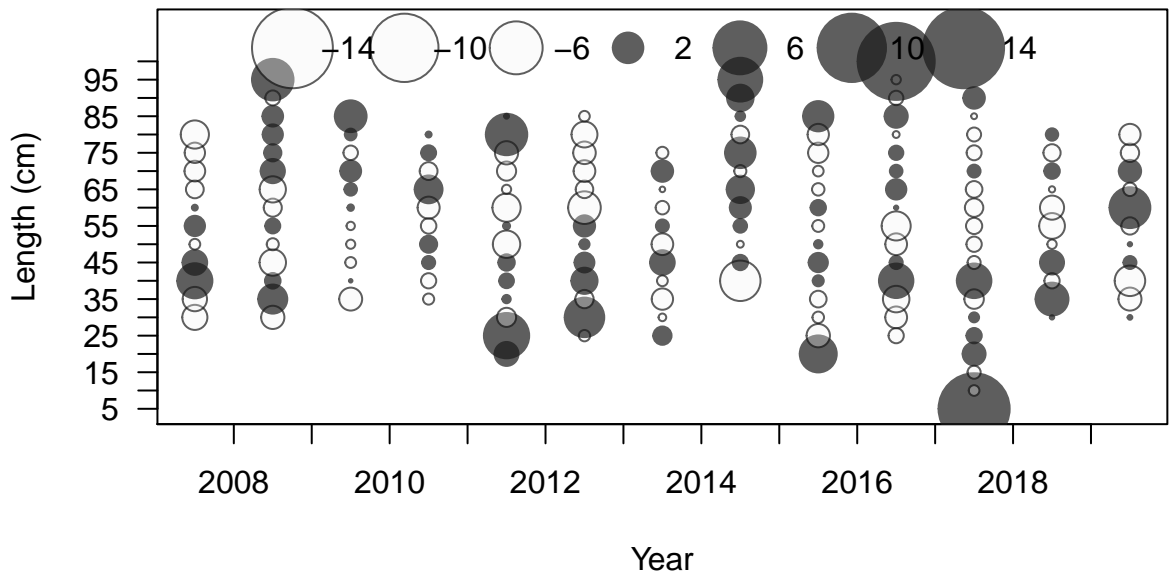




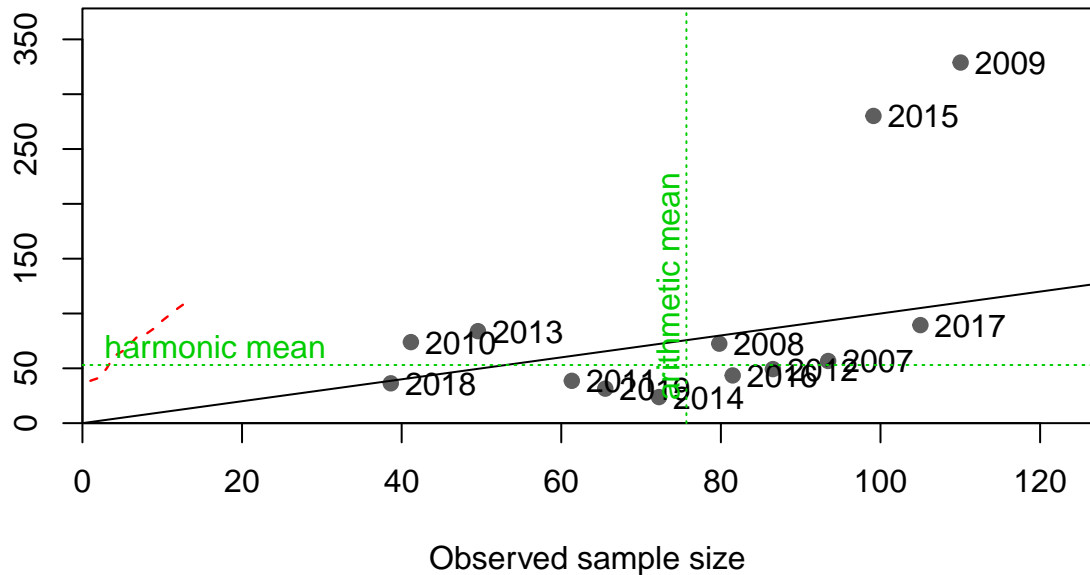
Proportion



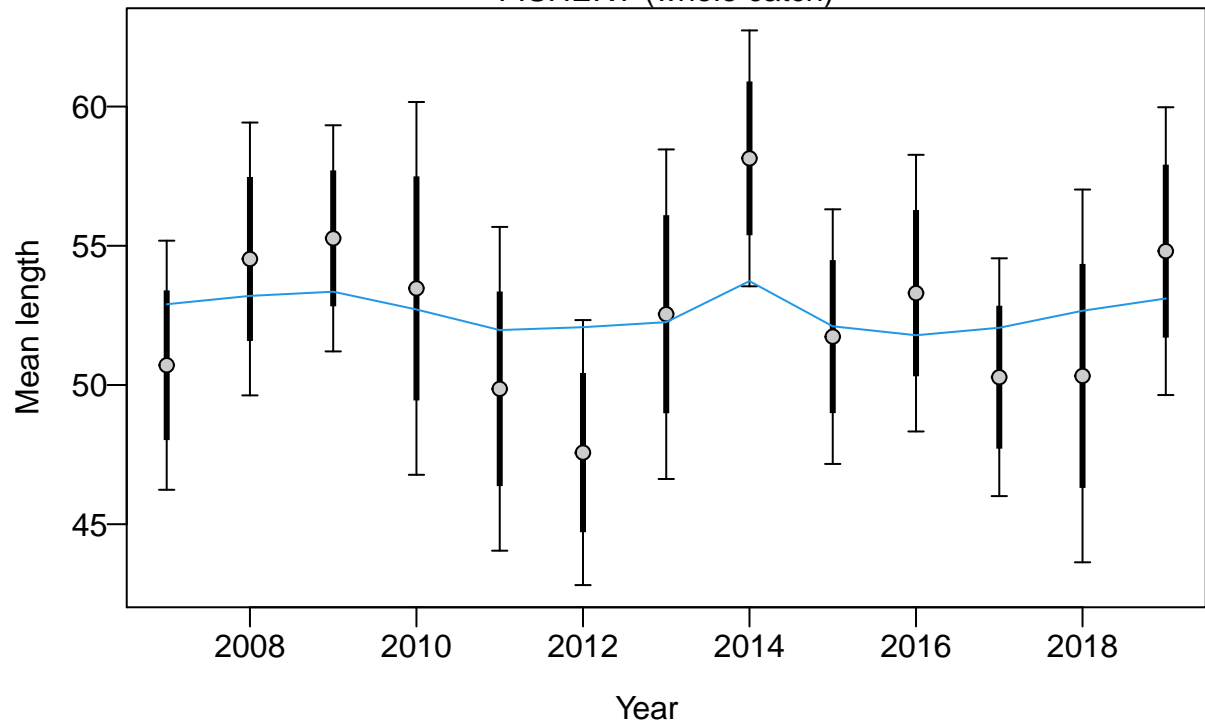
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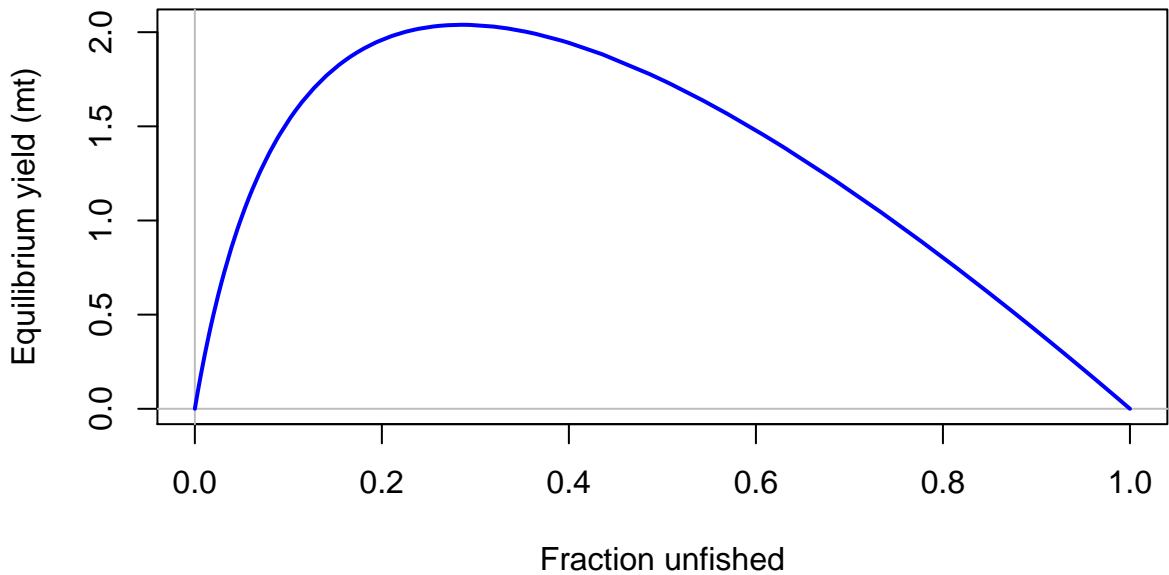


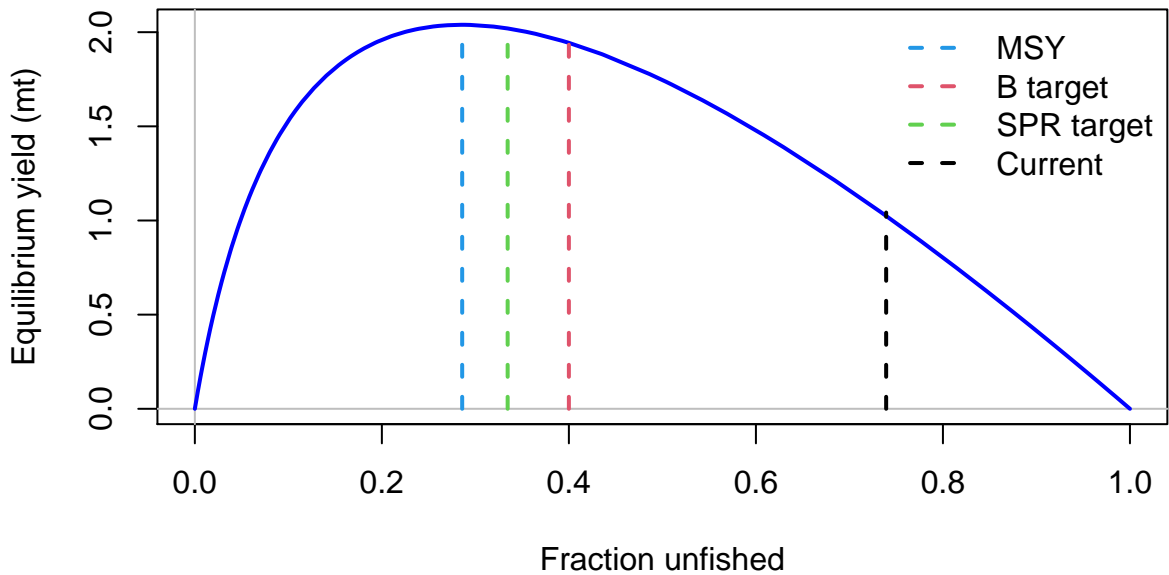
Effective sample size

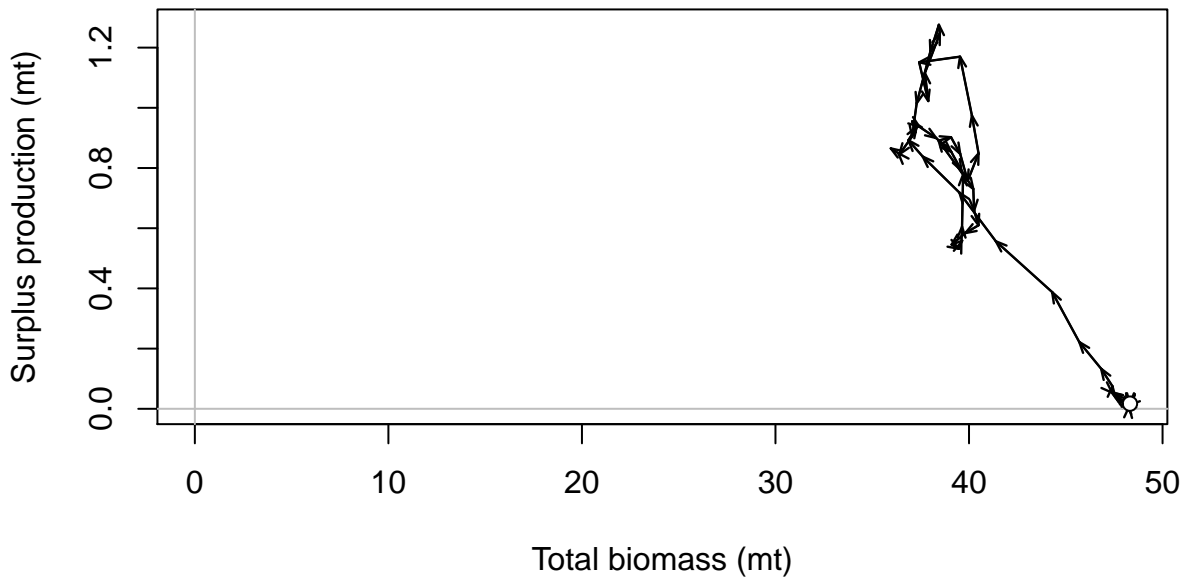


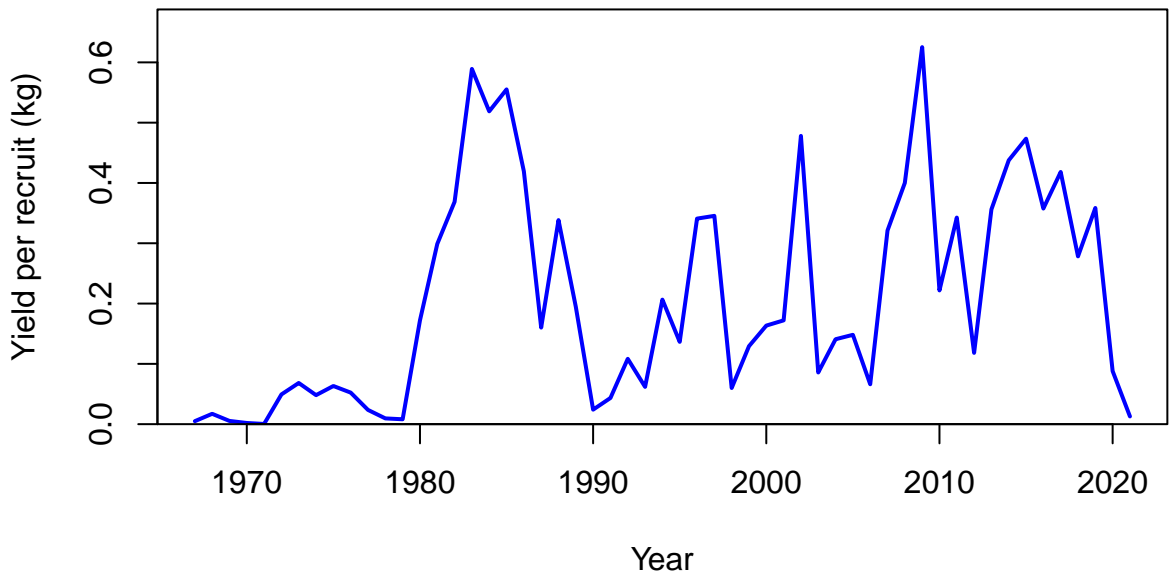
FISHERY (whole catch)

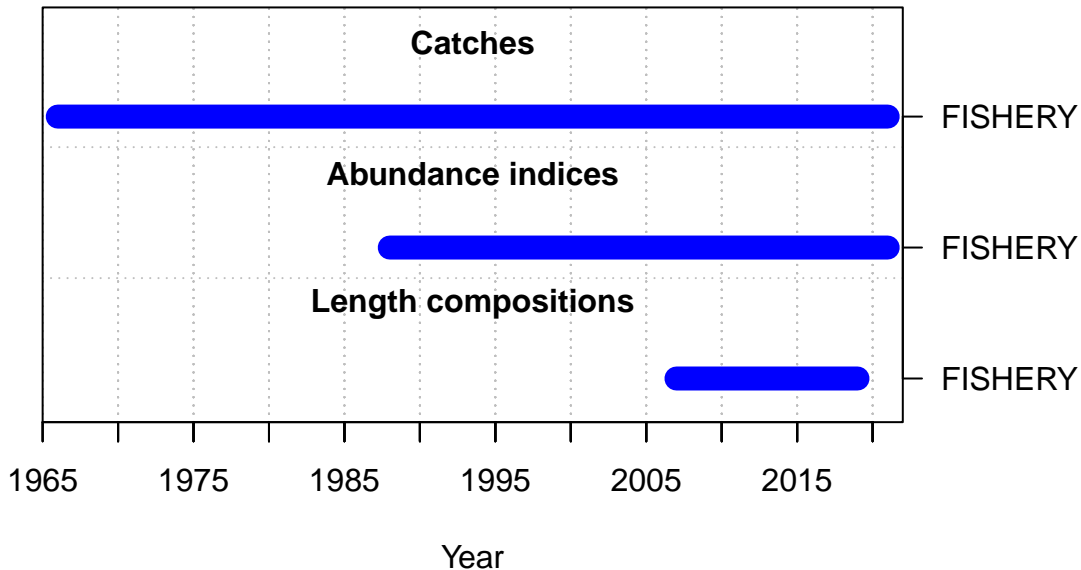


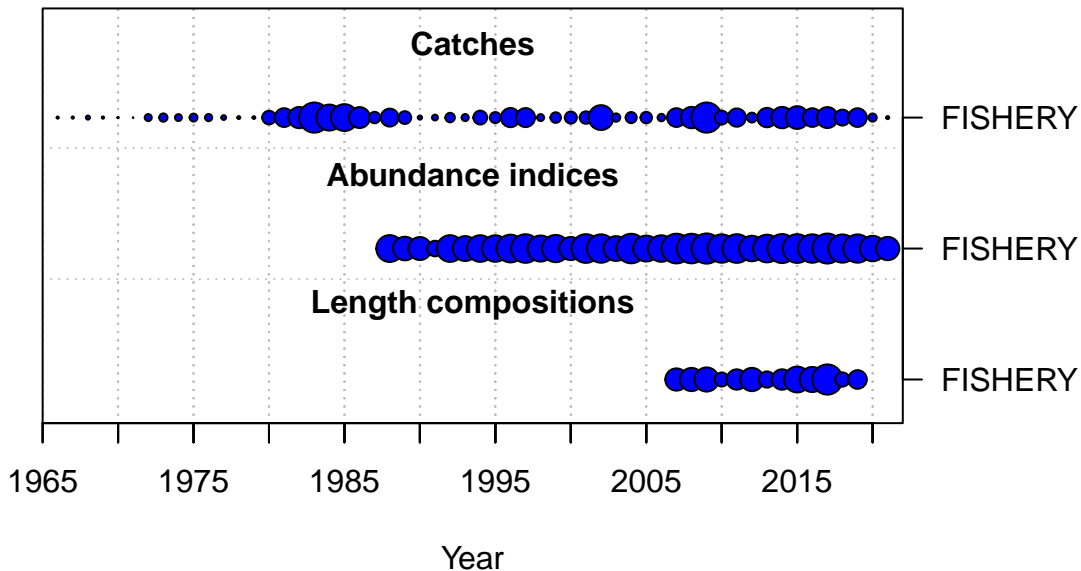




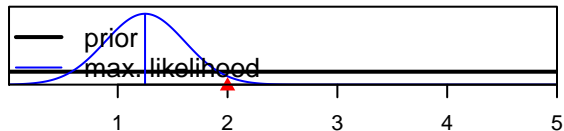




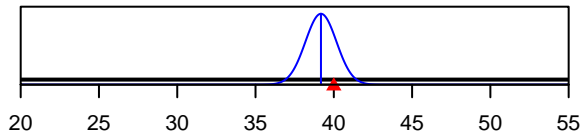




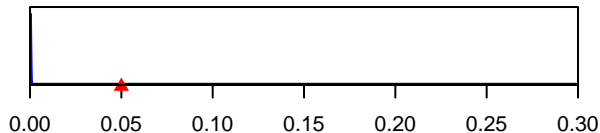
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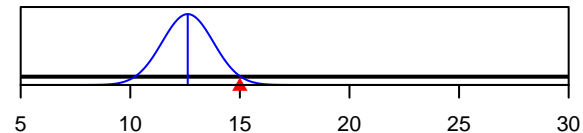
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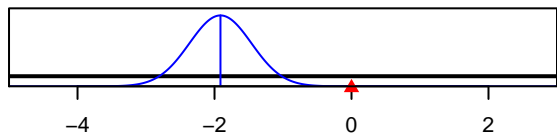
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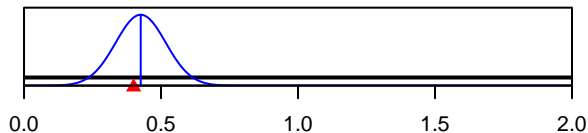
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LnQ_base_FISHERY(1)



Q_extraSD_FISHERY(1)



Parameter value