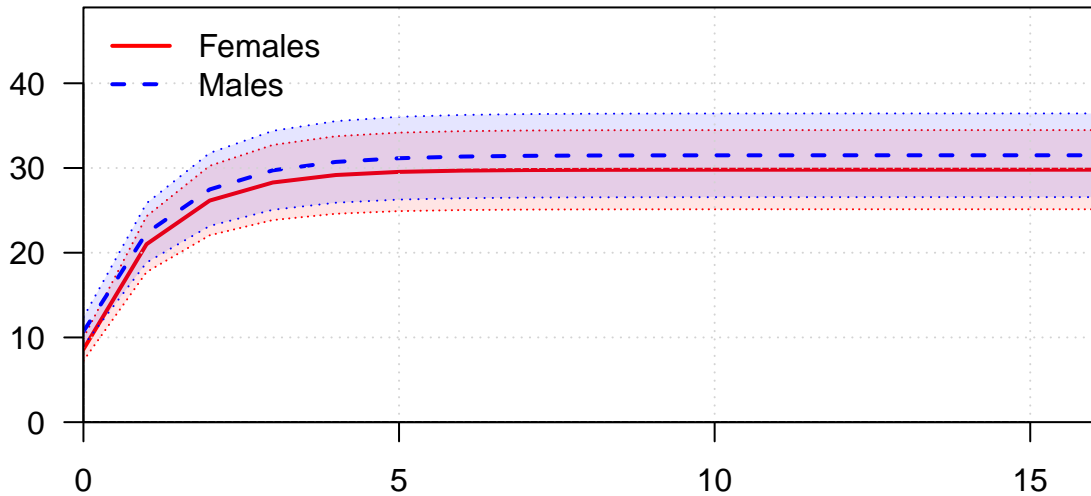
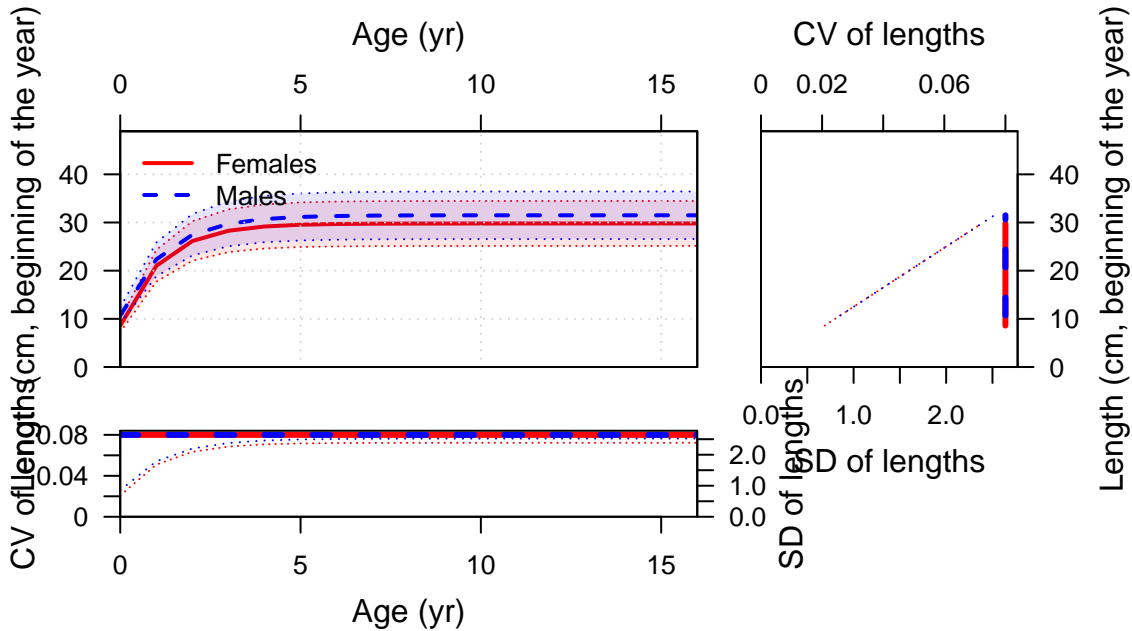


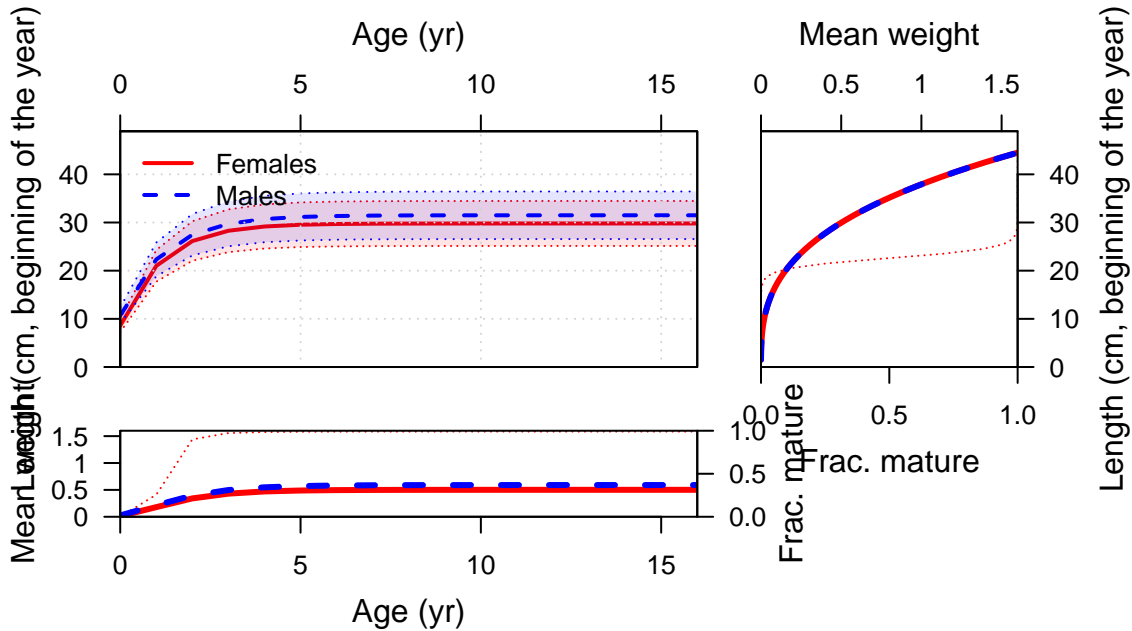
Plots created using the 'r4ss' package in R
Stock Synthesis version: 3.30.19.0
StartTime: Thu Jul 28 13:18:26 2022
Data_File: data.ss
Control_File: control.ss

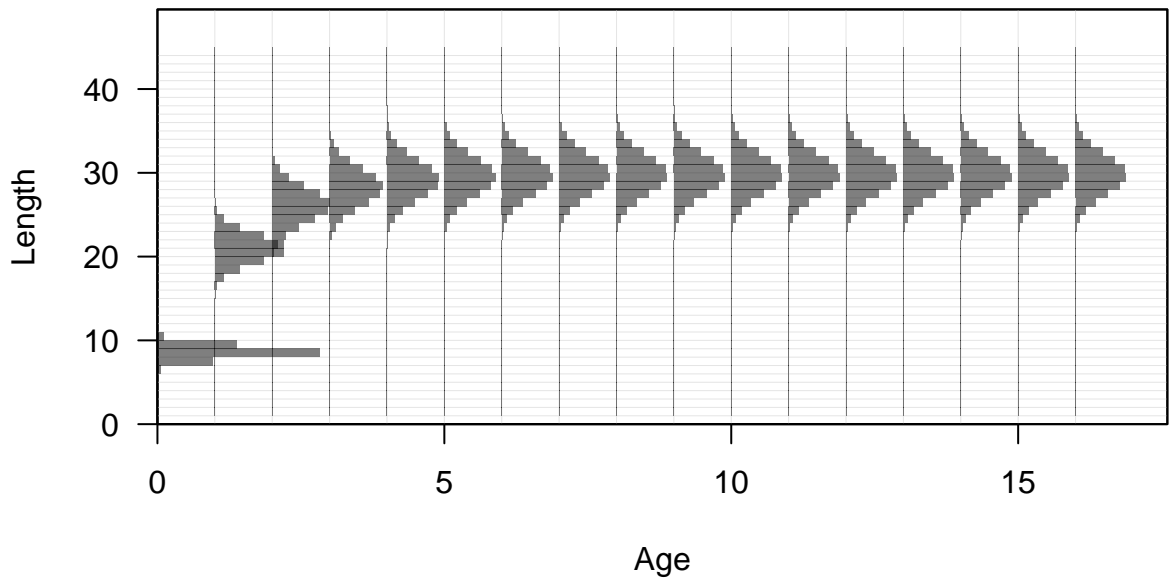
Length (cm, beginning of the year)

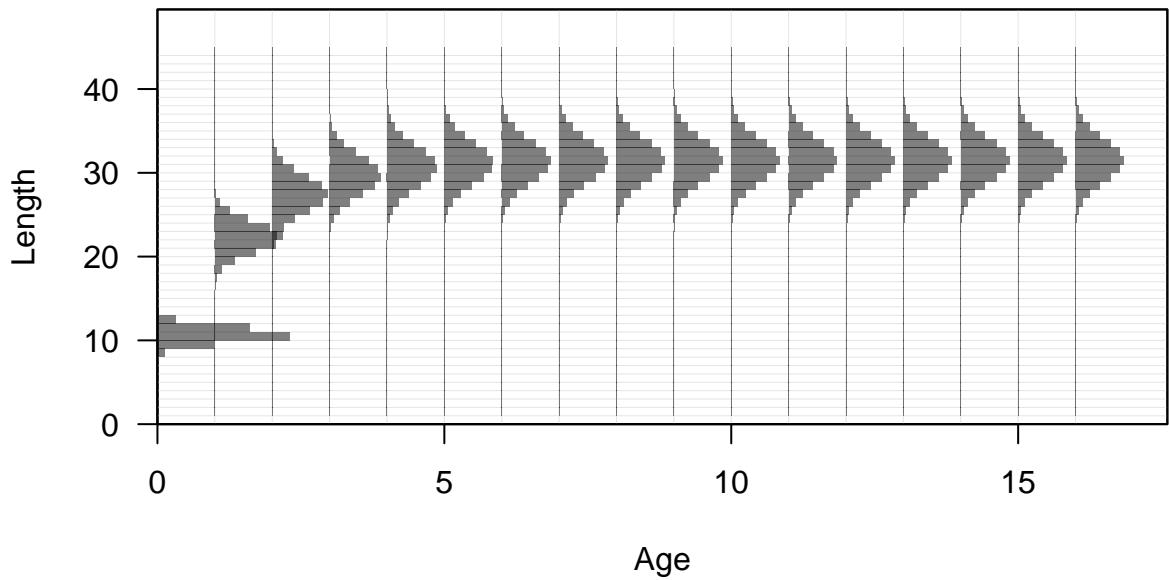


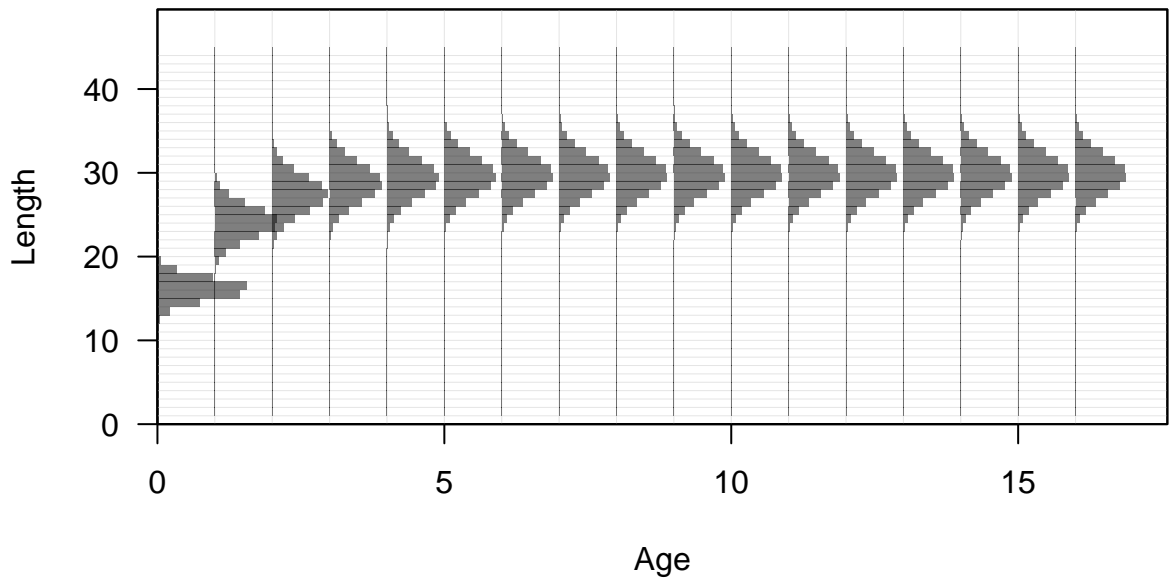
Age (yr)

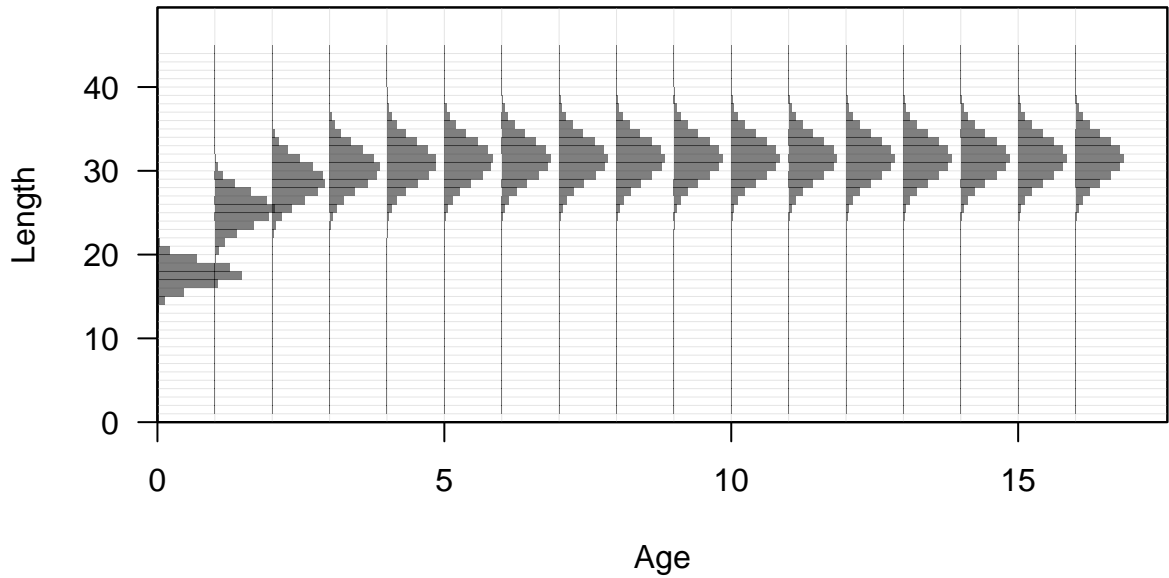


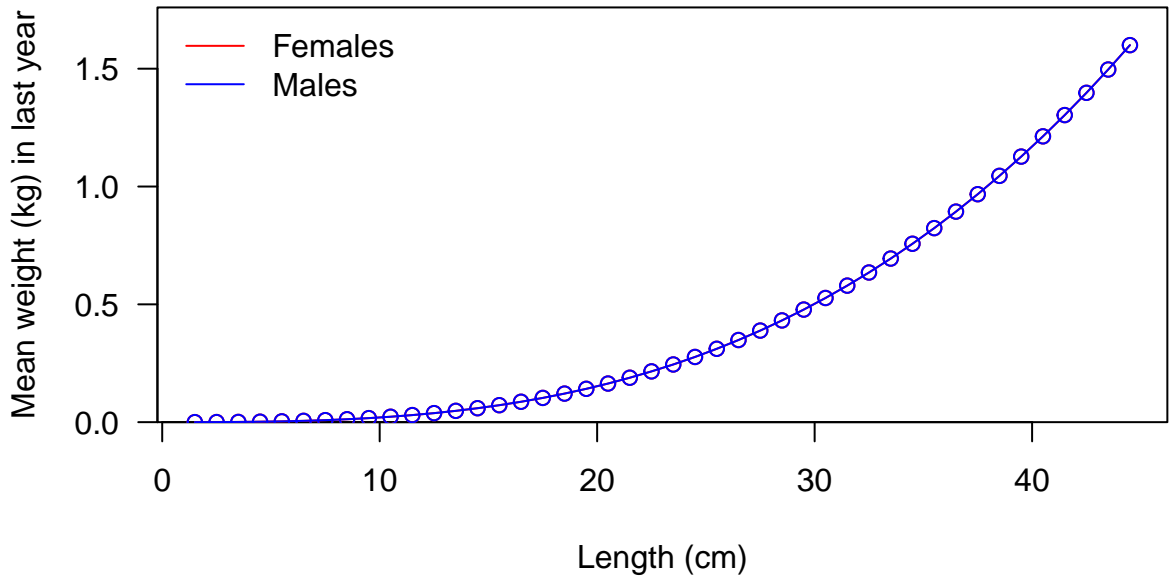


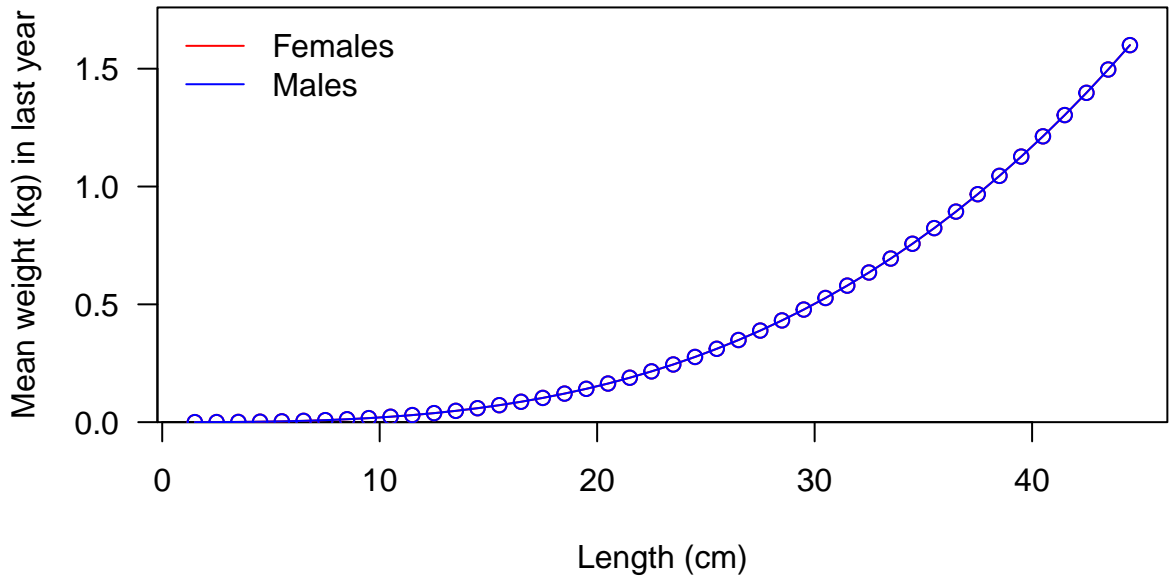


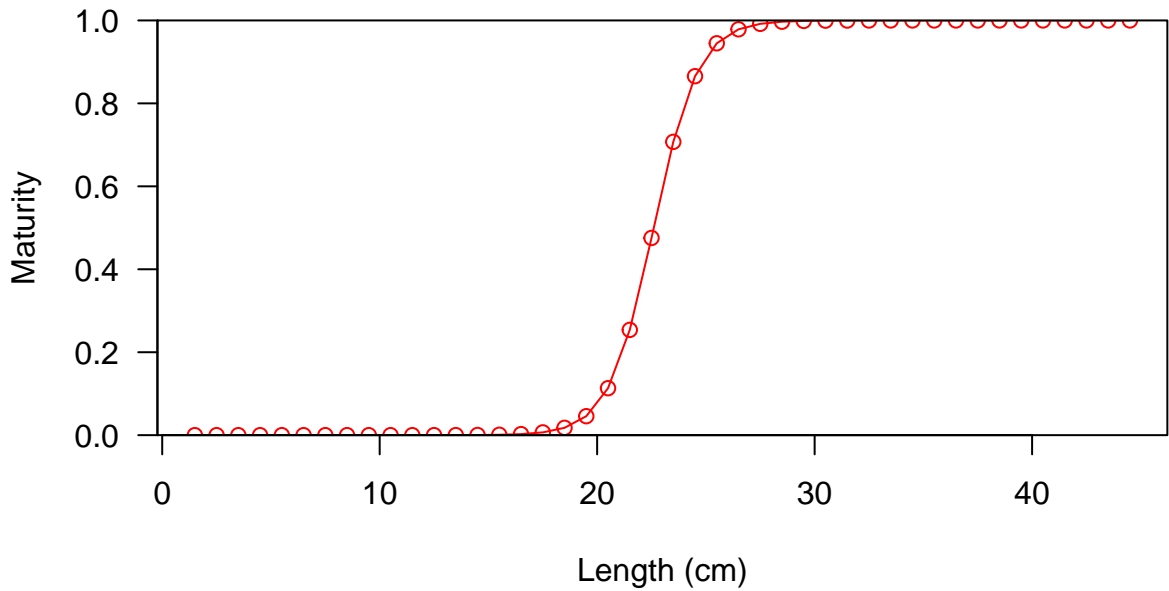


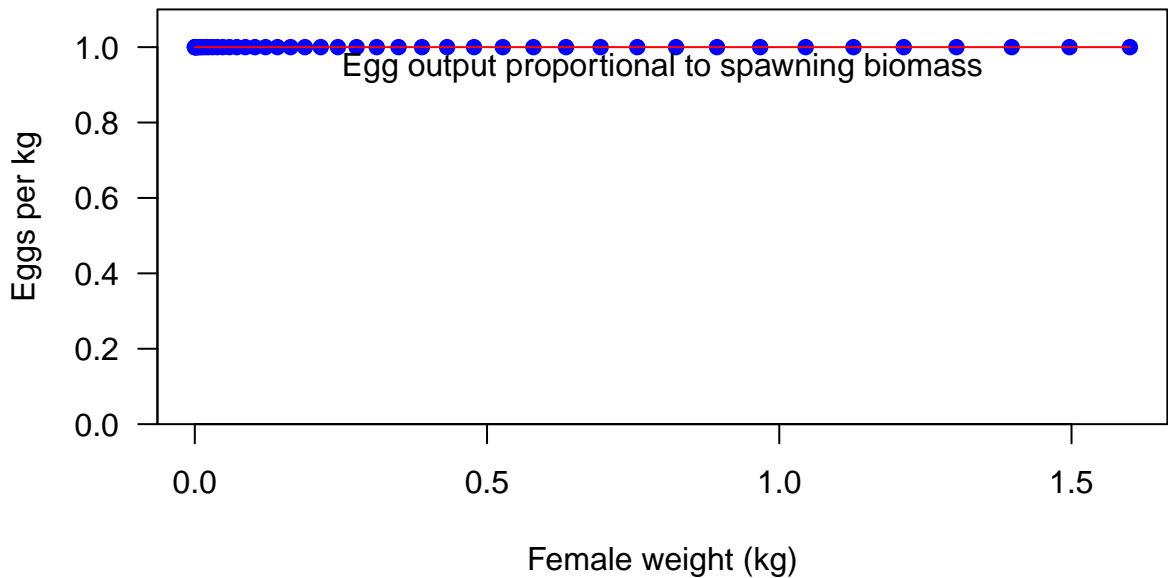


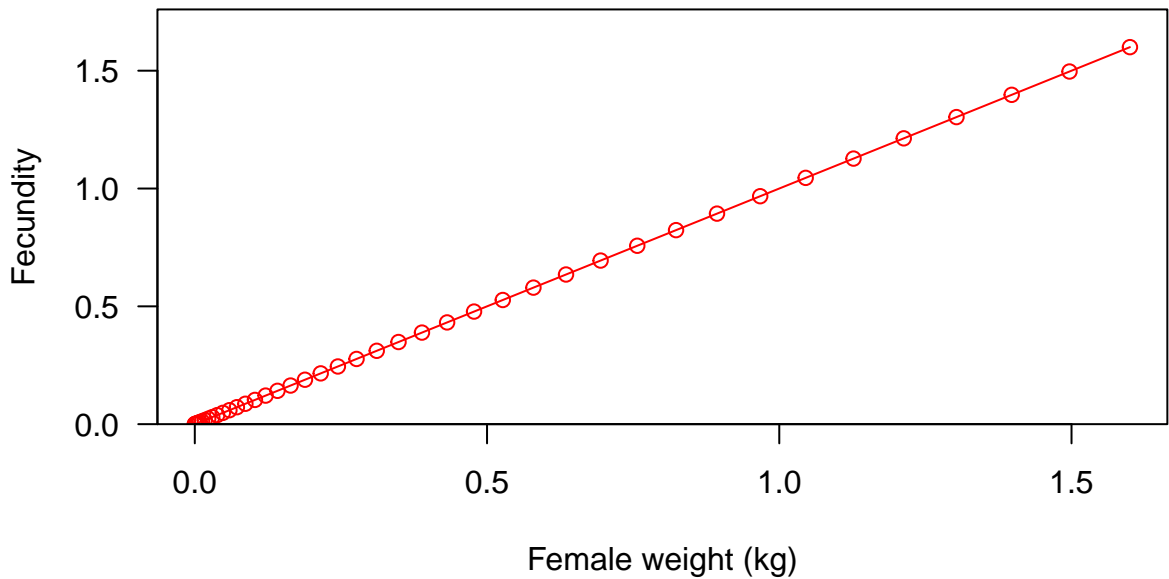


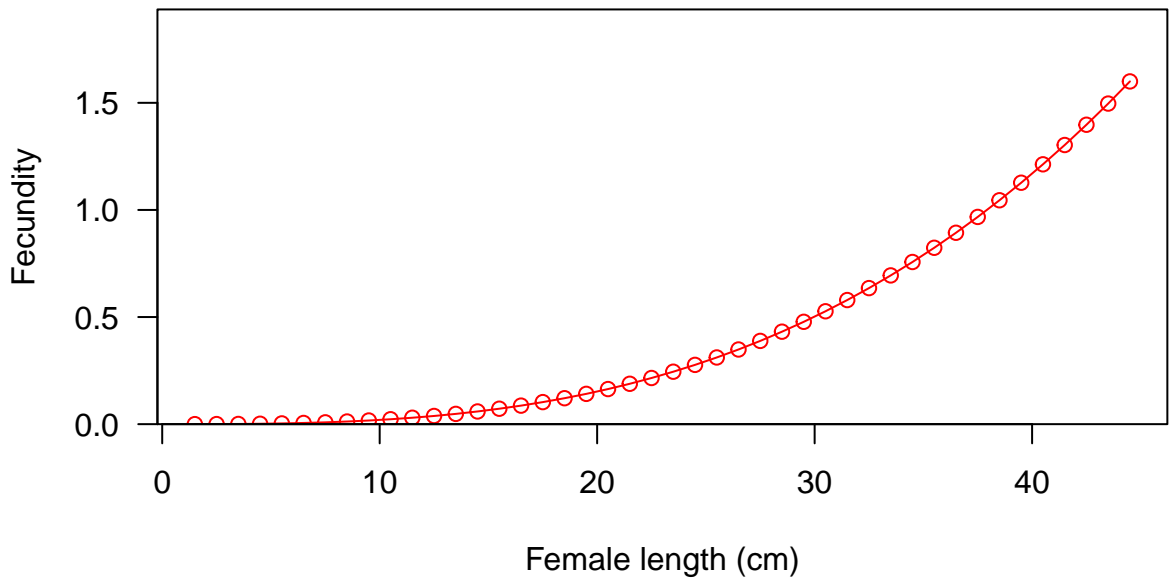


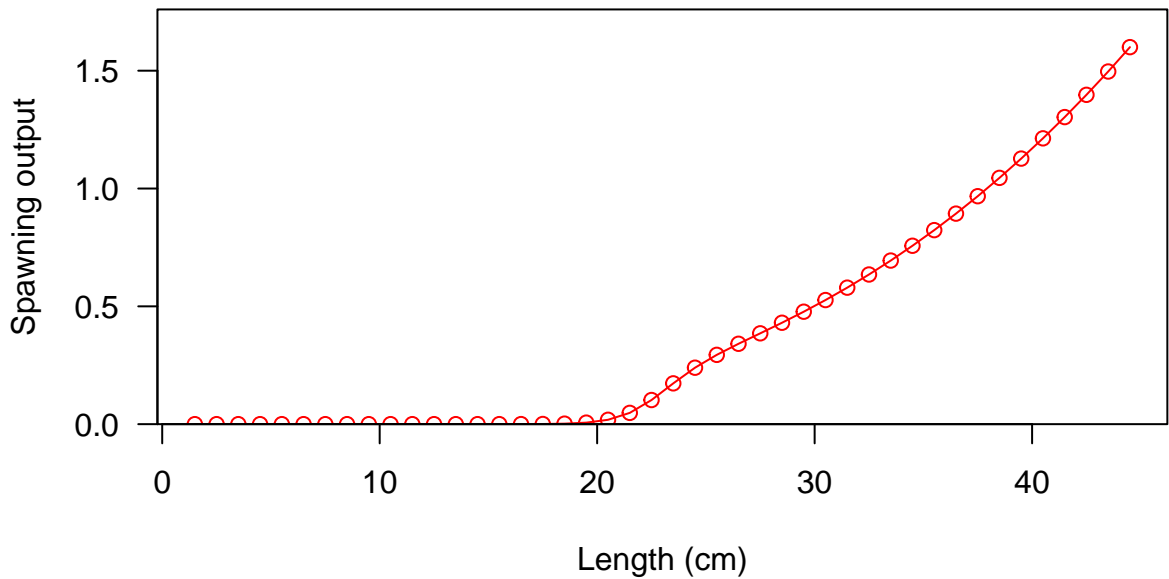


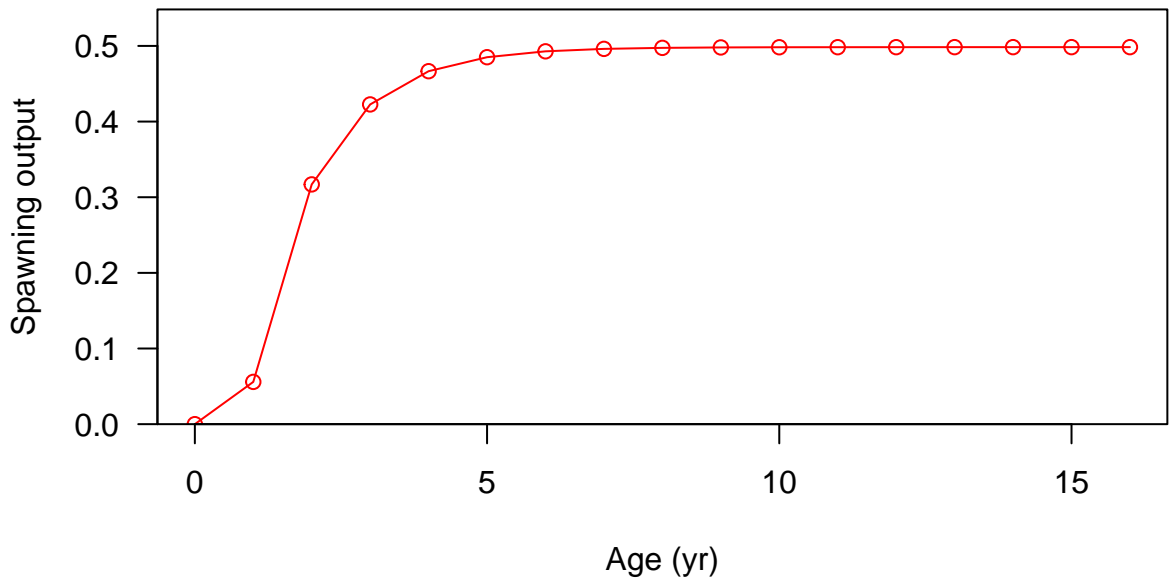


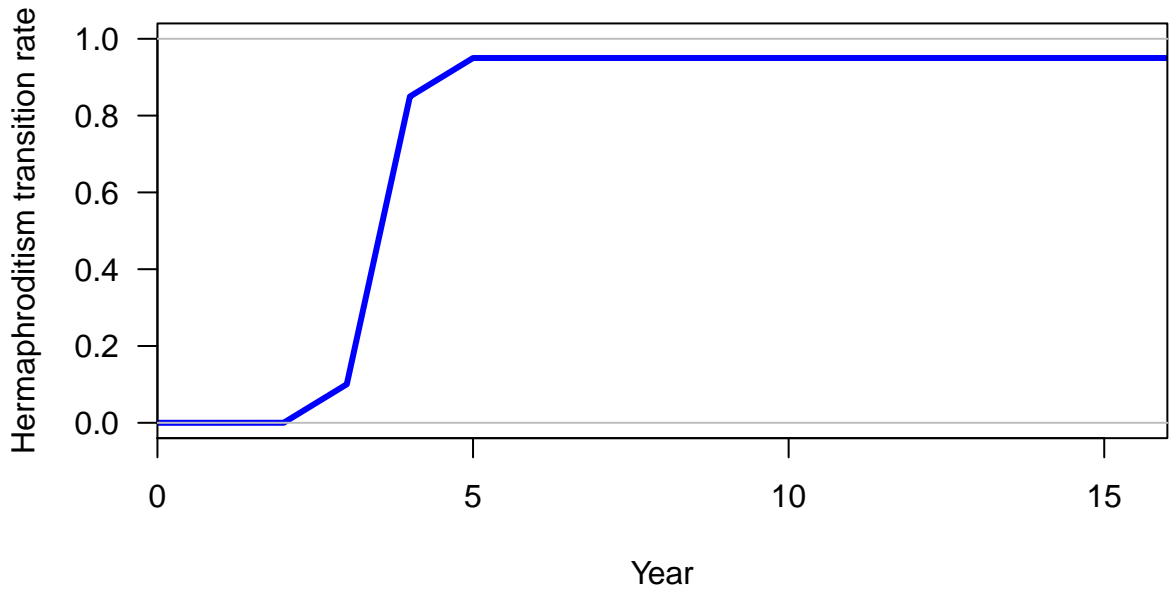




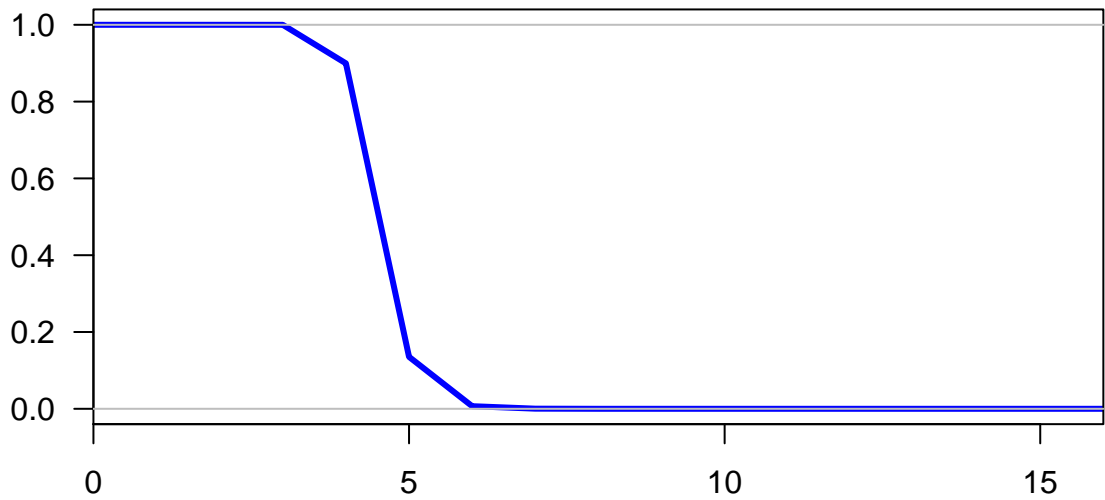






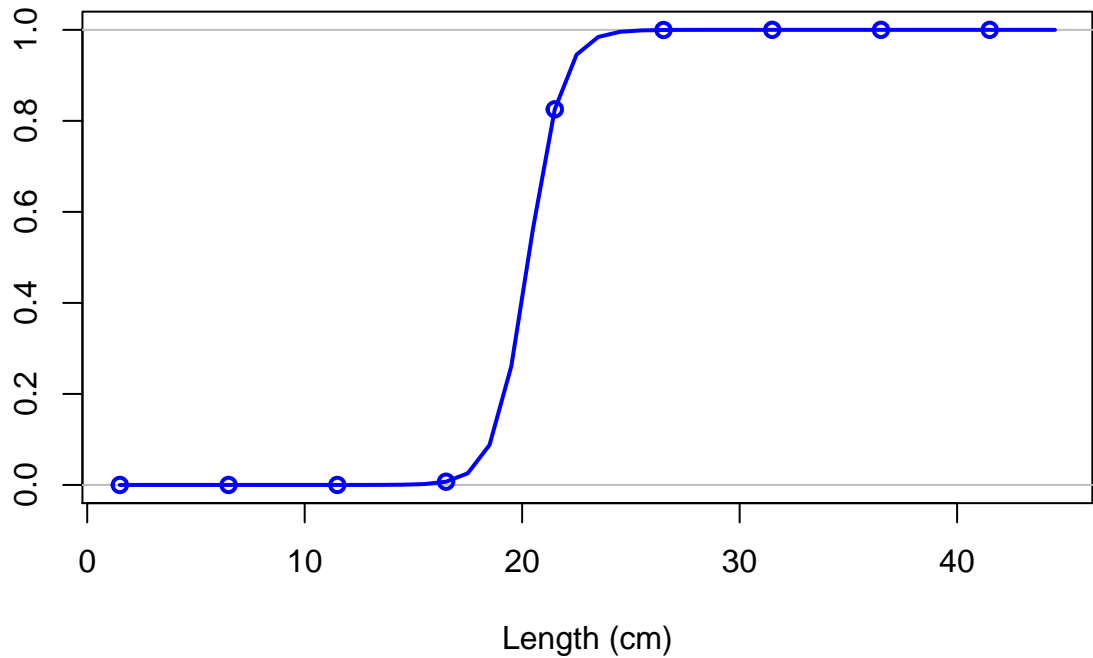


Fraction females by age at equilibrium

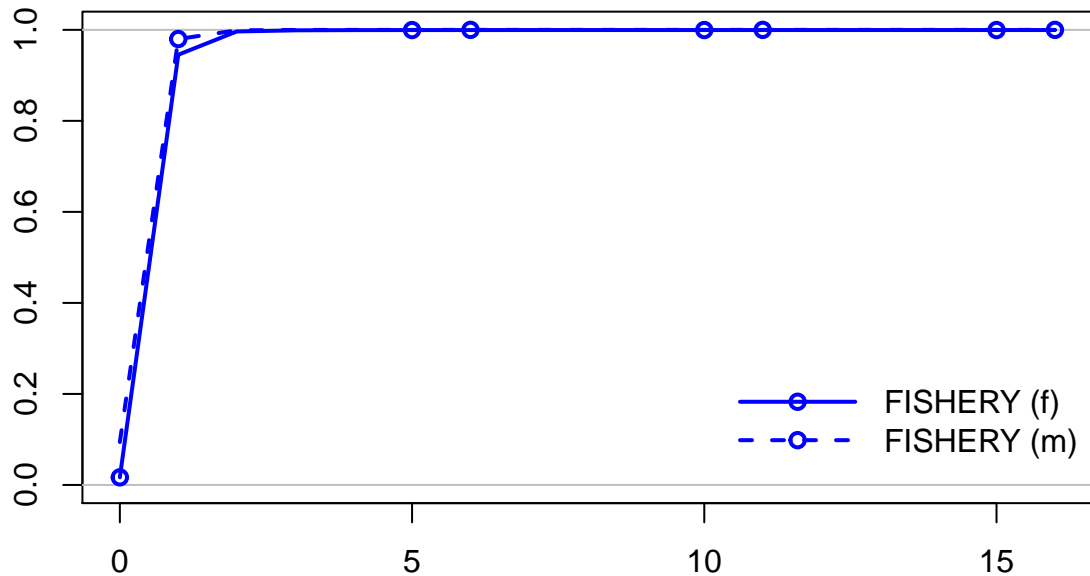


Age (yr)

Selectivity

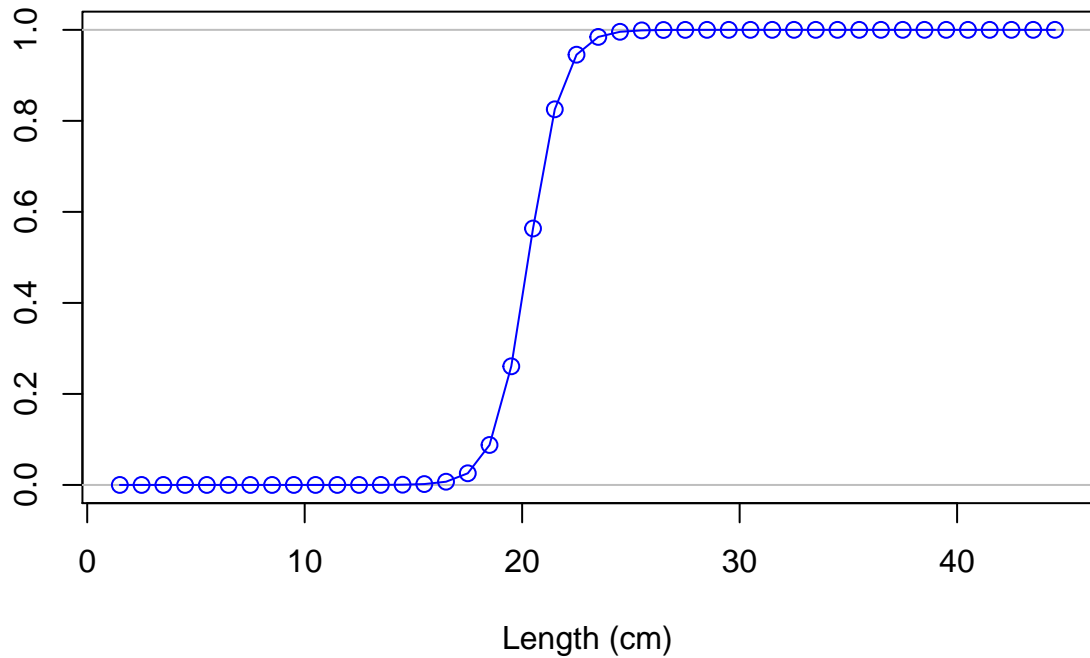


Selectivity

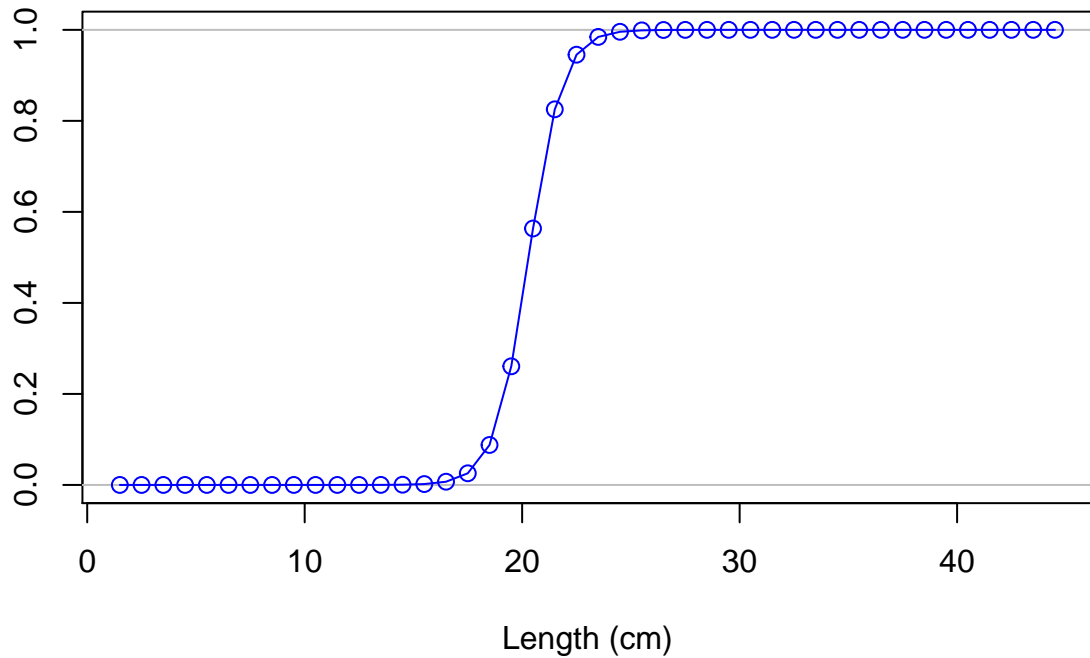


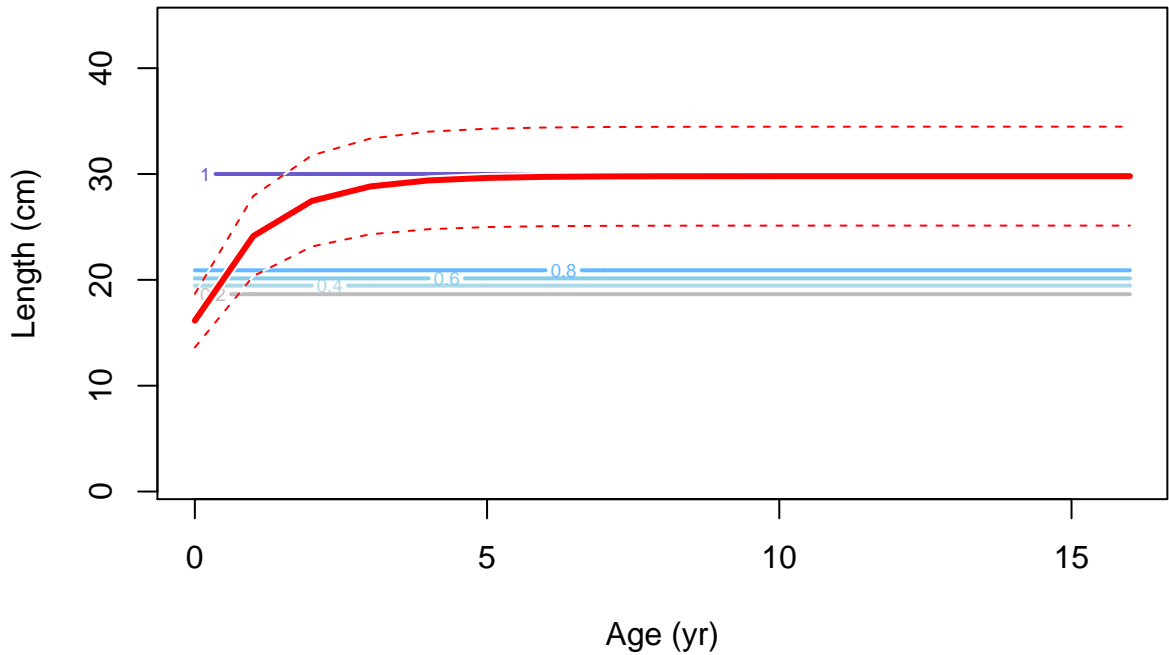
Age (yr)

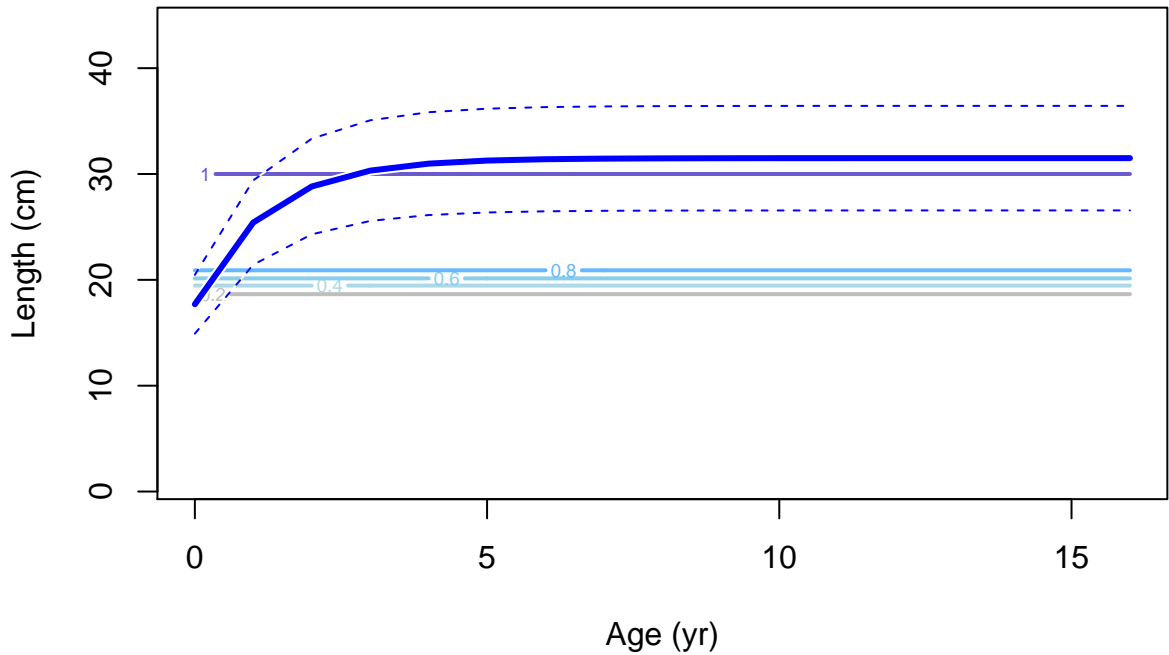
Selectivity



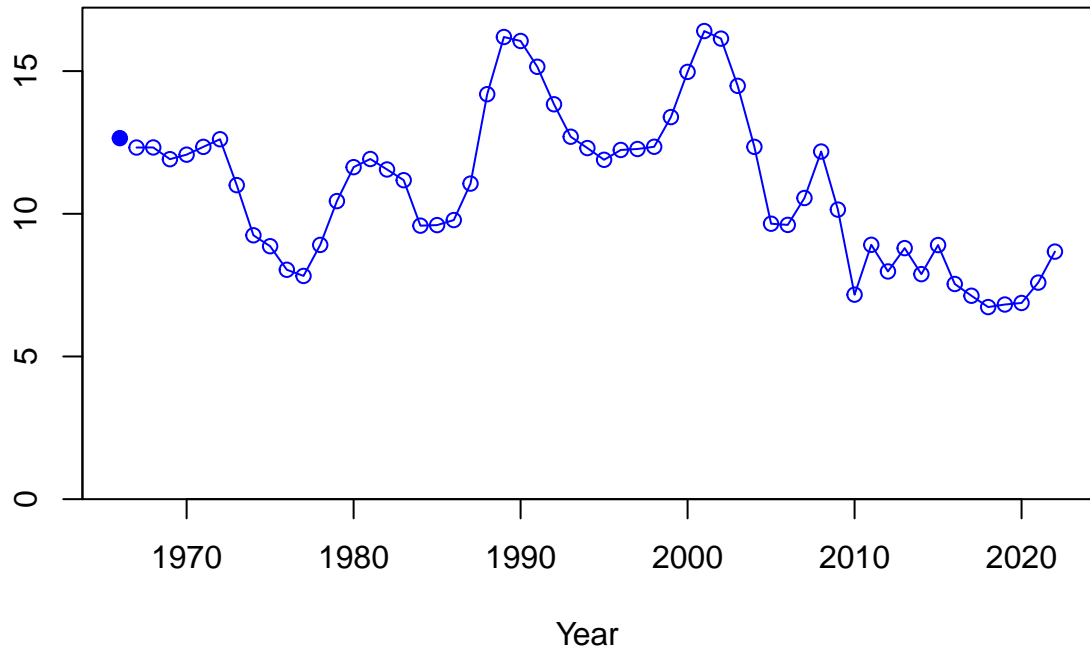
Selectivity



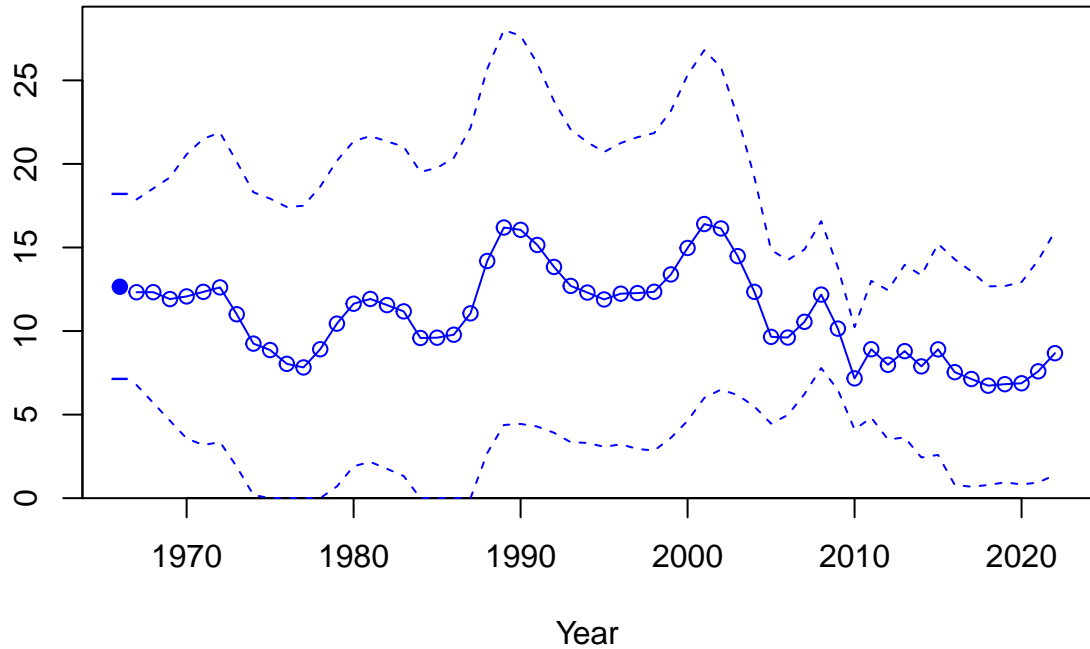




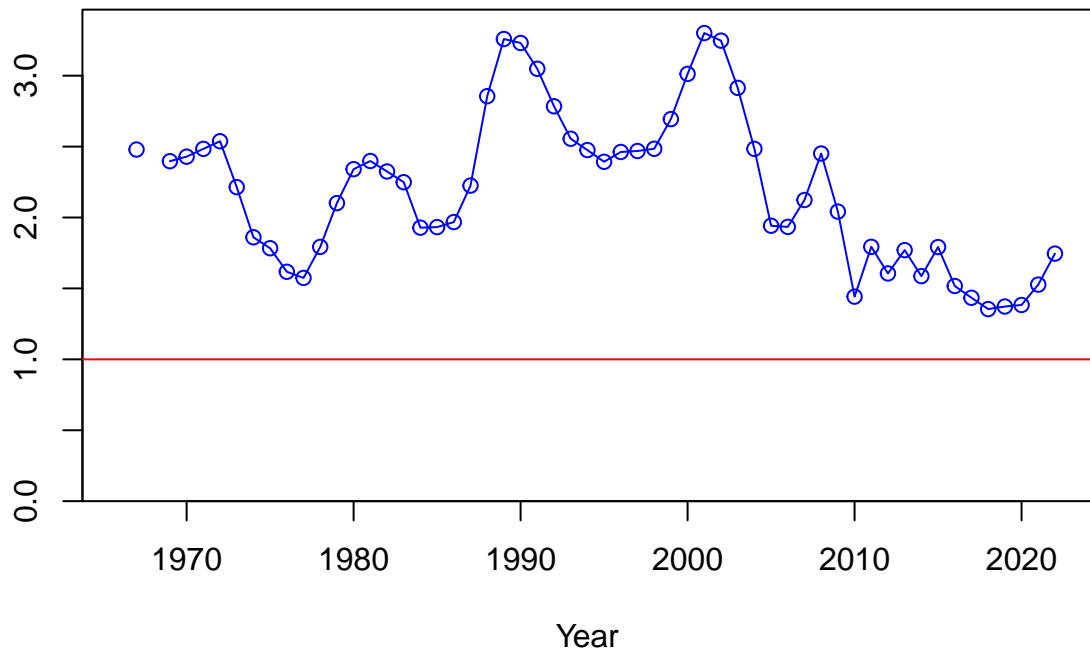
Spawning biomass (mt)



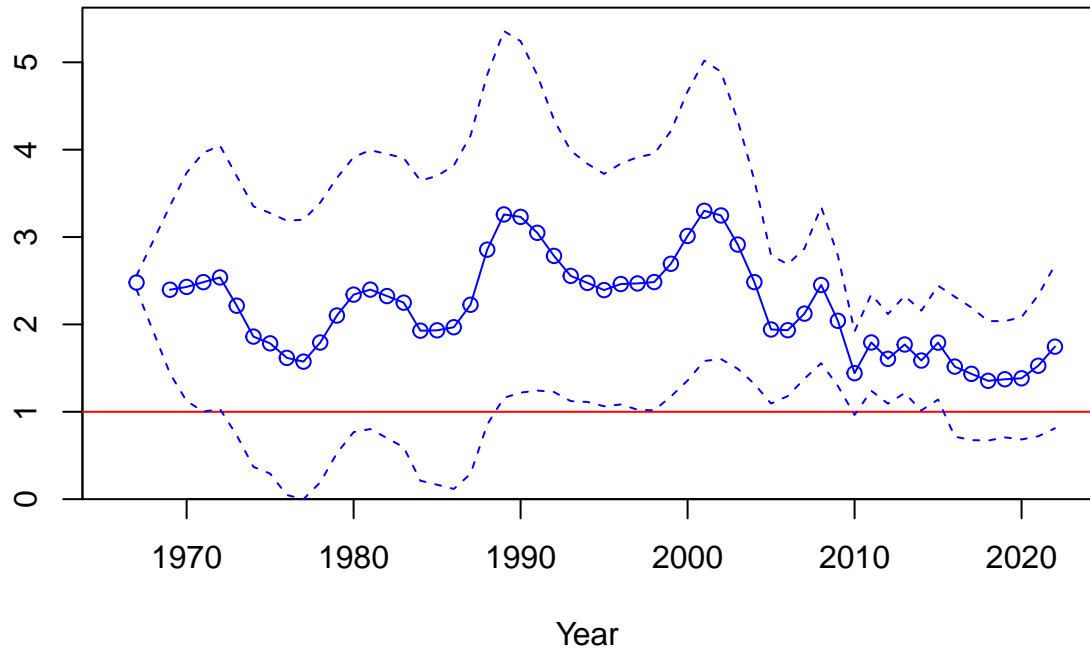
Spawning biomass (mt)

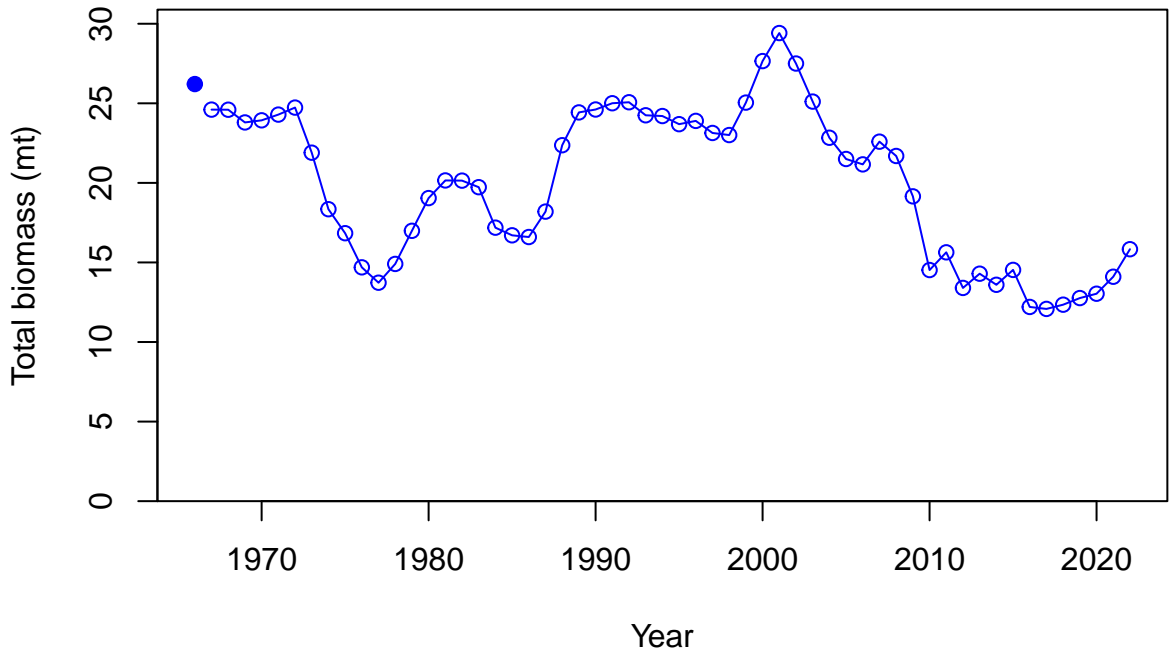


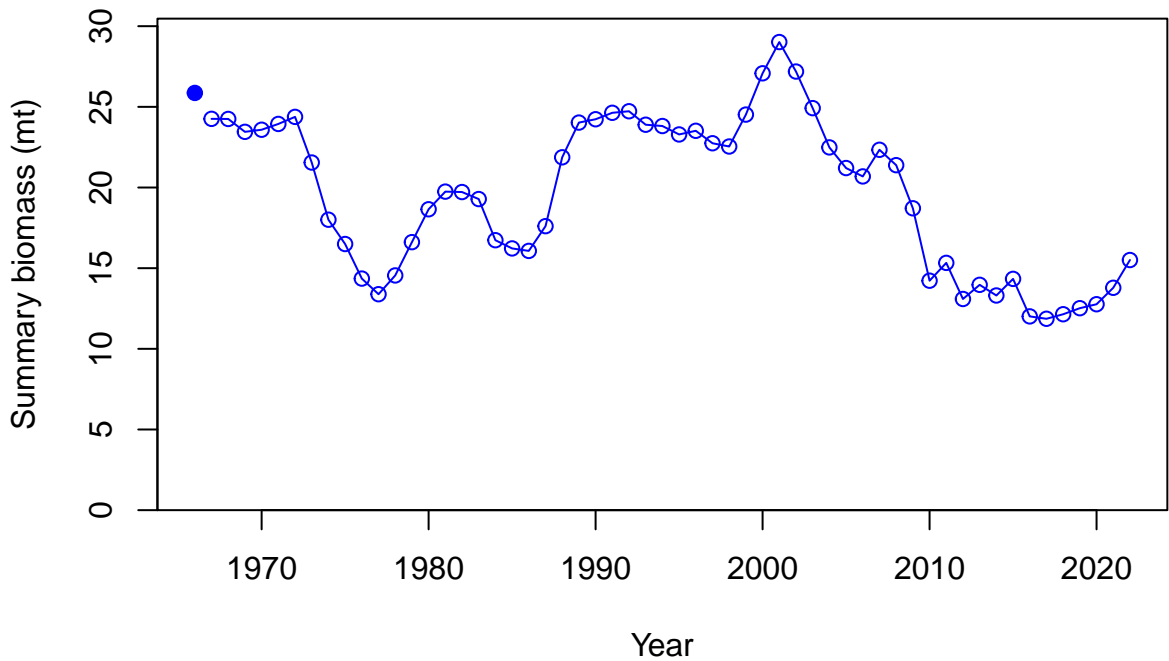
Relative spawning biomass: B/B_{MSY}



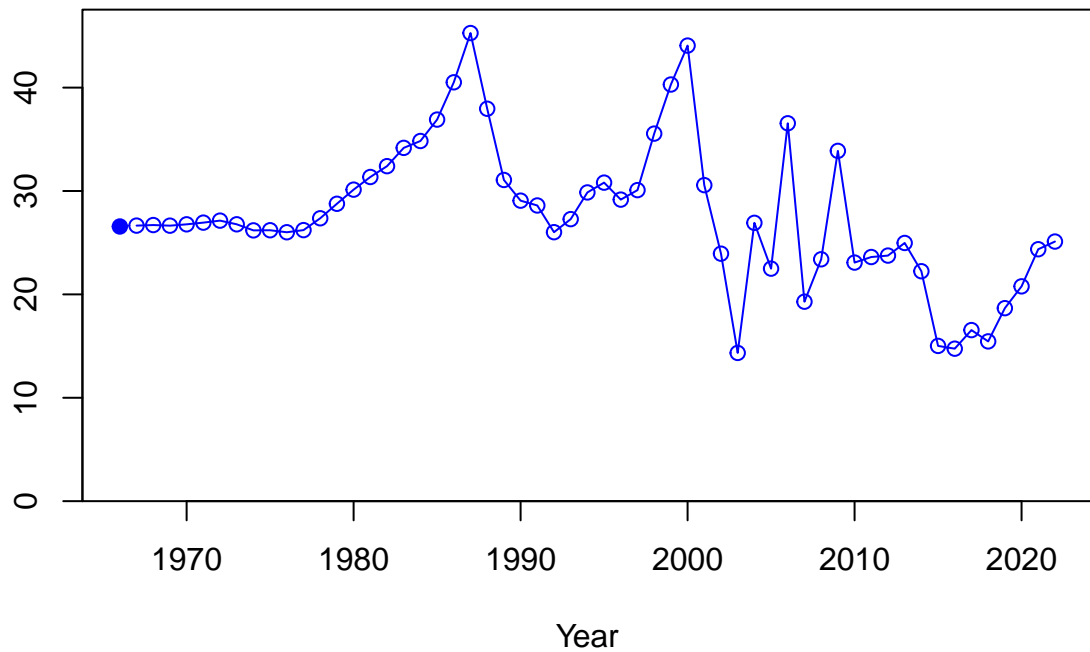
Relative spawning biomass: B/B_{MSY}



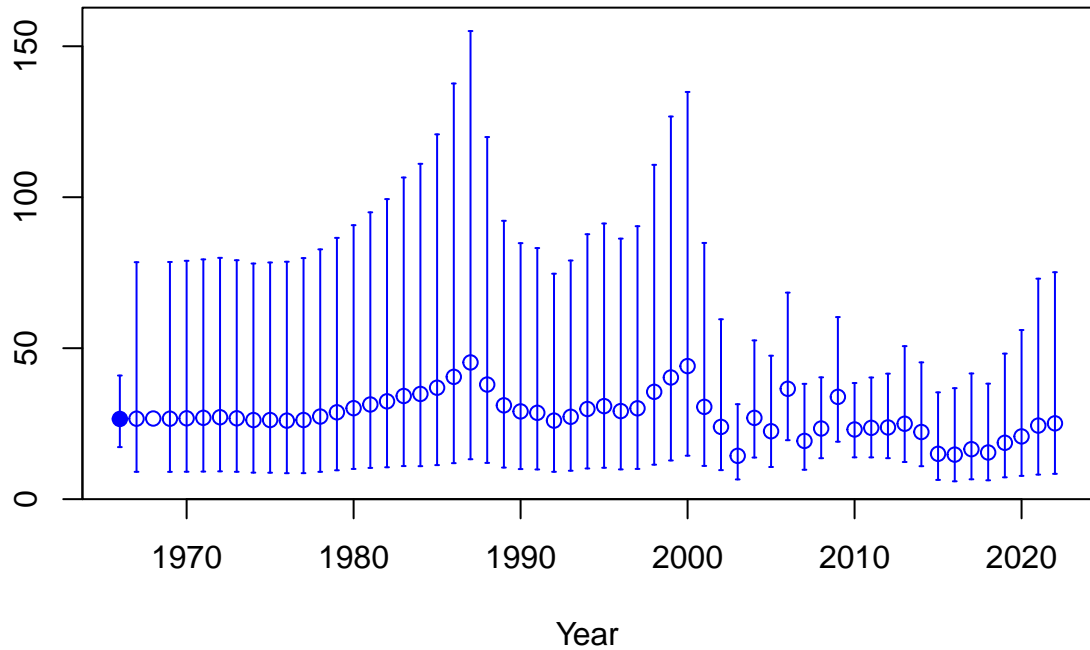




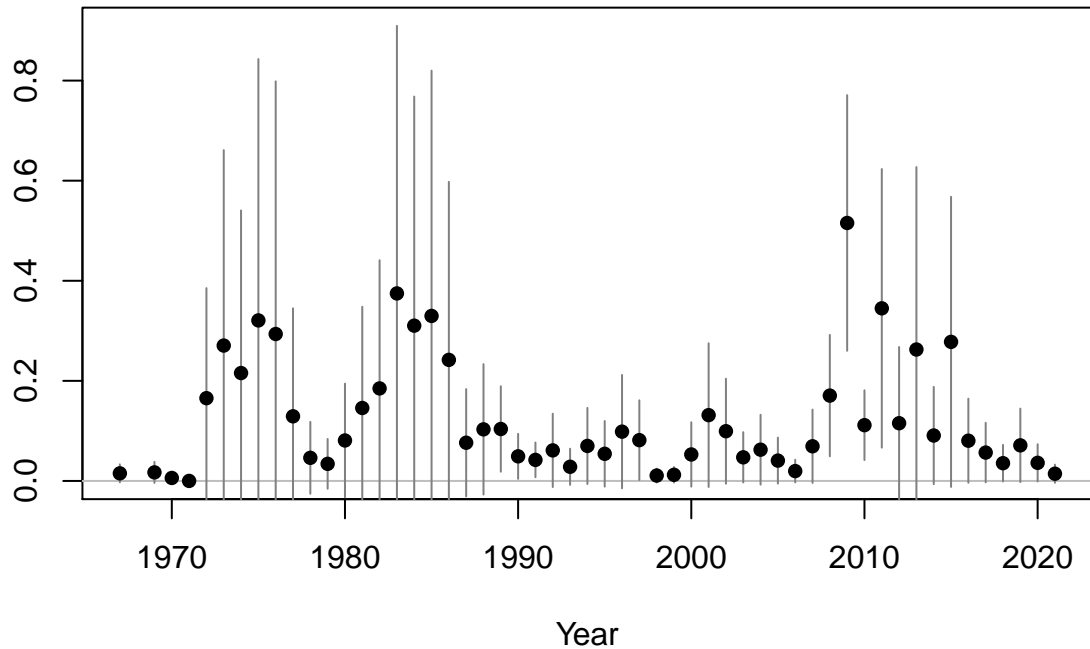
Age-0 recruits (1,000s)



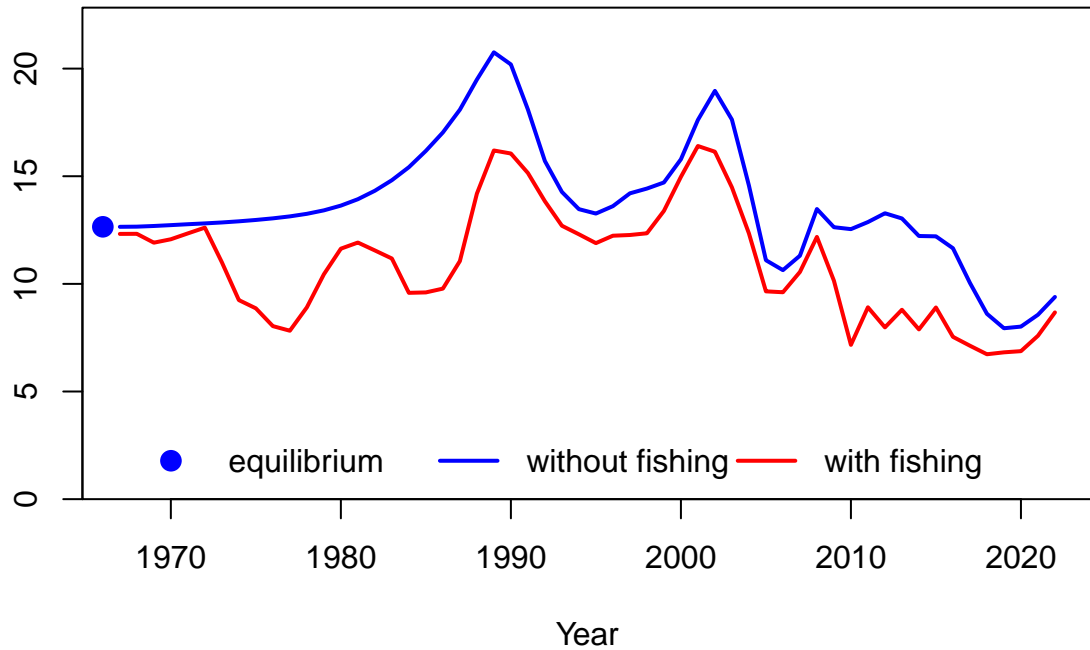
Age-0 recruits (1,000s)



Summary Fishing Mortality



Spawning biomass (mt)



Log recruitment deviation

0.4
0.2
0.0
-0.4

1970

1980

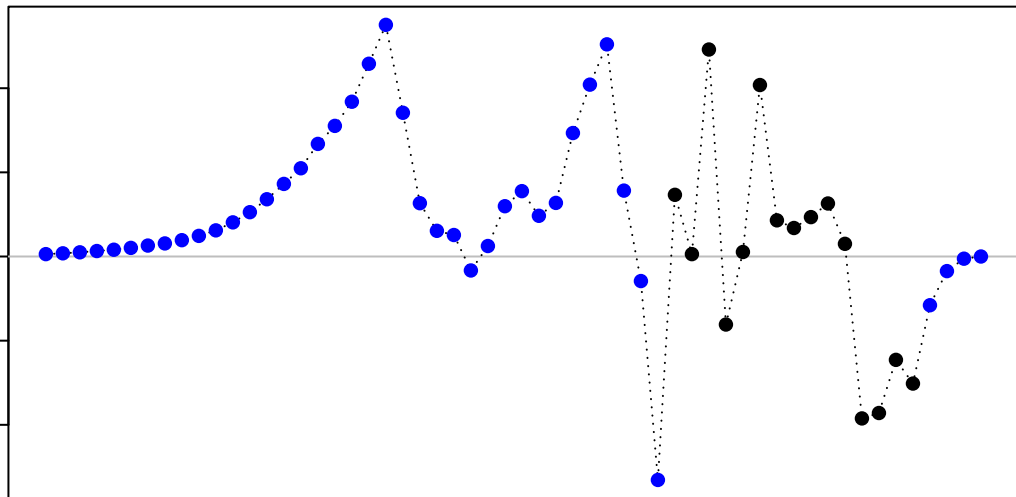
1990

2000

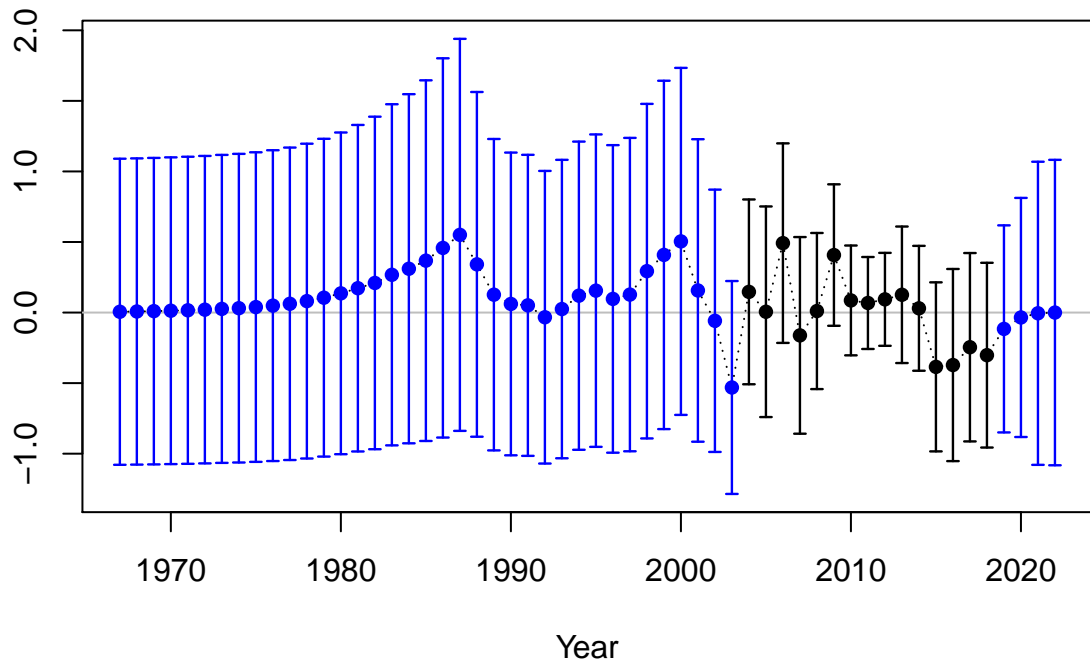
2010

2020

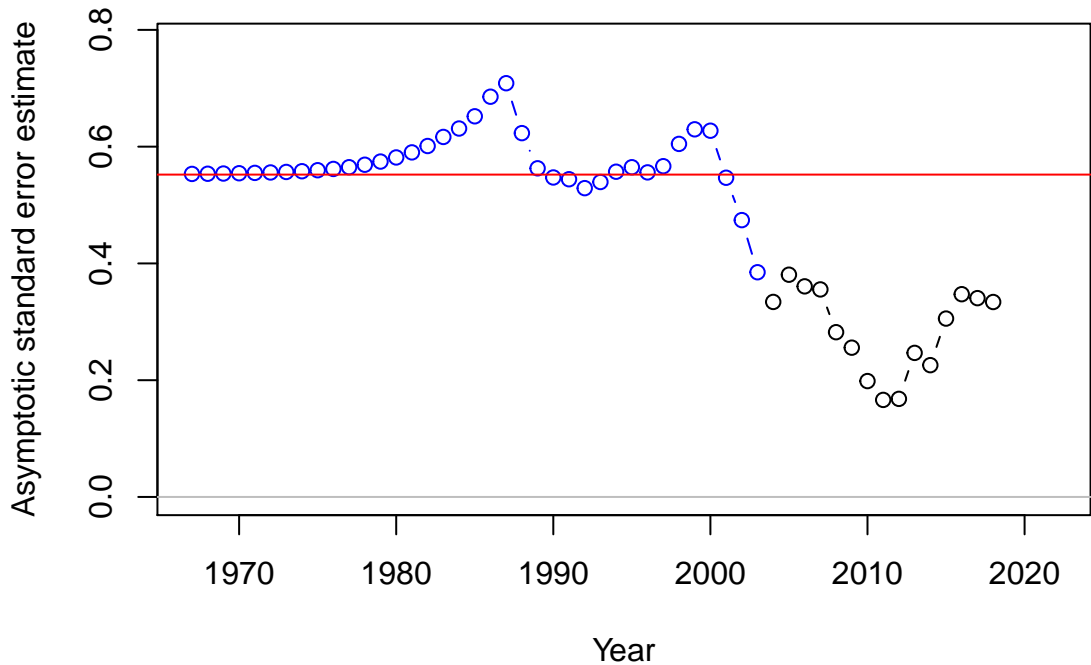
Year

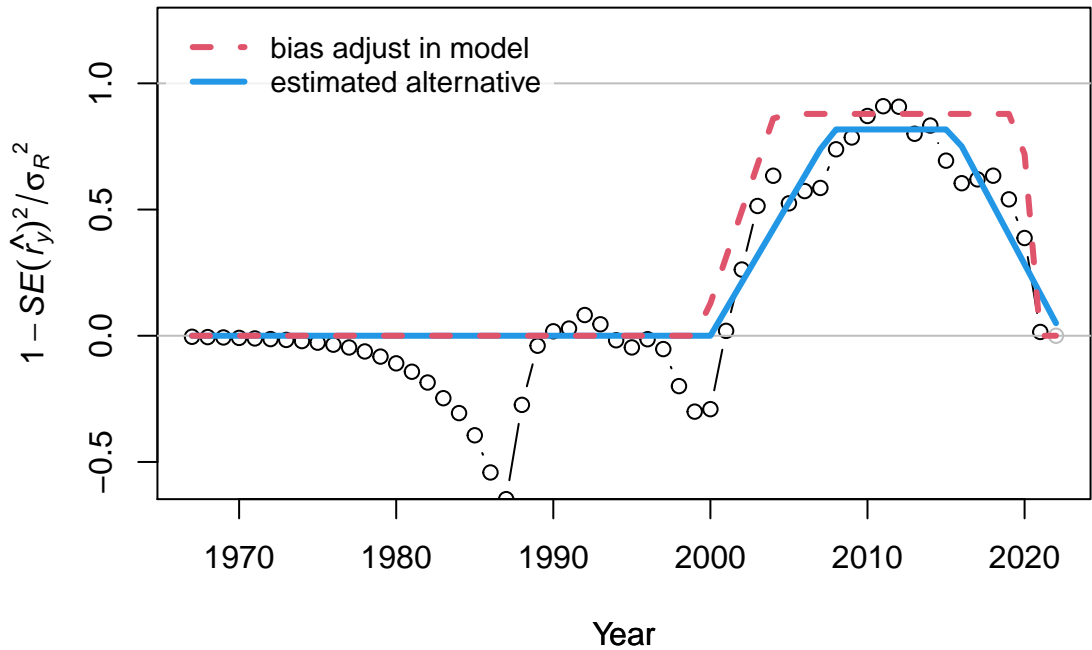


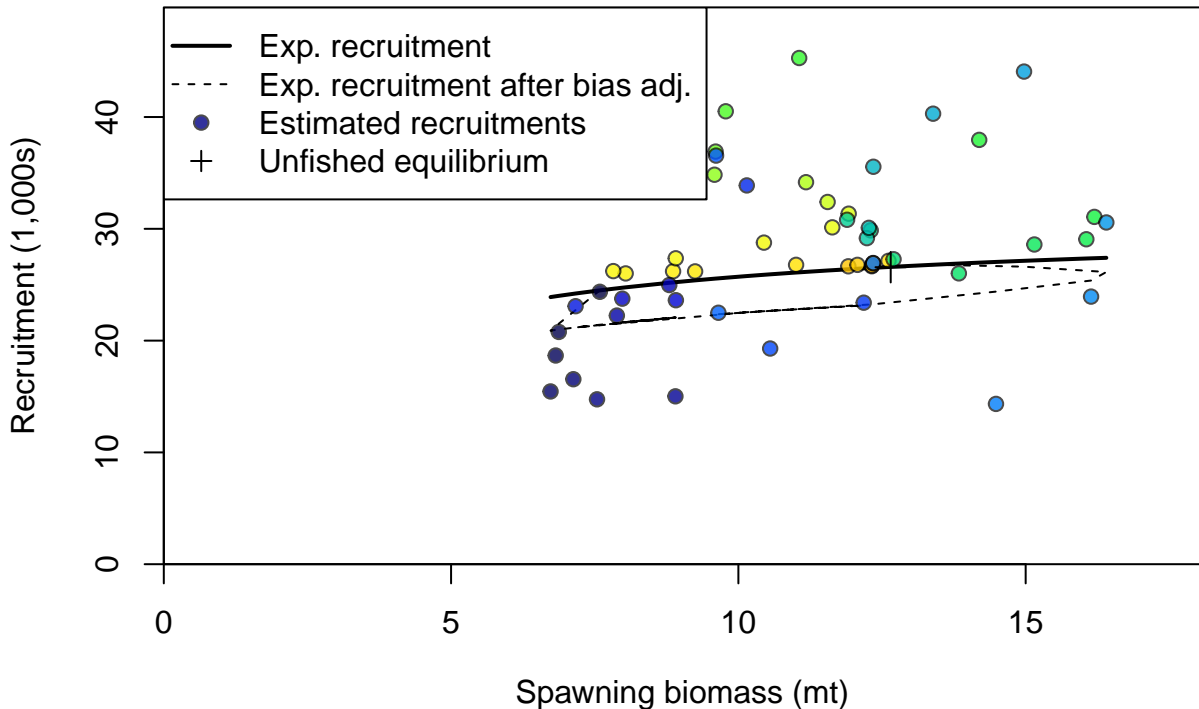
Log recruitment deviation

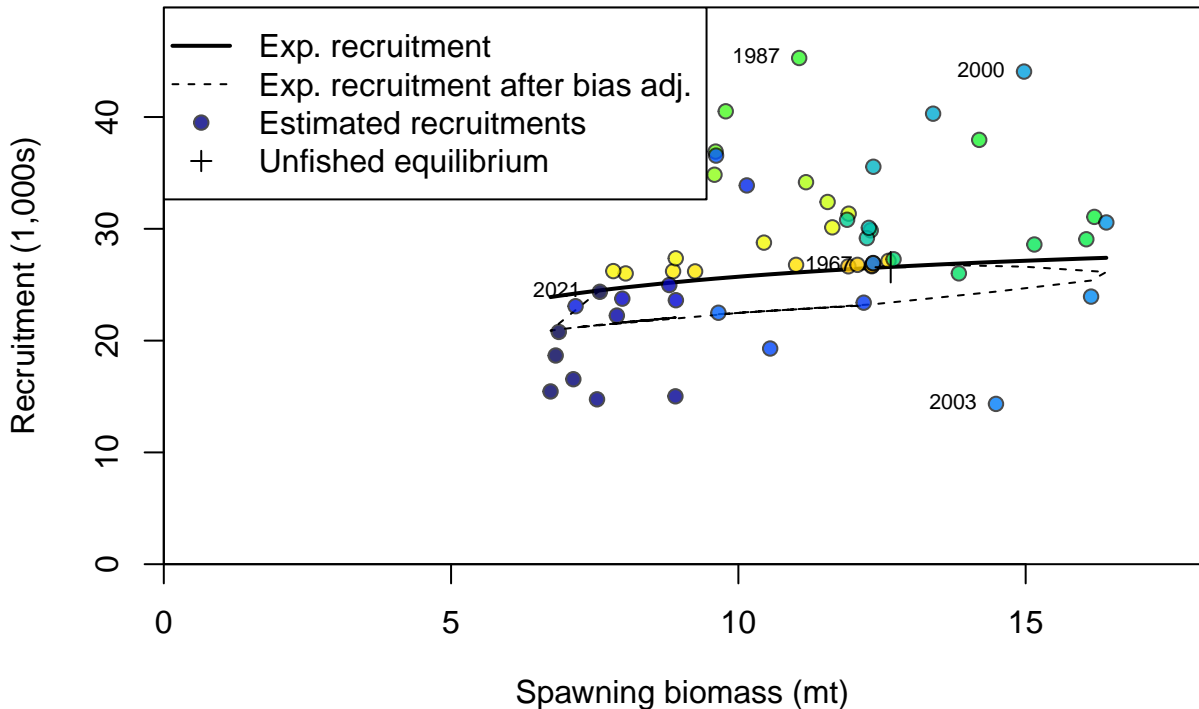


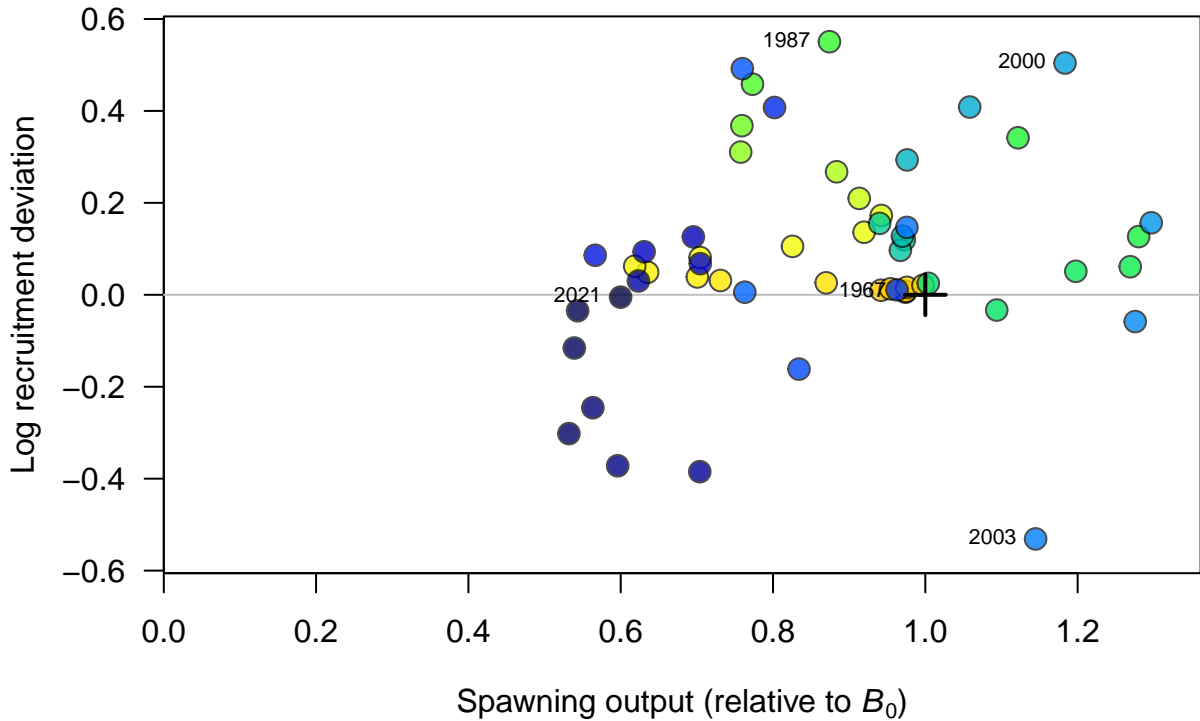
Recruitment deviation variance

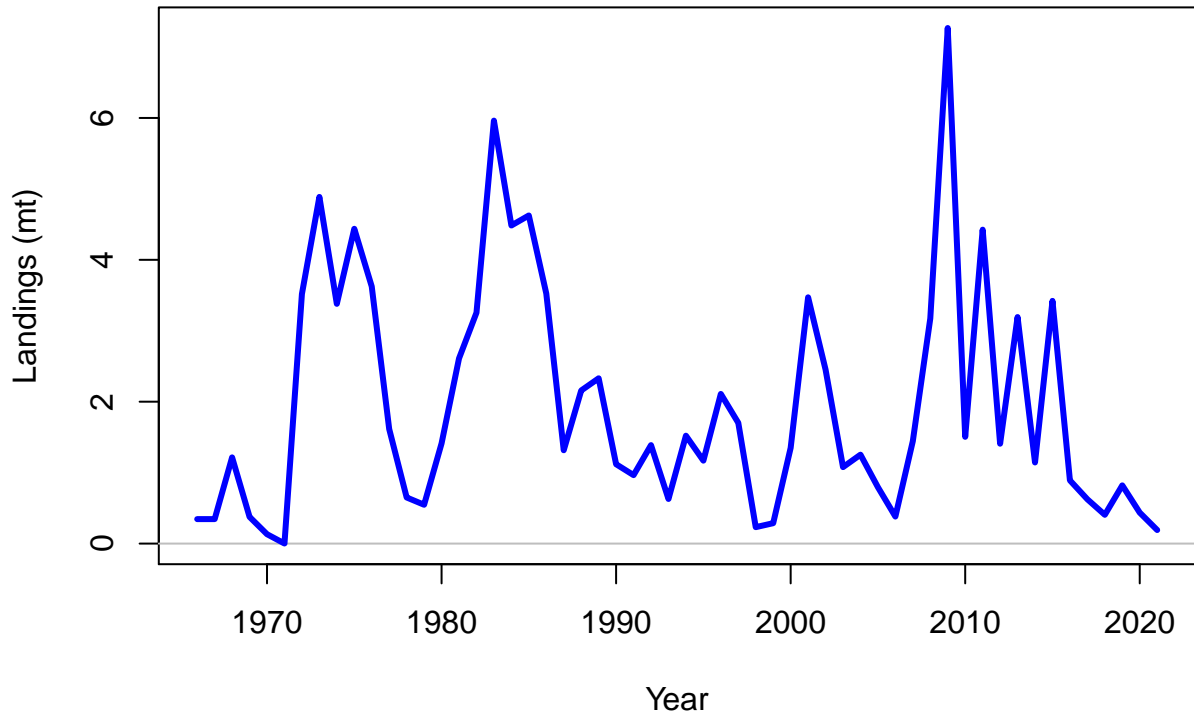


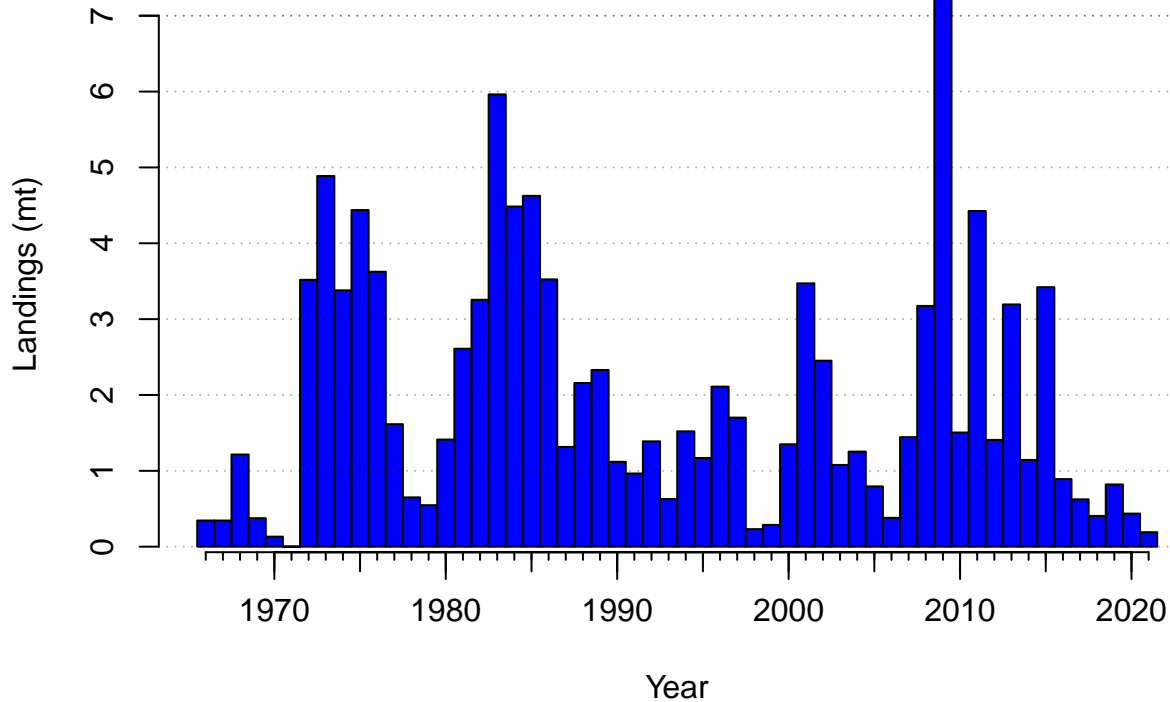




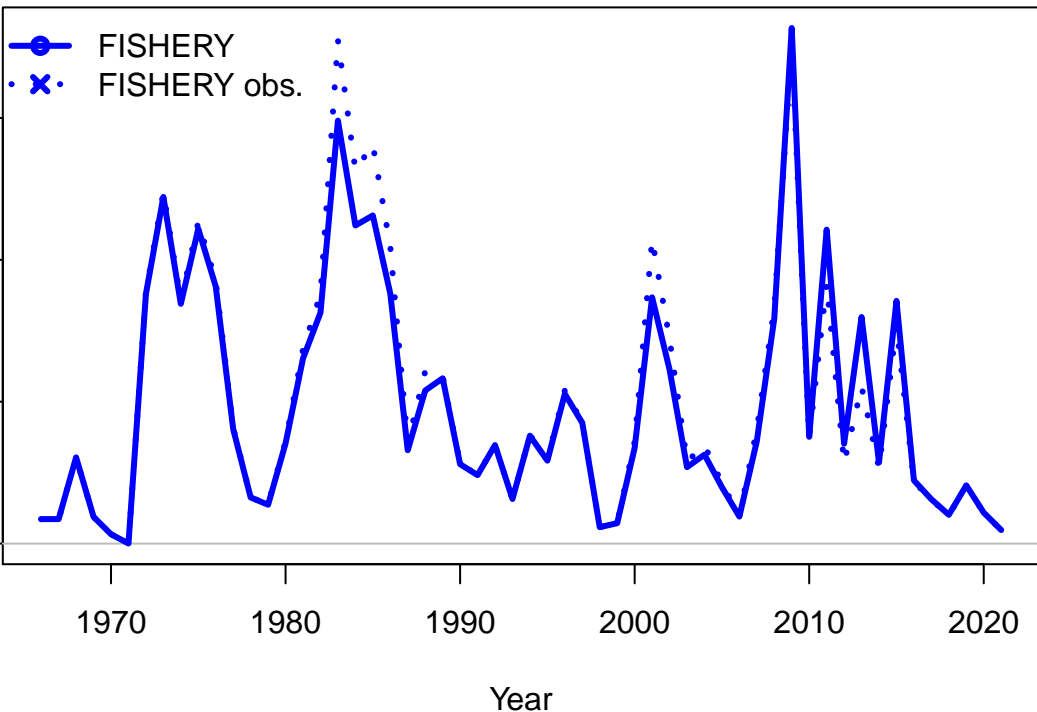


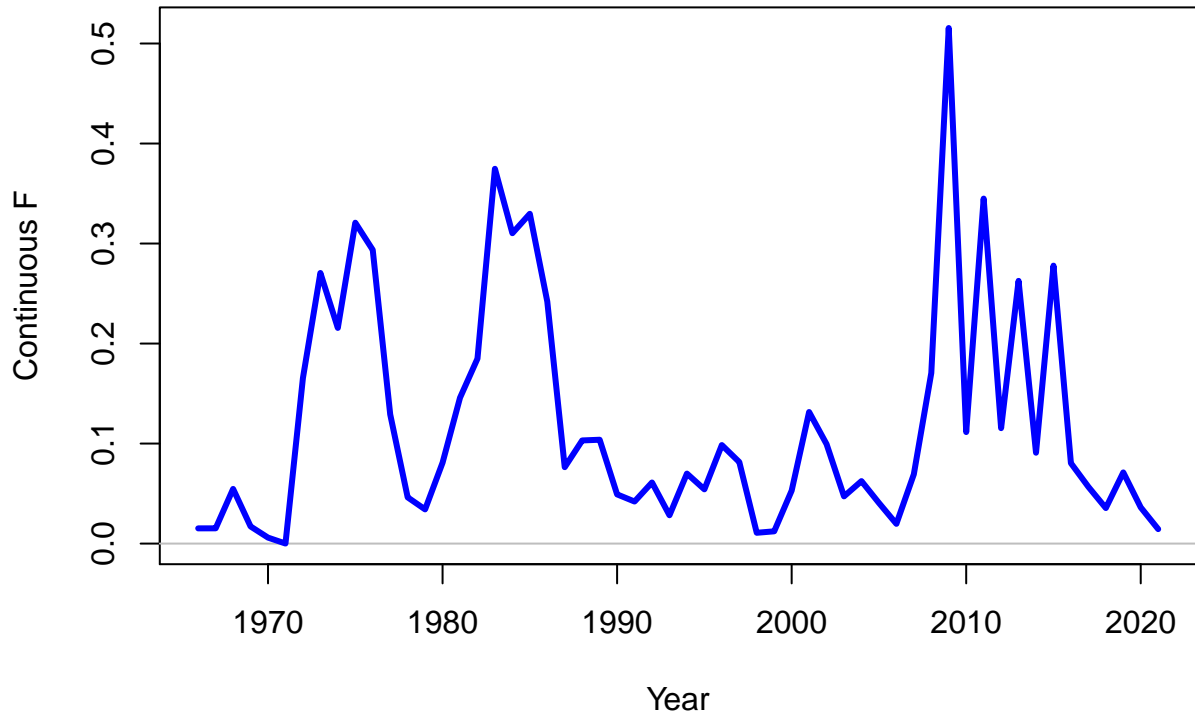




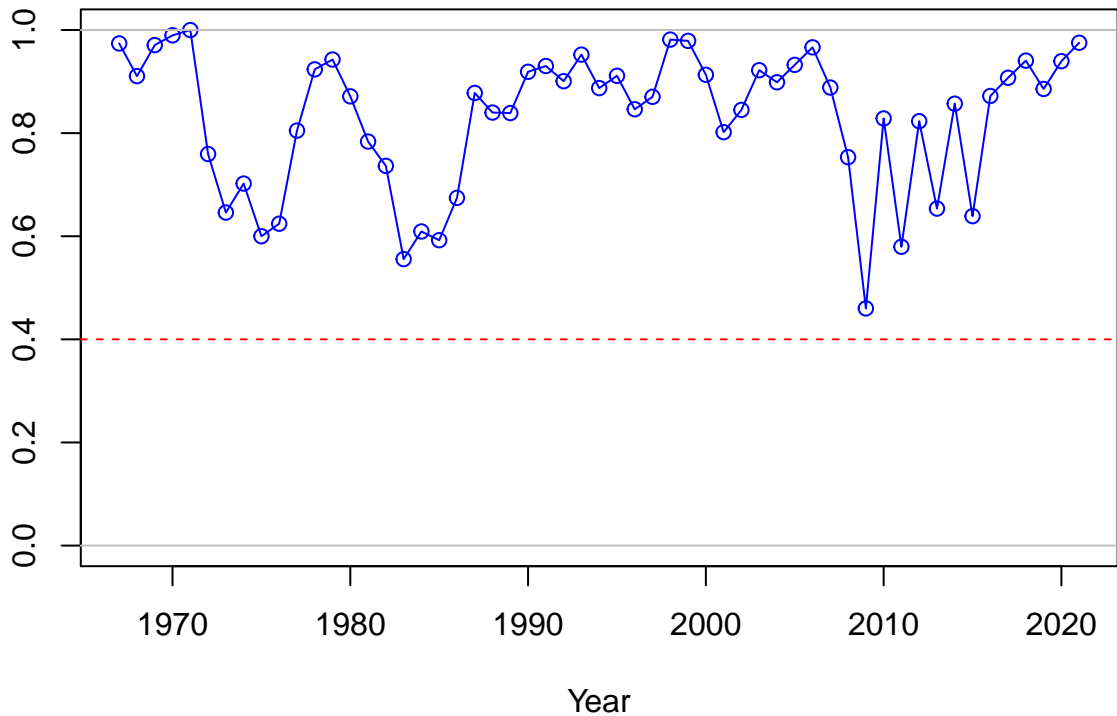


Observed and expected Landings (mt)

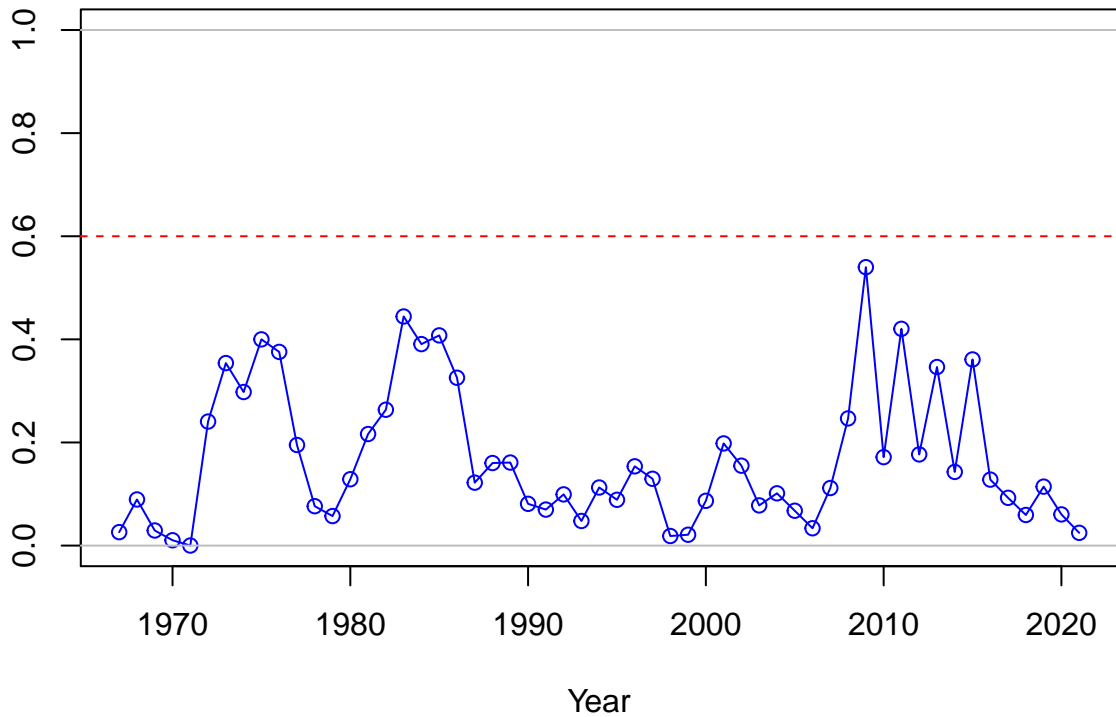




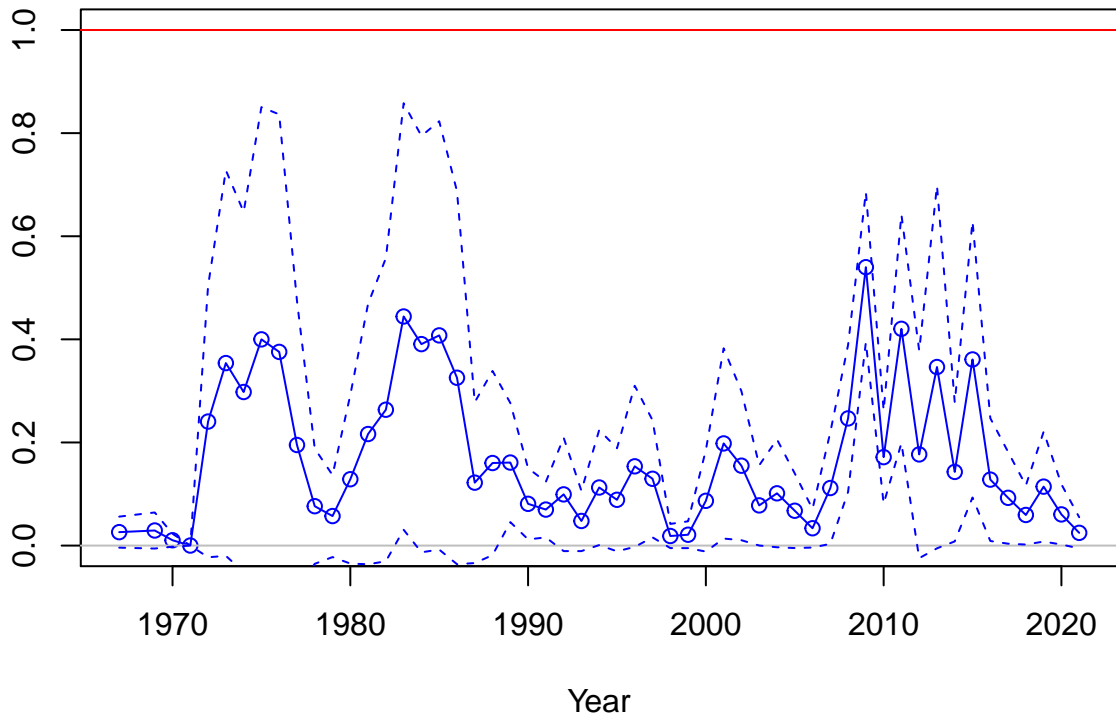
SPR



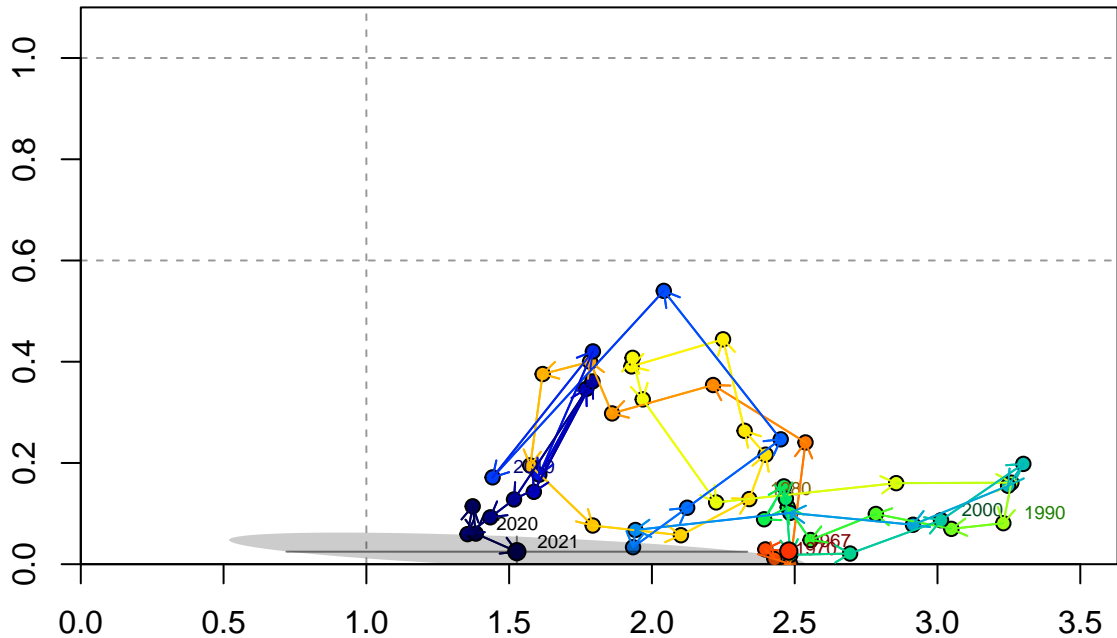
1-SPR



Fishing intensity: 1-SPR

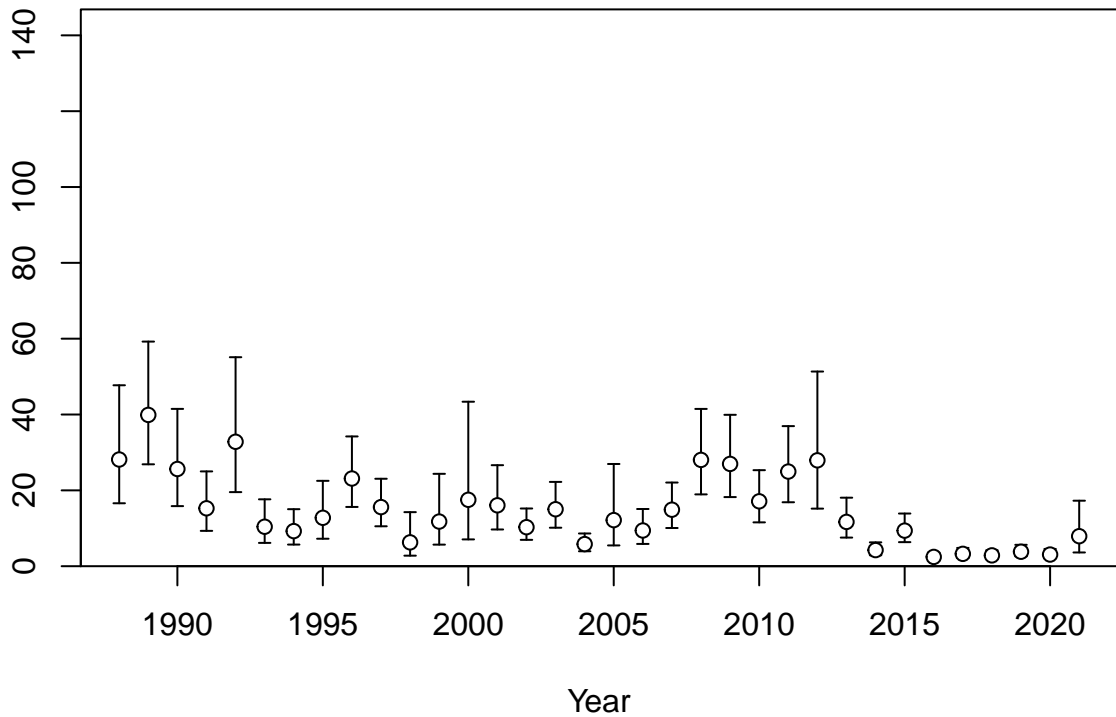


Fishing intensity: 1-SPR

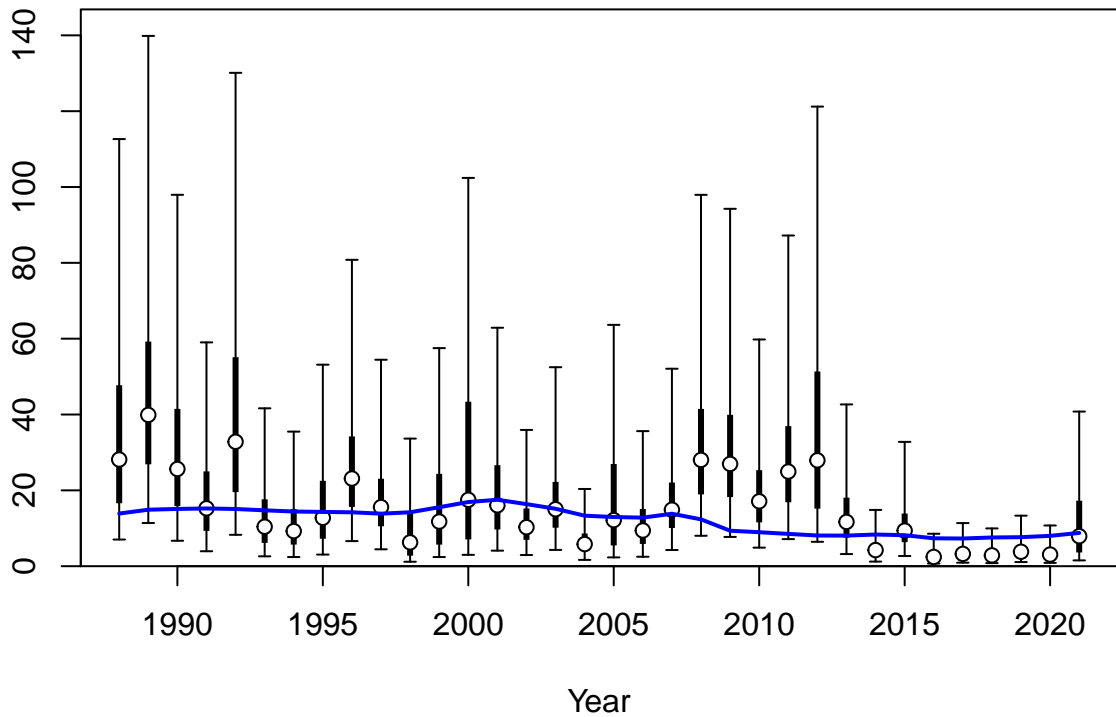


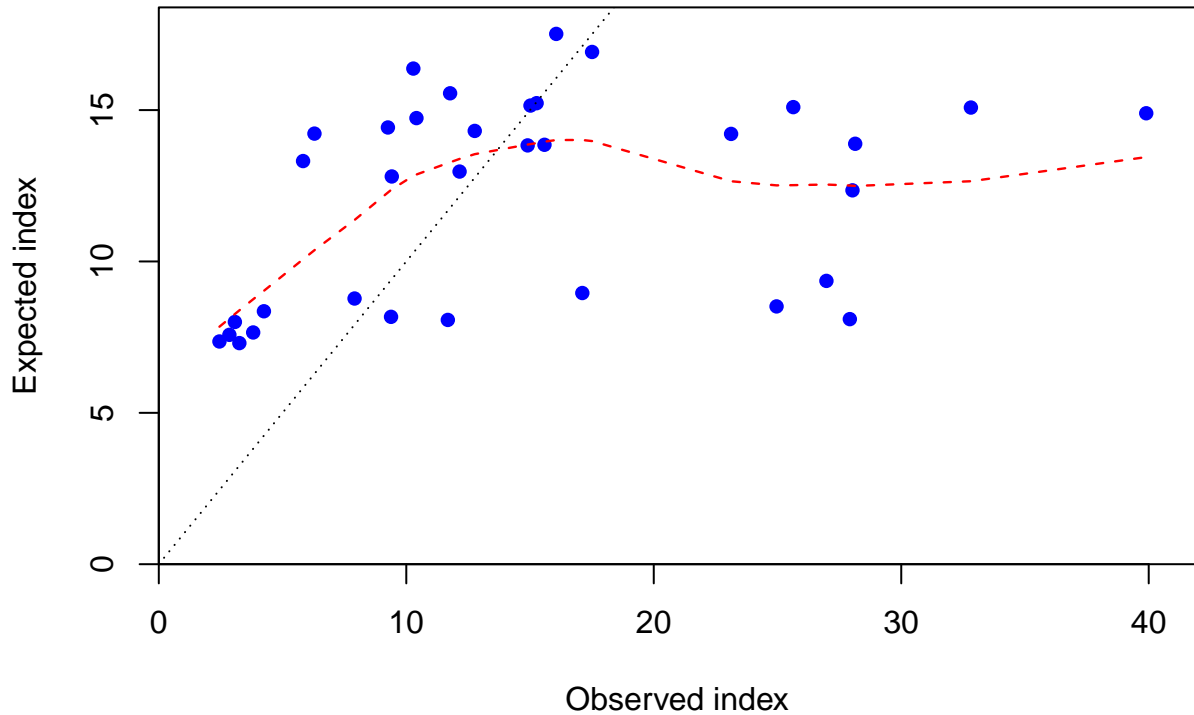
Relative spawning output: B/B_{MSY}

Index

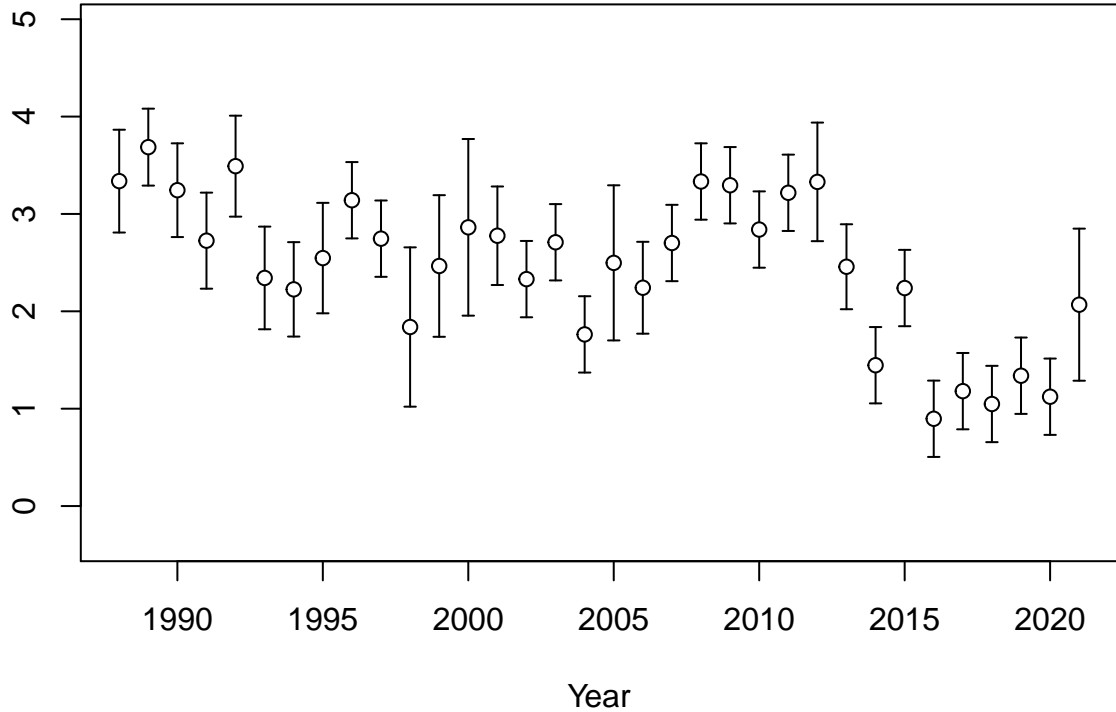


Index

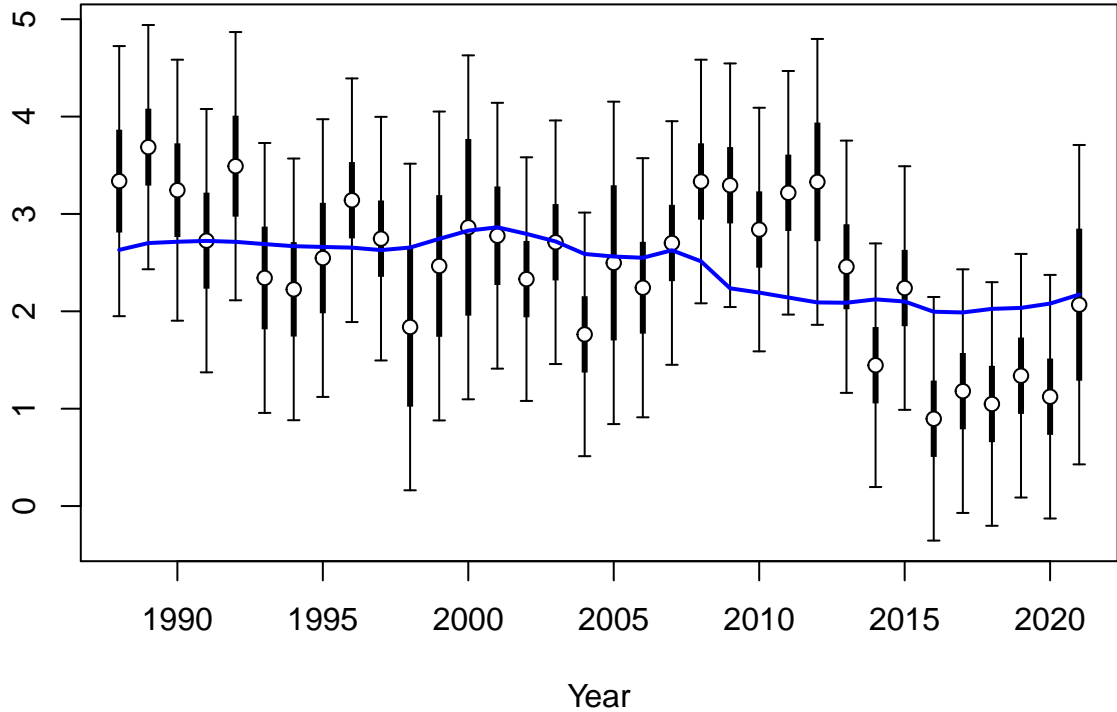


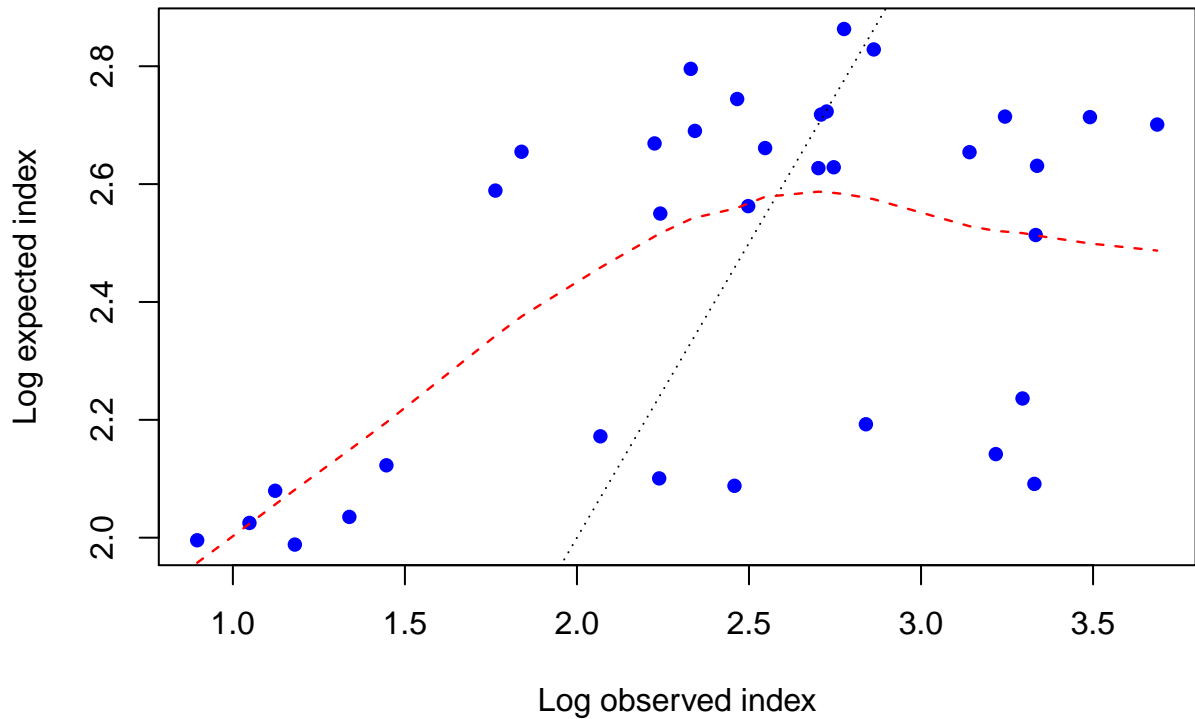


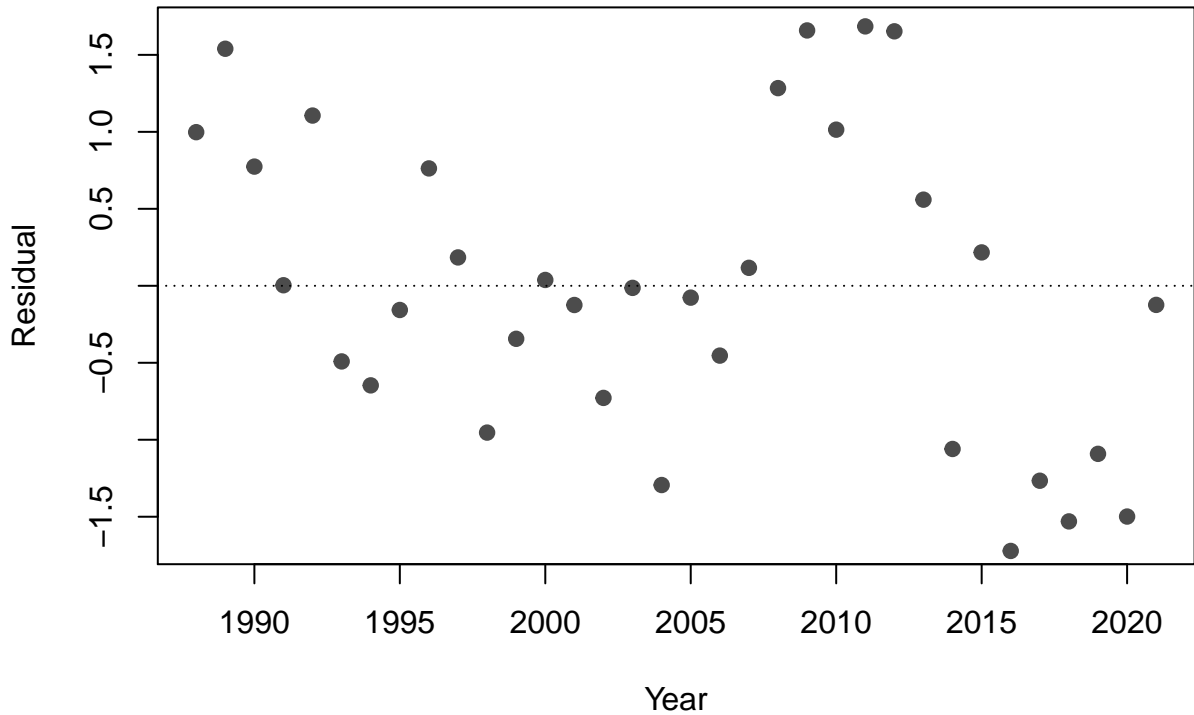
Log index

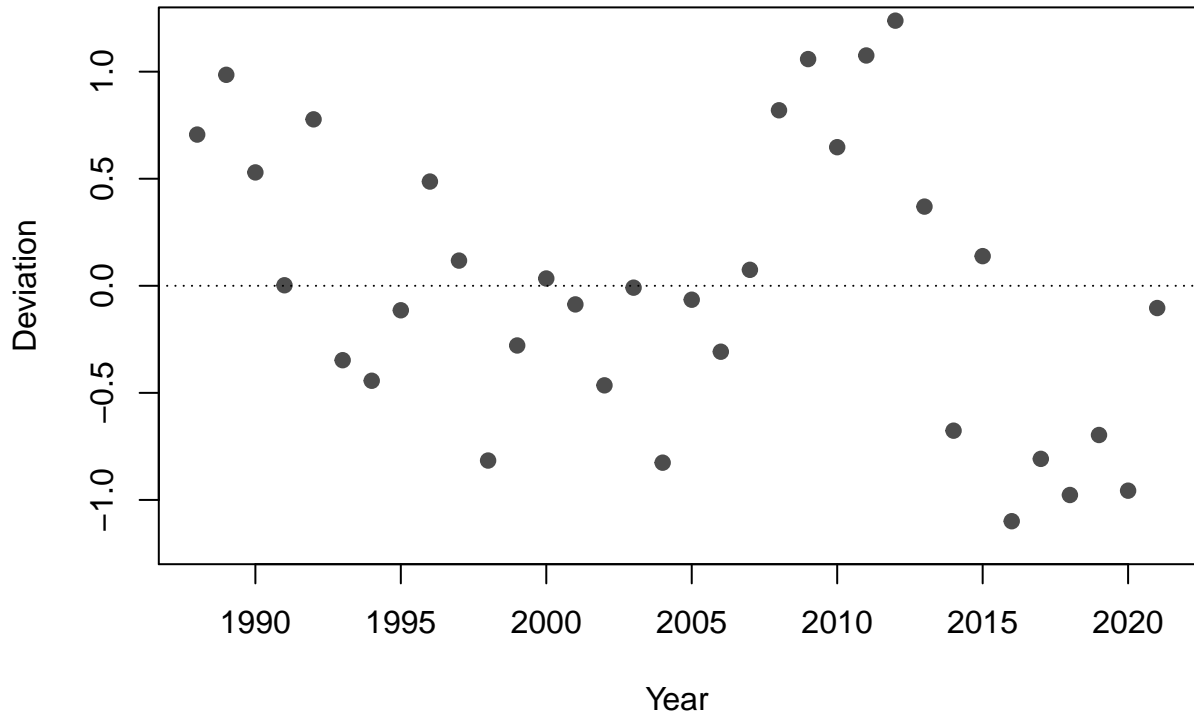


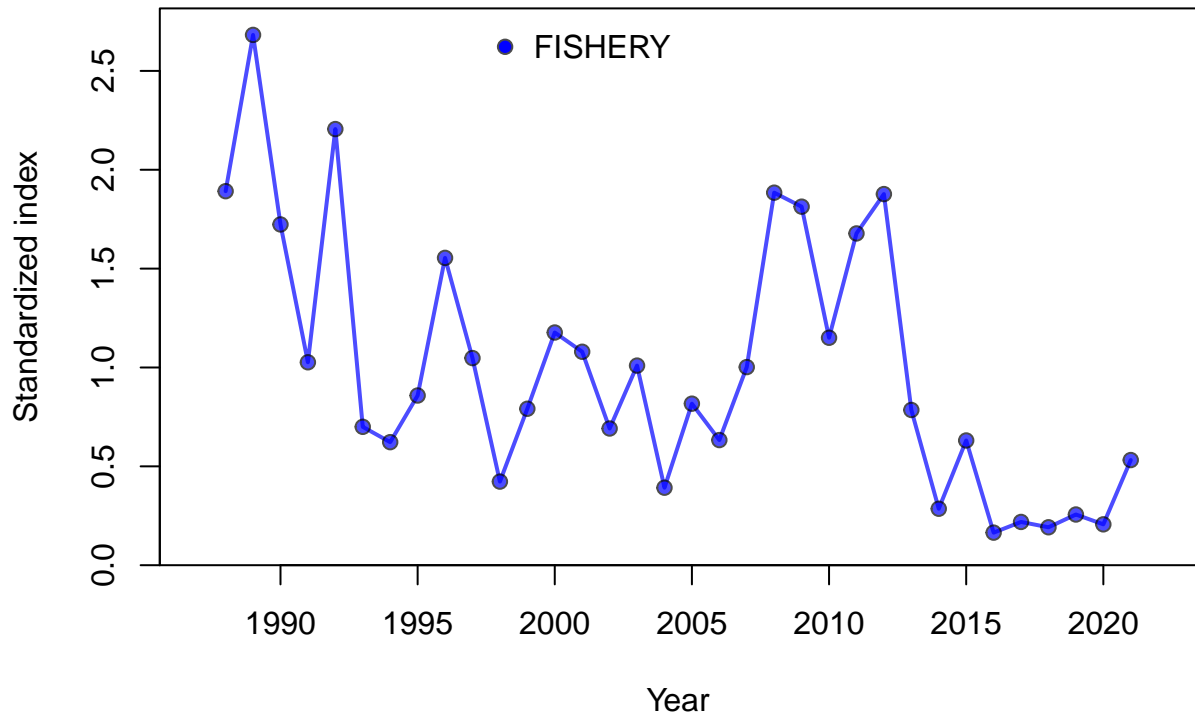
Log index



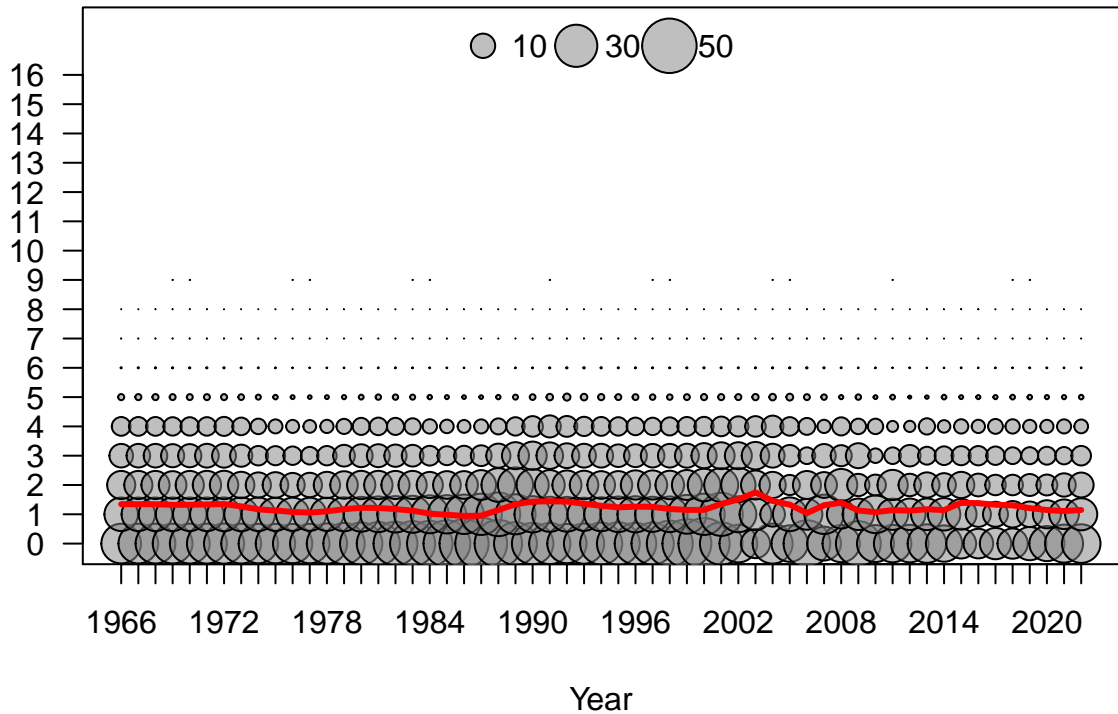


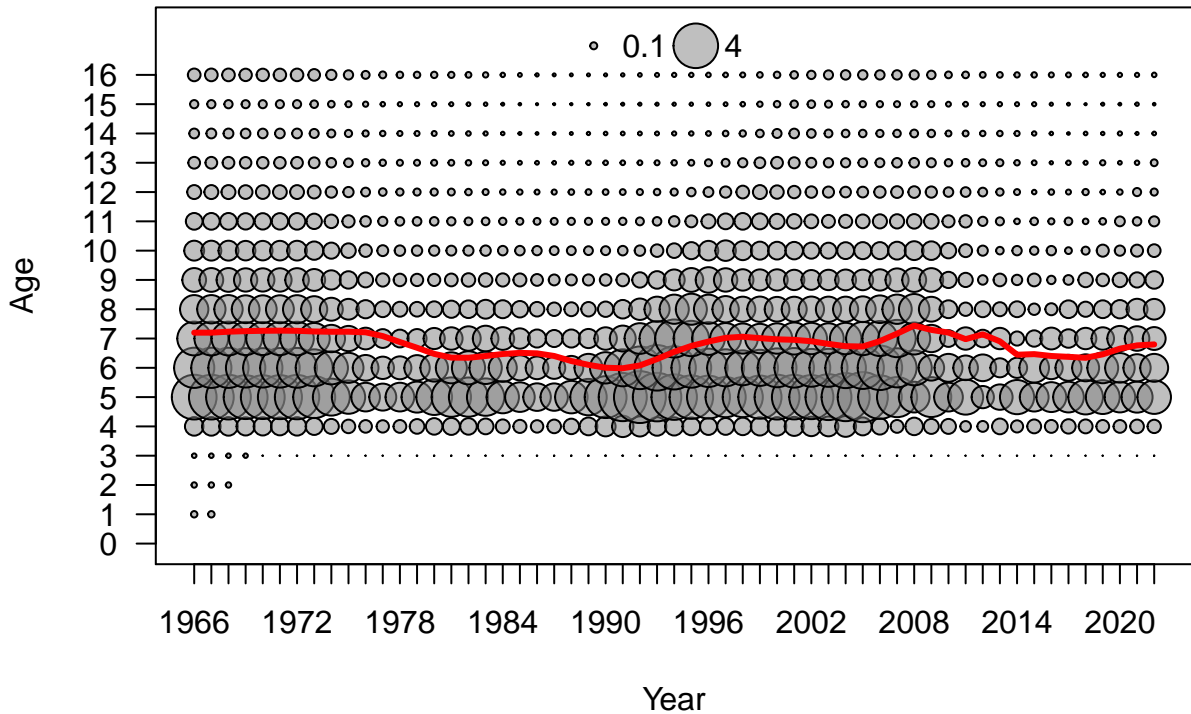


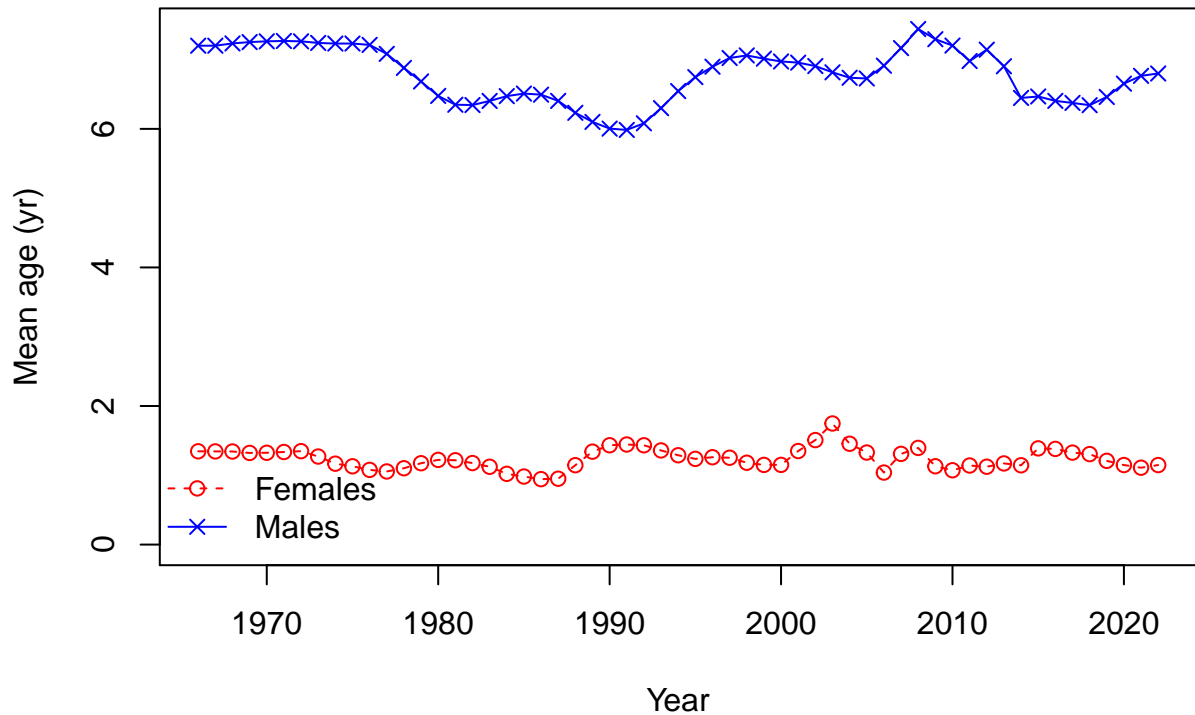




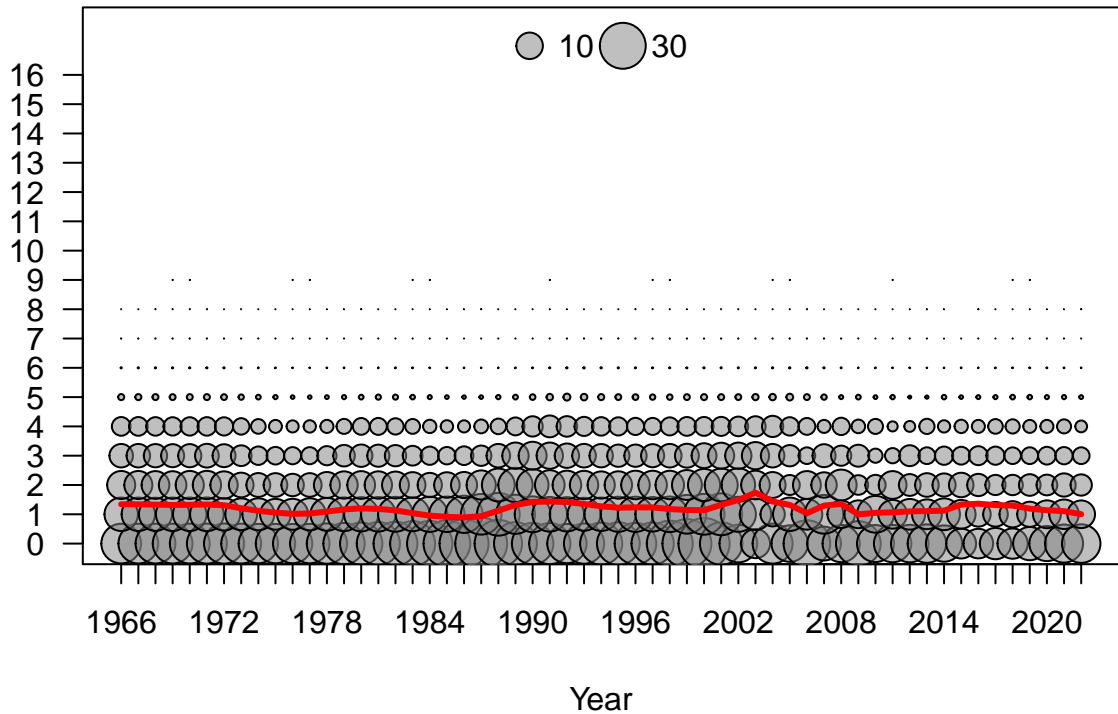
Age



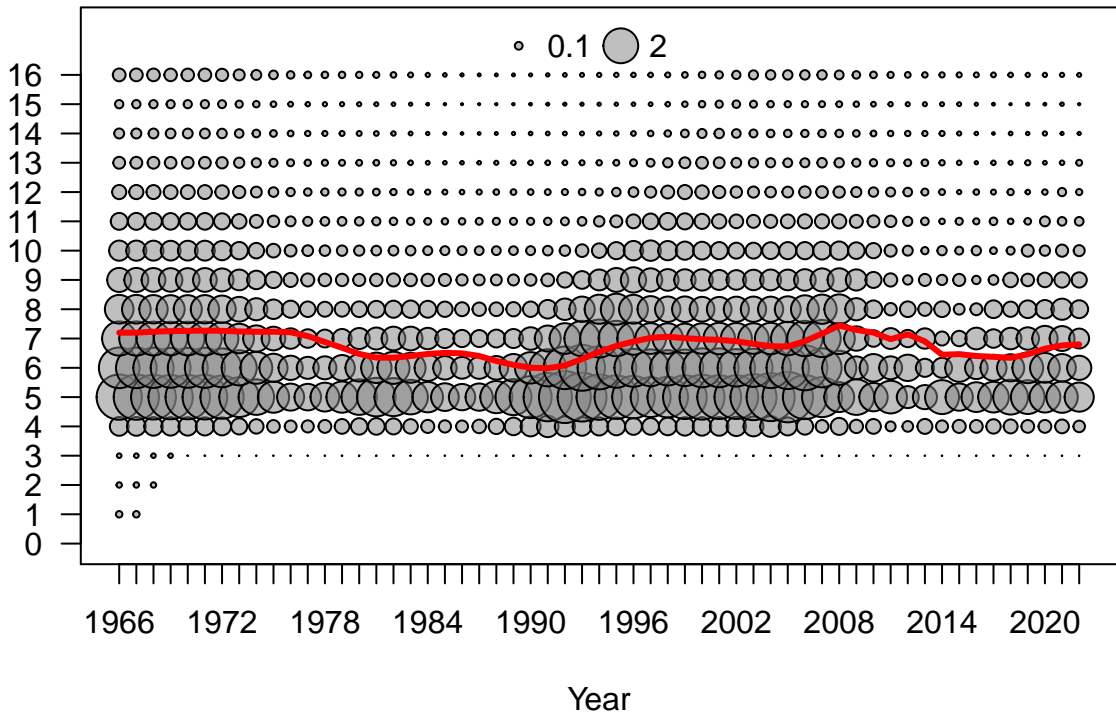


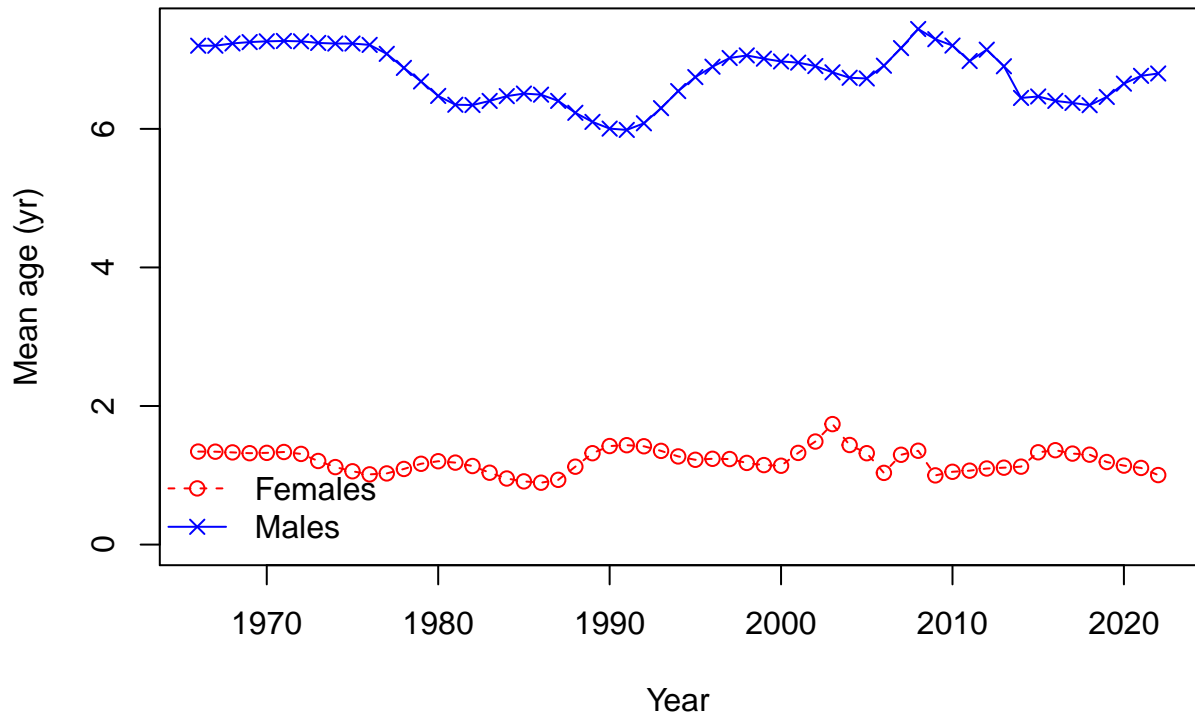


Age



Age





Age

15

10

5

0

1970

1980

1990

2000

2010

2020

Year

0.2

0.9

0.7

0.6

0.1

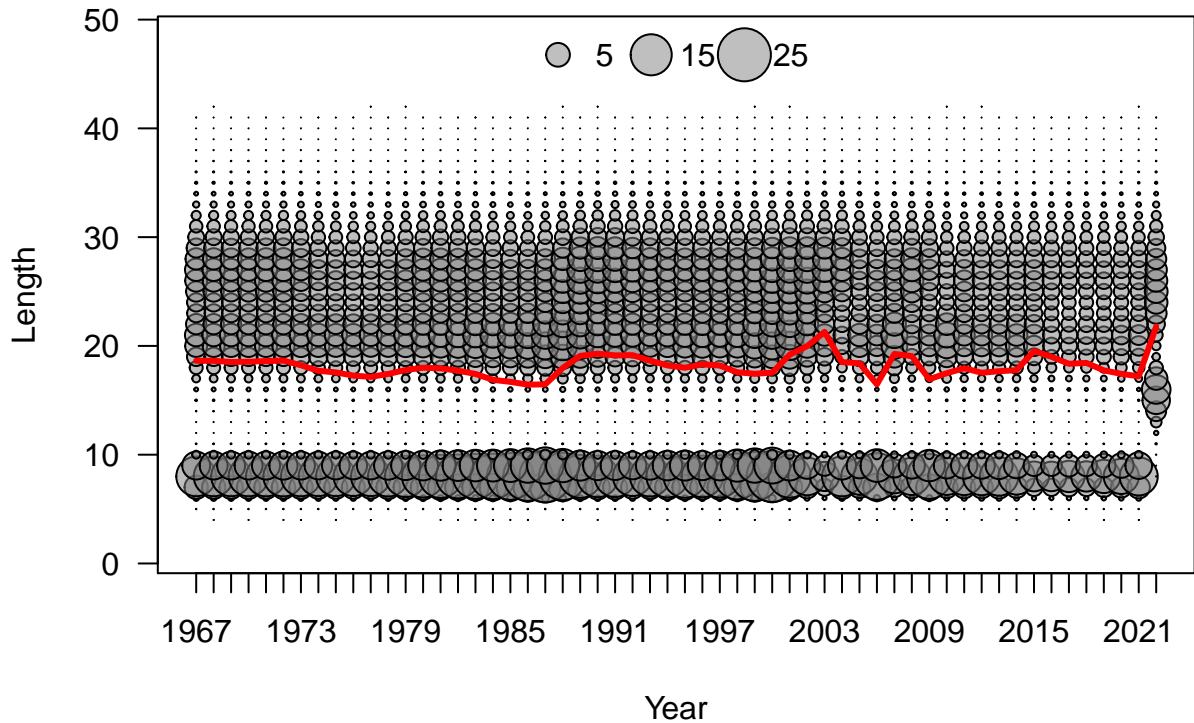
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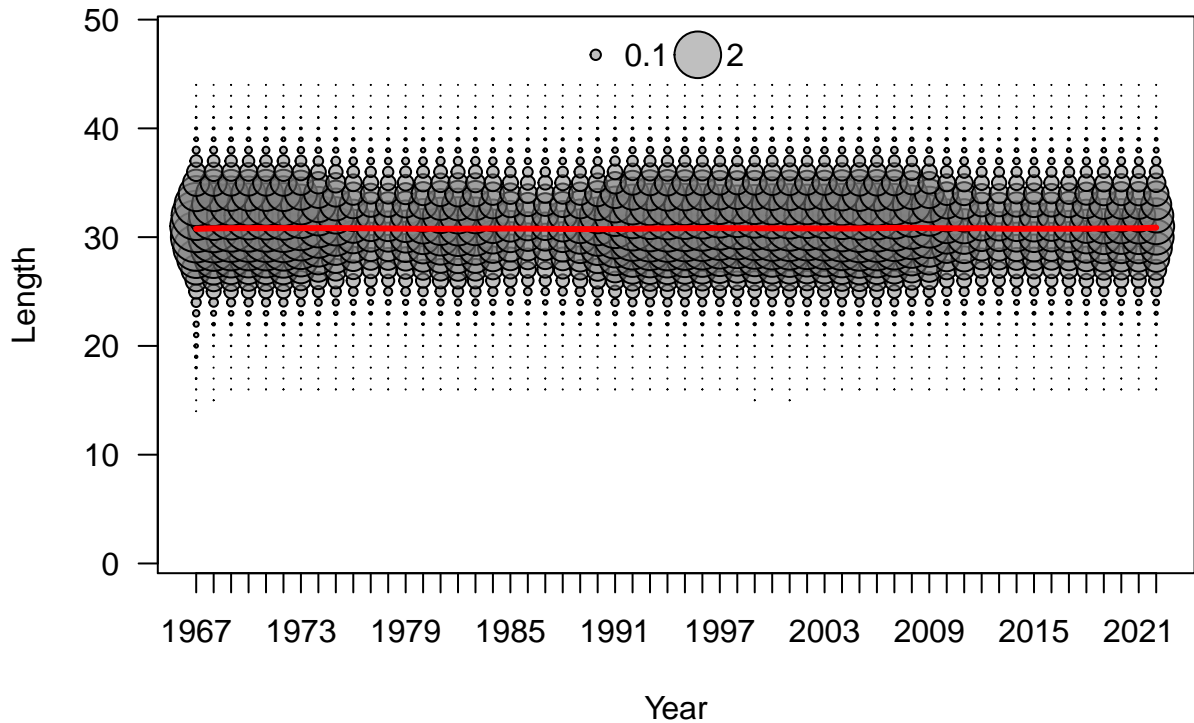
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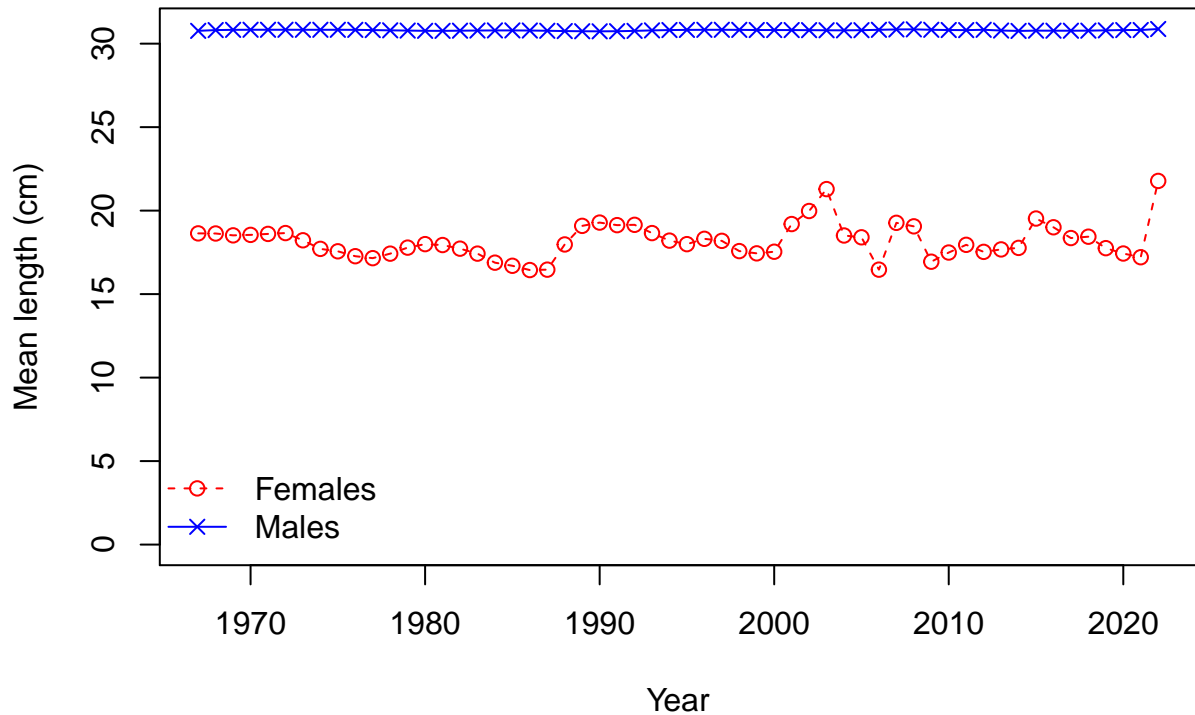
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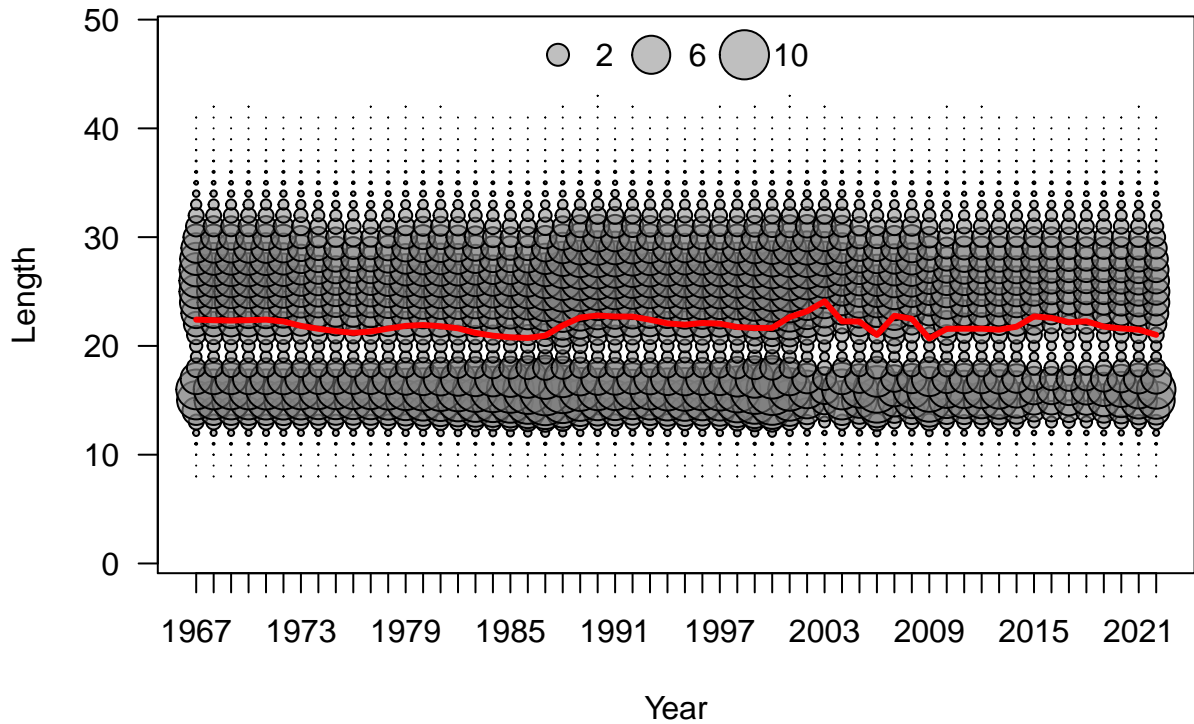
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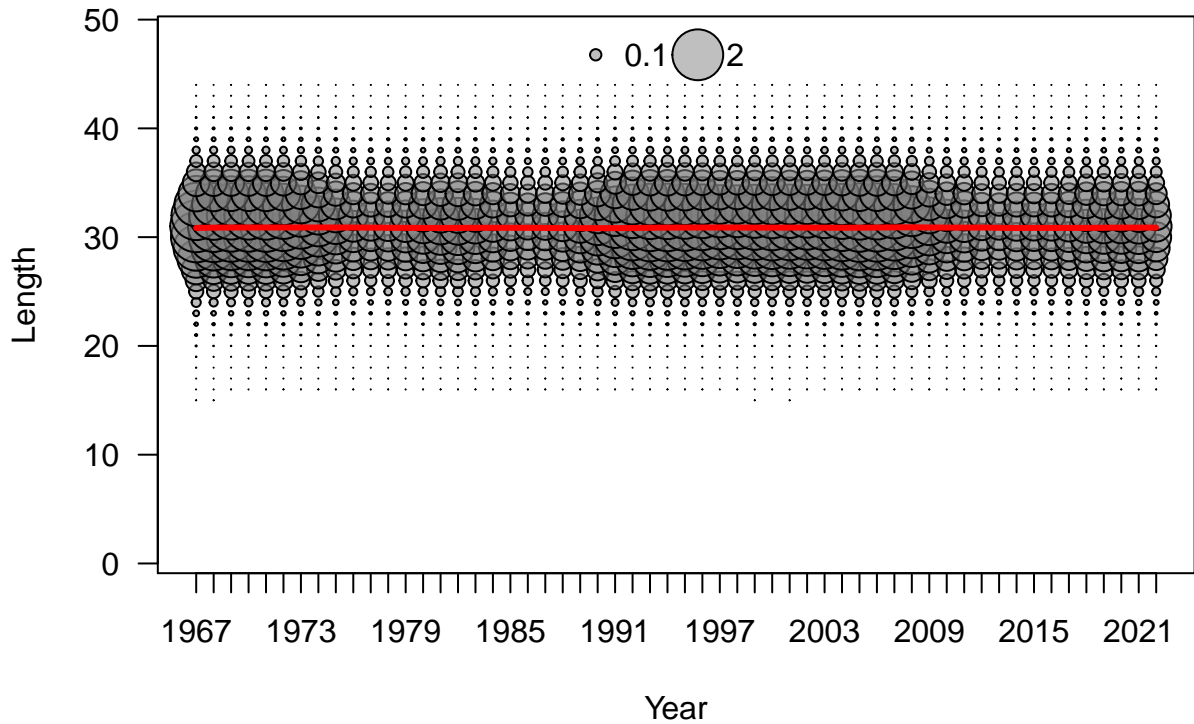
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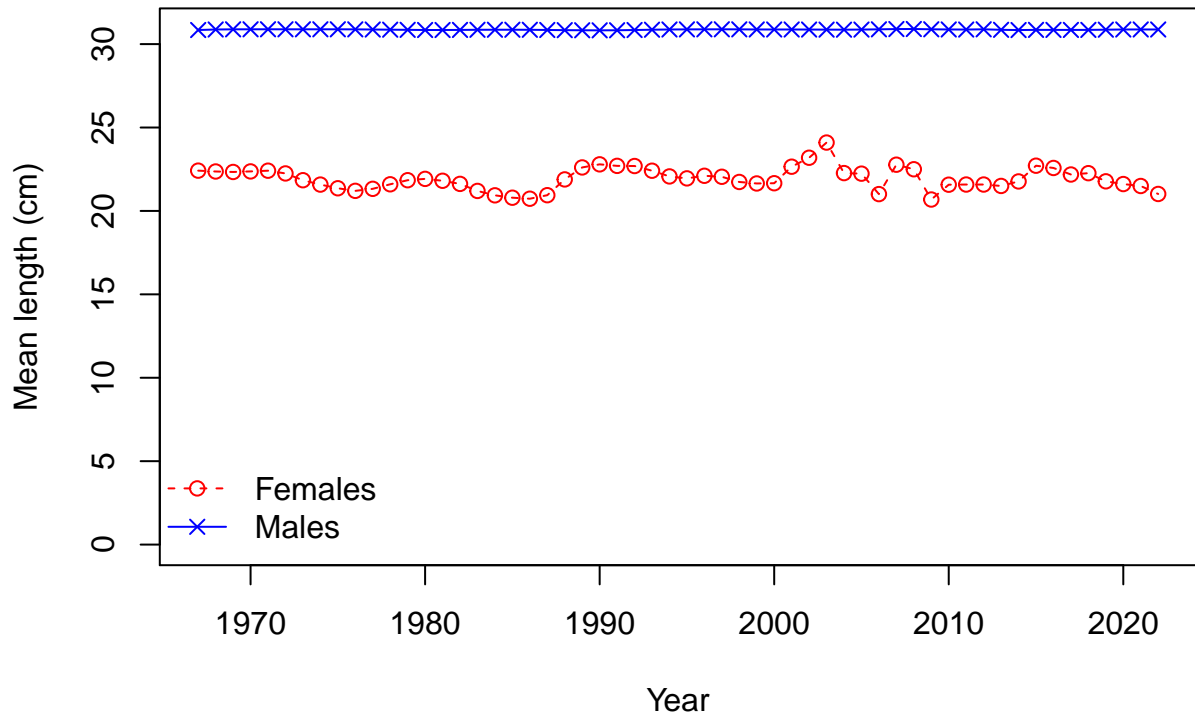




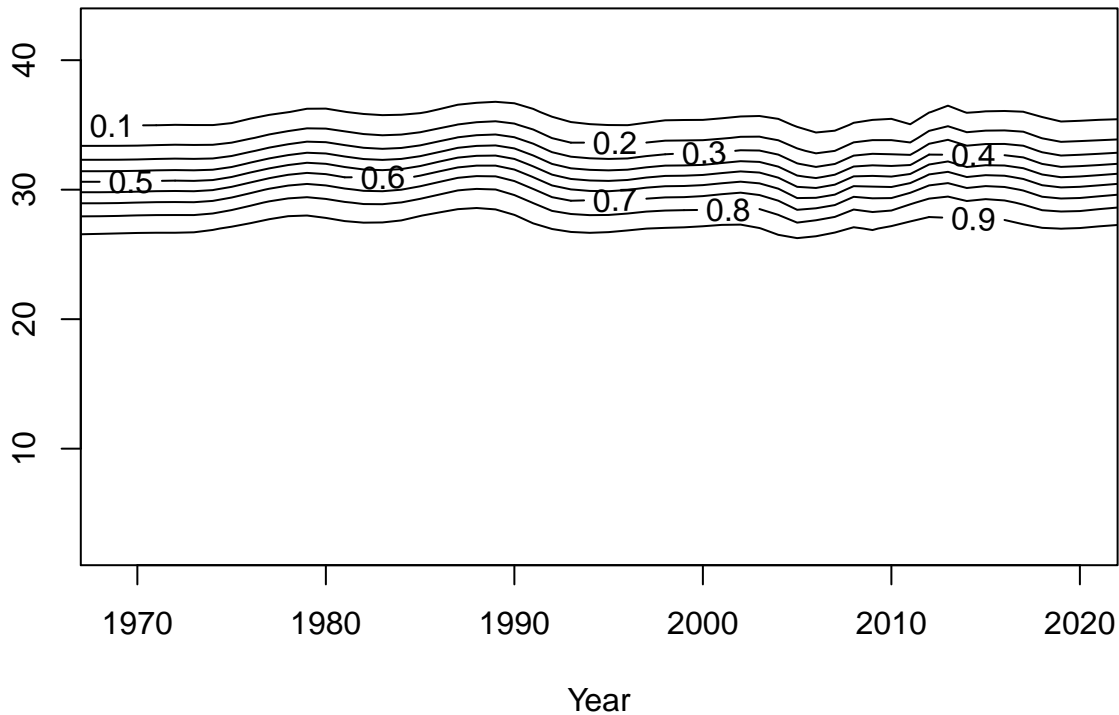


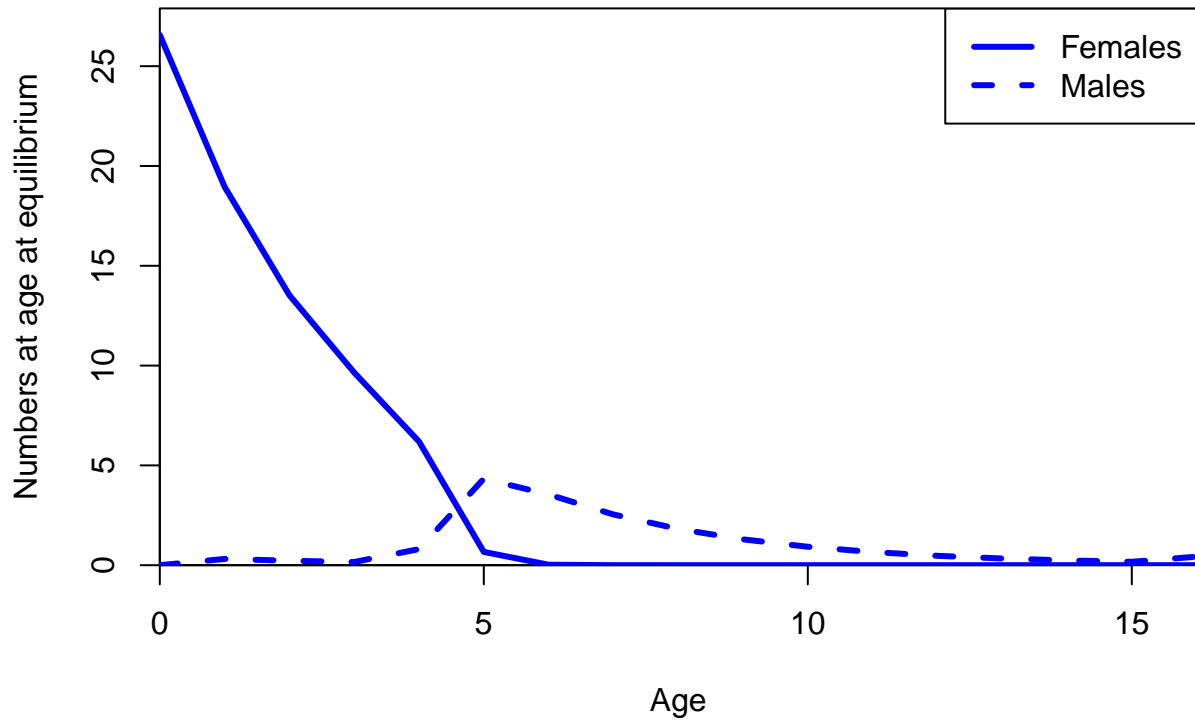






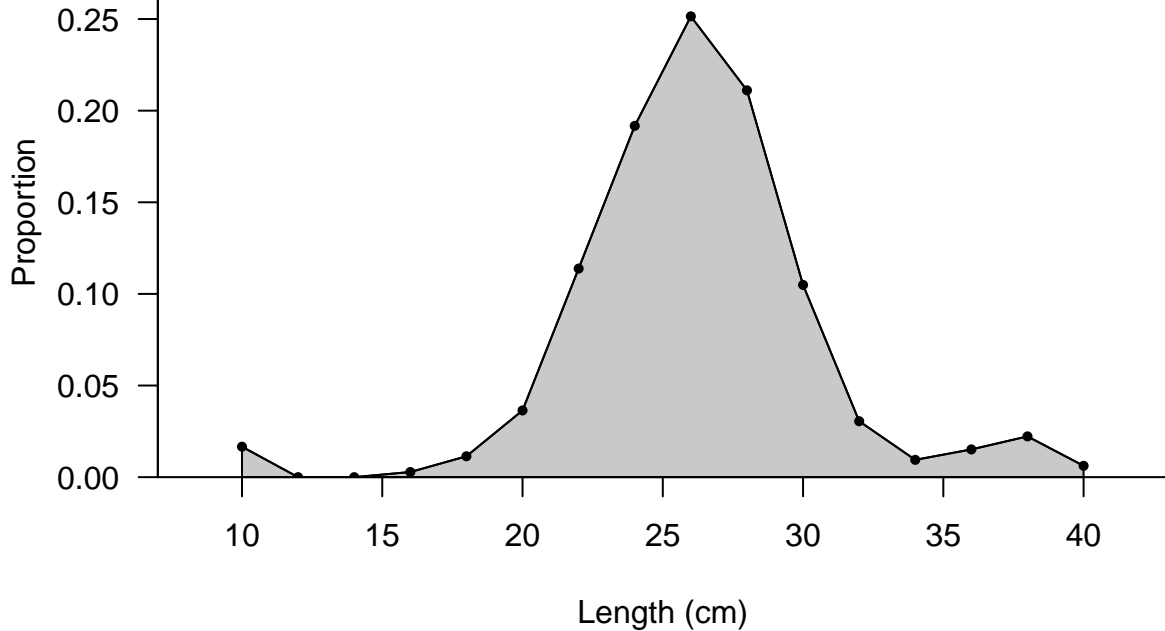
Length

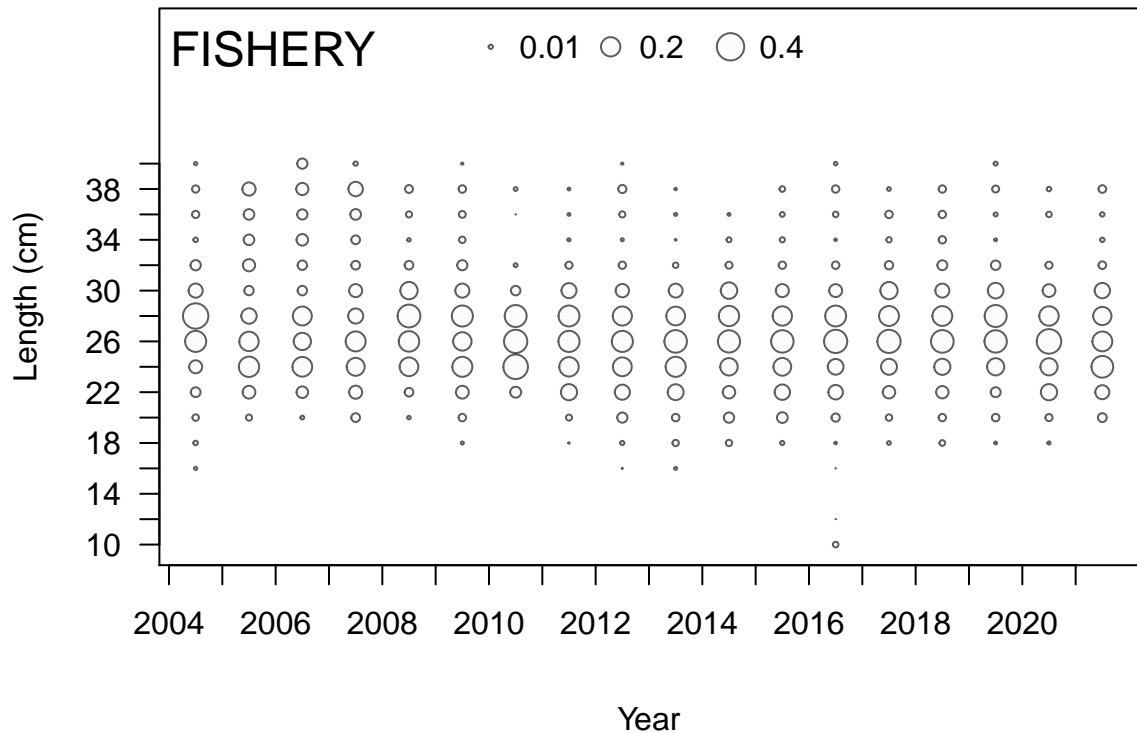


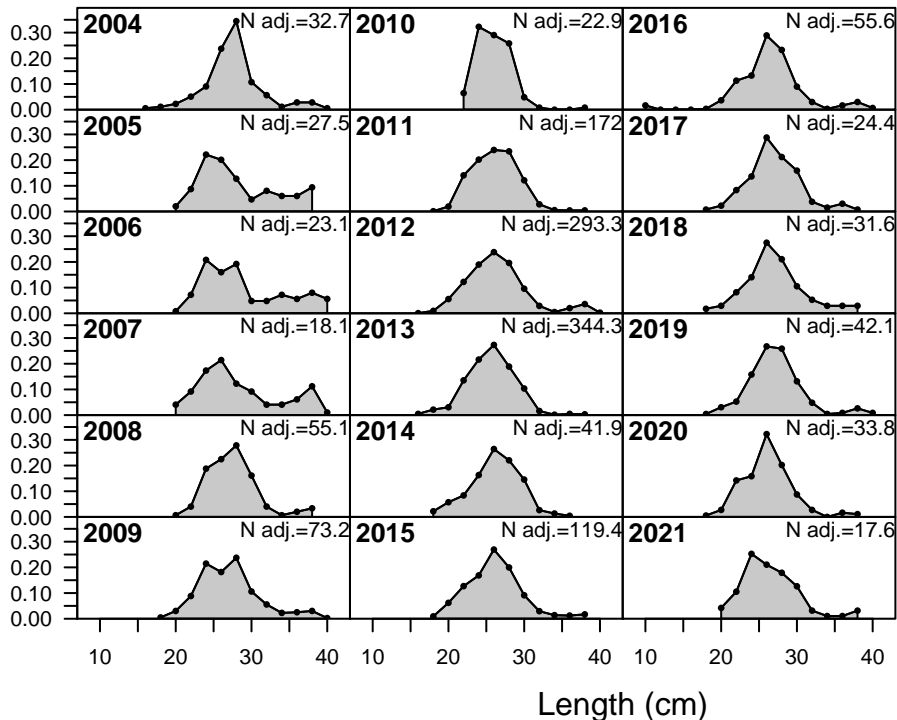


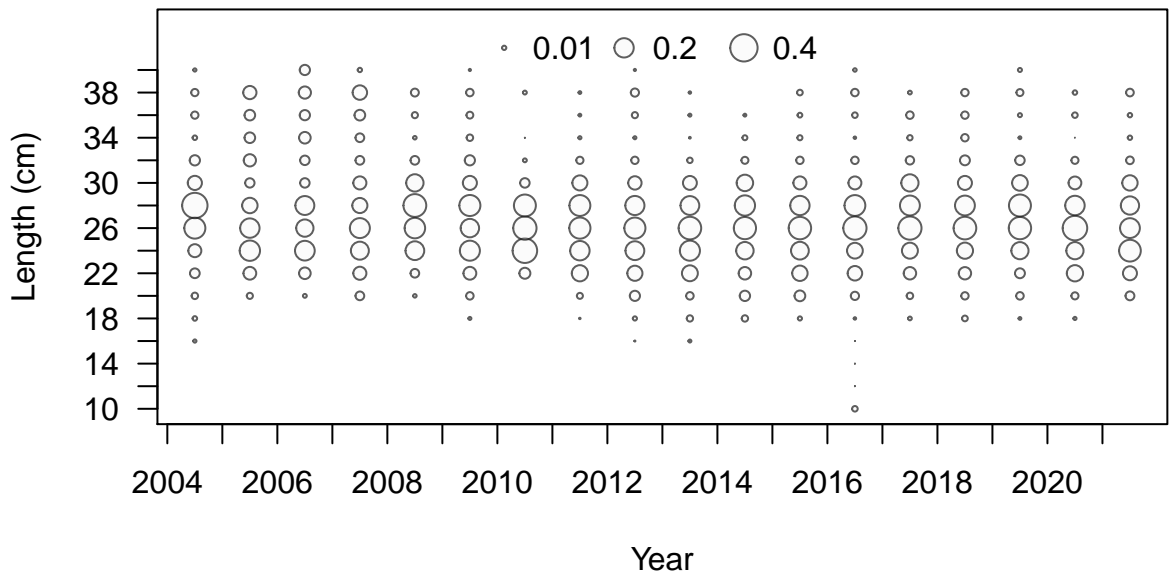
FISHERY

Sum of N adj.=1428.7

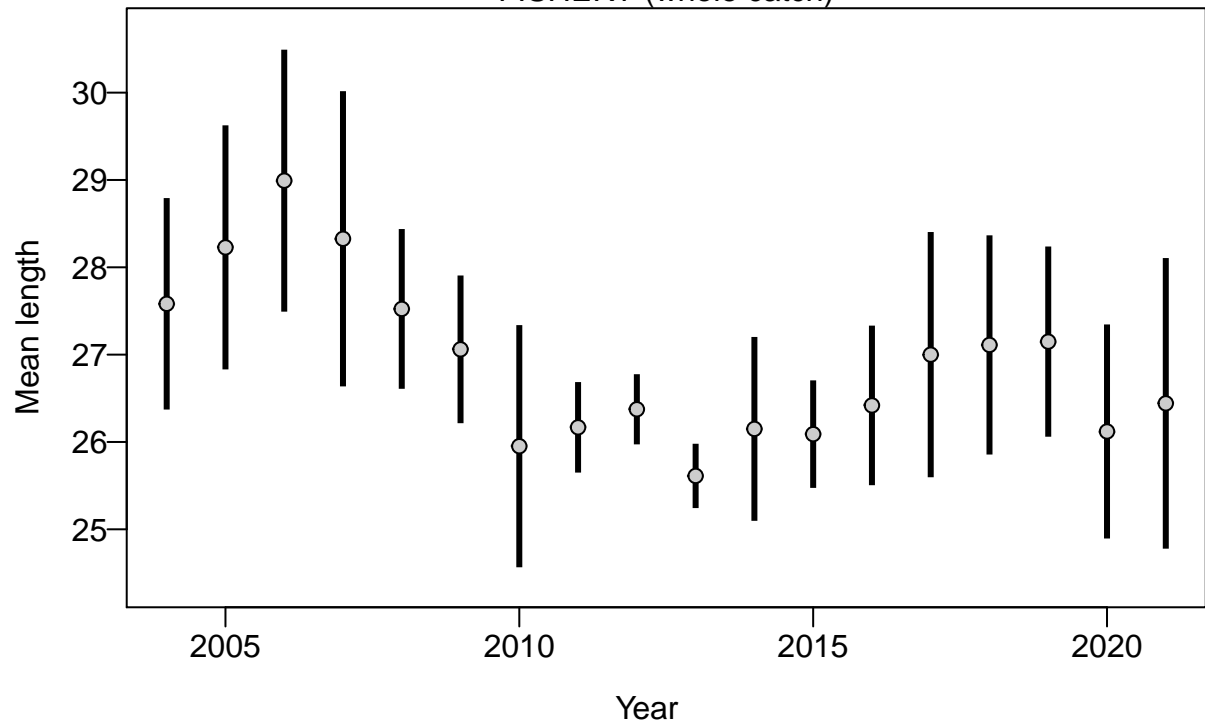


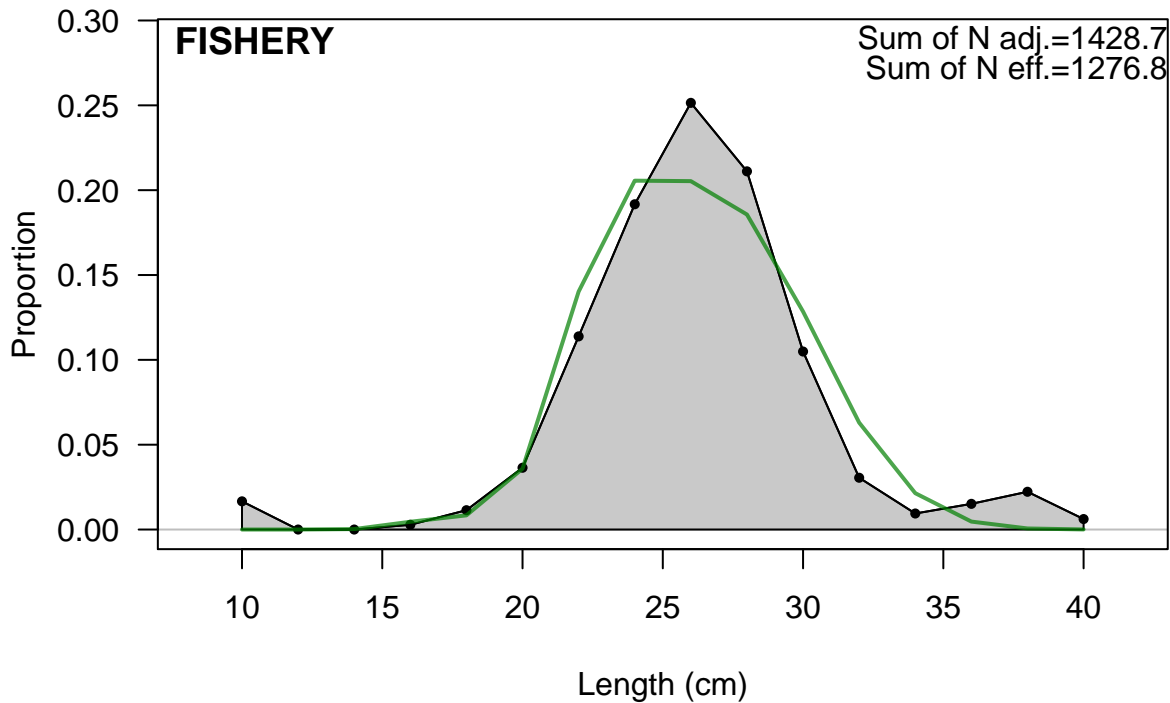


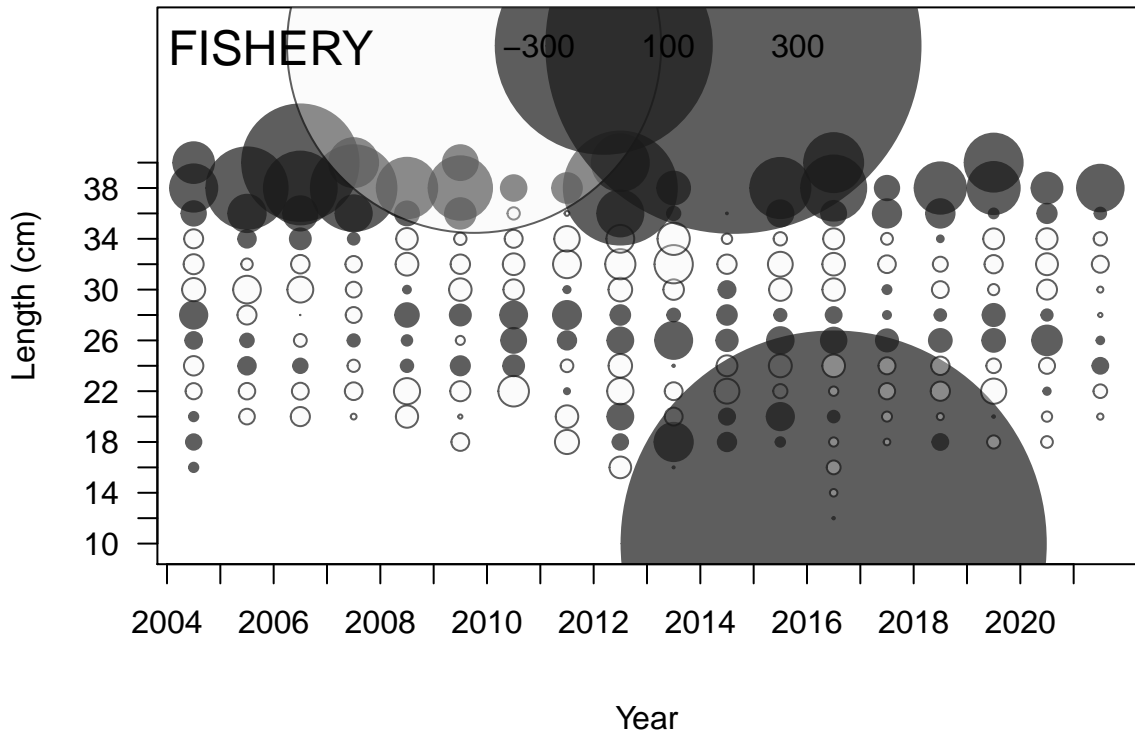


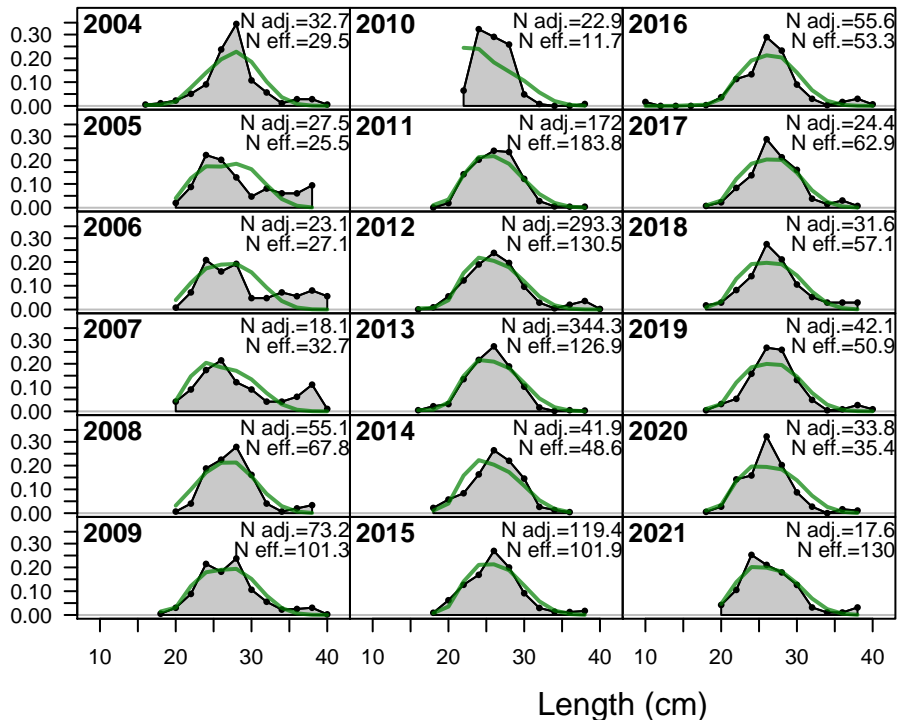


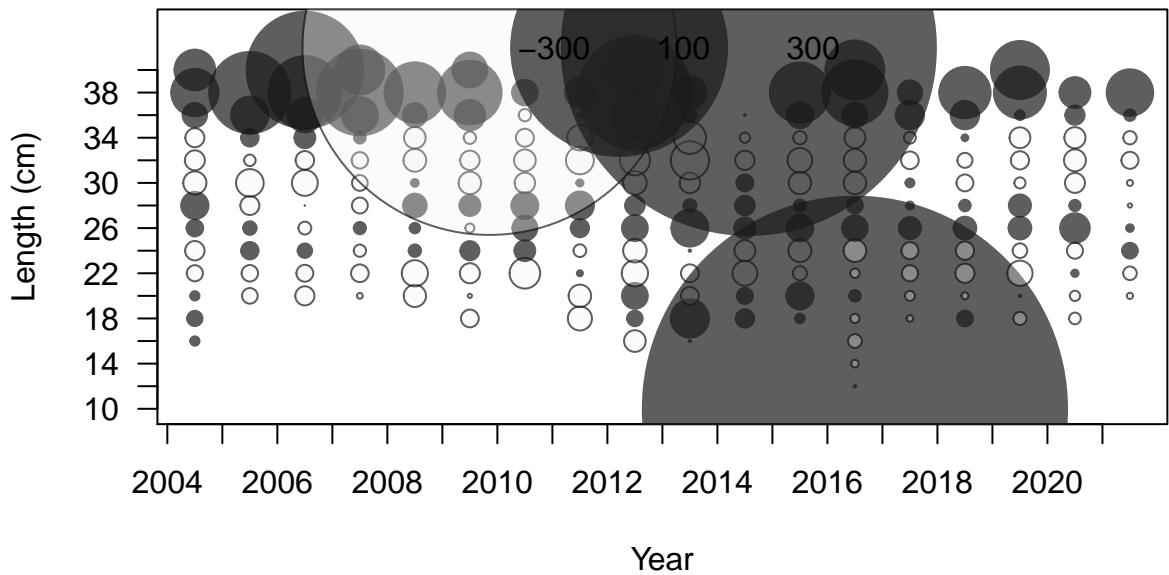
FISHERY (whole catch)



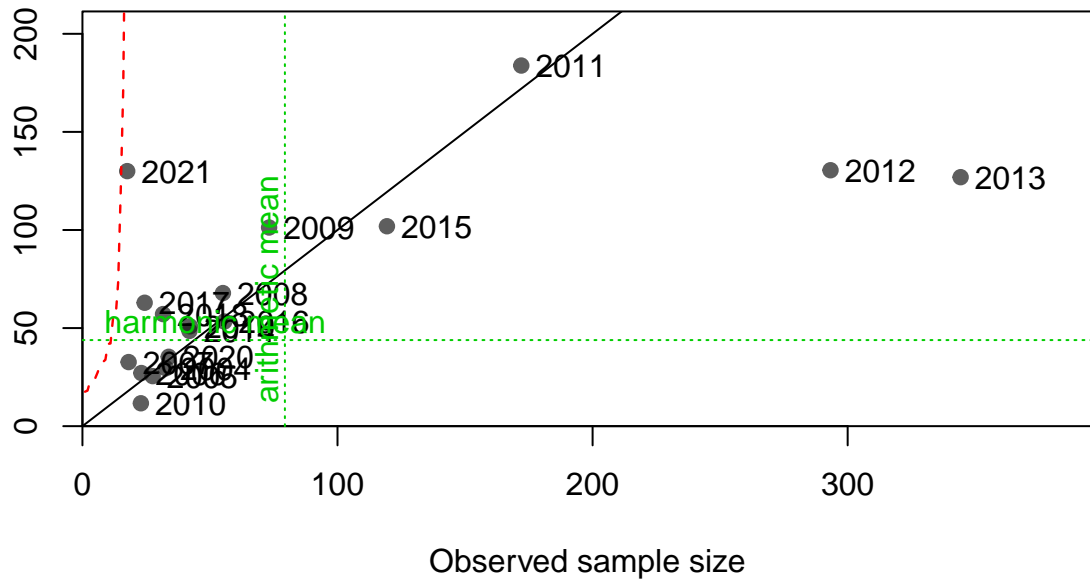




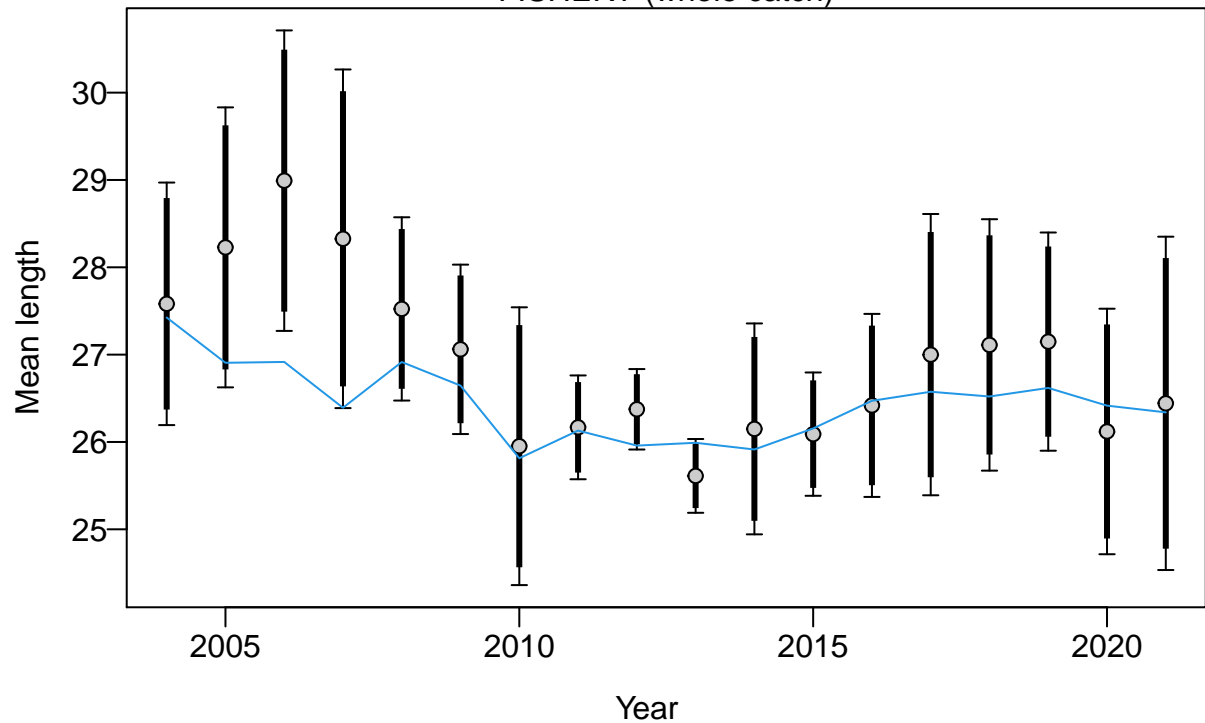


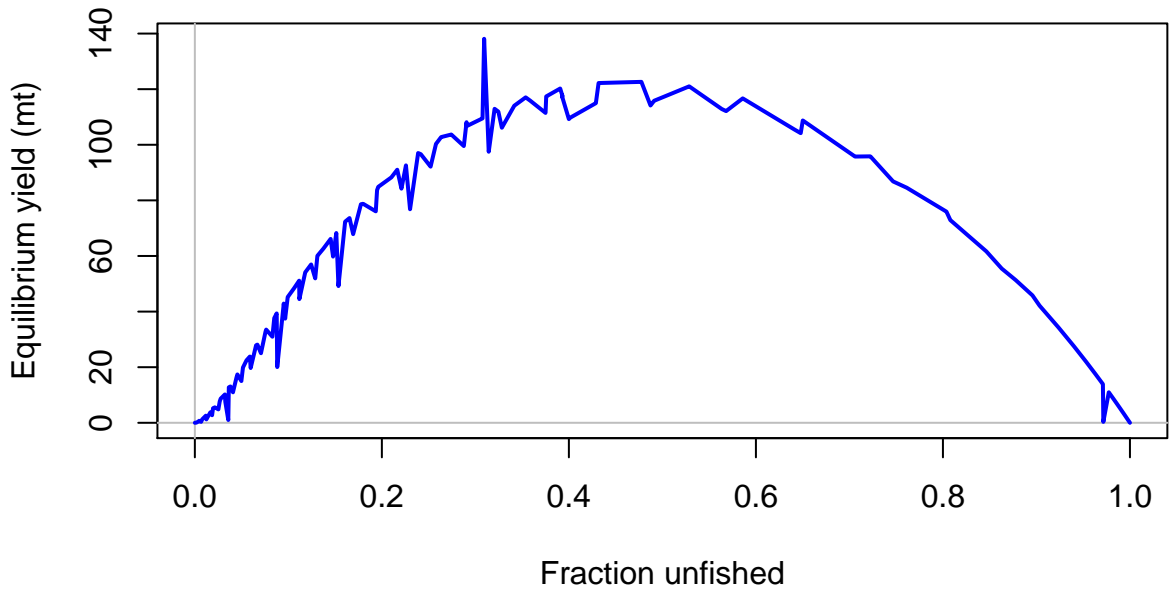


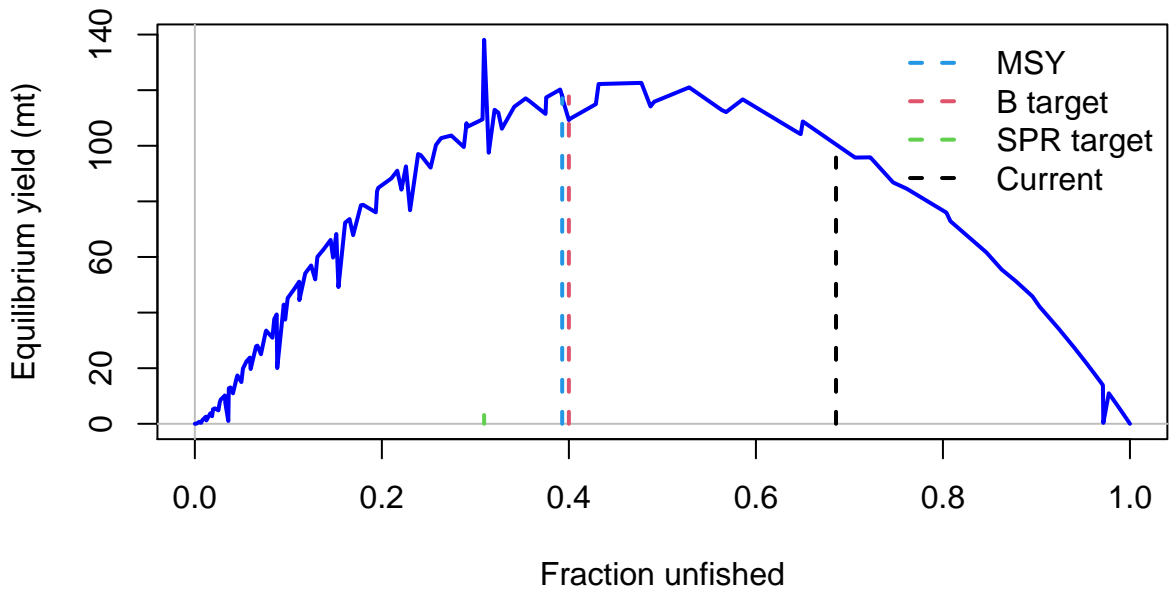
Effective sample size

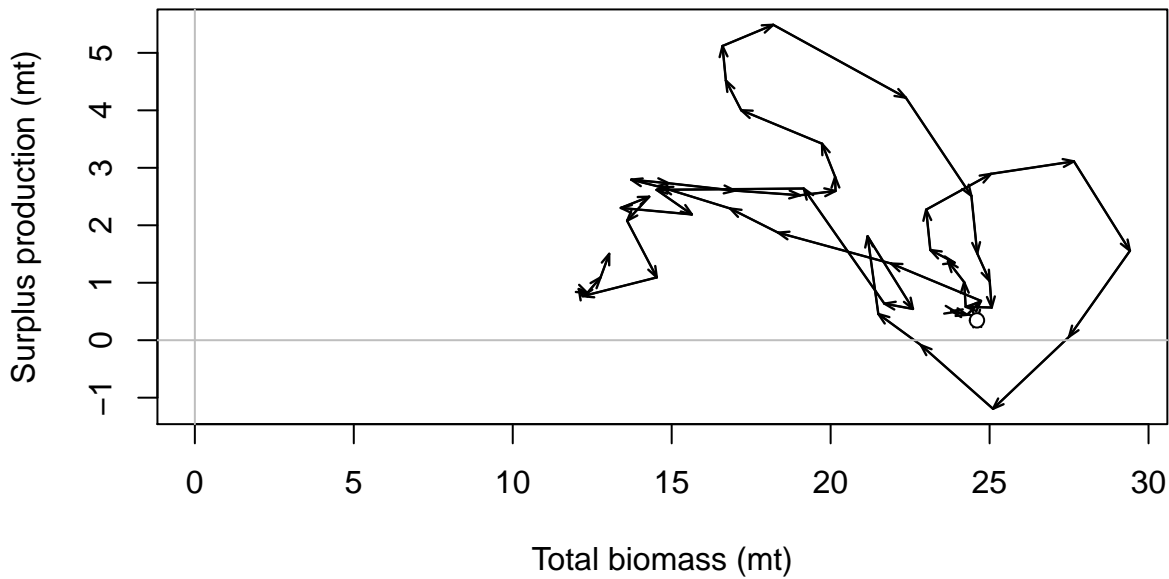


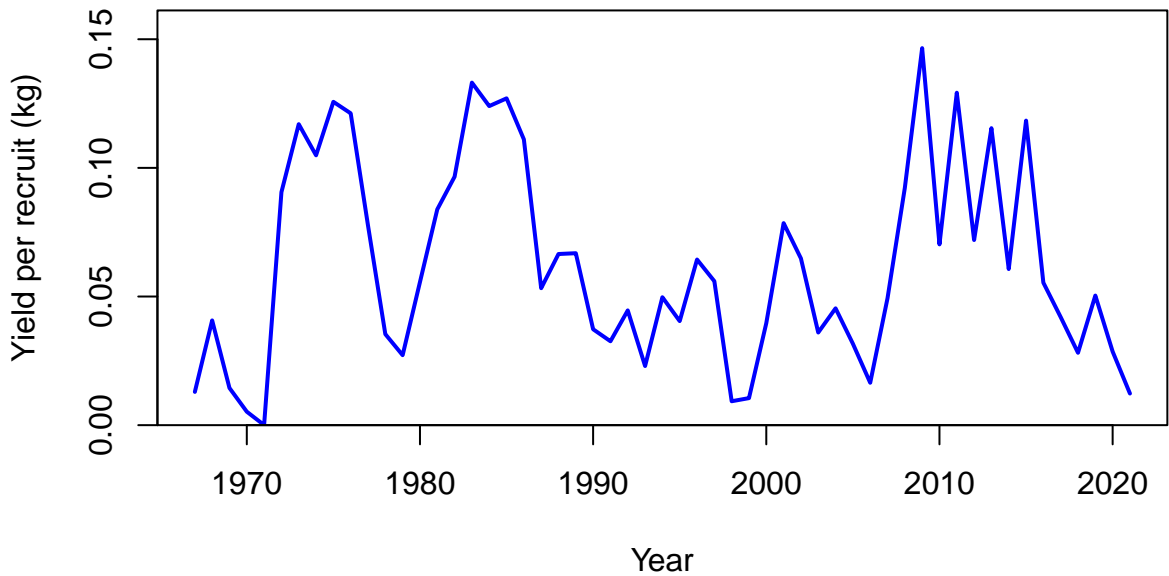
FISHERY (whole catch)

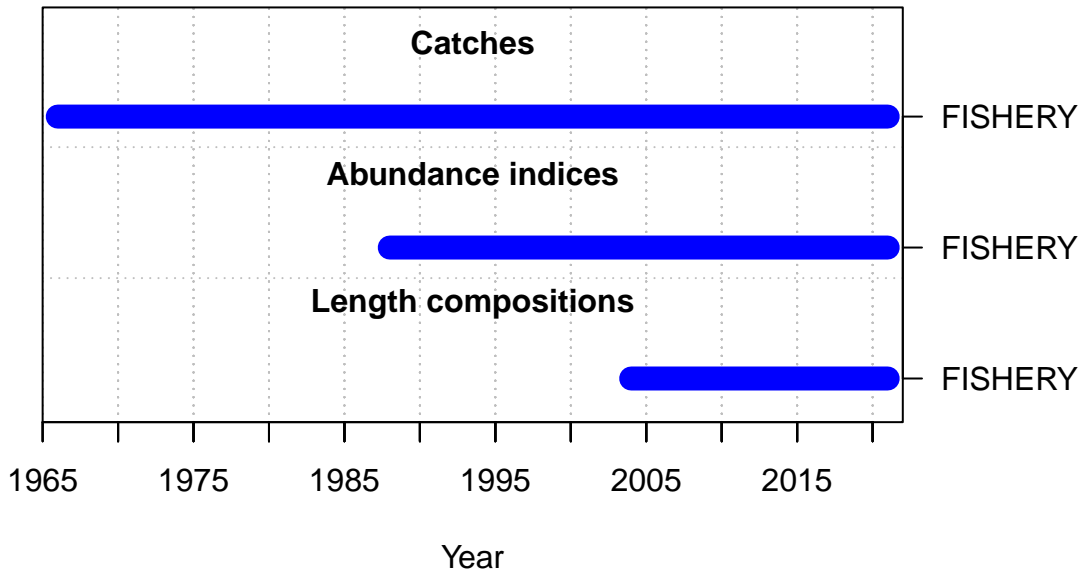


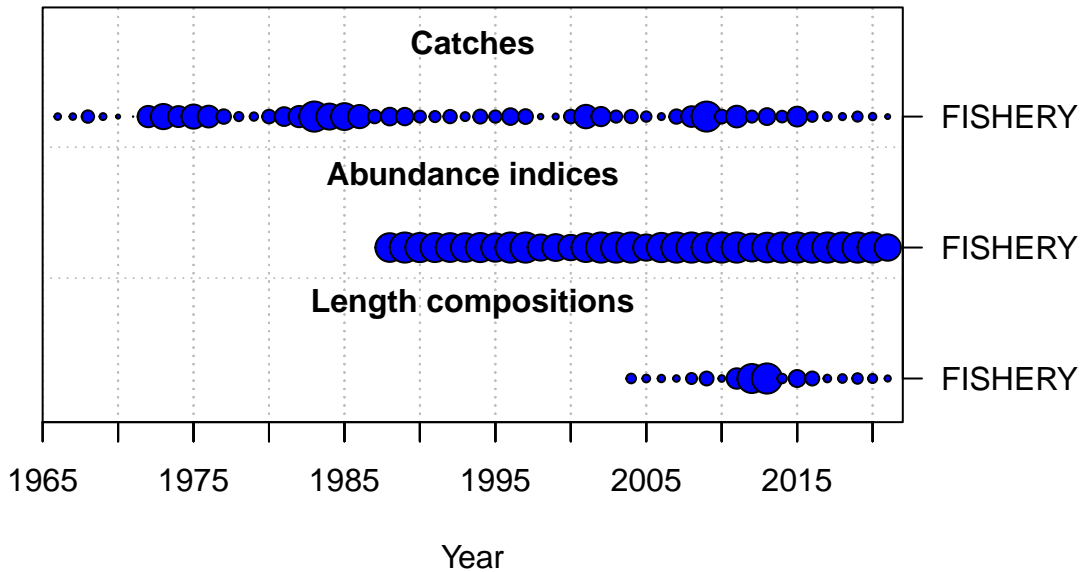




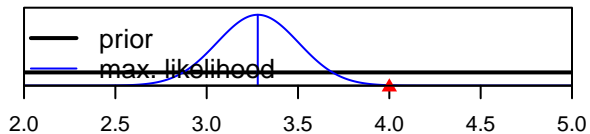




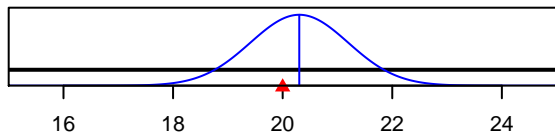




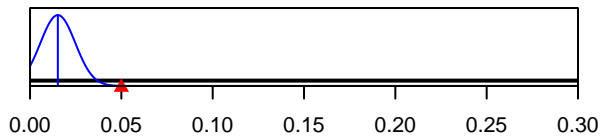
SR_LN(R0)



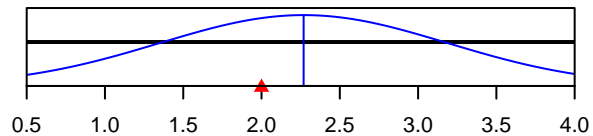
Size_inflection_FISHERY(1)



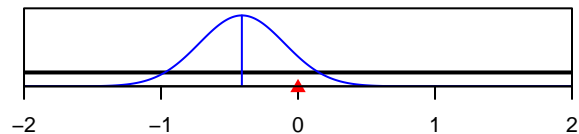
InitF_seas_1_flt_1FISHERY



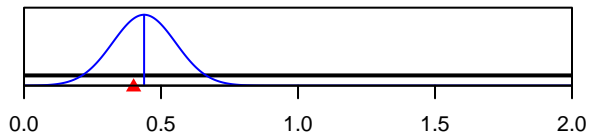
Size_95%width_FISHERY(1)



LnQ_base_FISHERY(1)



Q_extraSD_FISHERY(1)



Parameter value