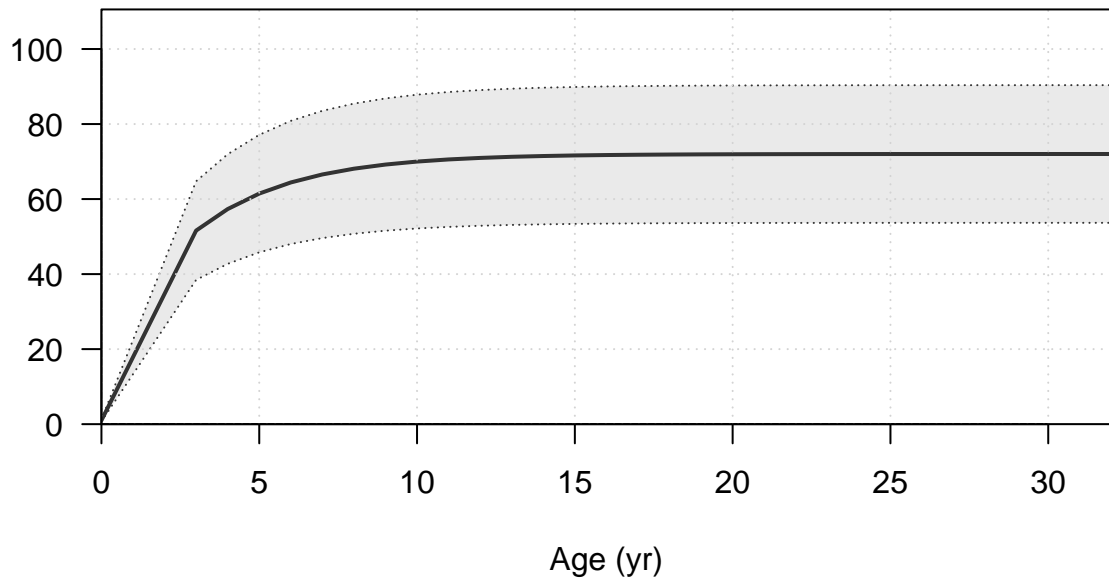
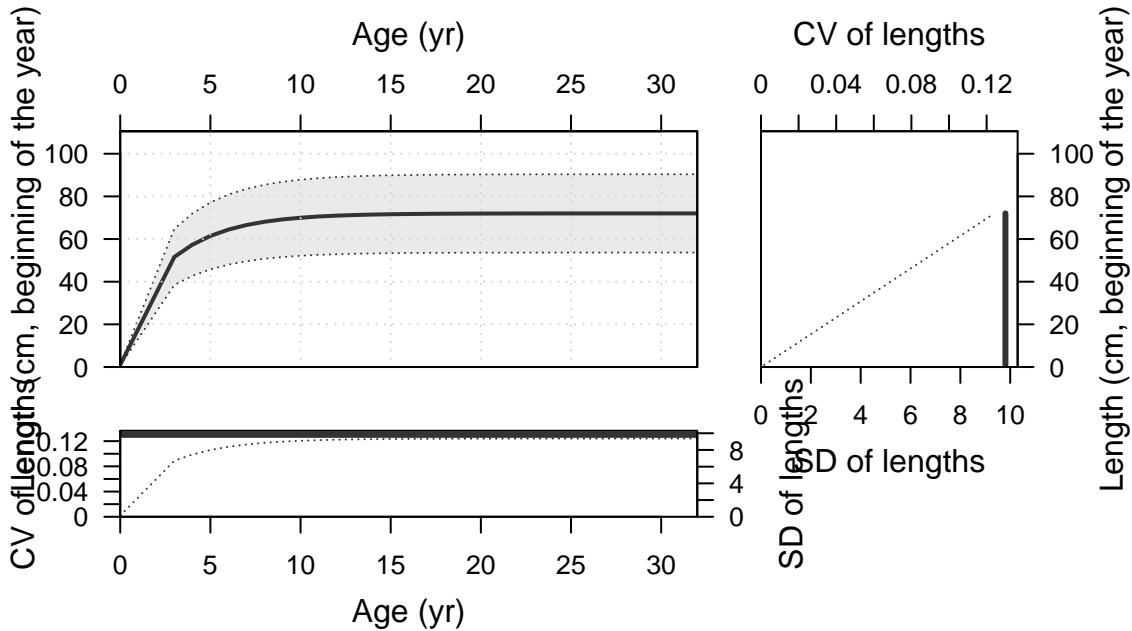
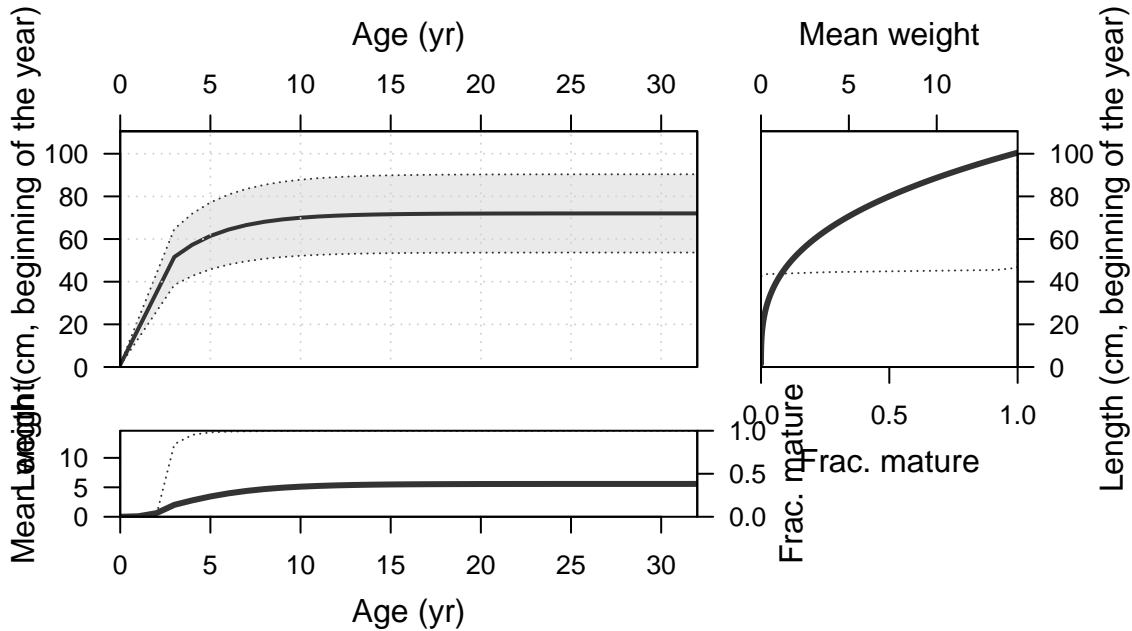


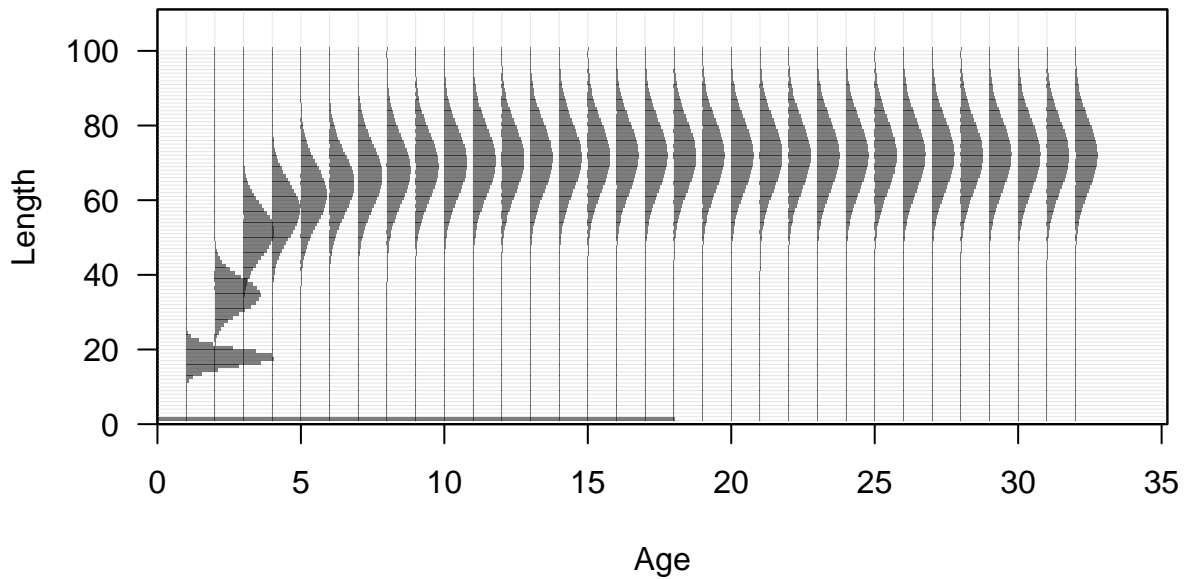
Plots created using the 'r4ss' package in R
Stock Synthesis version: 3.30.19.0
StartTime: Thu Jul 07 07:59:47 2022
Data_File: data.ss
Control_File: control.ss

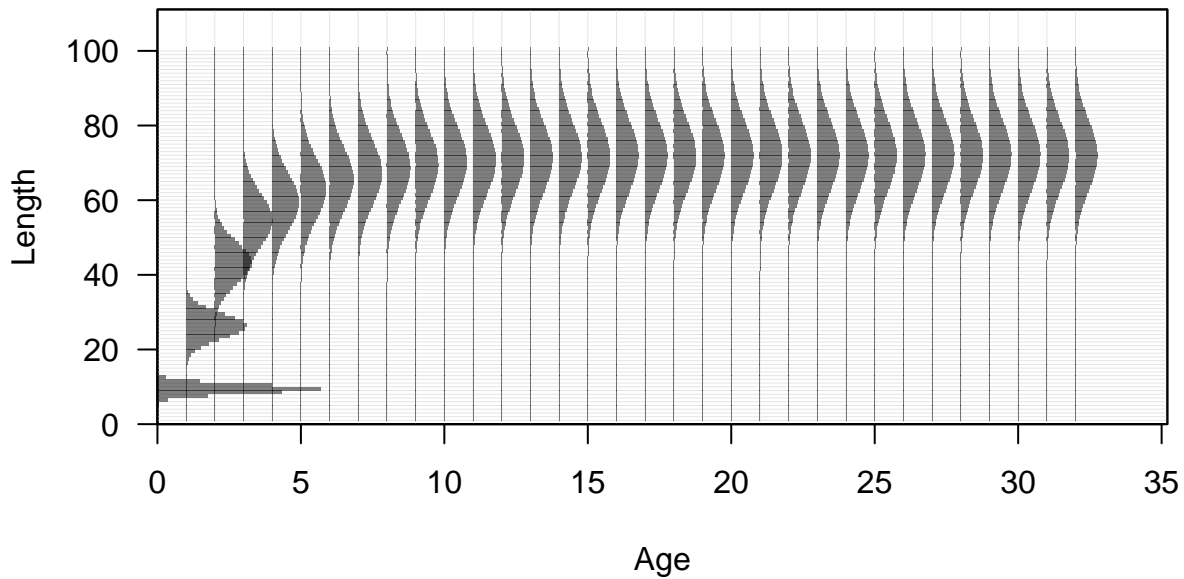
Length (cm, beginning of the year)

















Fecundity



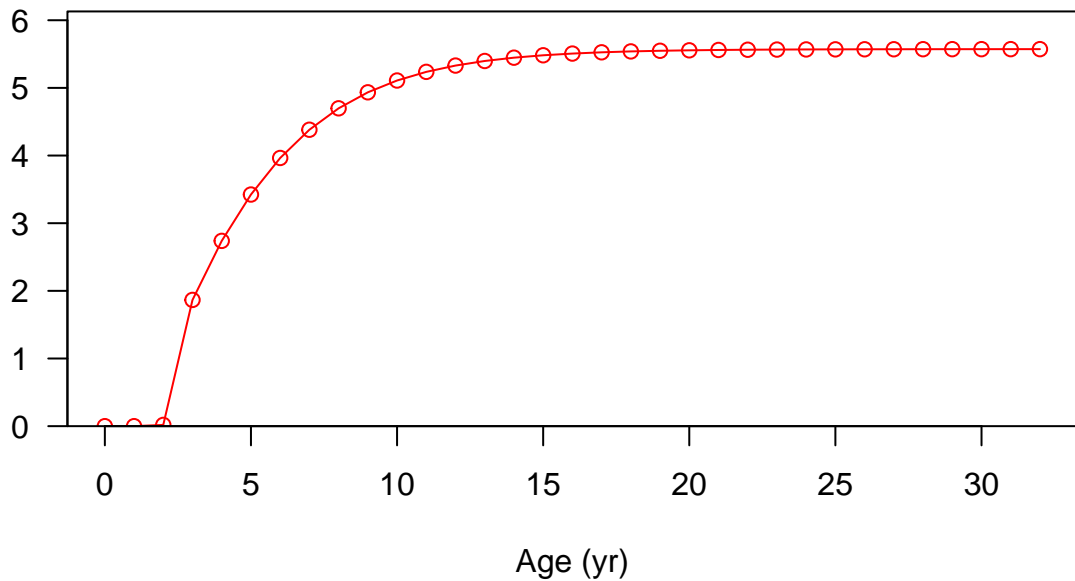
Fecundity



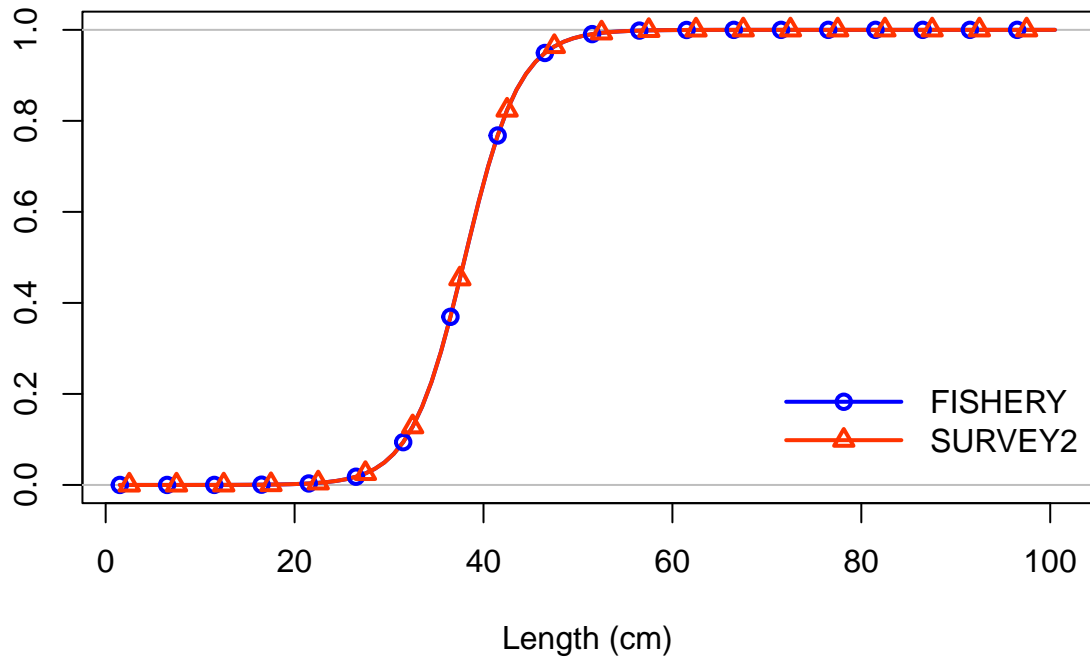
Spawning output



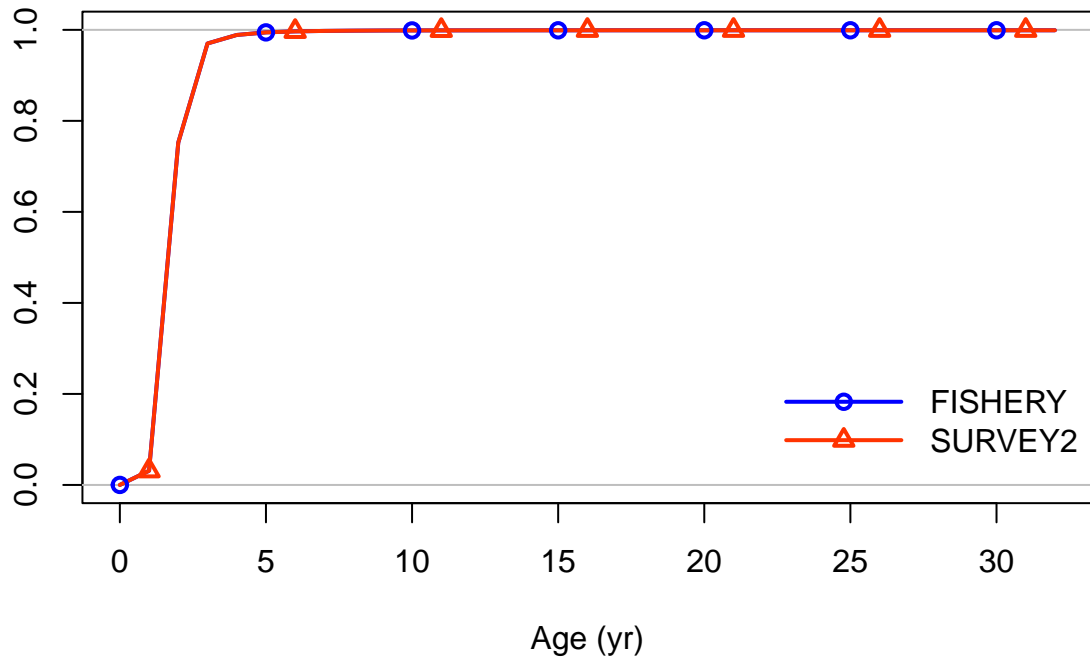
Spawning output



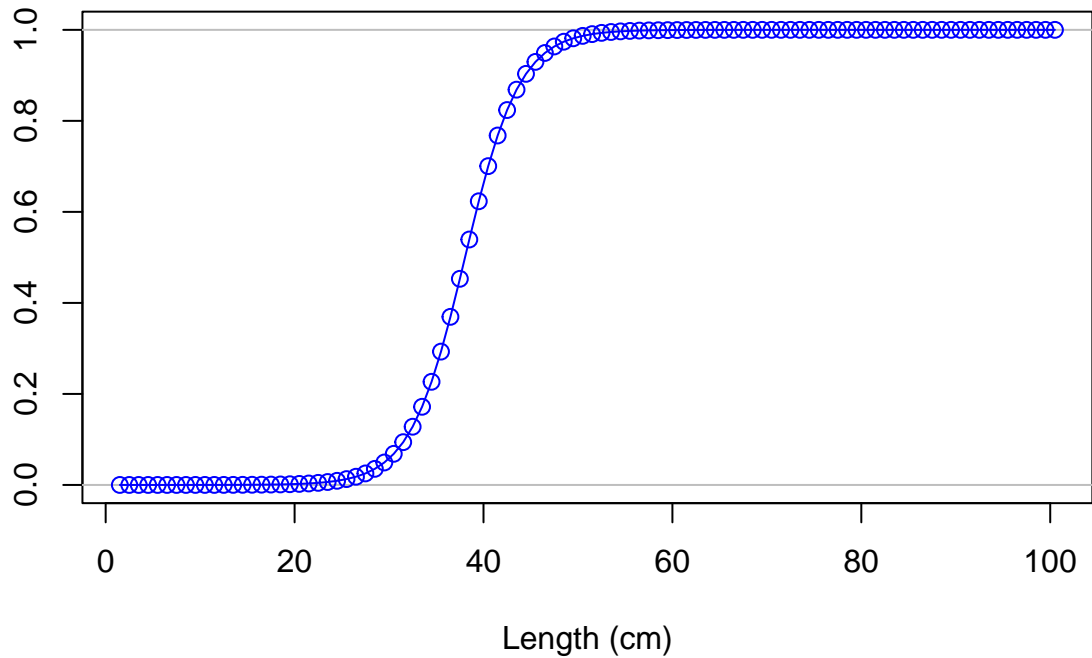
Selectivity



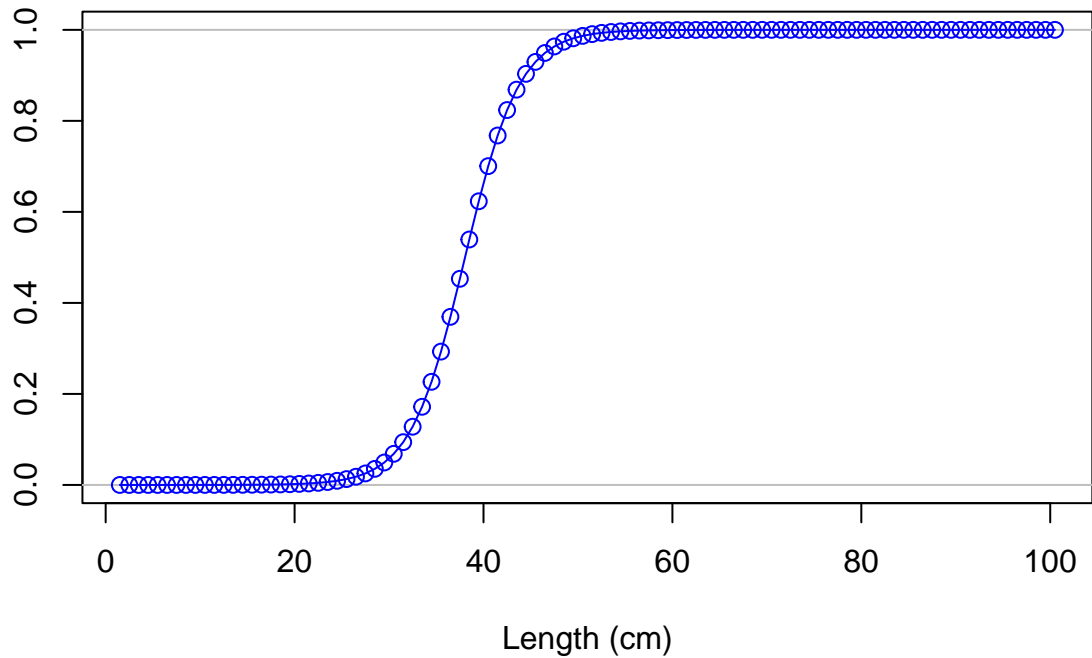
Selectivity

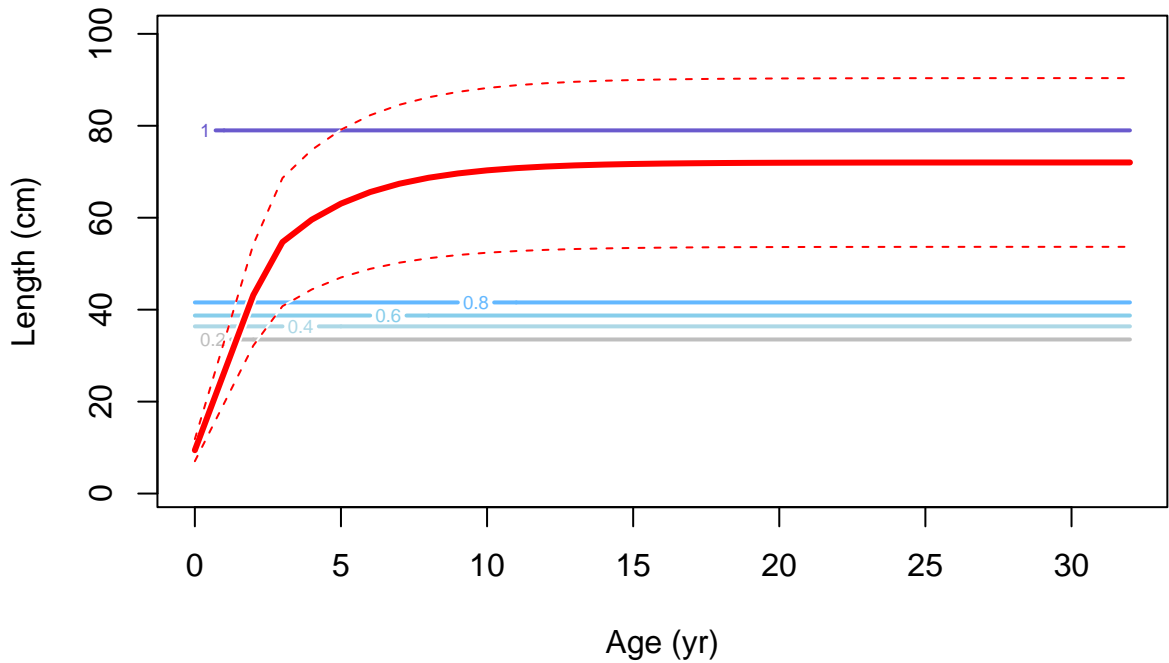


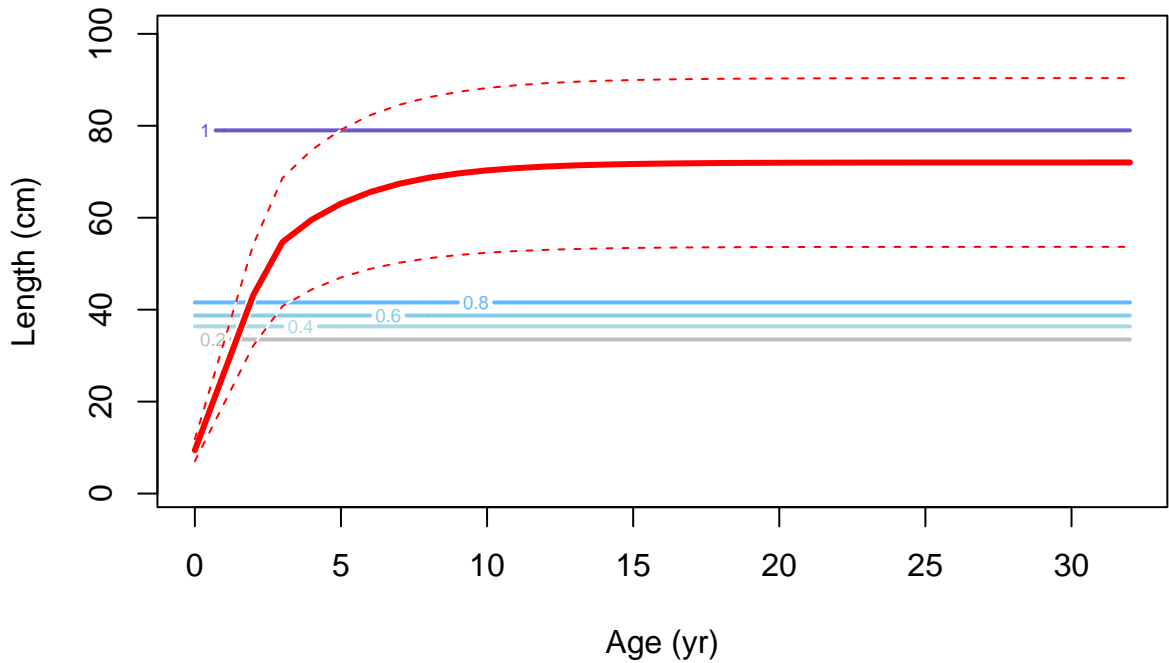
Selectivity

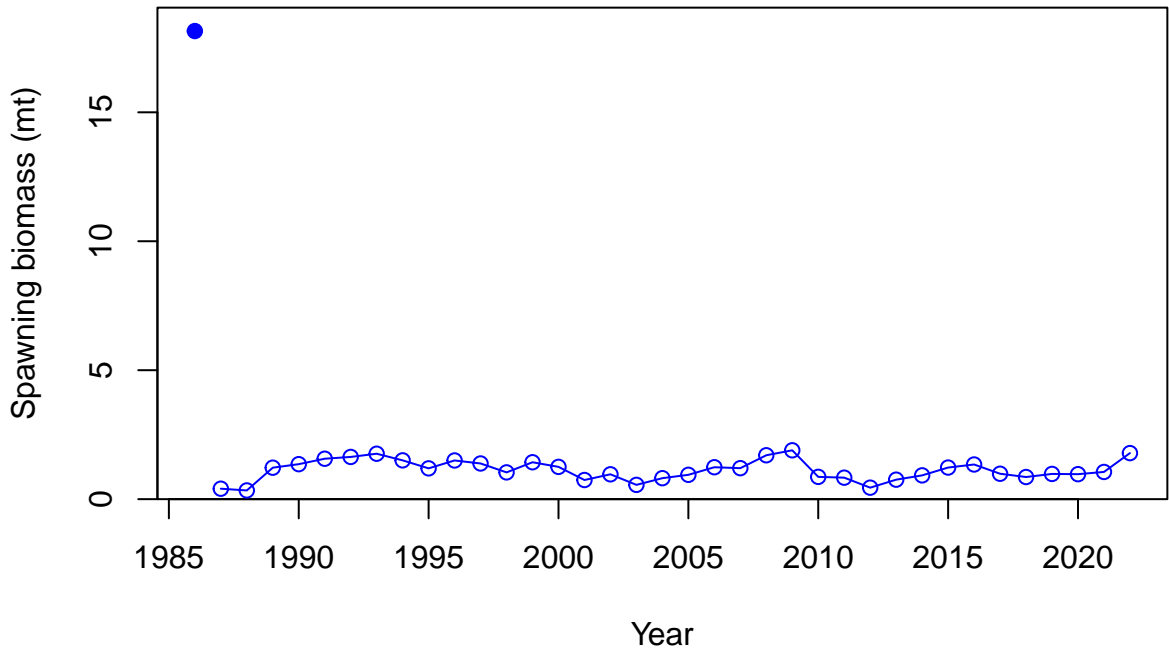


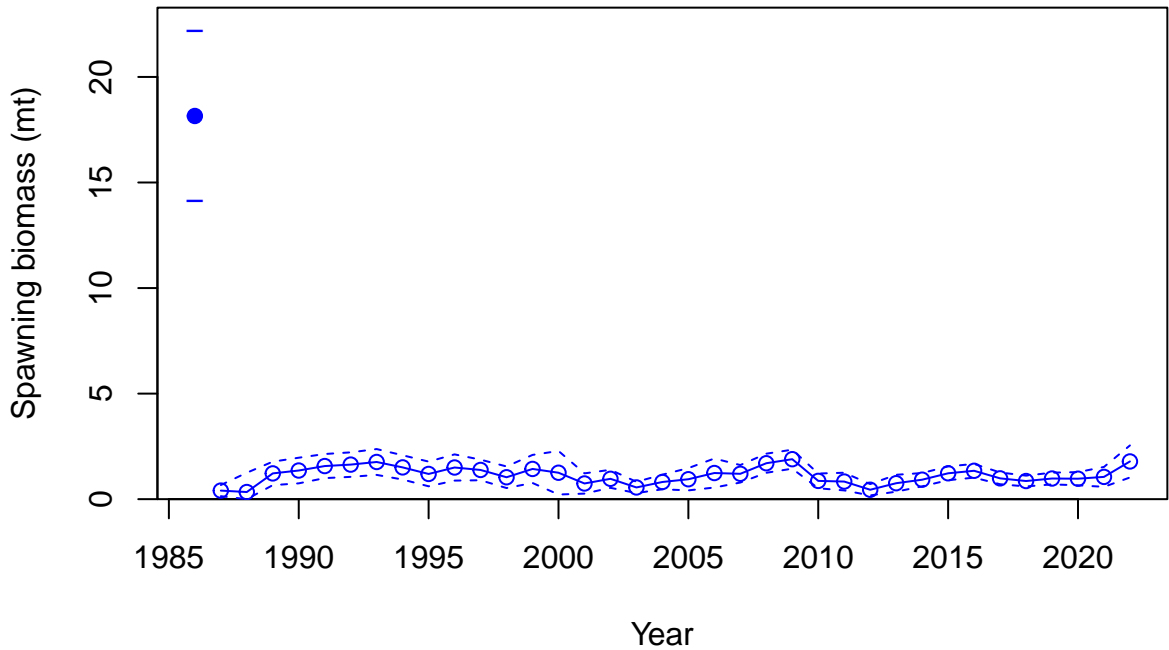
Selectivity



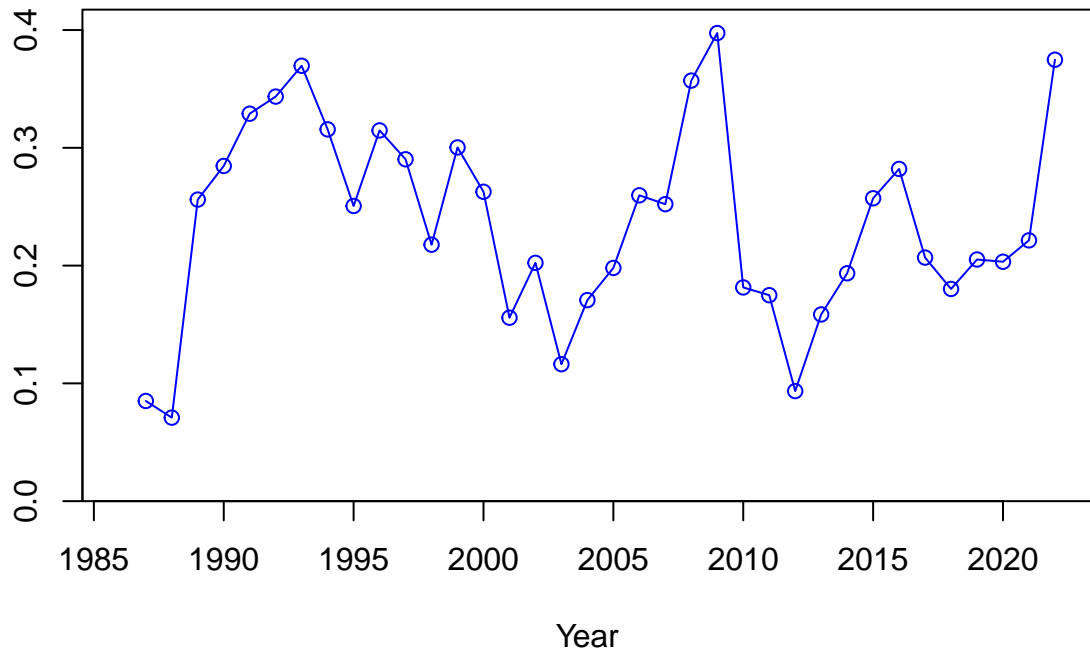




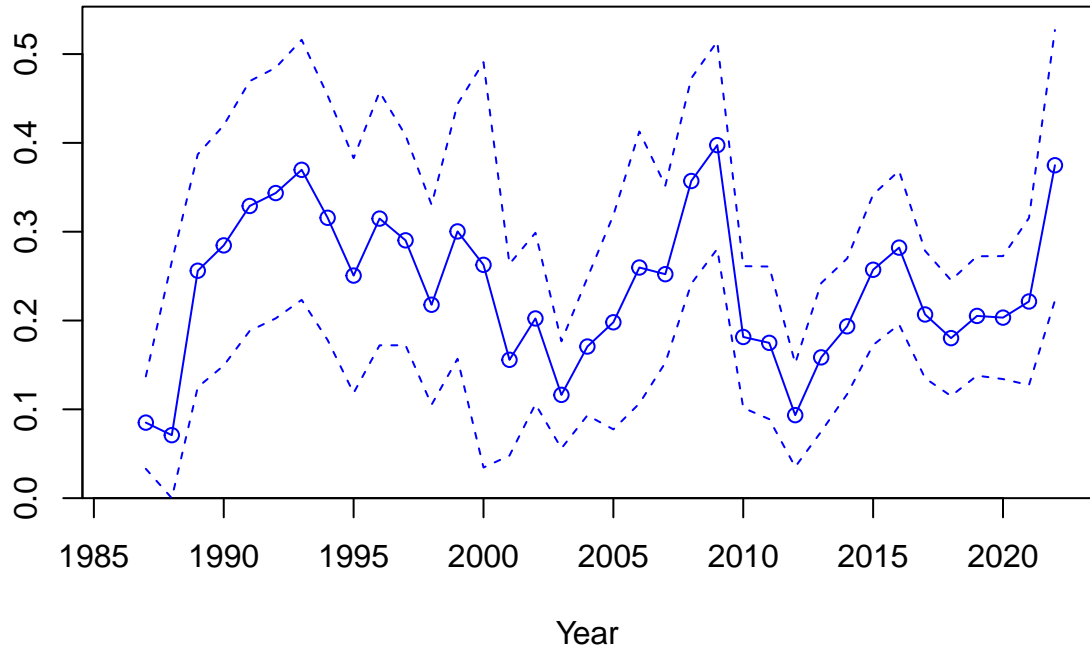


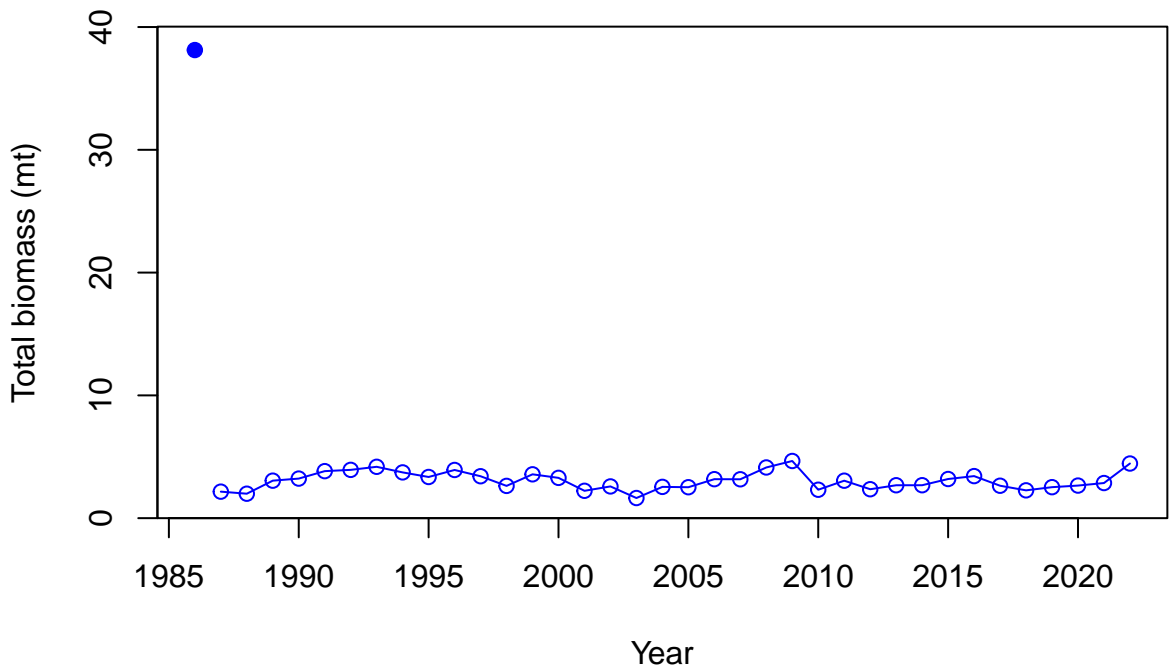


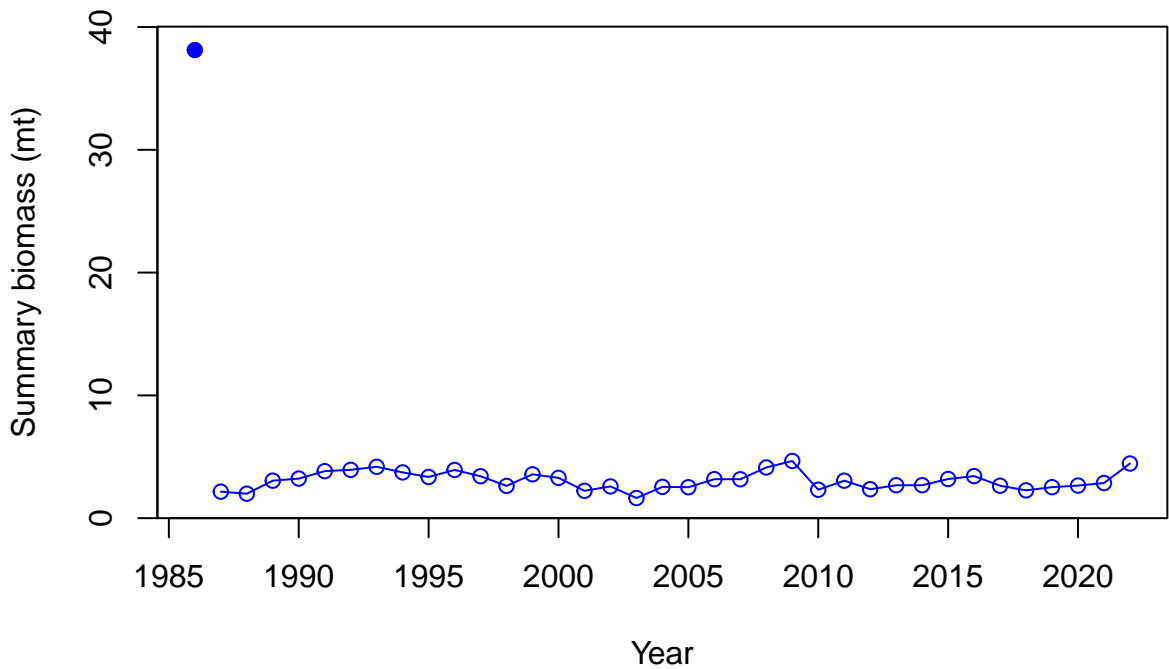
Relative spawning biomass: B/B_{MSY}



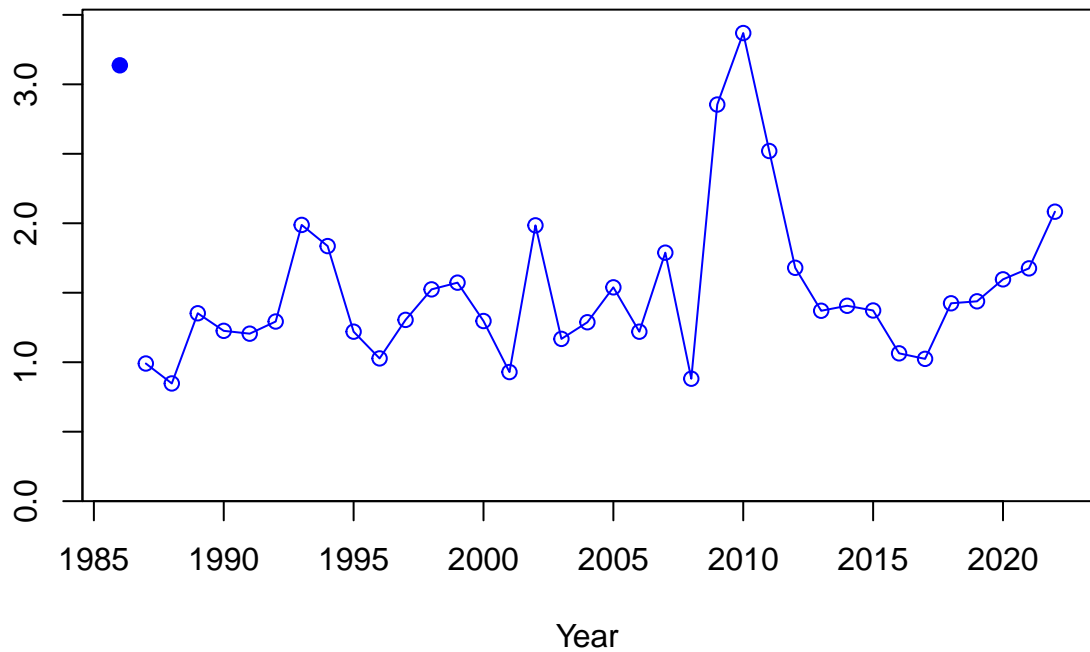
Relative spawning biomass: B/B_{MSY}



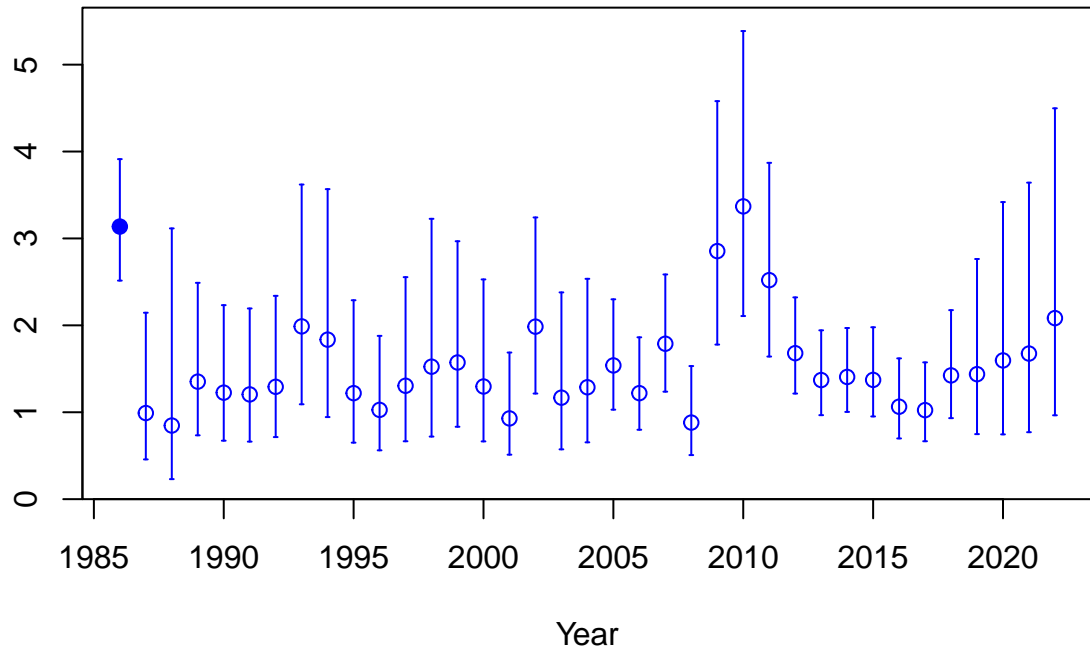




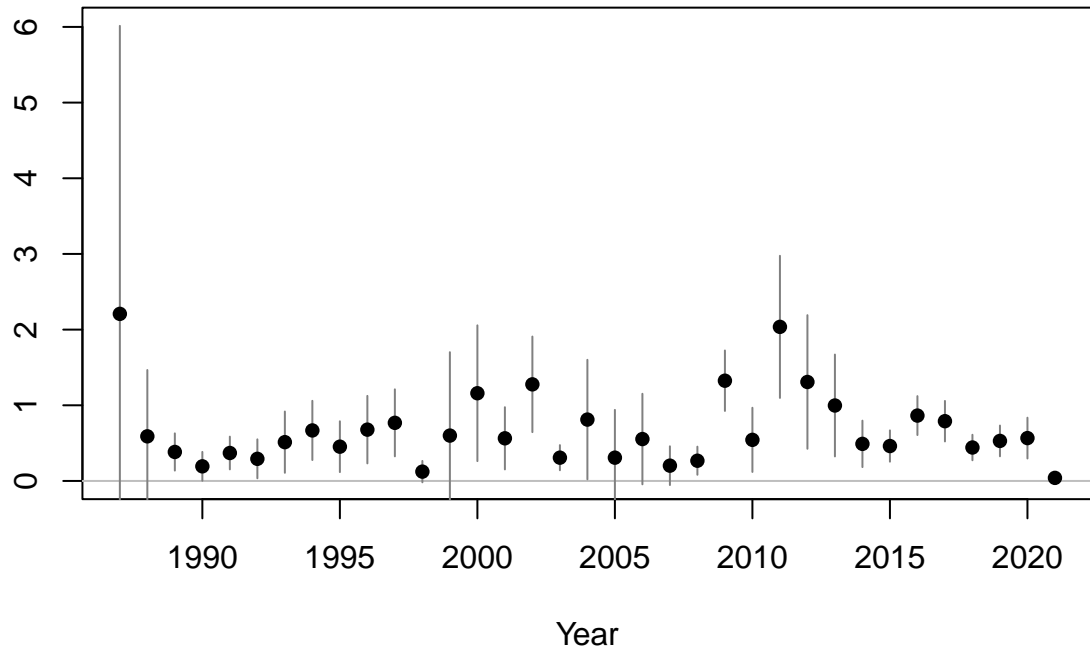
Age-0 recruits (1,000s)

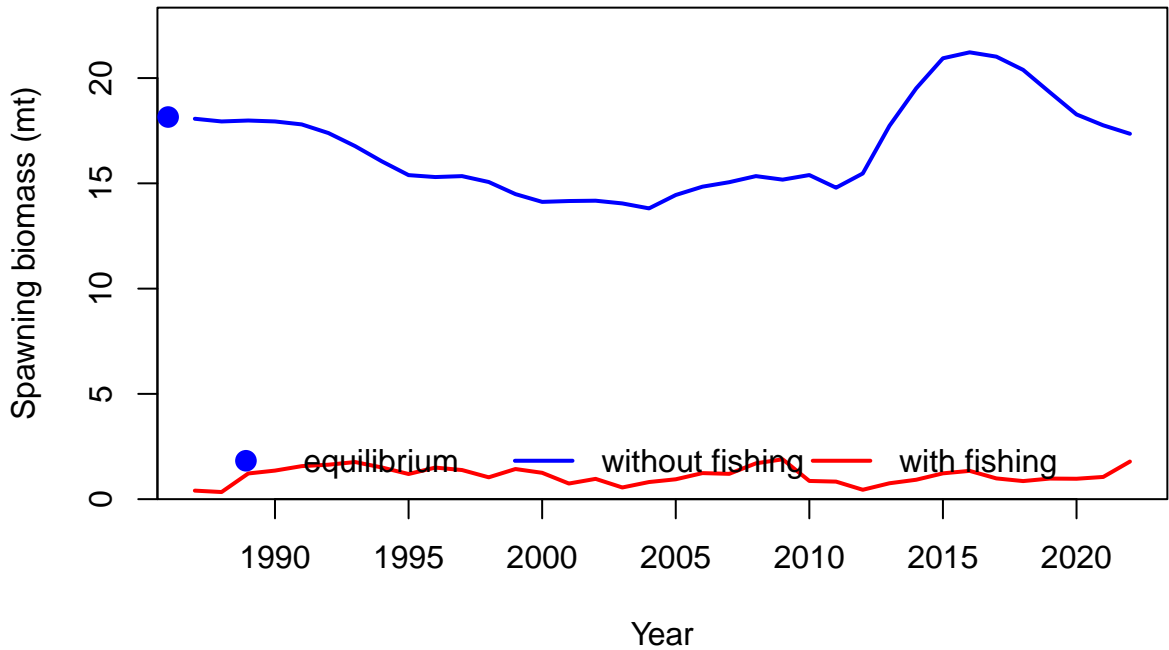


Age-0 recruits (1,000s)

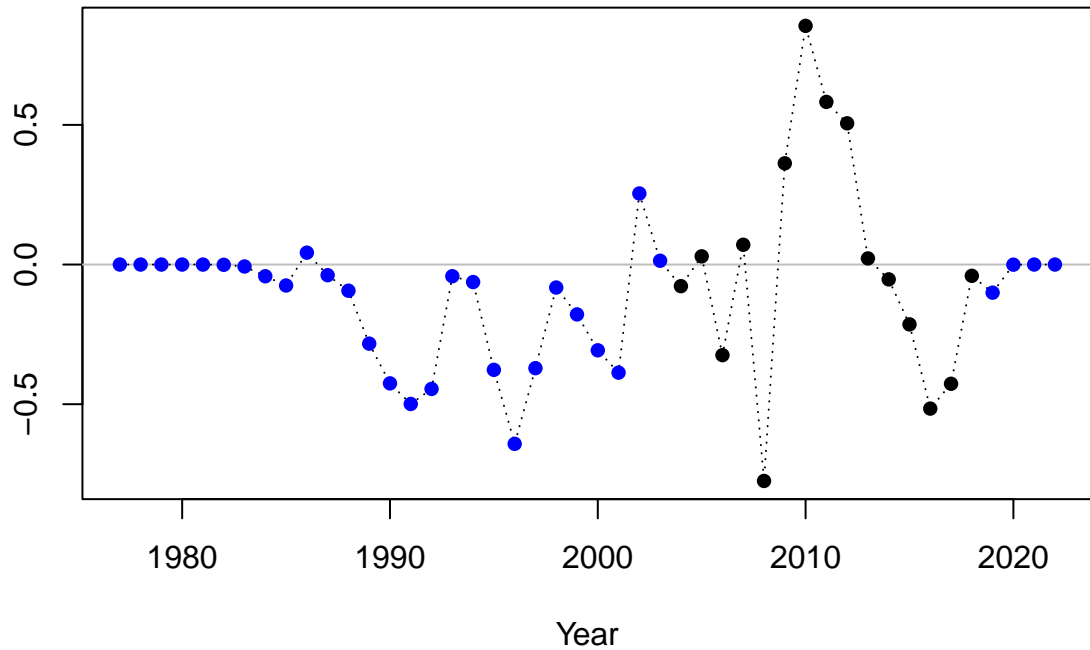


Summary Fishing Mortality





Log recruitment deviation



Log recruitment deviation

1.0
0.5
0.0
-0.5
-1.0

1980

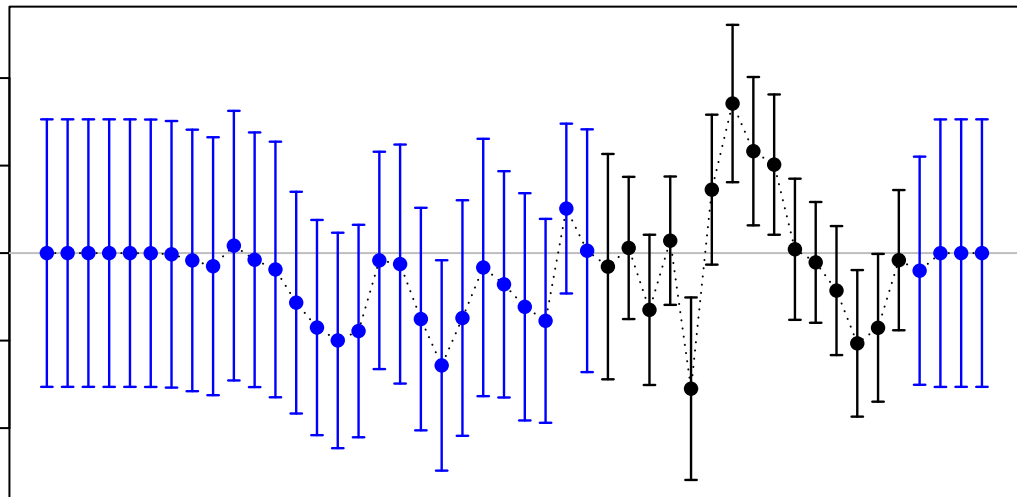
1990

2000

2010

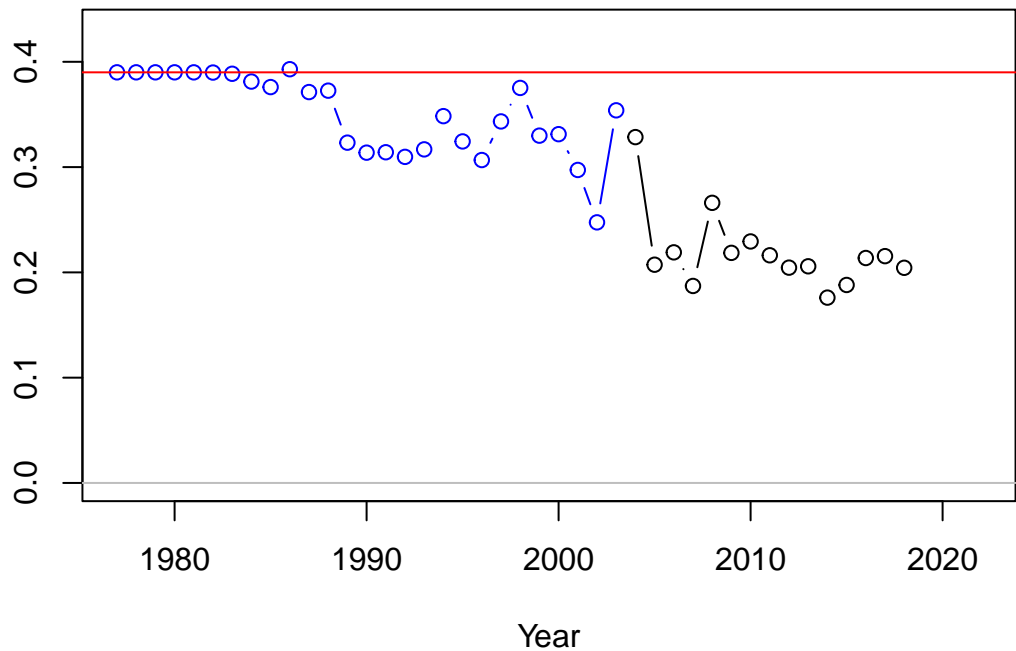
2020

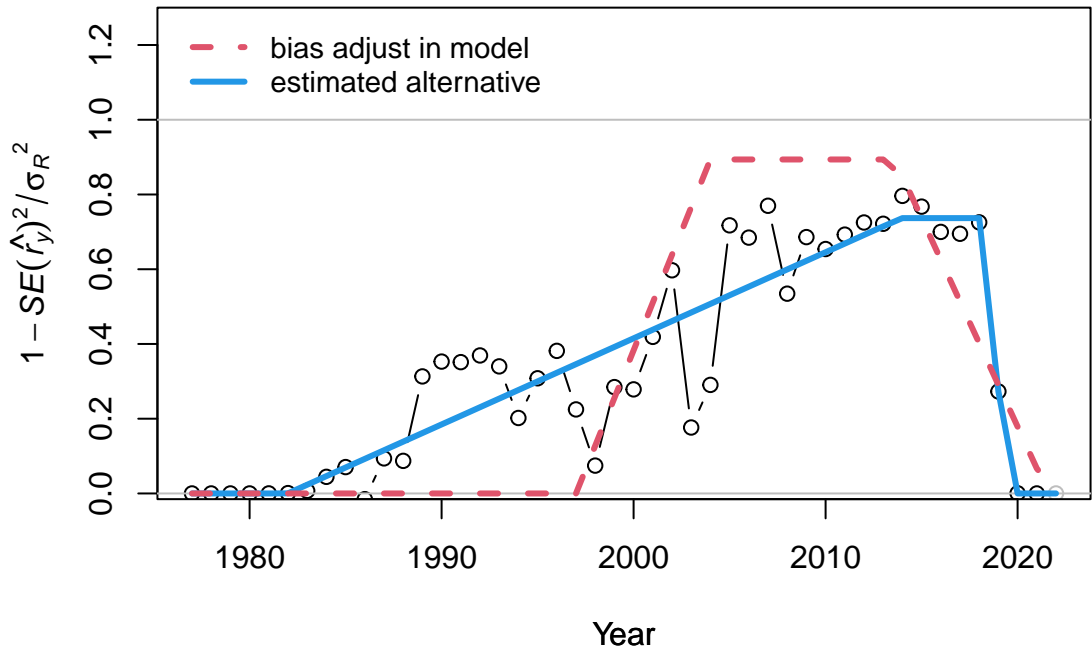
Year

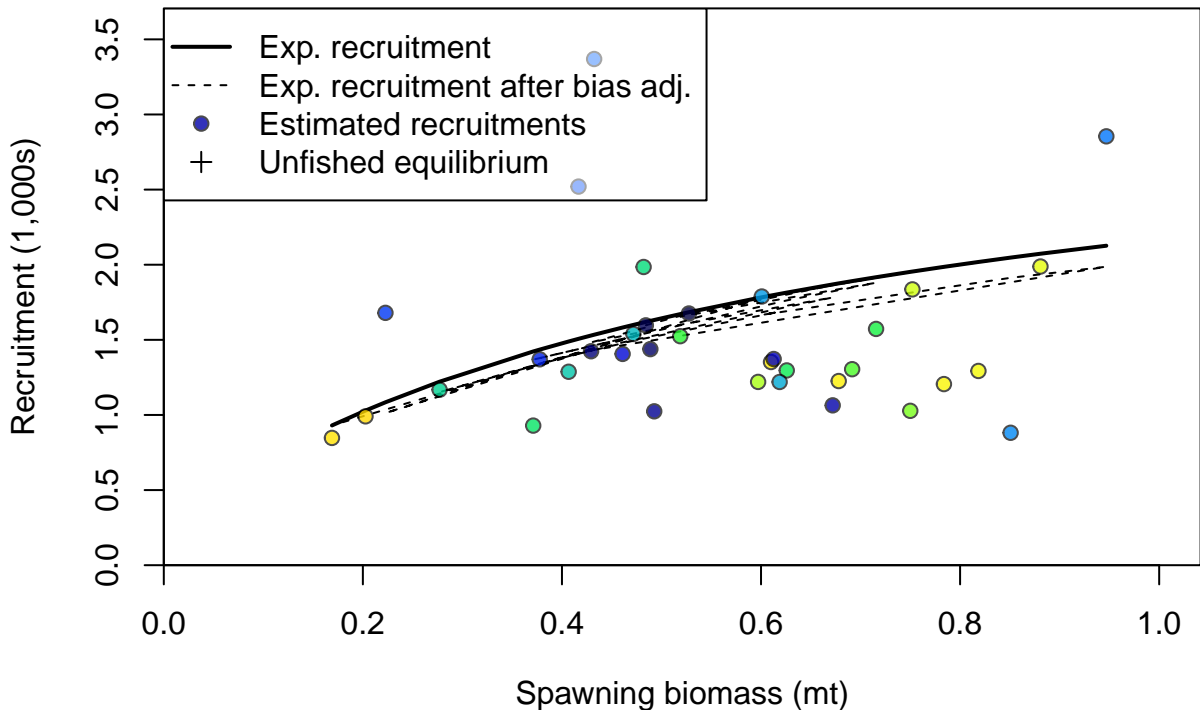


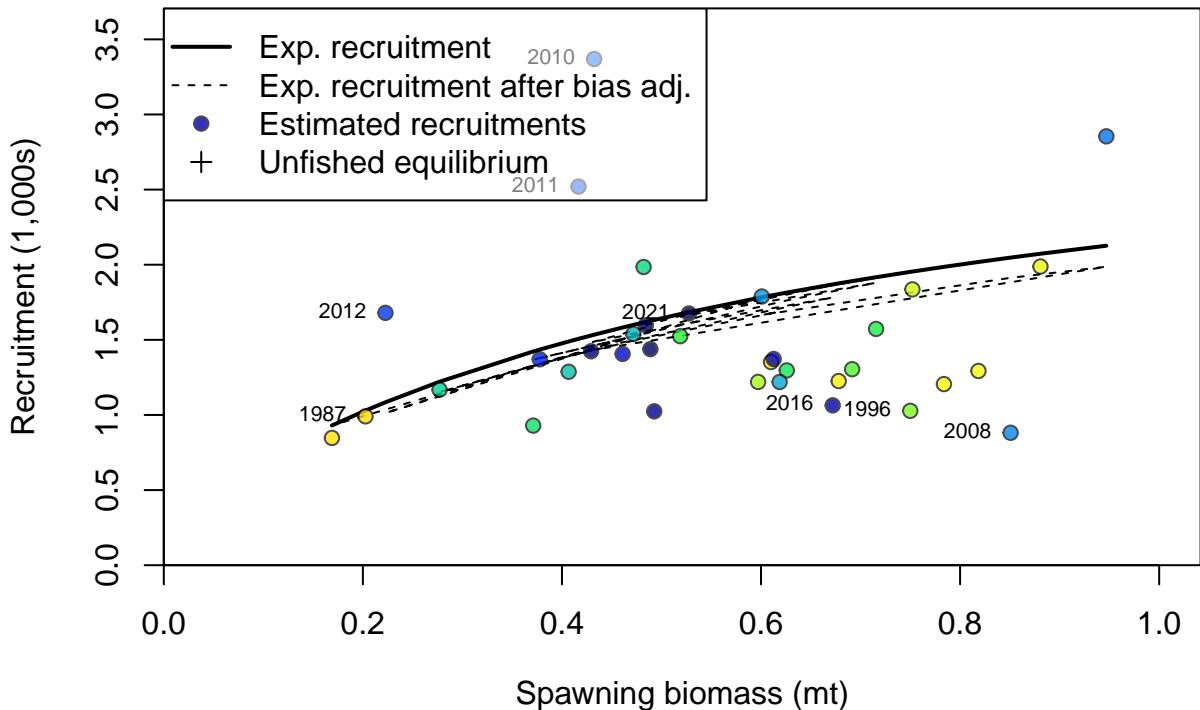
Recruitment deviation variance

Asymptotic standard error estimate

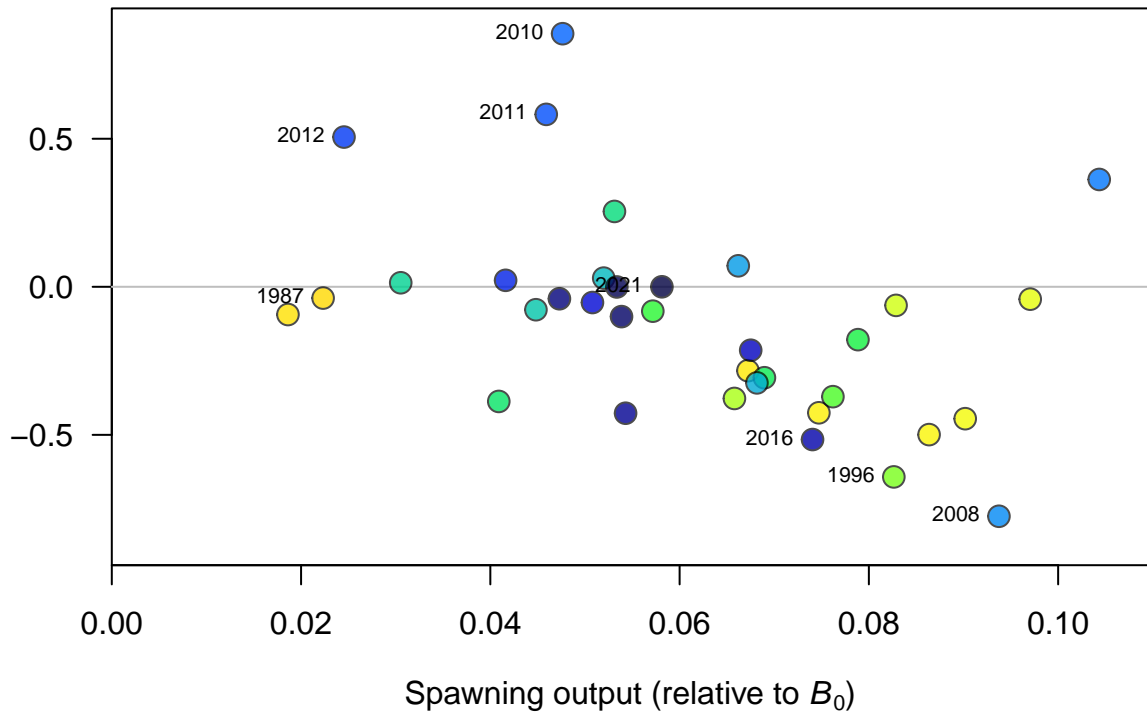


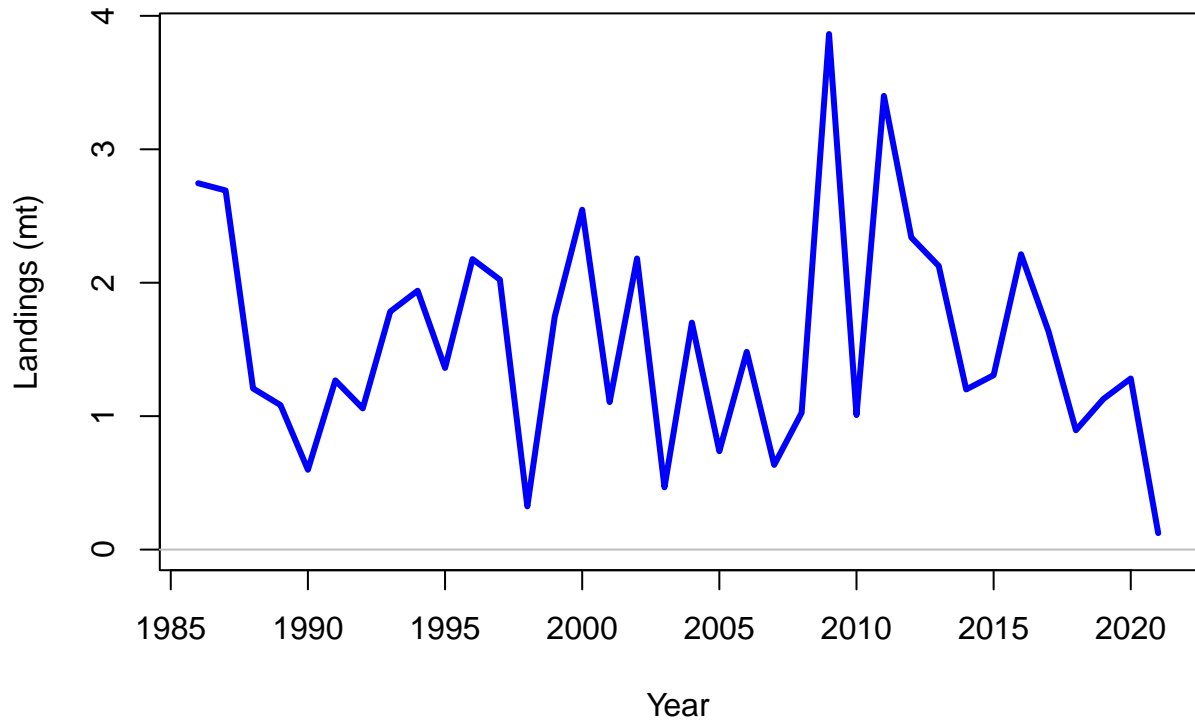


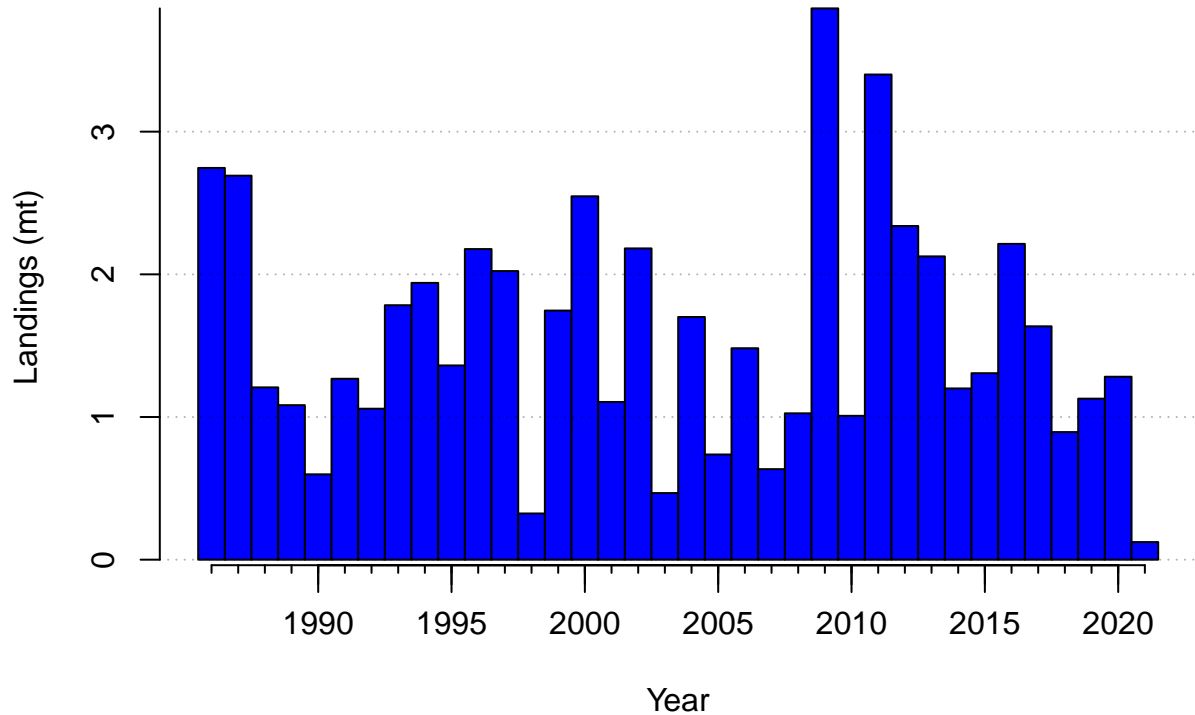




Log recruitment deviation







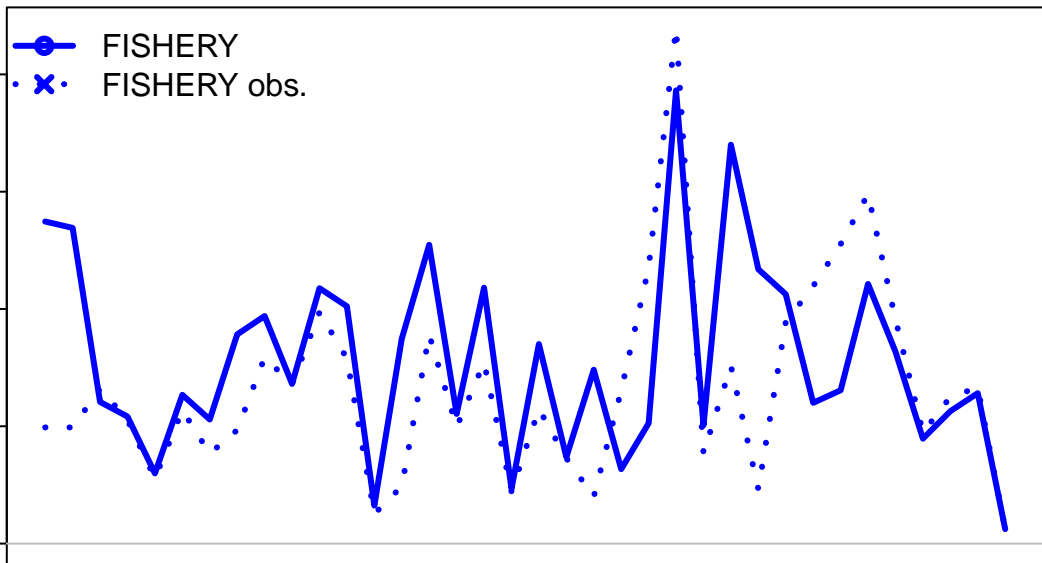
Observed and expected Landings (mt)

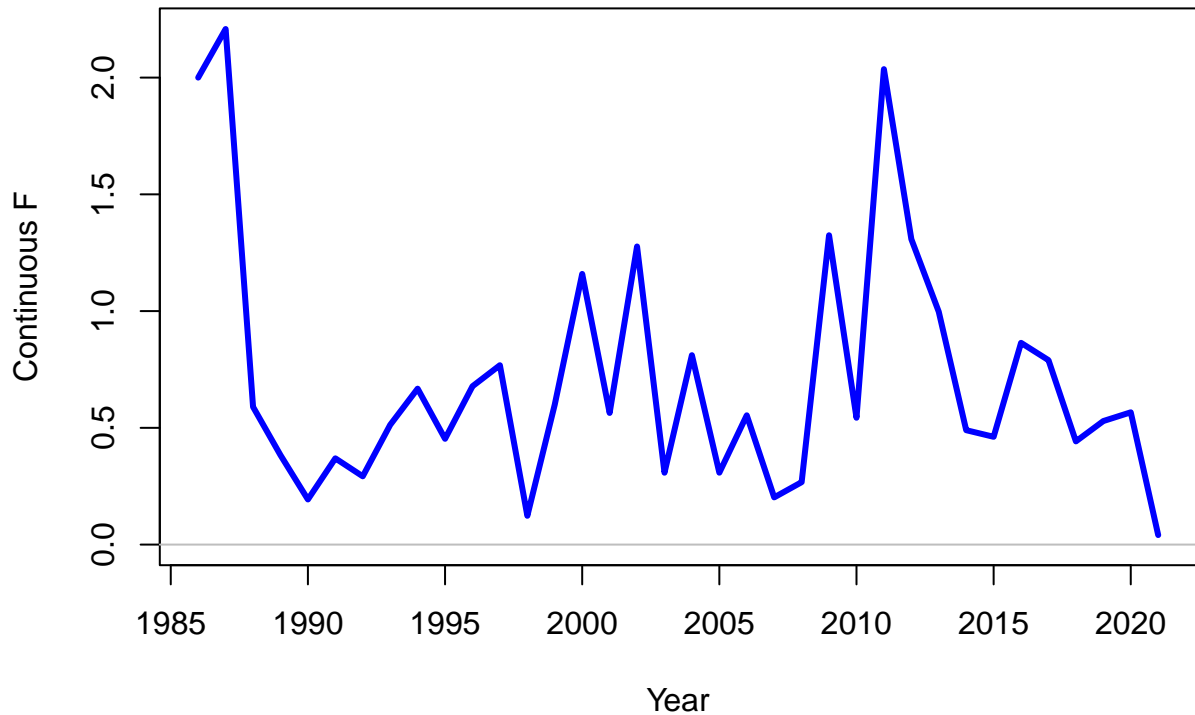
FISHERY
FISHERY obs.

4
3
2
1
0

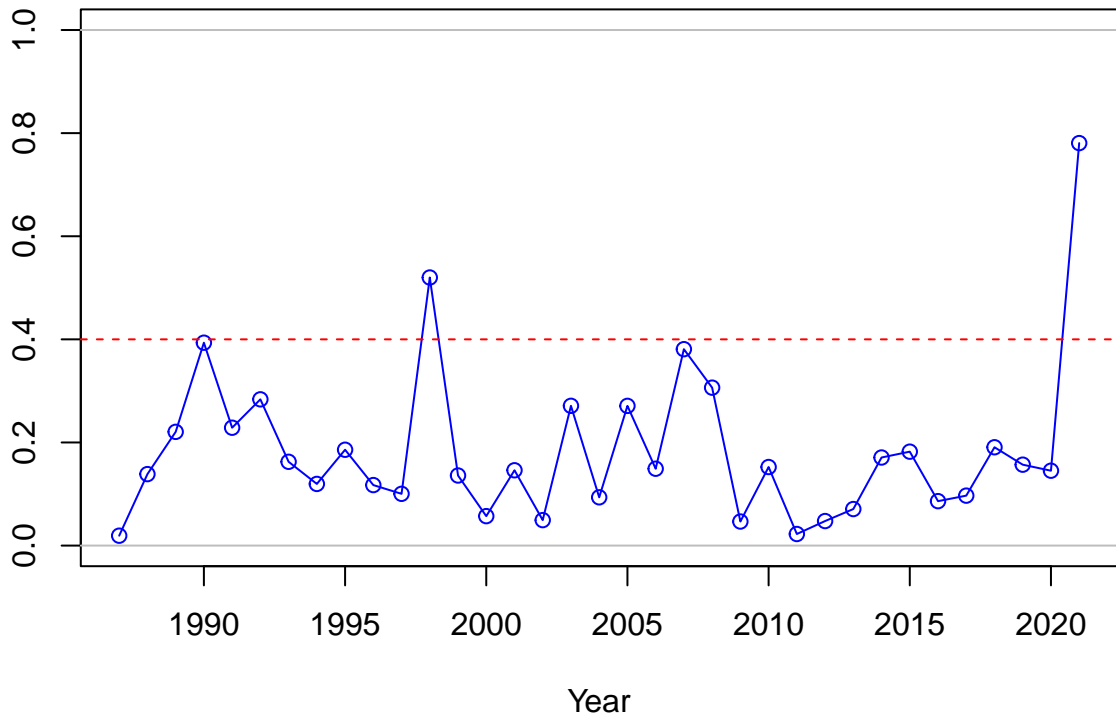
1985 1990 1995 2000 2005 2010 2015 2020

Year

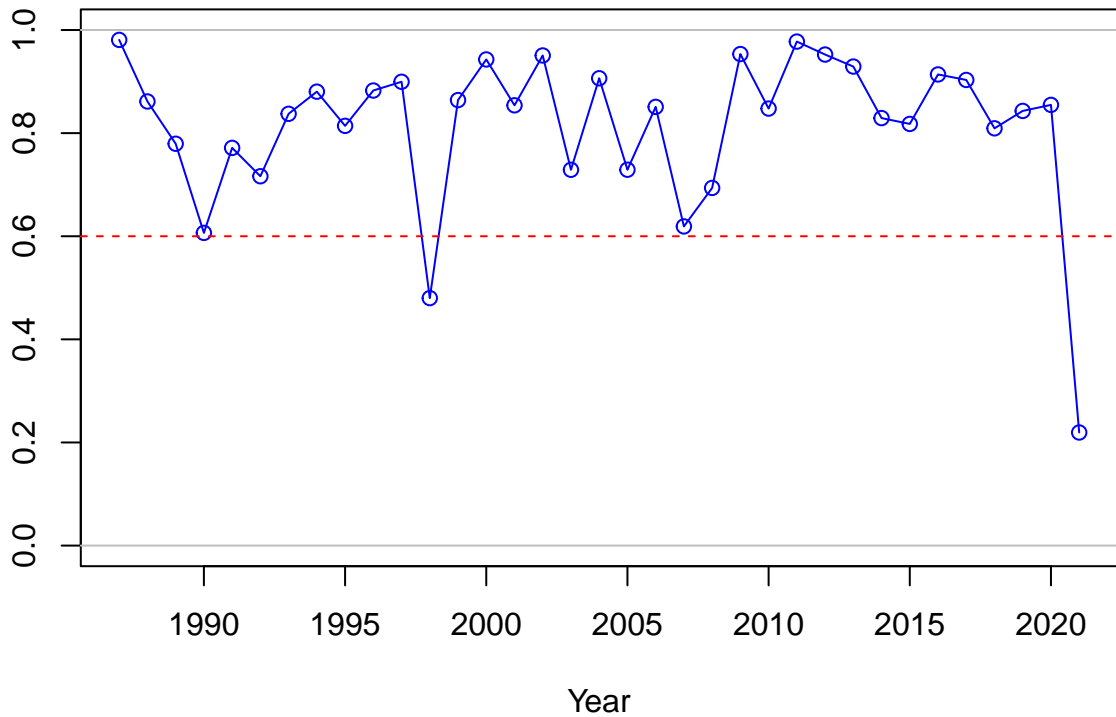




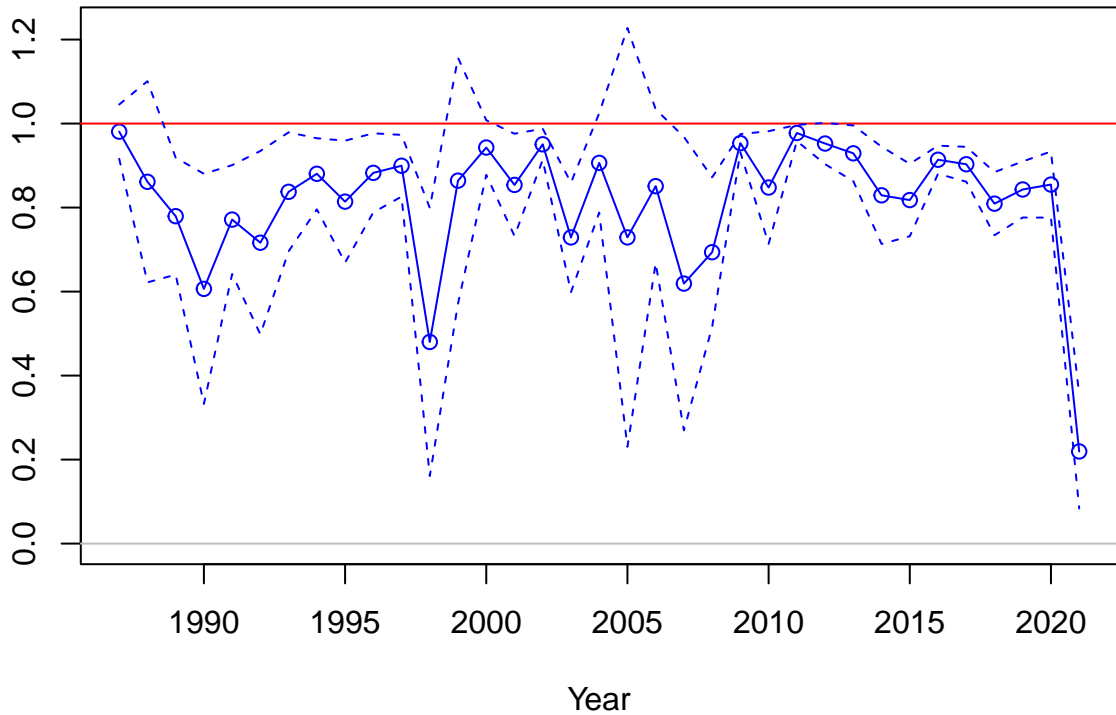
SPR



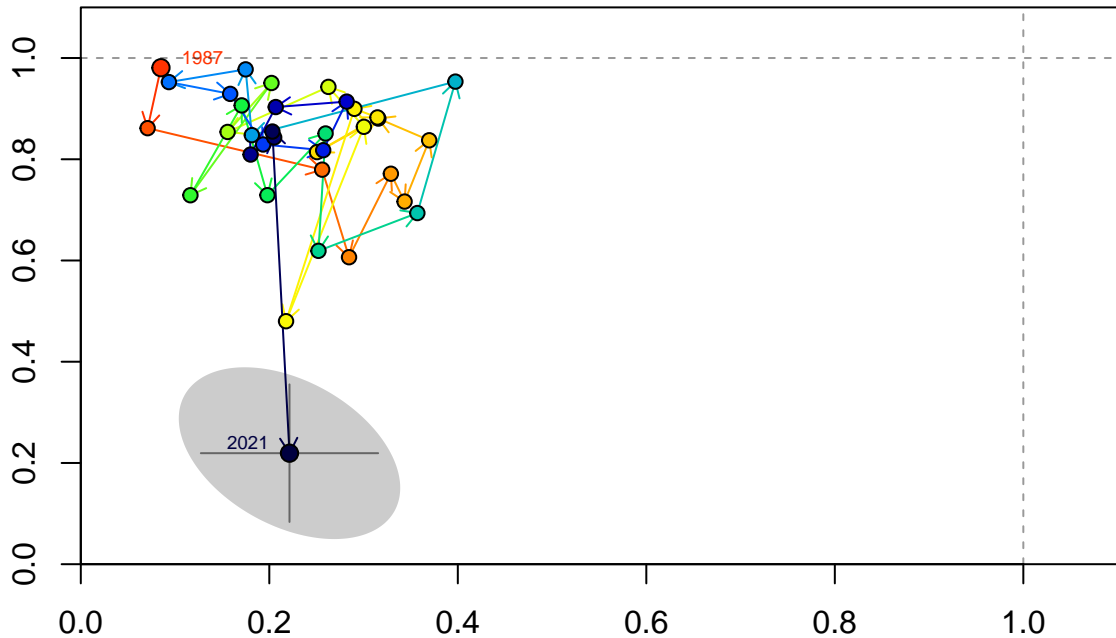
1-SPR



Fishing intensity: 1-SPR

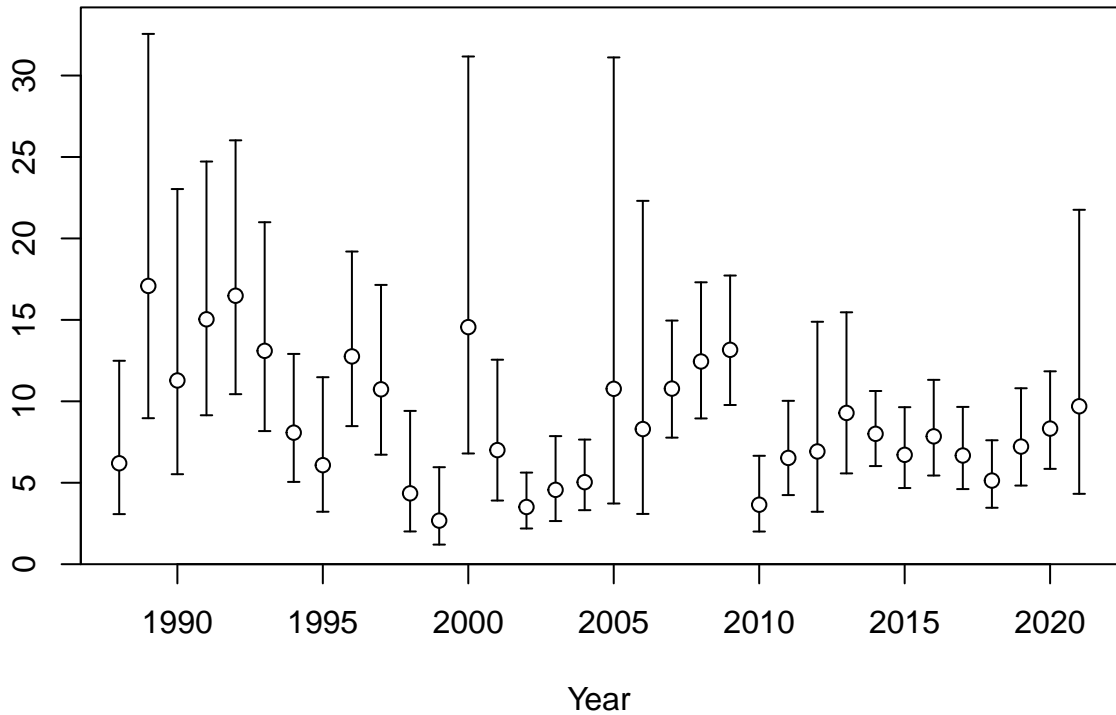


Fishing intensity: 1-SPR

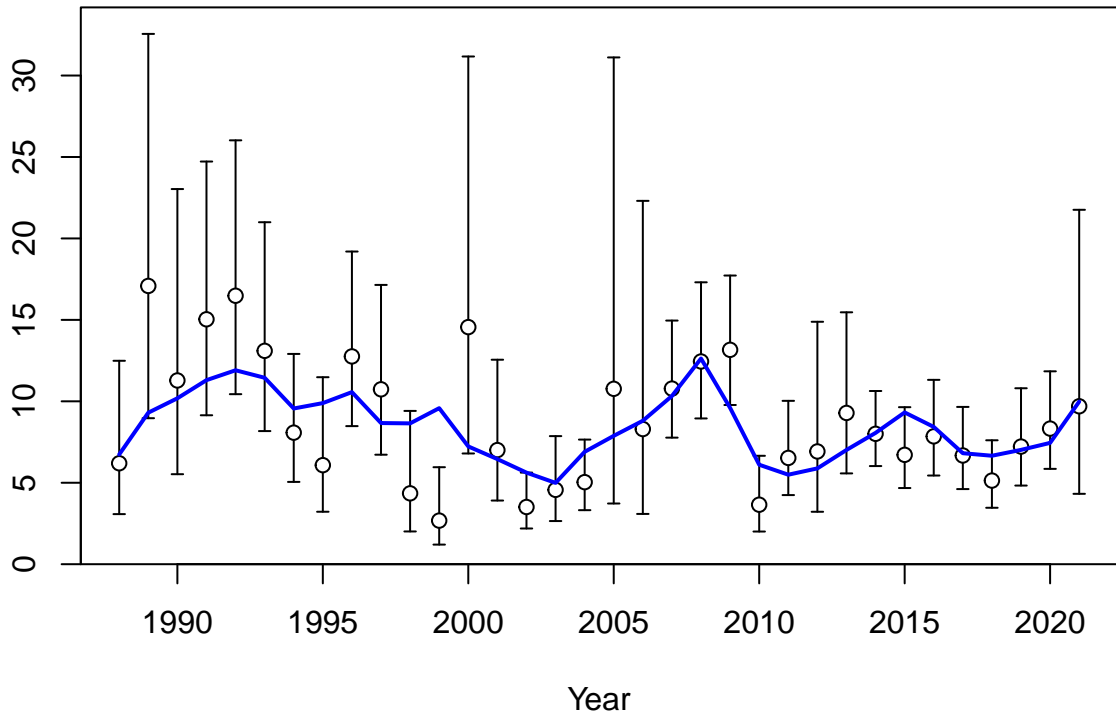


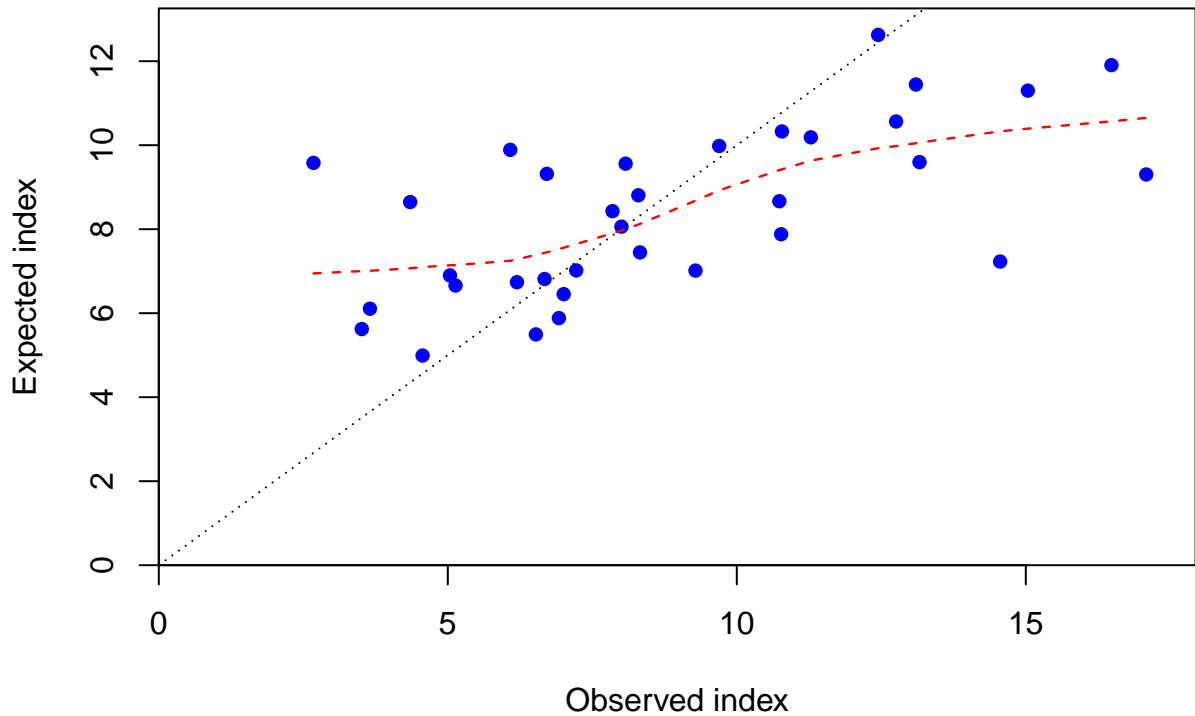
Relative spawning output: B/B_{MSY}

Index

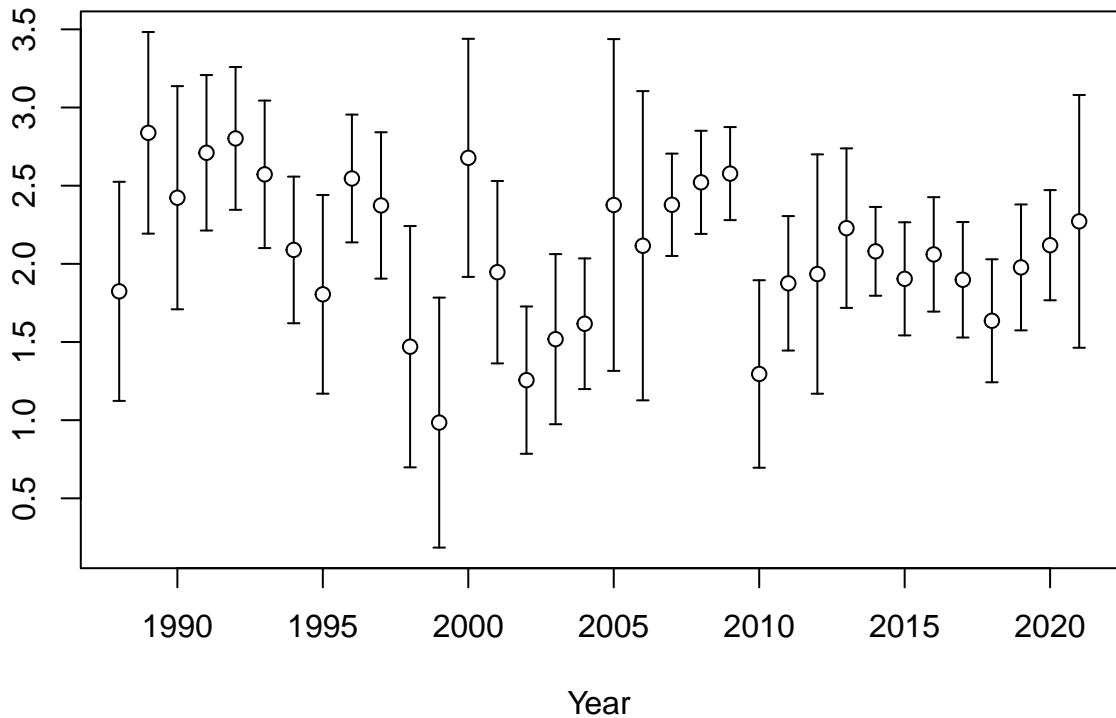


Index

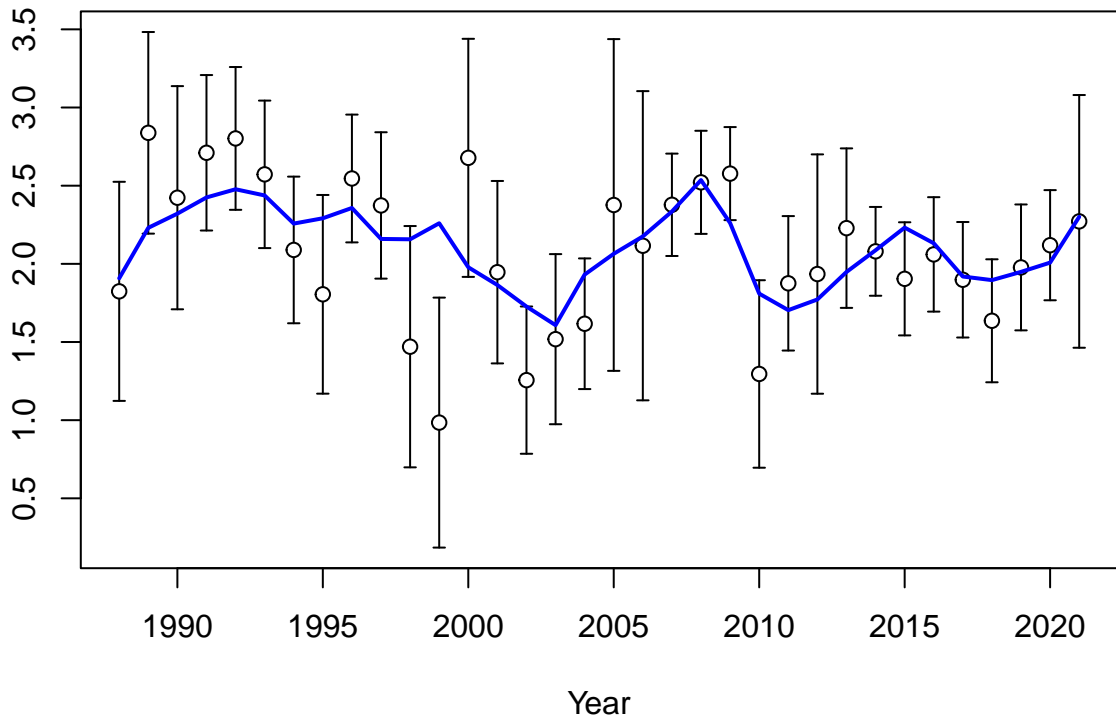


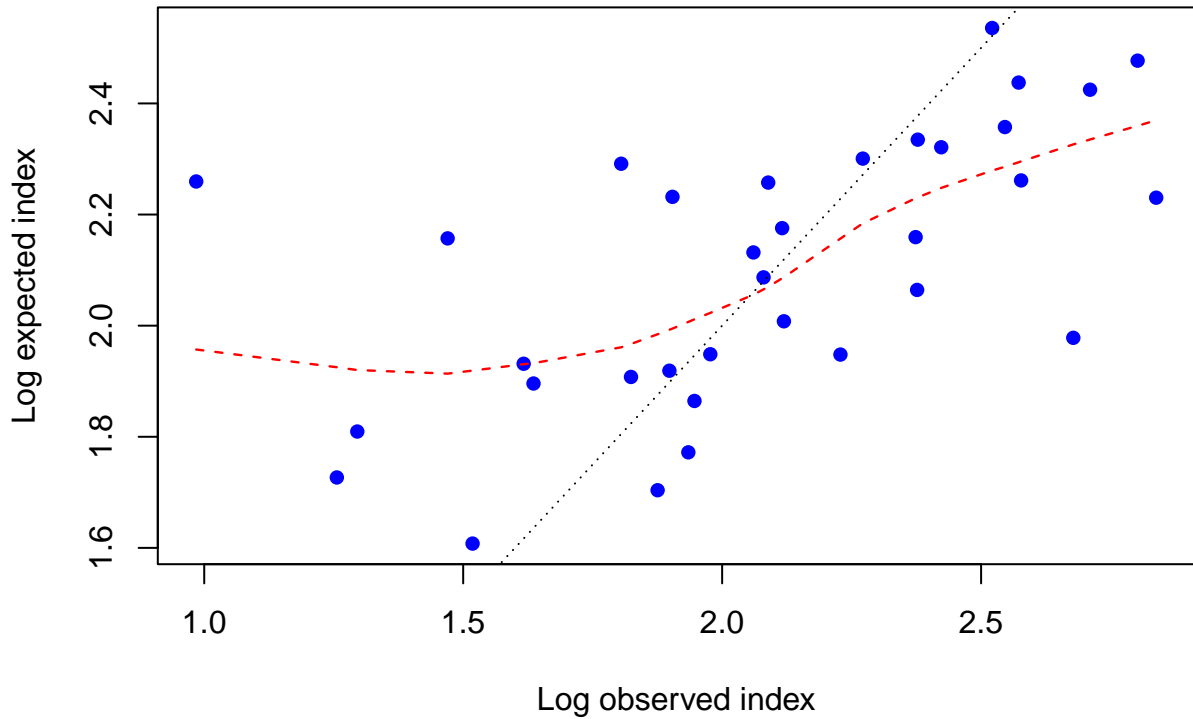


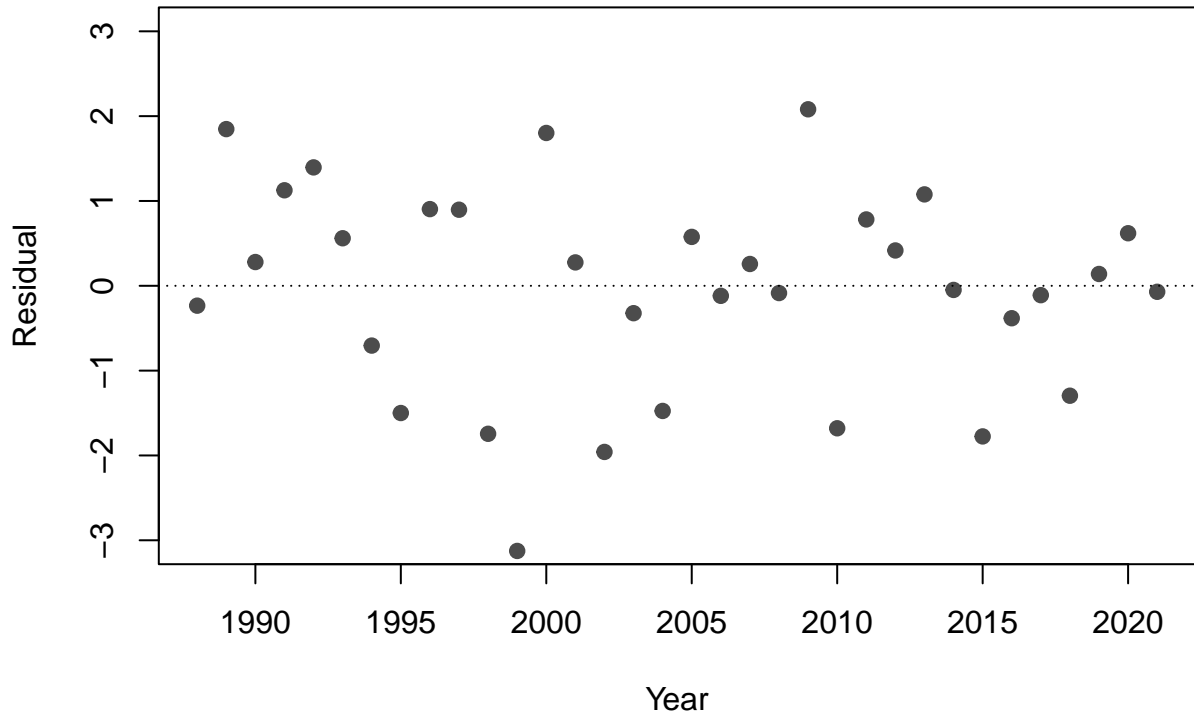
Log index

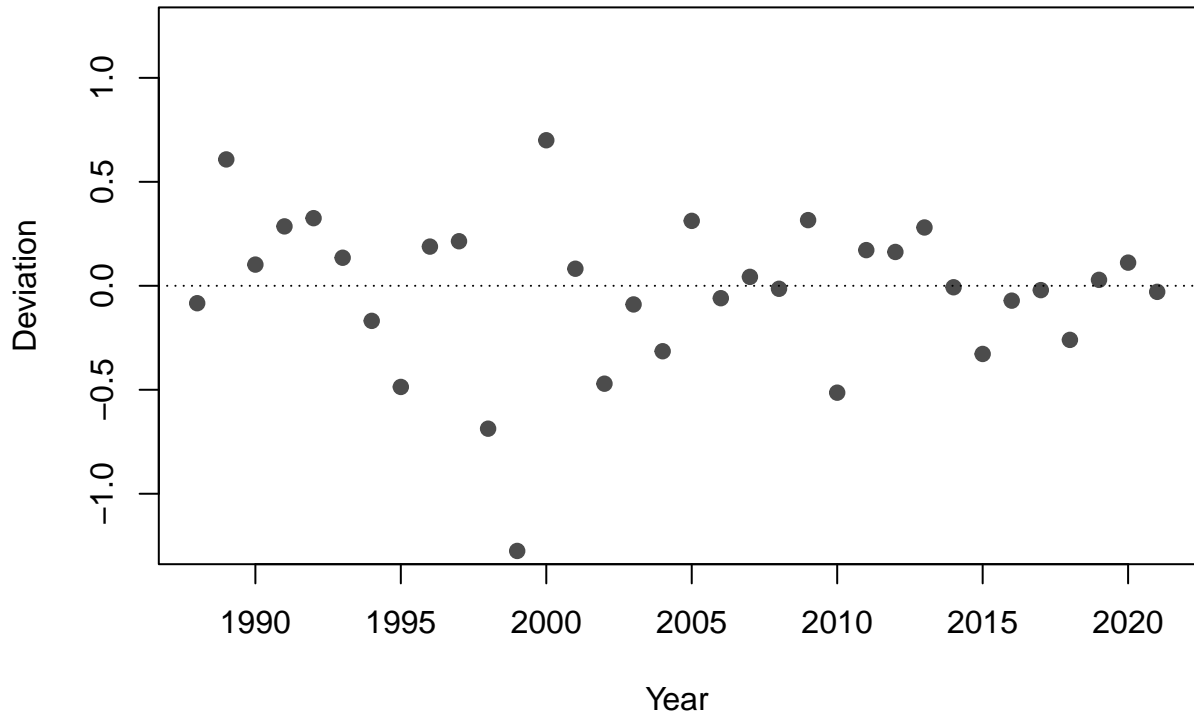


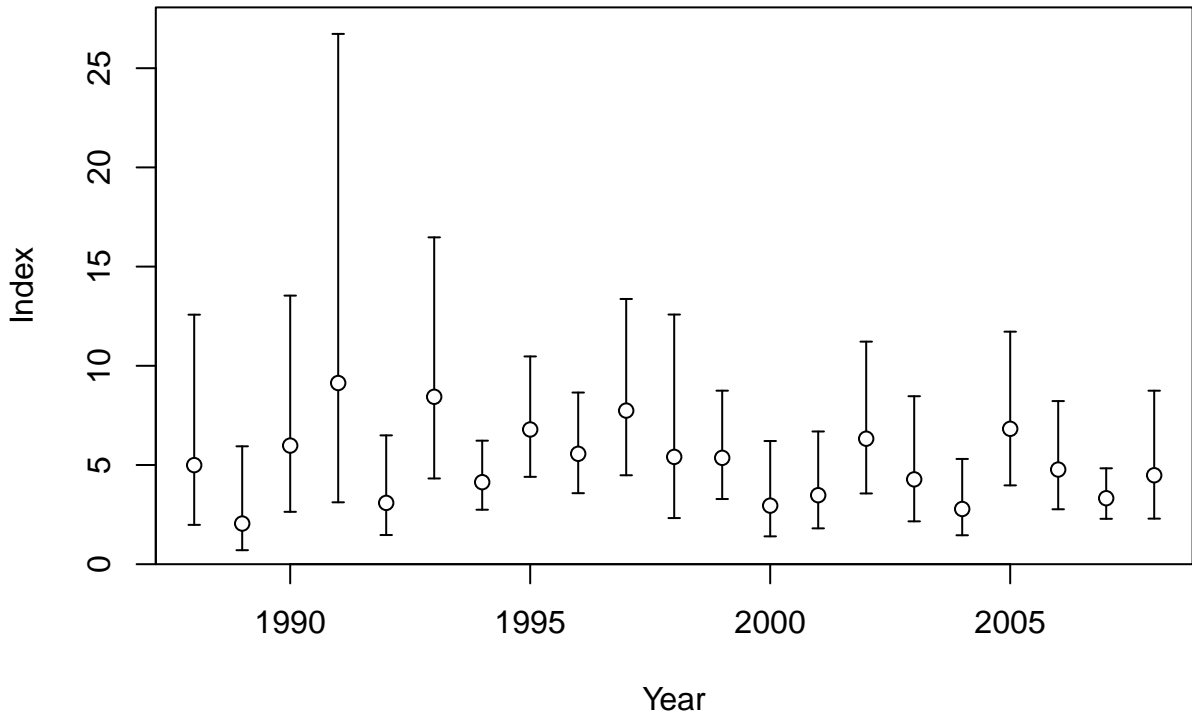
Log index

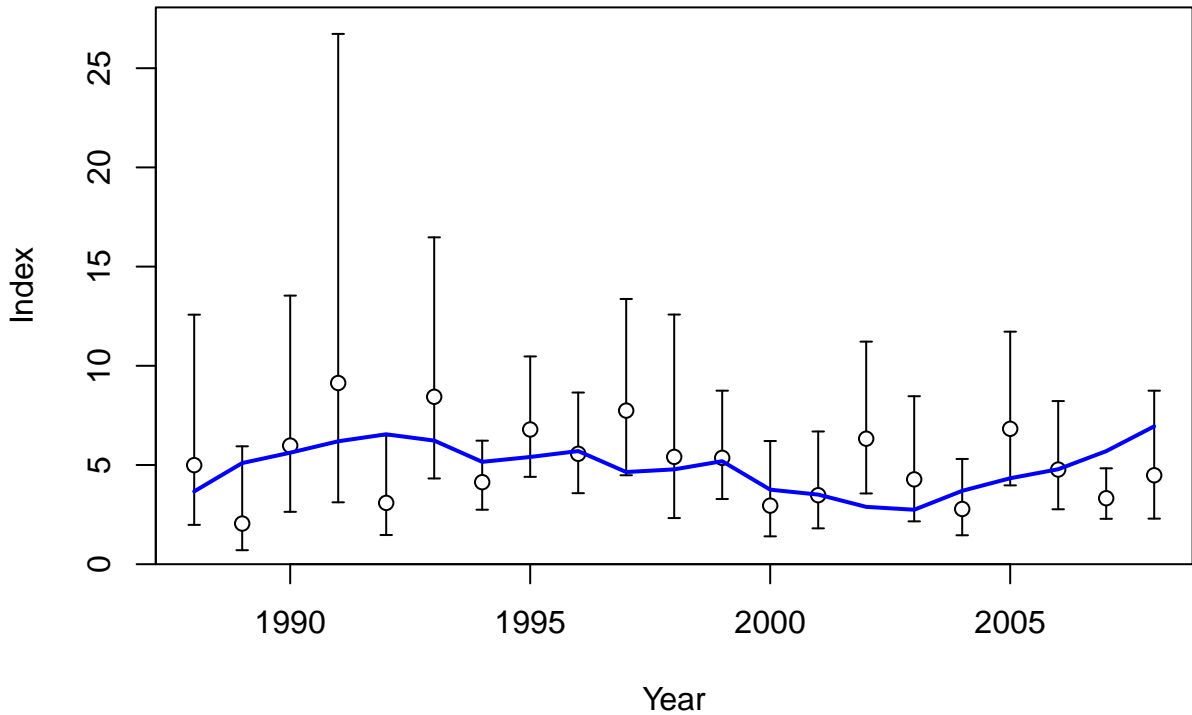


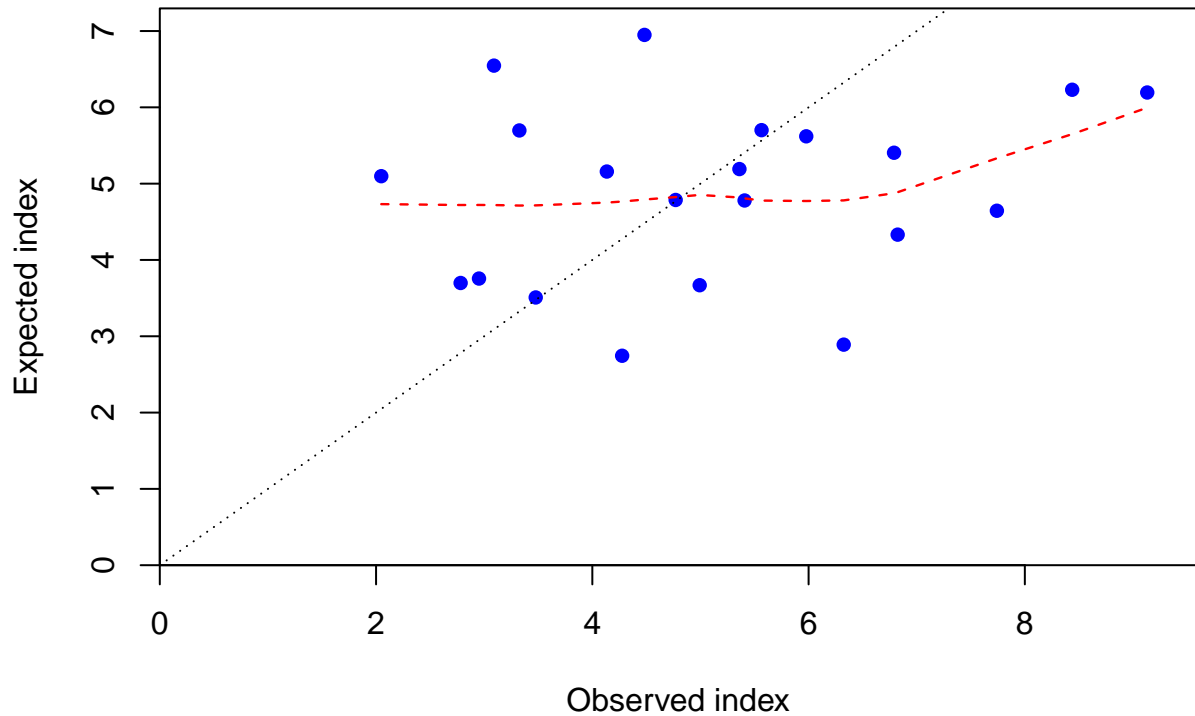


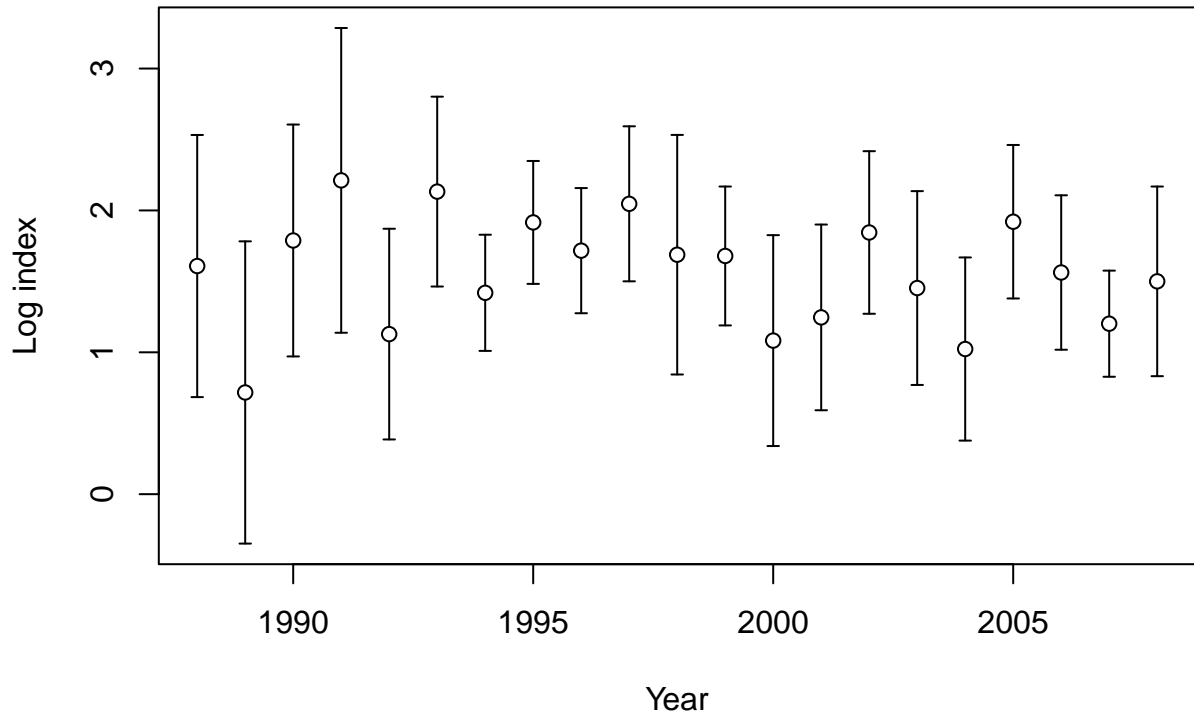


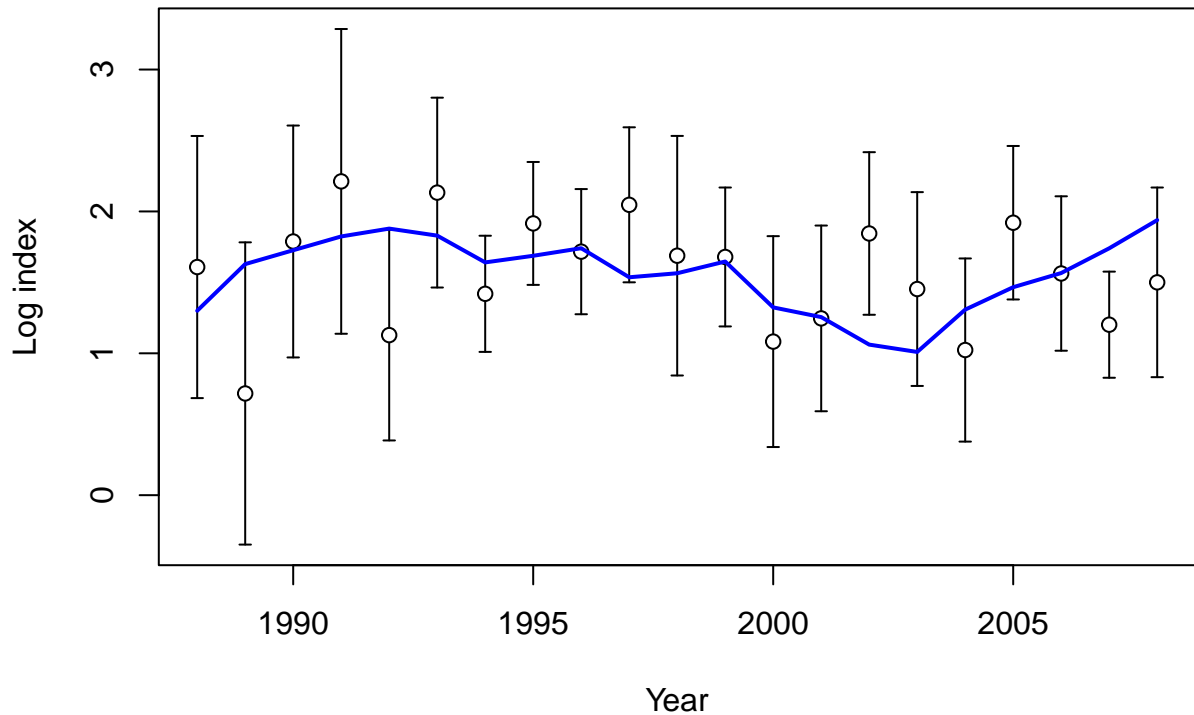


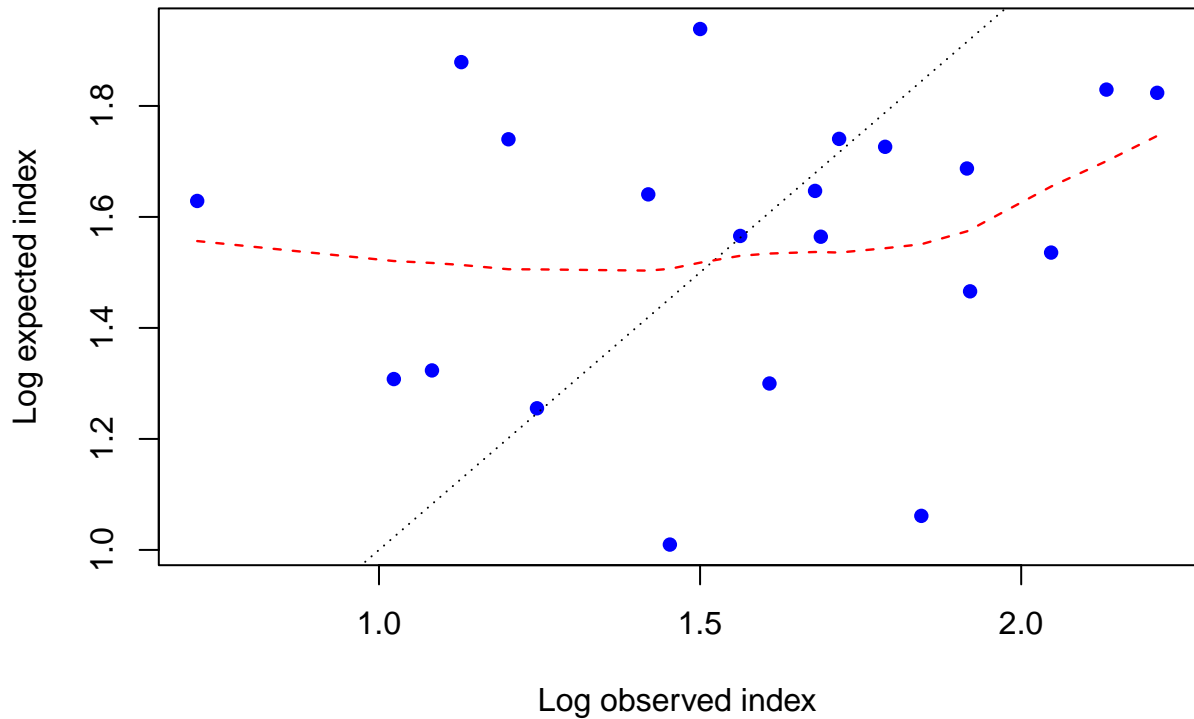


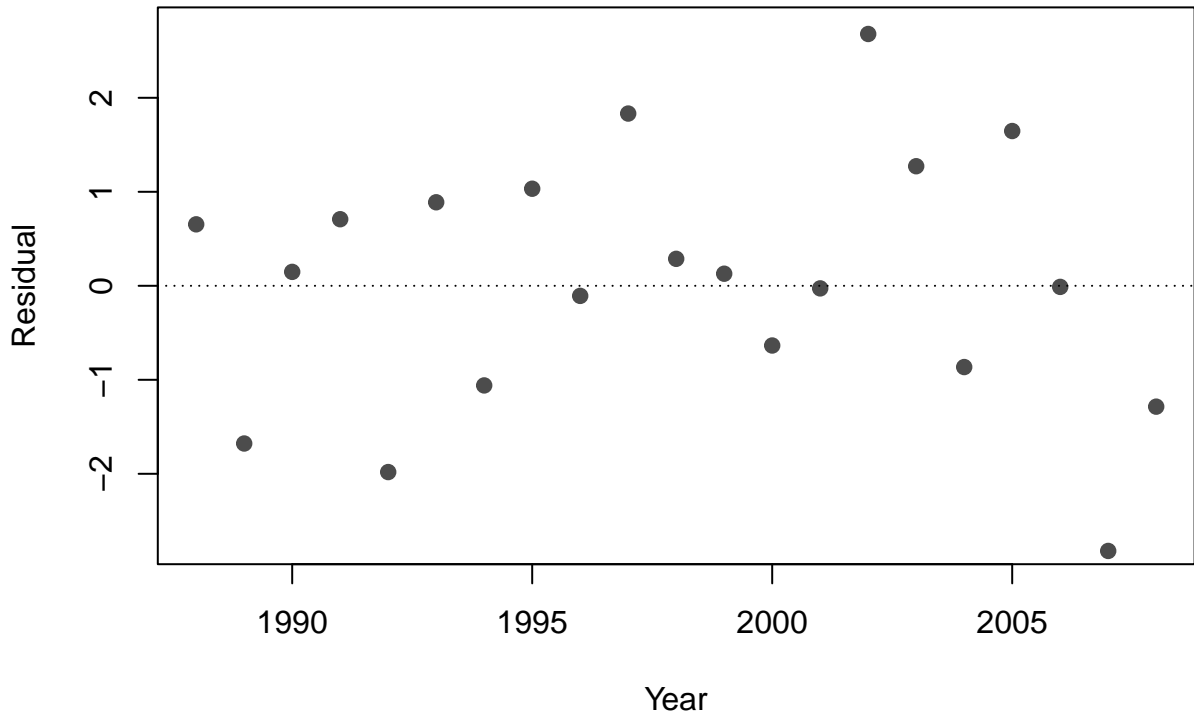


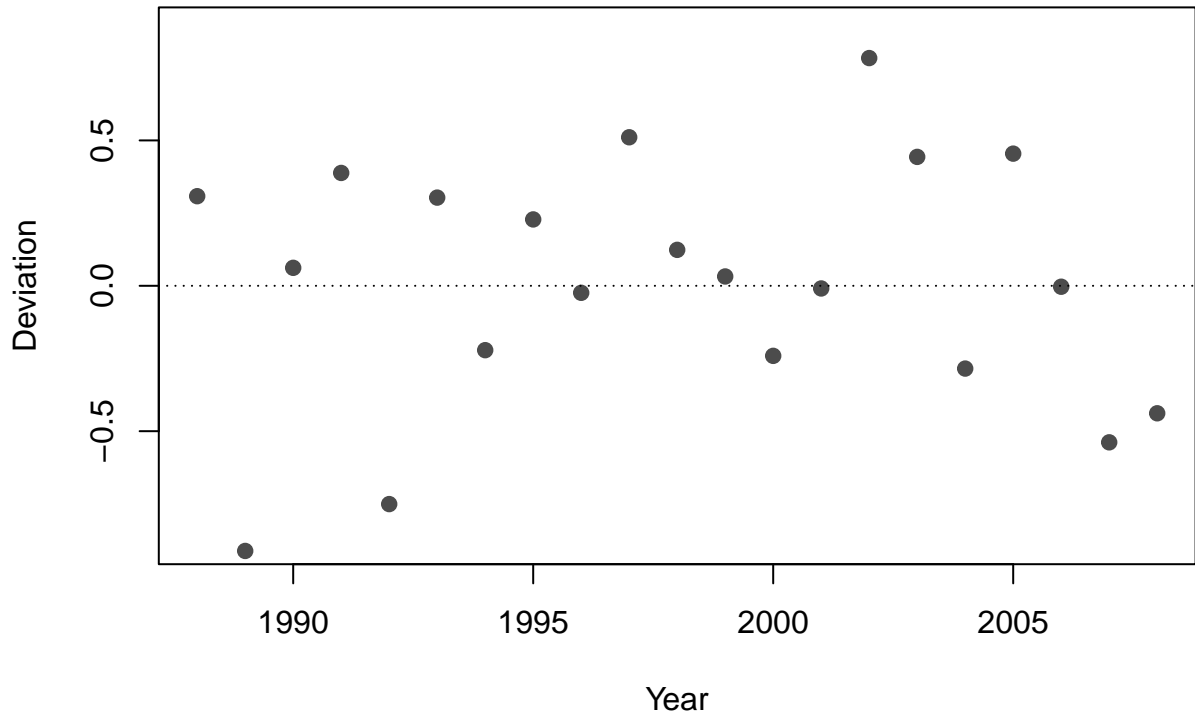




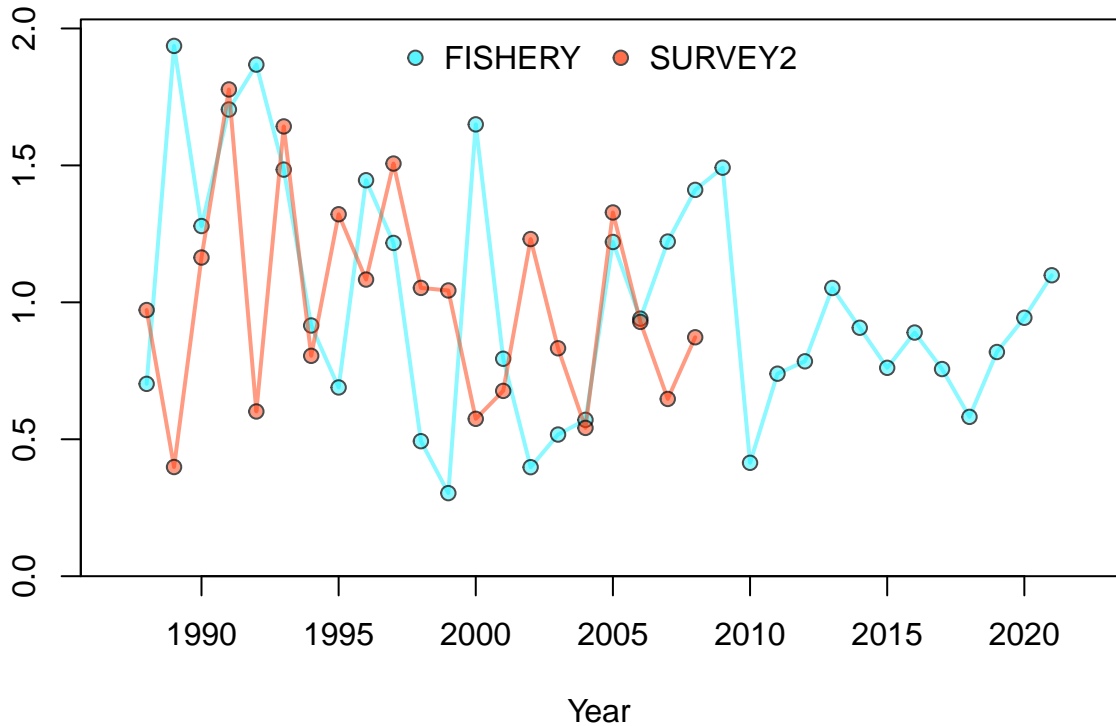


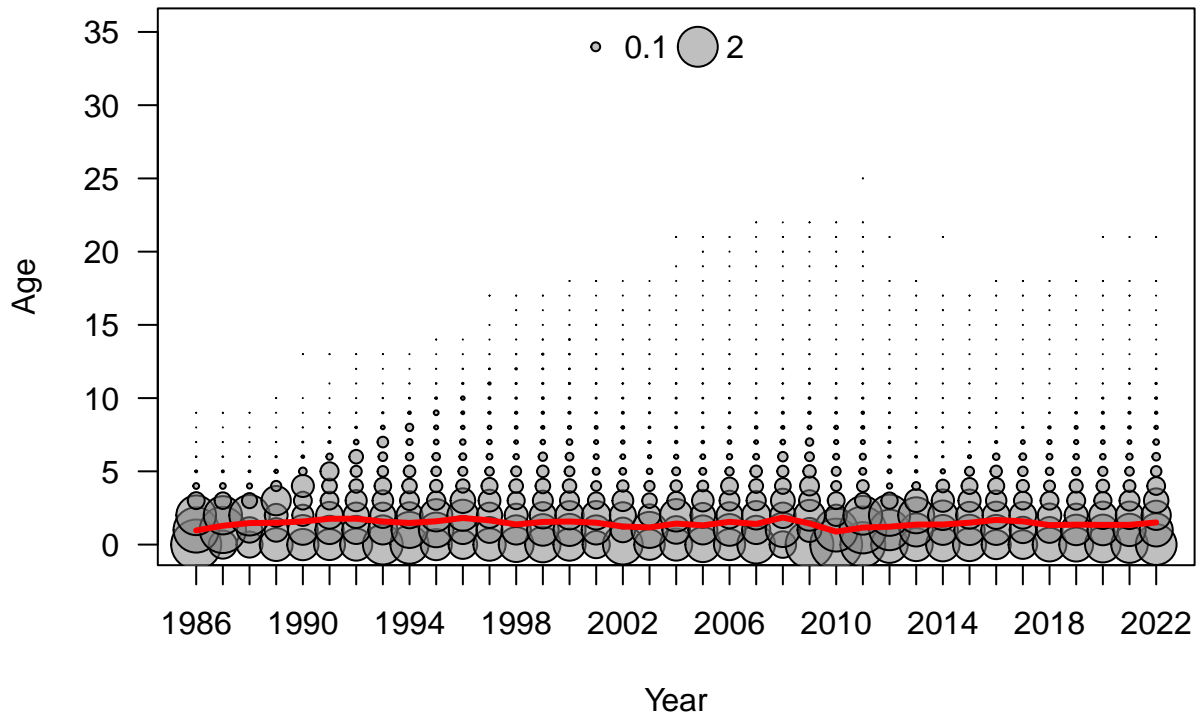


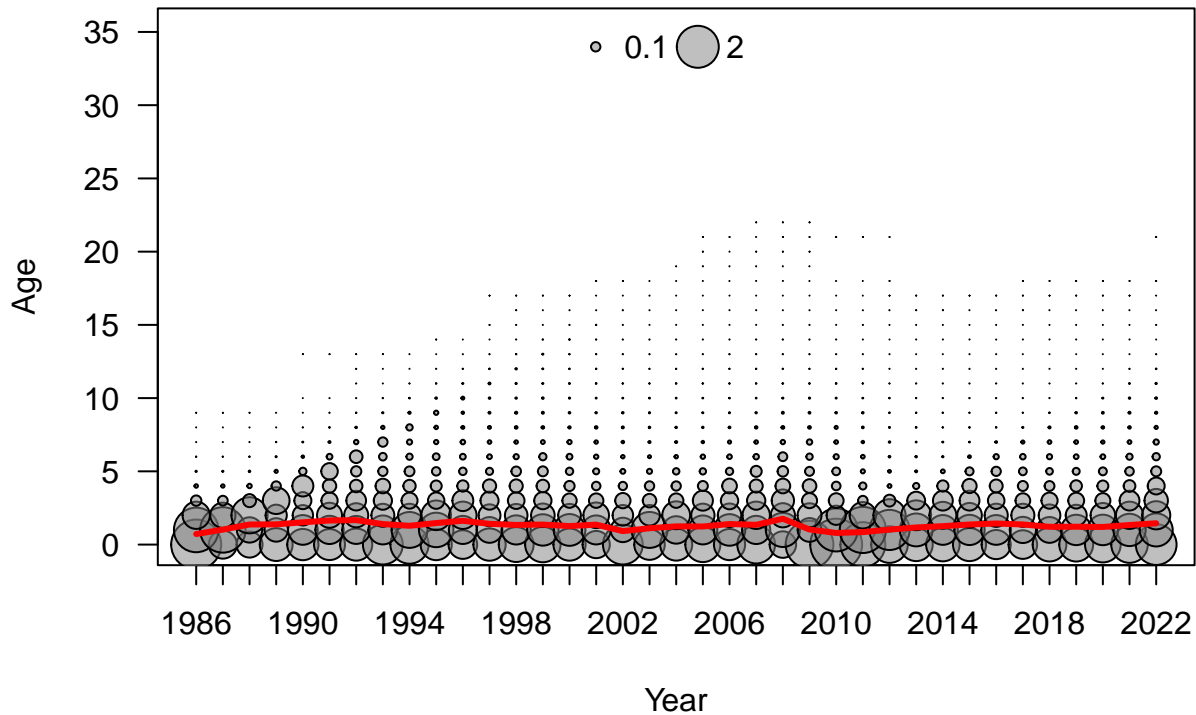


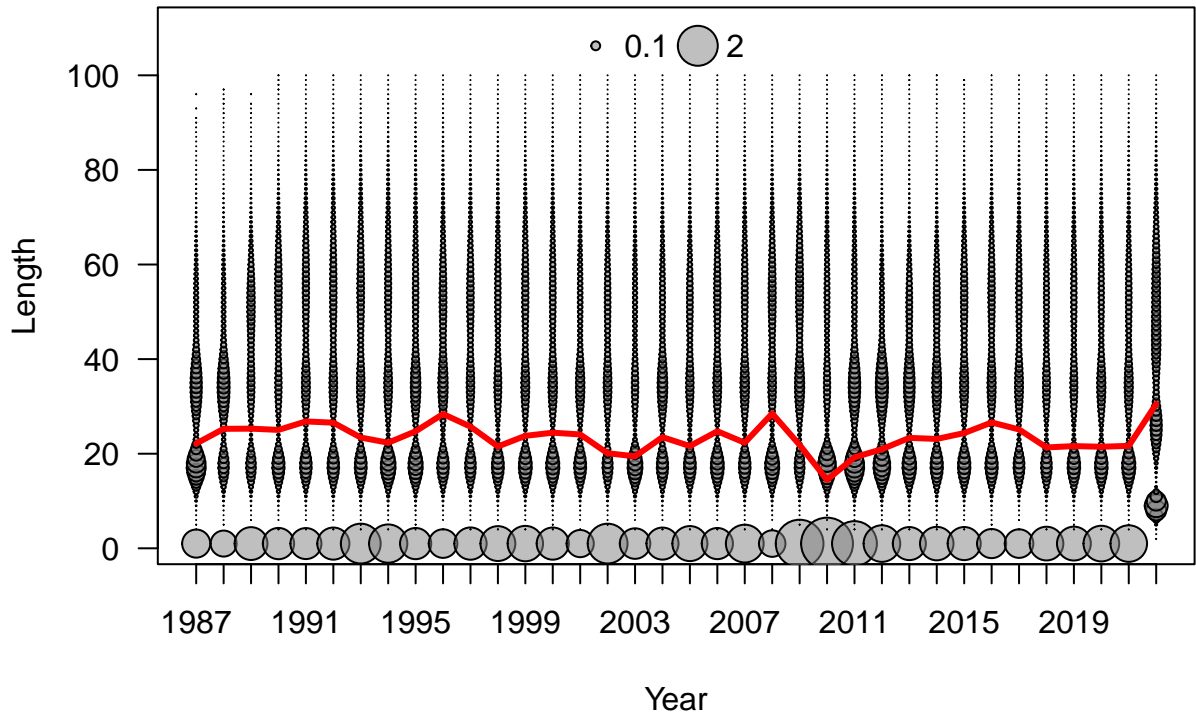


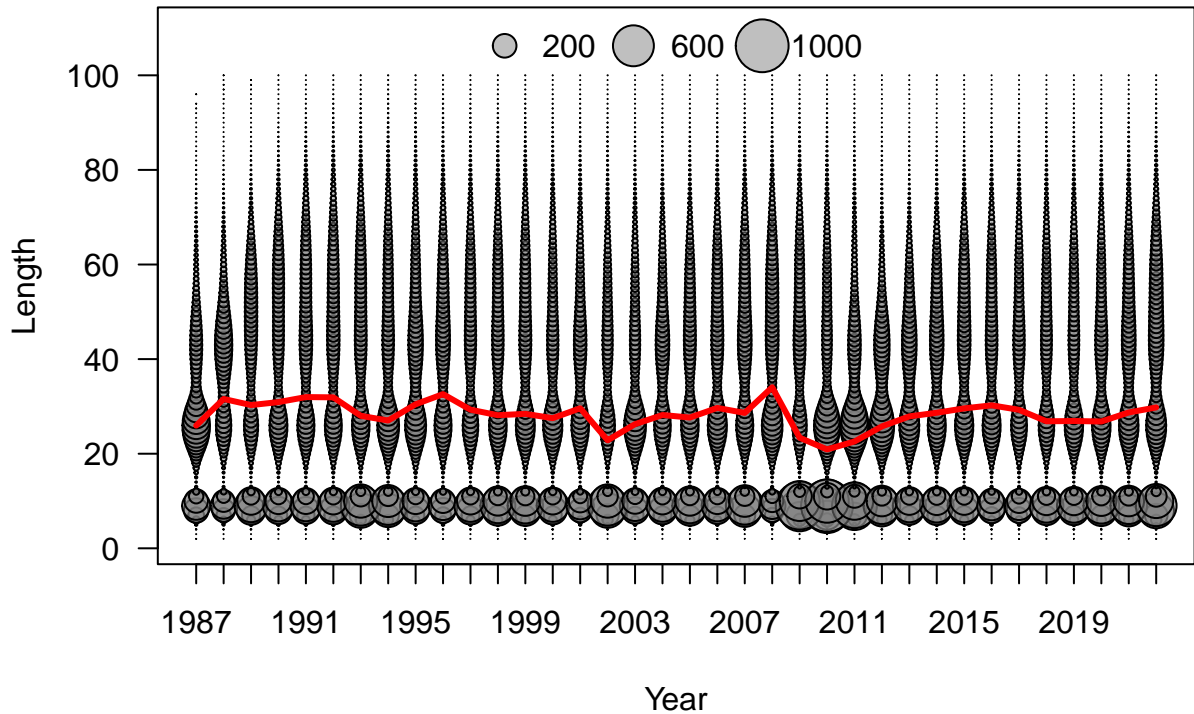
Standardized index

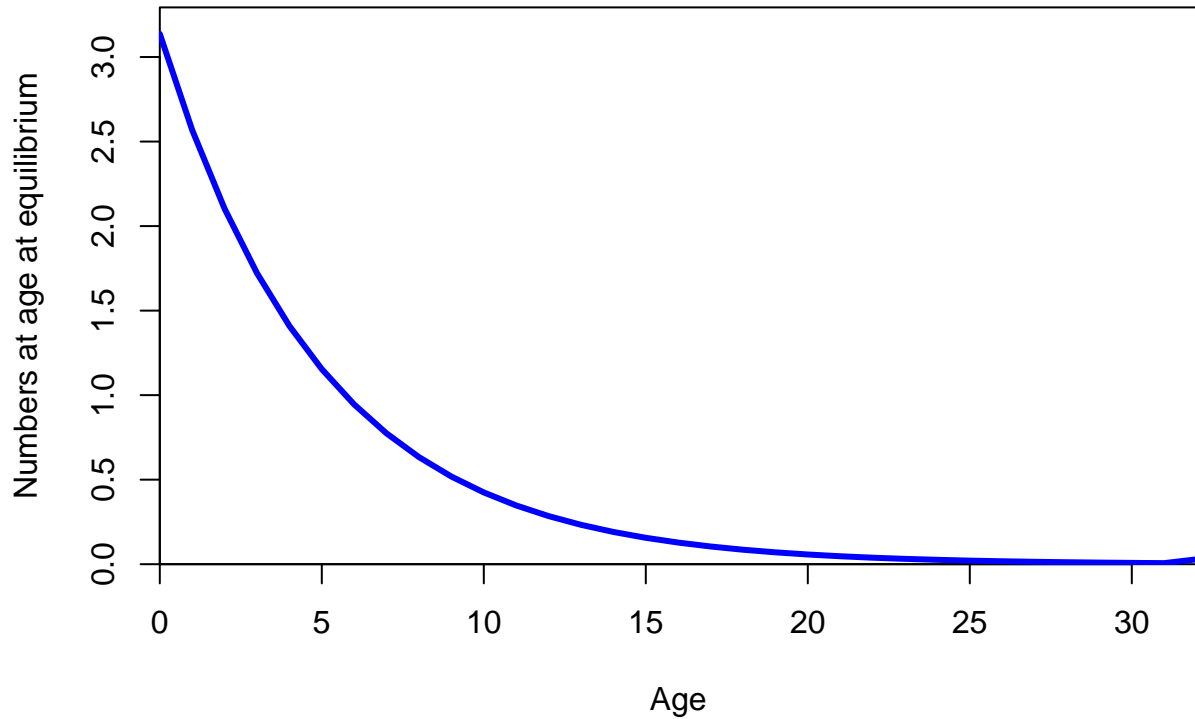


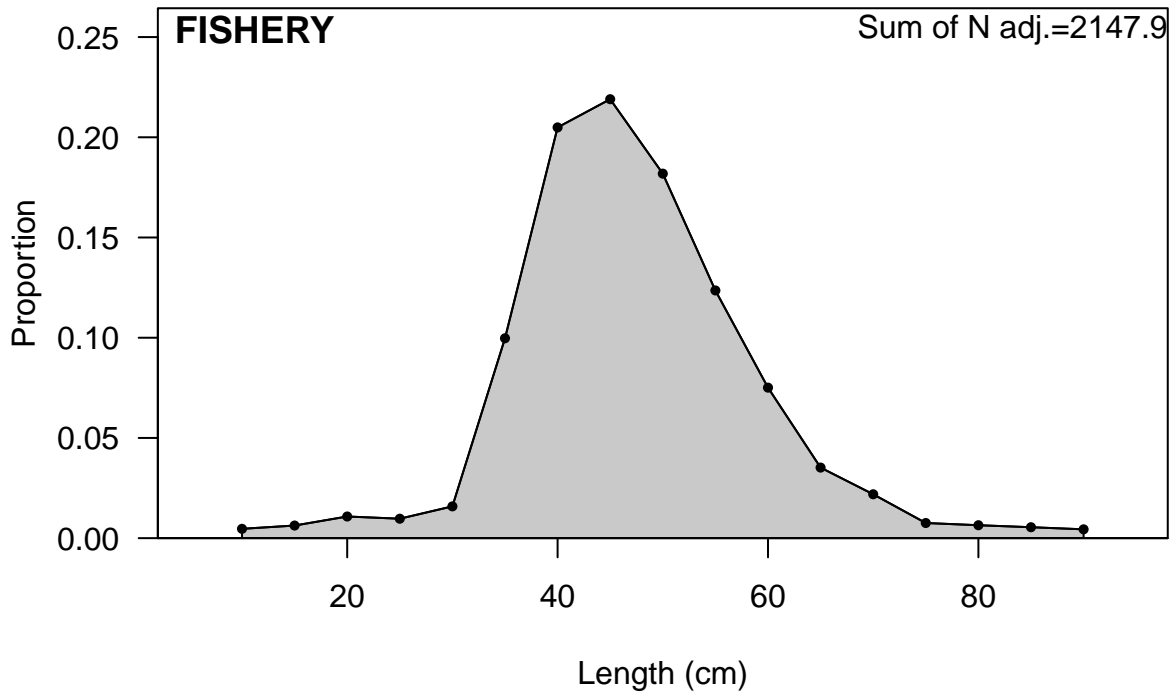










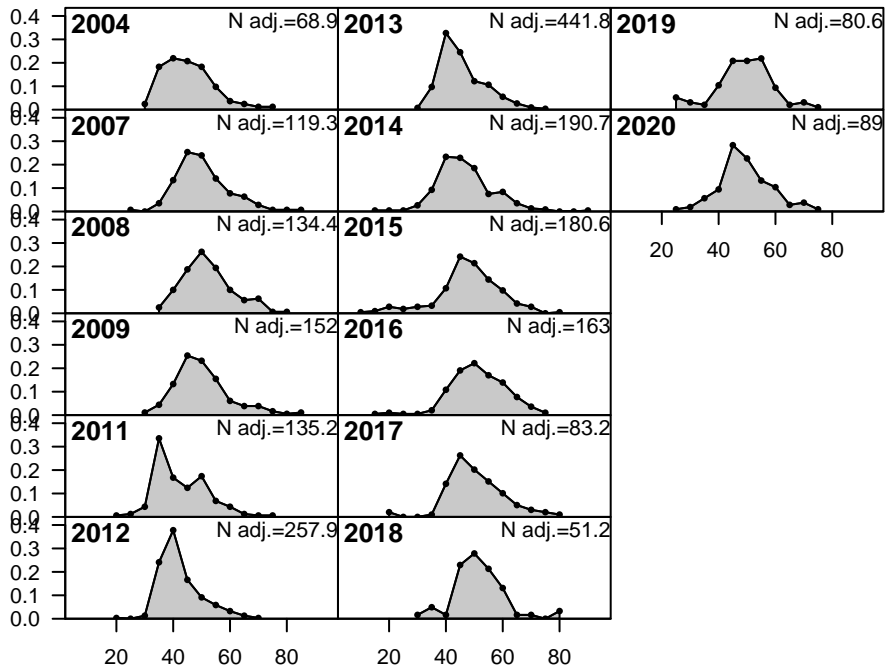


FISHERY

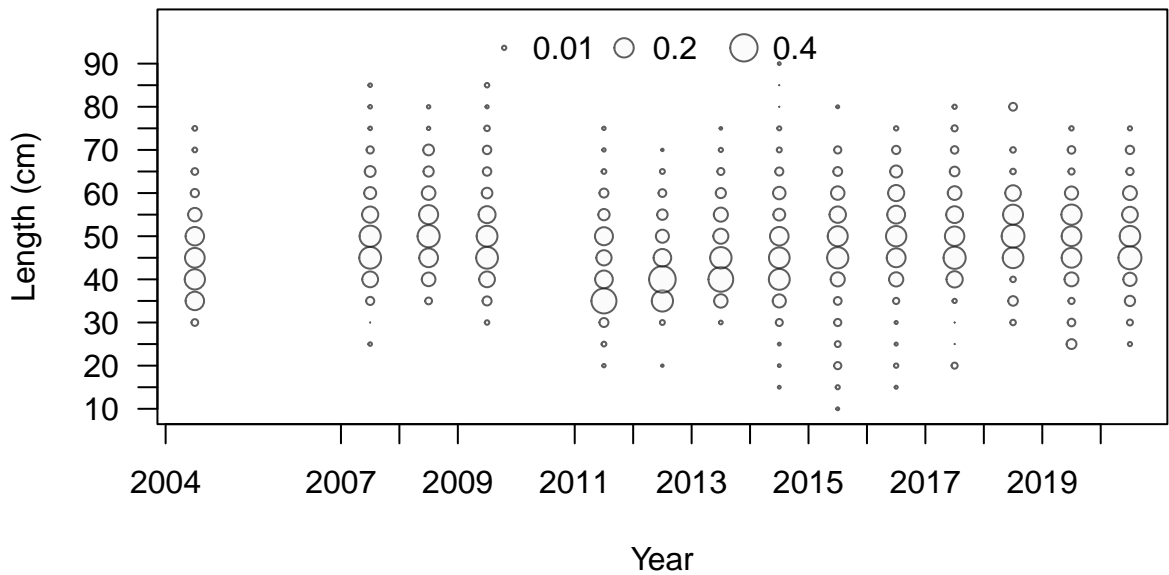
• 0.01 ○ 0.2 ○ 0.4



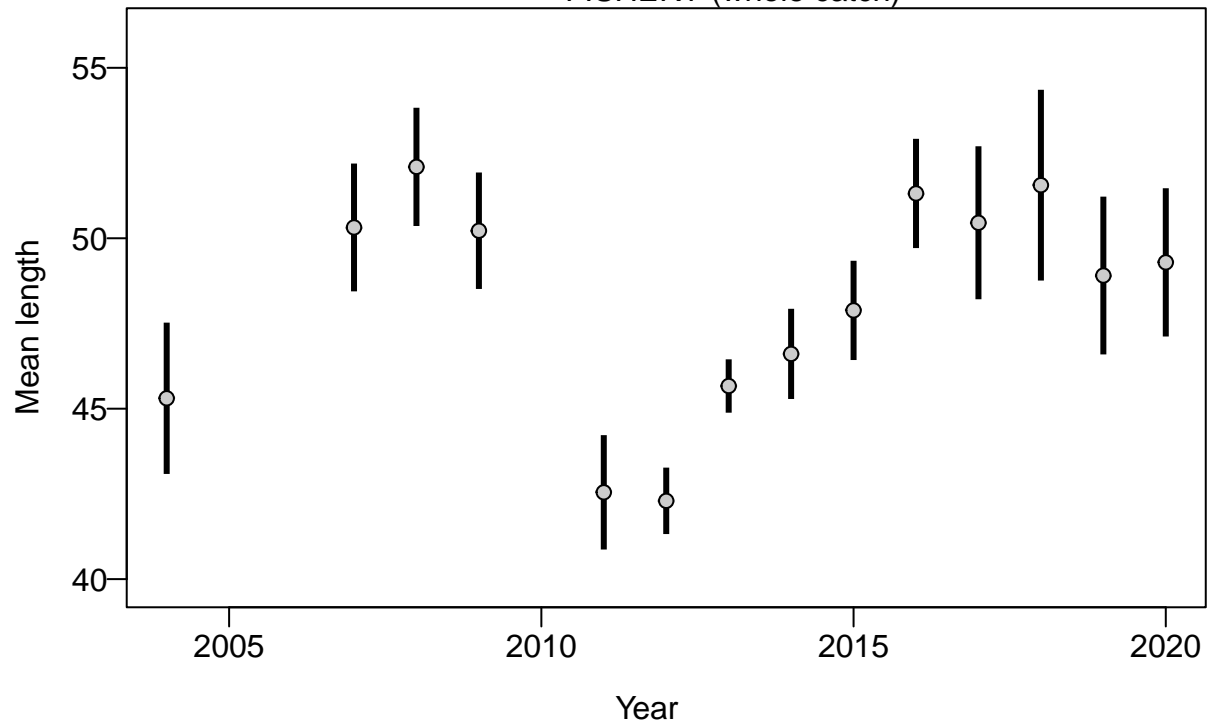
Proportion

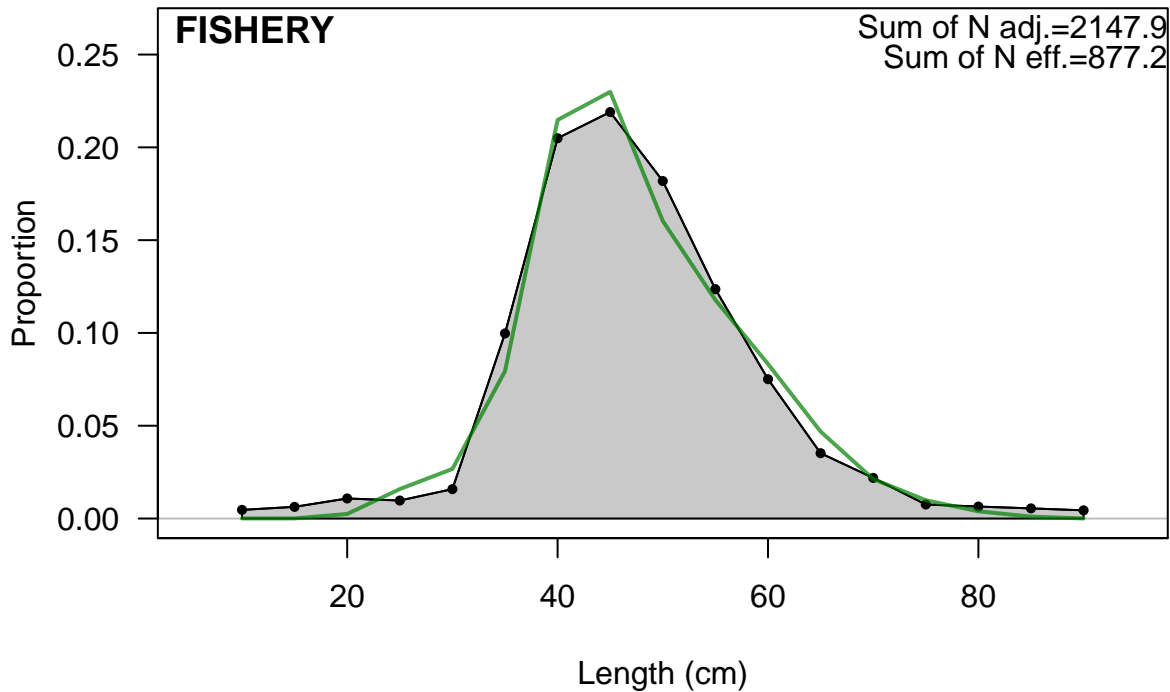


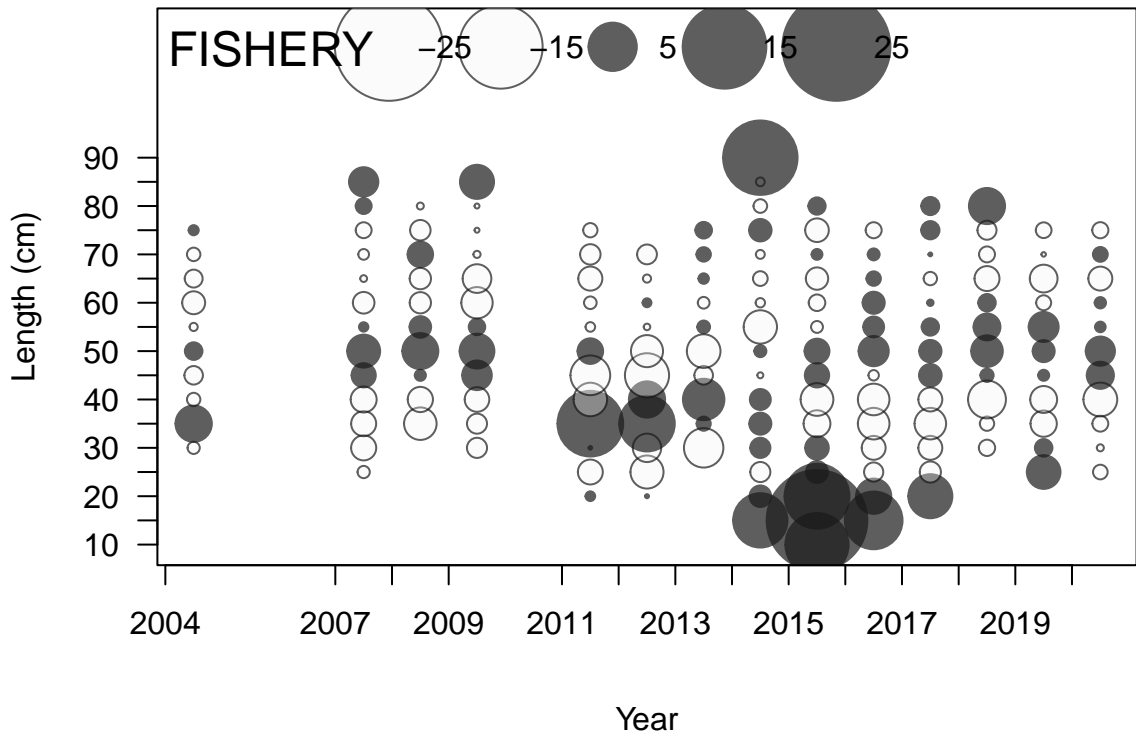
Length (cm)



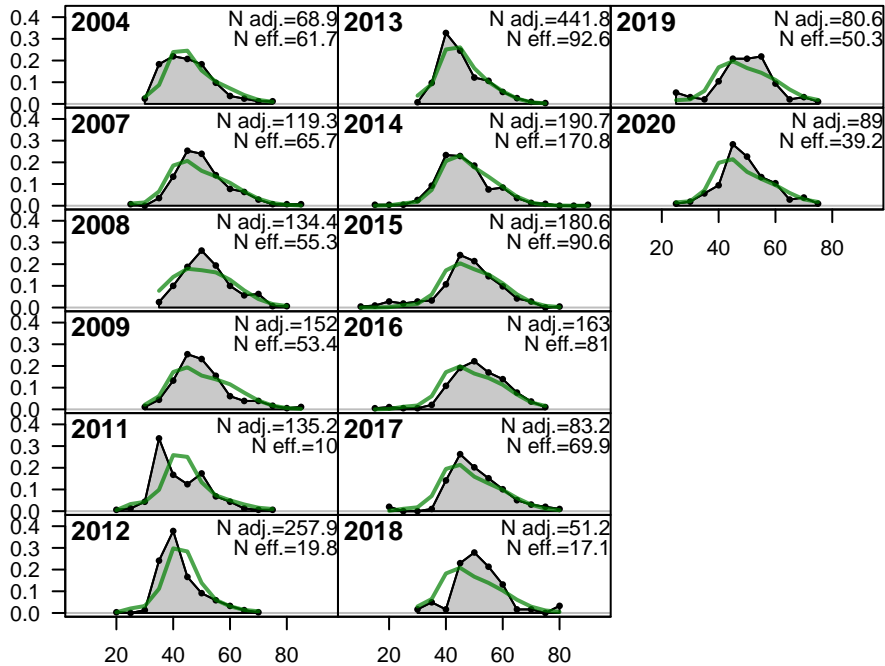
FISHERY (whole catch)





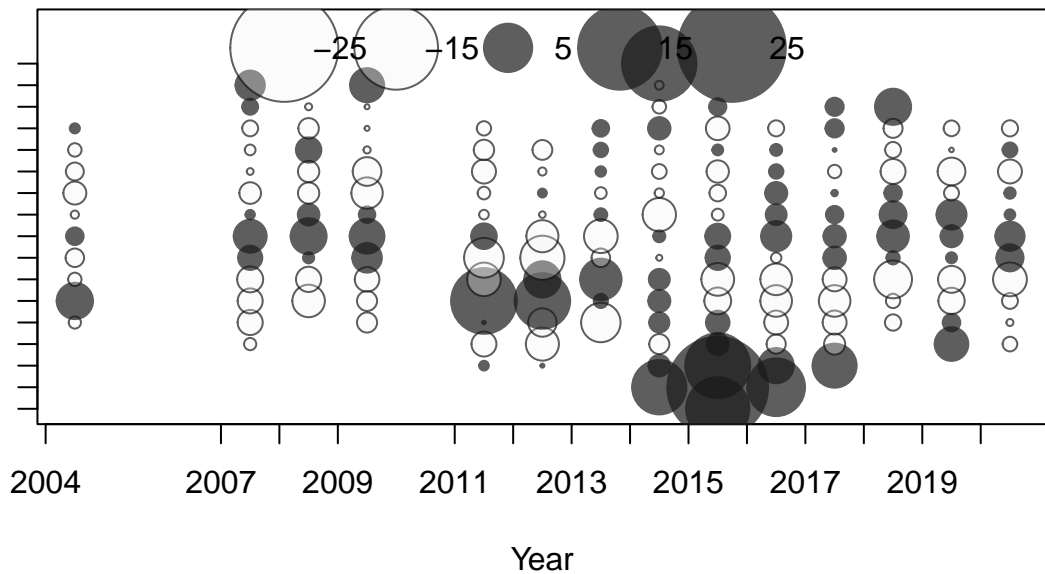


Proportion

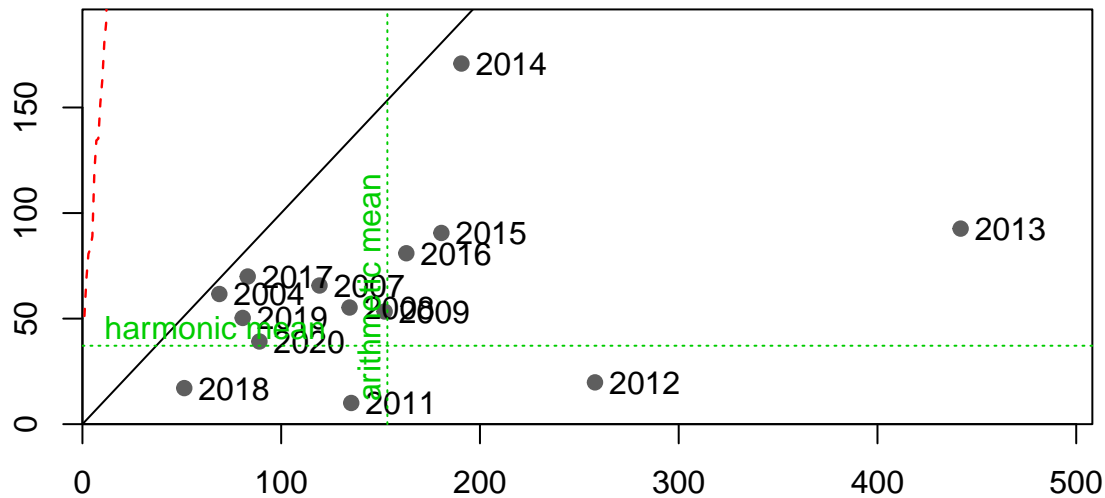


Length (cm)

Length (cm)

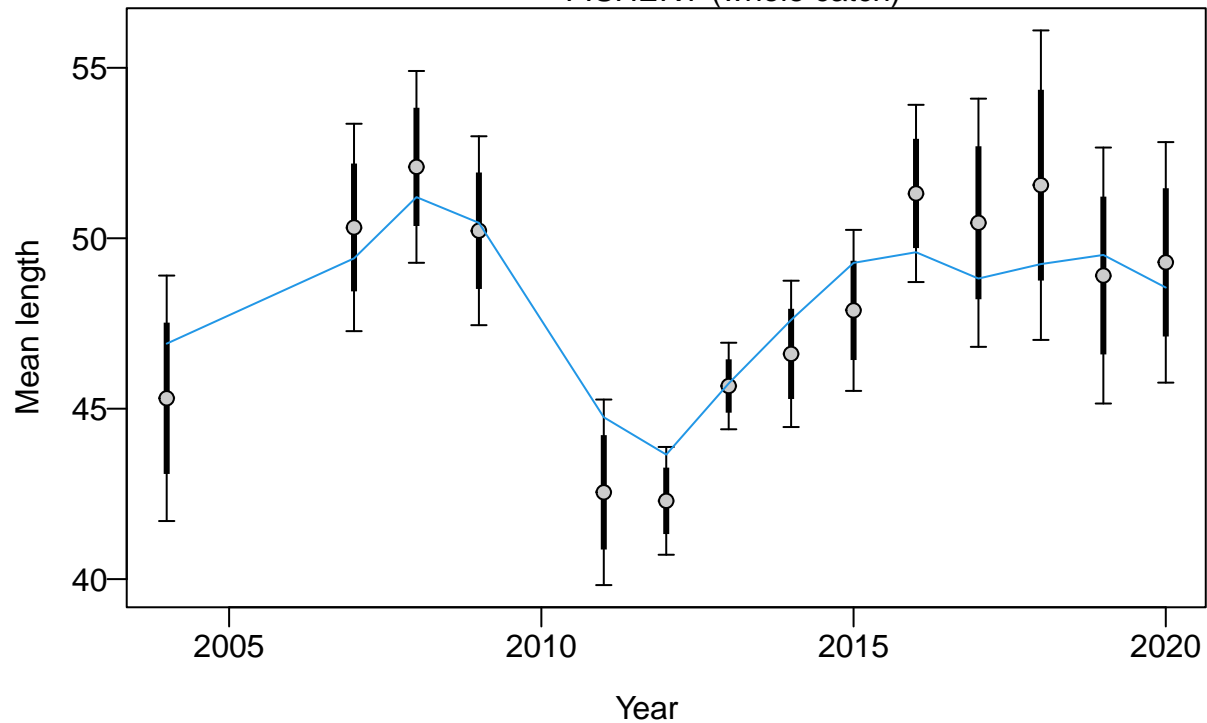


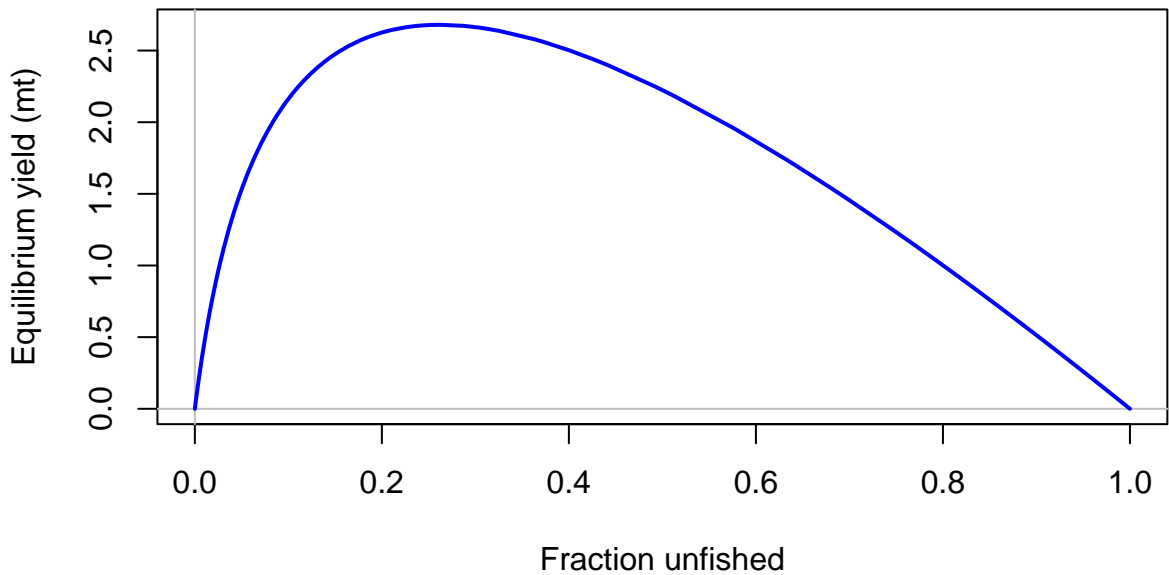
Effective sample size

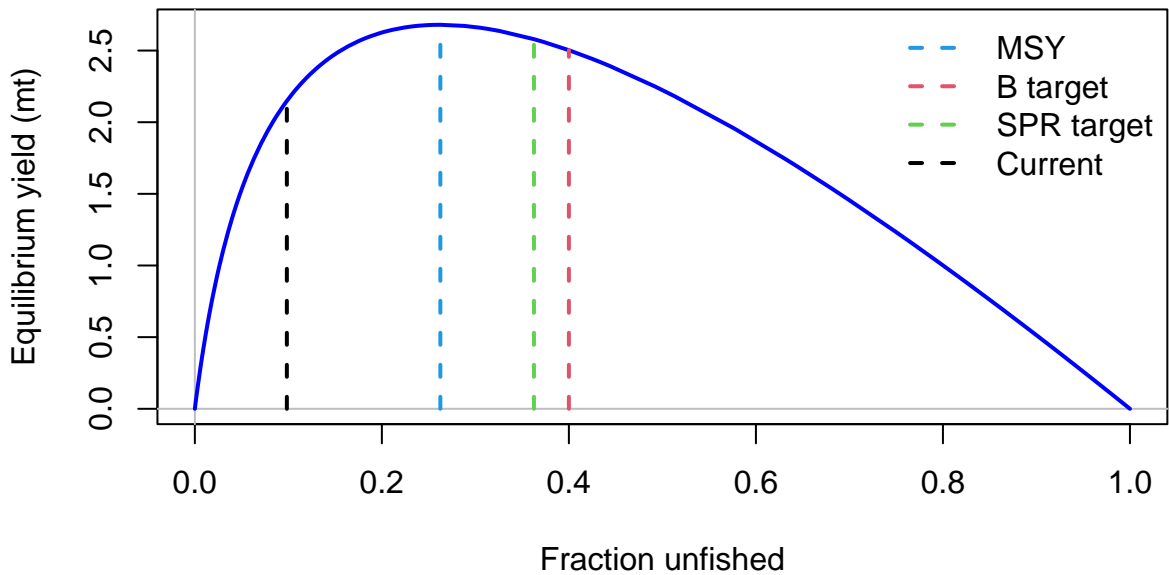


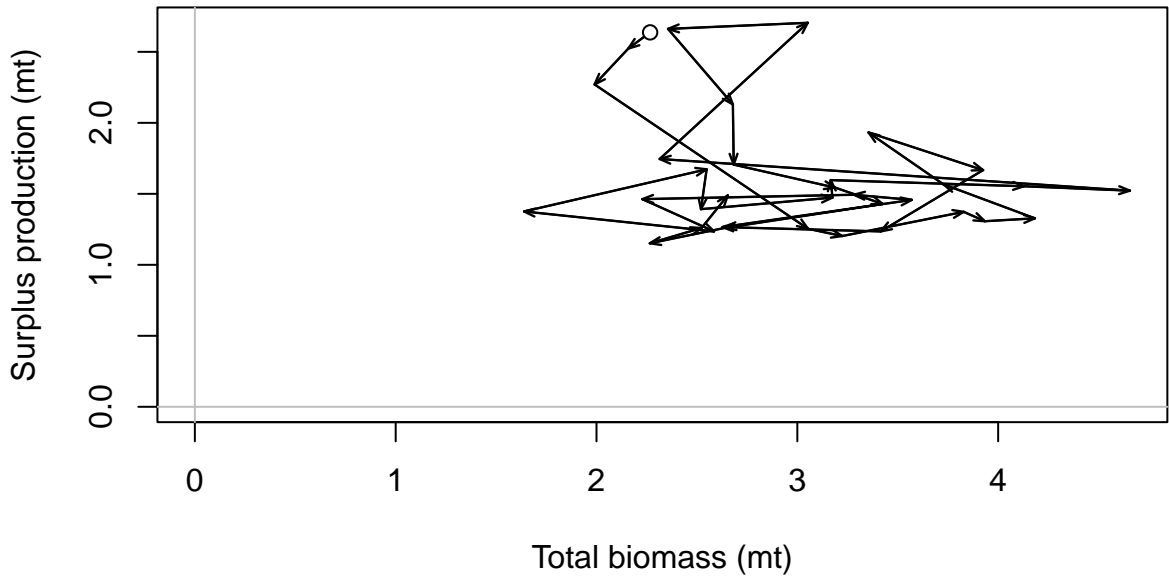
Observed sample size

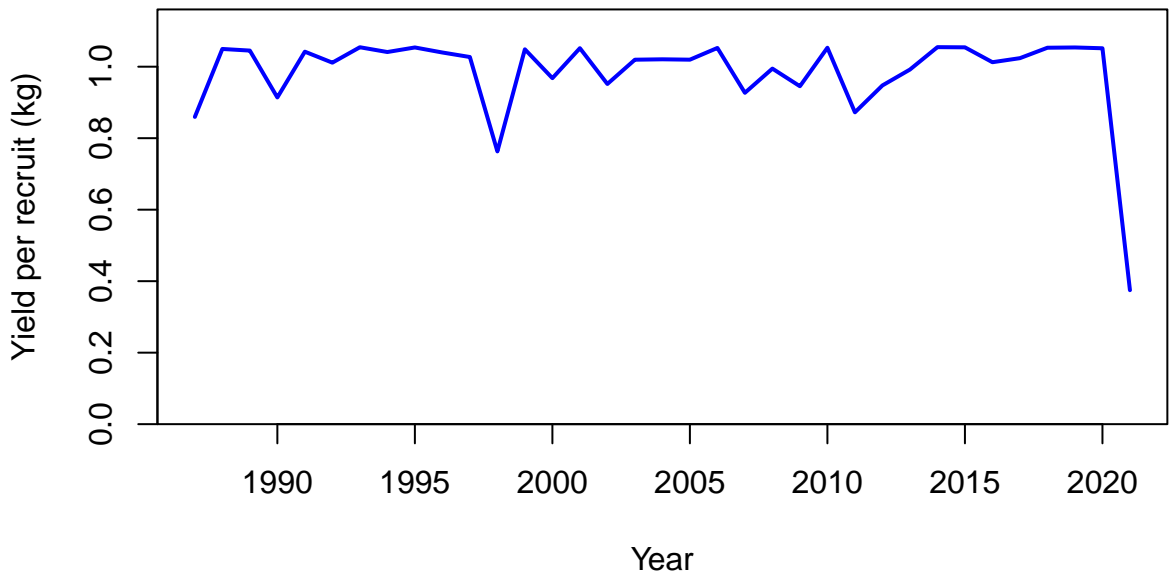
FISHERY (whole catch)

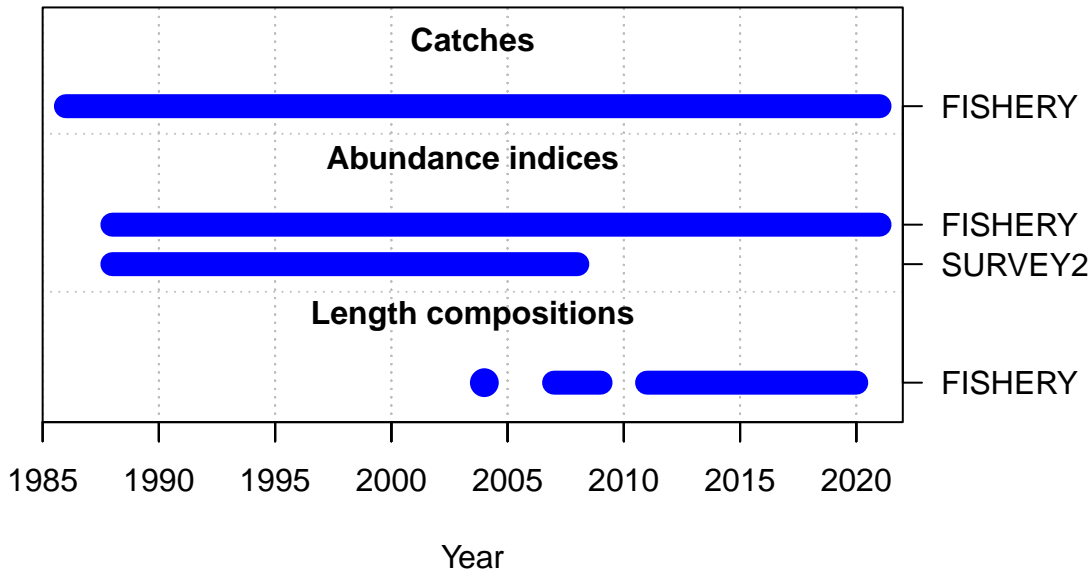


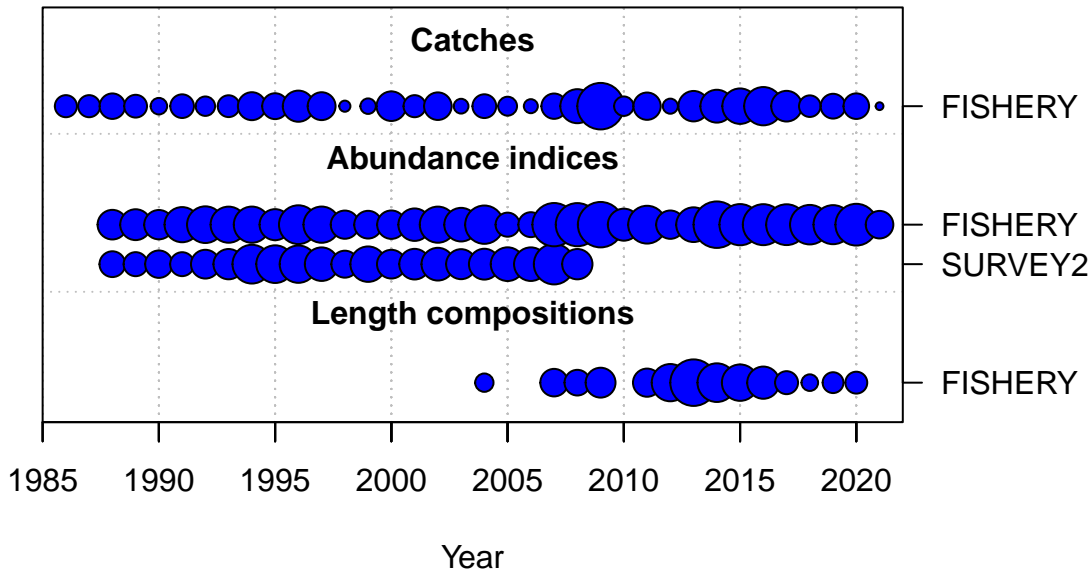




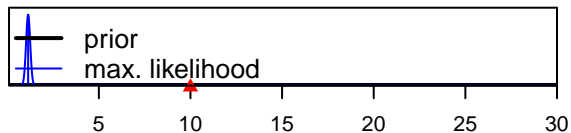




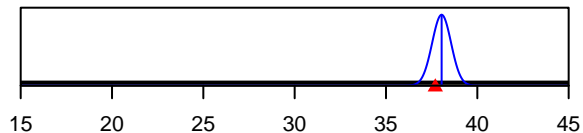




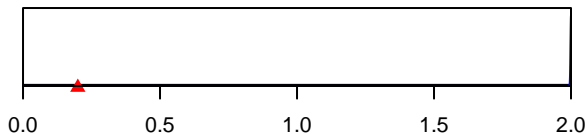
SR_LN(R0)



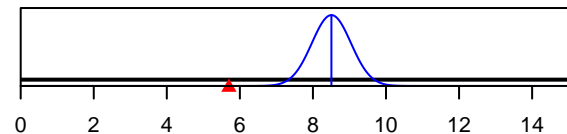
Size_inflection_FISHERY(1)



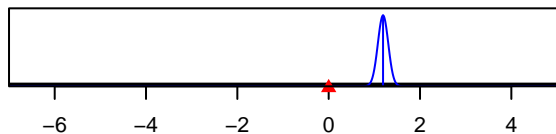
InitF_seas_1_flt_1FISHERY



Size_95%width_FISHERY(1)



LnQ_base_FISHERY(1)



LnQ_base_SURVEY2(2)

