

Plots created using the 'r4ss' package in R

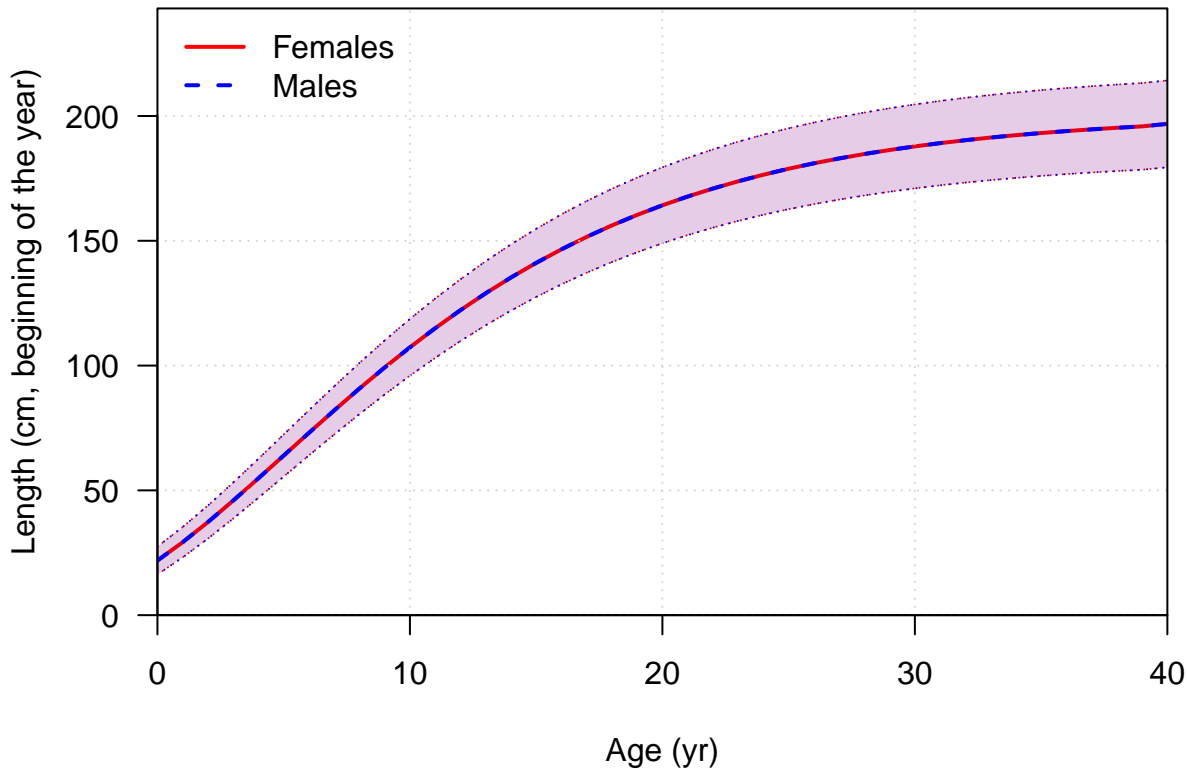
Stock Synthesis version: 3.30.15.0

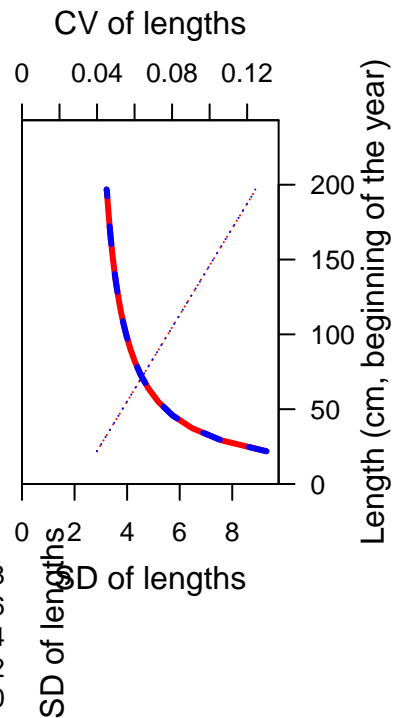
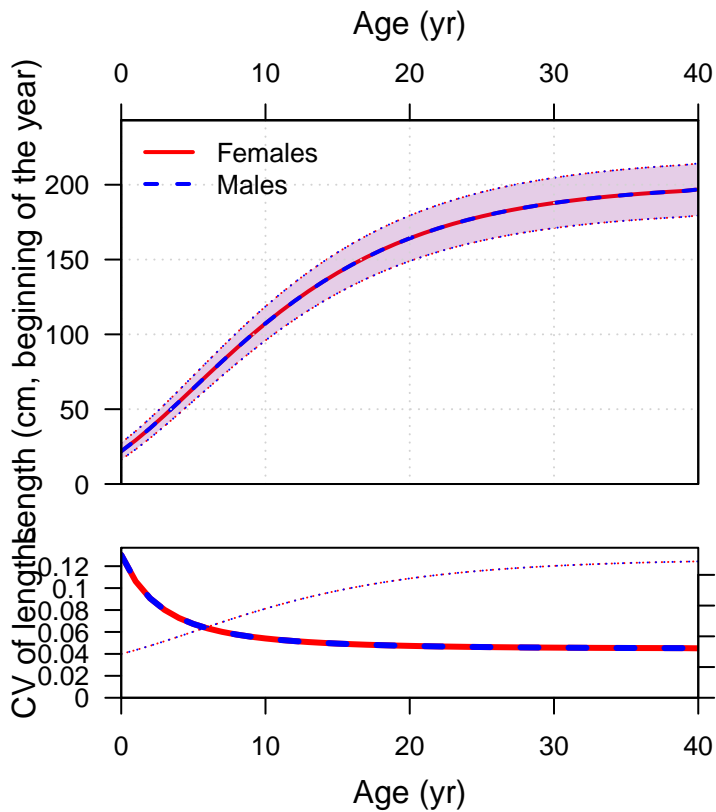
StartTime: Sun Apr 05 21:55:39 2020

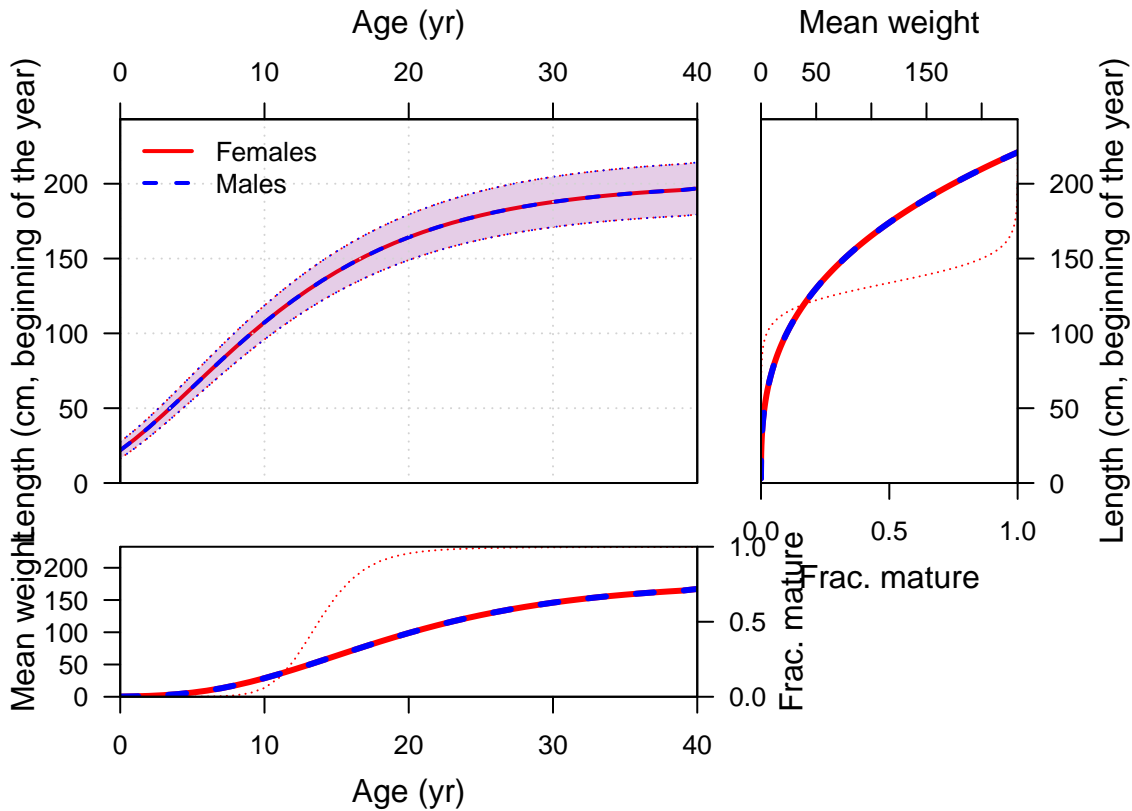
Data\_File: BET-EPO.dat

Control\_File: BET-EPO.ctl

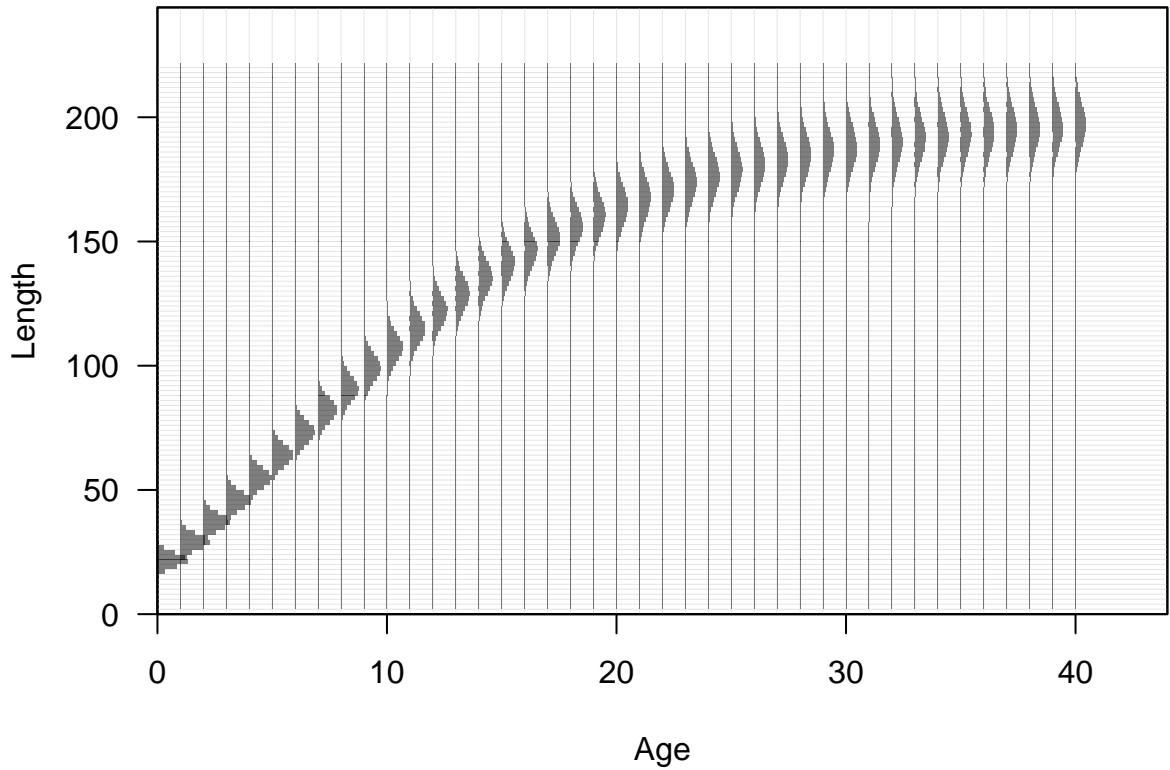
## Ending year expected growth (with 95% intervals)

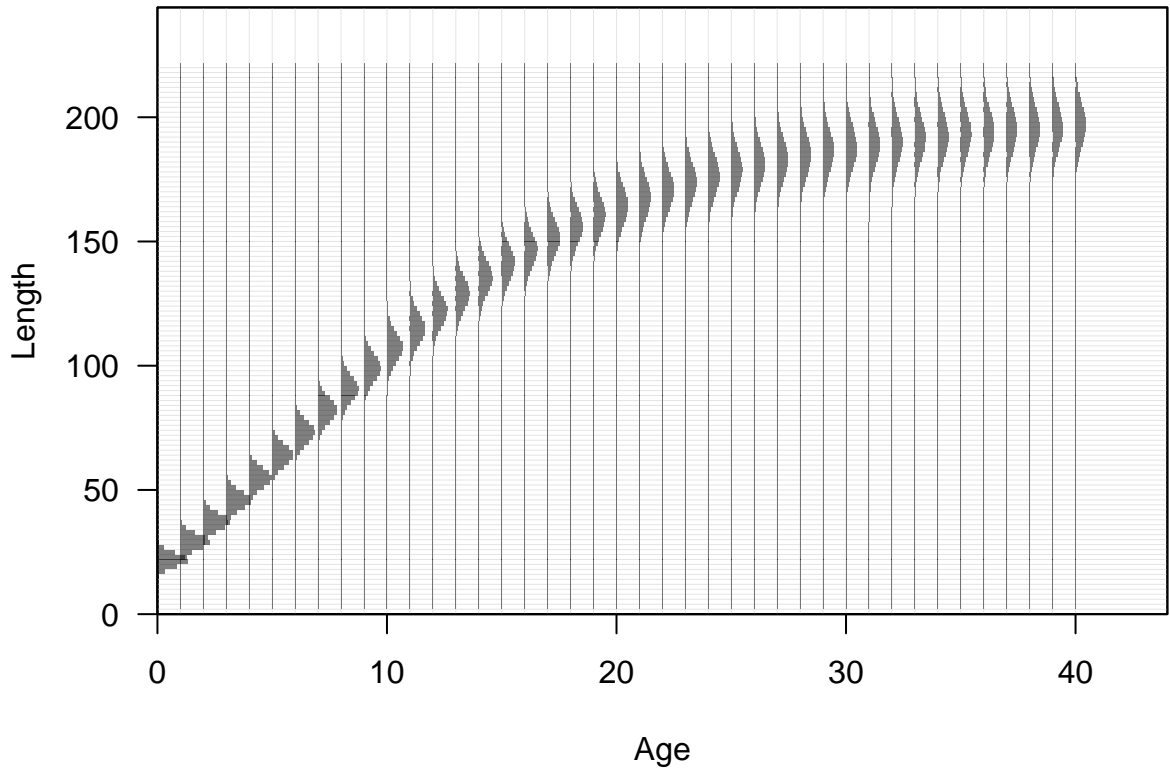


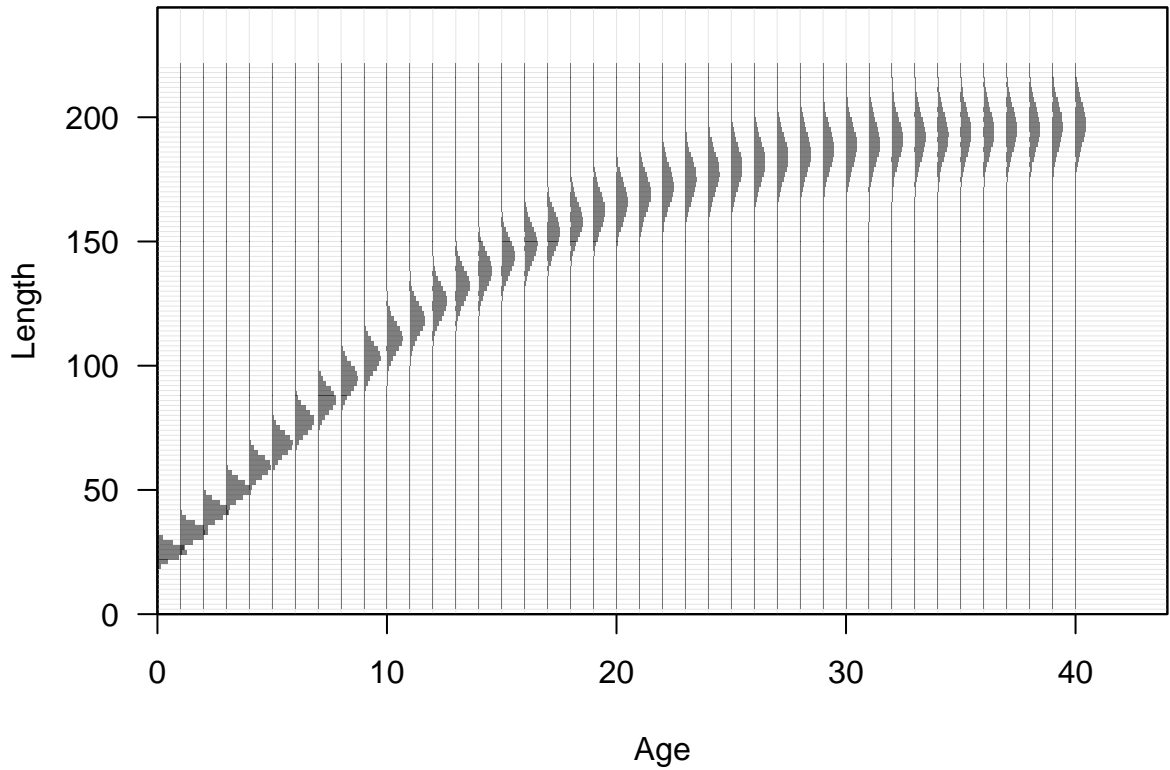


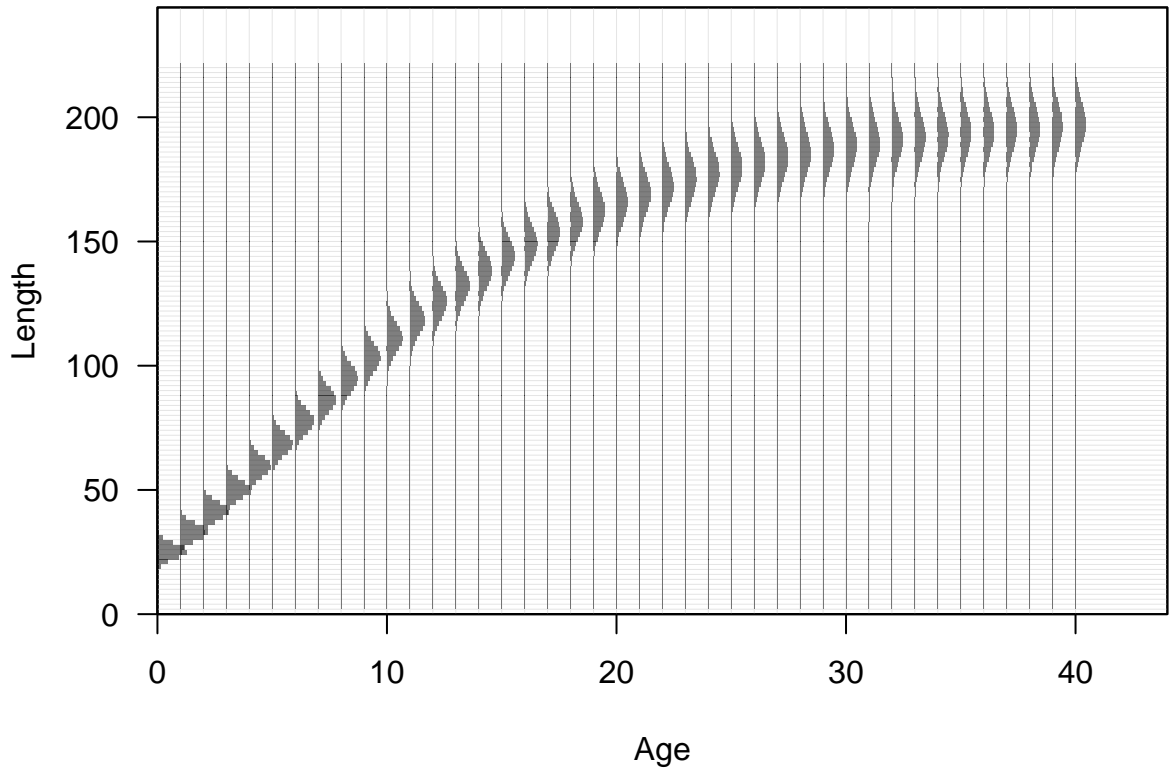


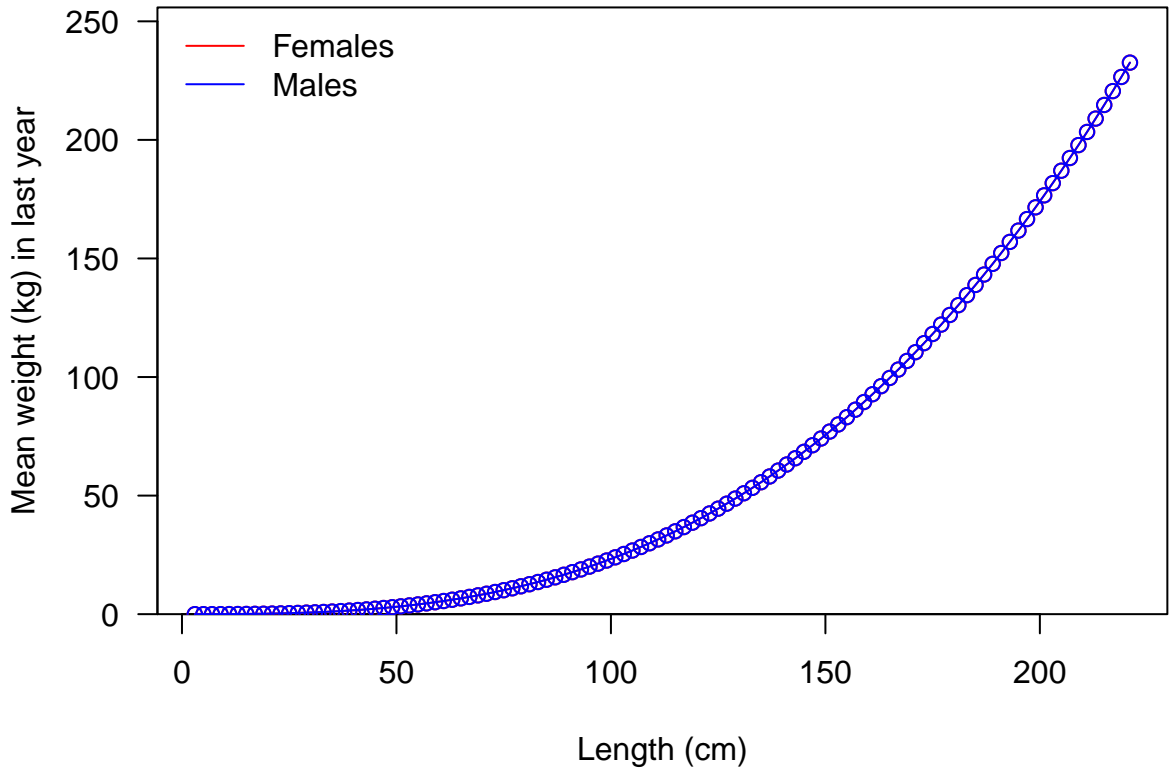


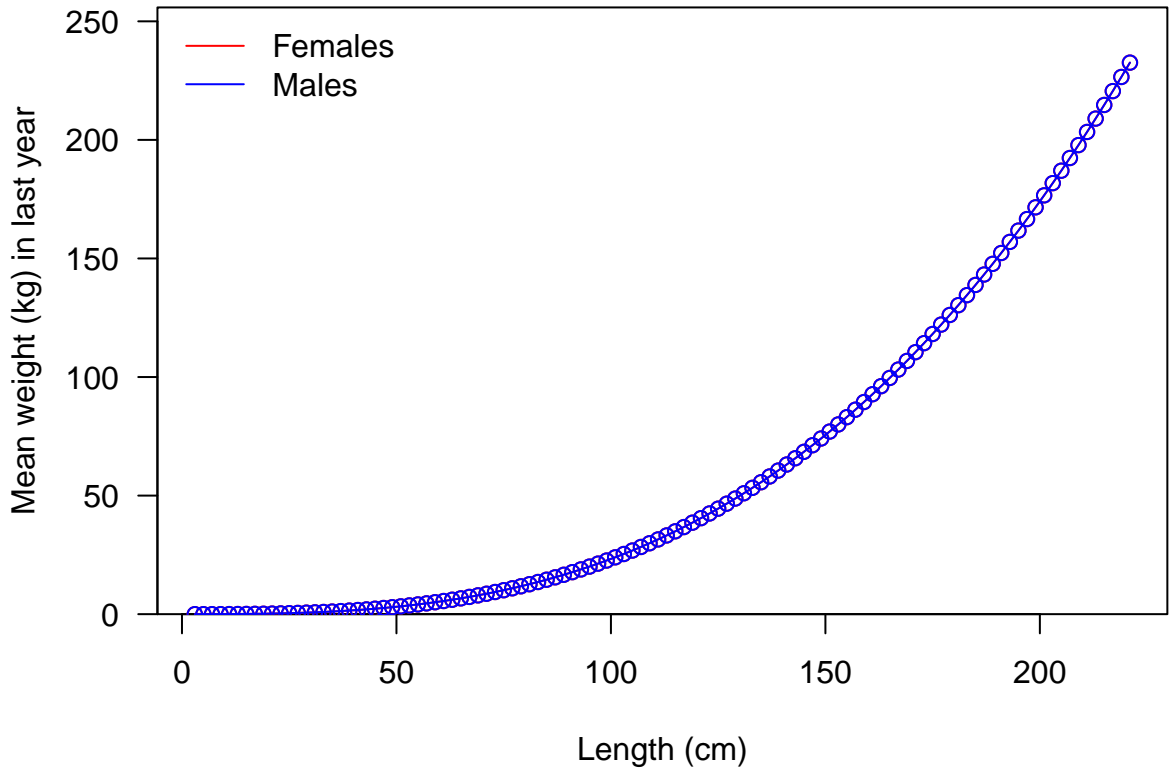


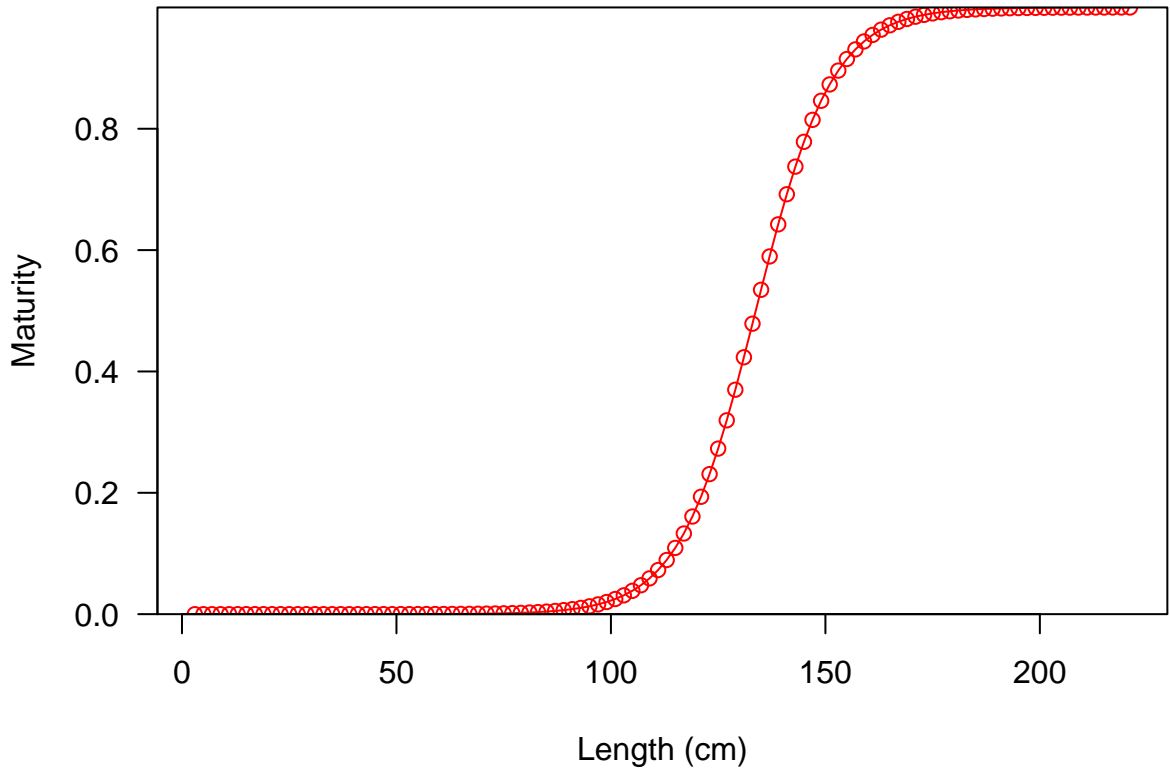


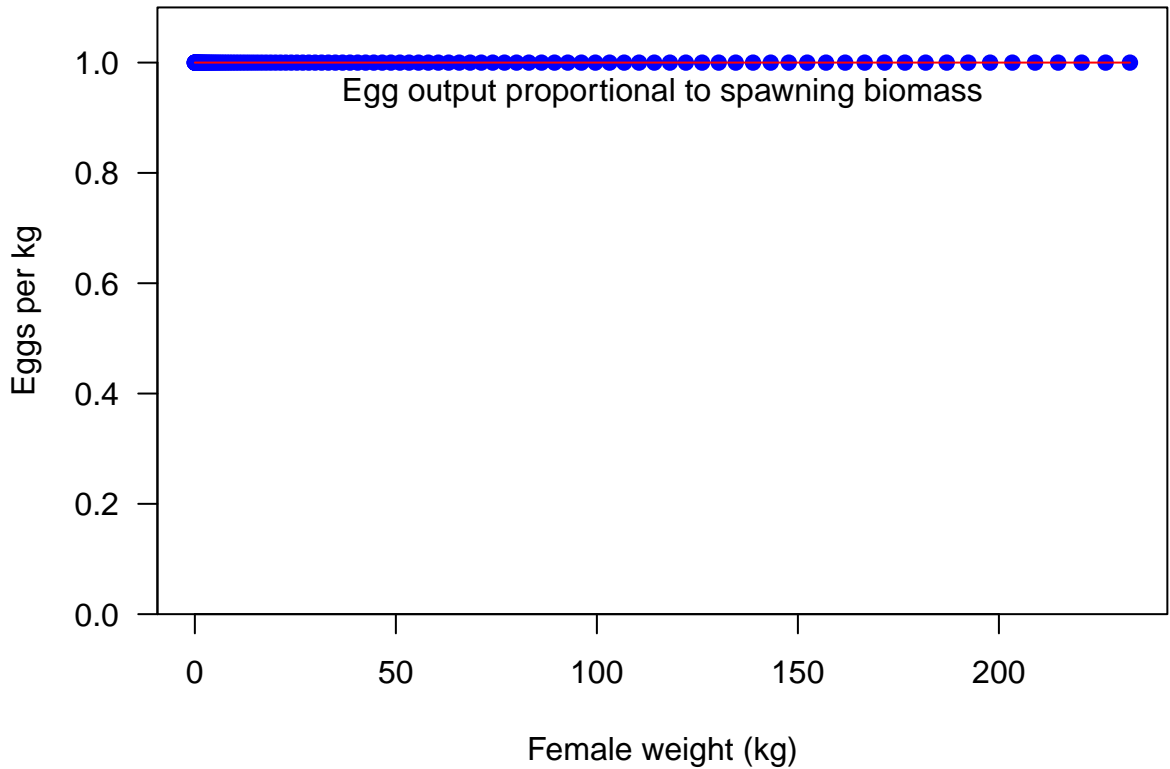




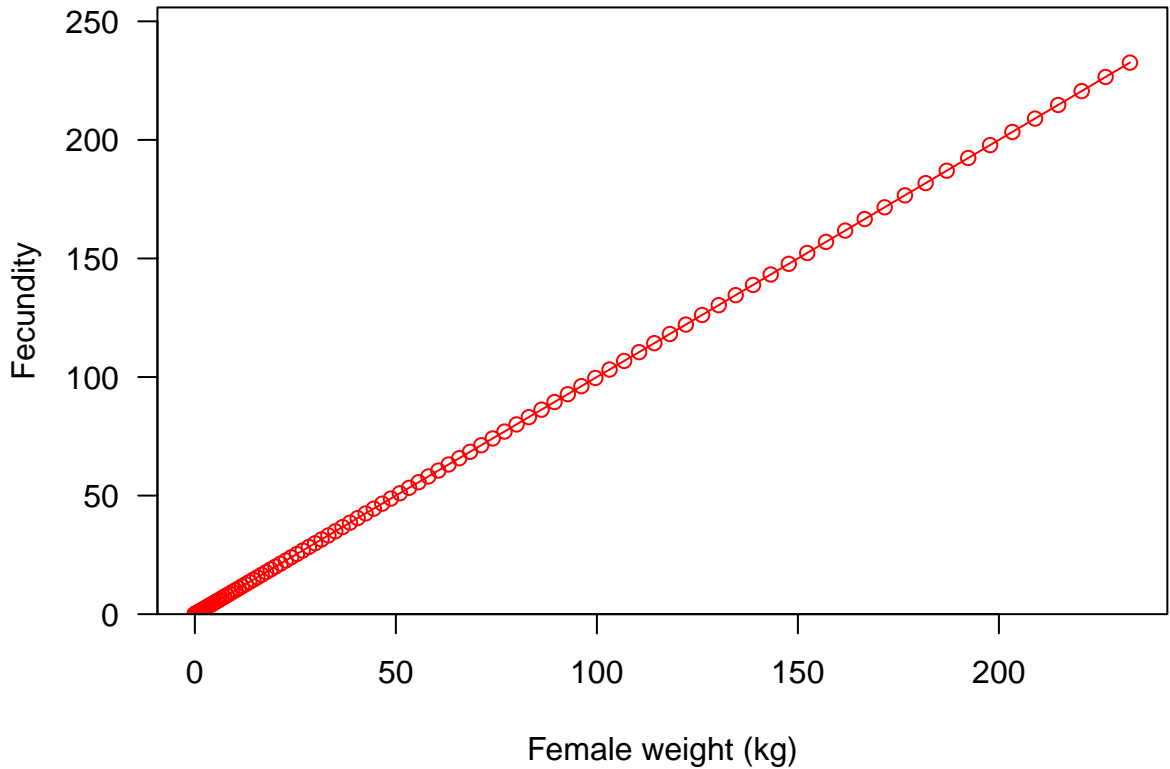


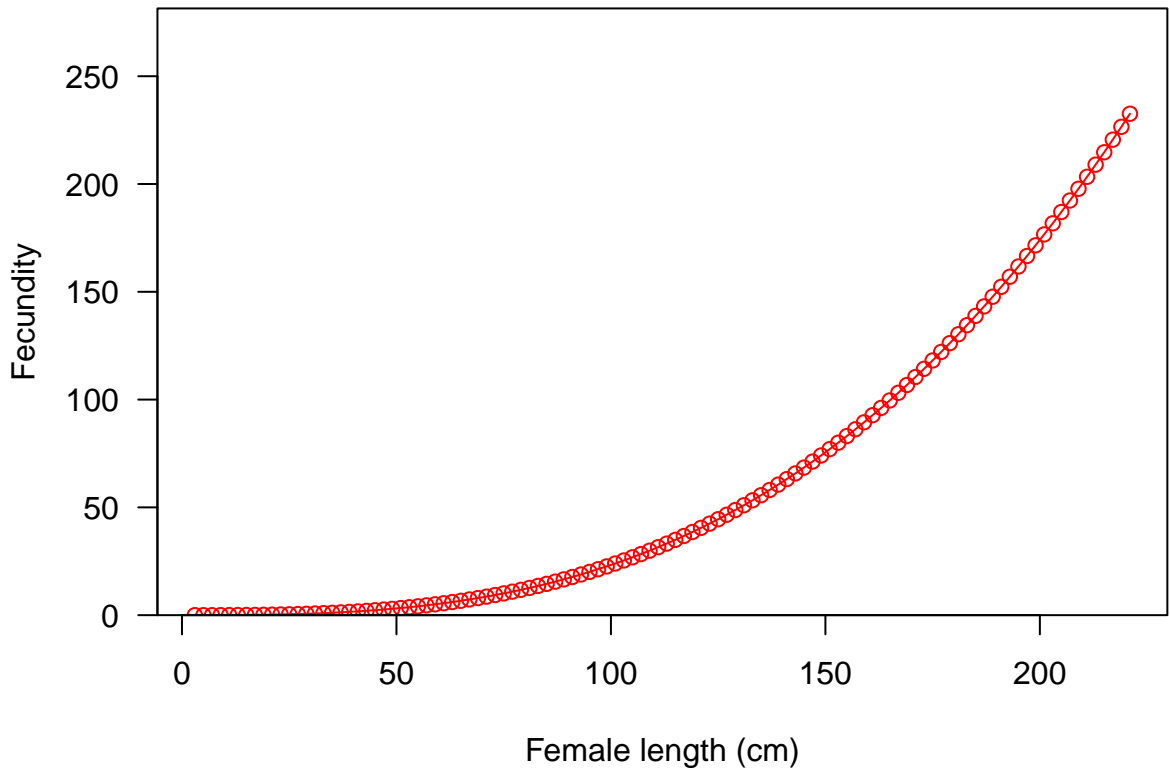


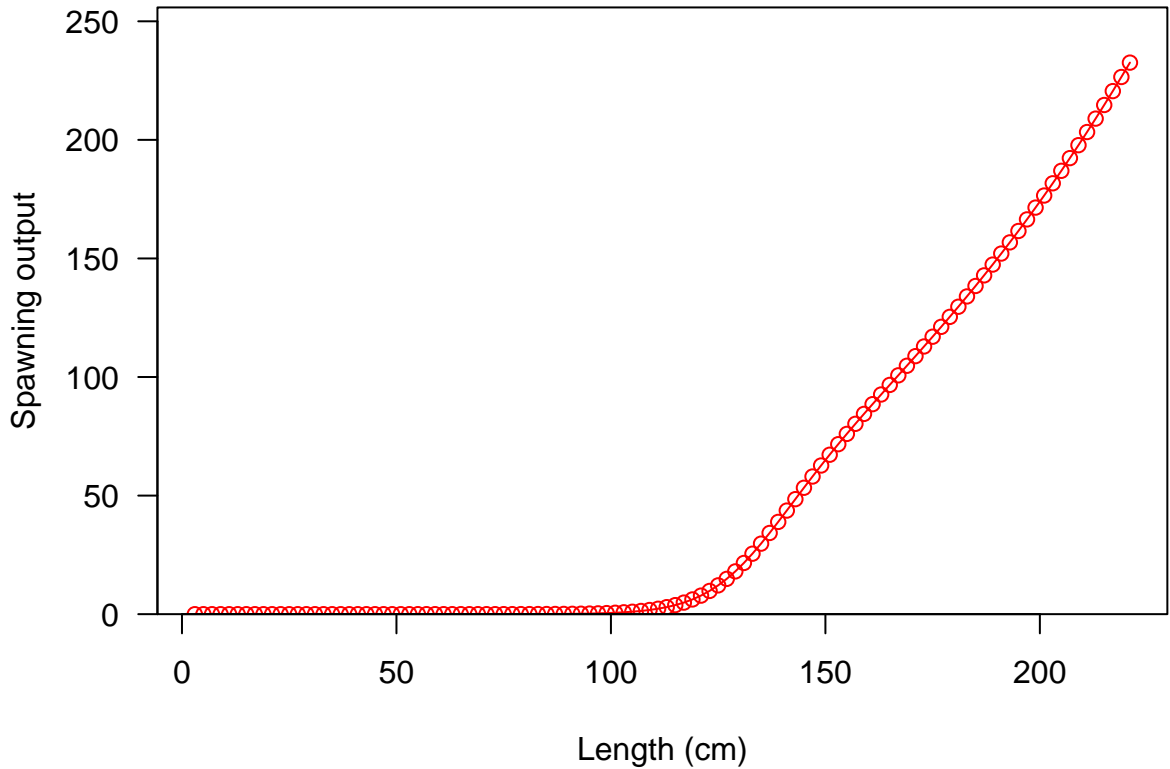


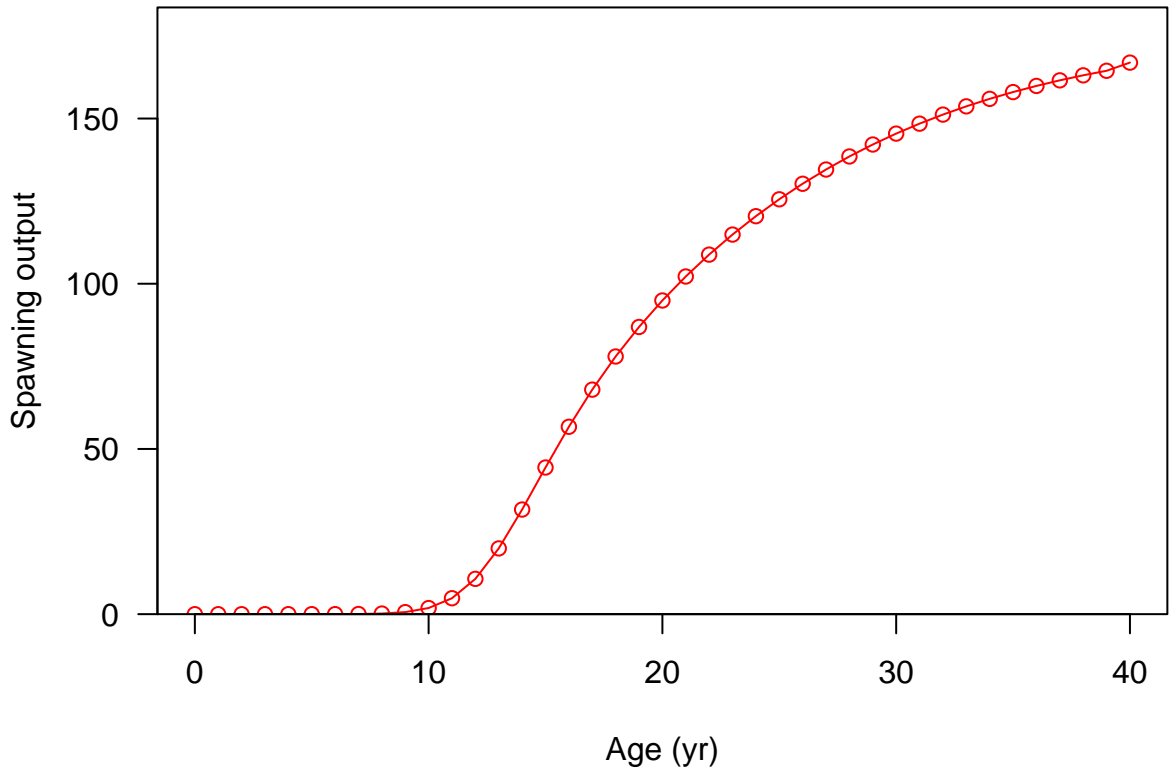




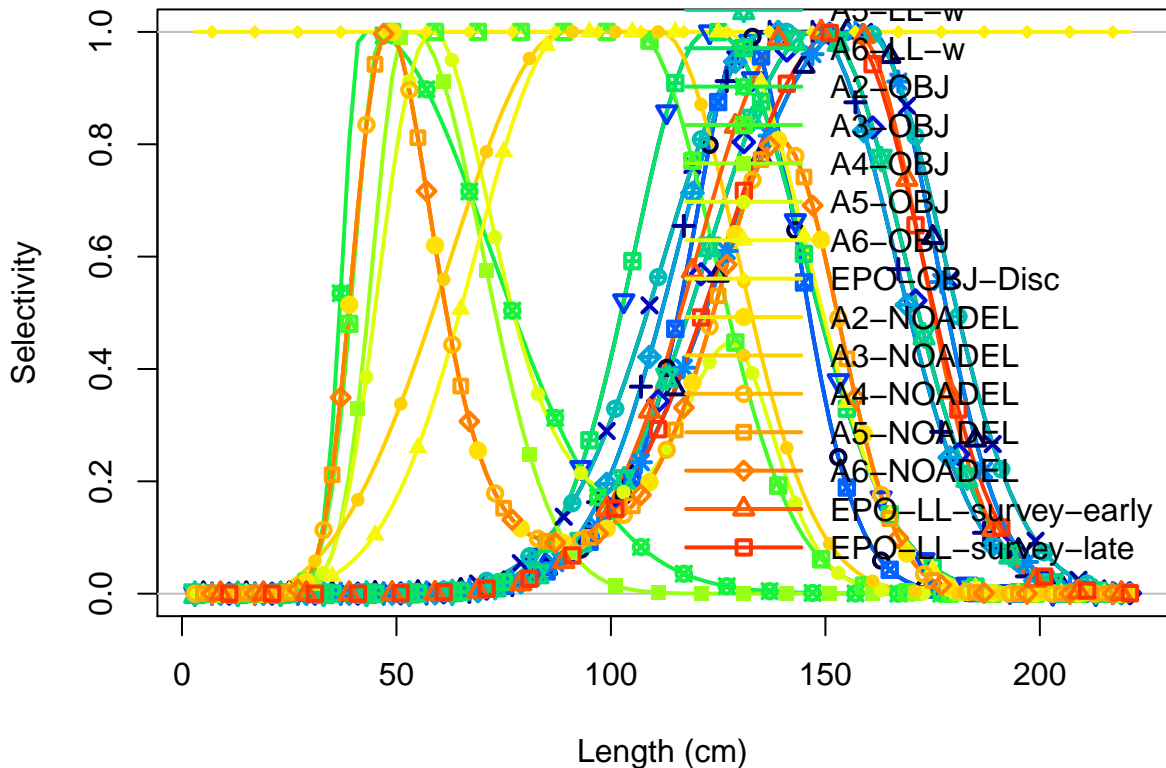






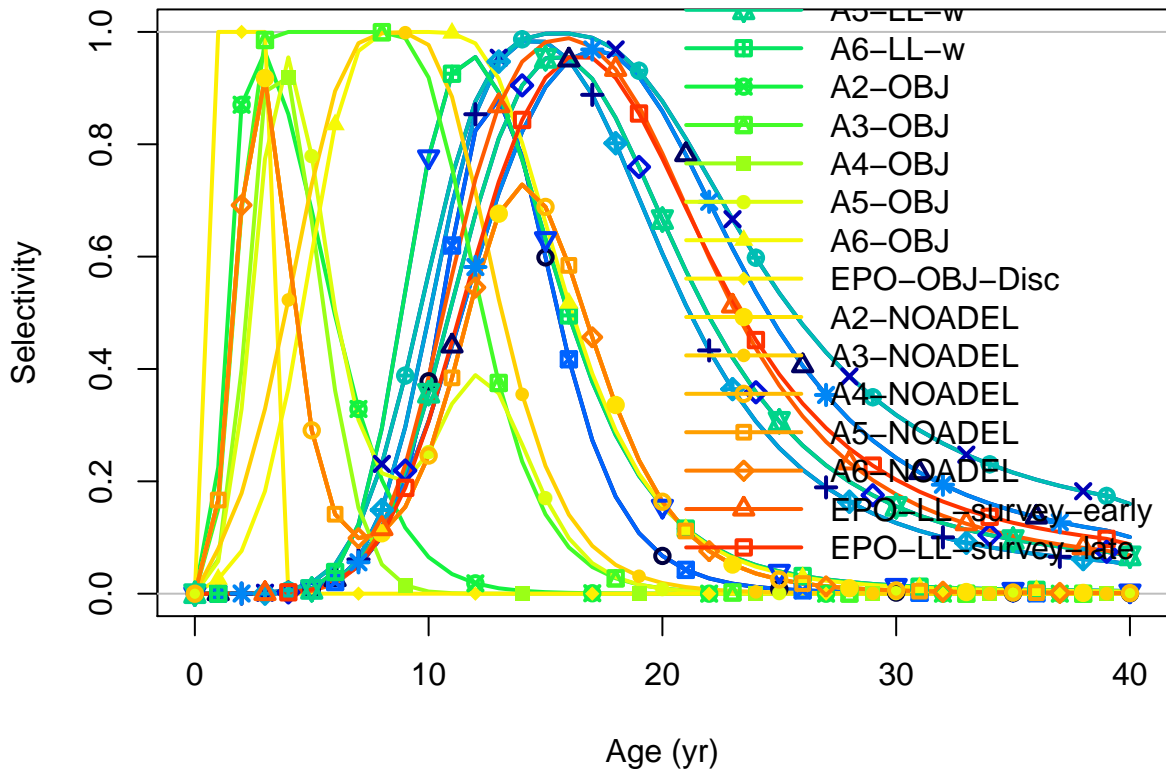


# Length-based selectivity by fleet in 180

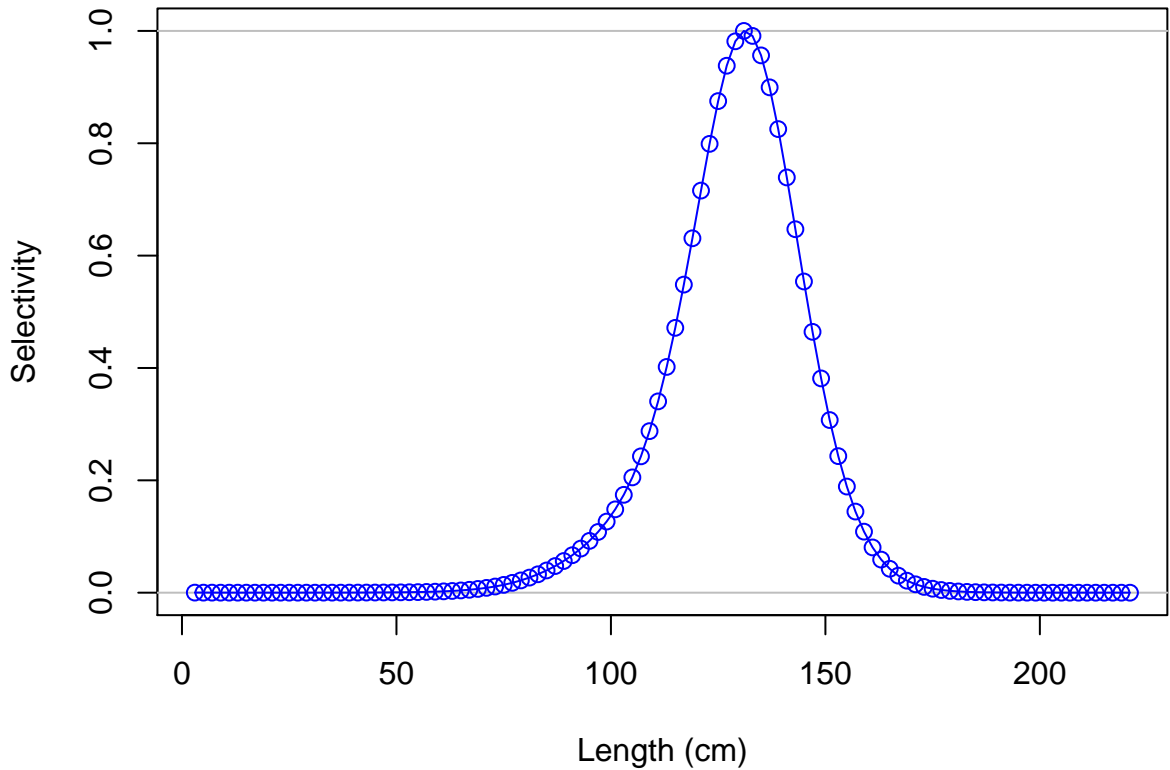




# Derived age-based from length-based selectivity by fleet in 180

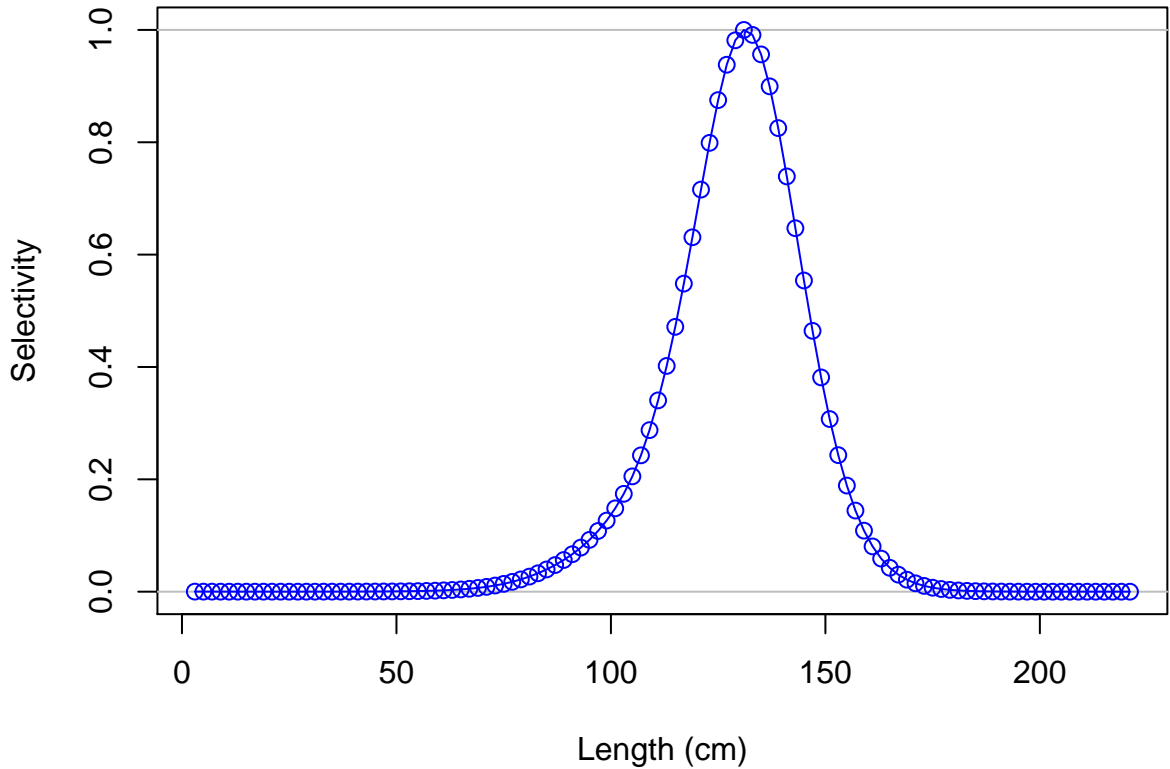


# Female ending year selectivity for A1-LL-n

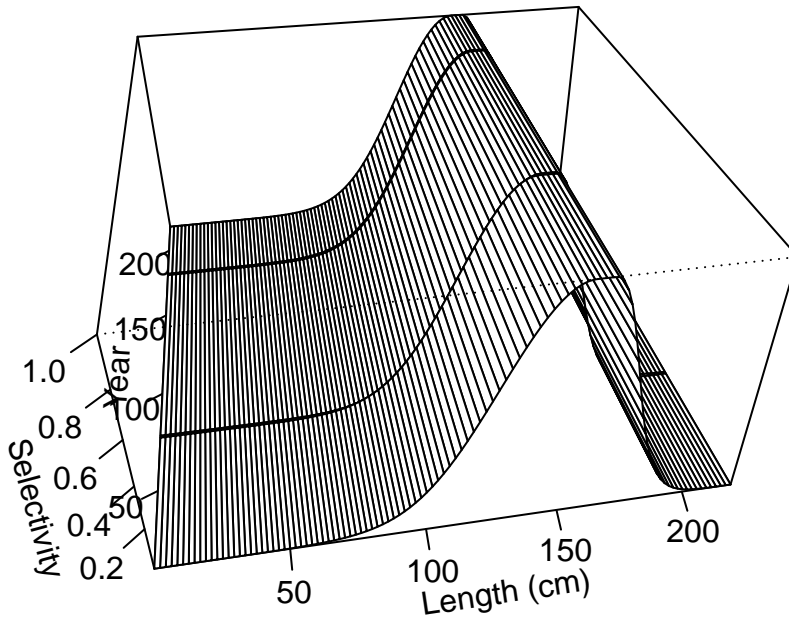




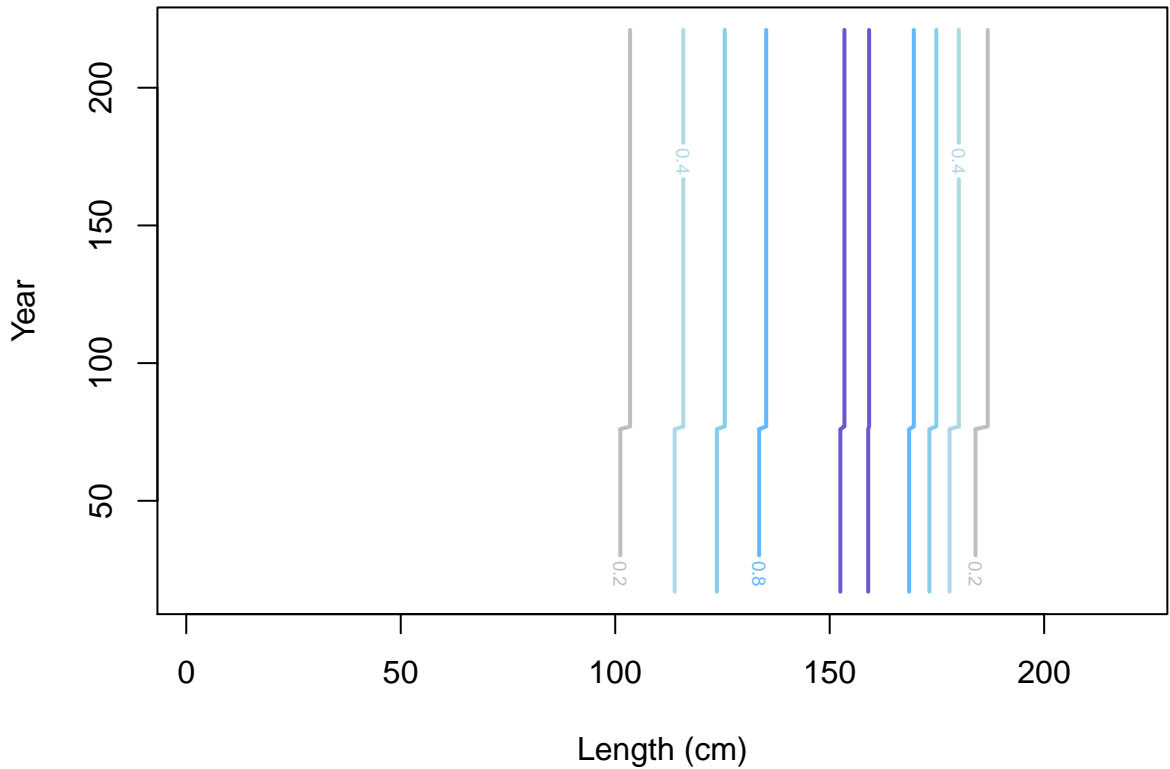
## Male ending year selectivity for A1-LL-n



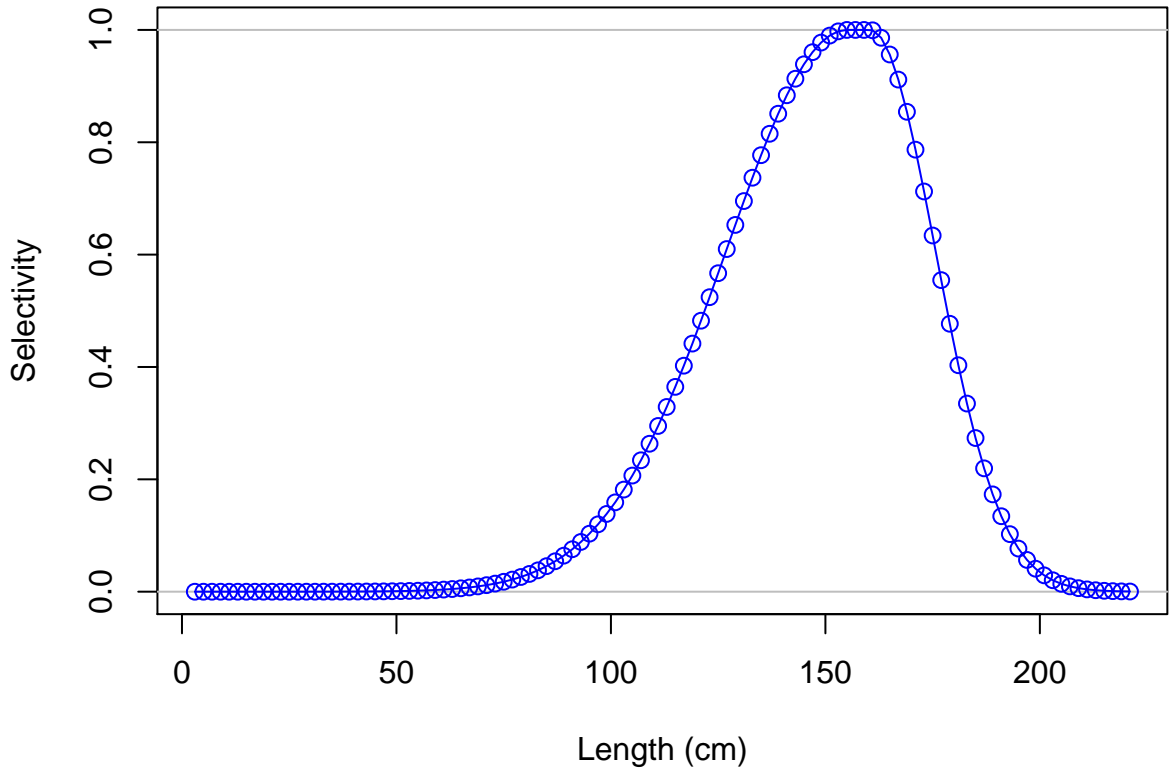
## Female time-varying selectivity for A2-LL-n



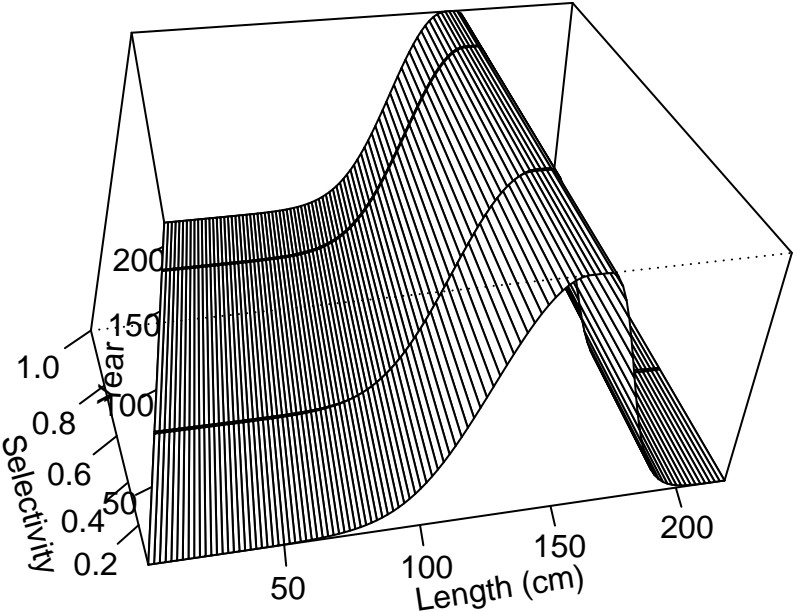
# Female time-varying selectivity for A2-LL-n



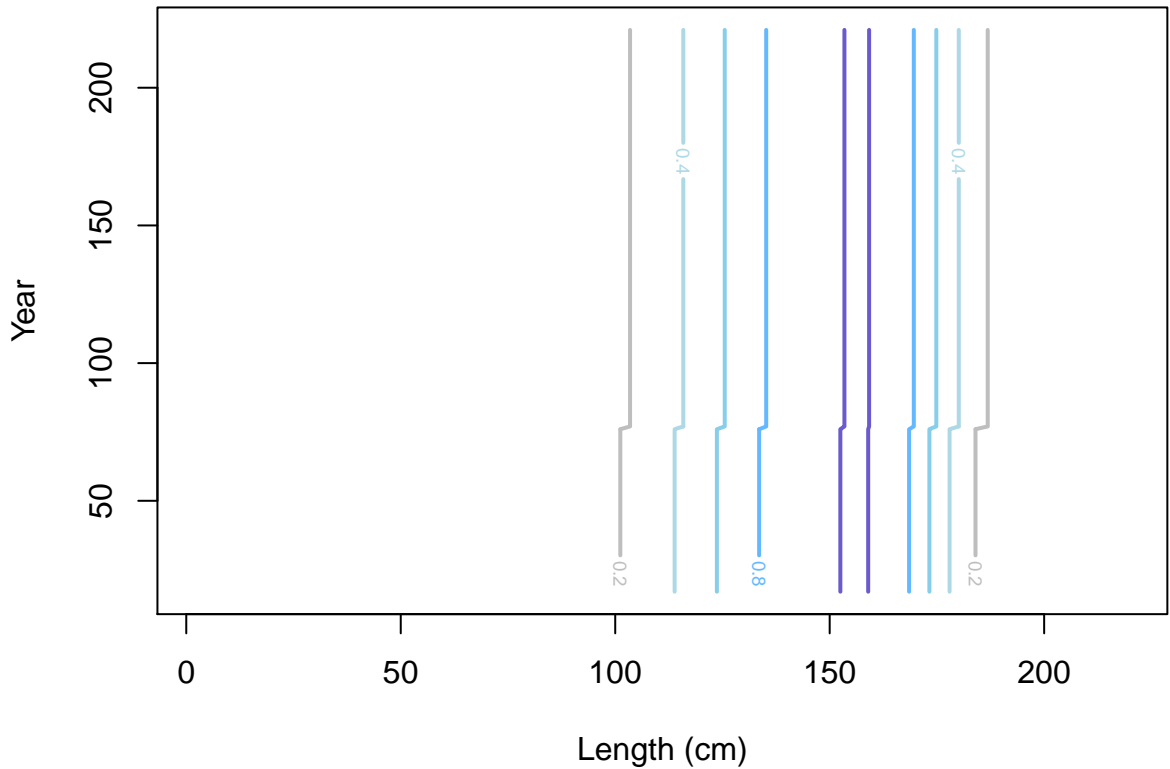
## Female ending year selectivity for A2-LL-n



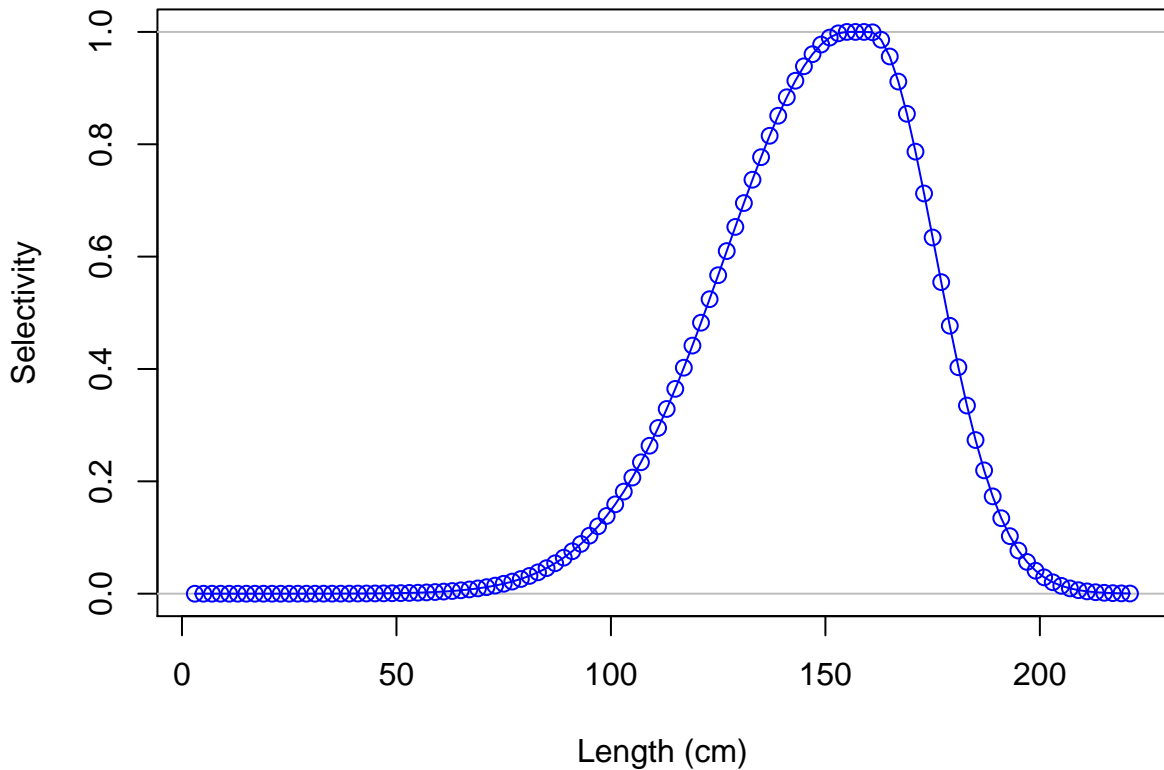
# Male time-varying selectivity for A2-LL-n



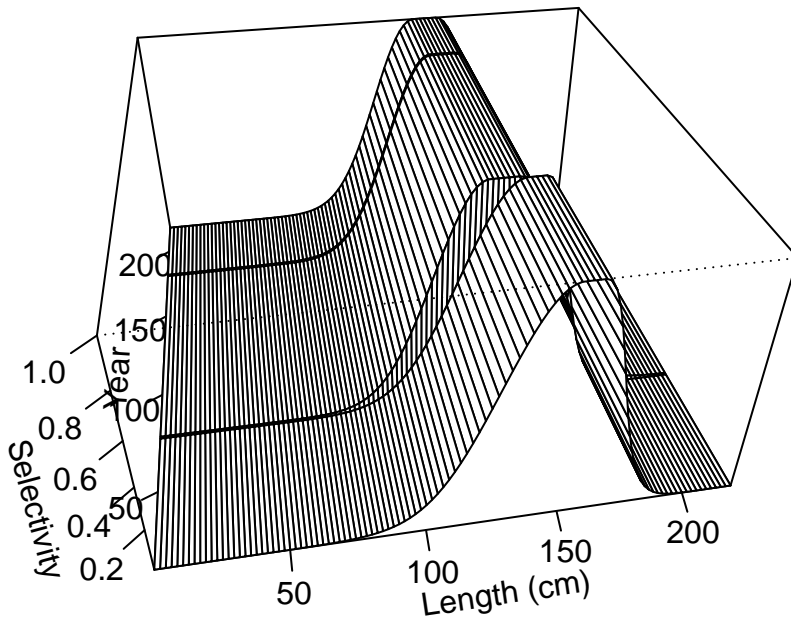
# Male time-varying selectivity for A2-LL-n



## Male ending year selectivity for A2-LL-n

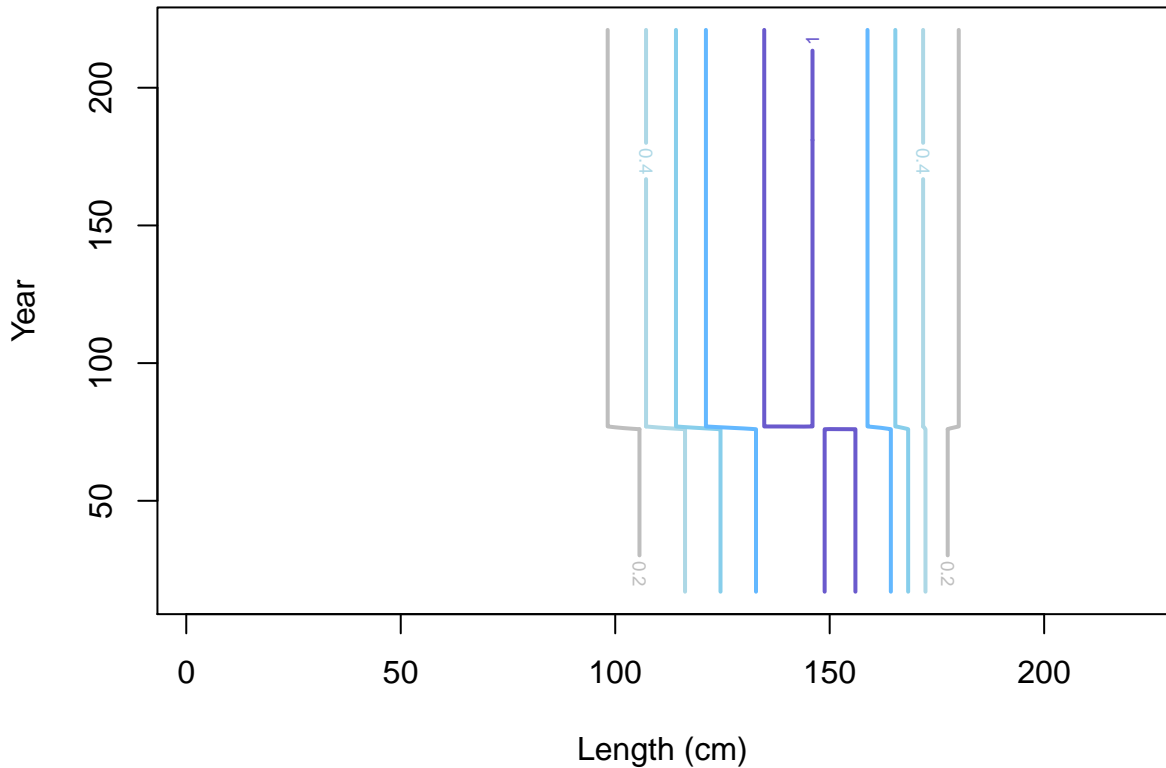


## Female time-varying selectivity for A3-LL-n

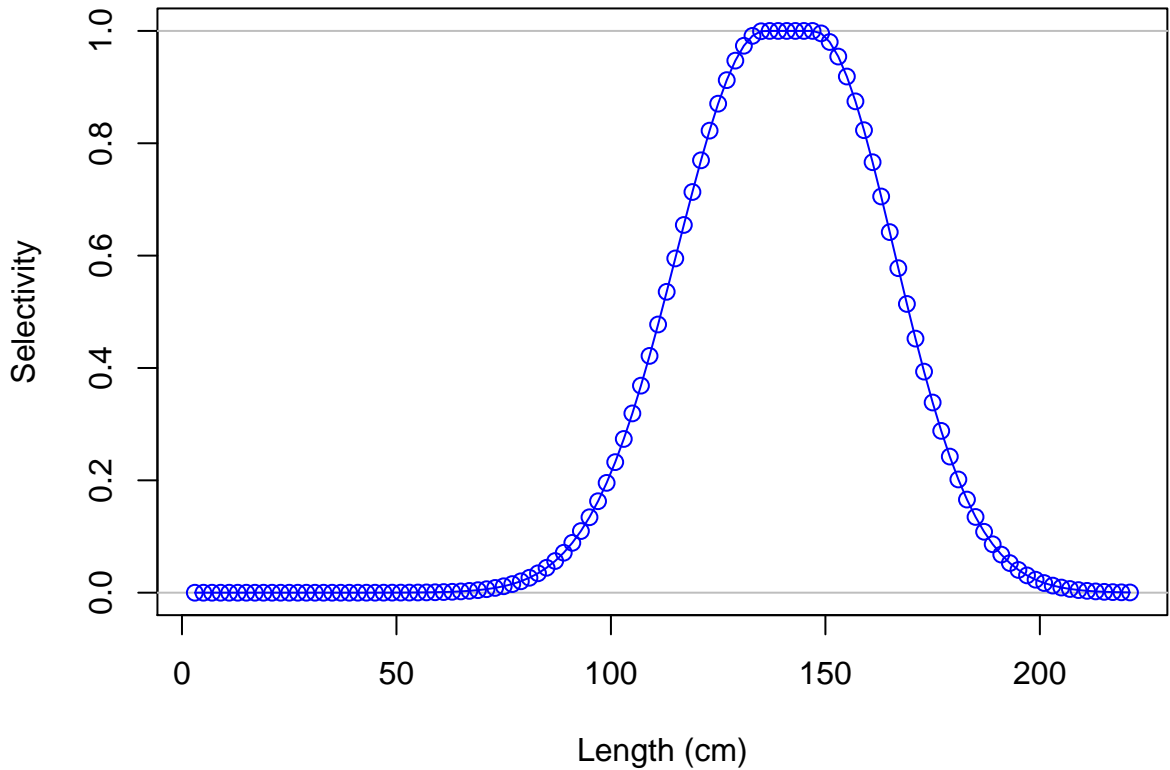




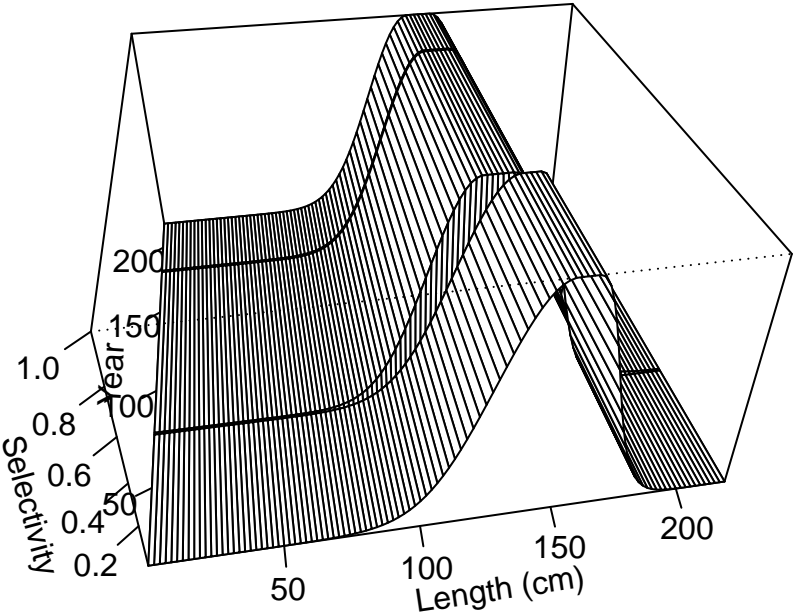
# Female time-varying selectivity for A3-LL-n



# Female ending year selectivity for A3-LL-n

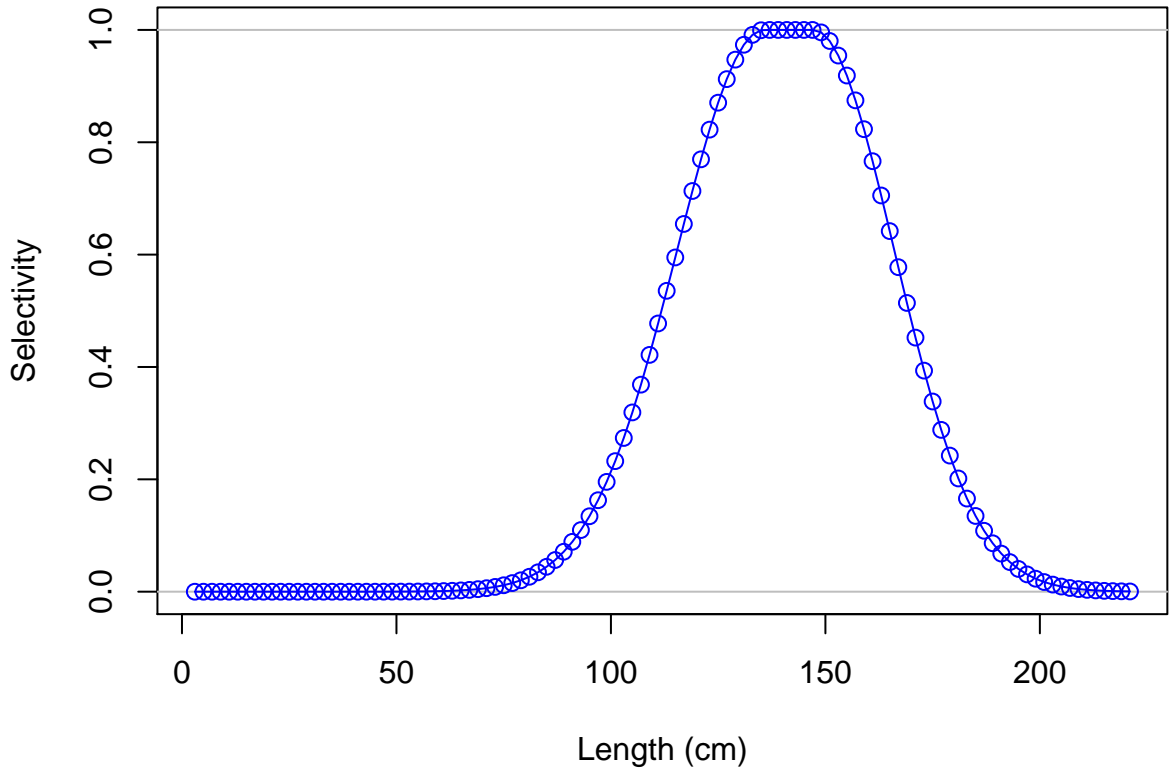


# Male time-varying selectivity for A3-LL-n

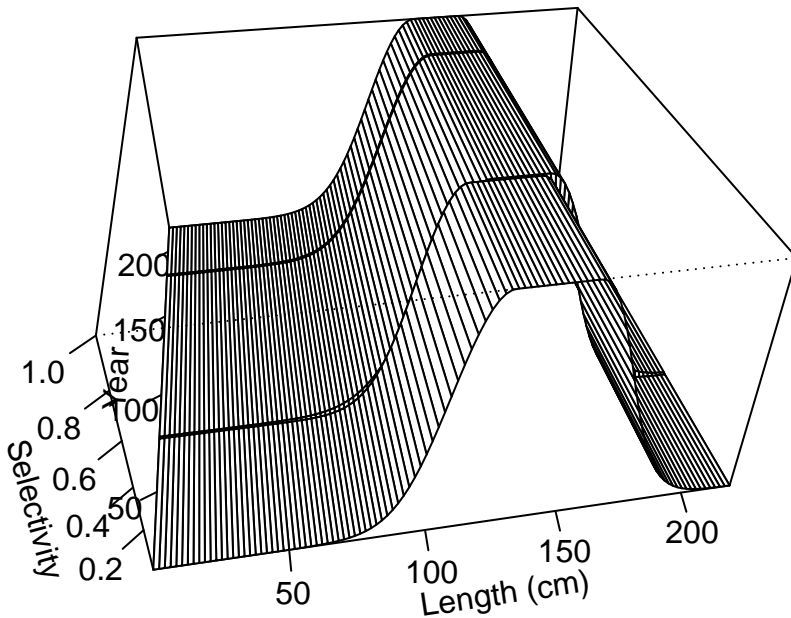




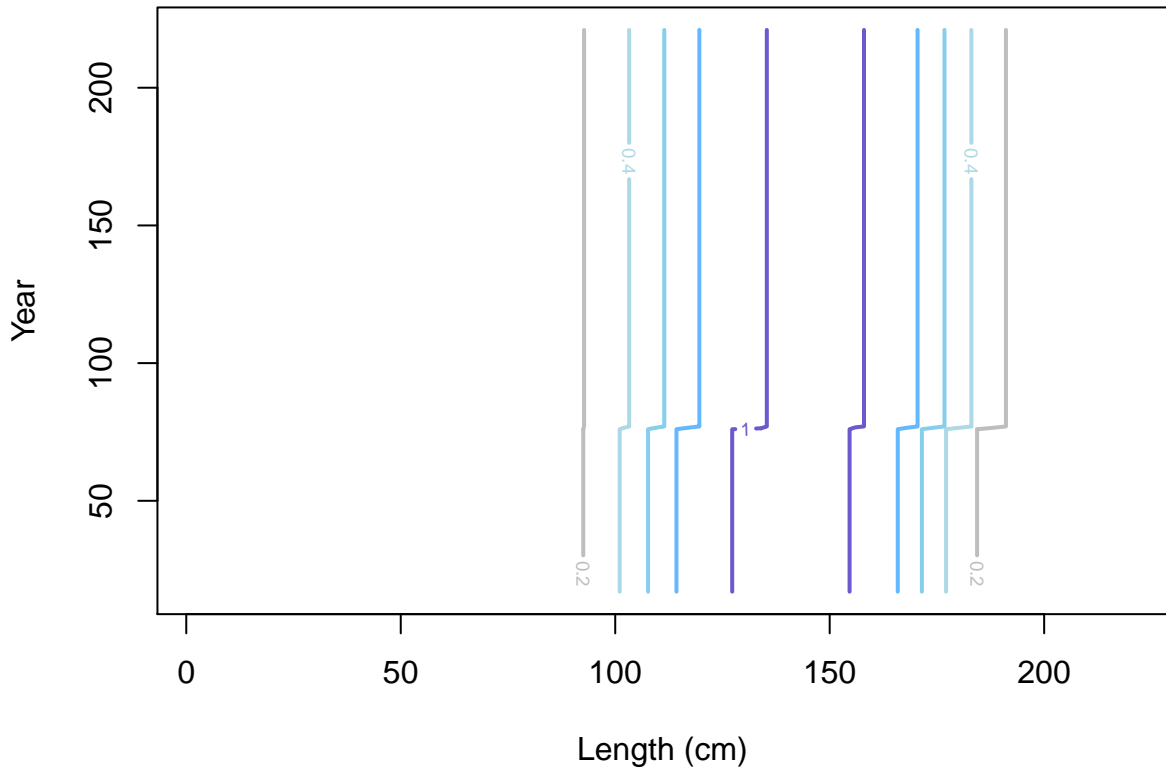
# Male ending year selectivity for A3-LL-n



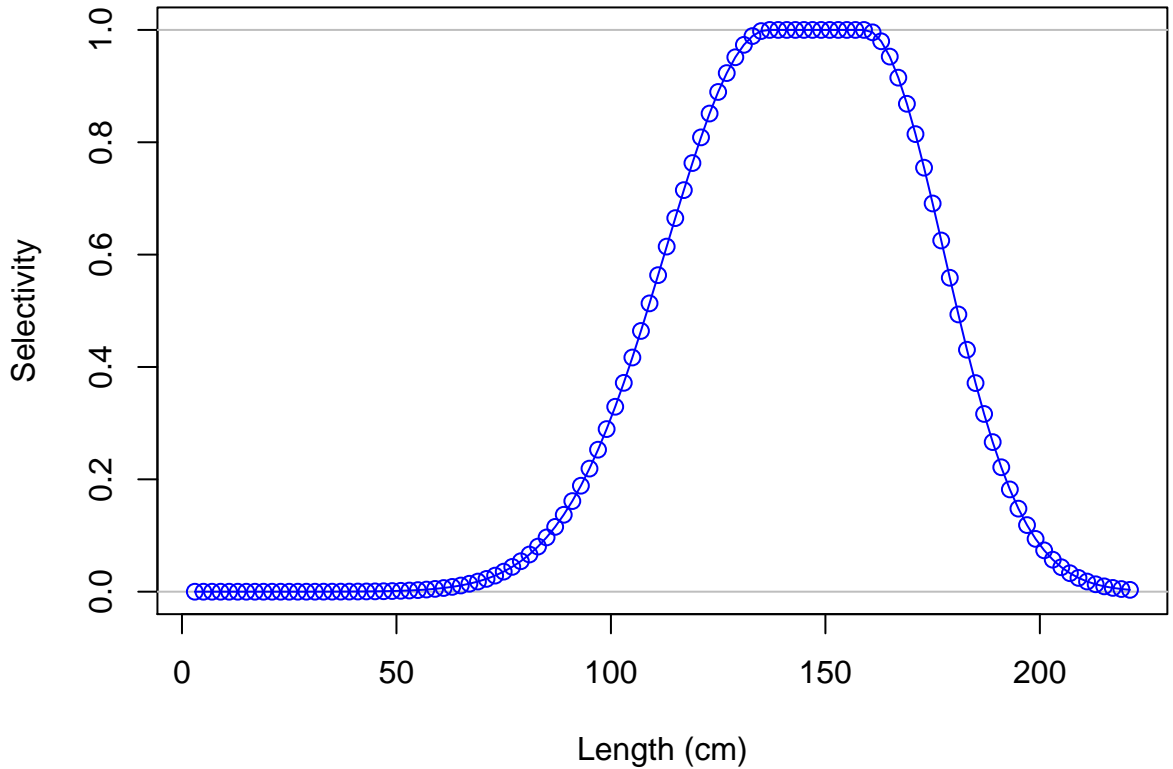
## Female time-varying selectivity for A4-LL-n



# Female time-varying selectivity for A4-LL-n

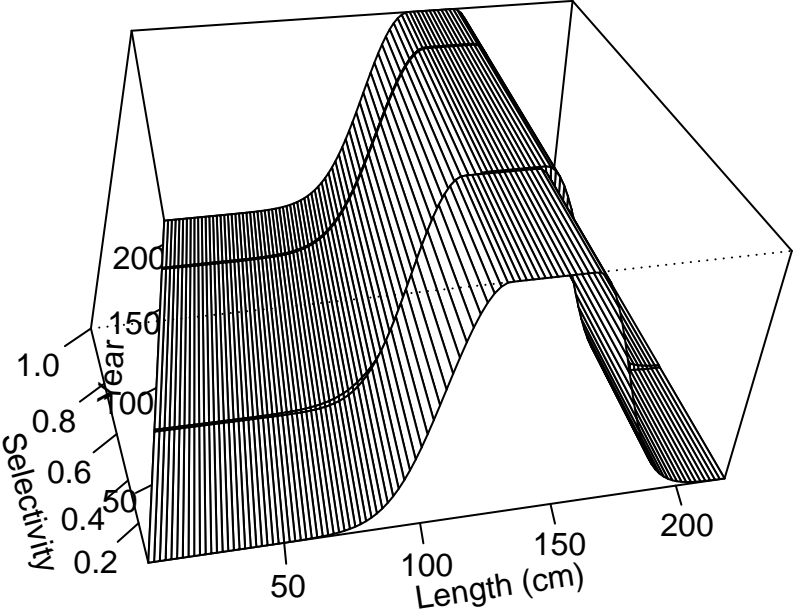


# Female ending year selectivity for A4-LL-n

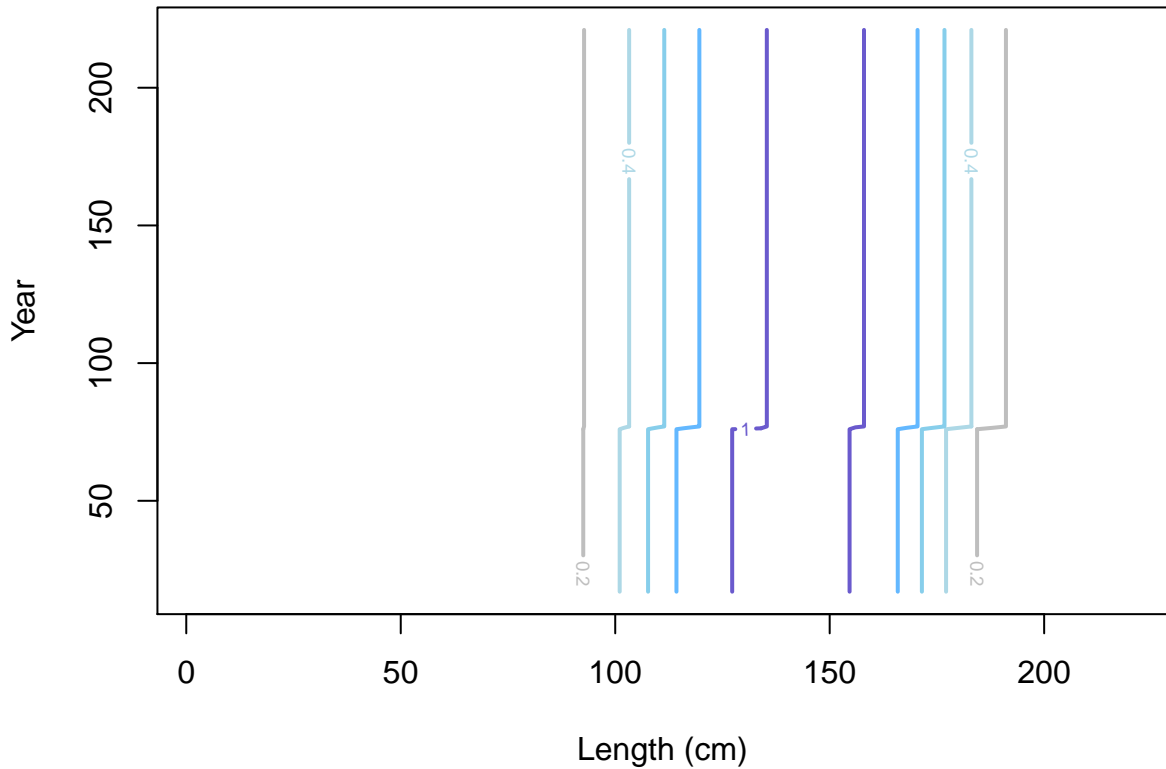




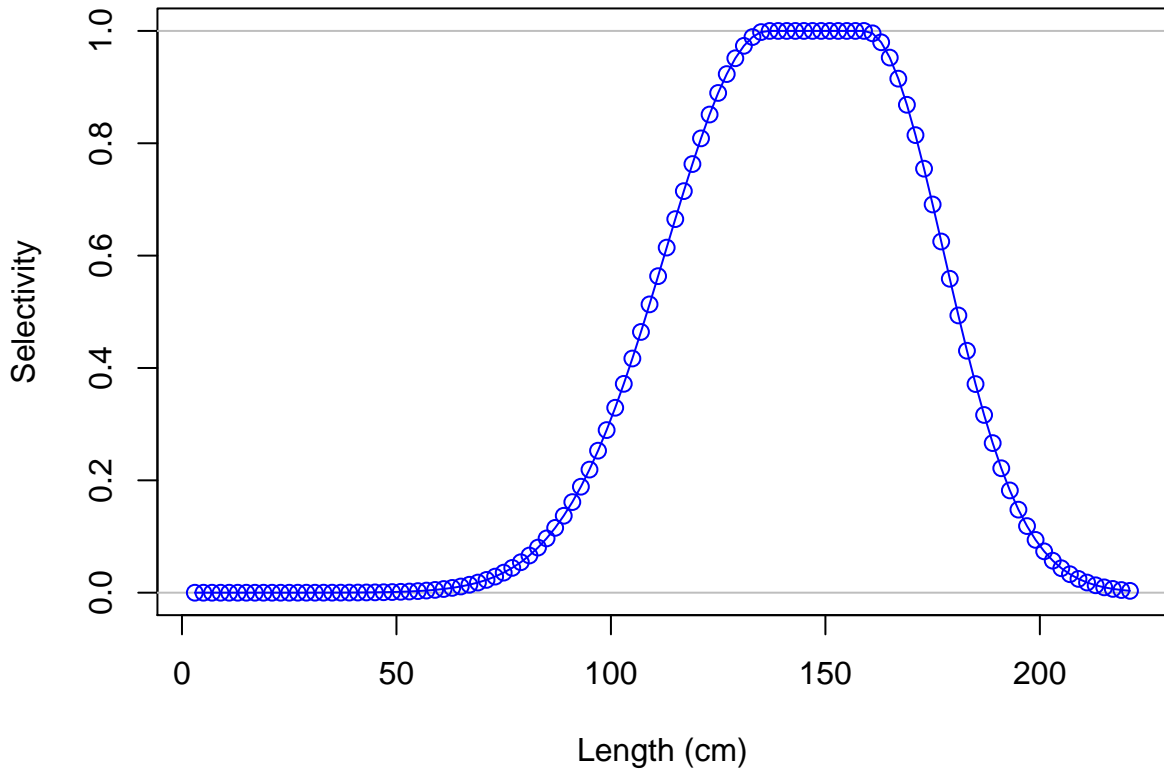
# Male time-varying selectivity for A4-LL-n



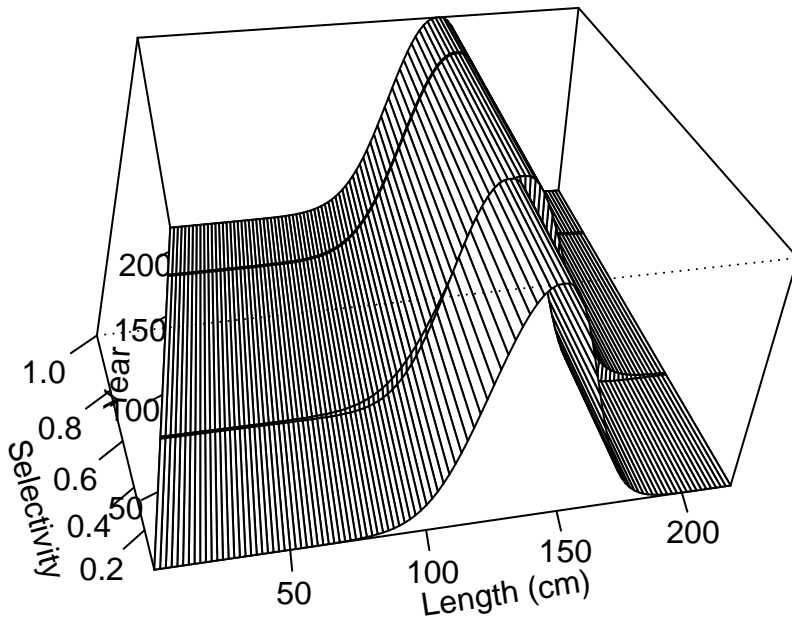
# Male time-varying selectivity for A4-LL-n



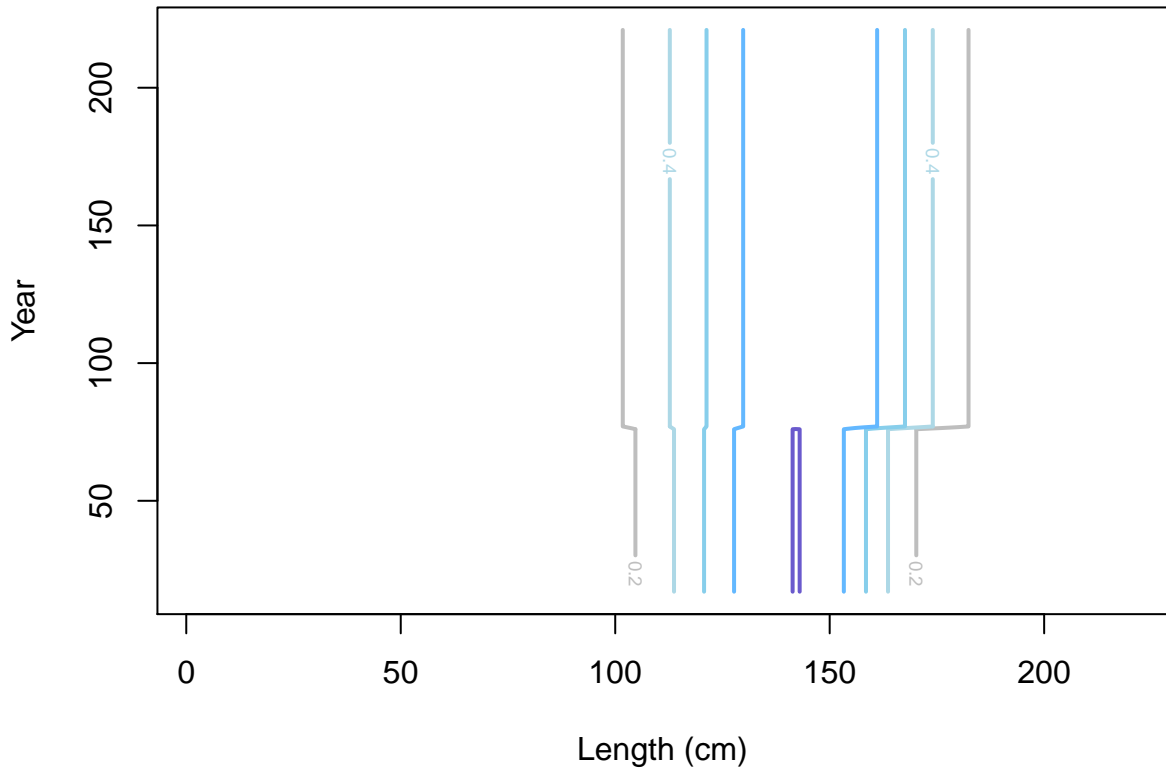
## Male ending year selectivity for A4-LL-n



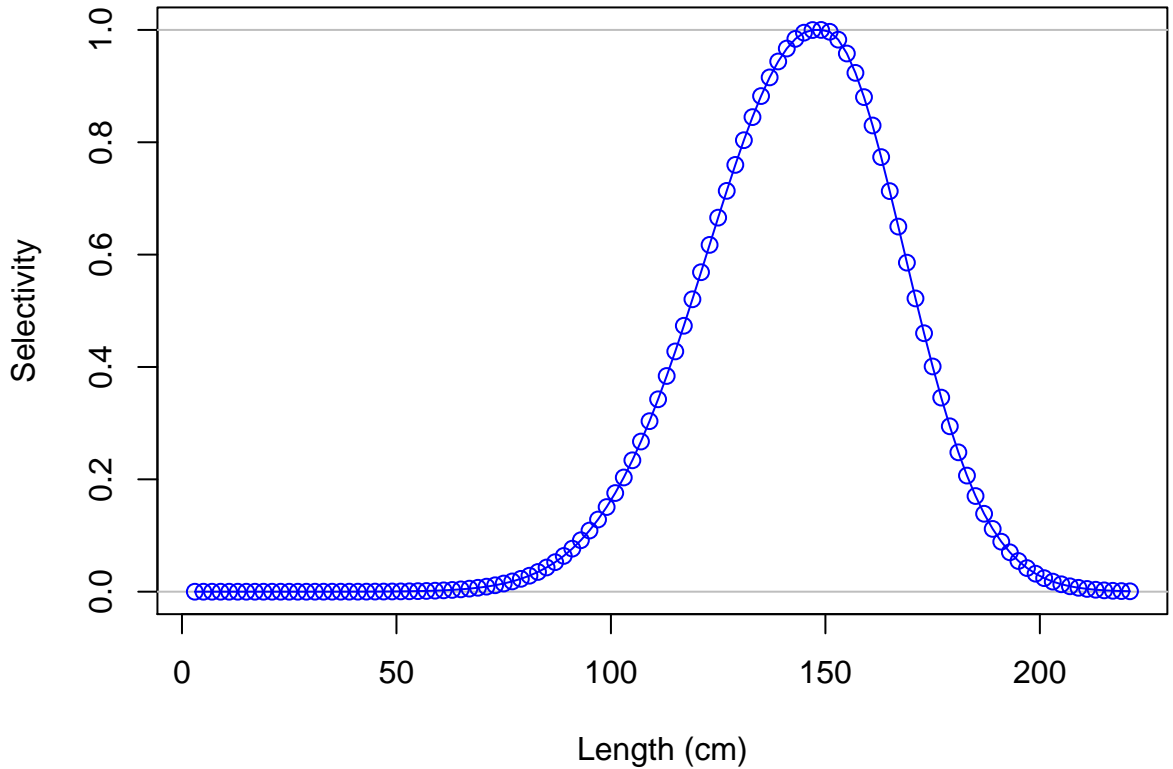
## Female time-varying selectivity for A5-LL-n



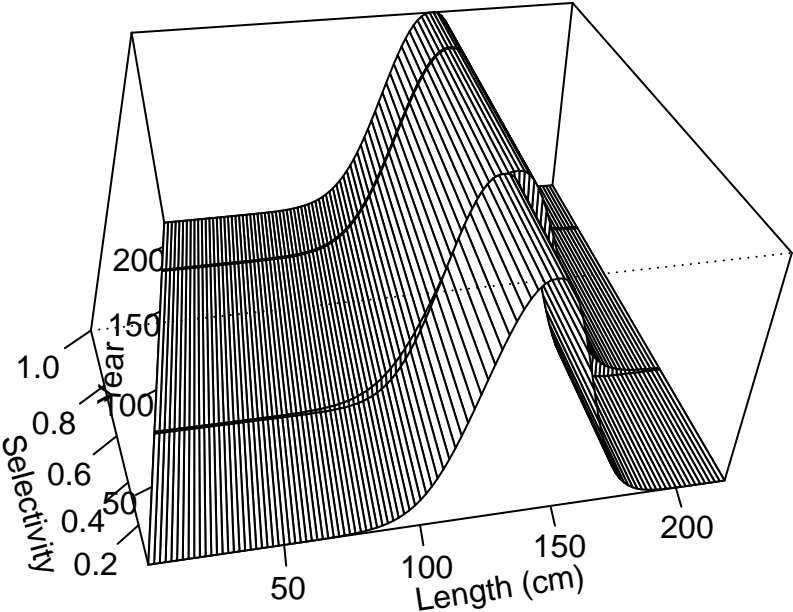
# Female time-varying selectivity for A5-LL-n



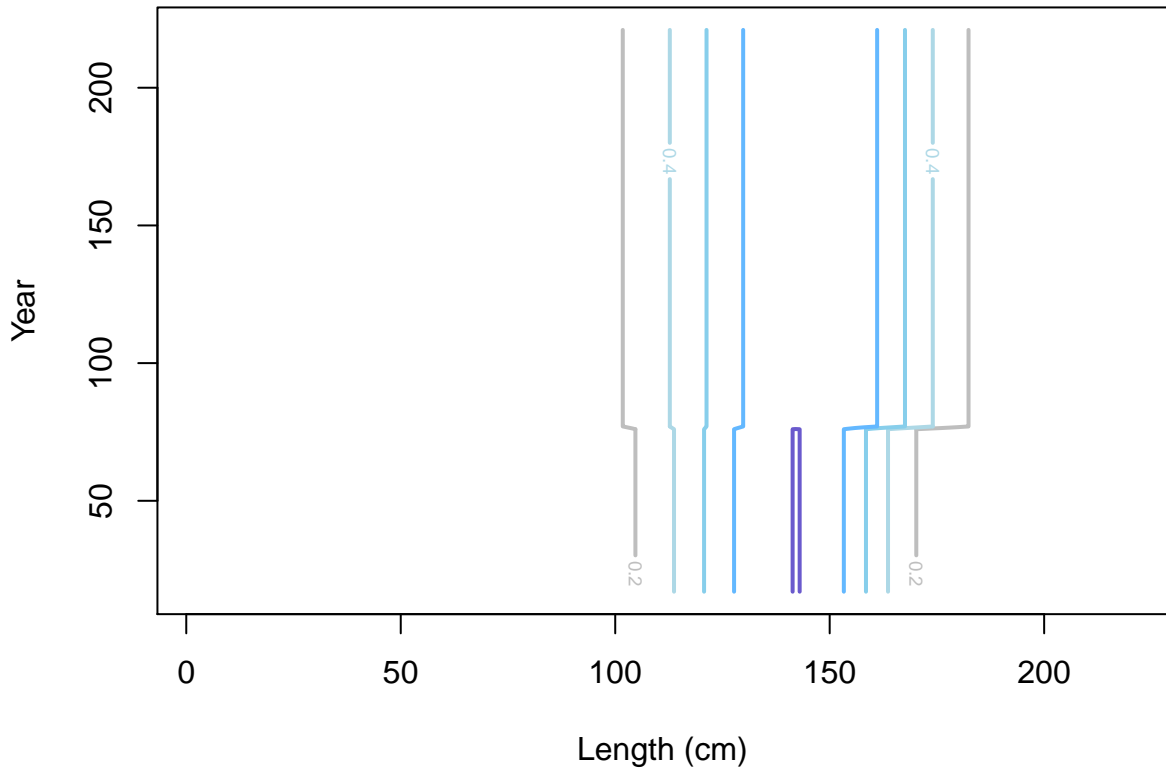
## Female ending year selectivity for A5-LL-n



# Male time-varying selectivity for A5-LL-n

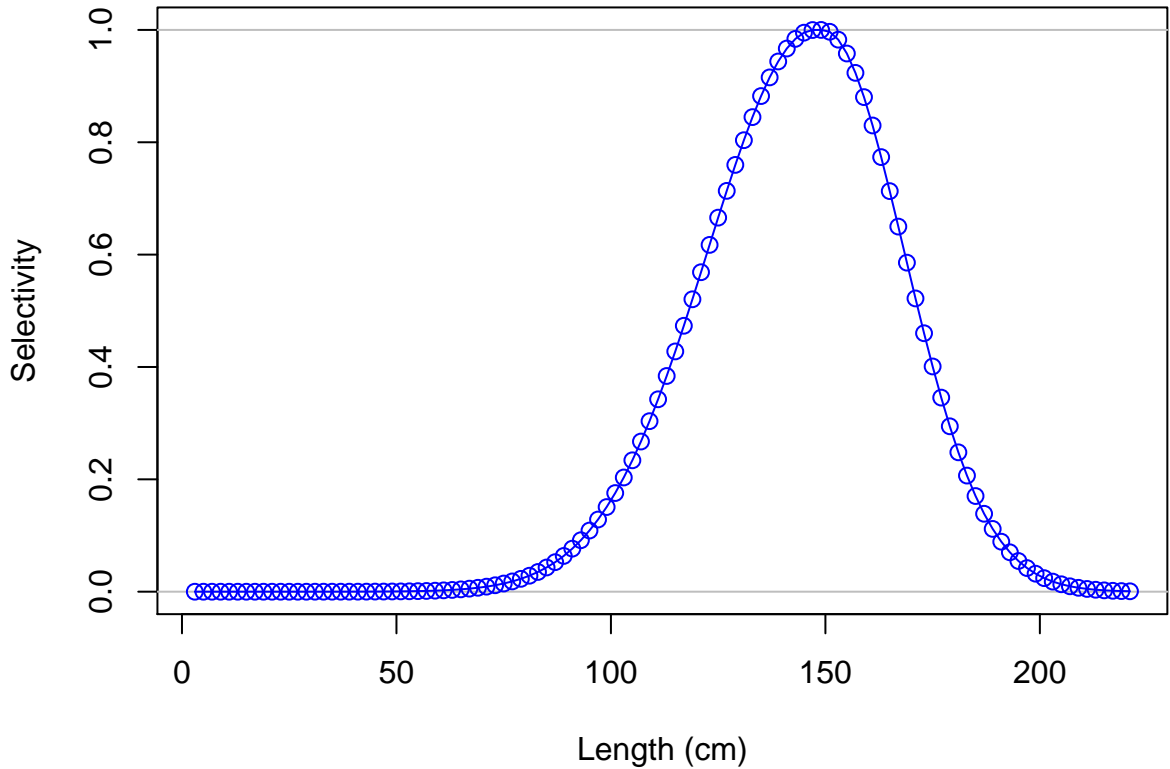


# Male time-varying selectivity for A5-LL-n

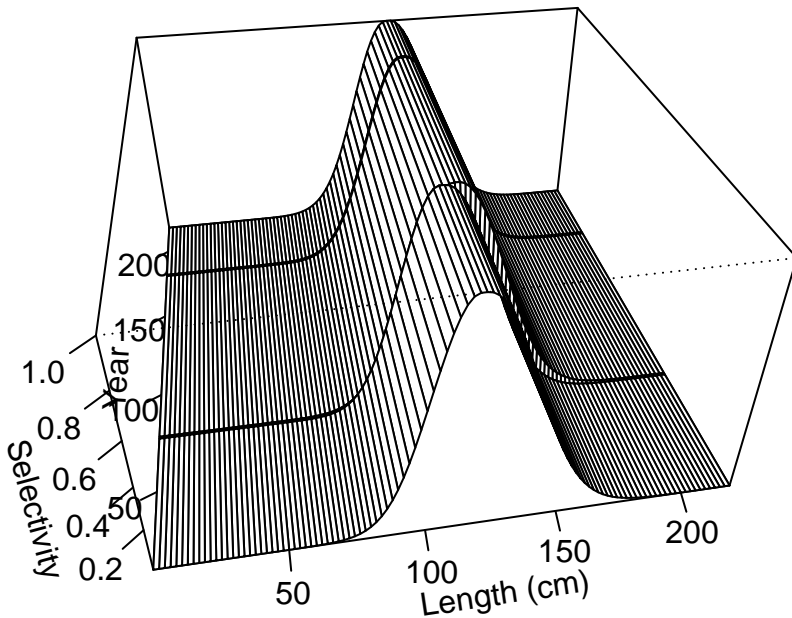




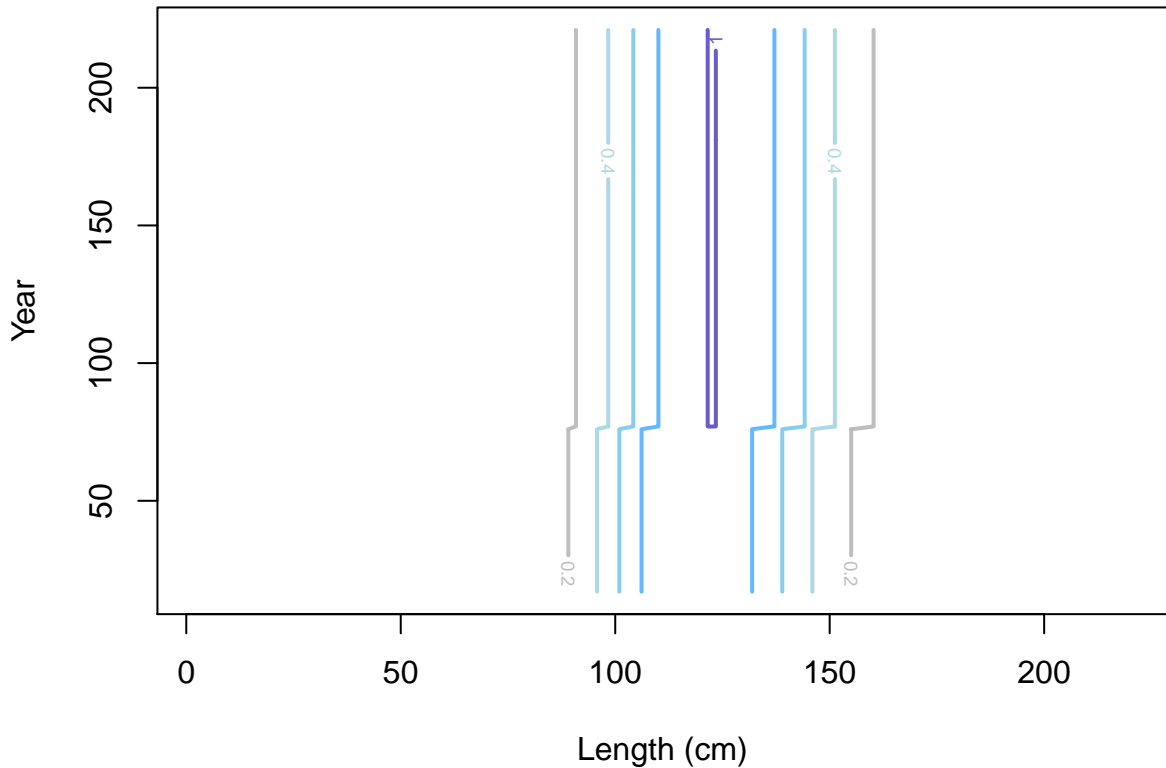
## Male ending year selectivity for A5-LL-n



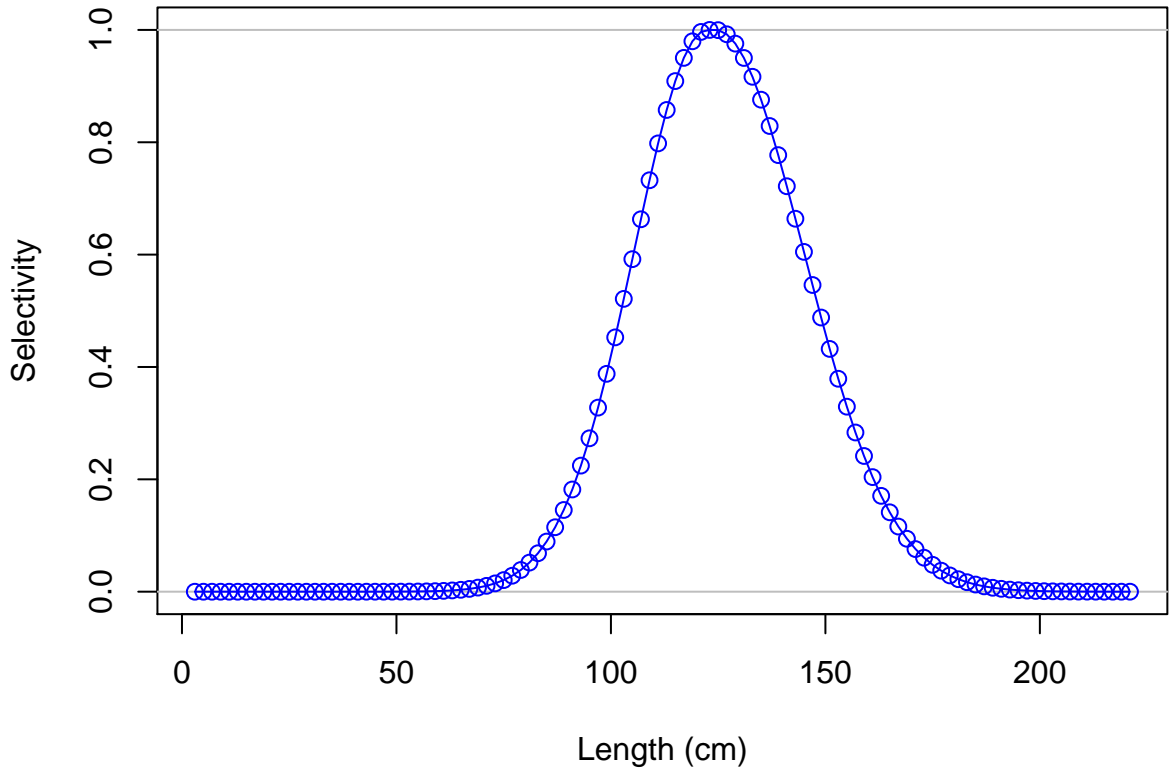
## Female time-varying selectivity for A6-LL-n



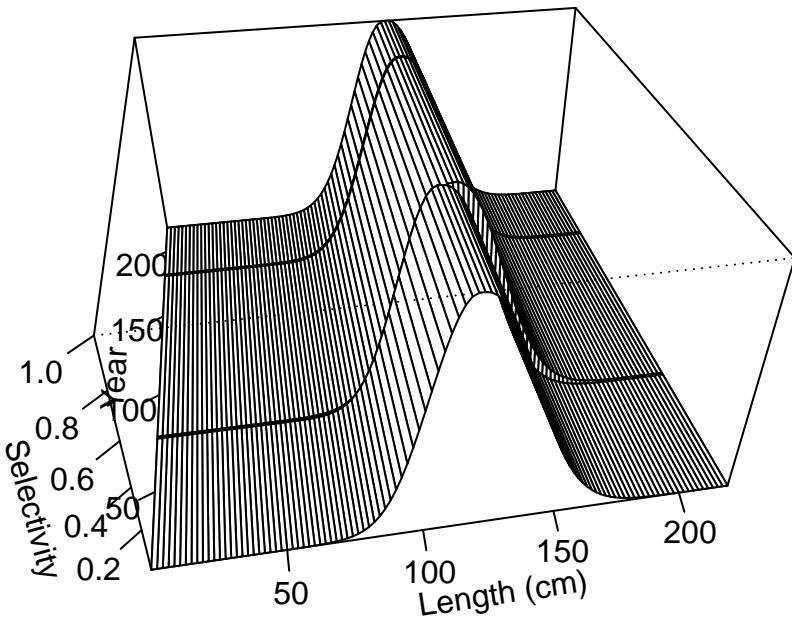
# Female time-varying selectivity for A6-LL-n



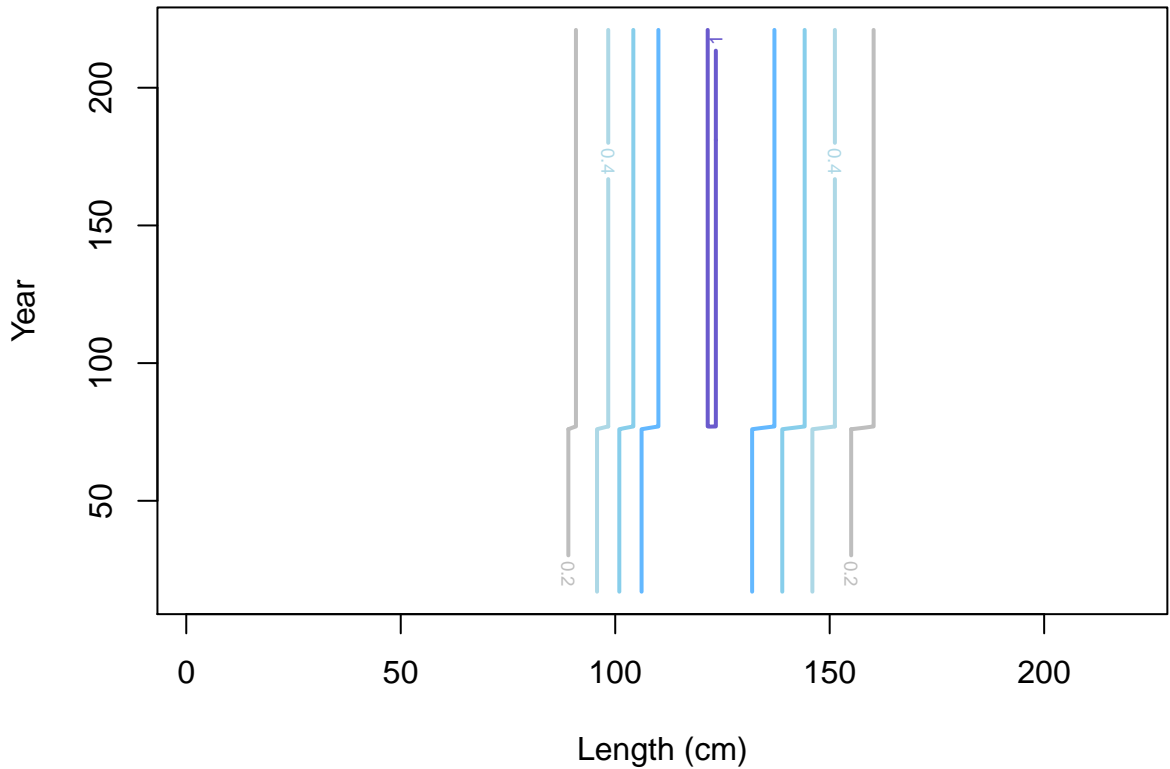
## Female ending year selectivity for A6-LL-n



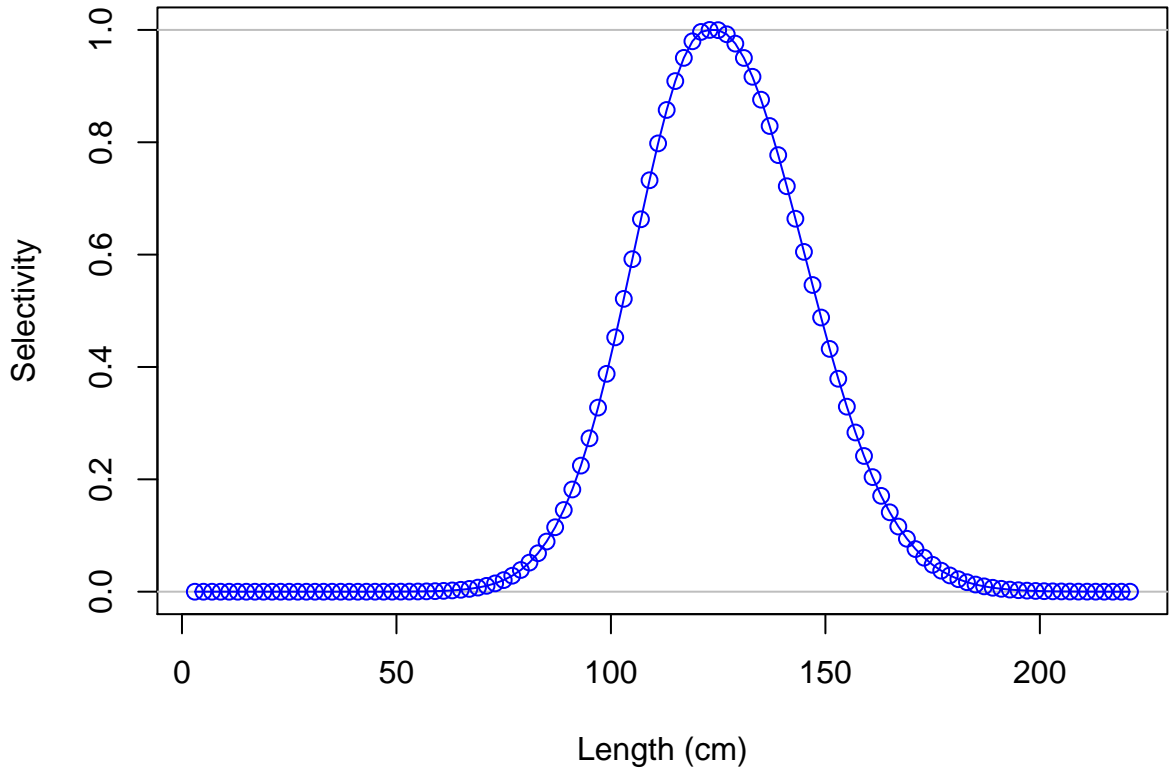
## Male time-varying selectivity for A6-LL-n



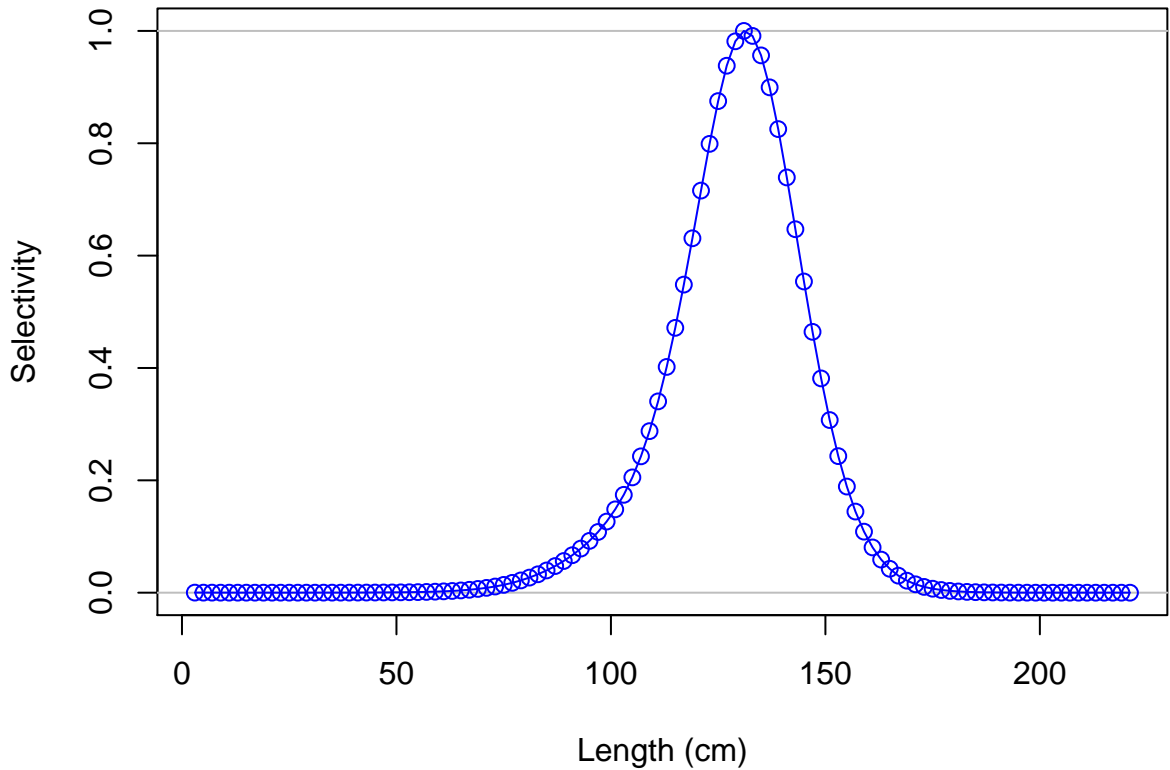
# Male time-varying selectivity for A6-LL-n



## Male ending year selectivity for A6-LL-n

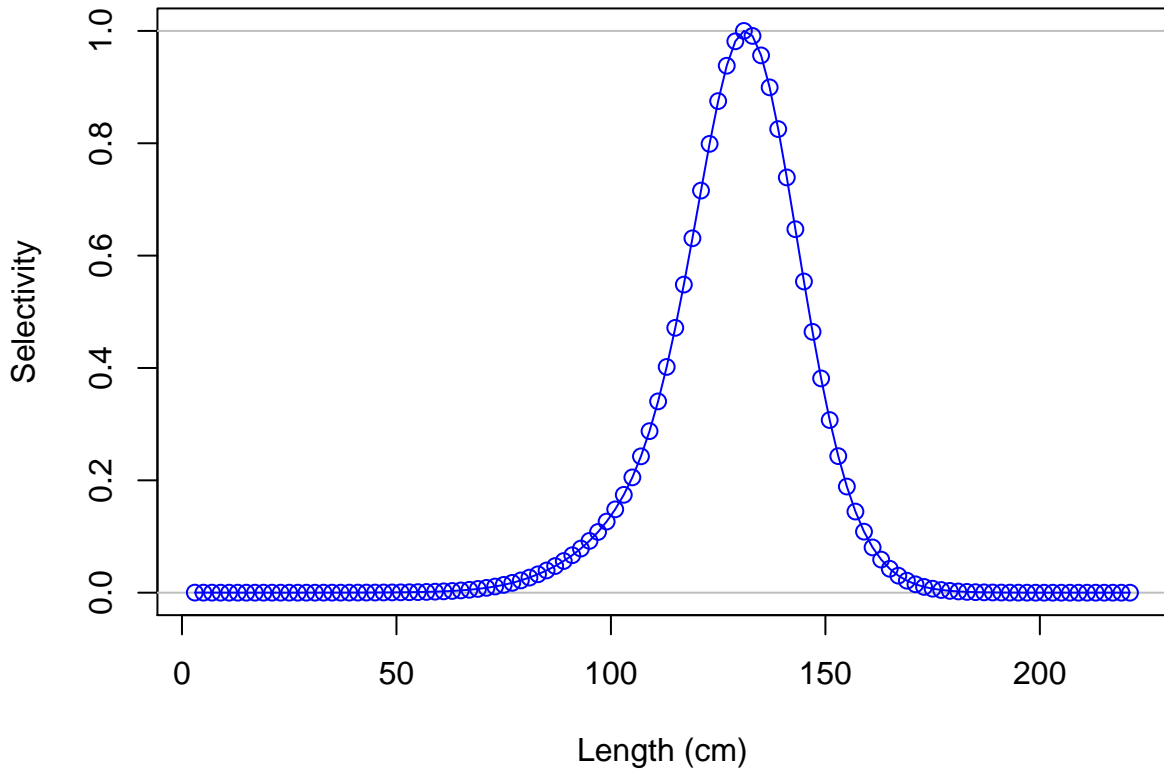


## Female ending year selectivity for A1-LL-w

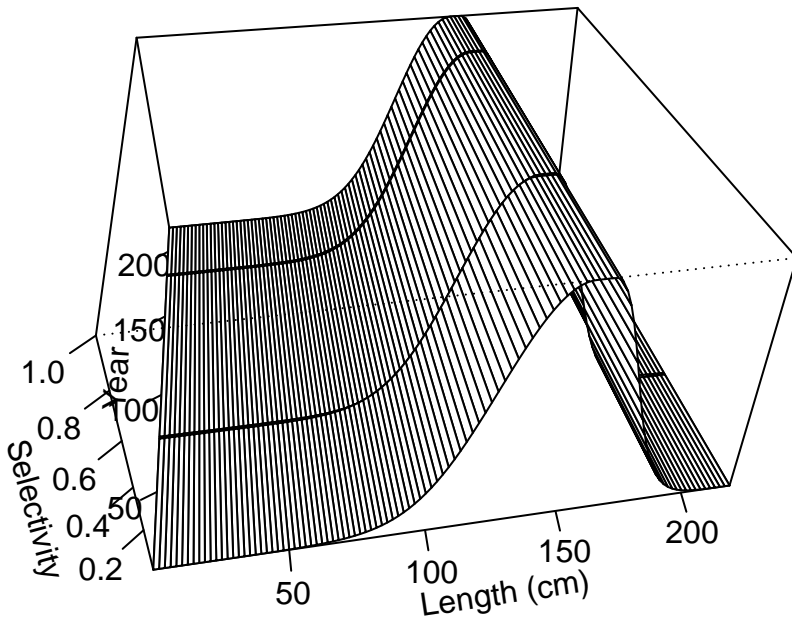




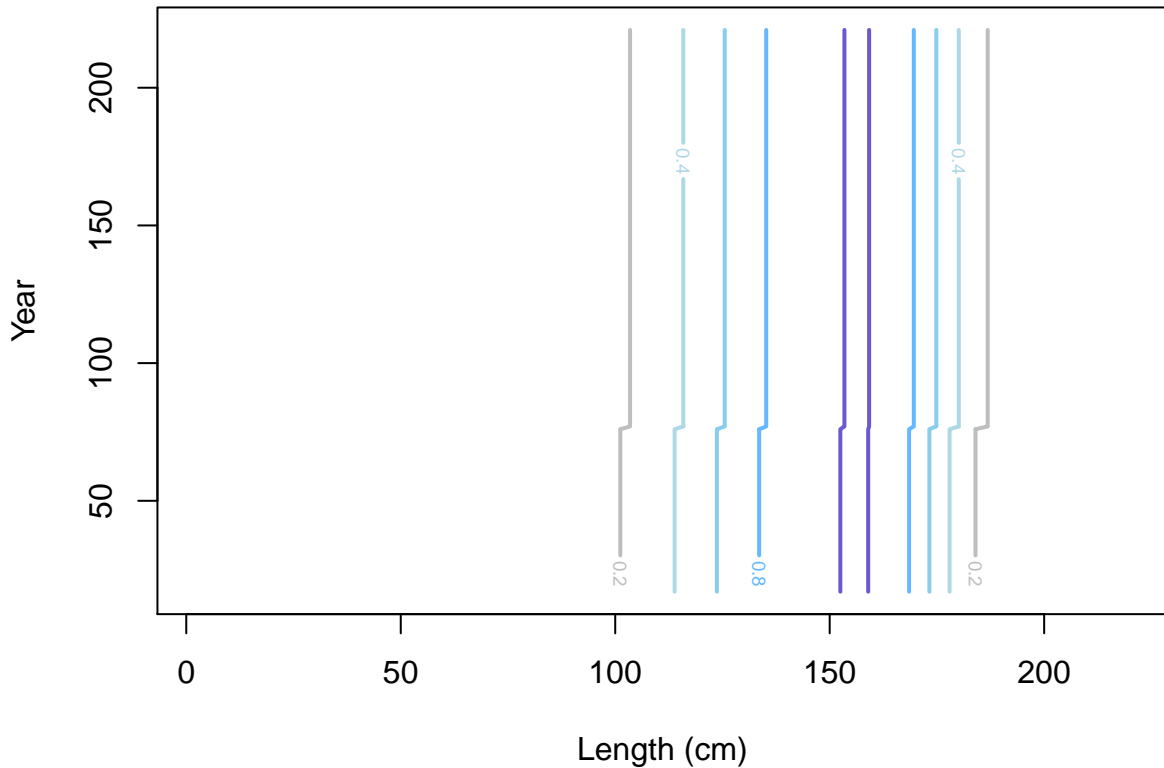
# Male ending year selectivity for A1-LL-w



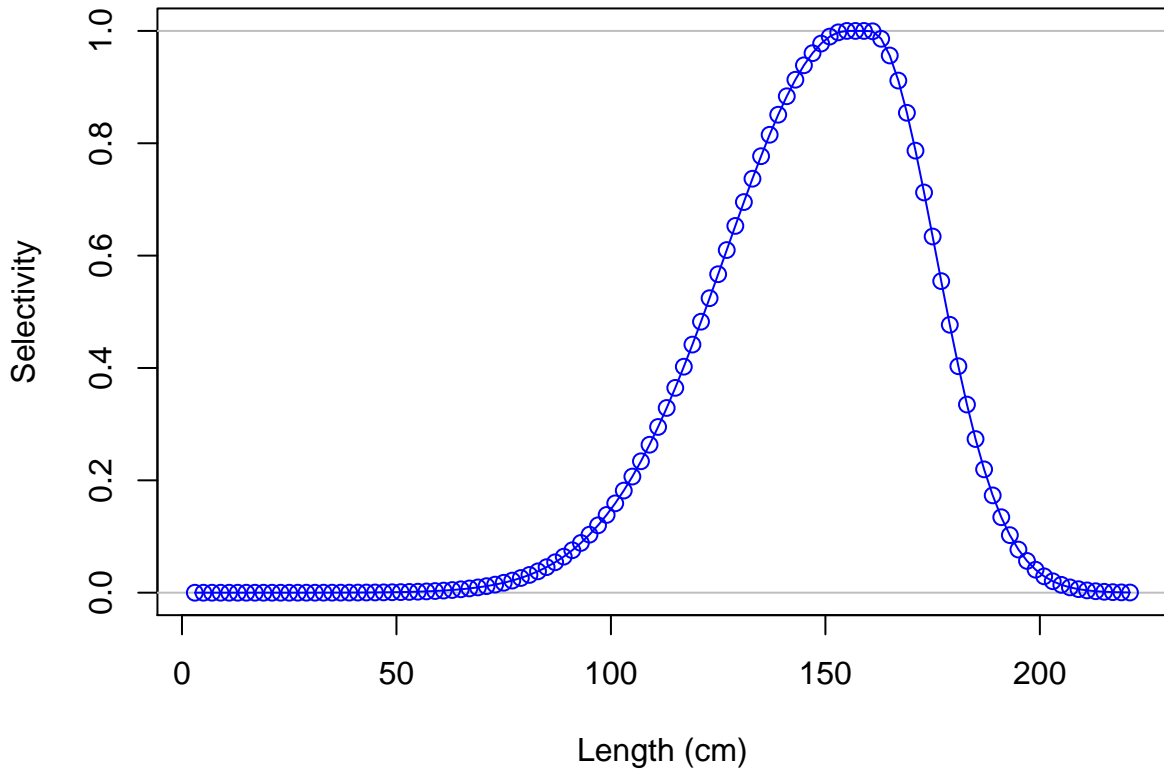
## Female time-varying selectivity for A2-LL-w



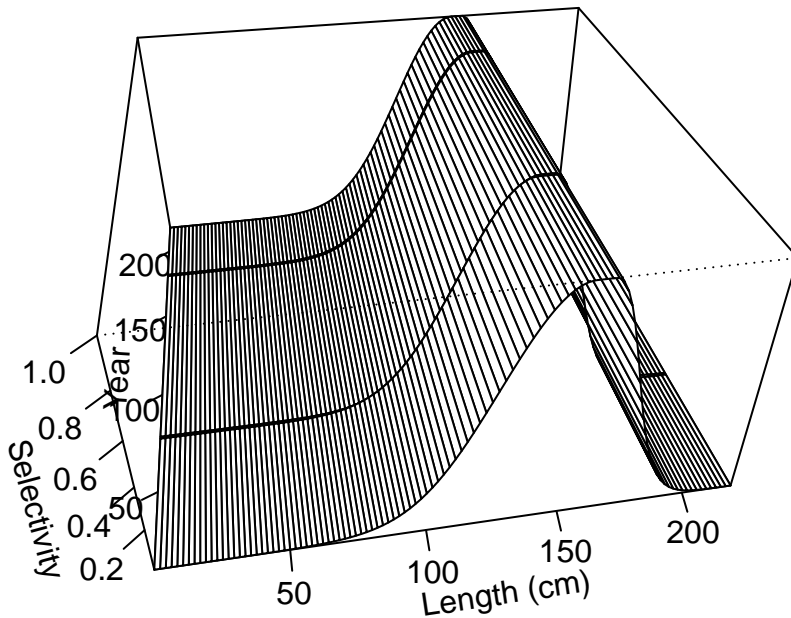
## Female time-varying selectivity for A2-LL-w



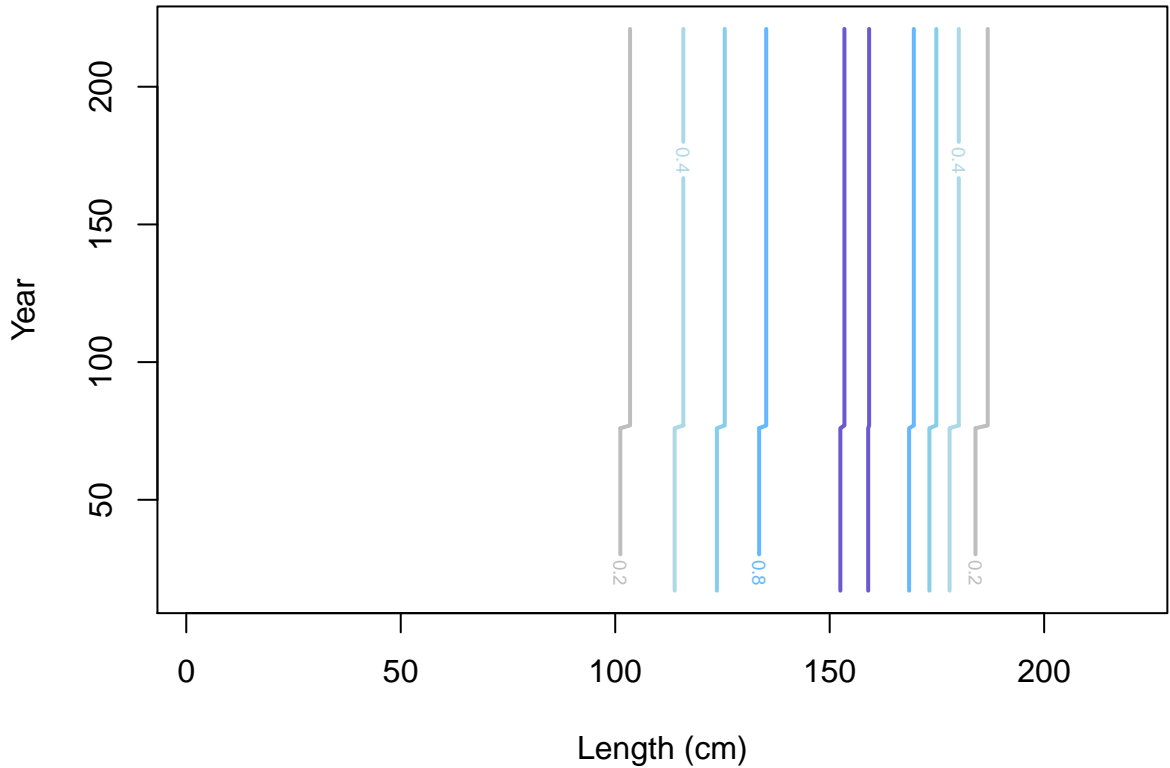
## Female ending year selectivity for A2-LL-w



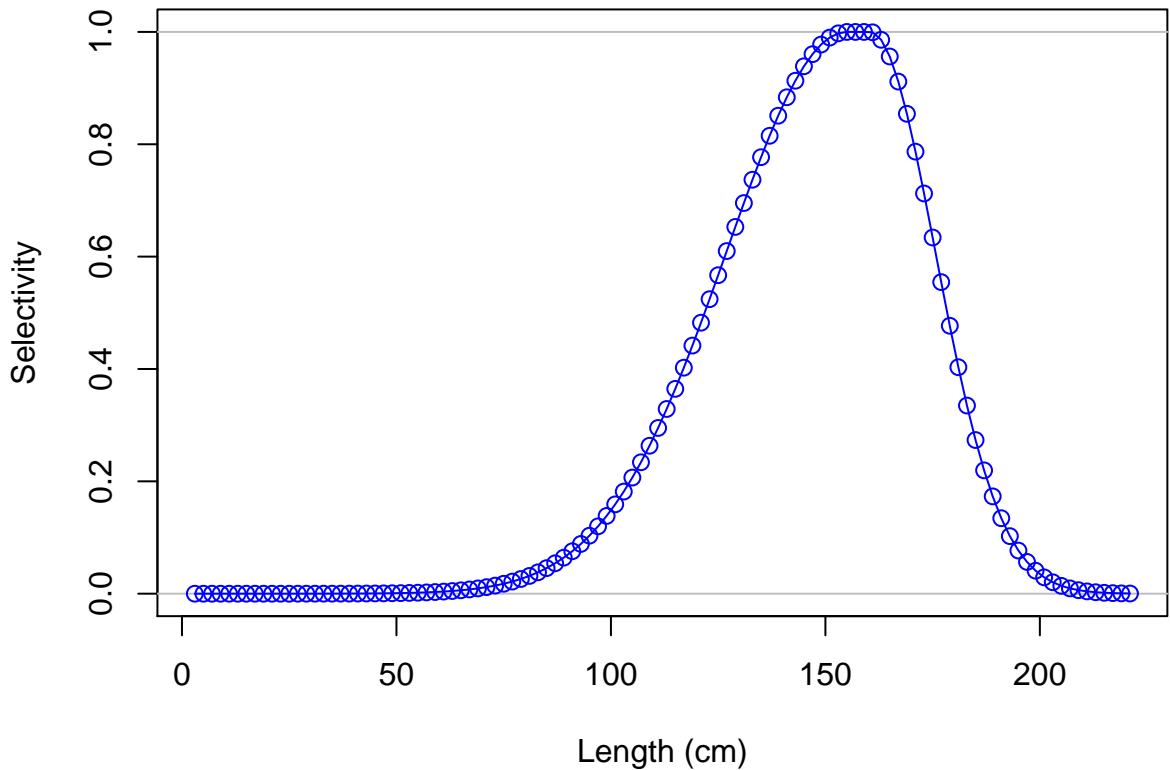
## Male time-varying selectivity for A2-LL-w



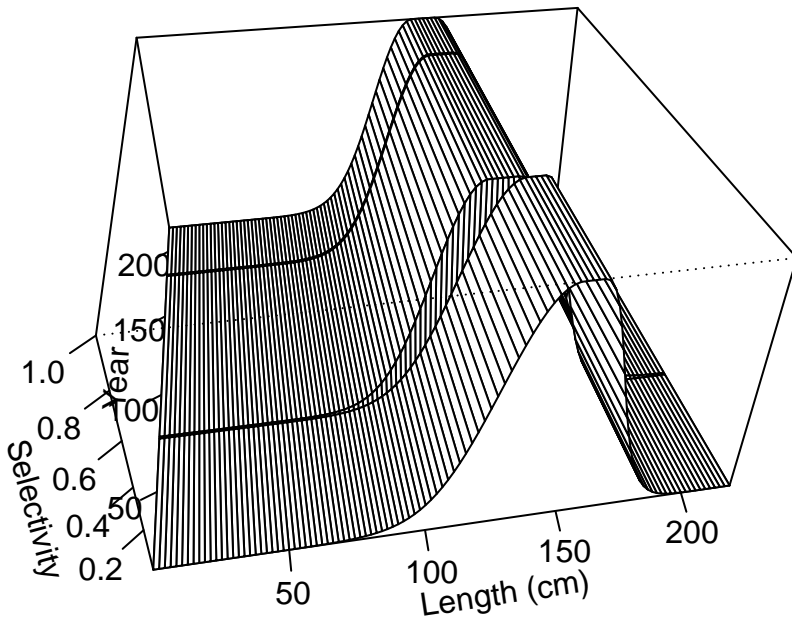
# Male time-varying selectivity for A2-LL-w



## Male ending year selectivity for A2-LL-w



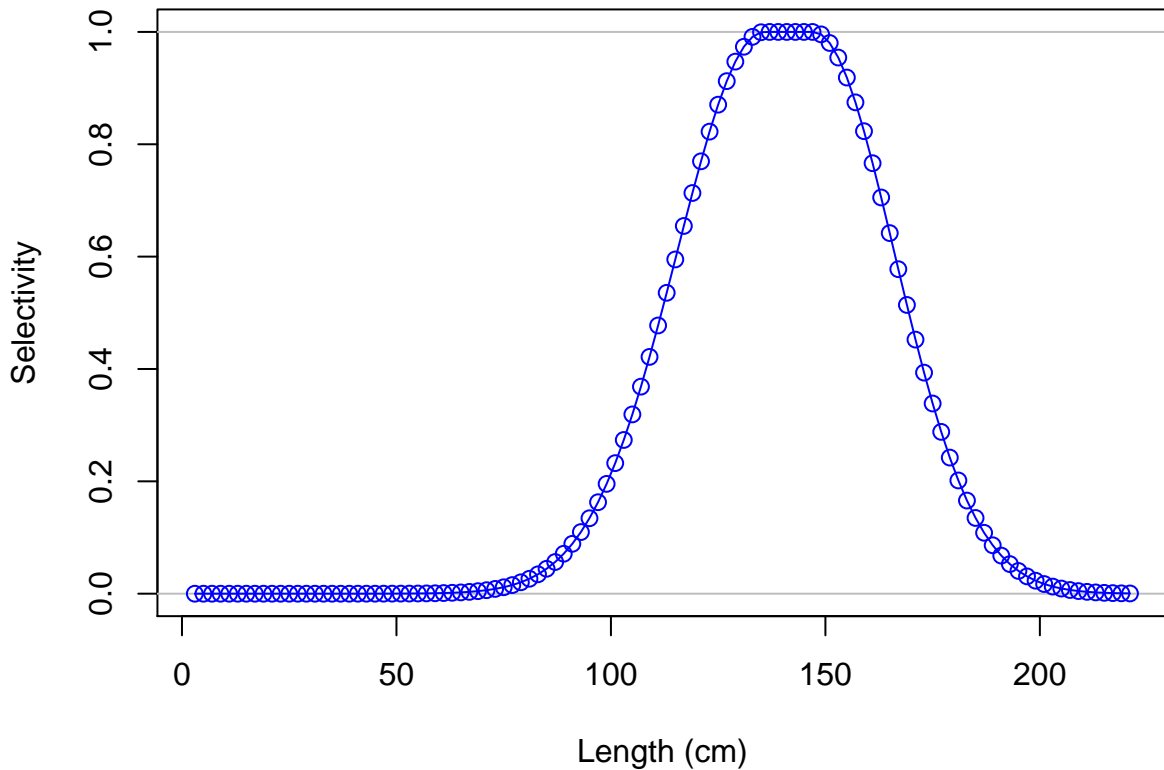
## Female time-varying selectivity for A3-LL-w



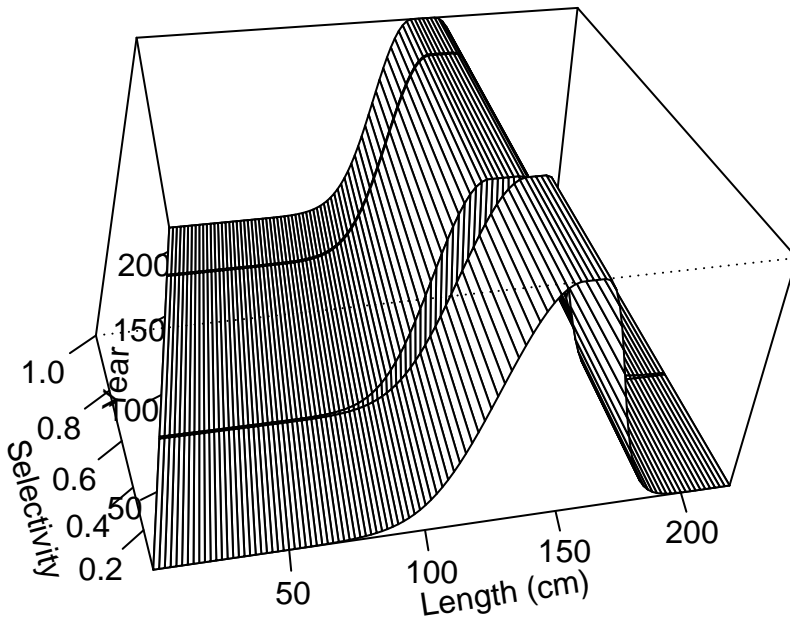




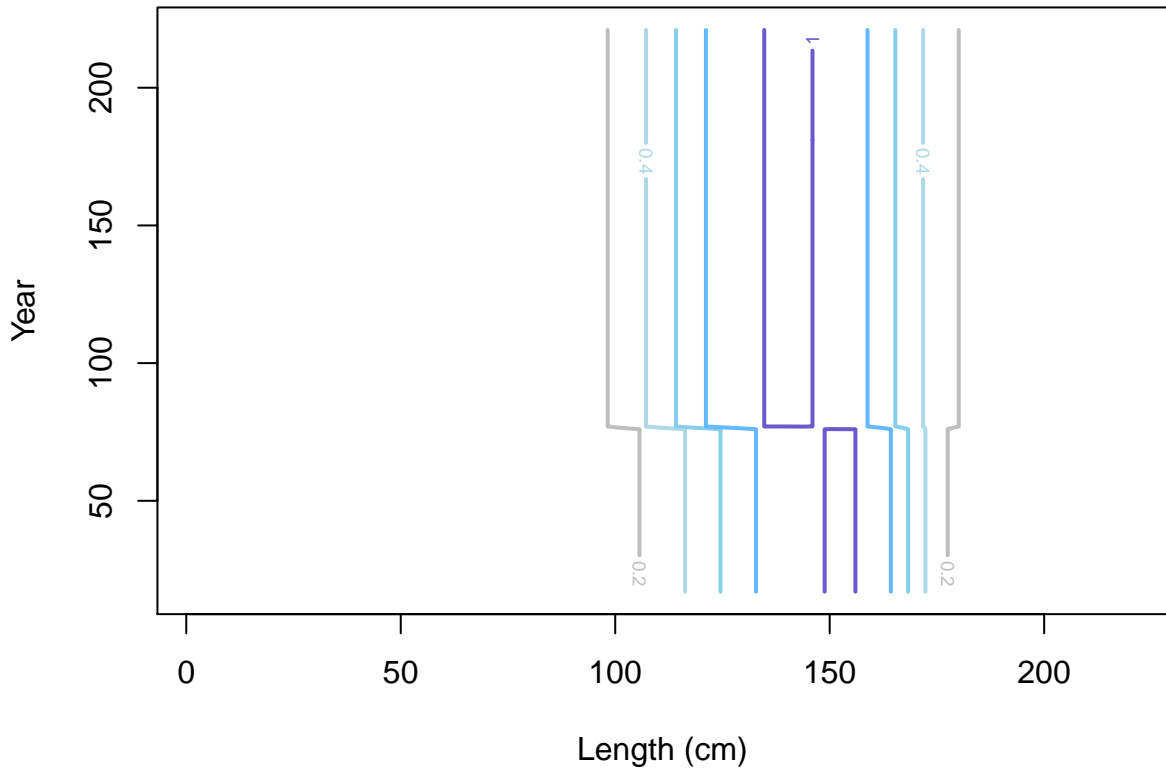
## Female ending year selectivity for A3-LL-w



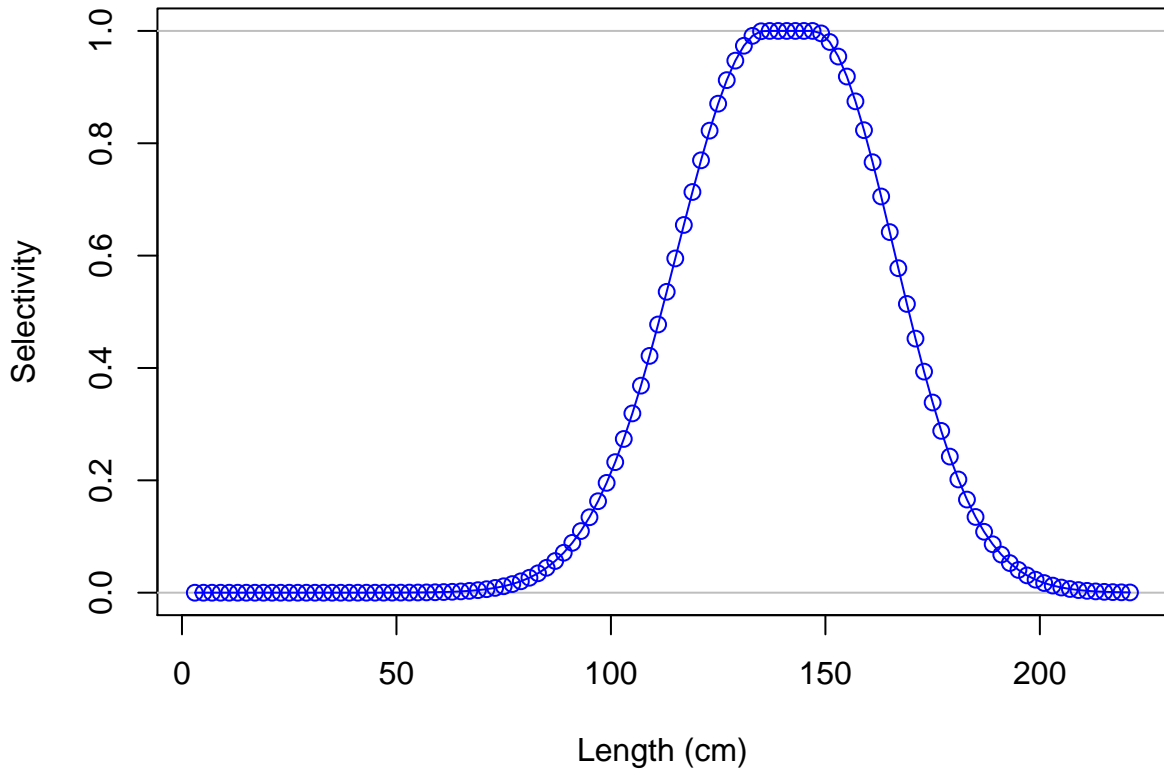
# Male time-varying selectivity for A3-LL-w



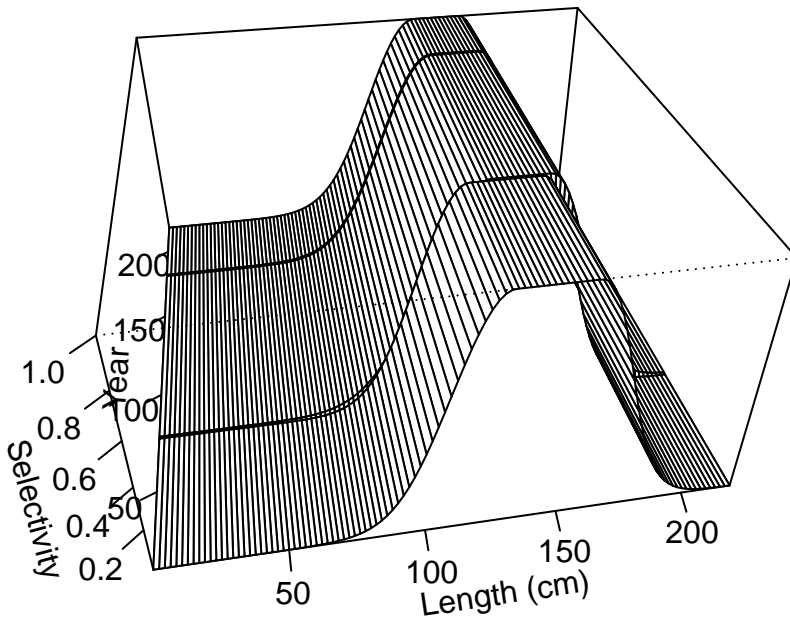
# Male time-varying selectivity for A3-LL-w



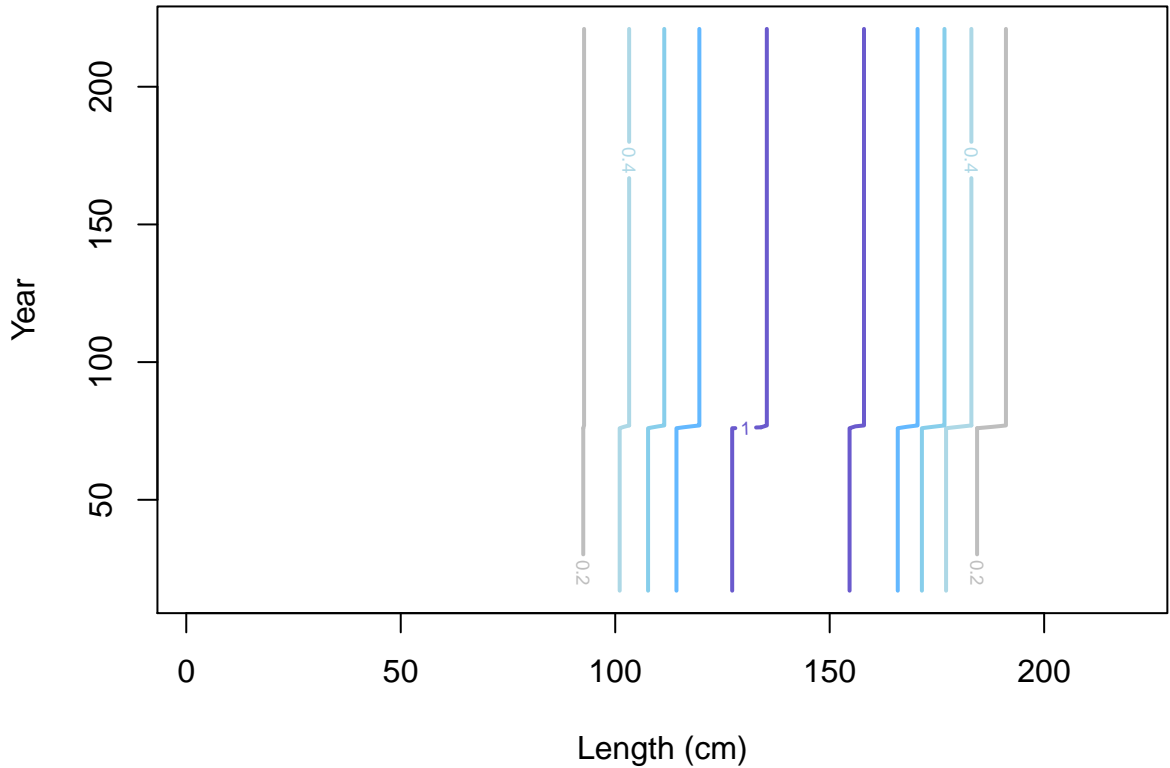
### Male ending year selectivity for A3-LL-w



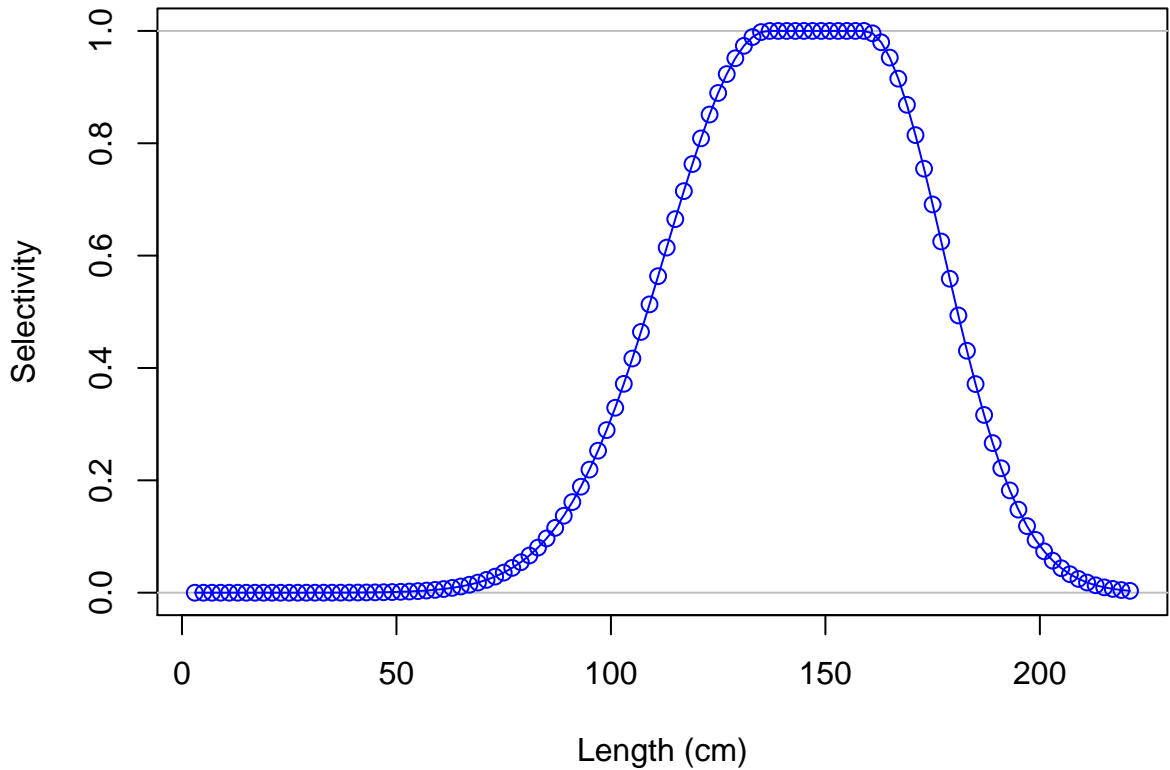
## Female time-varying selectivity for A4-LL-w



# Female time-varying selectivity for A4-LL-w

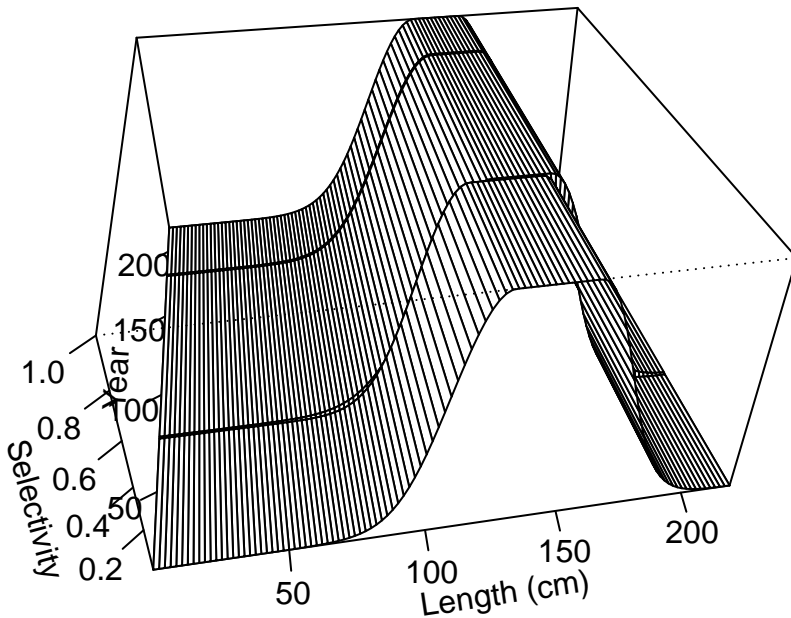


# Female ending year selectivity for A4-LL-w

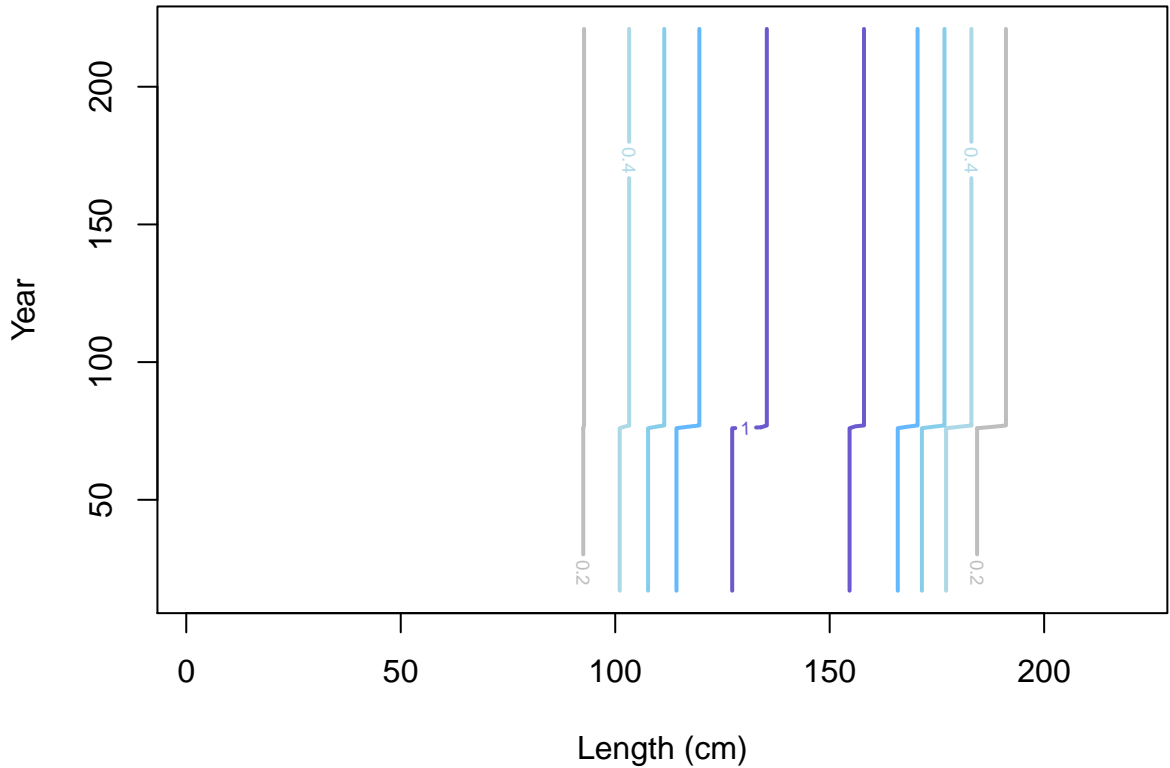




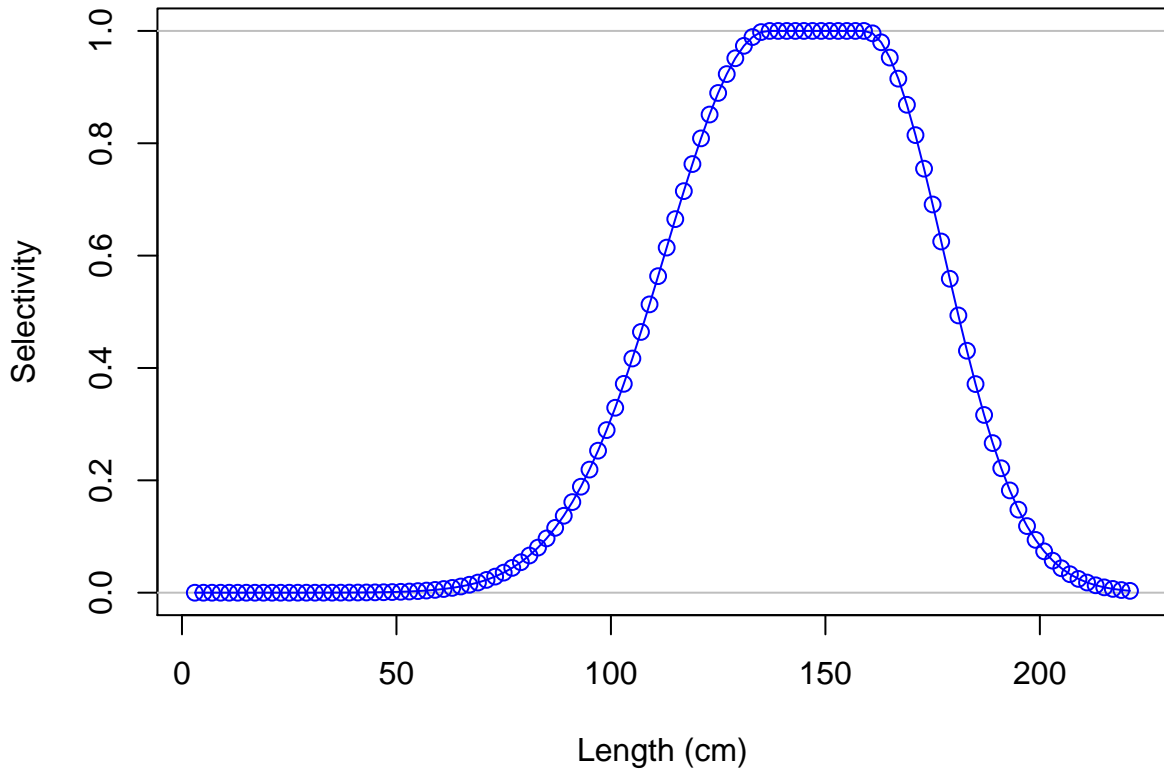
## Male time-varying selectivity for A4-LL-w



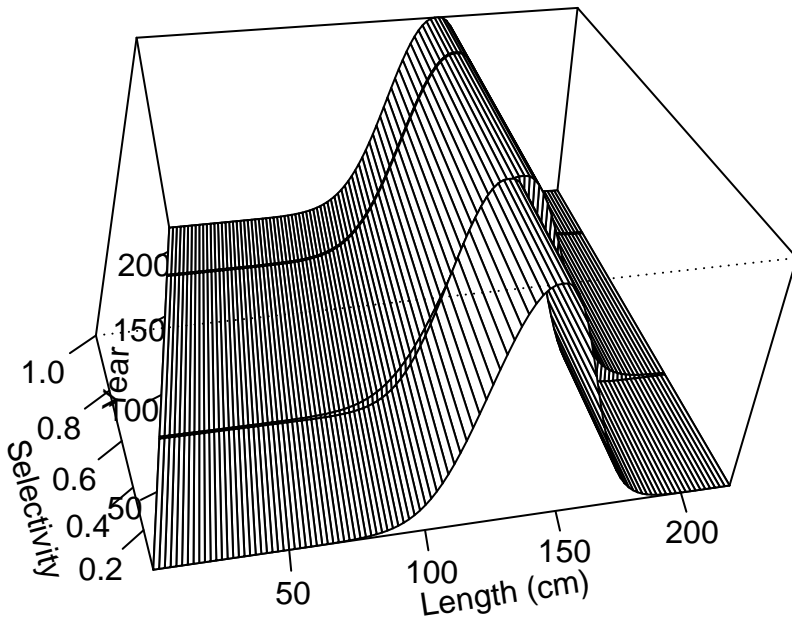
# Male time-varying selectivity for A4-LL-w



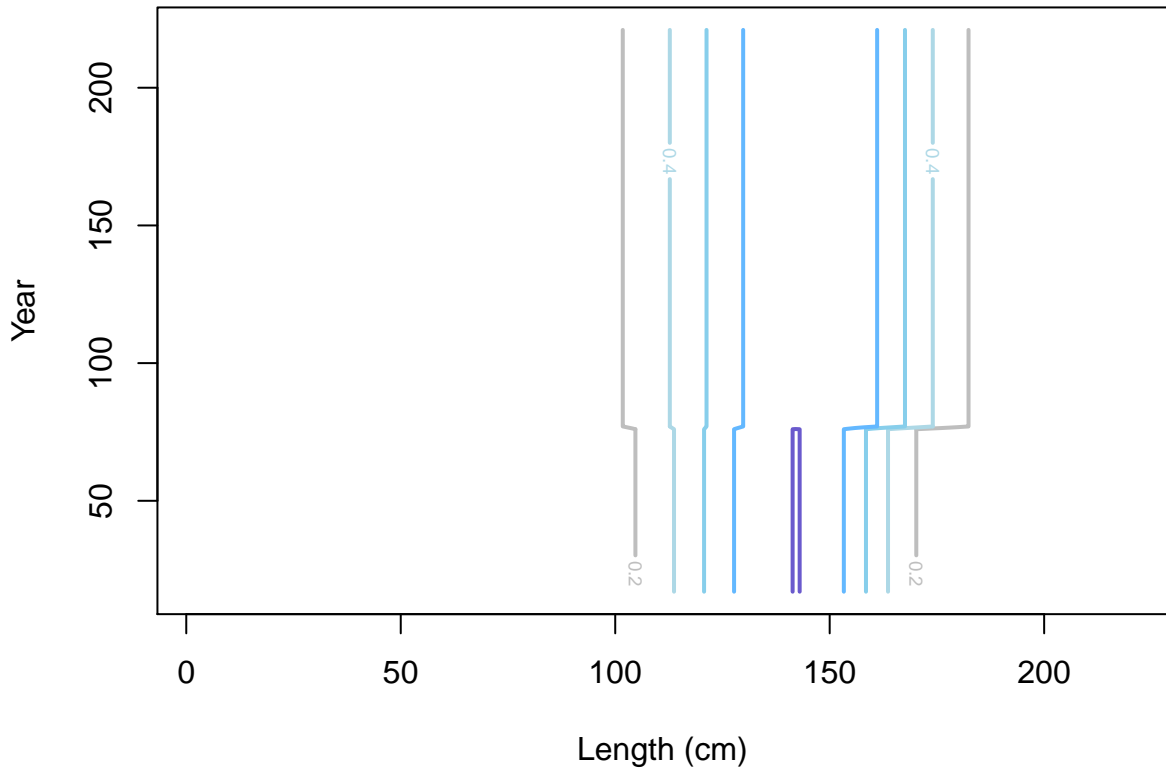
## Male ending year selectivity for A4-LL-w



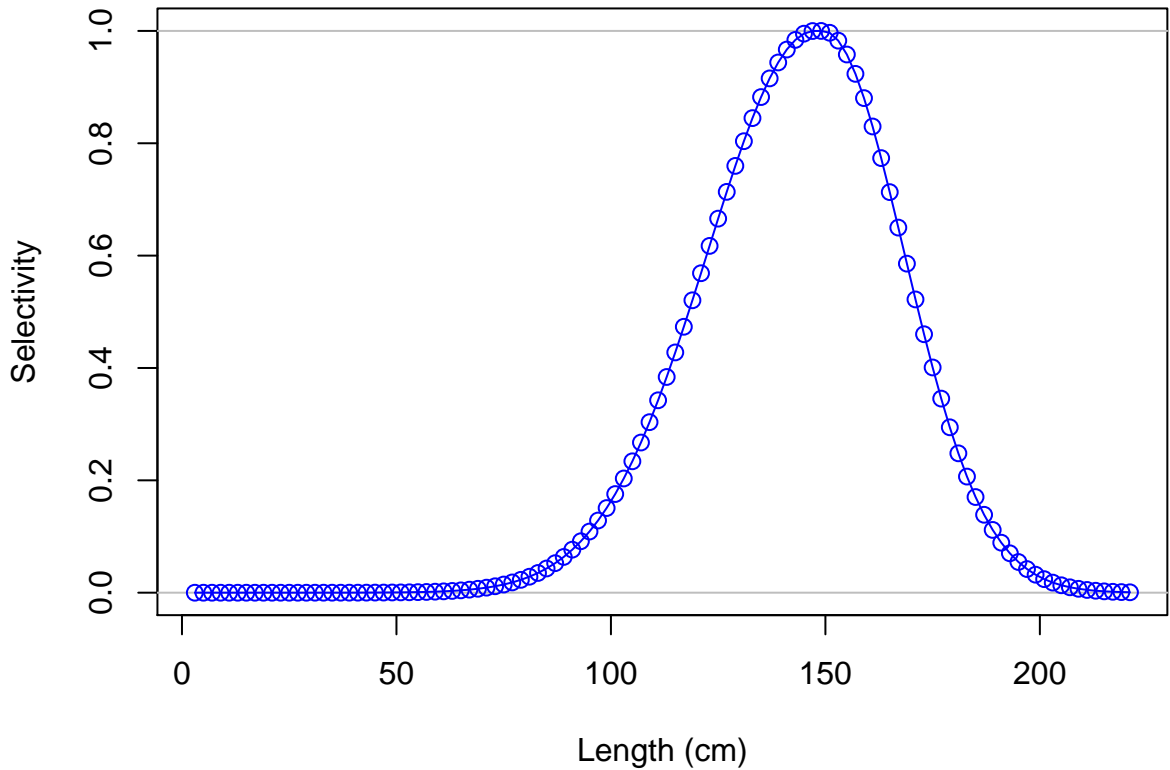
## Female time-varying selectivity for A5-LL-w



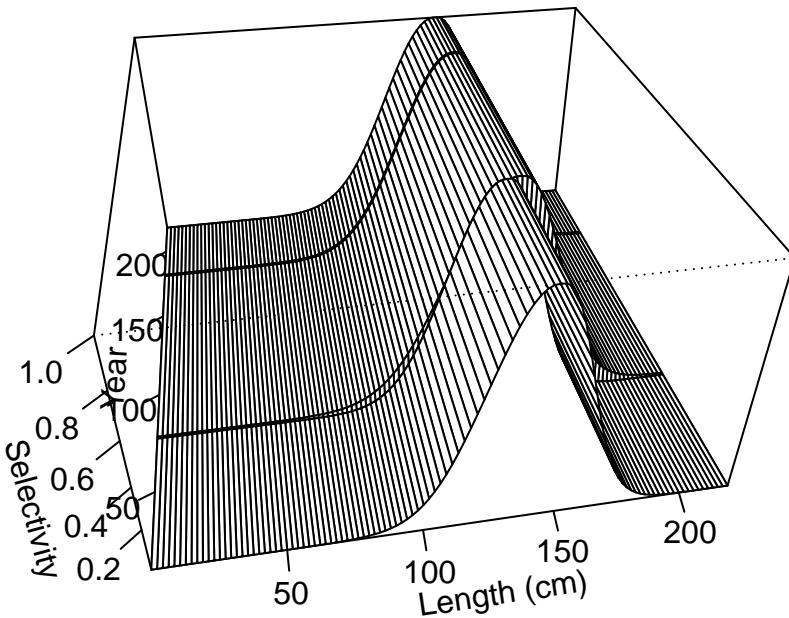
## Female time-varying selectivity for A5-LL-w



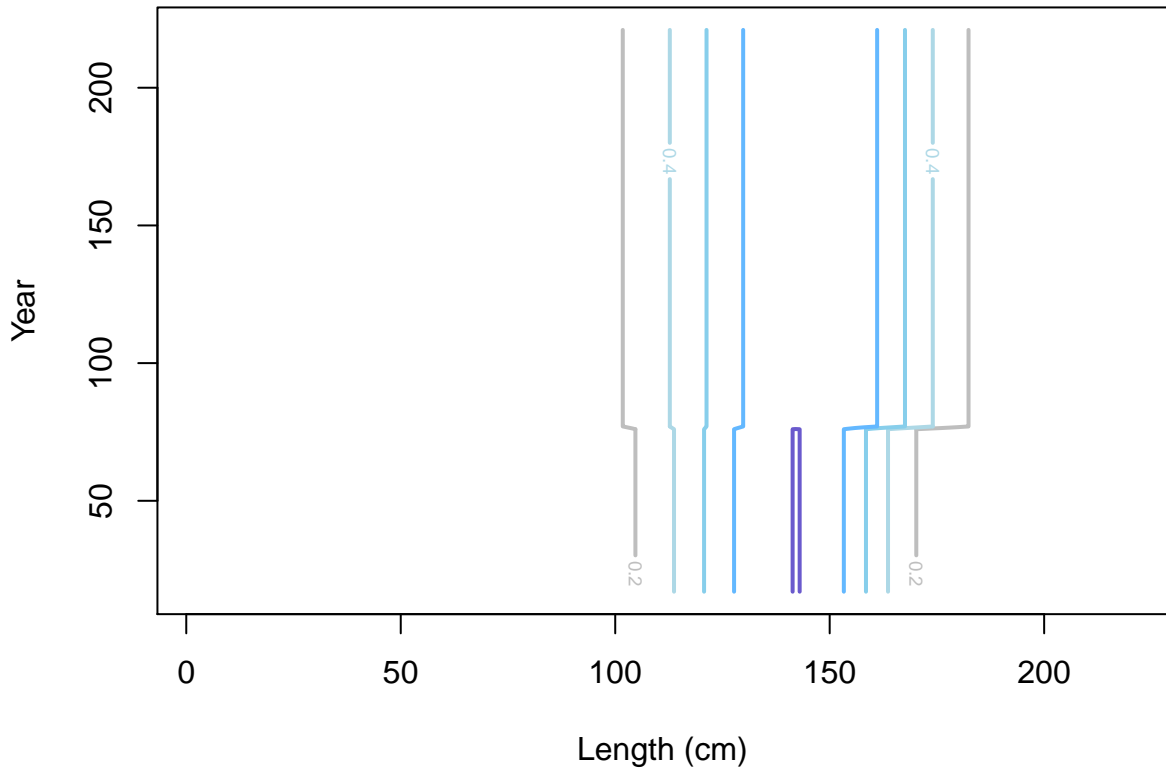
## Female ending year selectivity for A5-LL-w



# Male time-varying selectivity for A5-LL-w

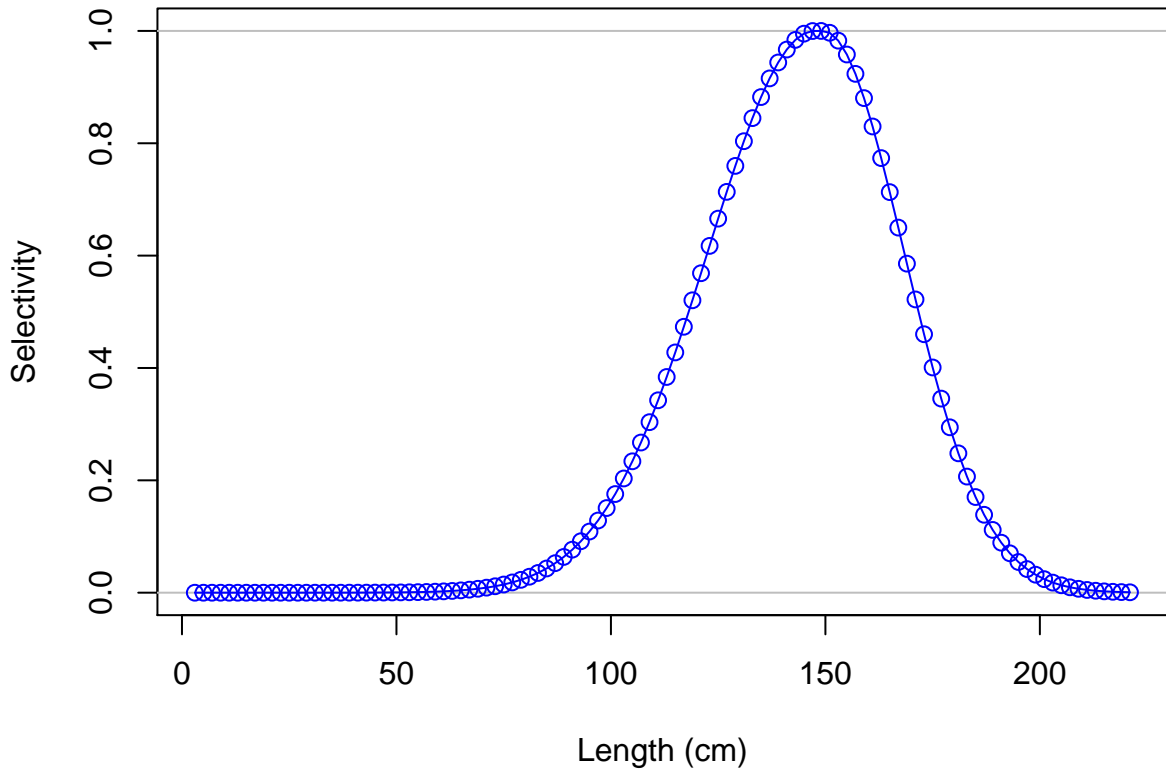


# Male time-varying selectivity for A5-LL-w

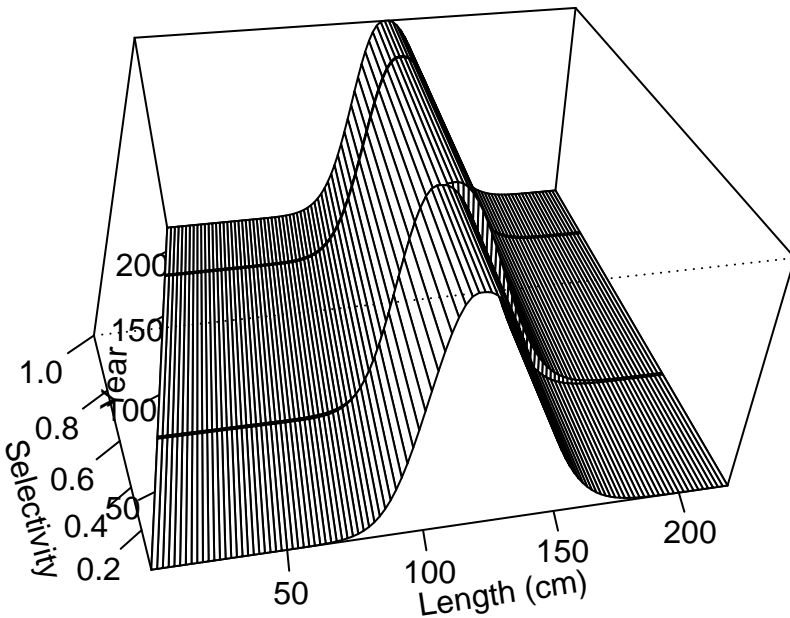




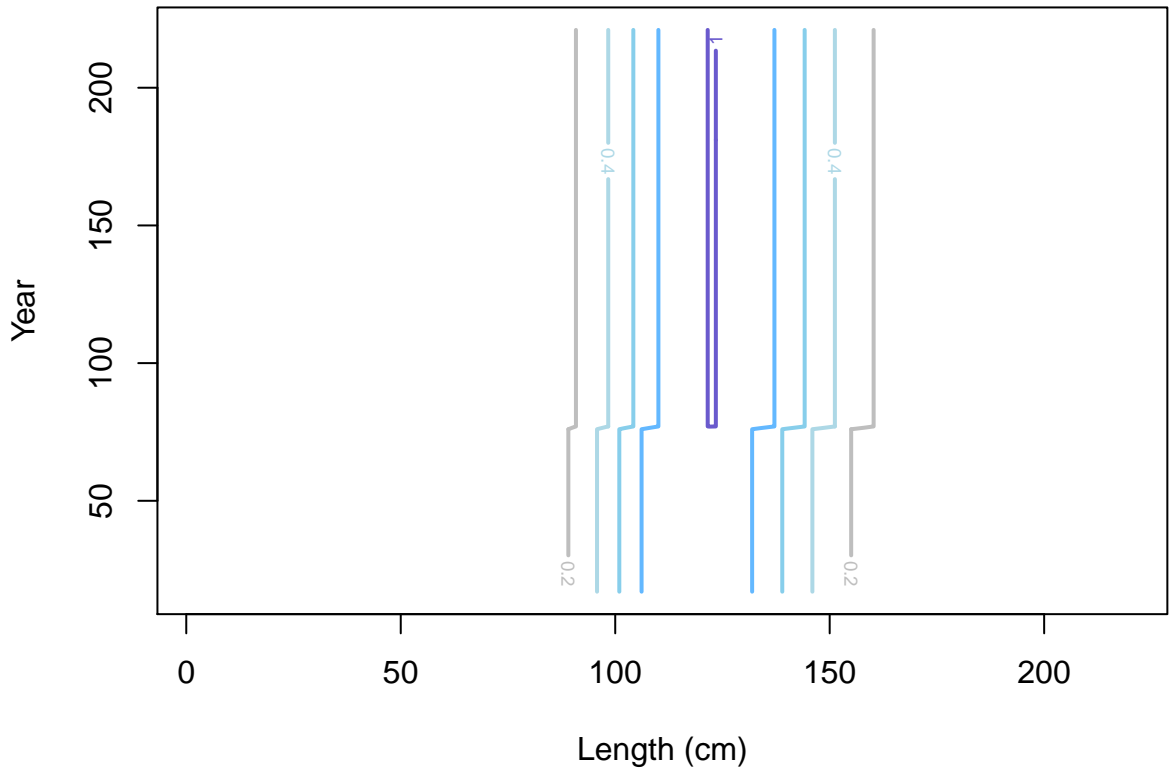
### Male ending year selectivity for A5-LL-w



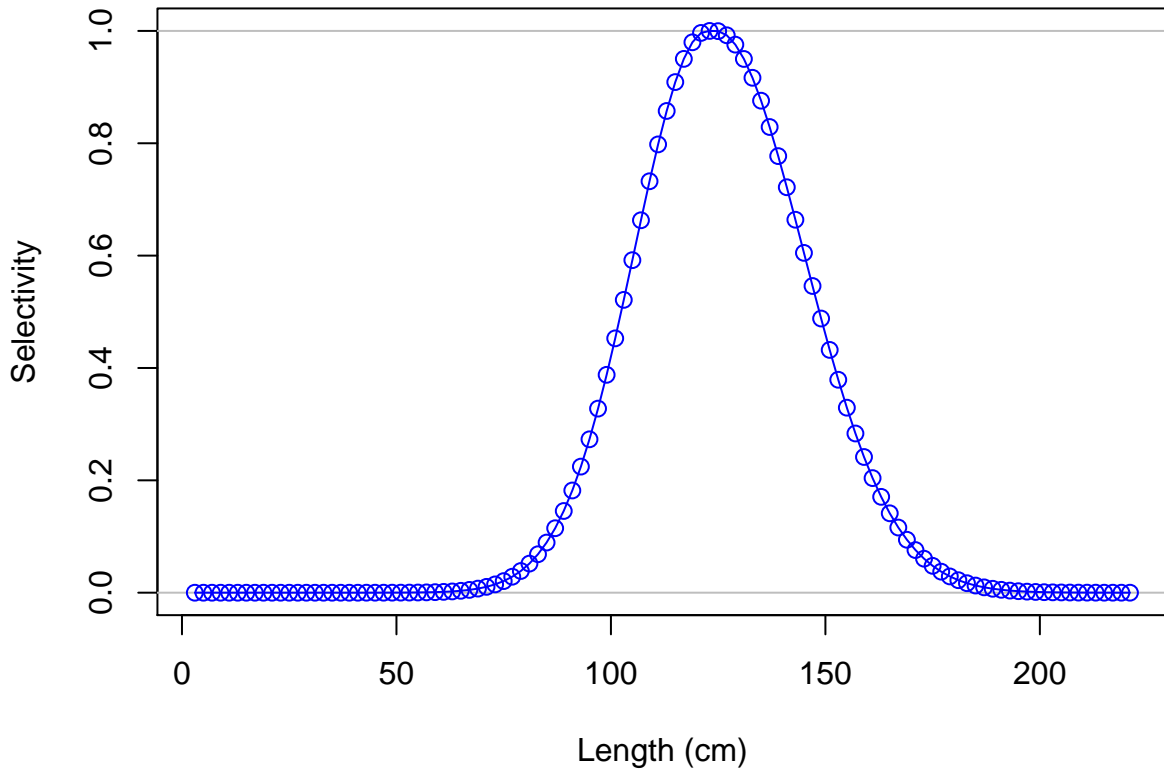
## Female time-varying selectivity for A6-LL-w



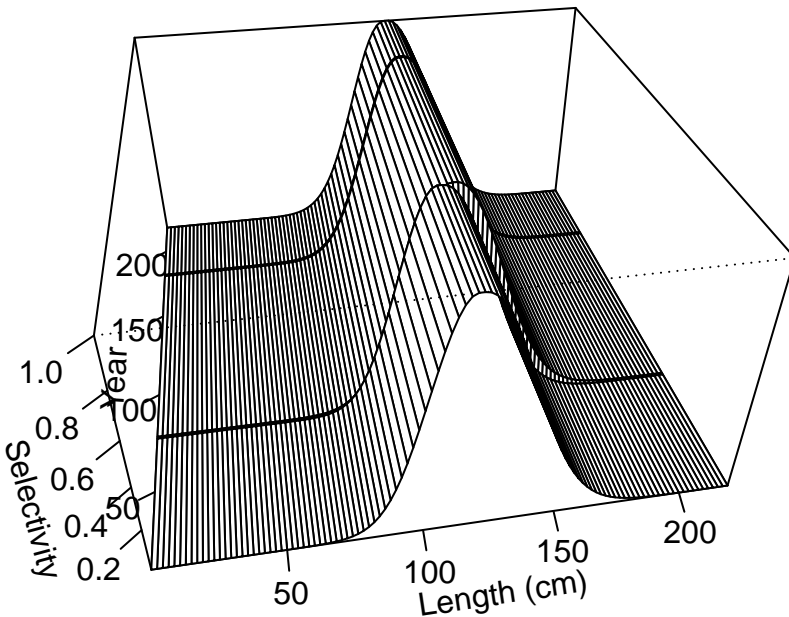
# Female time-varying selectivity for A6-LL-w



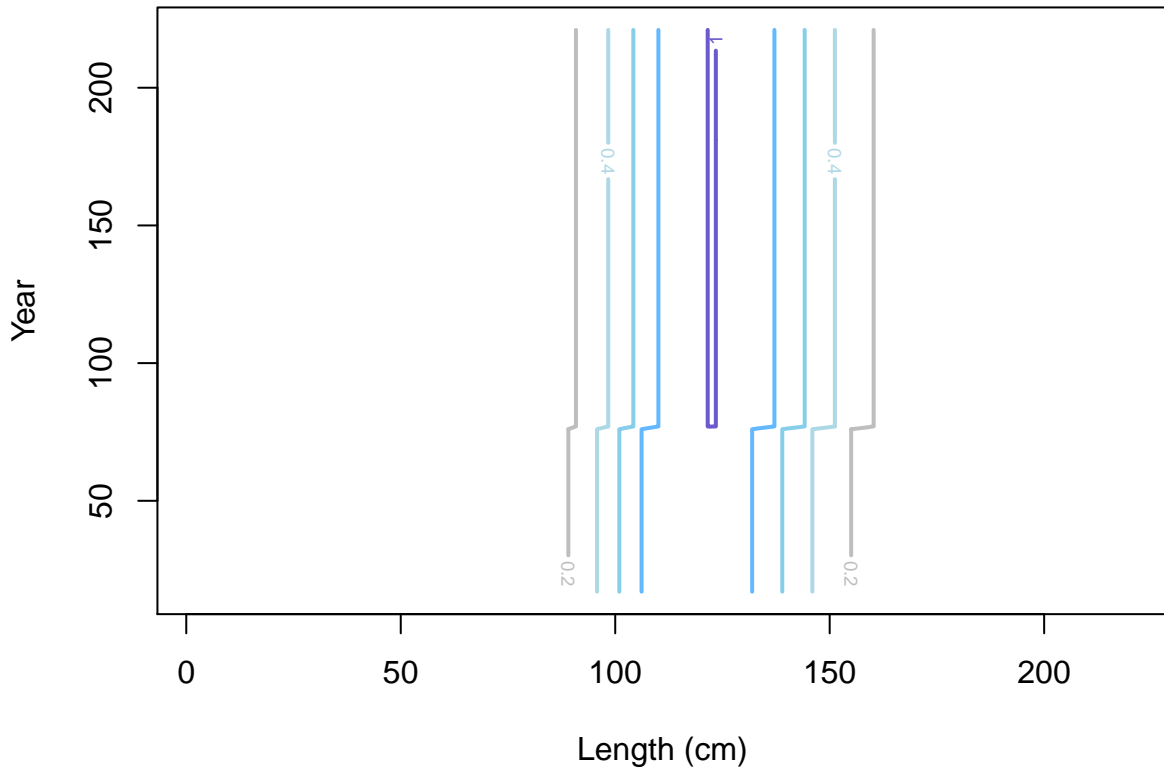
## Female ending year selectivity for A6-LL-w



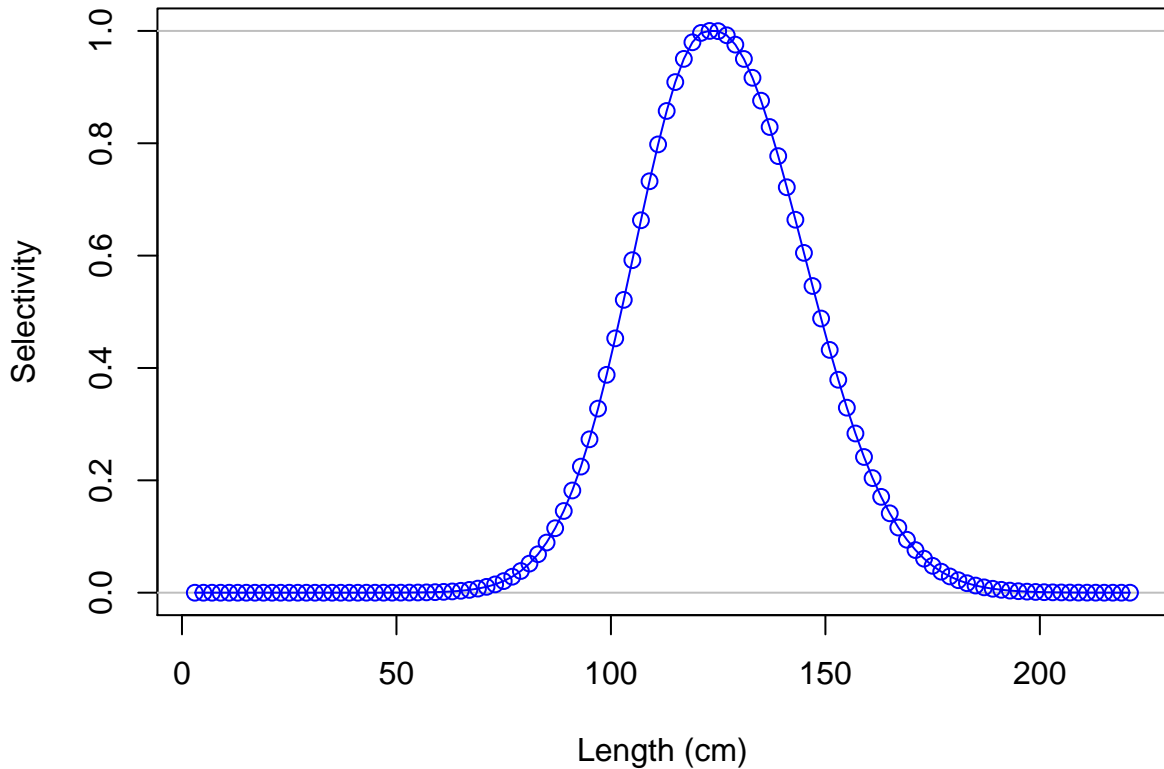
# Male time-varying selectivity for A6-LL-w



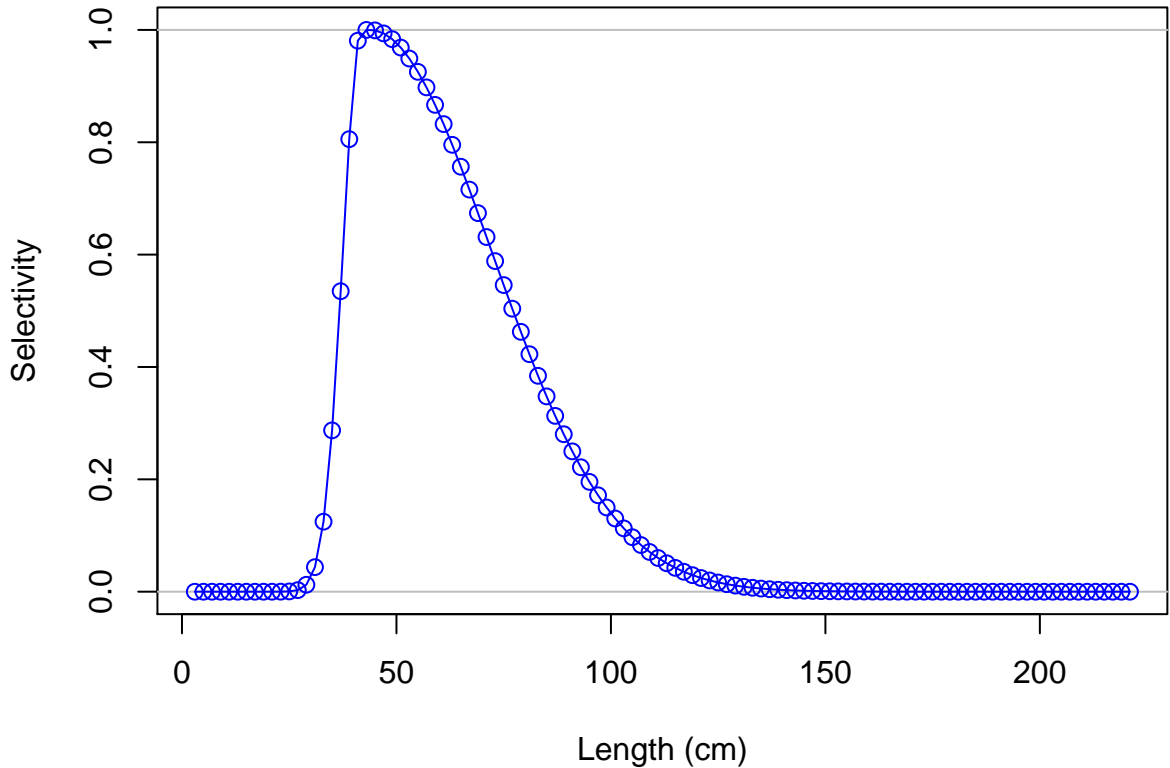
# Male time-varying selectivity for A6-LL-w



## Male ending year selectivity for A6-LL-w

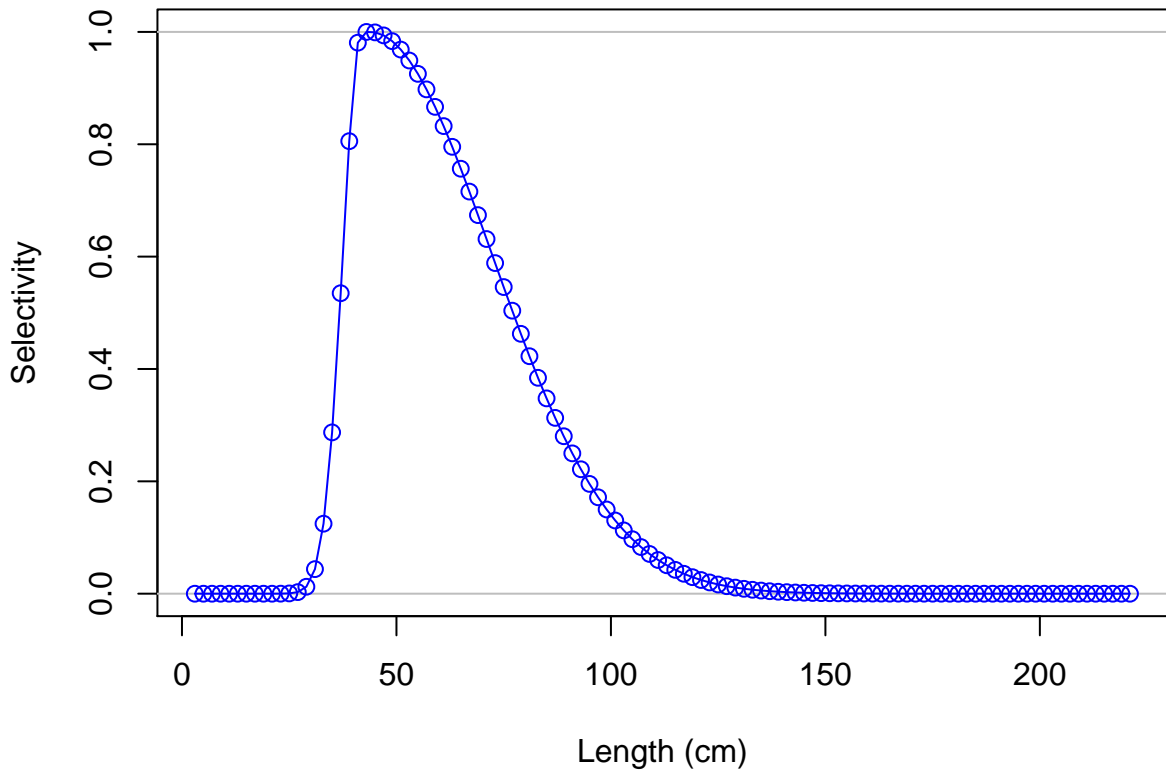


## Female ending year selectivity for A2-OBJ

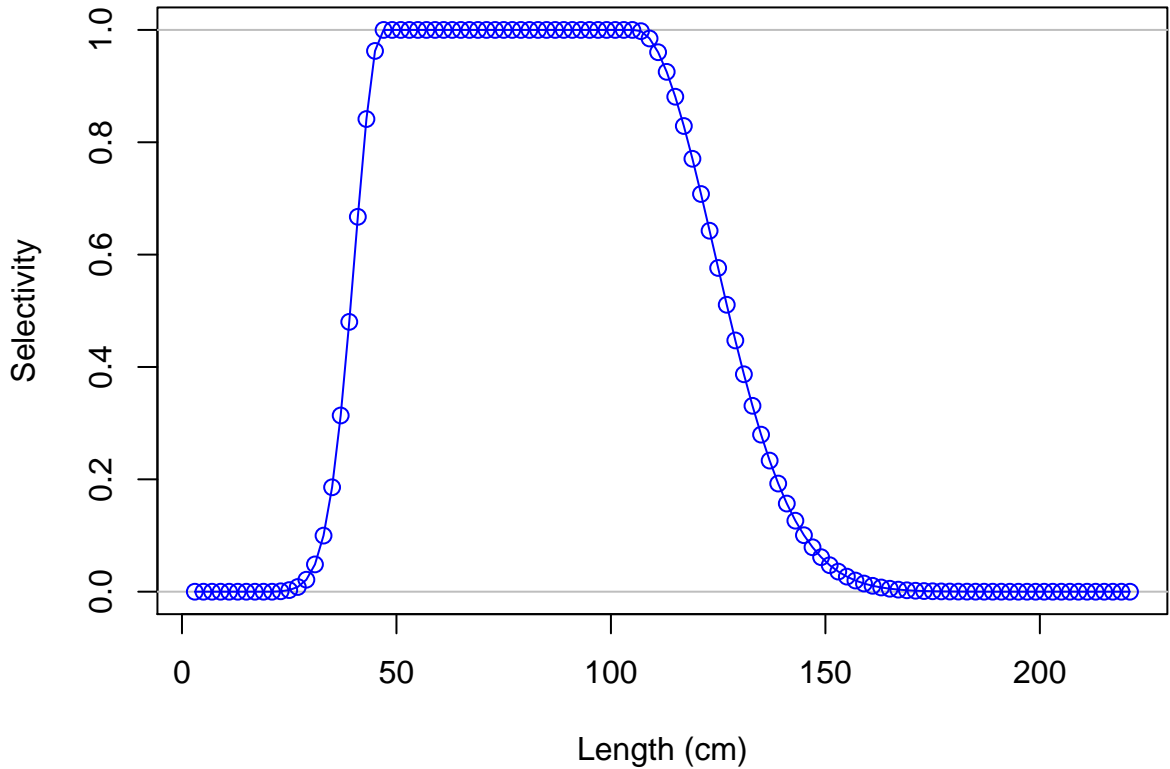




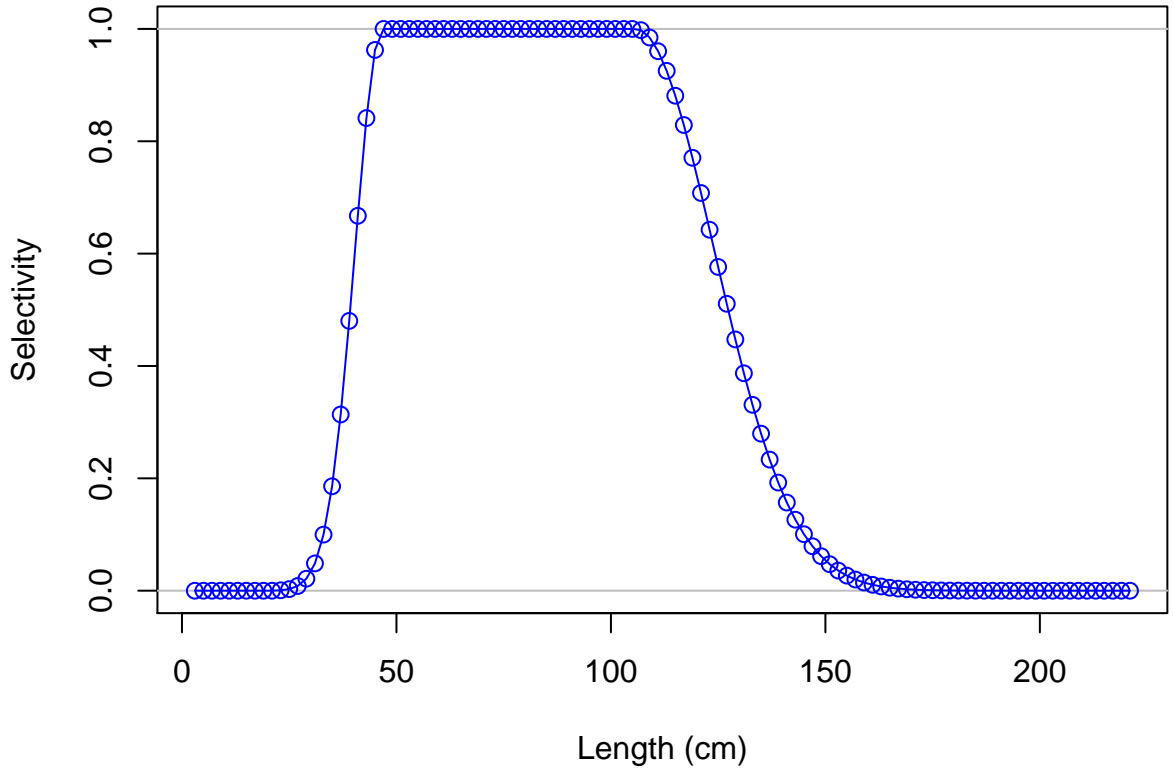
# Male ending year selectivity for A2-OBJ



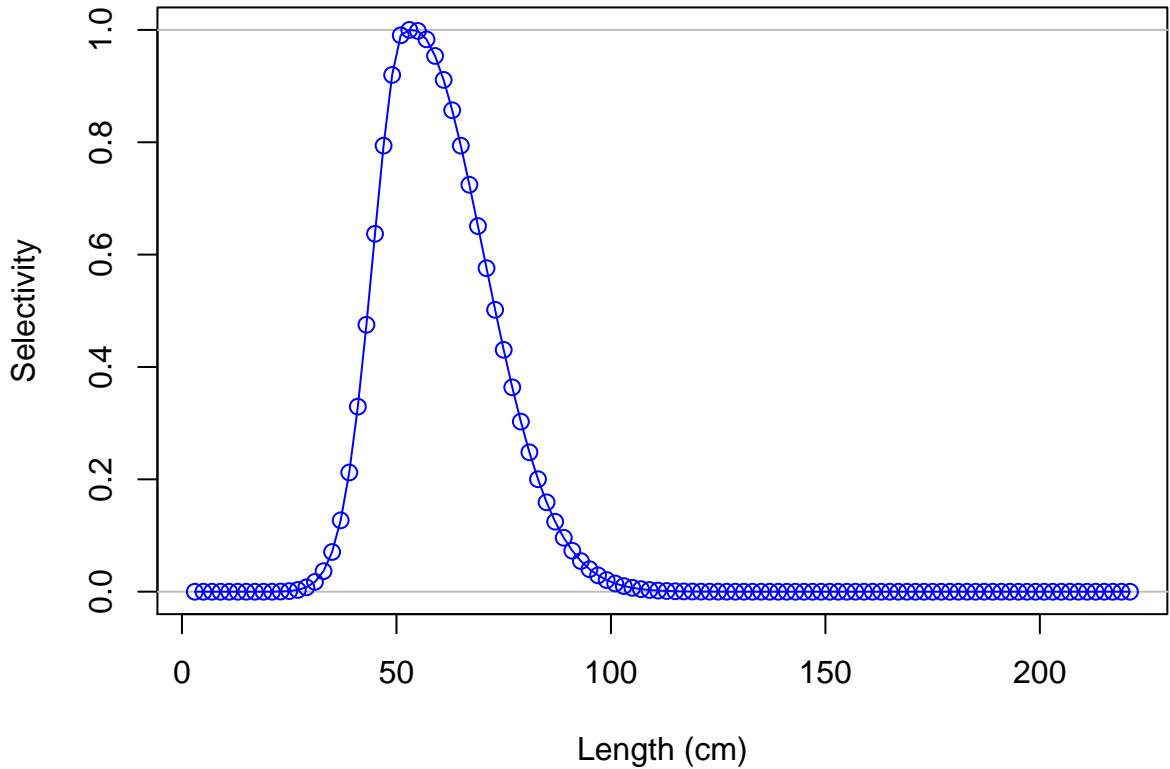
## Female ending year selectivity for A3-OBJ



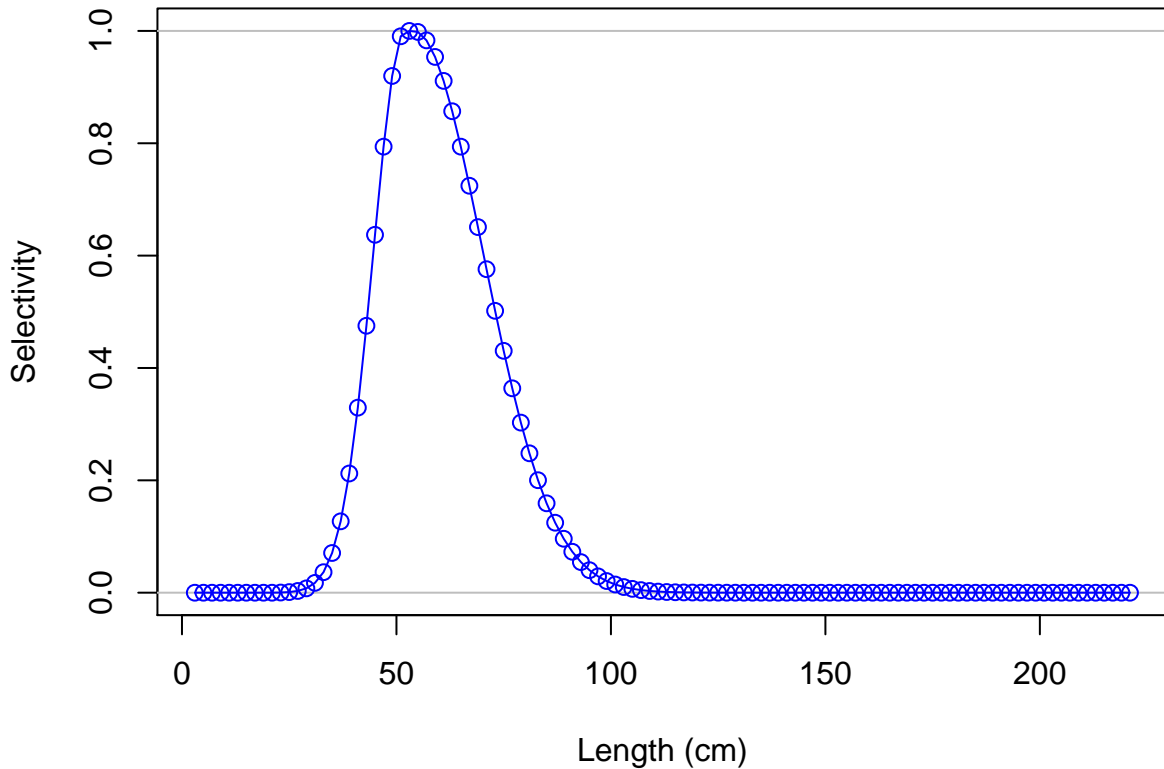
### Male ending year selectivity for A3-OBJ



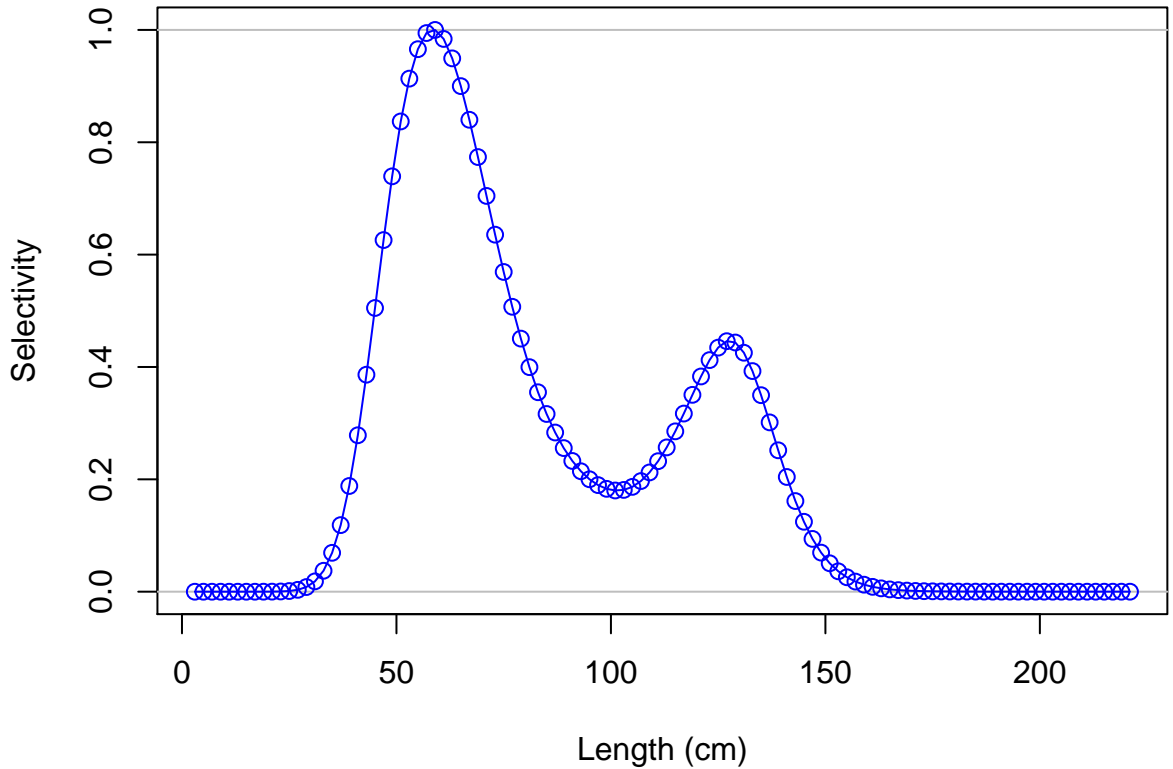
## Female ending year selectivity for A4-OBJ



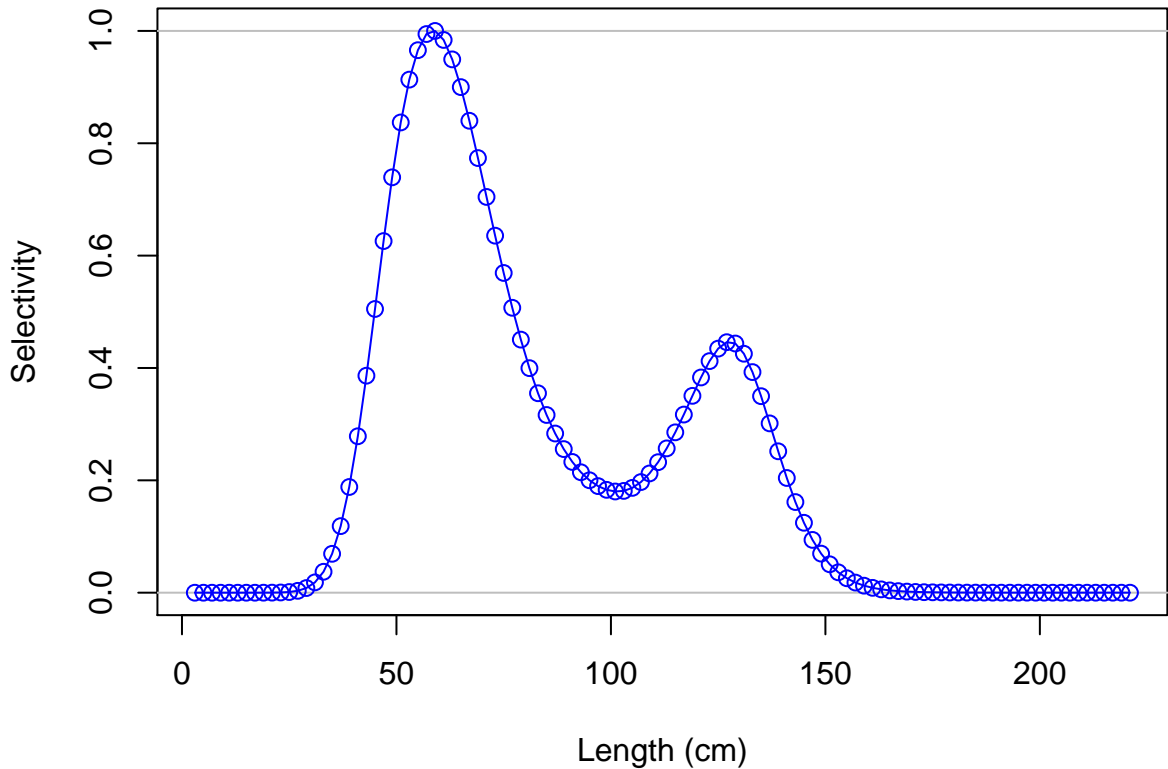
## Male ending year selectivity for A4-OBJ



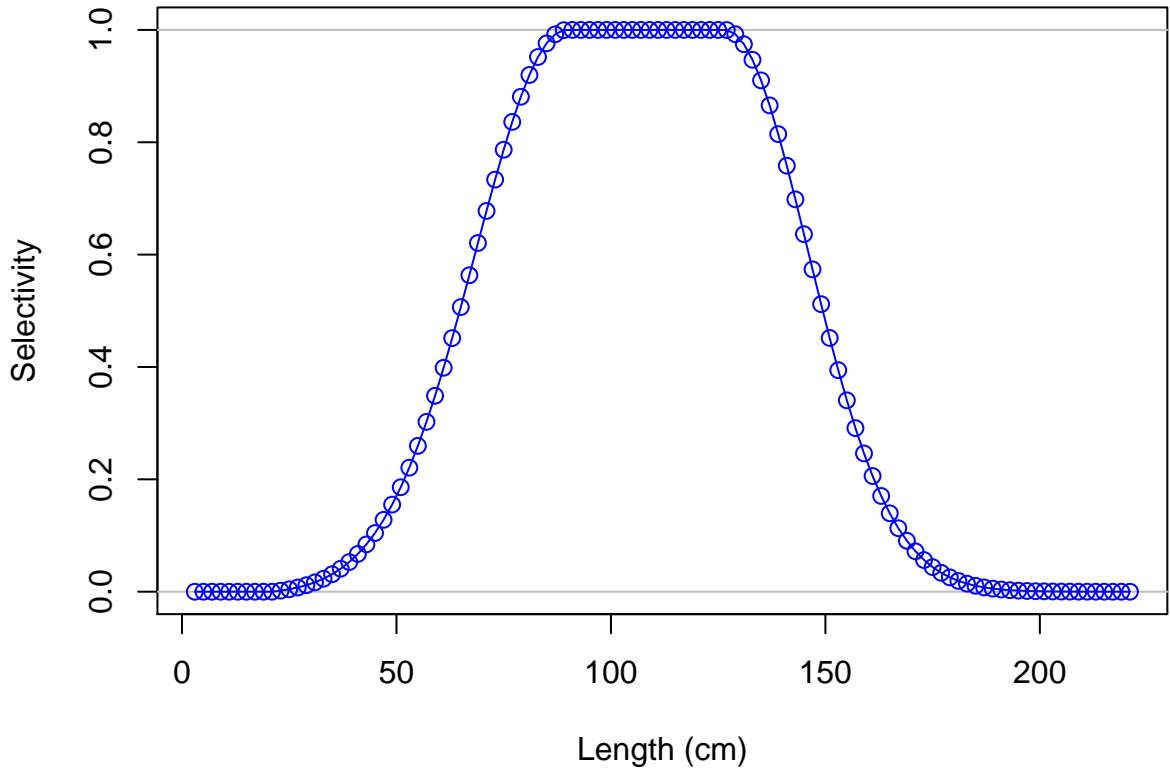
## Female ending year selectivity for A5-OBJ



## Male ending year selectivity for A5-OBJ

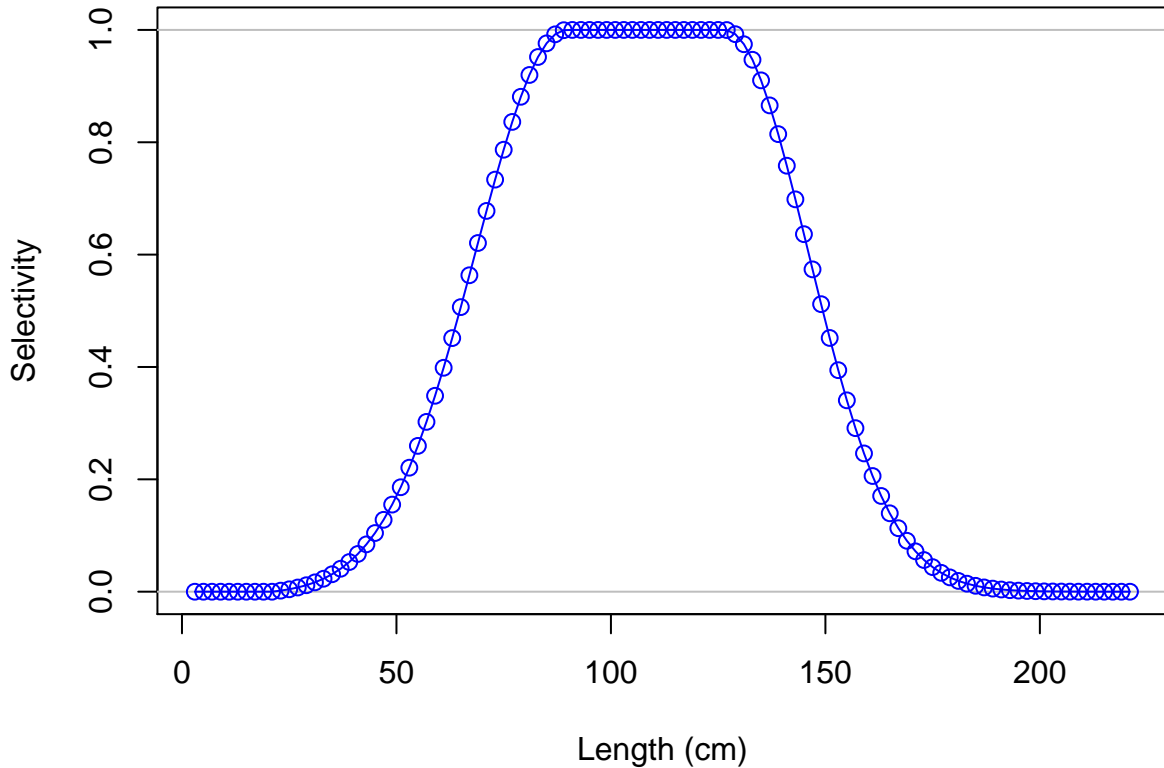


## Female ending year selectivity for A6-OBJ

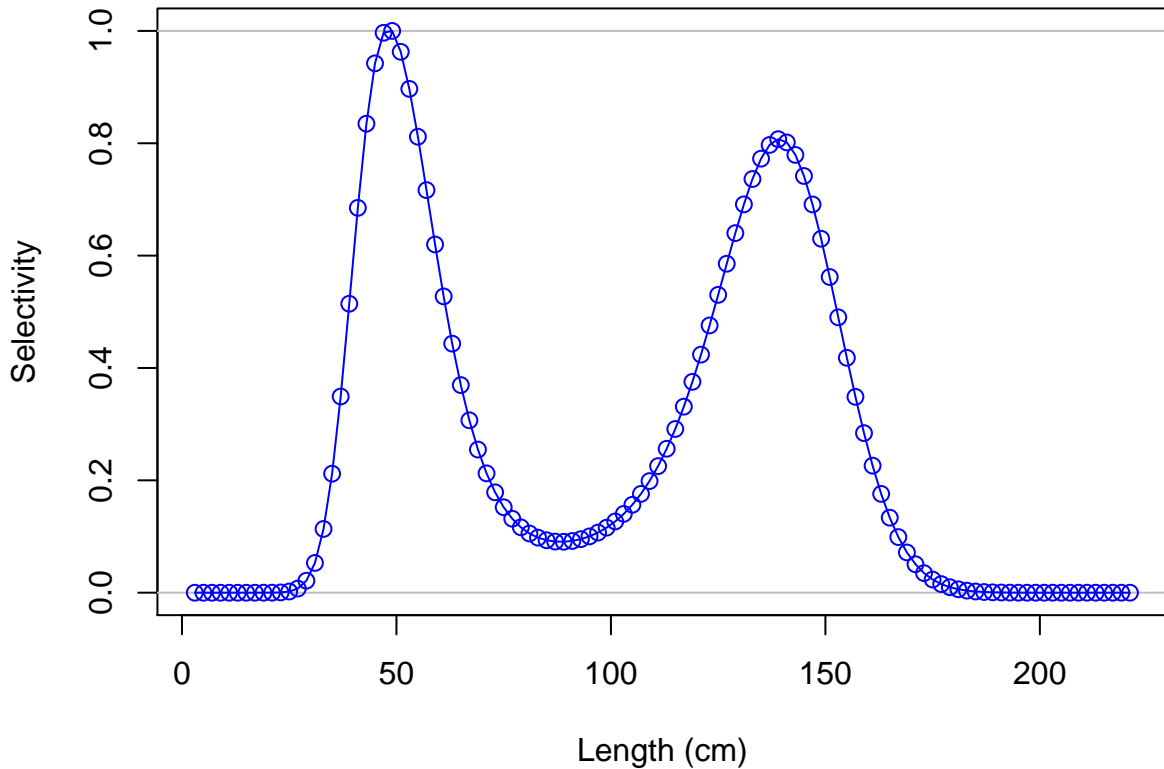




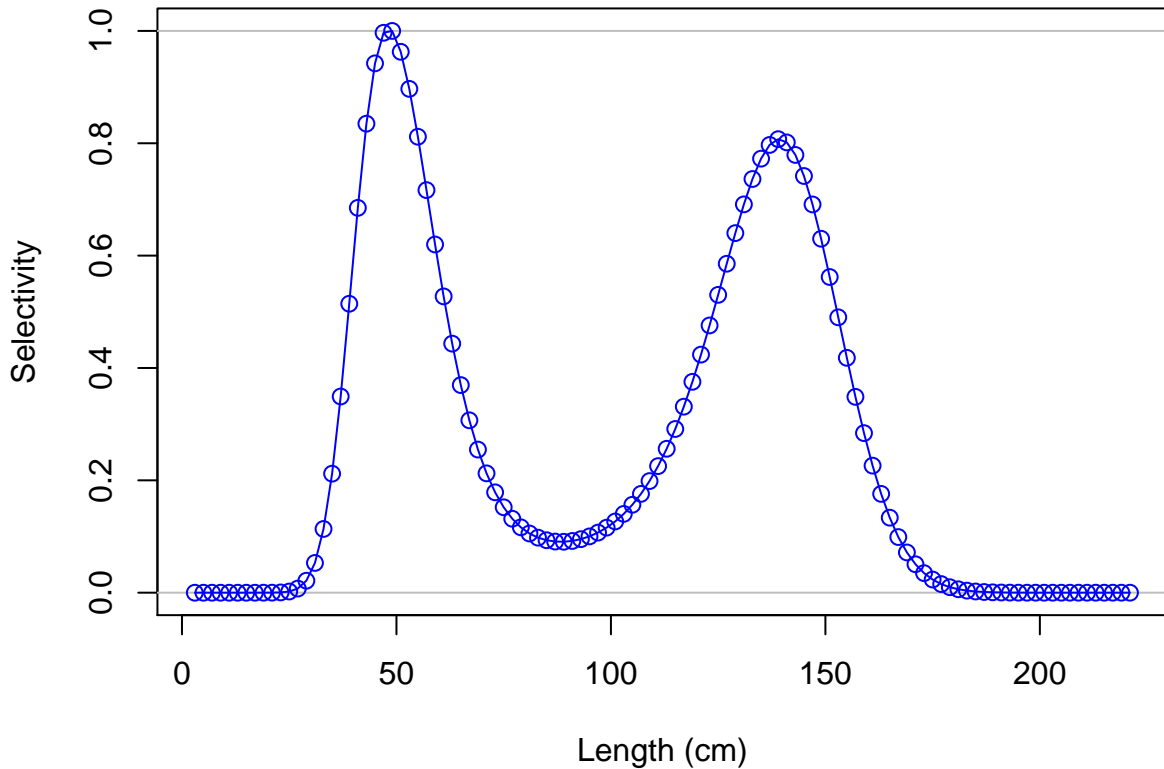
## Male ending year selectivity for A6-OBJ



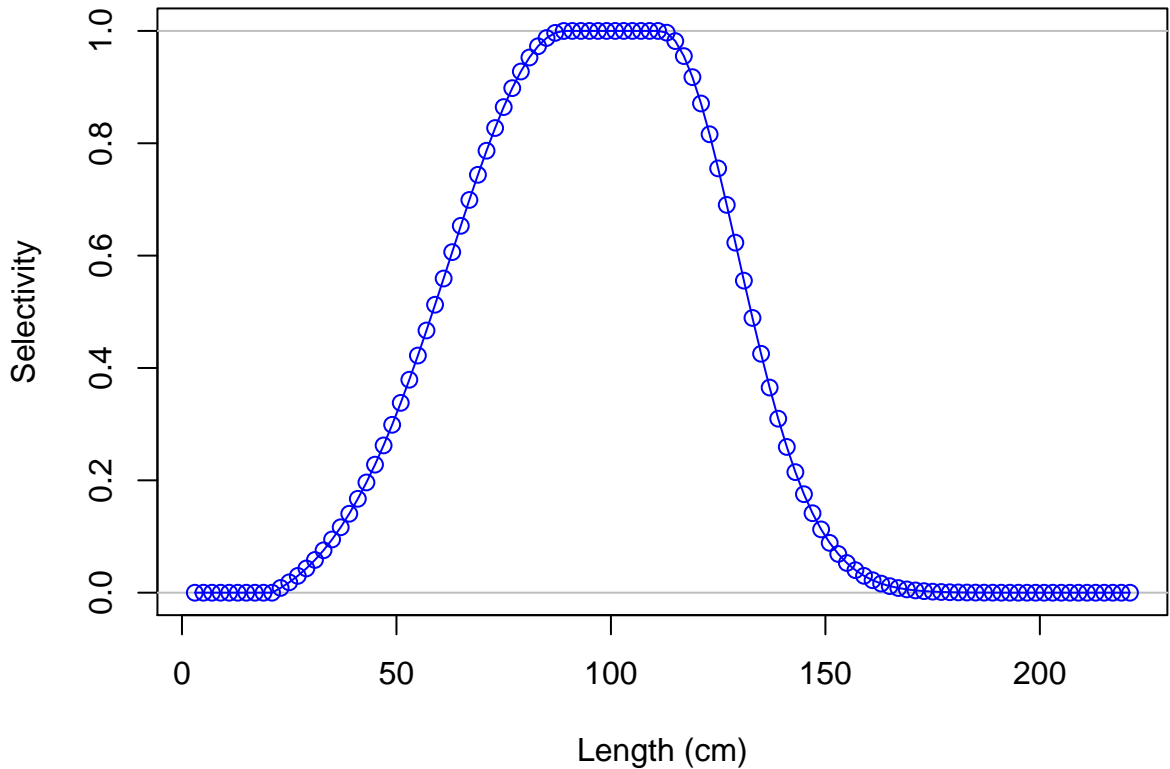
## Female ending year selectivity for A2-NOADEL



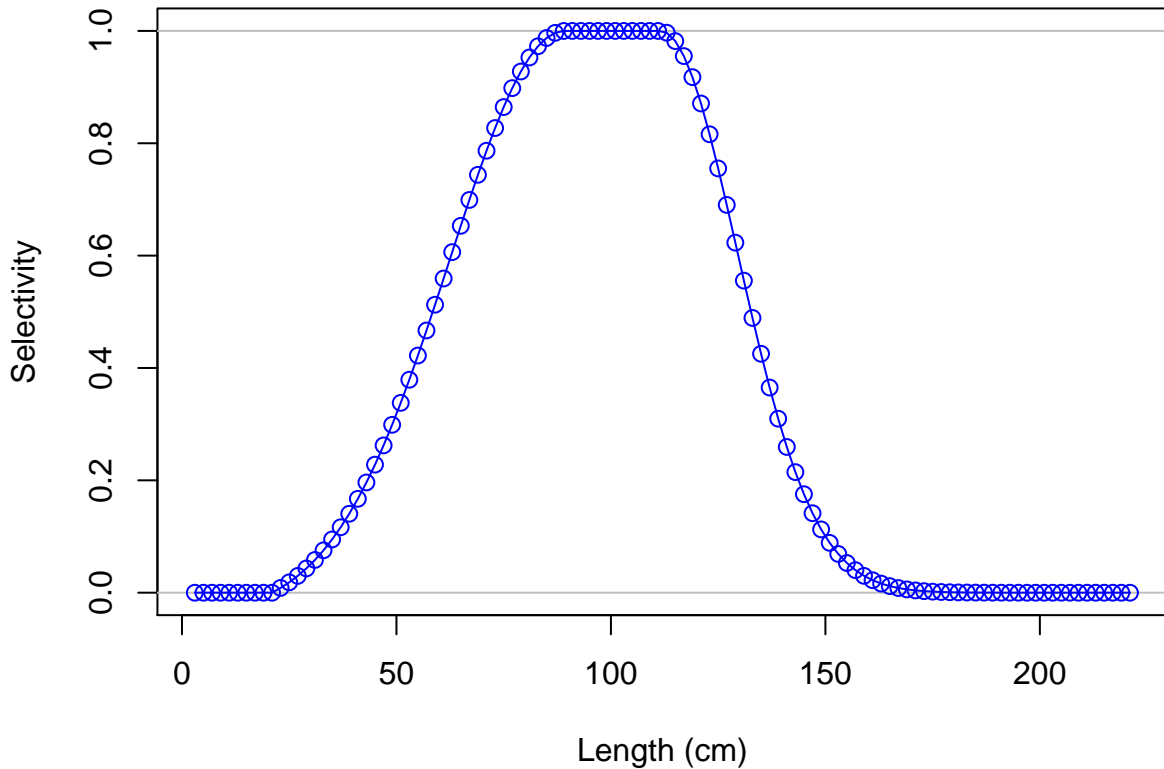
## Male ending year selectivity for A2-NOADEL



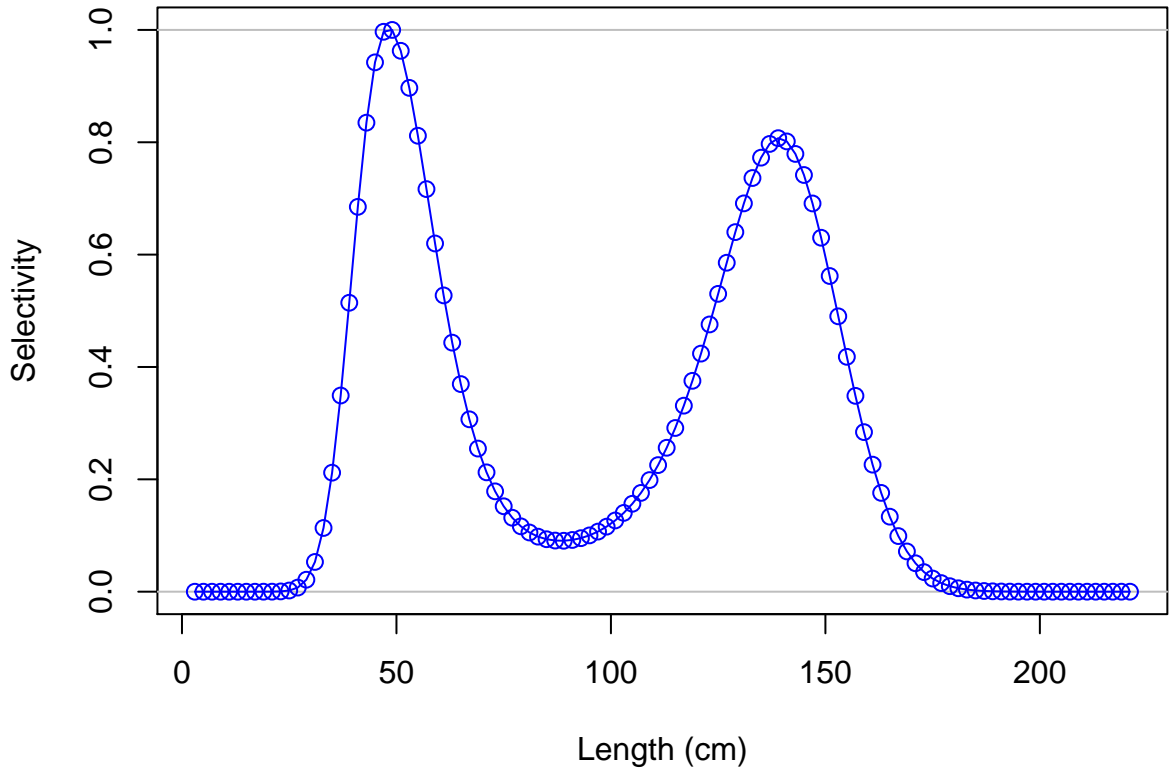
## Female ending year selectivity for A3-NOADEL



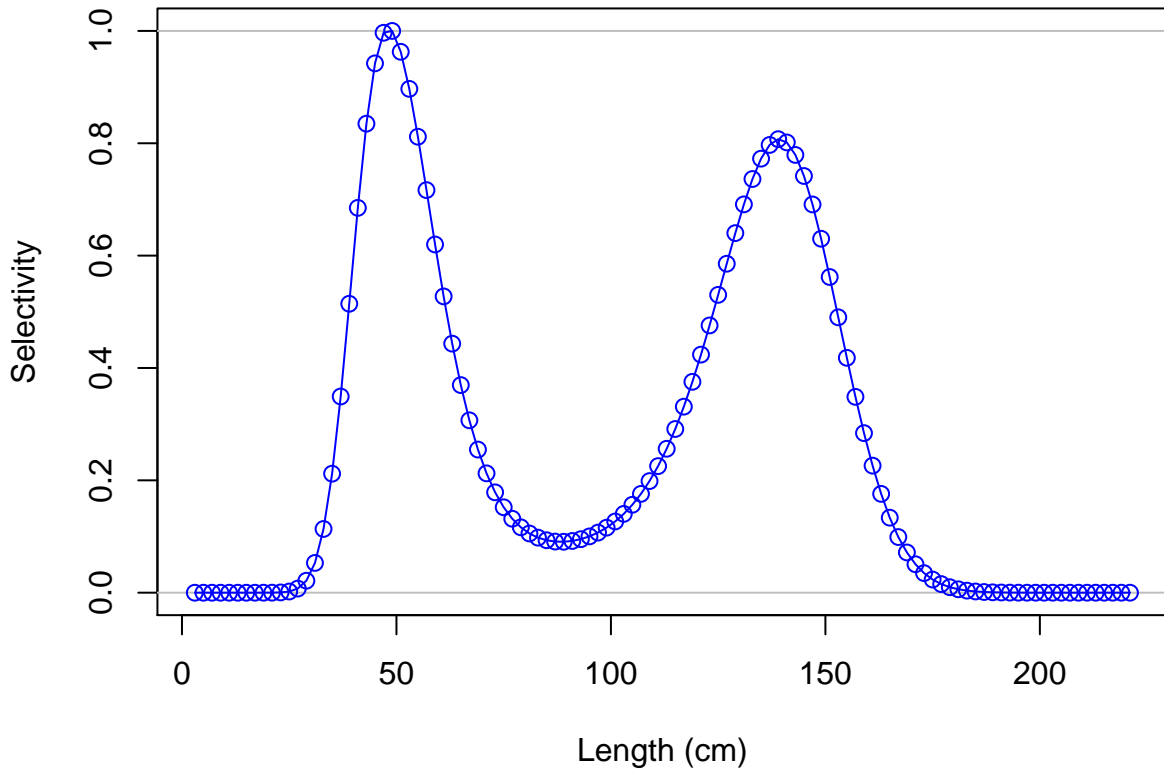
## Male ending year selectivity for A3-NOADEL



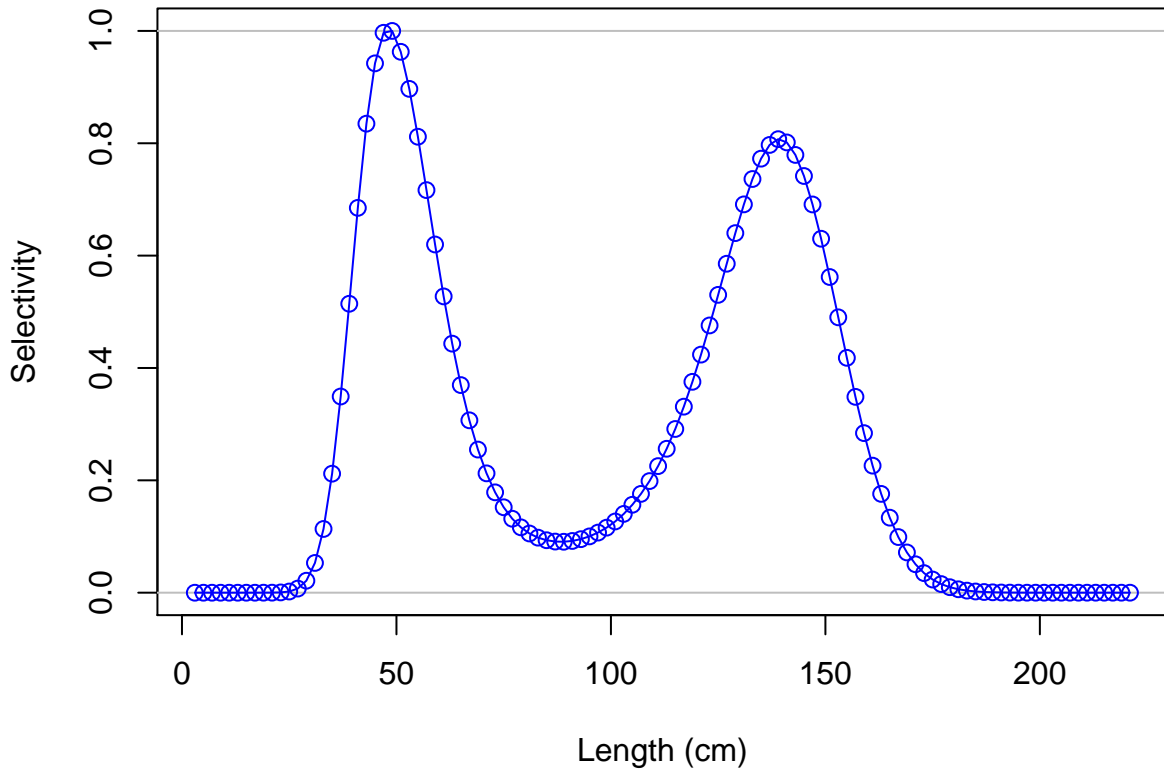
## Female ending year selectivity for A4-NOADEL



## Male ending year selectivity for A4-NOADEL

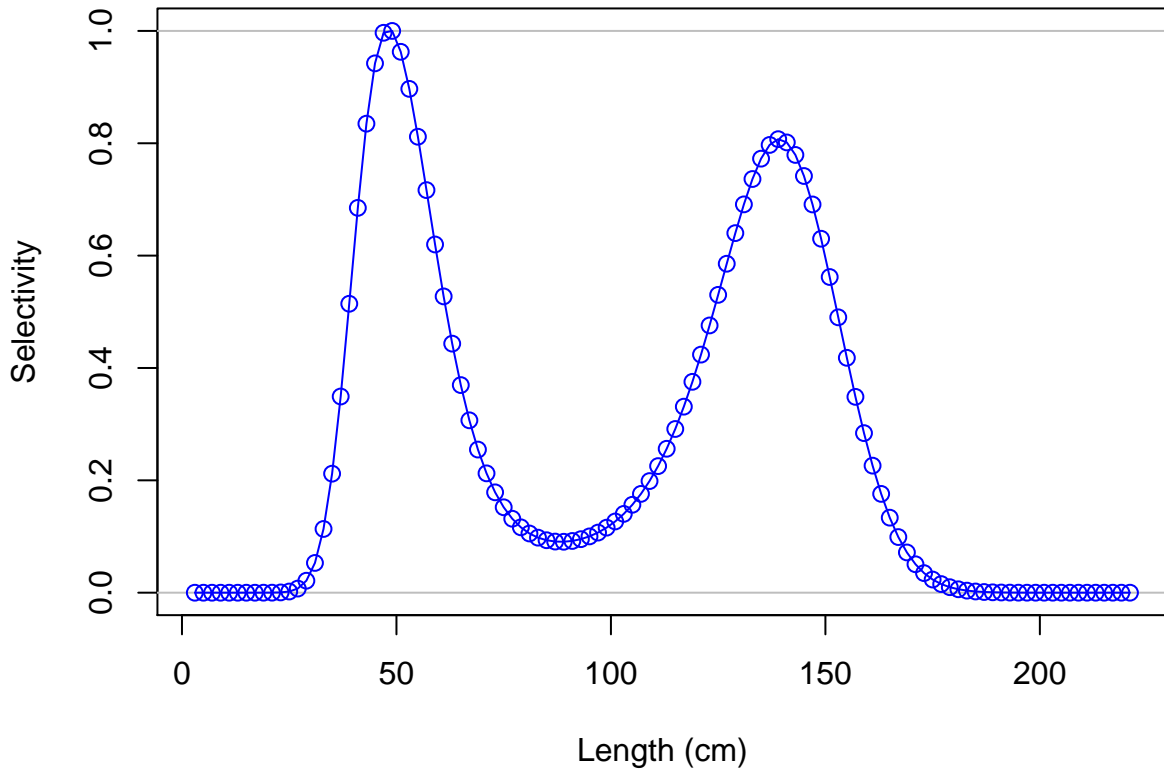


## Female ending year selectivity for A5-NOADEL

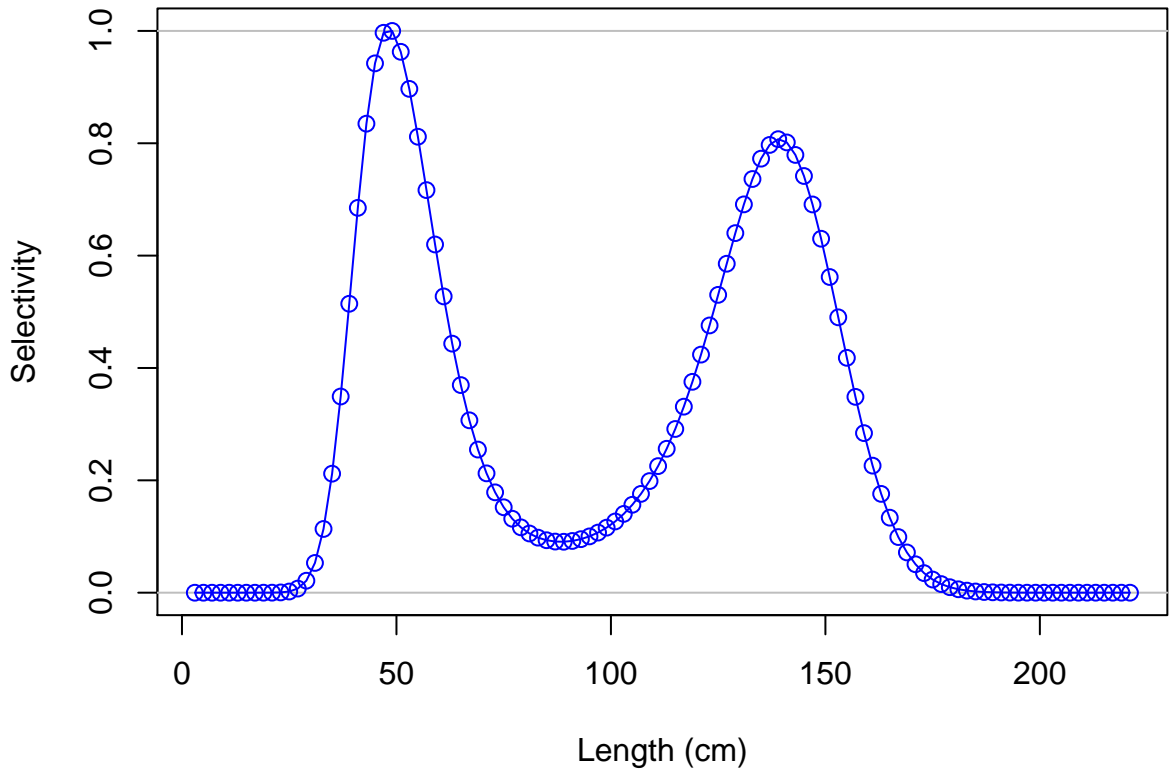




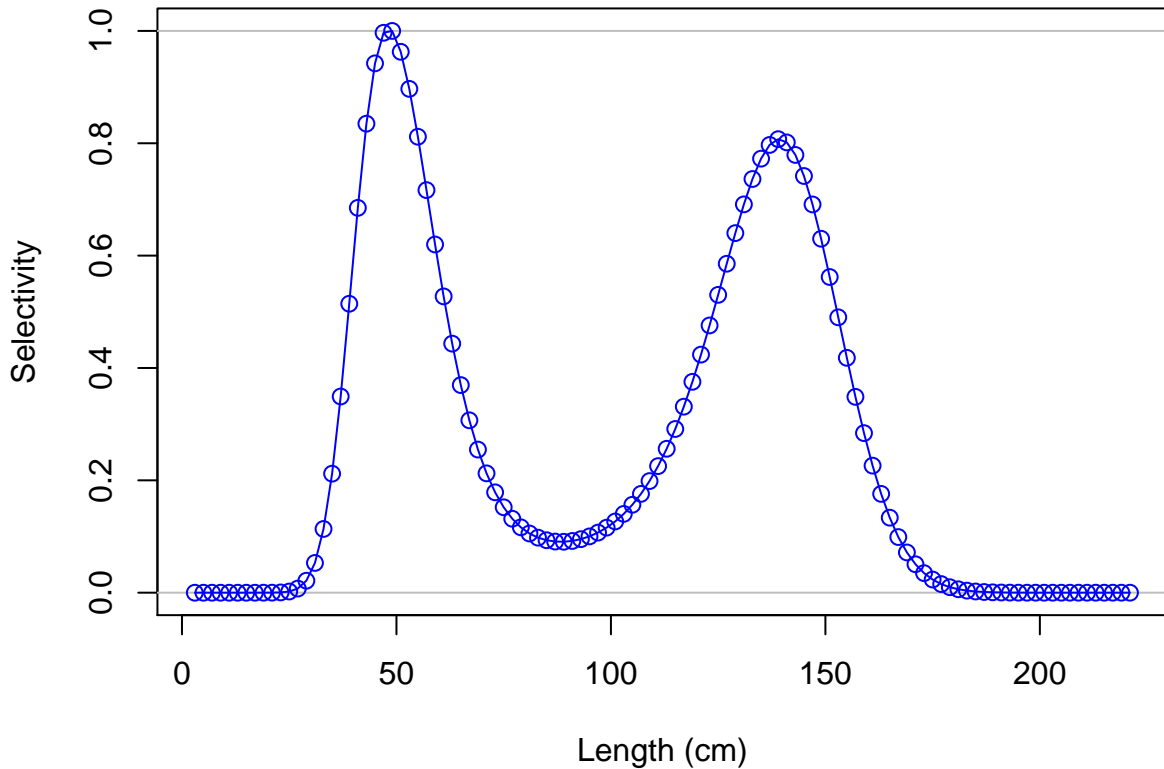
## Male ending year selectivity for A5-NOADEL



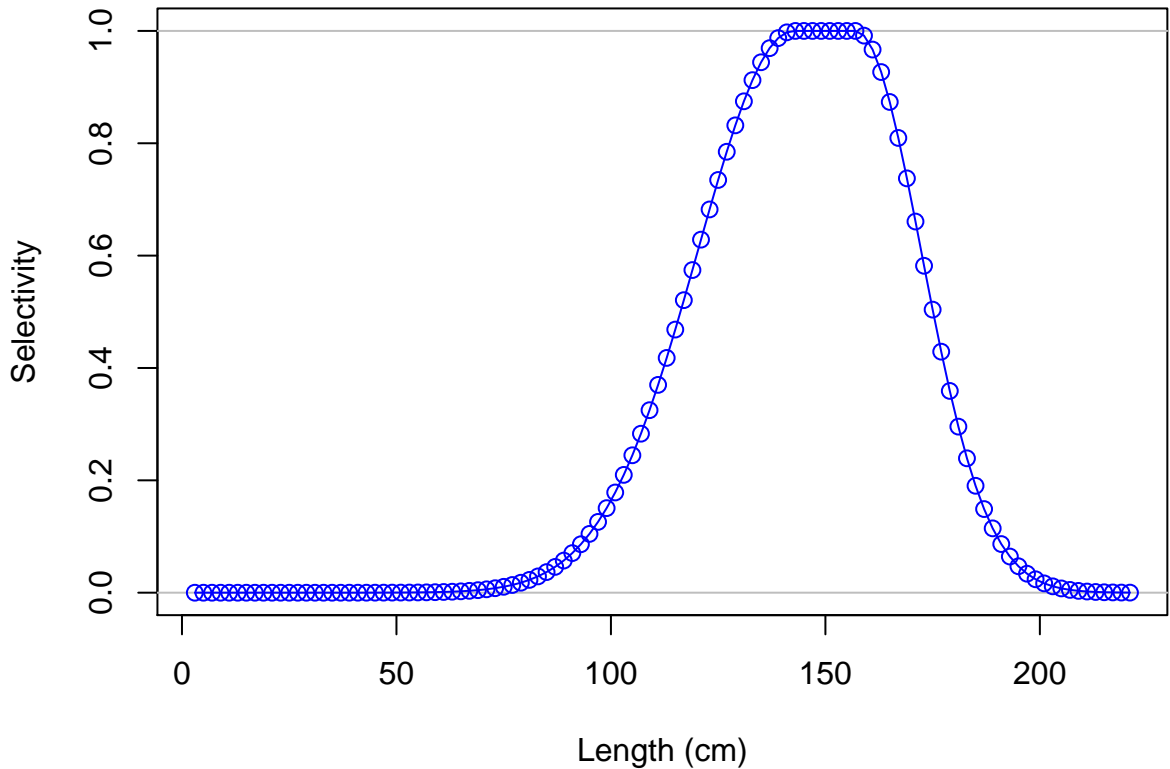
## Female ending year selectivity for A6-NOADEL



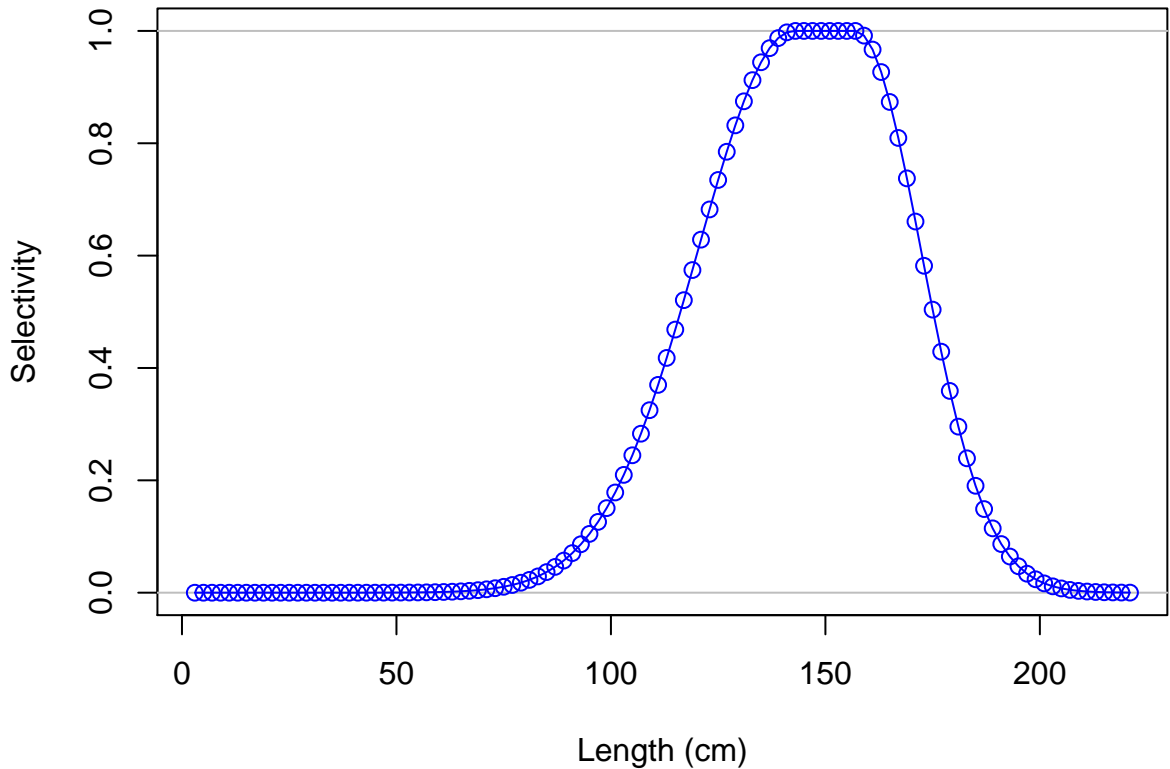
## Male ending year selectivity for A6-NOADEL



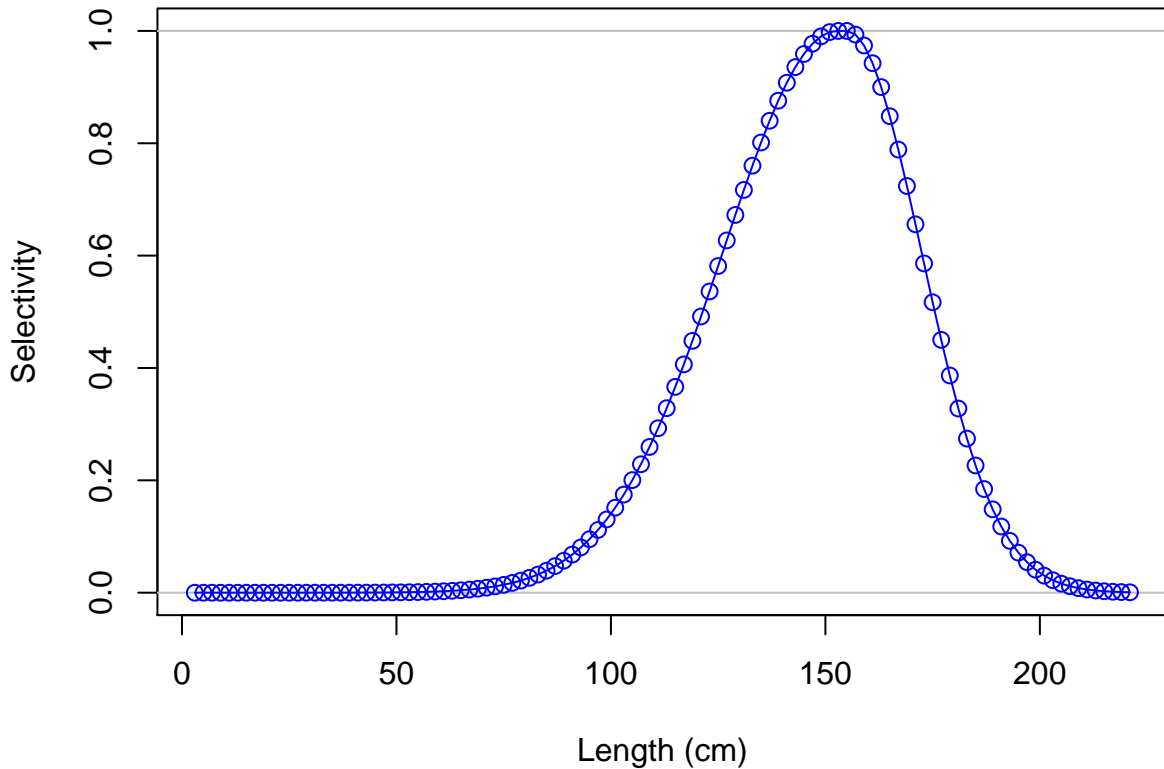
# Female ending year selectivity for EPO-LL-survey-early



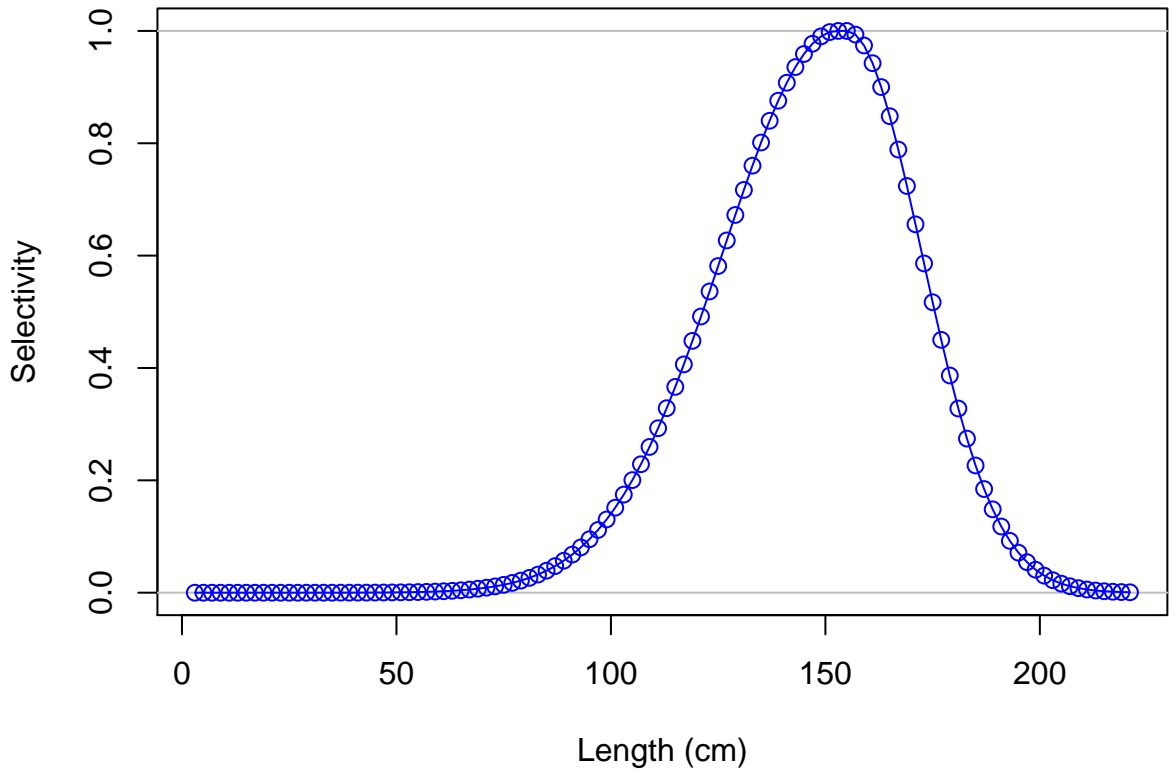
# Male ending year selectivity for EPO-LL-survey-early



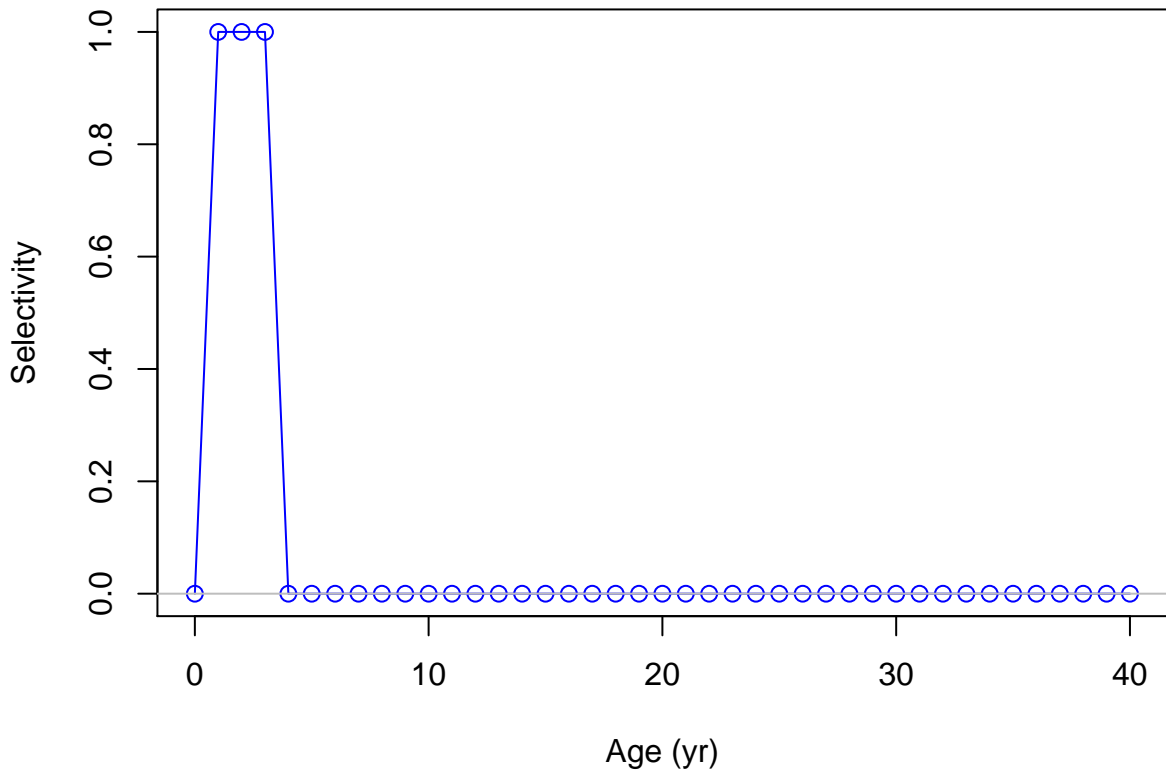
# Female ending year selectivity for EPO-LL-survey-late



# Male ending year selectivity for EPO-LL-survey-late

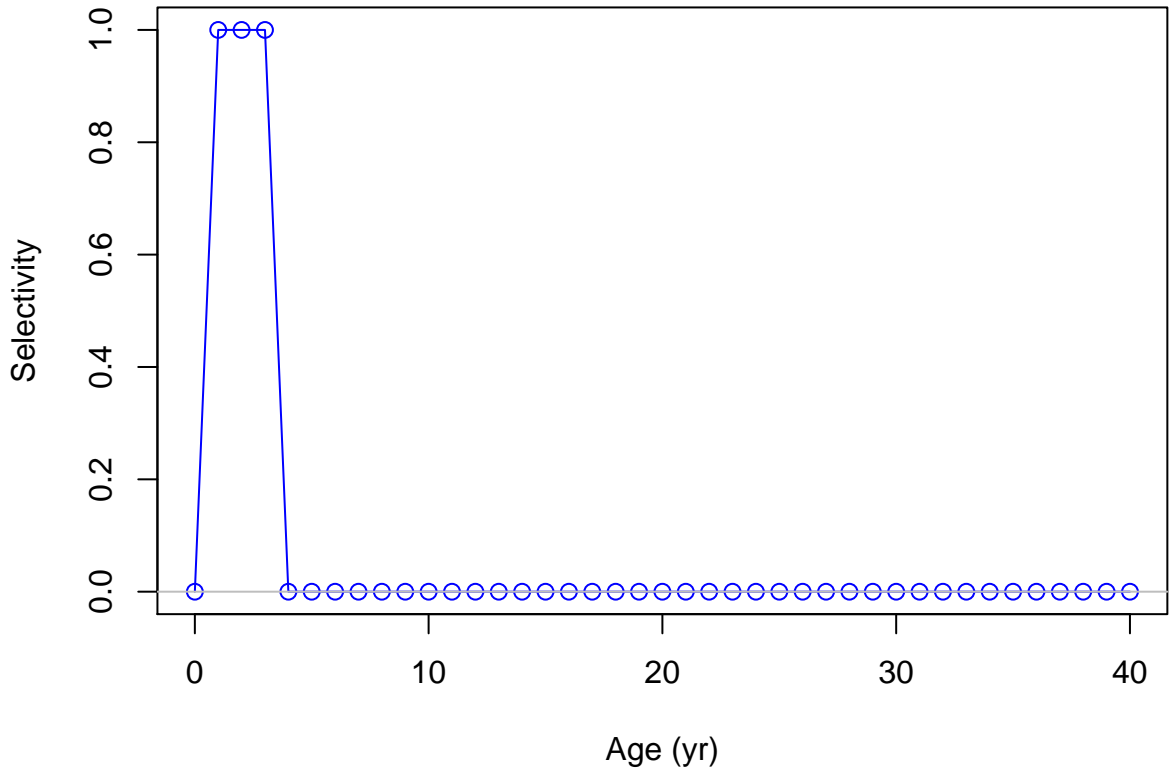


## Female ending year selectivity for EPO-OBJ-Disc

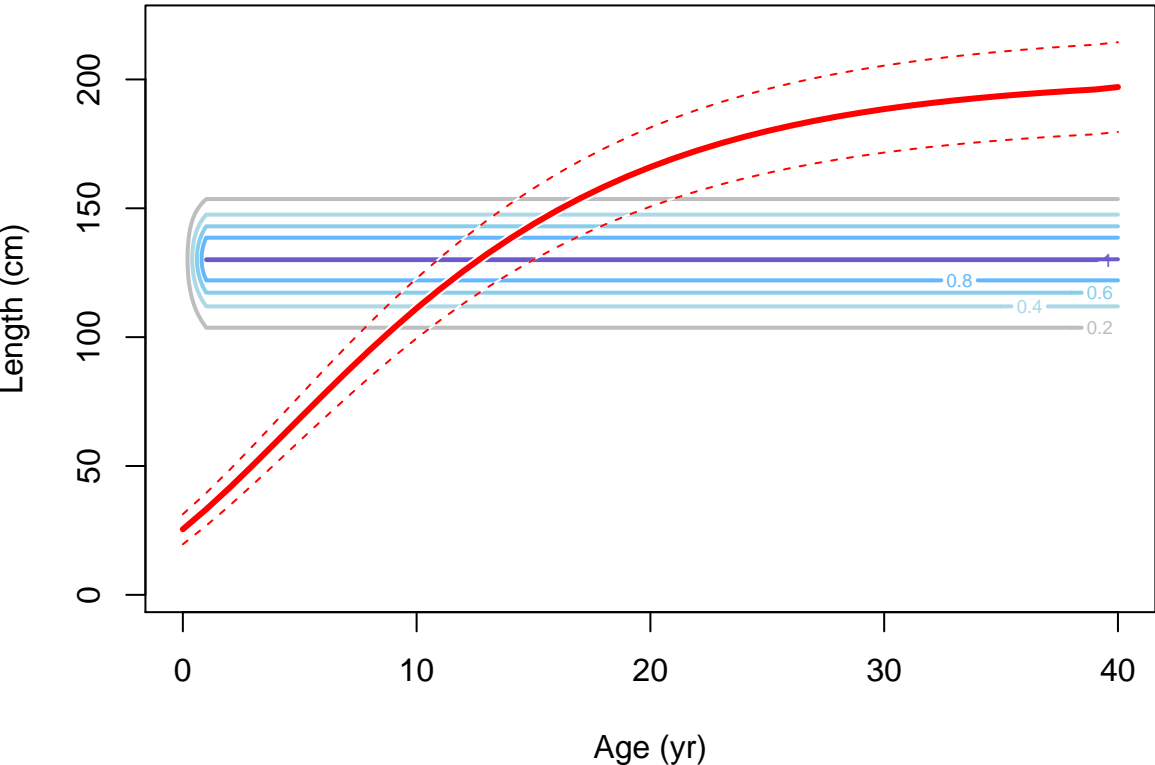




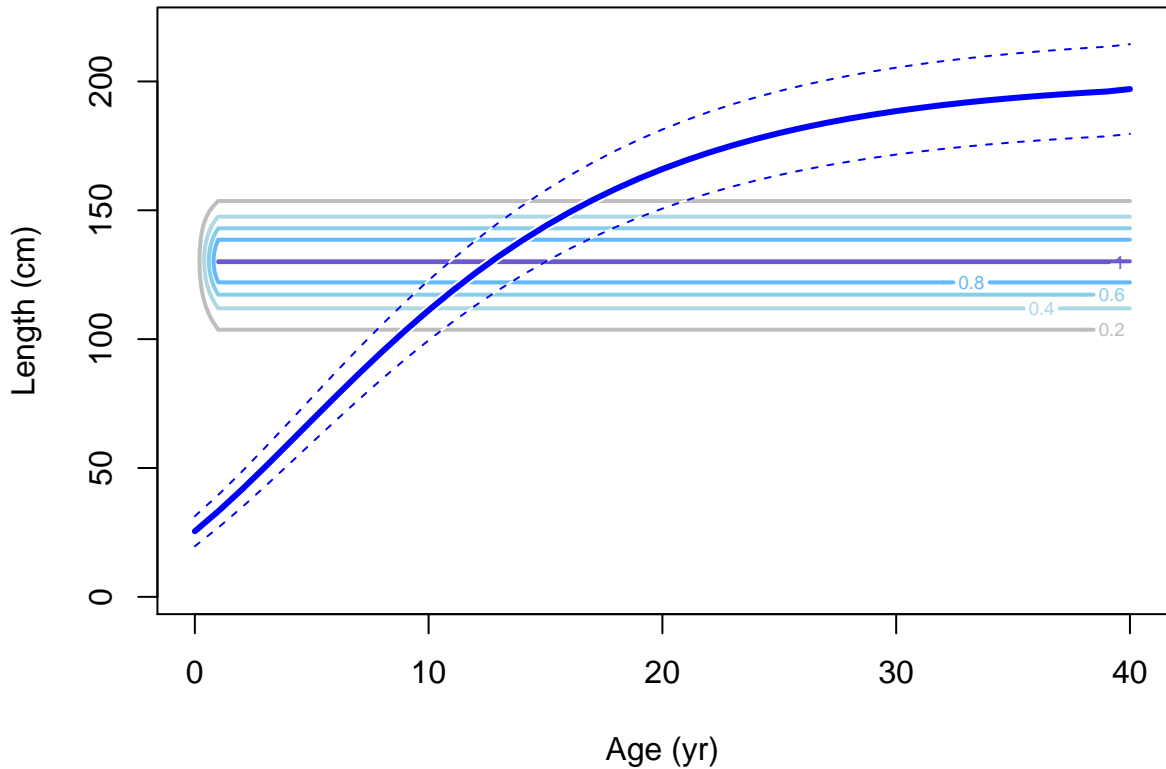
# Male ending year selectivity for EPO-OBJ-Disc



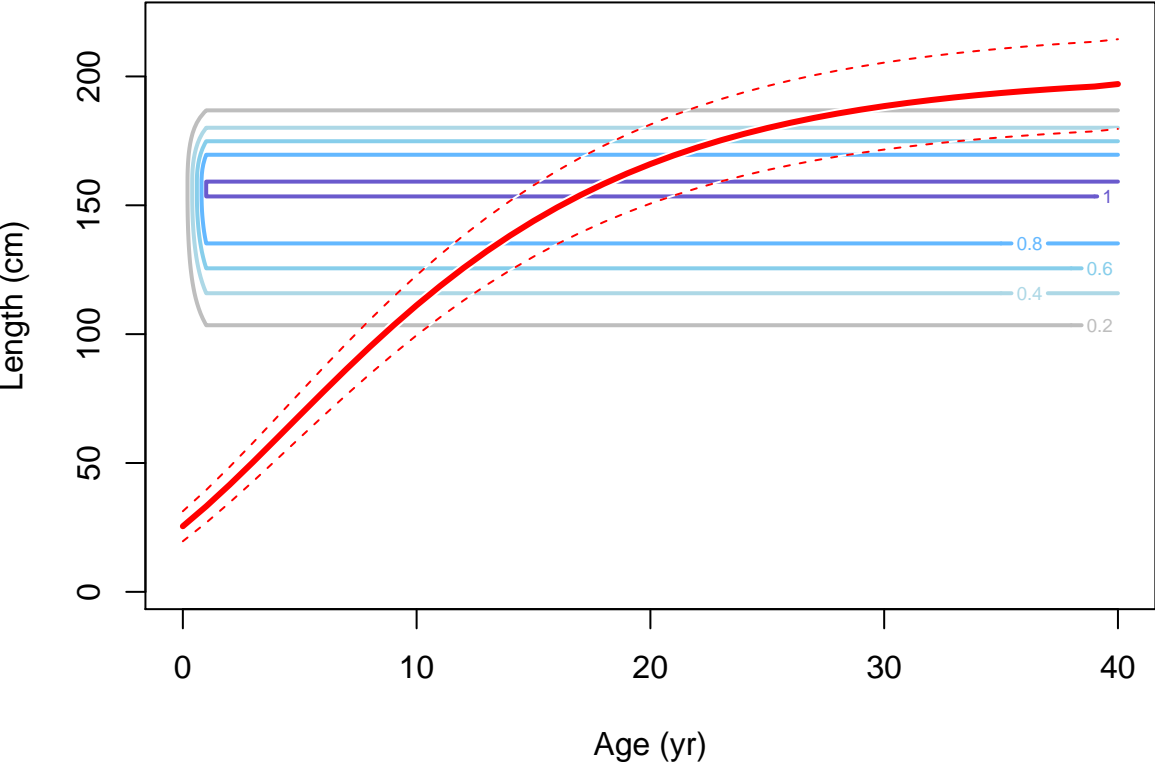
# Female ending year selectivity and growth for A1-LL-n



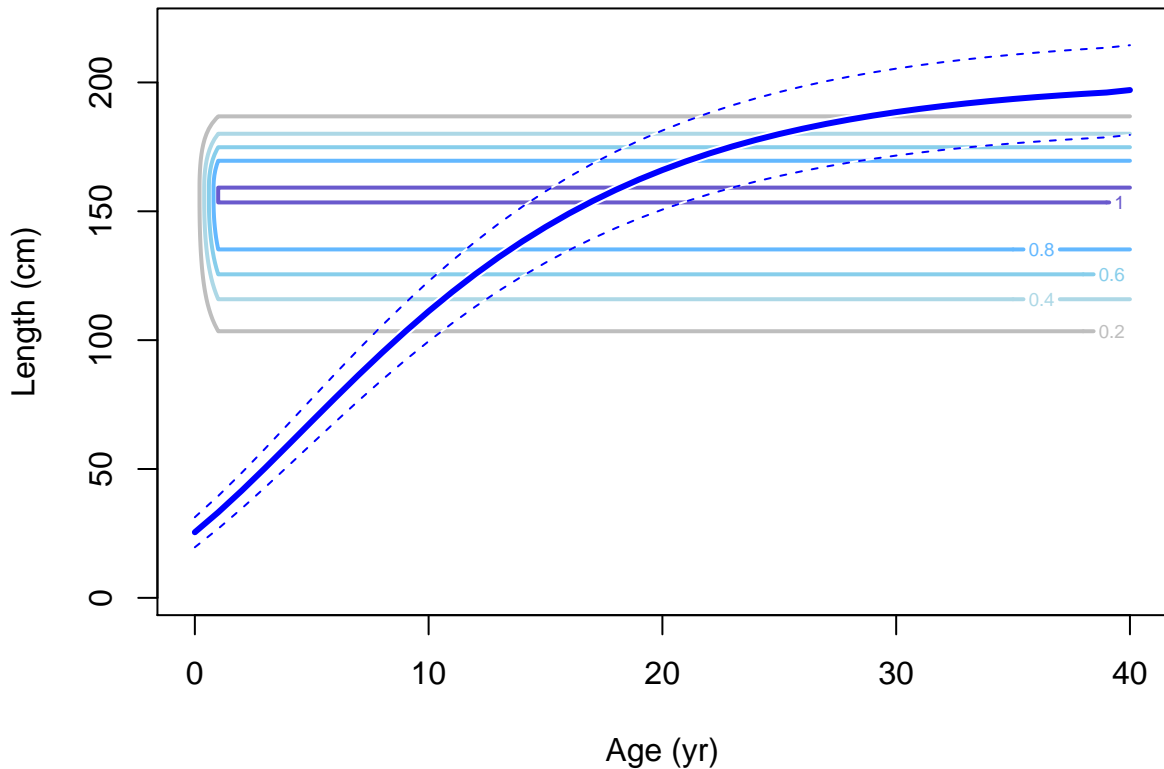
# Male ending year selectivity and growth for A1-LL-n



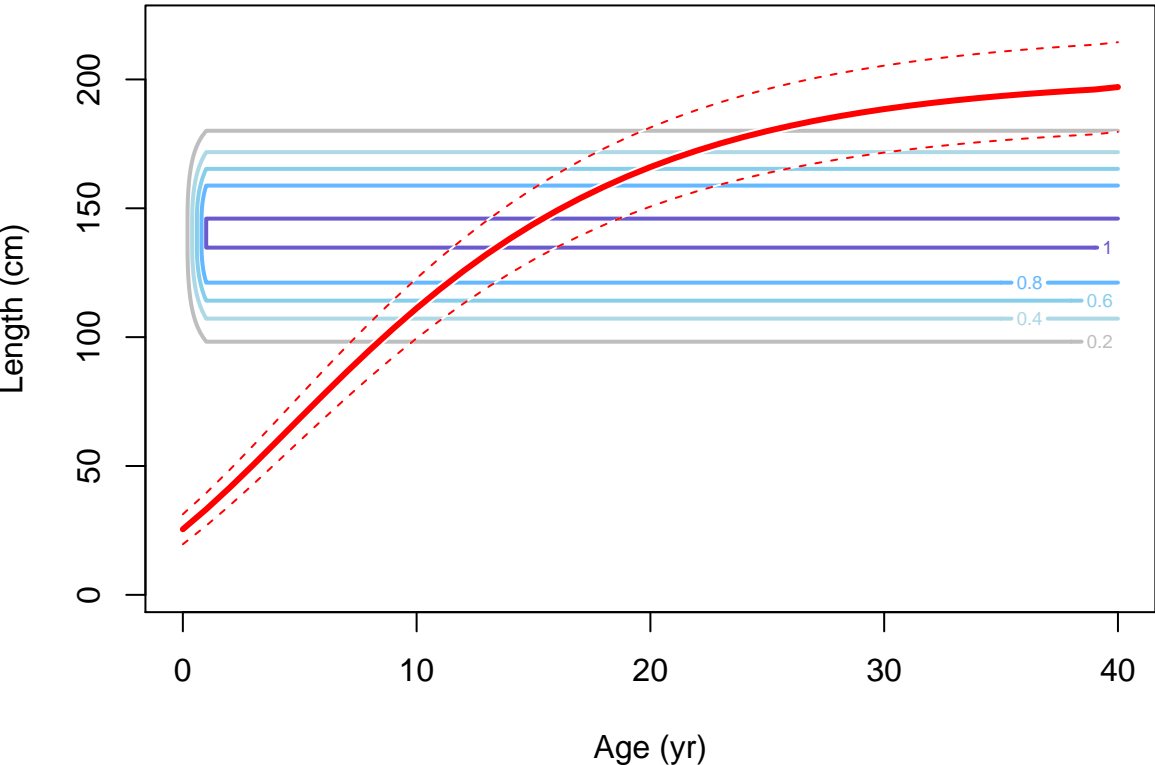
# Female ending year selectivity and growth for A2-LL-n



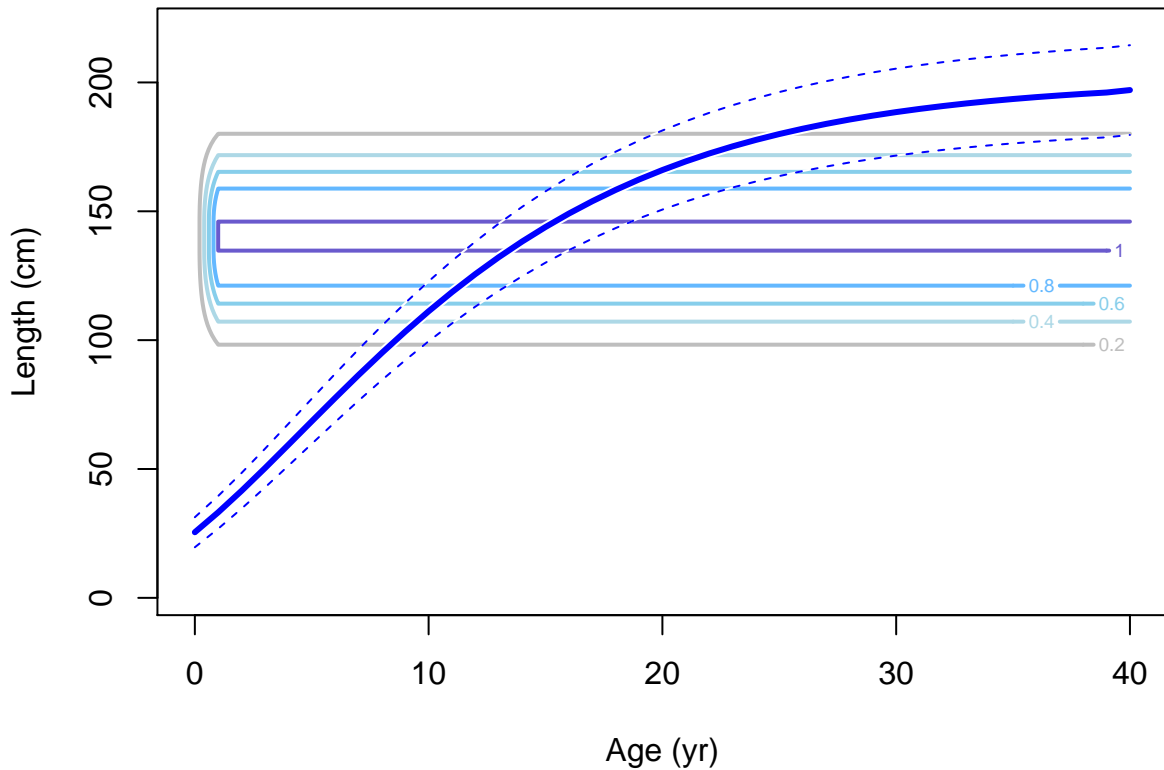
# Male ending year selectivity and growth for A2-LL-n



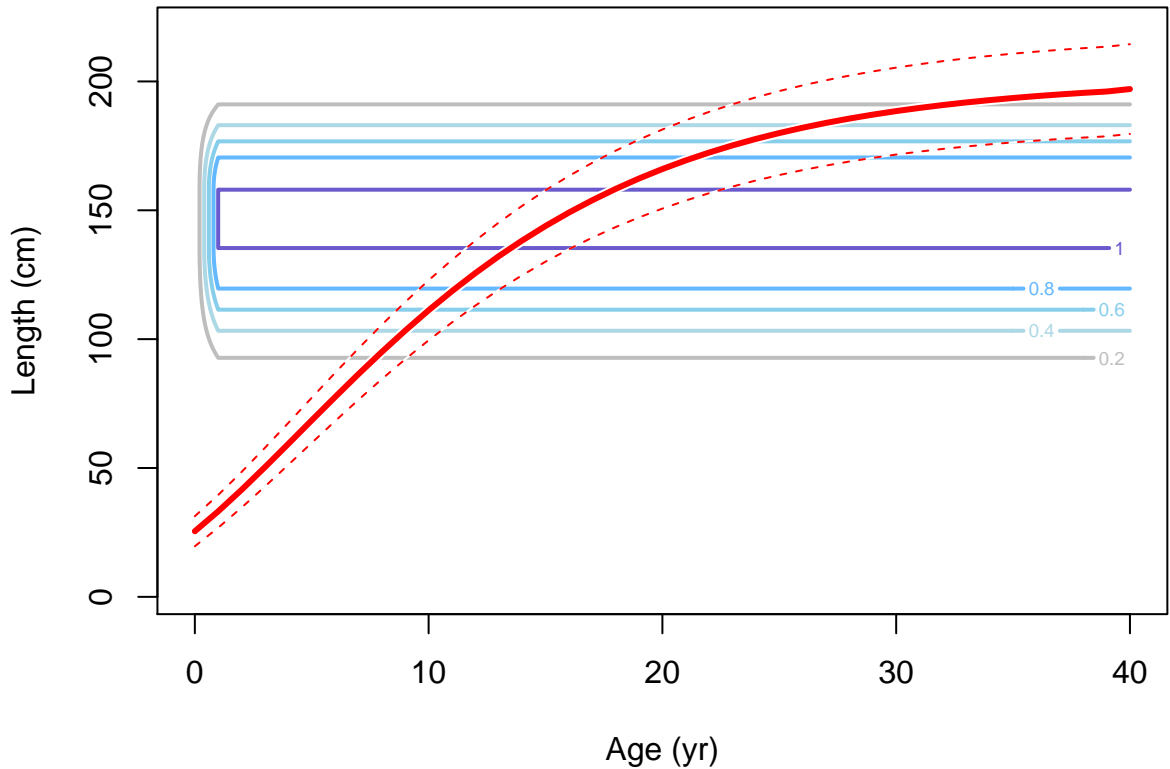
# Female ending year selectivity and growth for A3-LL-n



# Male ending year selectivity and growth for A3-LL-n

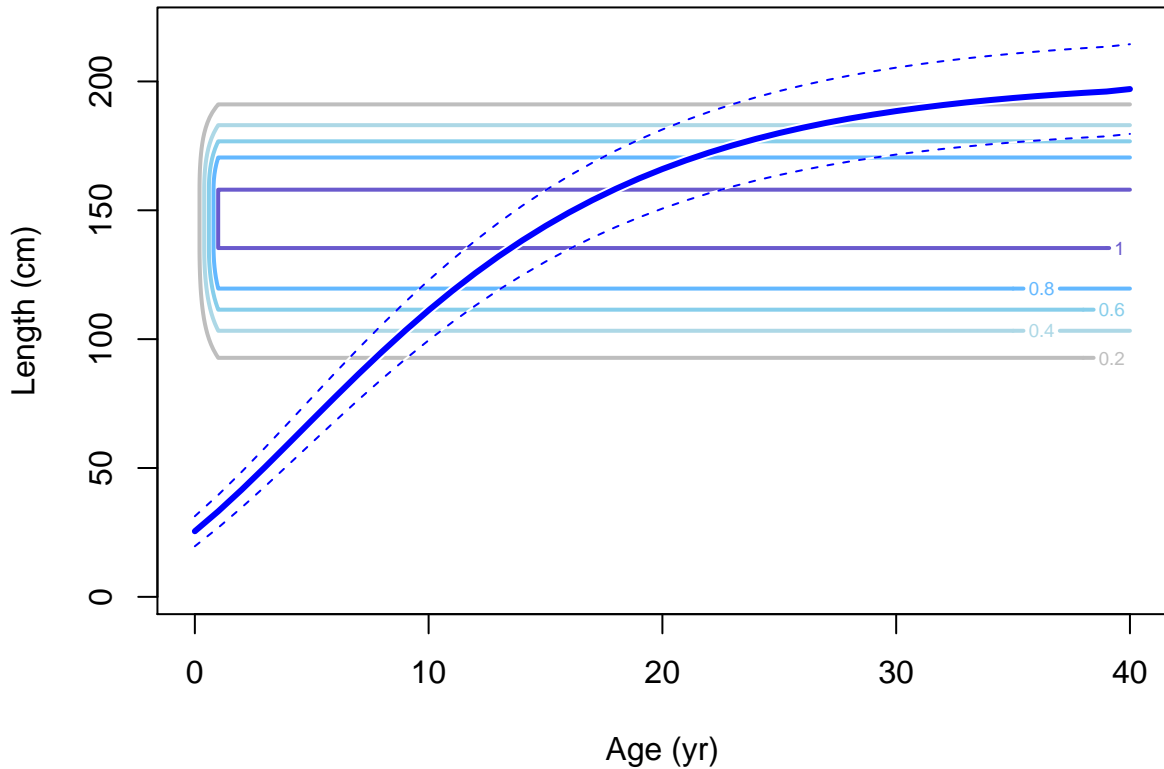


## Female ending year selectivity and growth for A4-LL-n

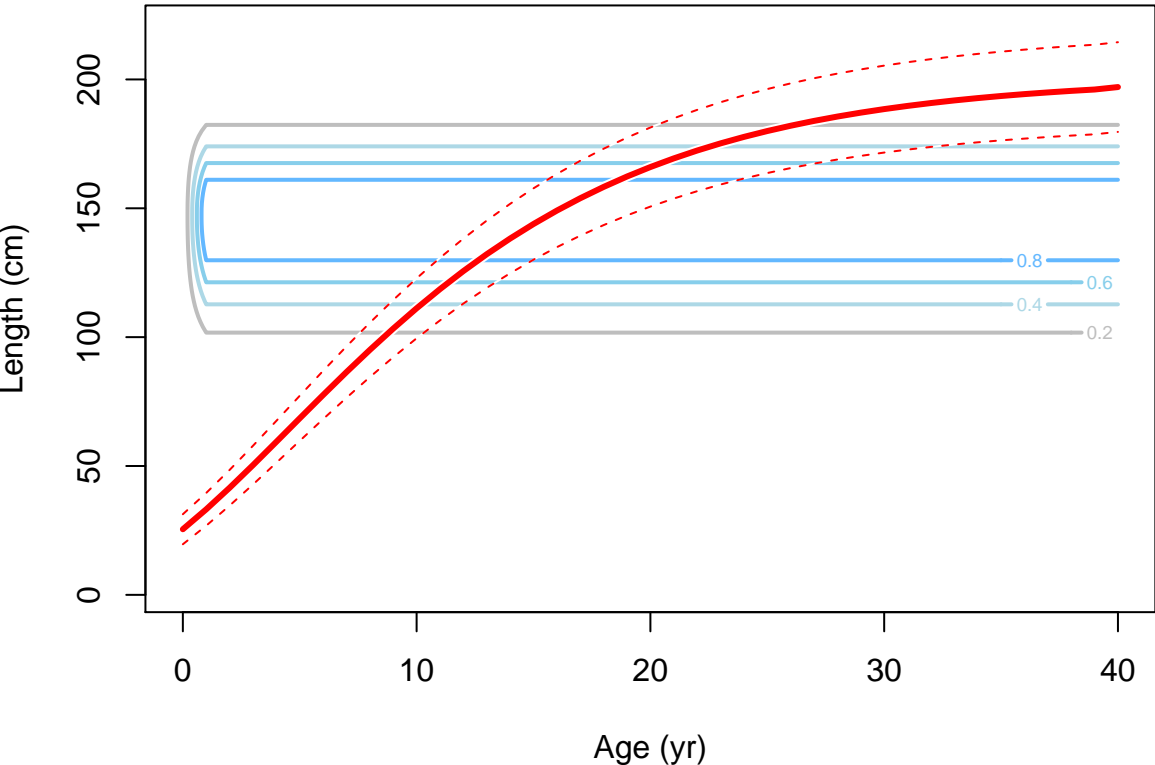




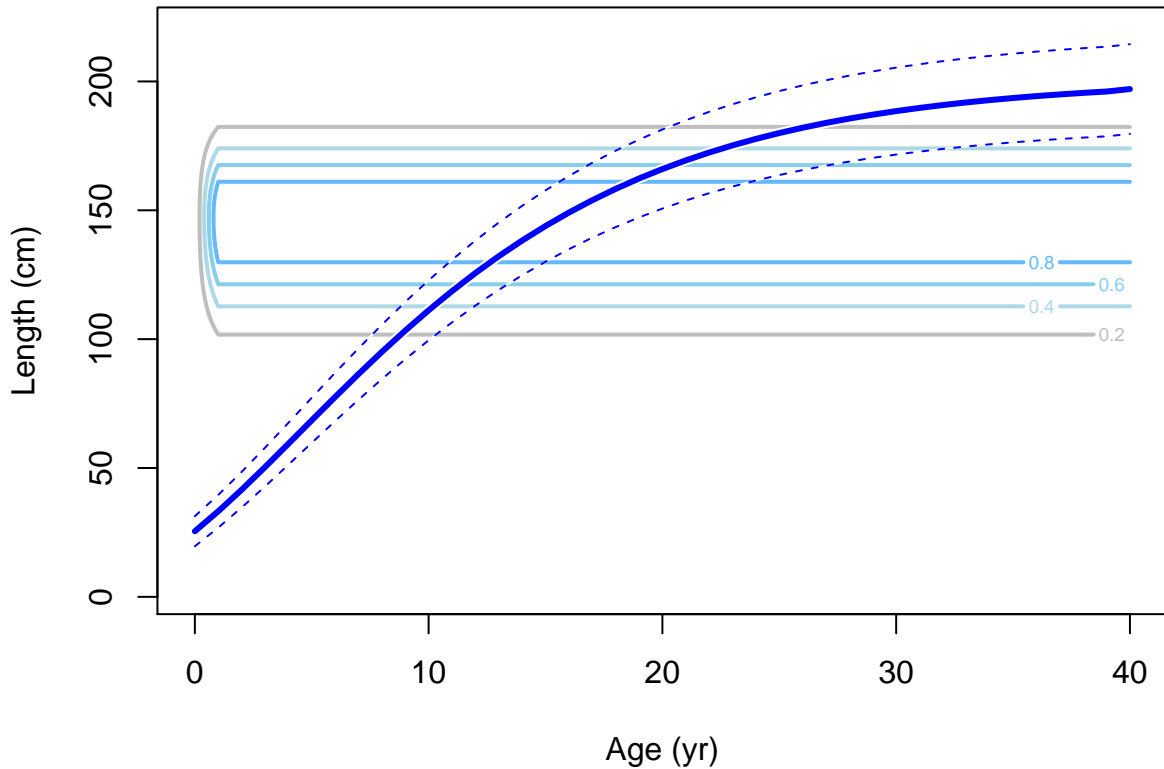
# Male ending year selectivity and growth for A4-LL-n



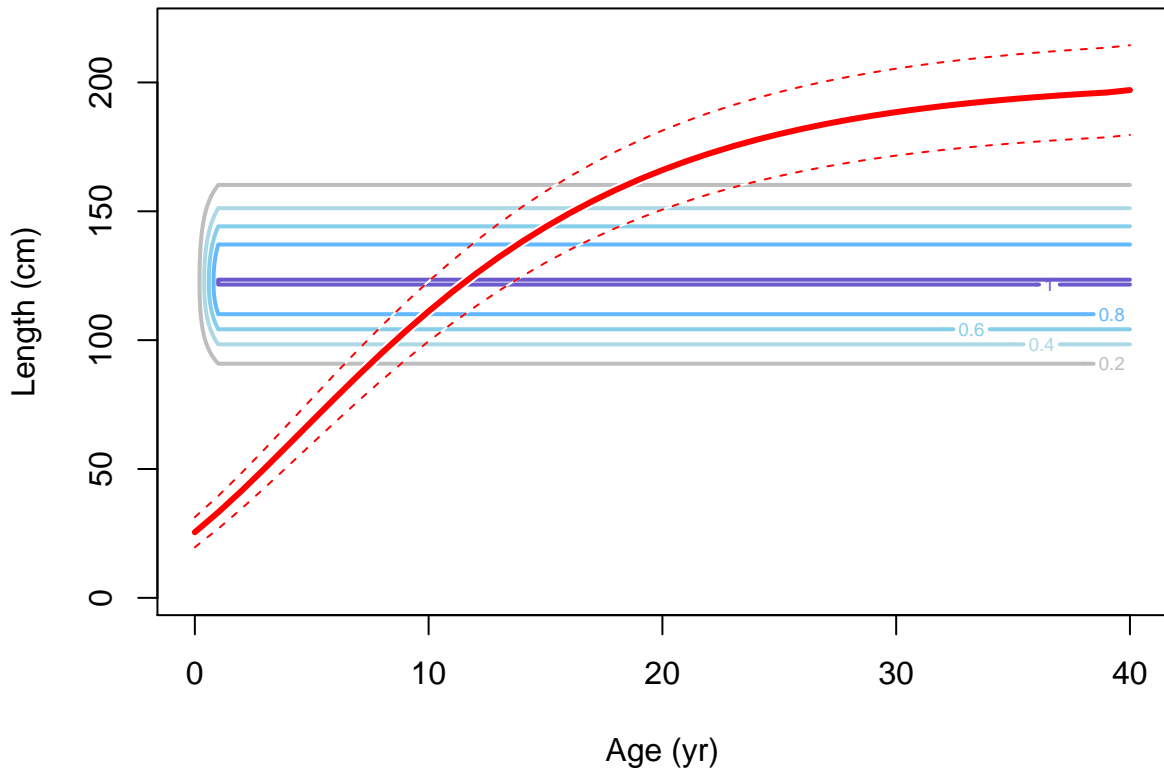
# Female ending year selectivity and growth for A5-LL-n



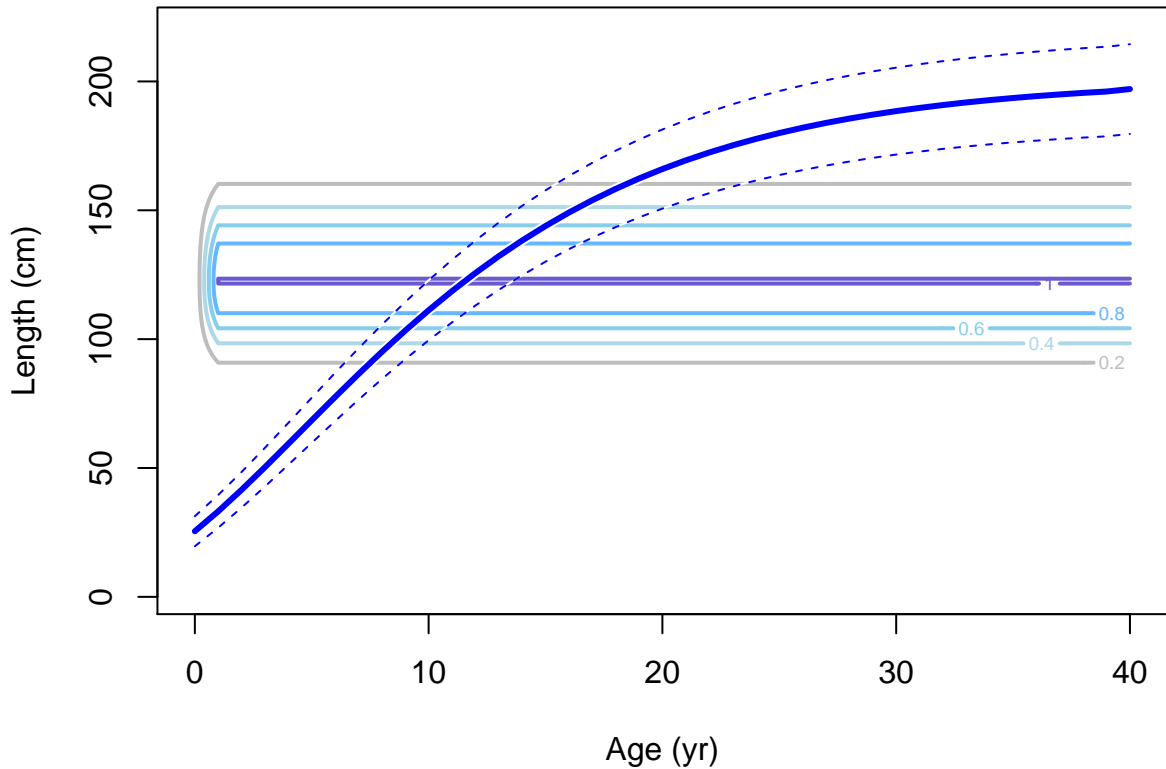
# Male ending year selectivity and growth for A5-LL-n



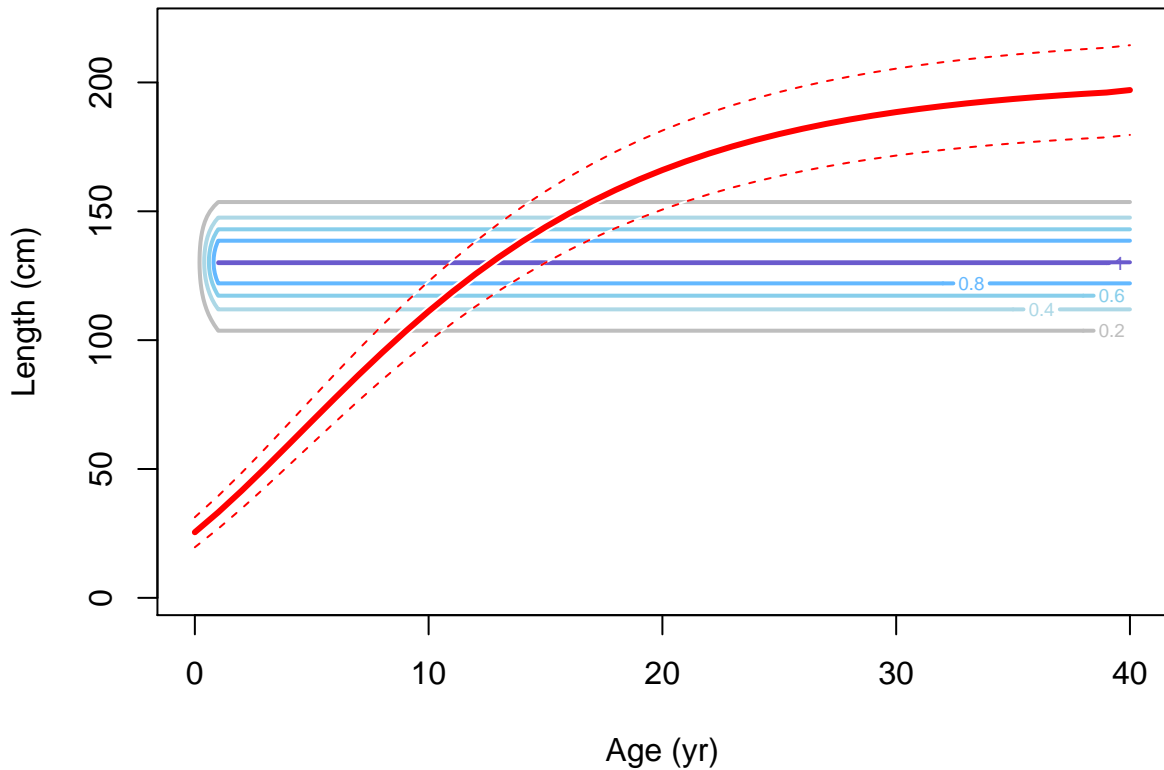
## Female ending year selectivity and growth for A6-LL-n



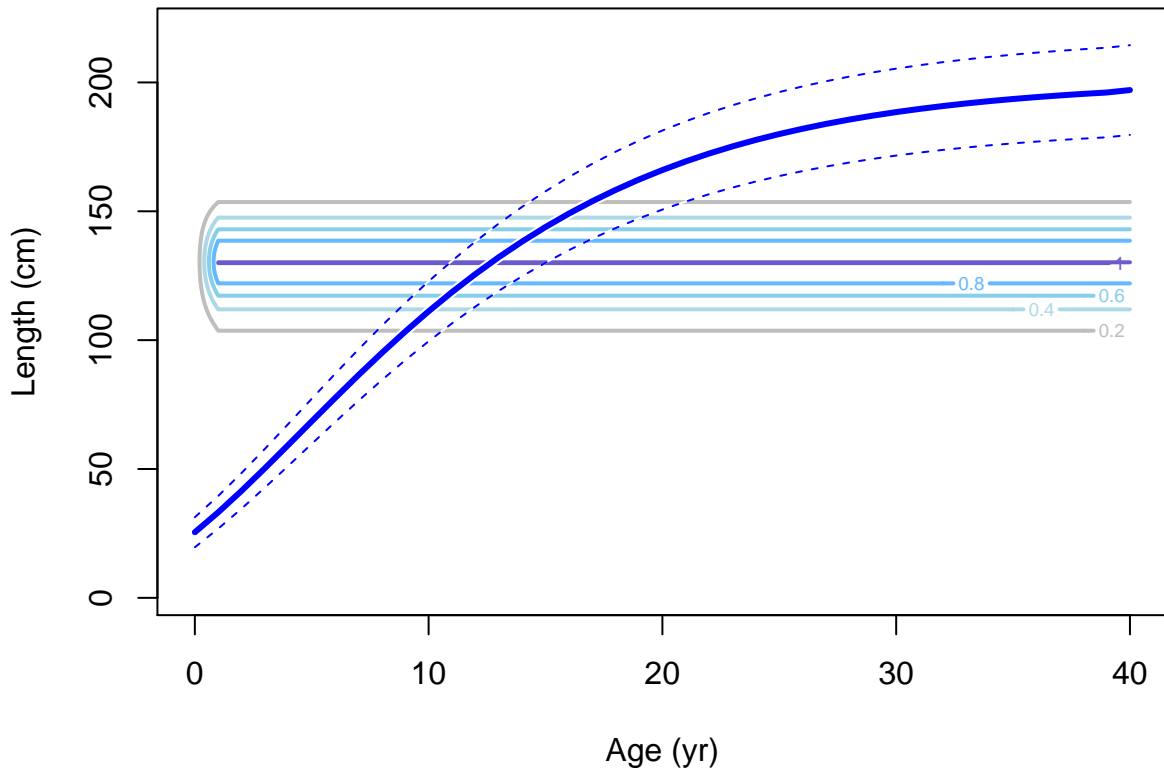
# Male ending year selectivity and growth for A6-LL-n



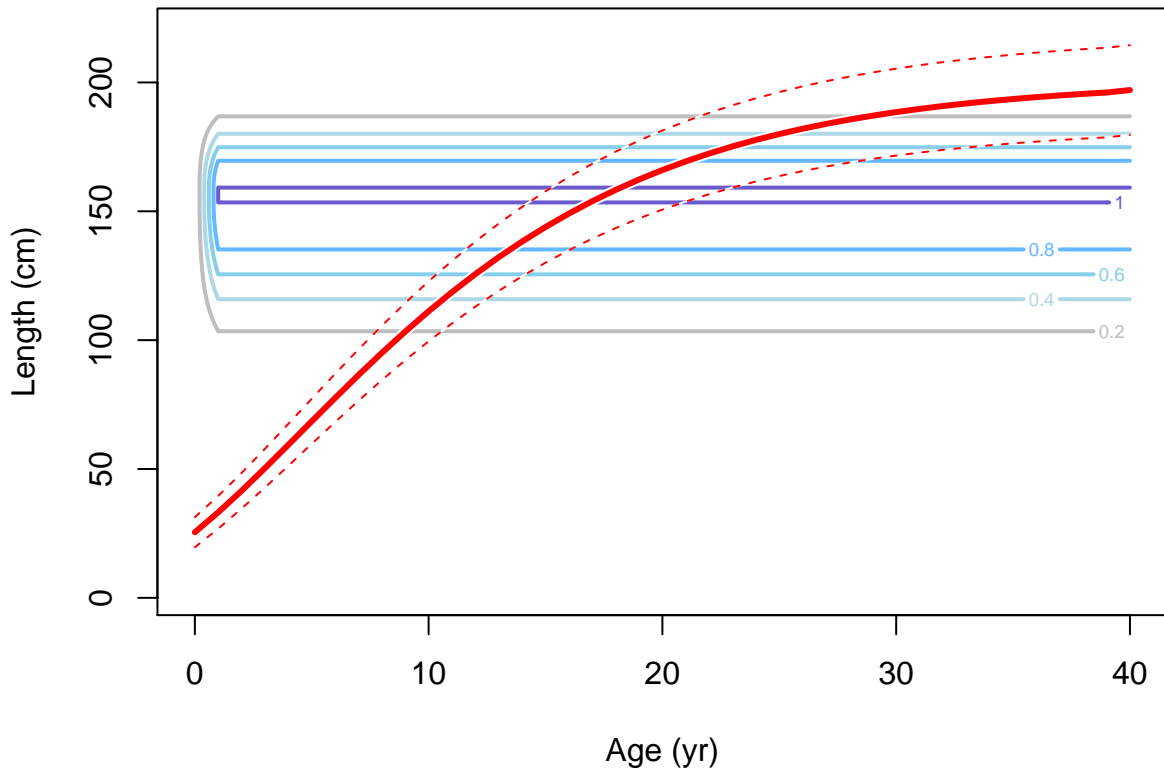
# Female ending year selectivity and growth for A1-LL-w



# Male ending year selectivity and growth for A1-LL-w

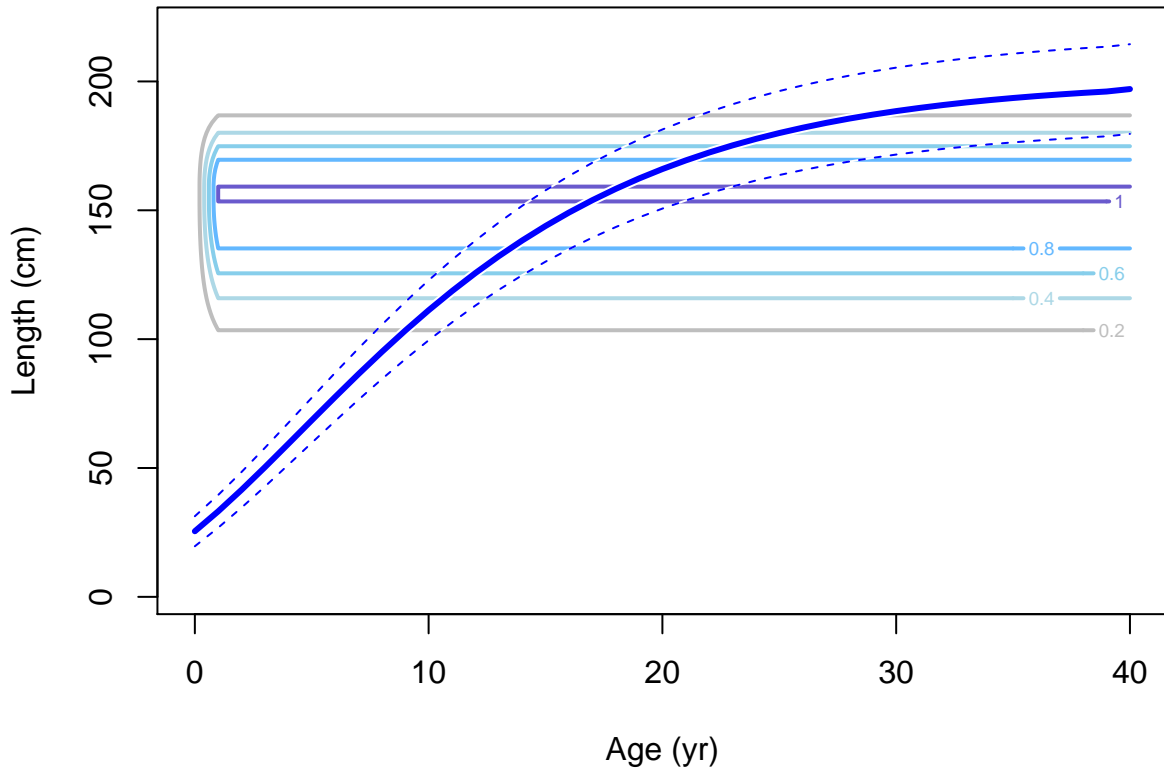


## Female ending year selectivity and growth for A2-LL-w

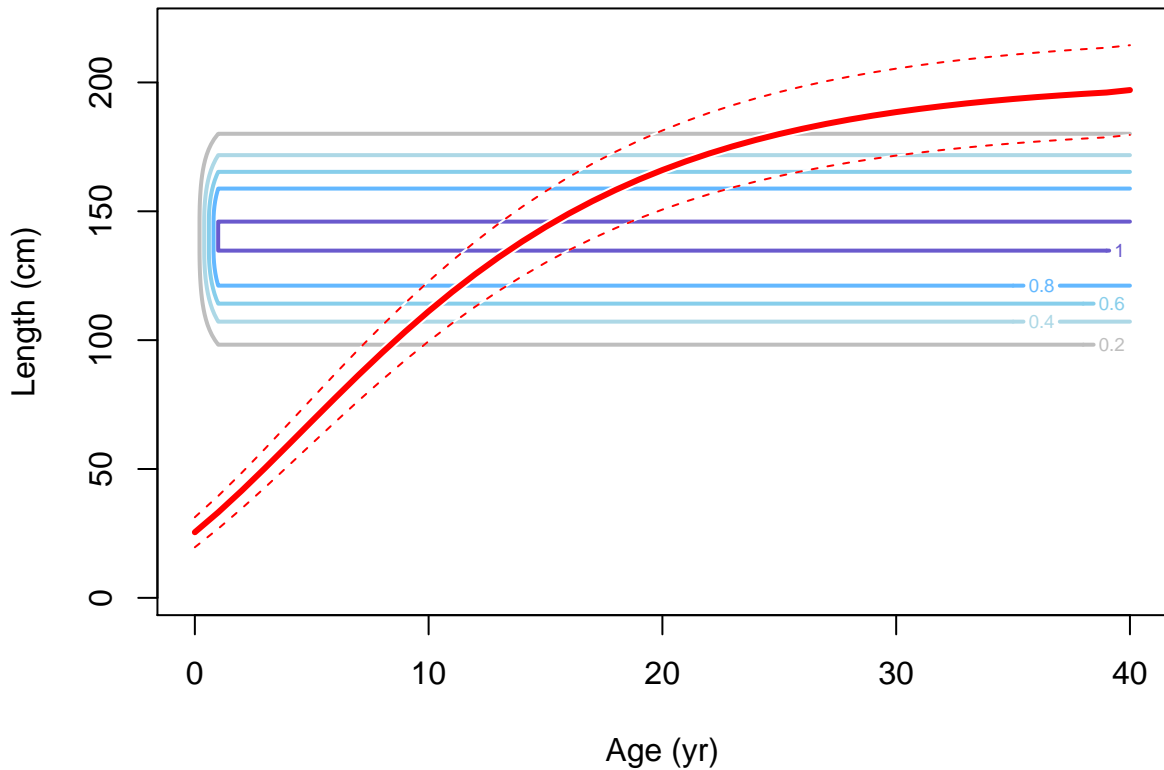




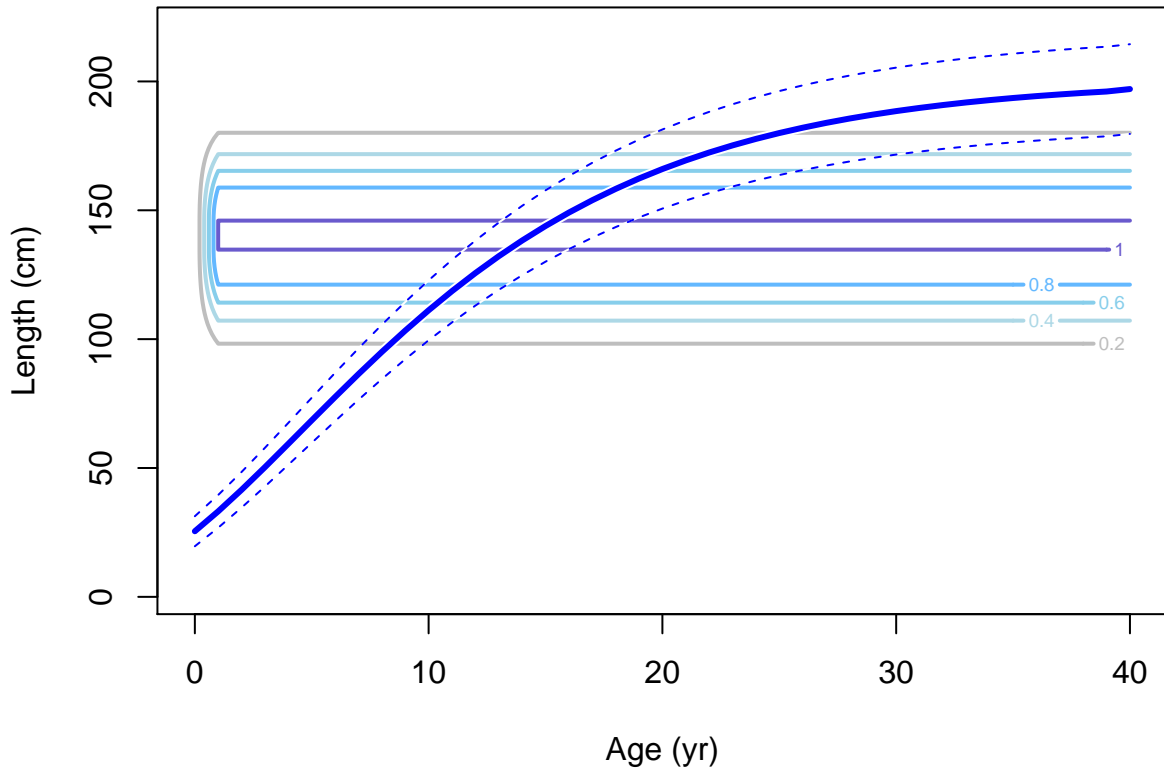
## Male ending year selectivity and growth for A2-LL-w



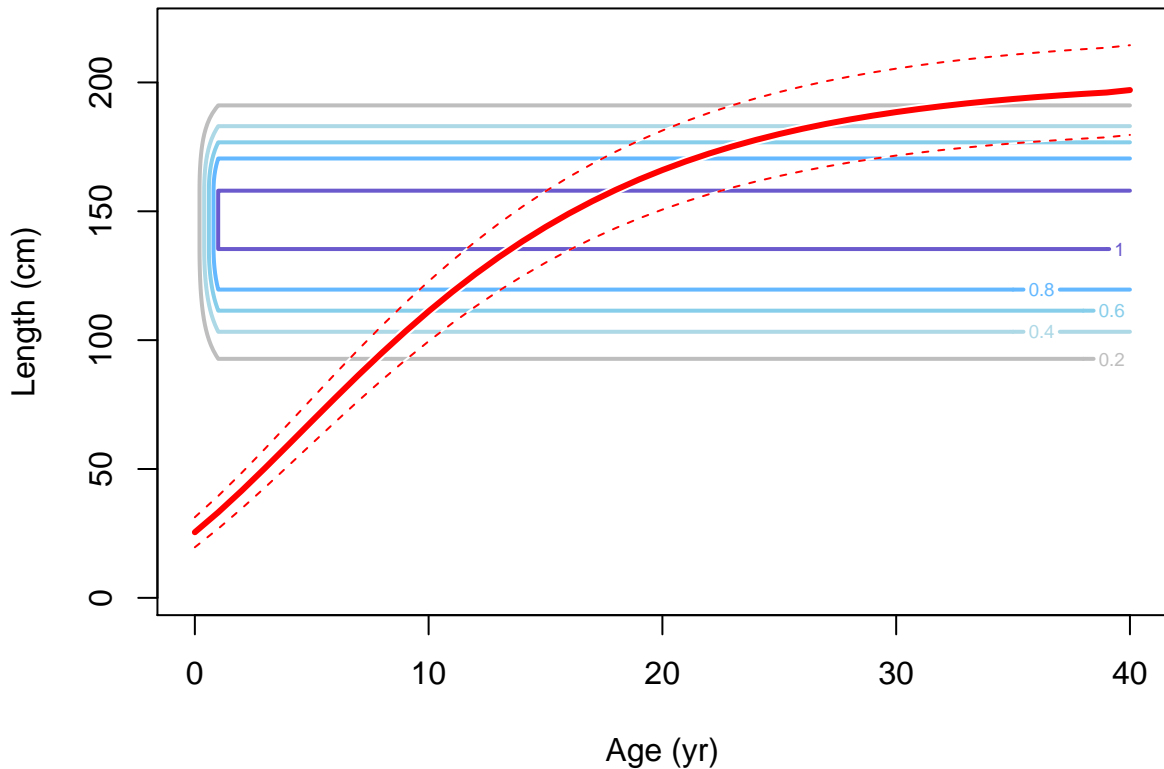
## Female ending year selectivity and growth for A3-LL-w



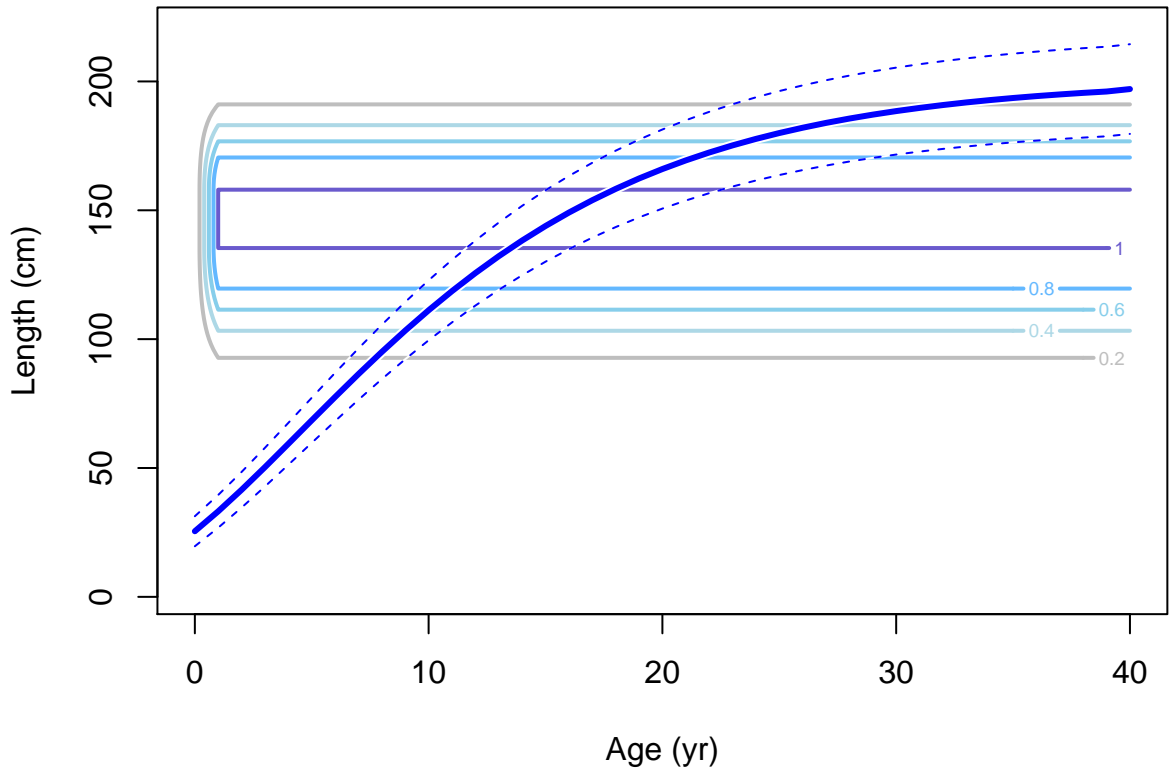
# Male ending year selectivity and growth for A3-LL-w



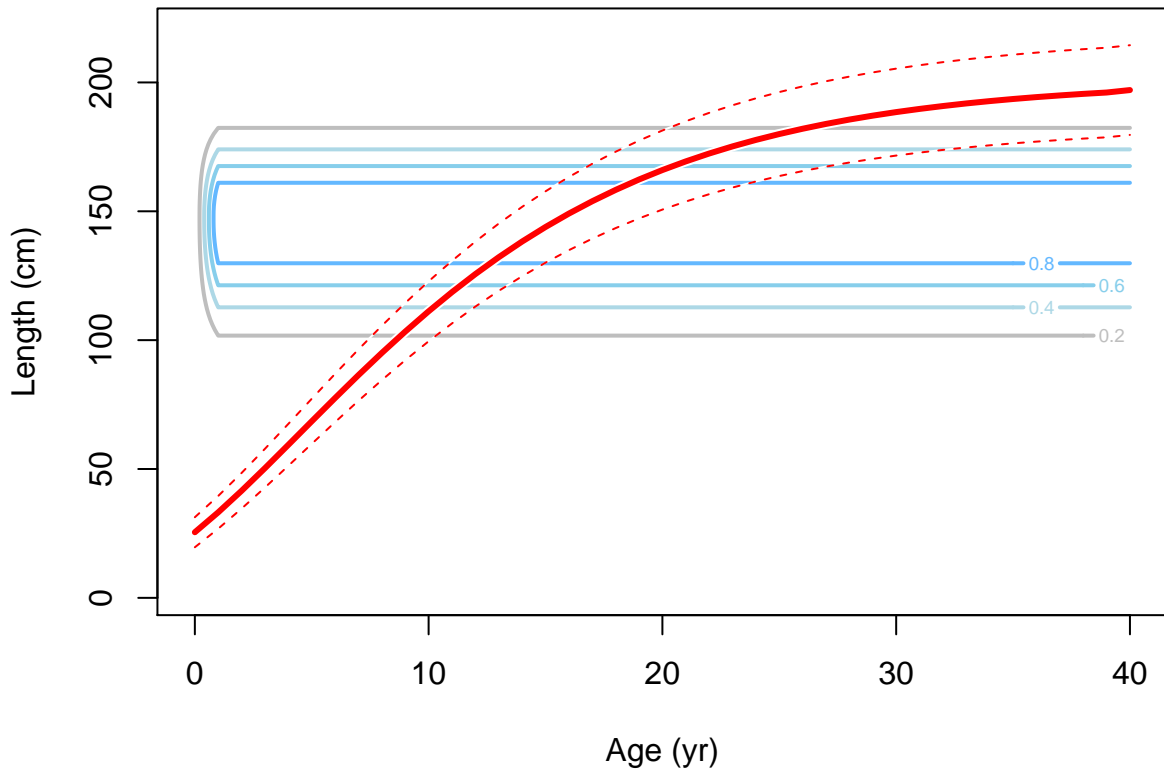
## Female ending year selectivity and growth for A4-LL-w



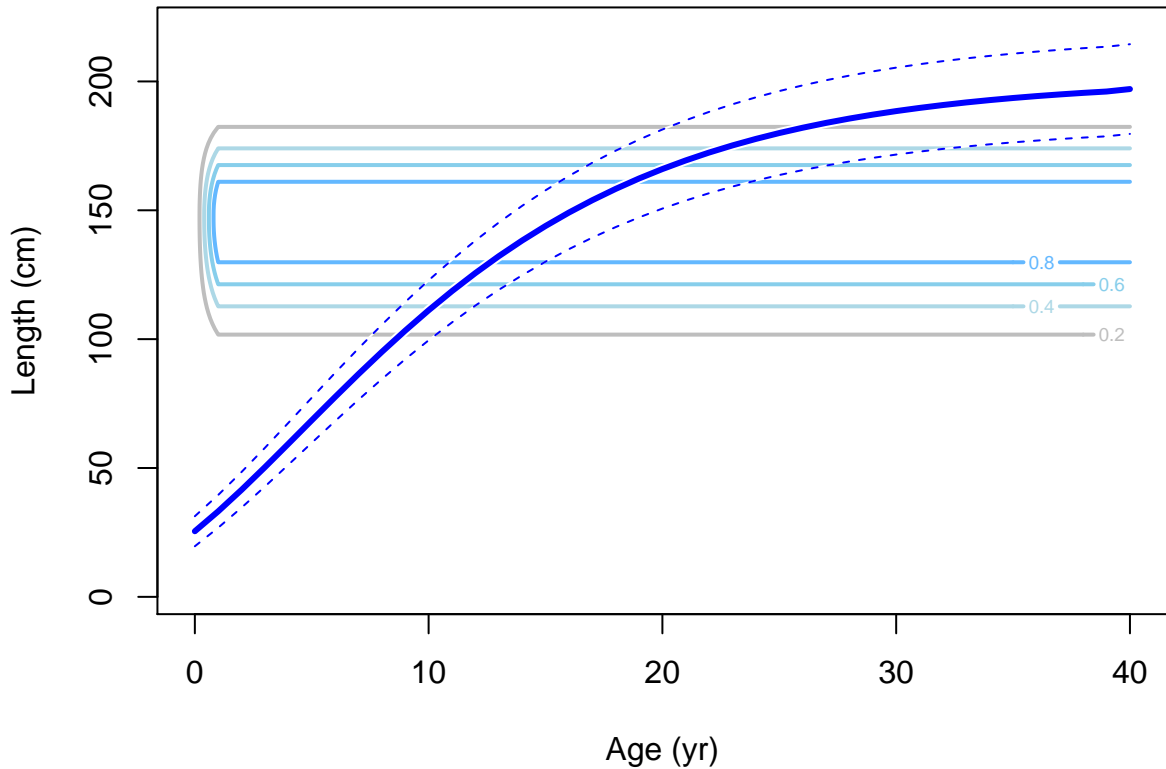
# Male ending year selectivity and growth for A4-LL-w



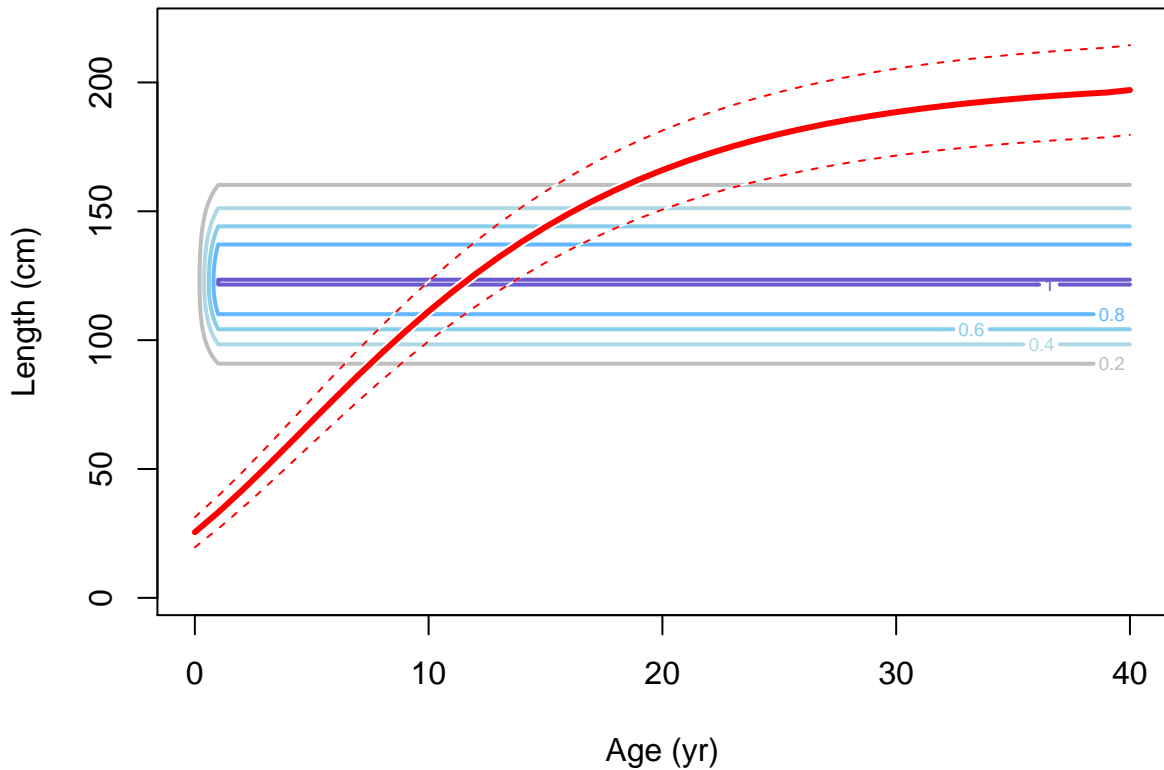
## Female ending year selectivity and growth for A5-LL-w



## Male ending year selectivity and growth for A5-LL-w

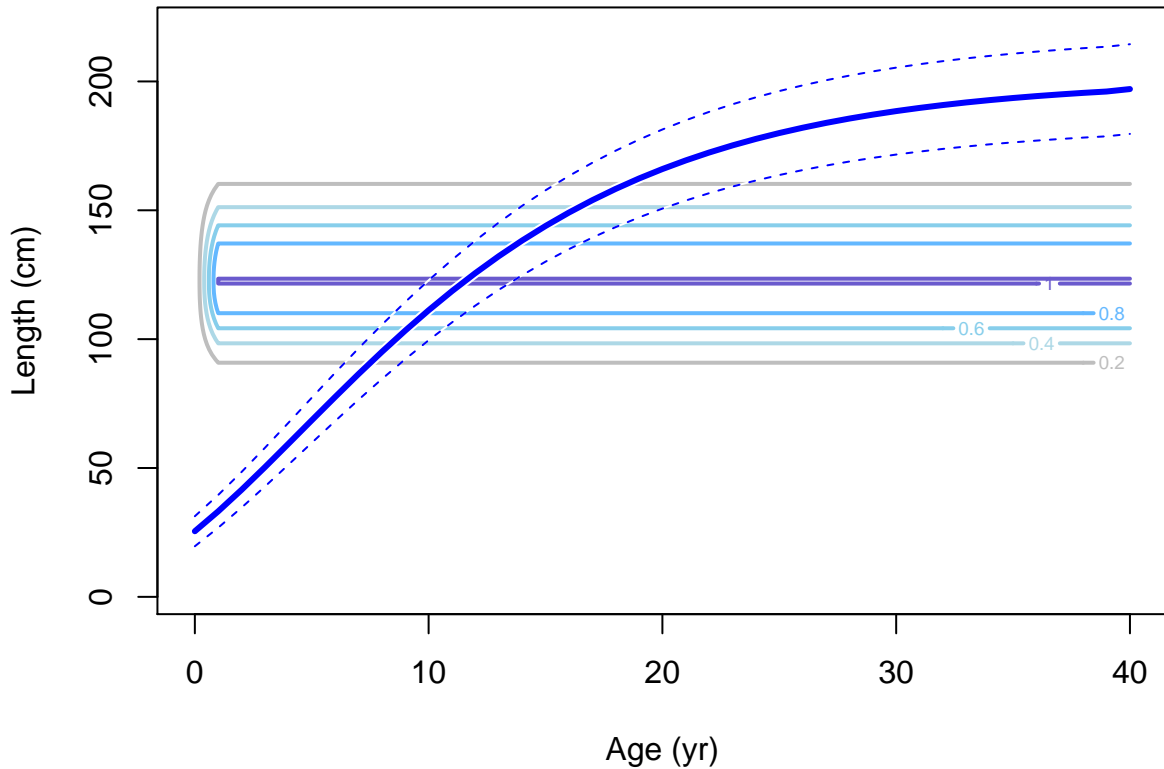


## Female ending year selectivity and growth for A6-LL-w

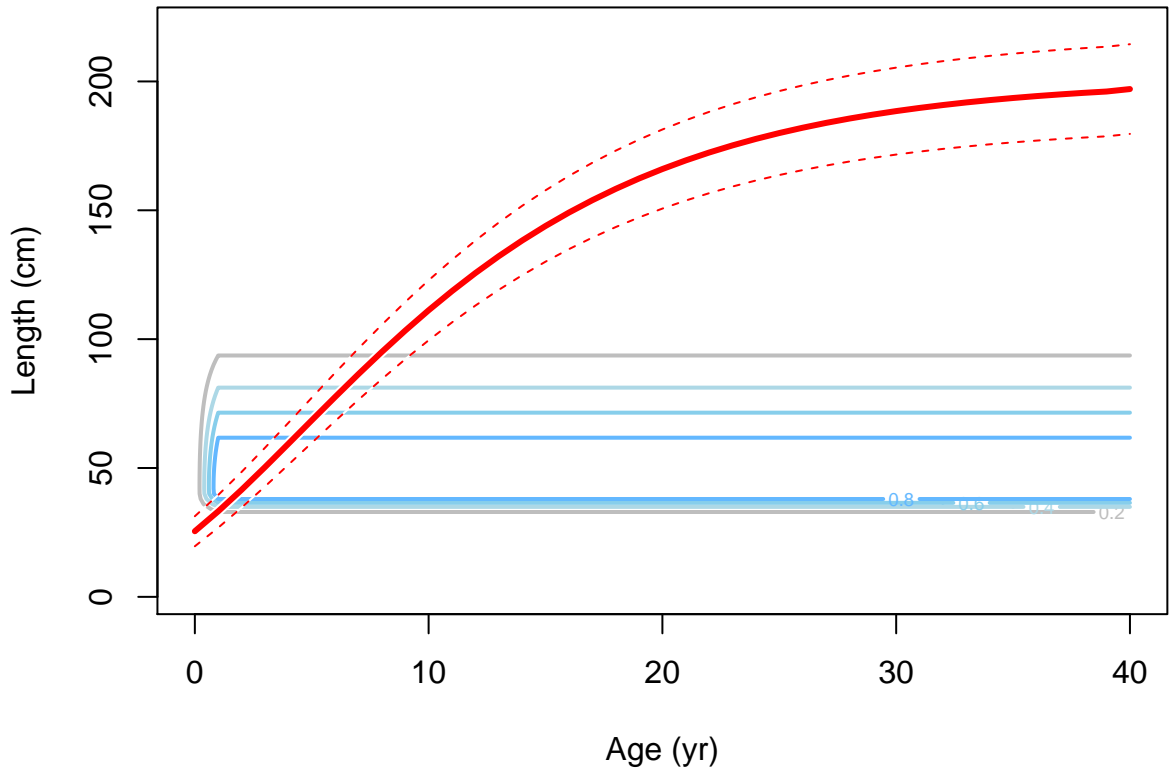




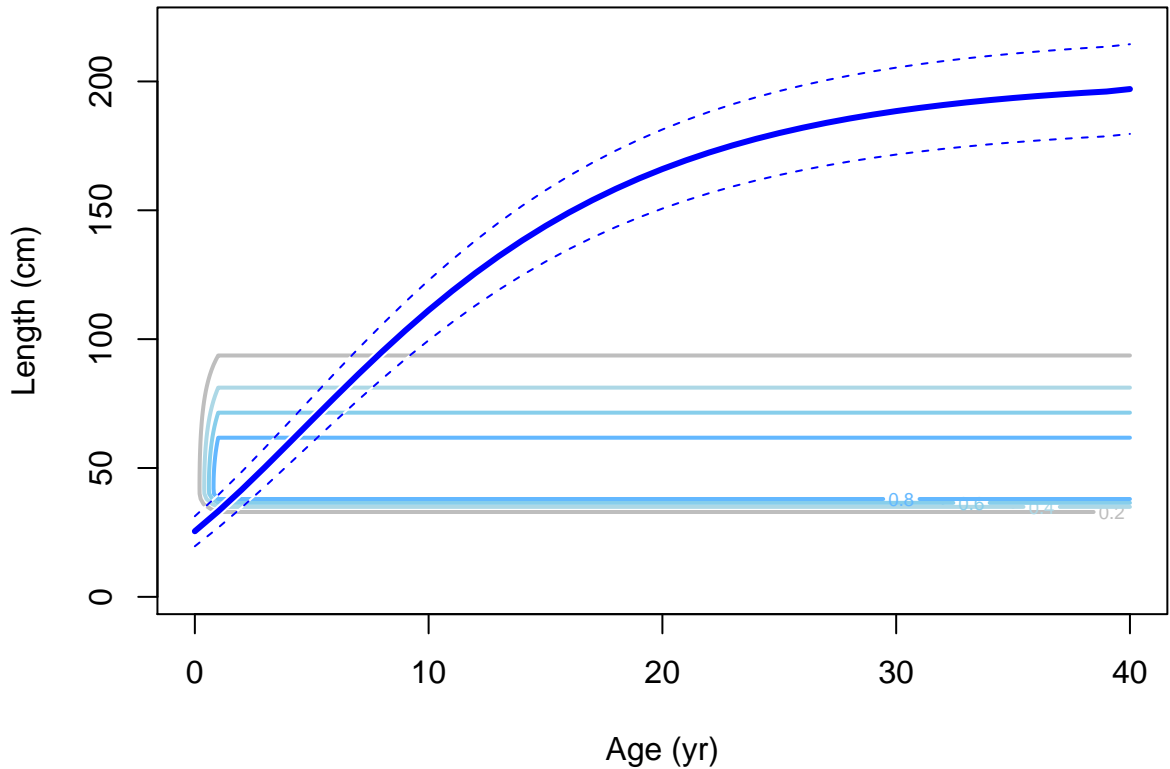
# Male ending year selectivity and growth for A6-LL-w



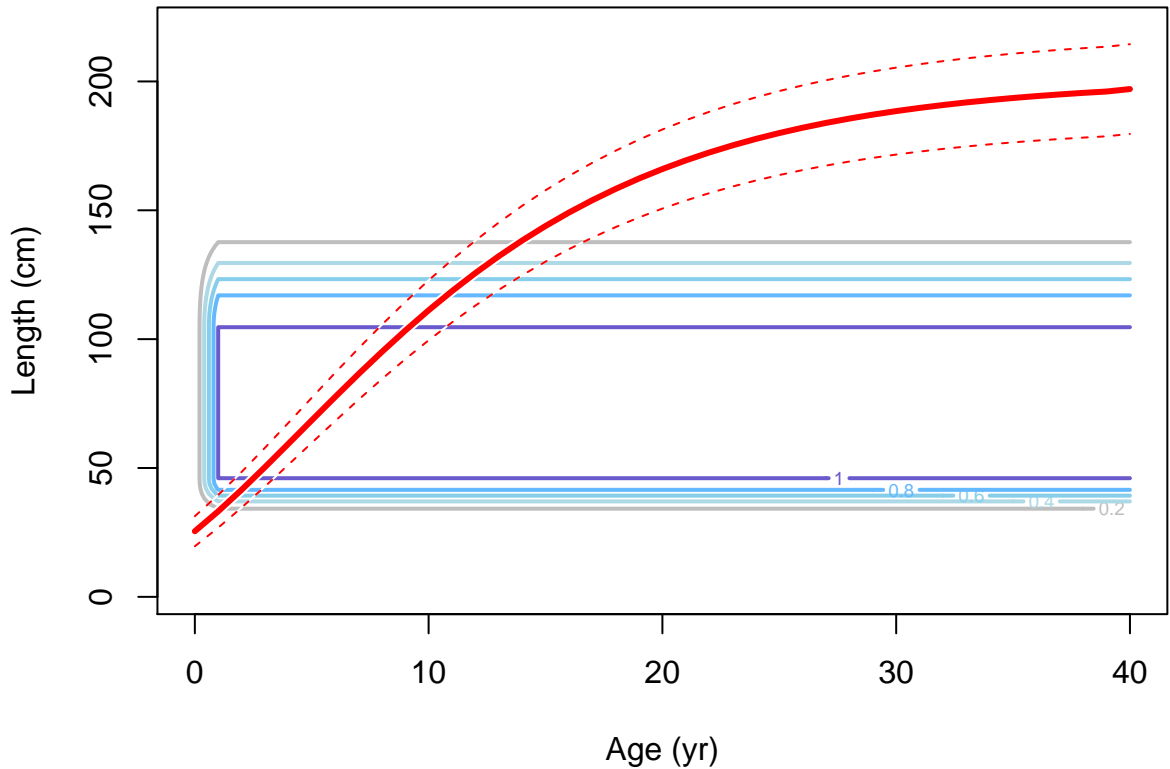
## Female ending year selectivity and growth for A2-OBJ



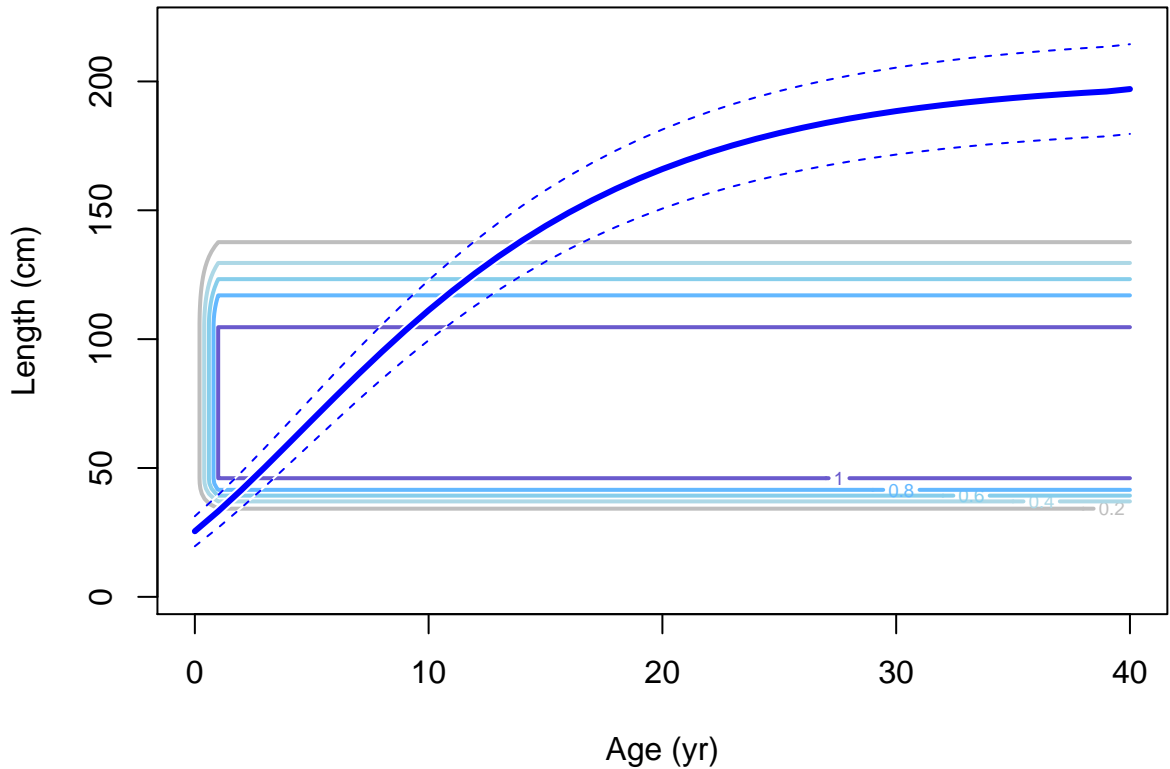
## Male ending year selectivity and growth for A2-OBJ



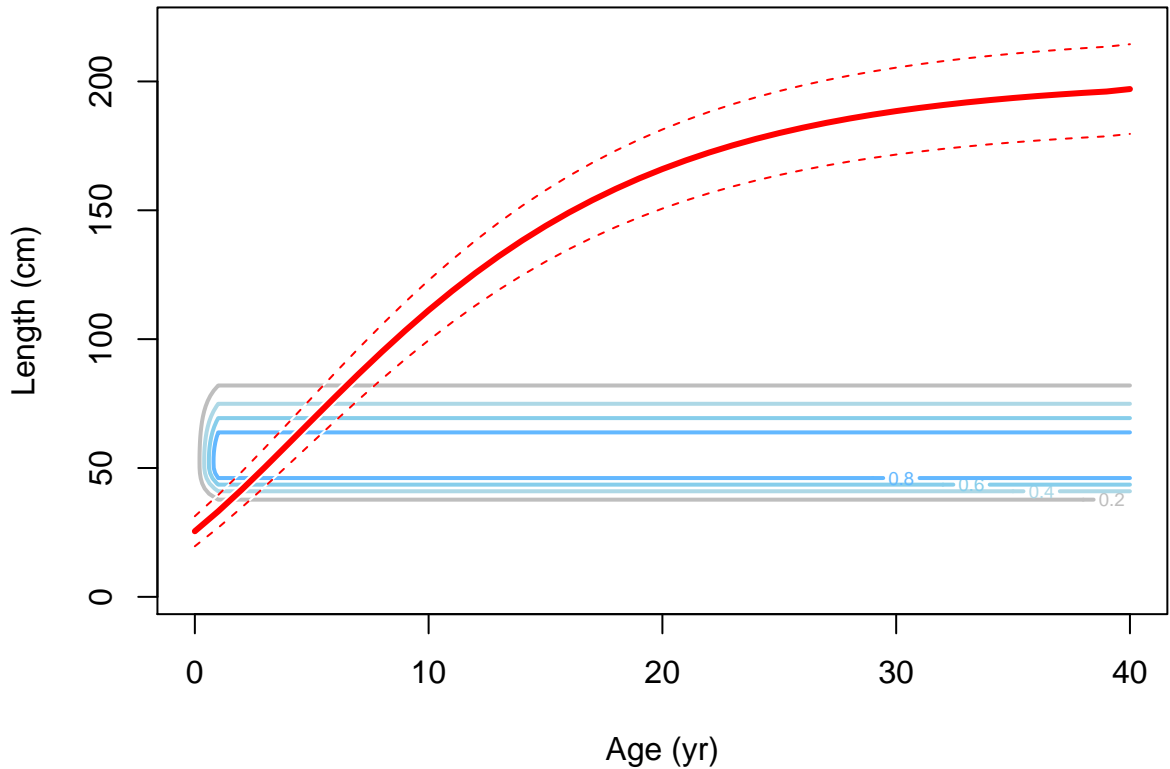
## Female ending year selectivity and growth for A3-OBJ



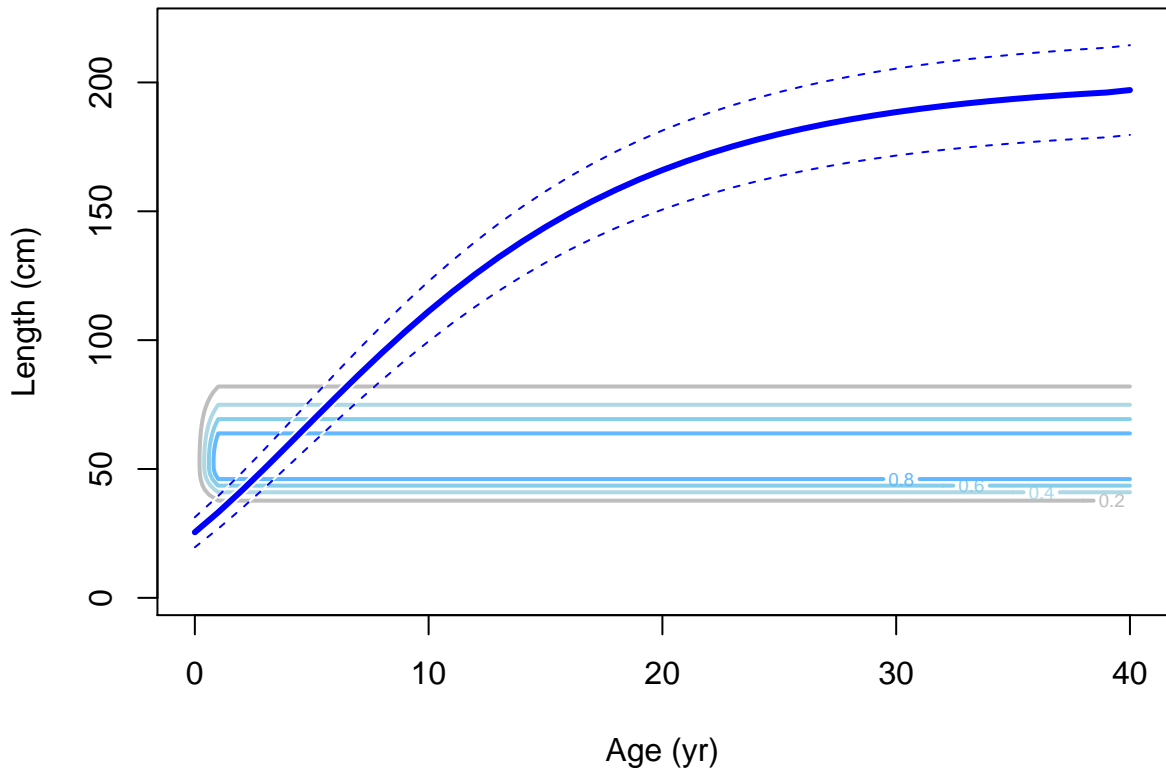
# Male ending year selectivity and growth for A3-OBJ



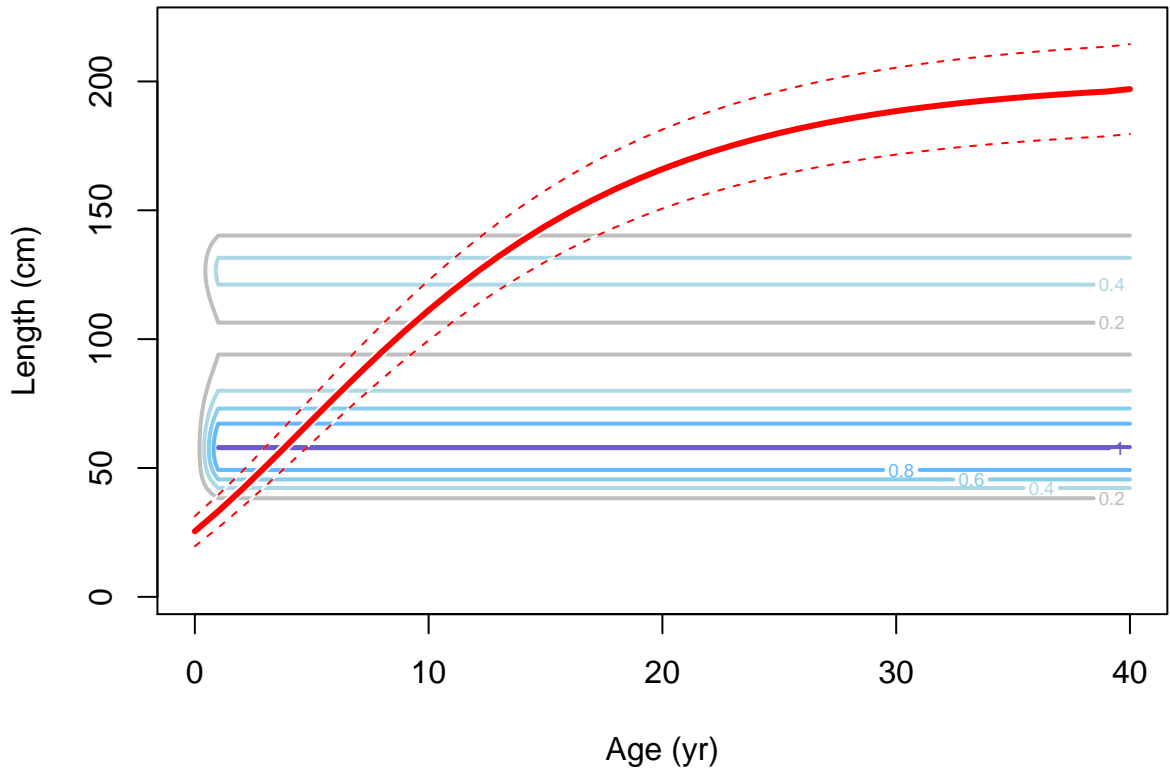
## Female ending year selectivity and growth for A4-OBJ



# Male ending year selectivity and growth for A4-OBJ

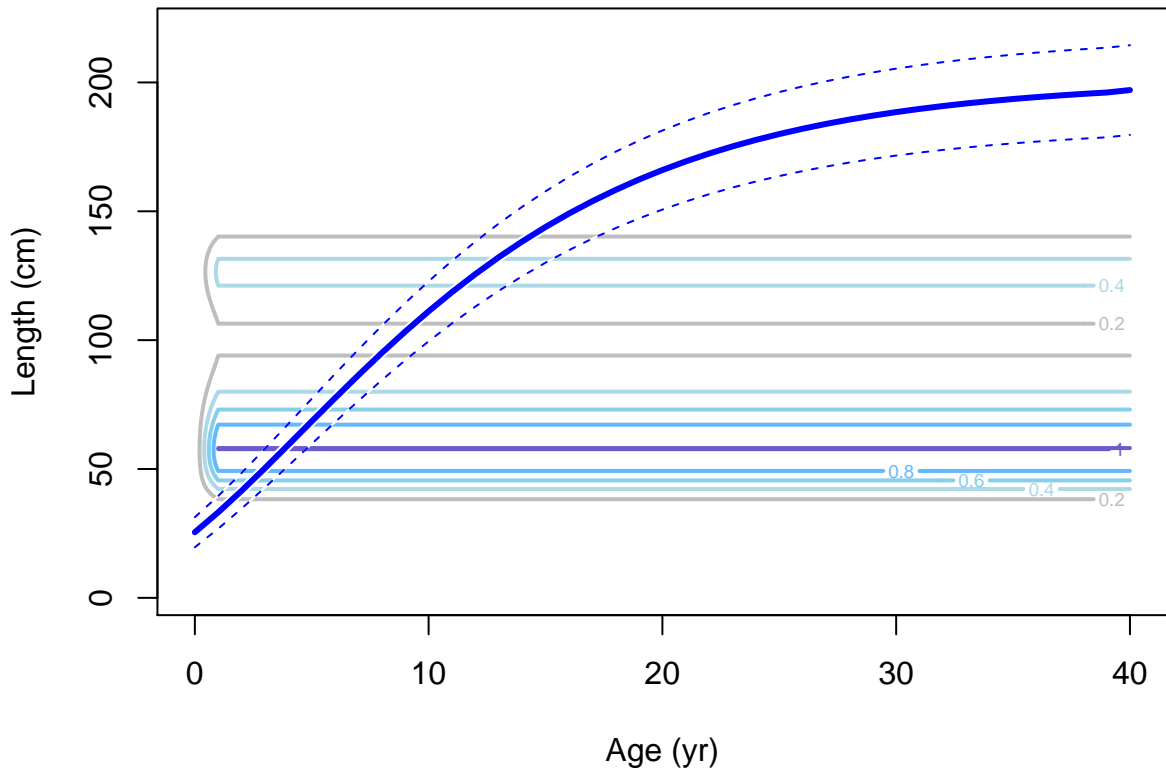


# Female ending year selectivity and growth for A5-OBJ

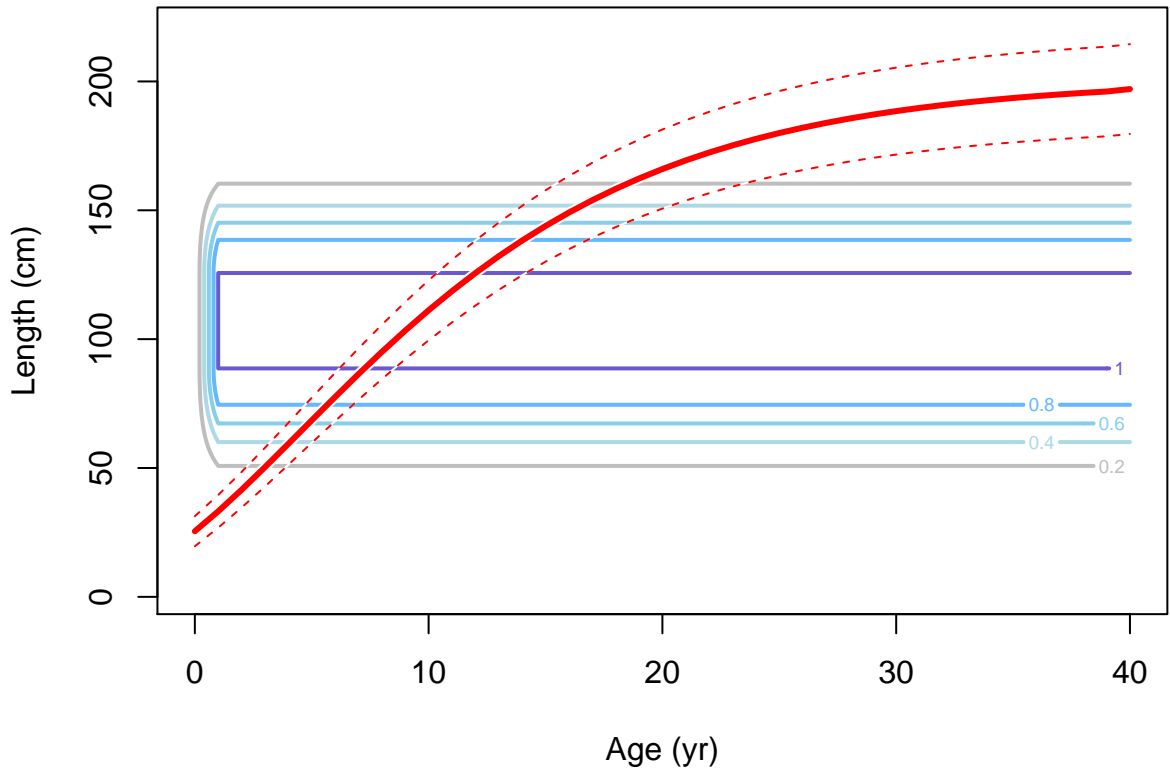




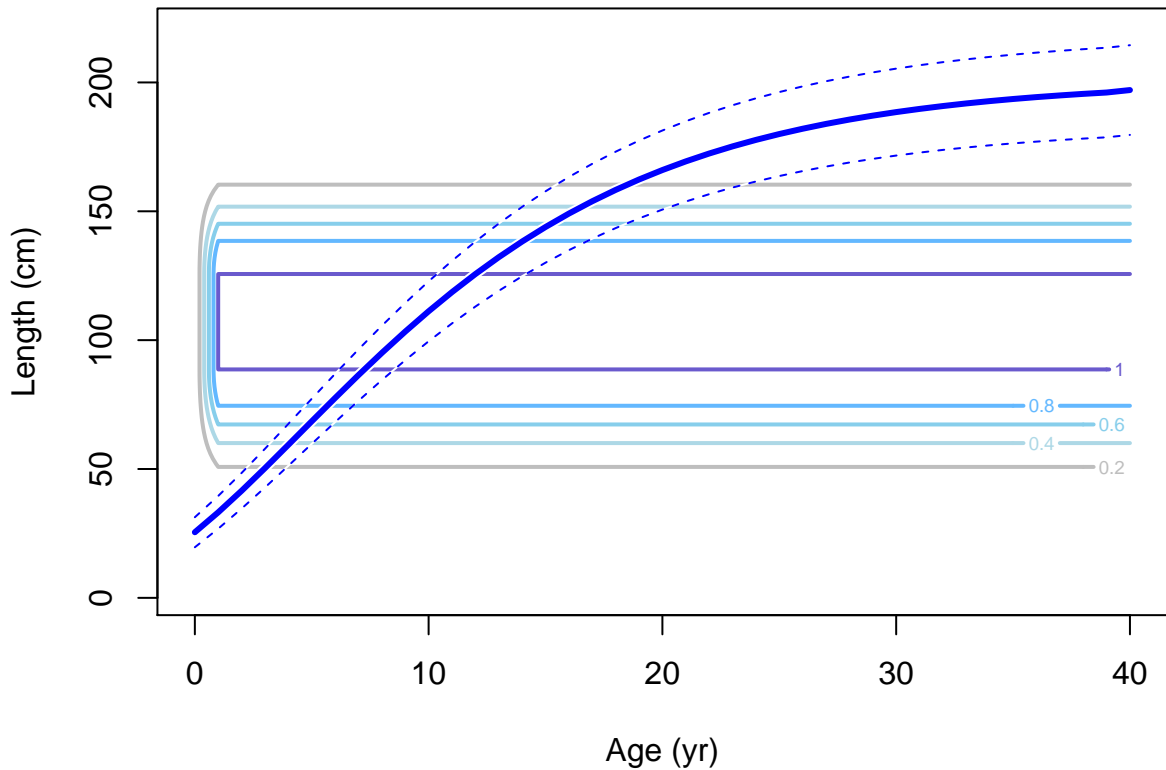
# Male ending year selectivity and growth for A5-OBJ



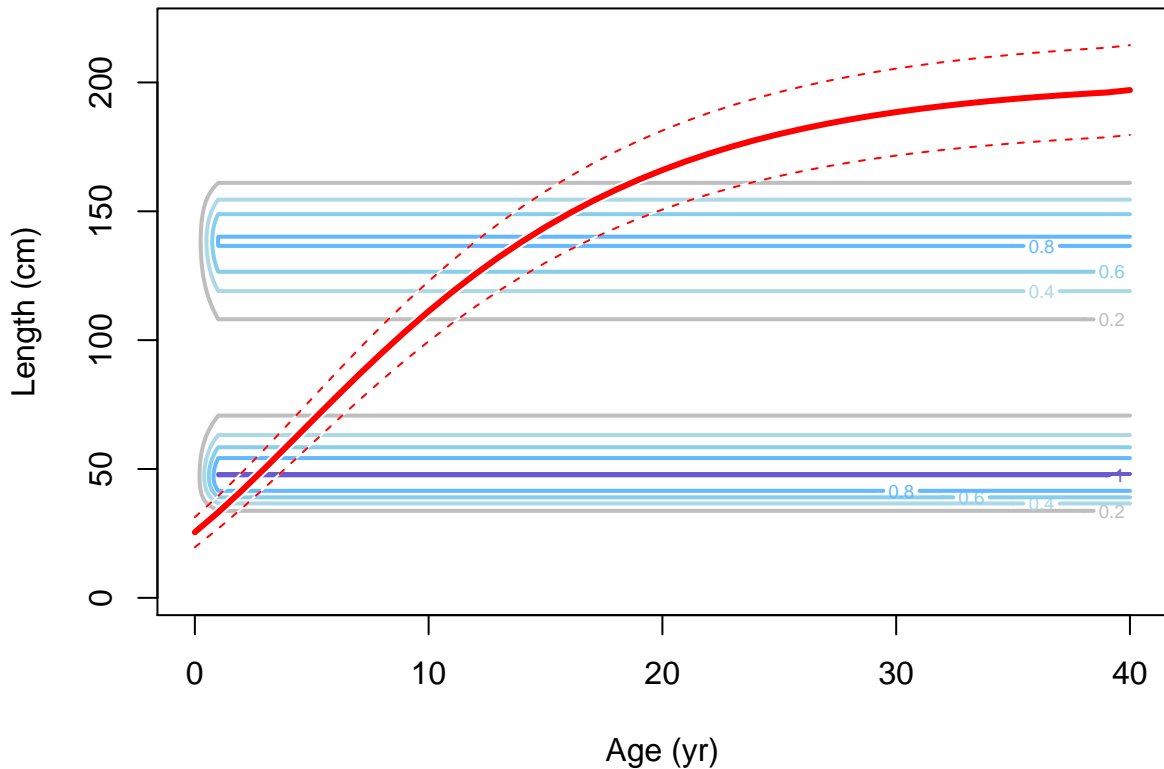
## Female ending year selectivity and growth for A6-OBJ



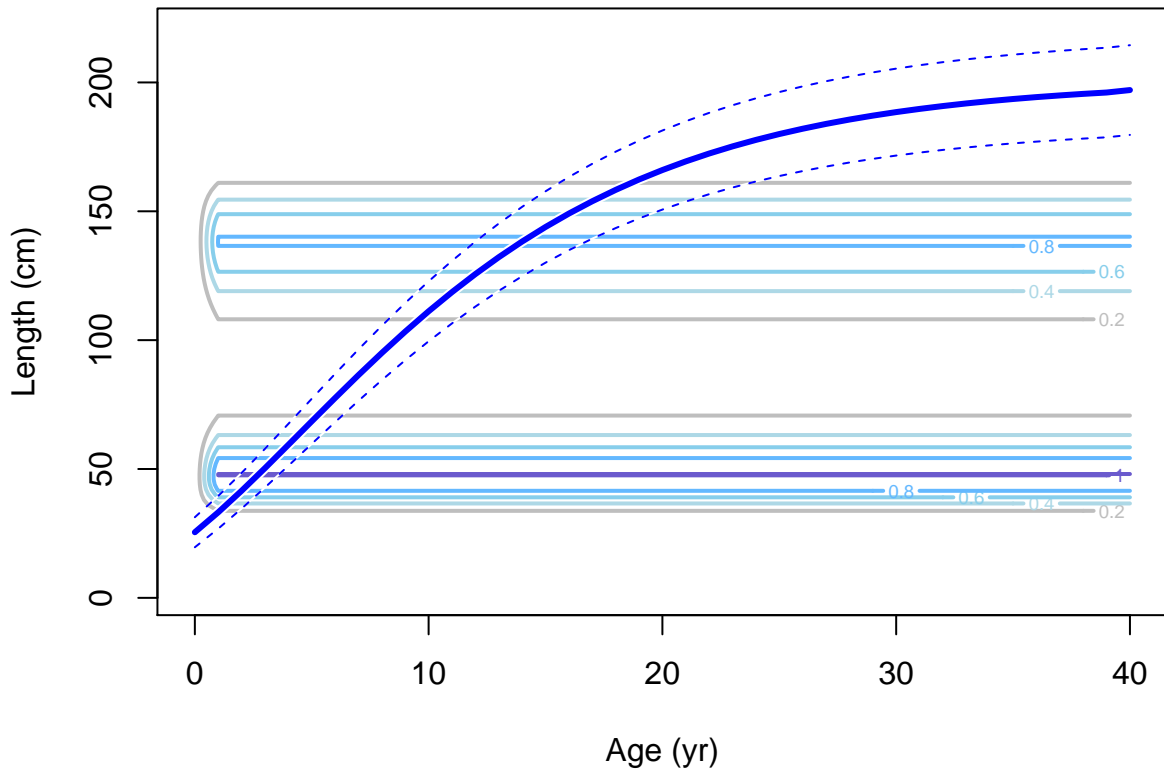
## Male ending year selectivity and growth for A6-OBJ



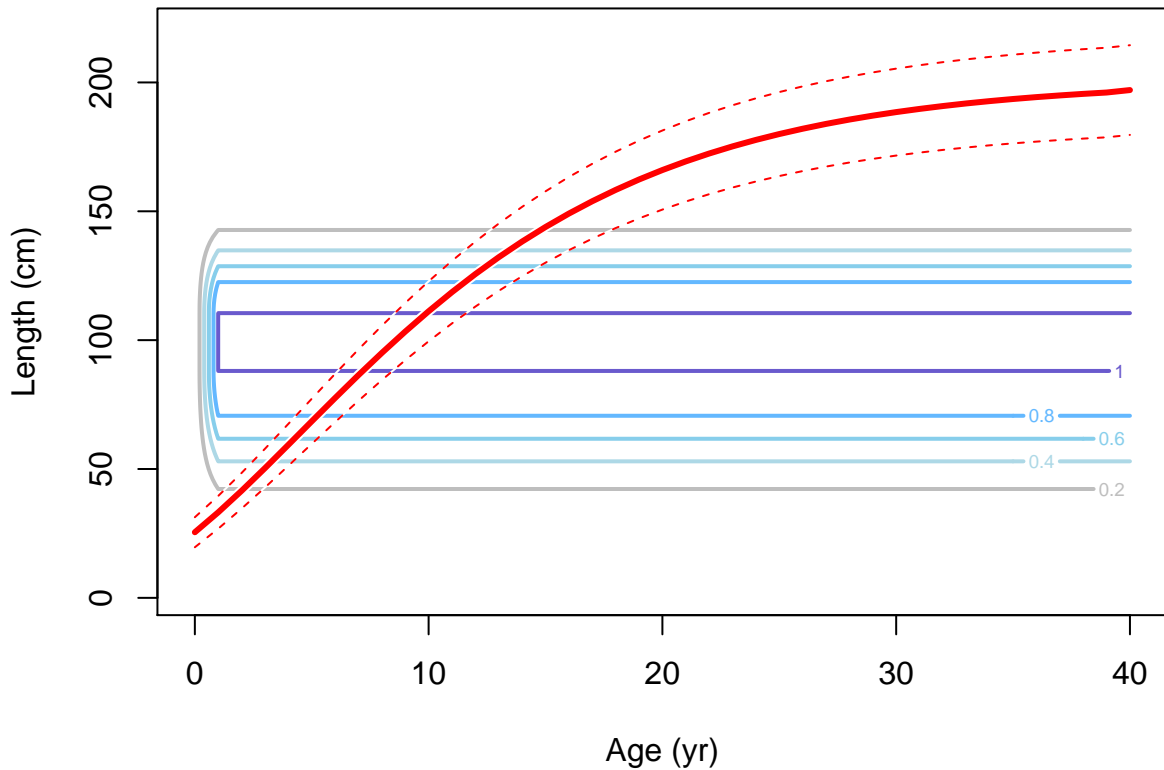
## Female ending year selectivity and growth for A2-NOADEL



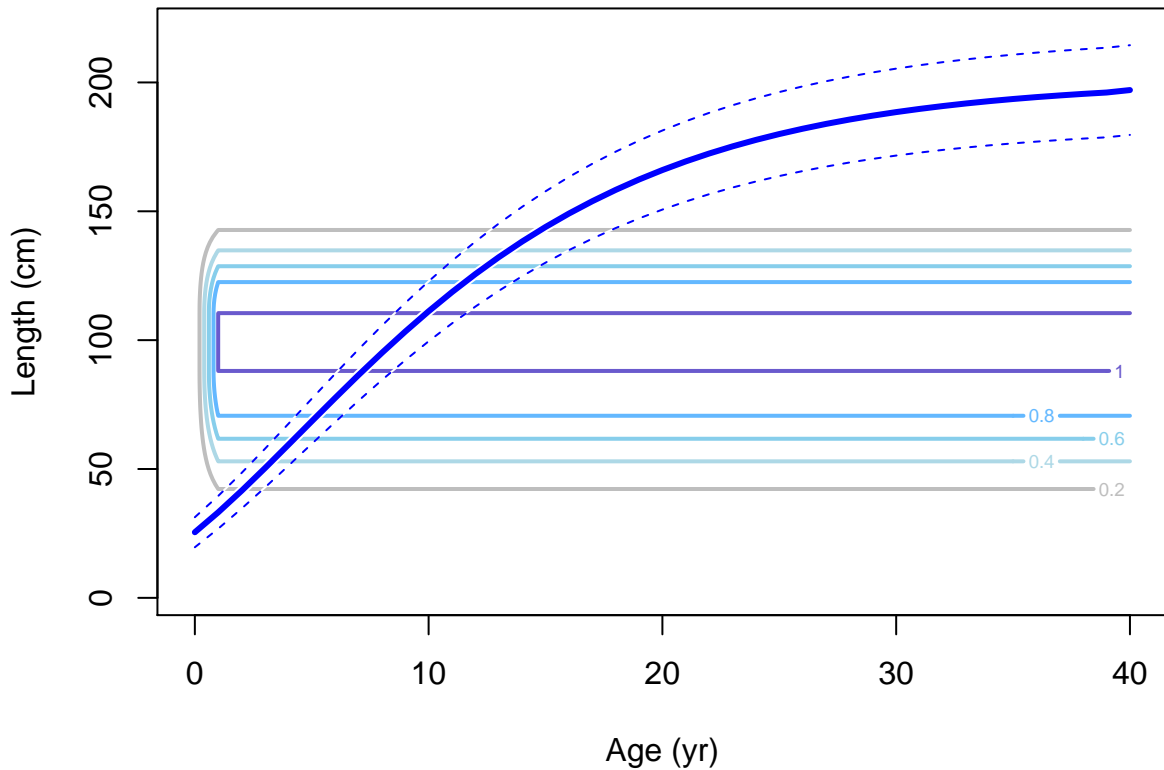
# Male ending year selectivity and growth for A2-NOADEL



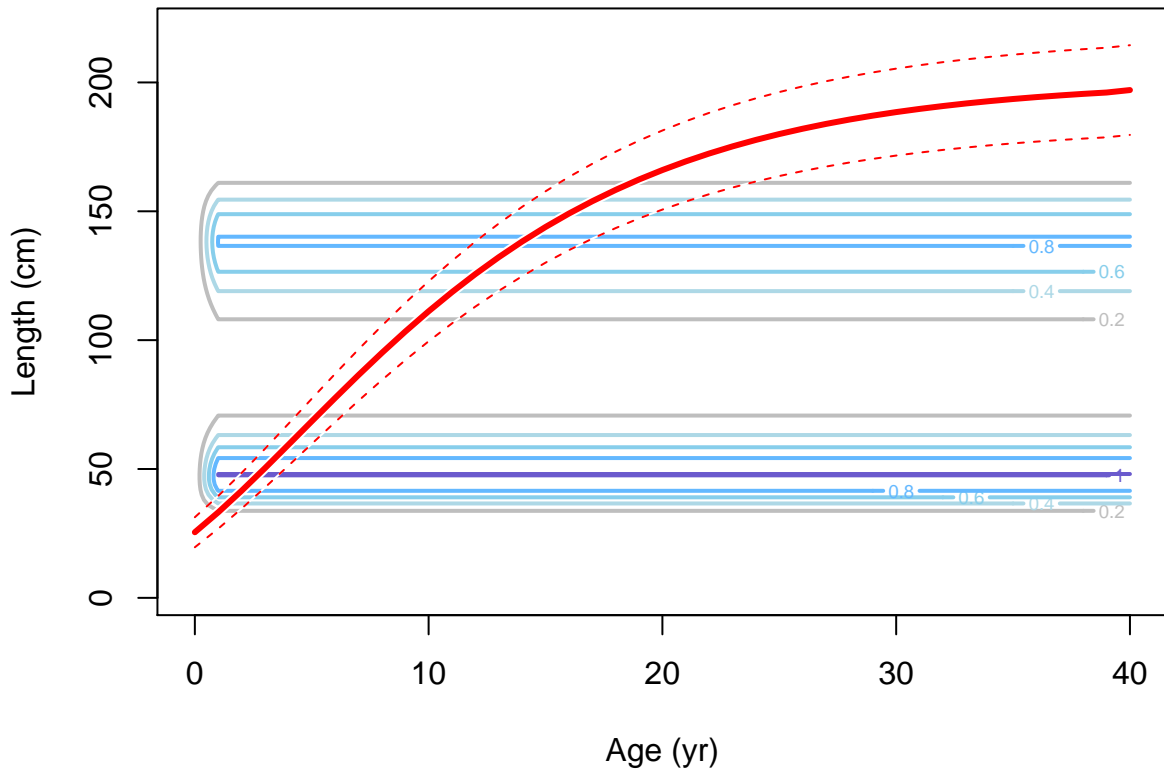
## Female ending year selectivity and growth for A3-NOADEL



# Male ending year selectivity and growth for A3-NOADEL

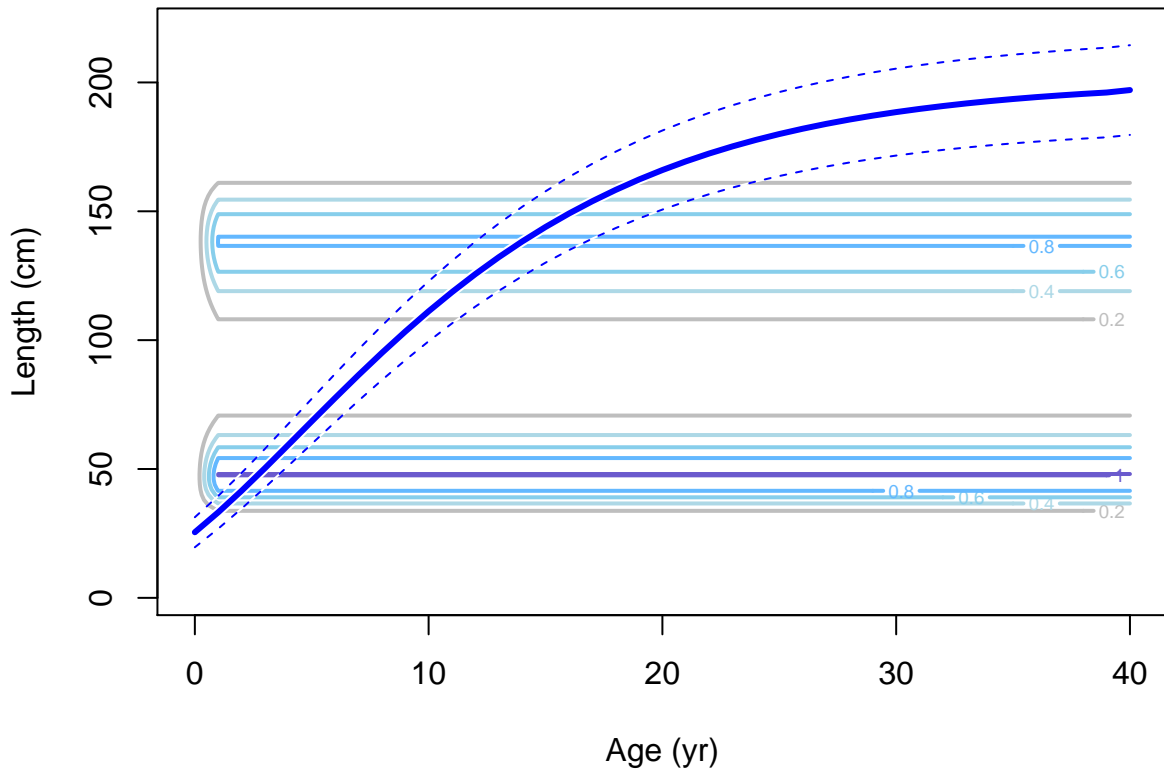


# Female ending year selectivity and growth for A4-NOADEL

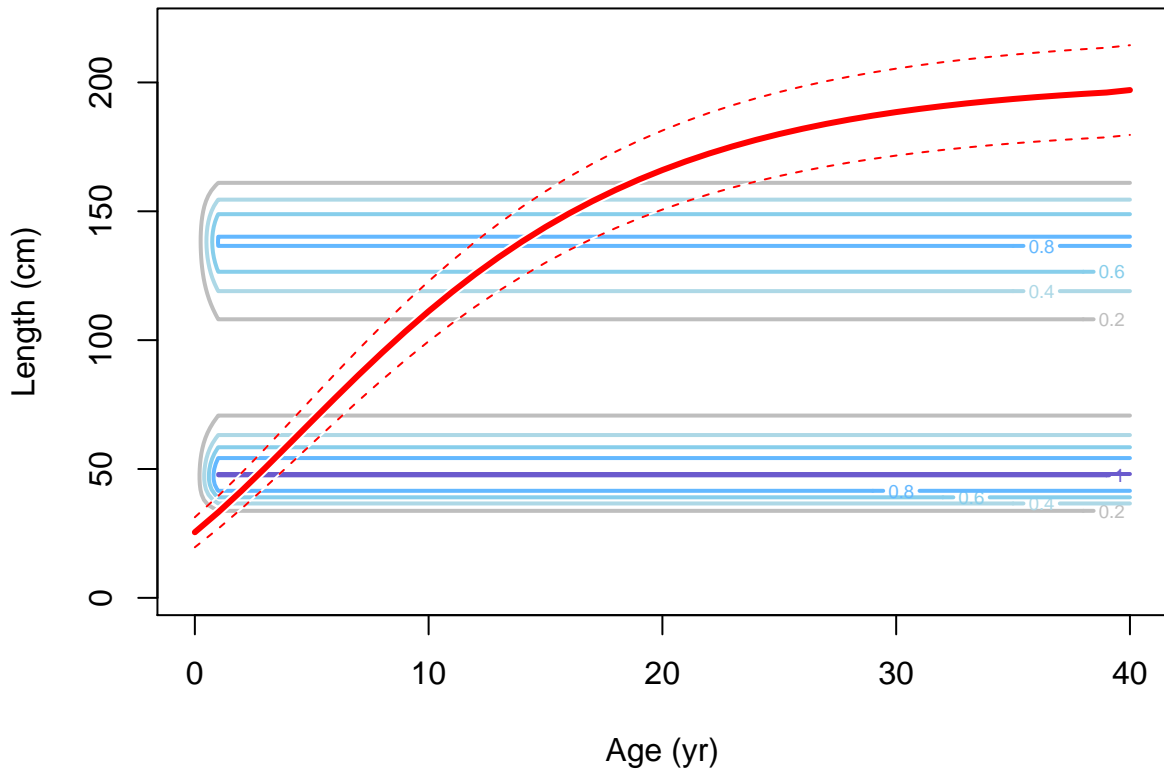




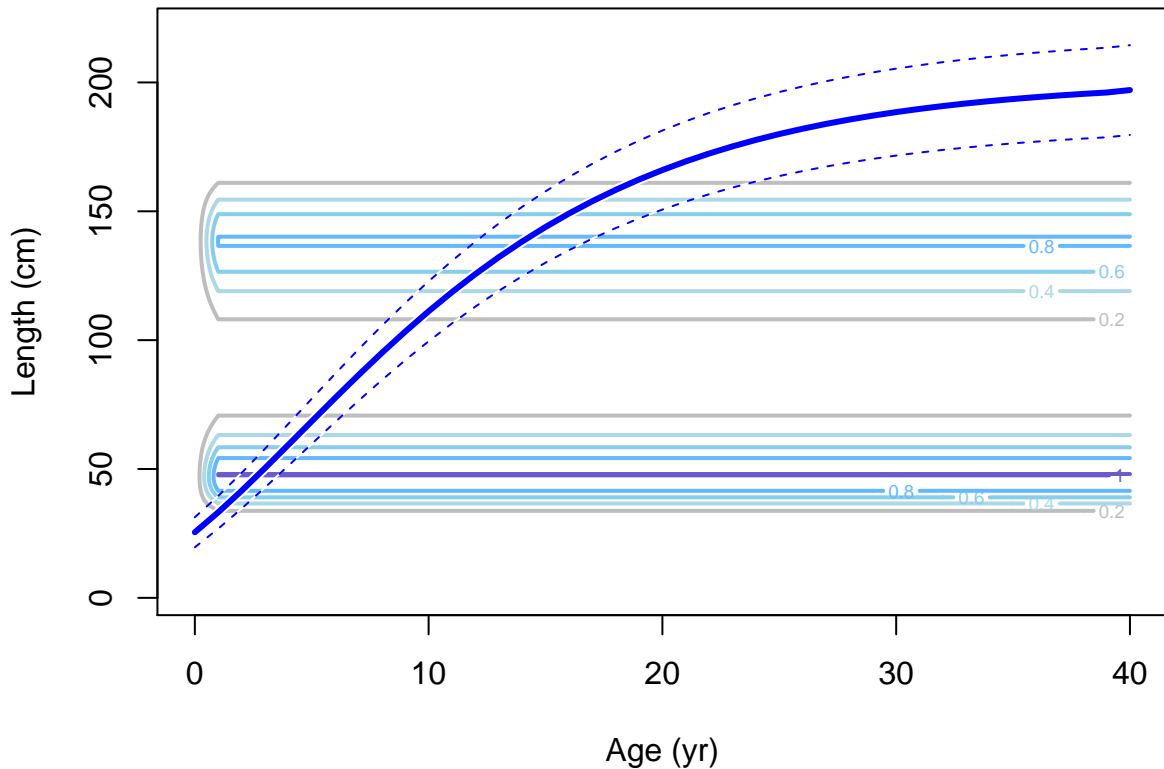
# Male ending year selectivity and growth for A4-NOADEL



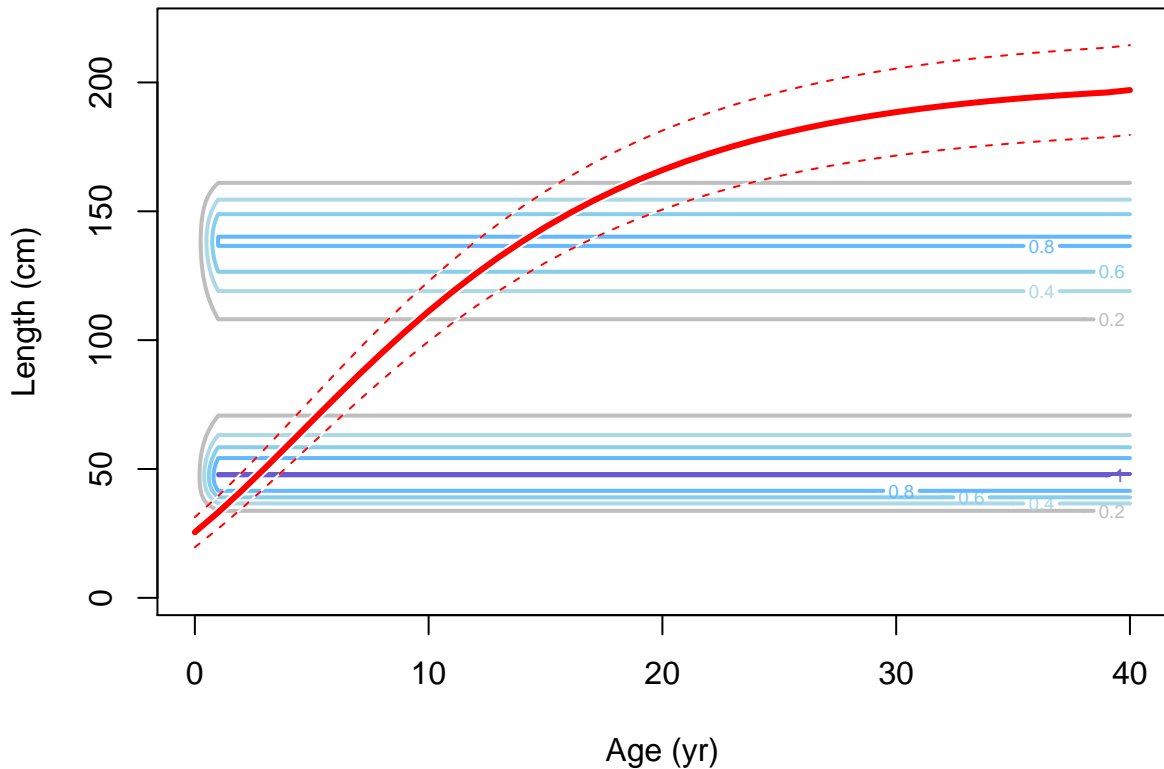
# Female ending year selectivity and growth for A5-NOADEL



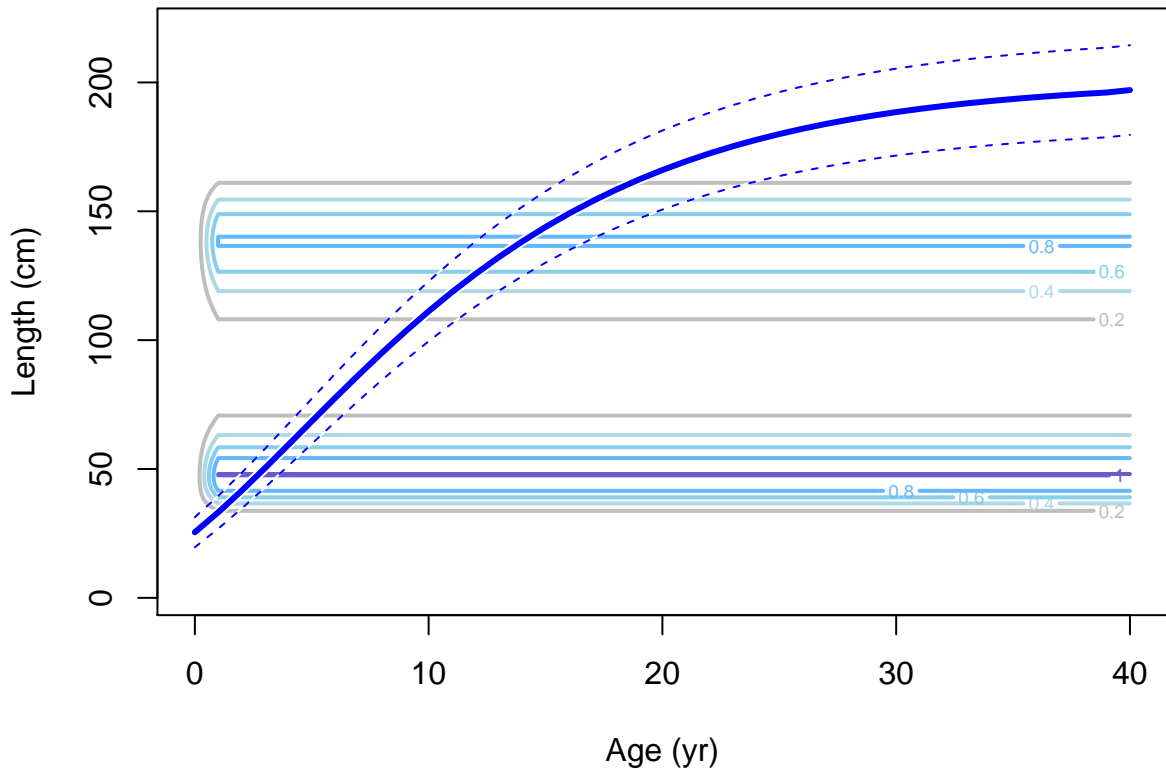
# Male ending year selectivity and growth for A5-NOADEL



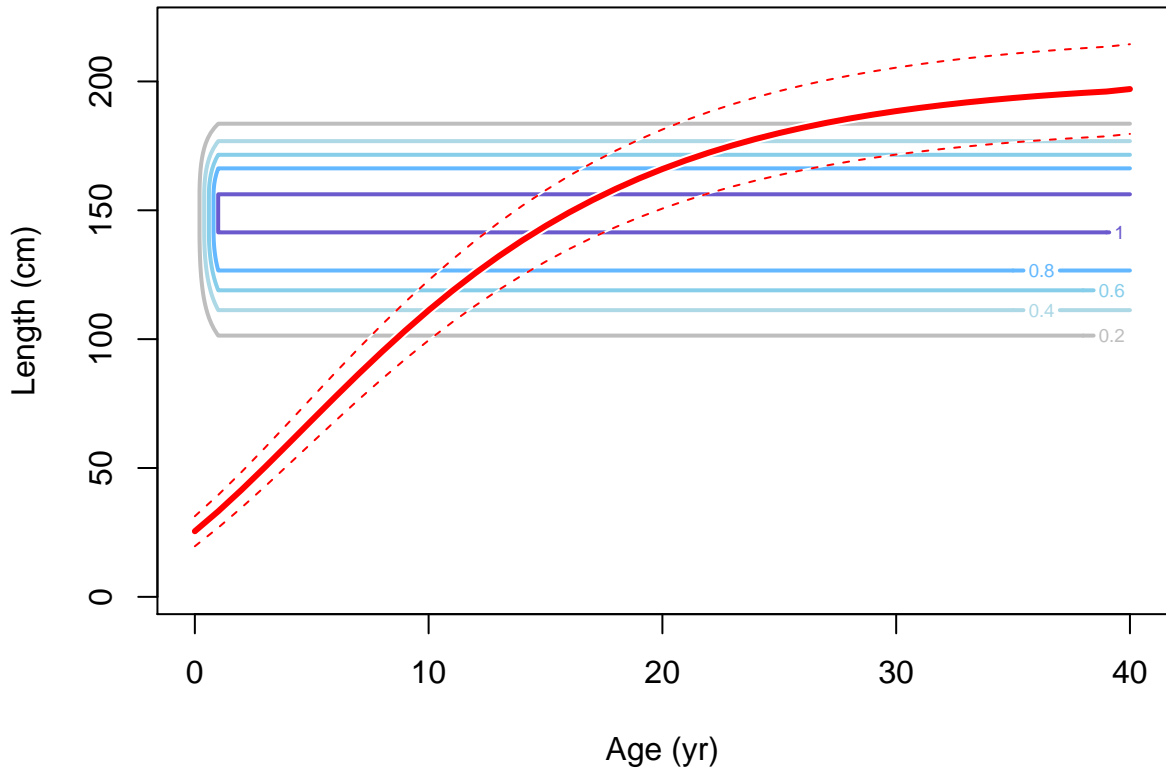
## Female ending year selectivity and growth for A6-NOADEL



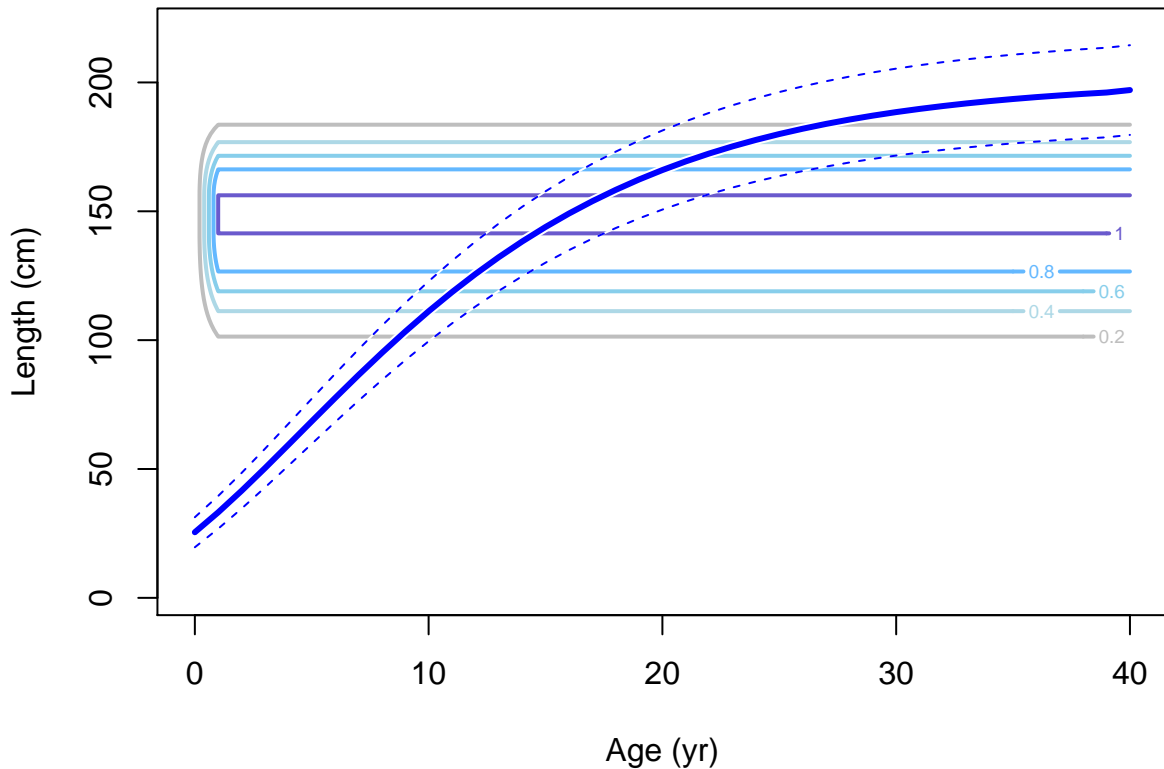
# Male ending year selectivity and growth for A6-NOADEL



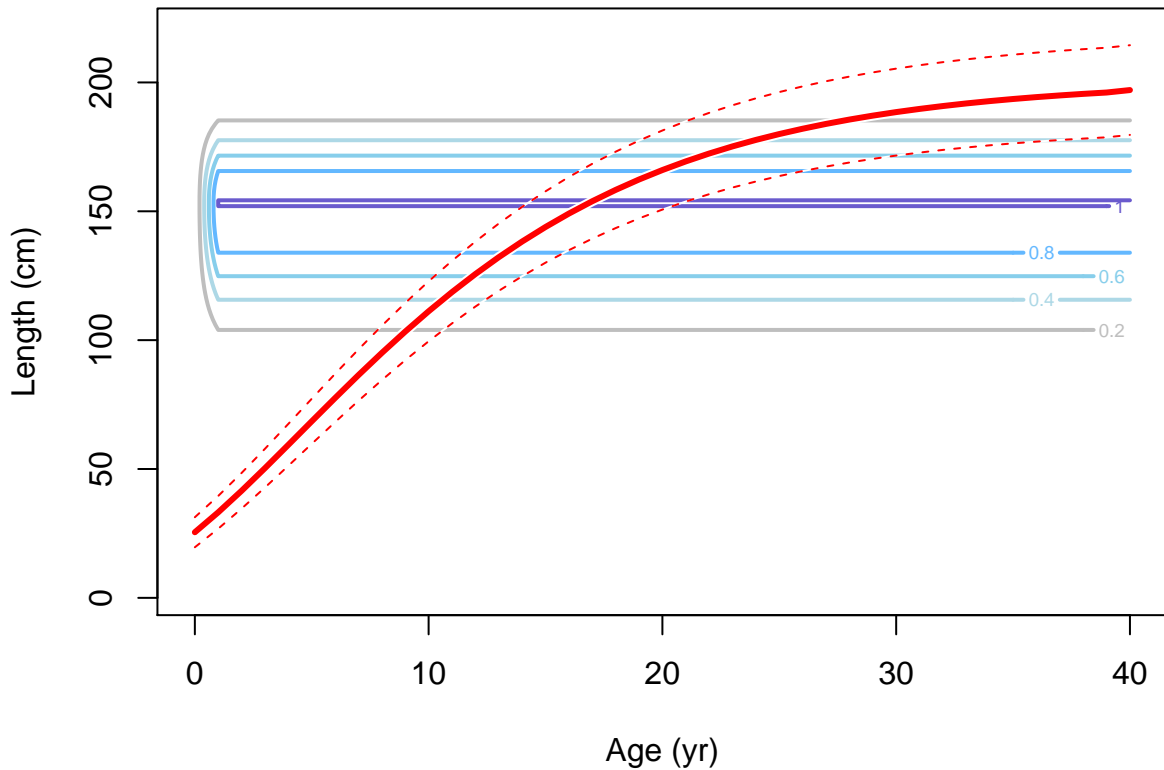
# Female ending year selectivity and growth for EPO-LL-survey-early



# Male ending year selectivity and growth for EPO-LL-survey-early

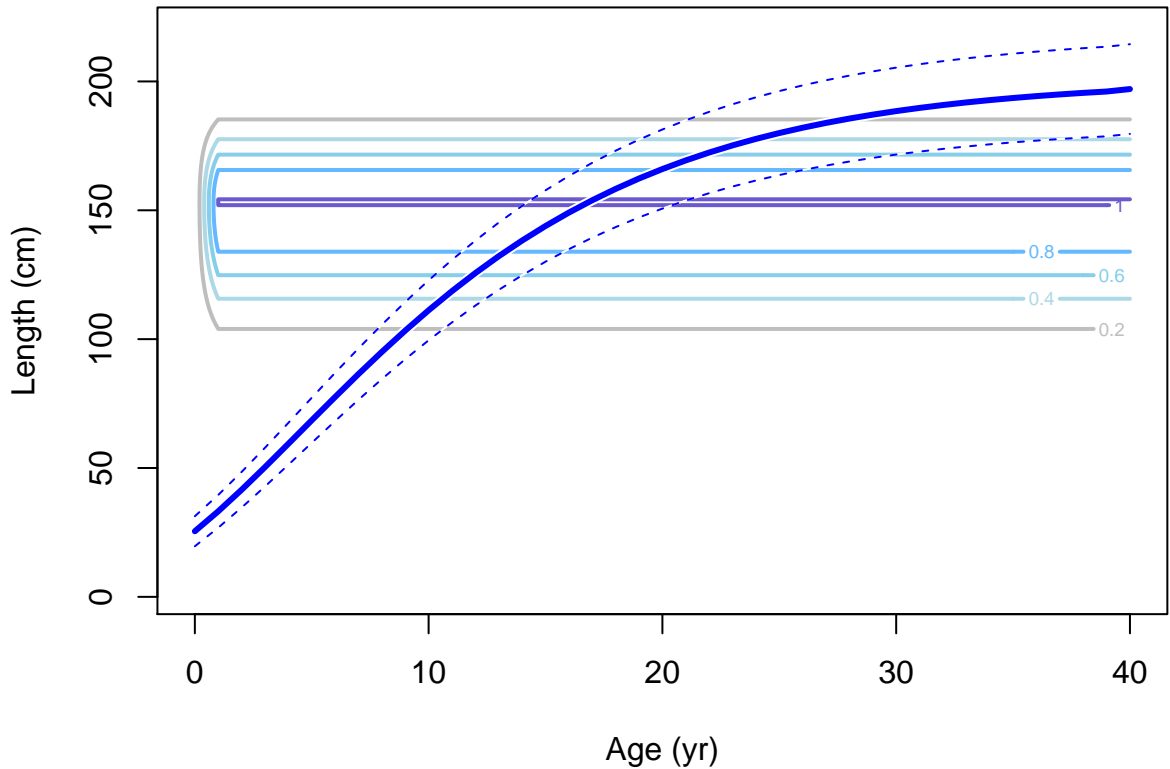


# Female ending year selectivity and growth for EPO-LL-survey-late

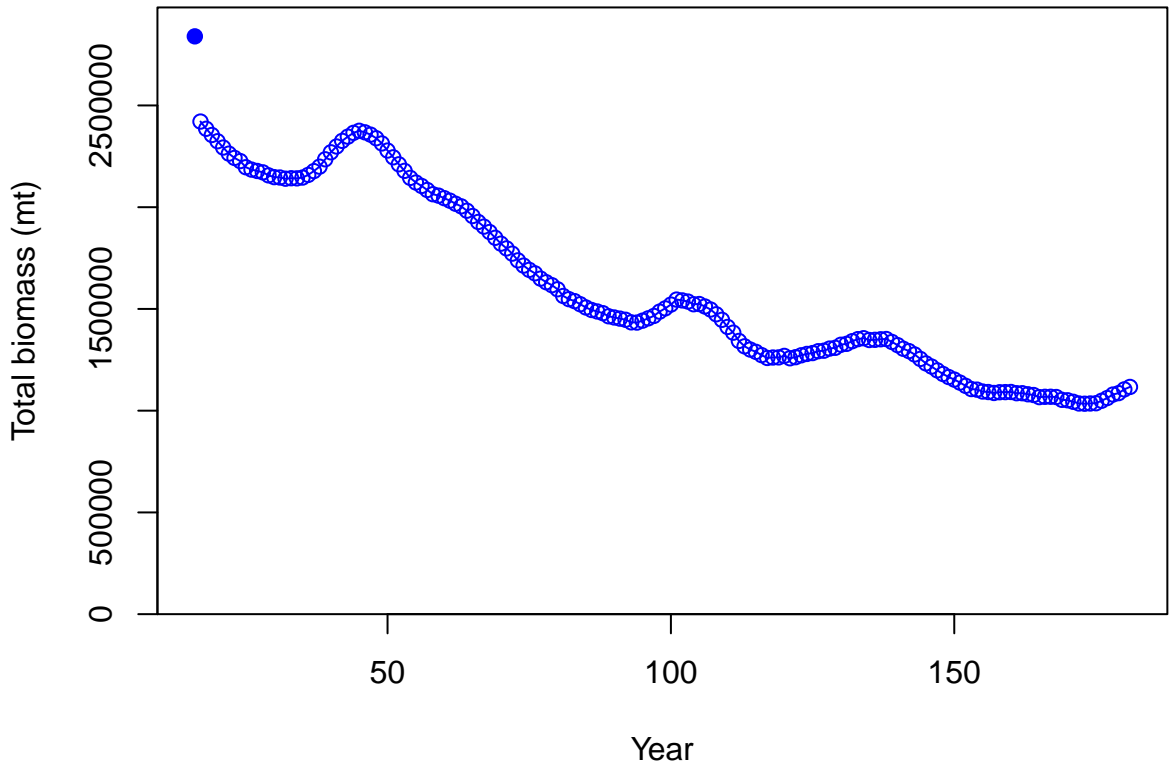




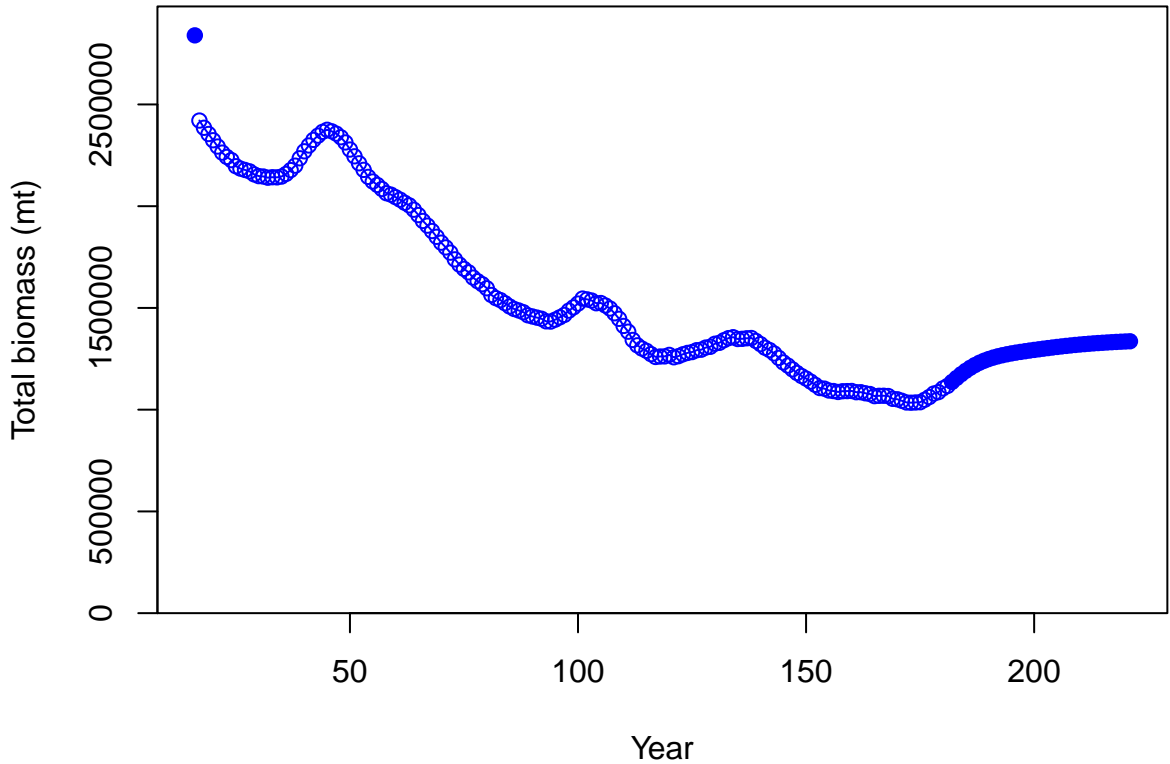
# Male ending year selectivity and growth for EPO-LL-survey-late



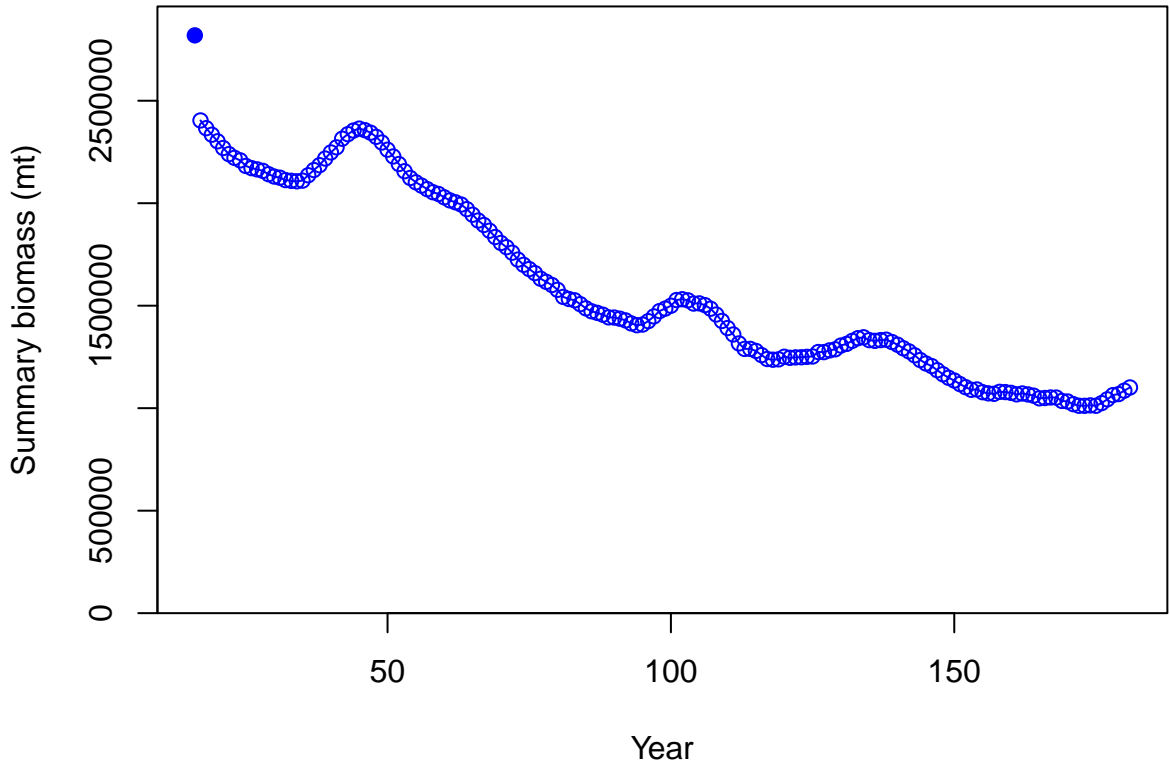
# Total biomass (mt)



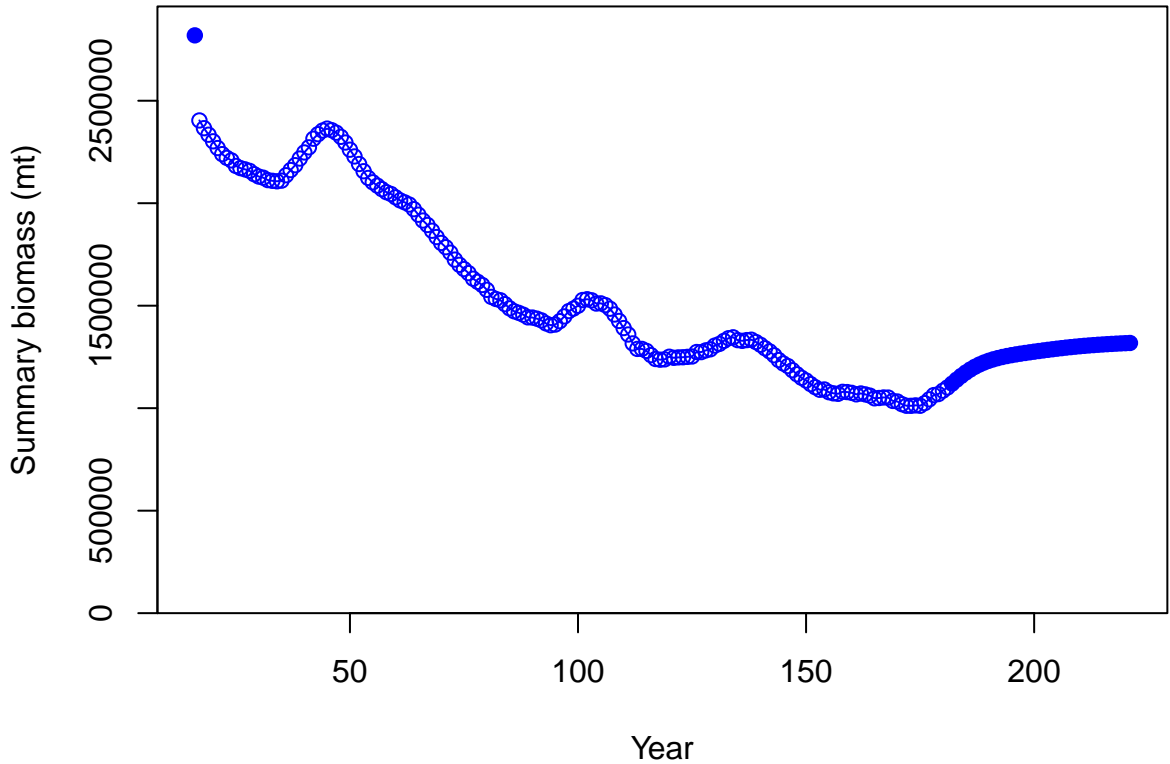
Total biomass (mt) with forecast



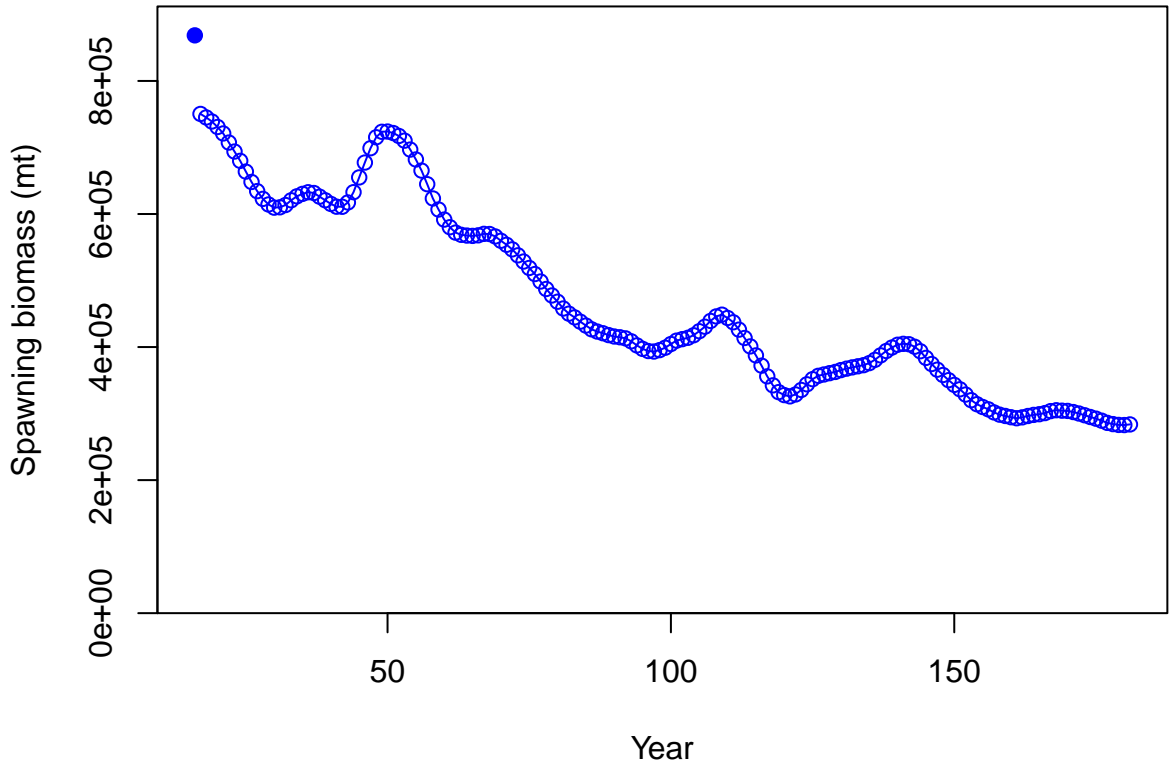
# Summary biomass (mt)



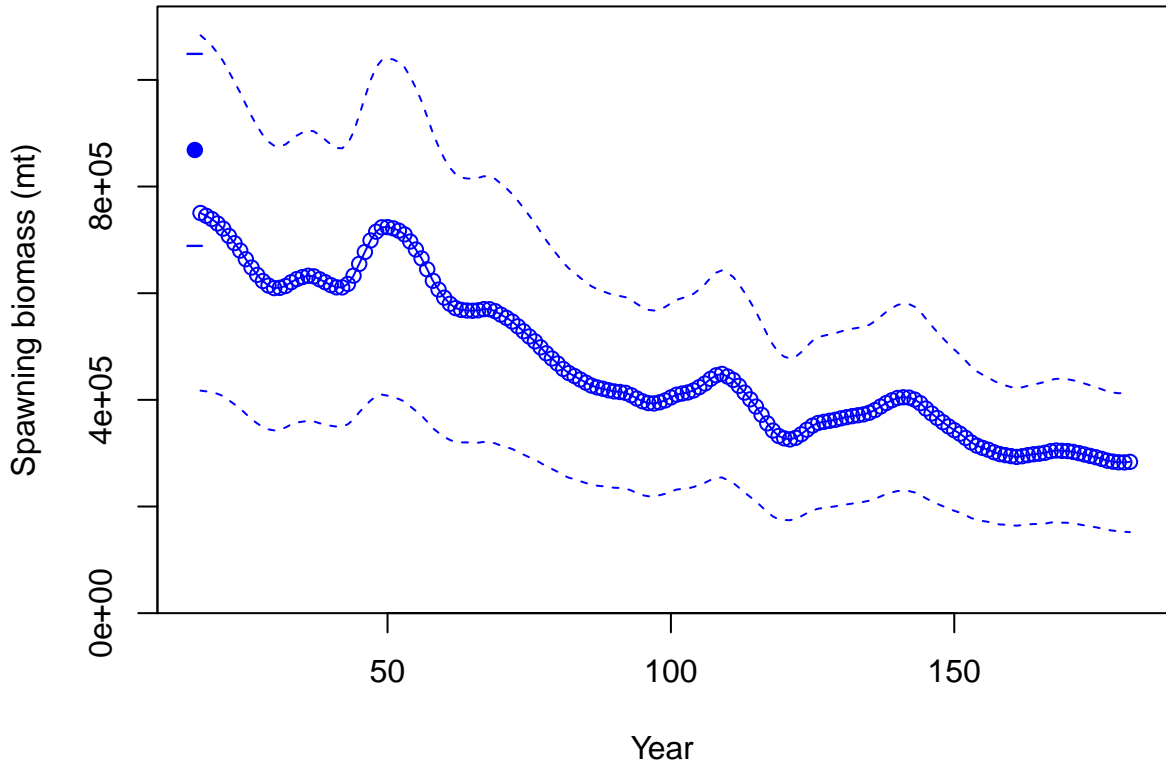
## Summary biomass (mt) with forecast



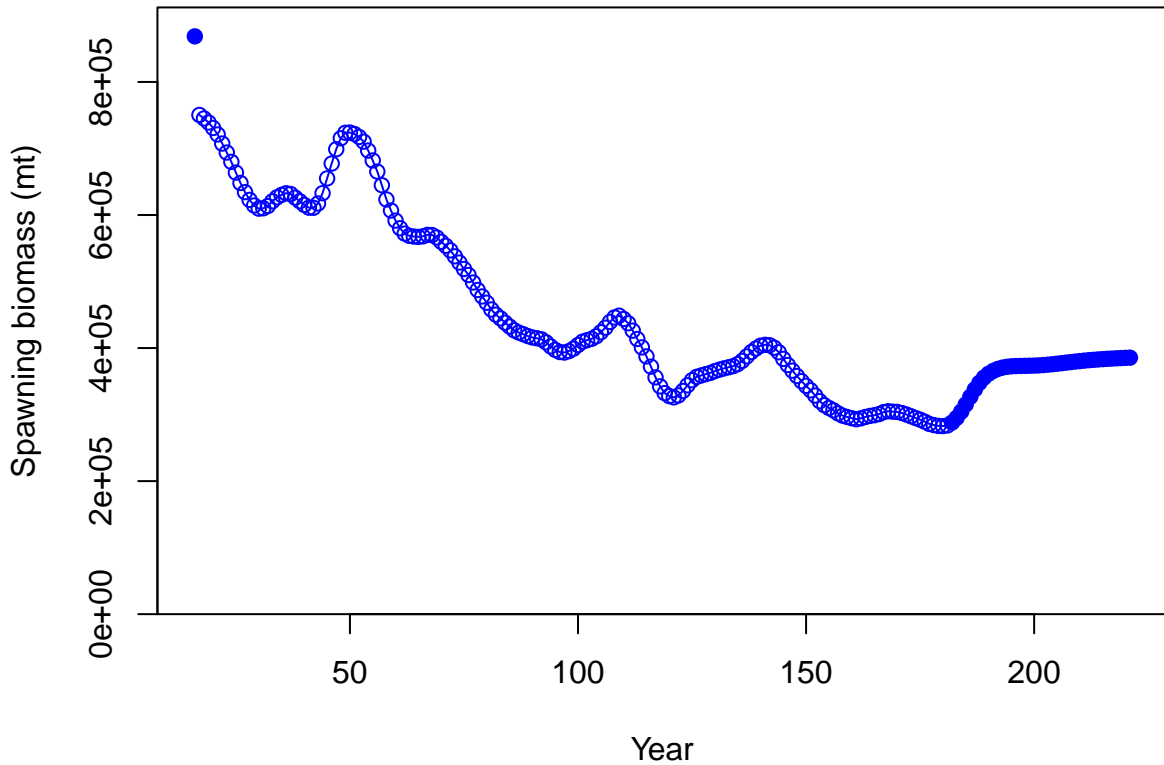
# Spawning biomass (mt)



# Spawning biomass (mt) with ~95% asymptotic intervals

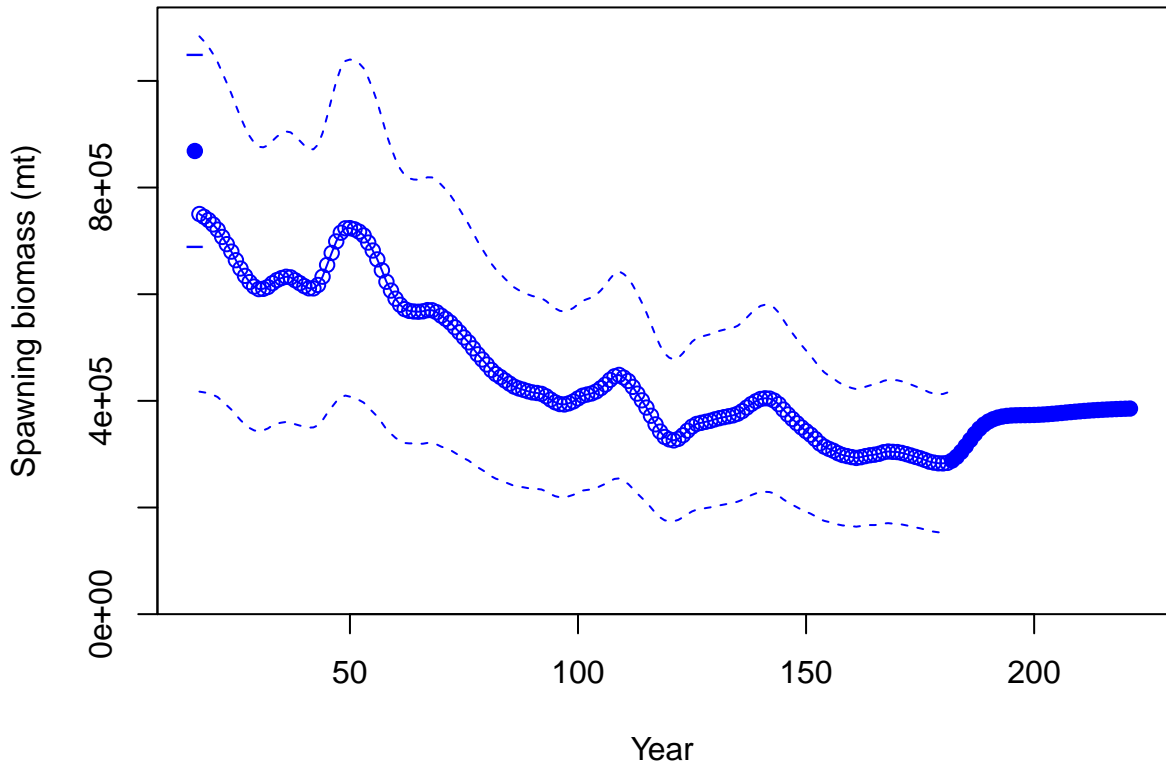


## Spawning biomass (mt) with forecast

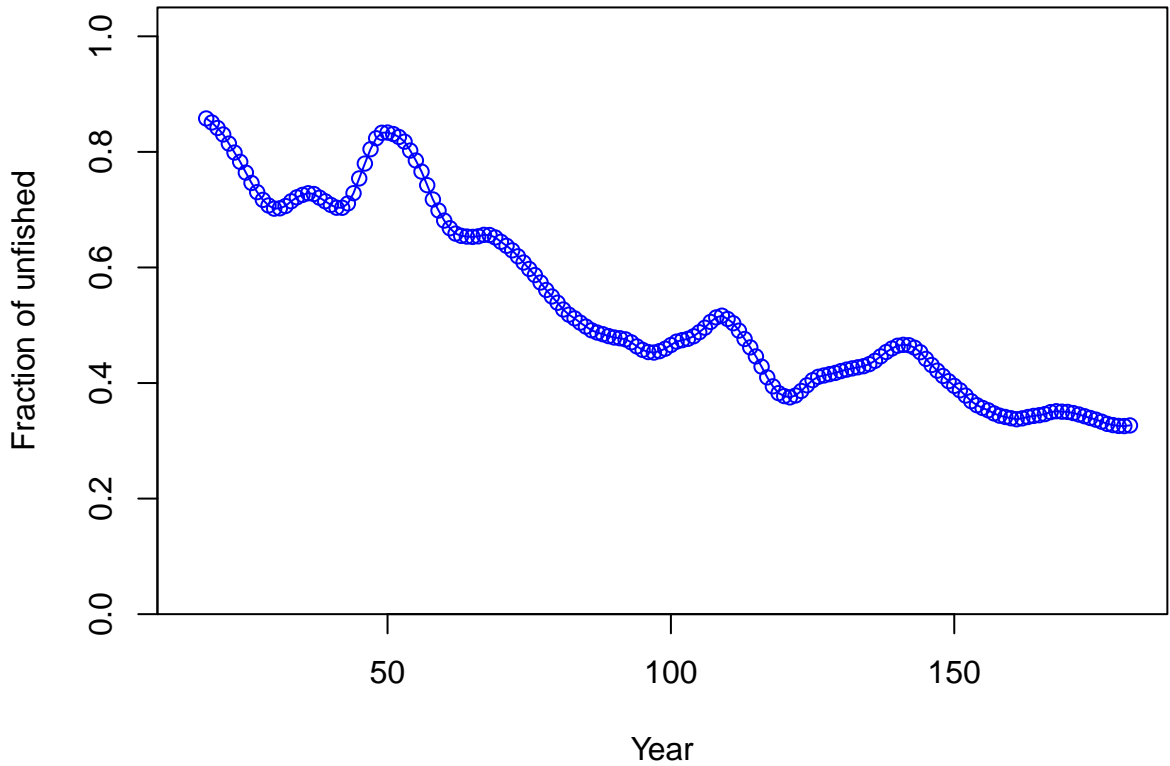




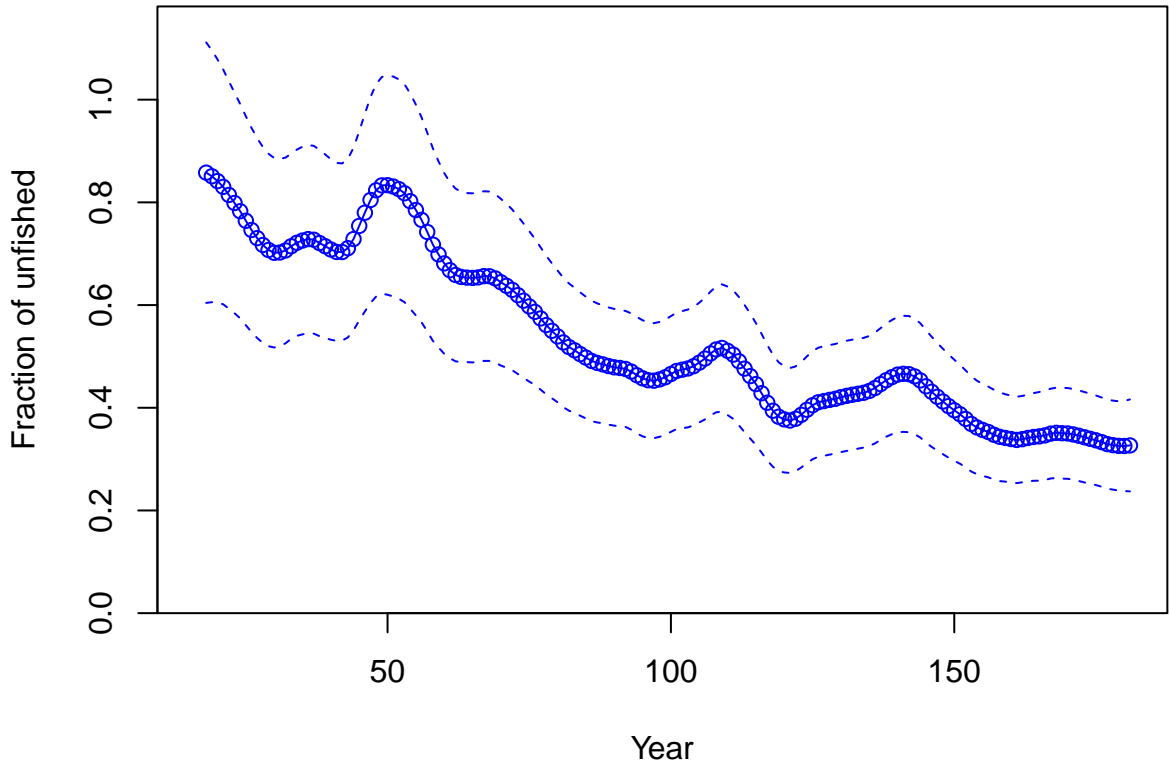
# Spawning biomass (mt) with forecast with ~95% asymptotic intervals



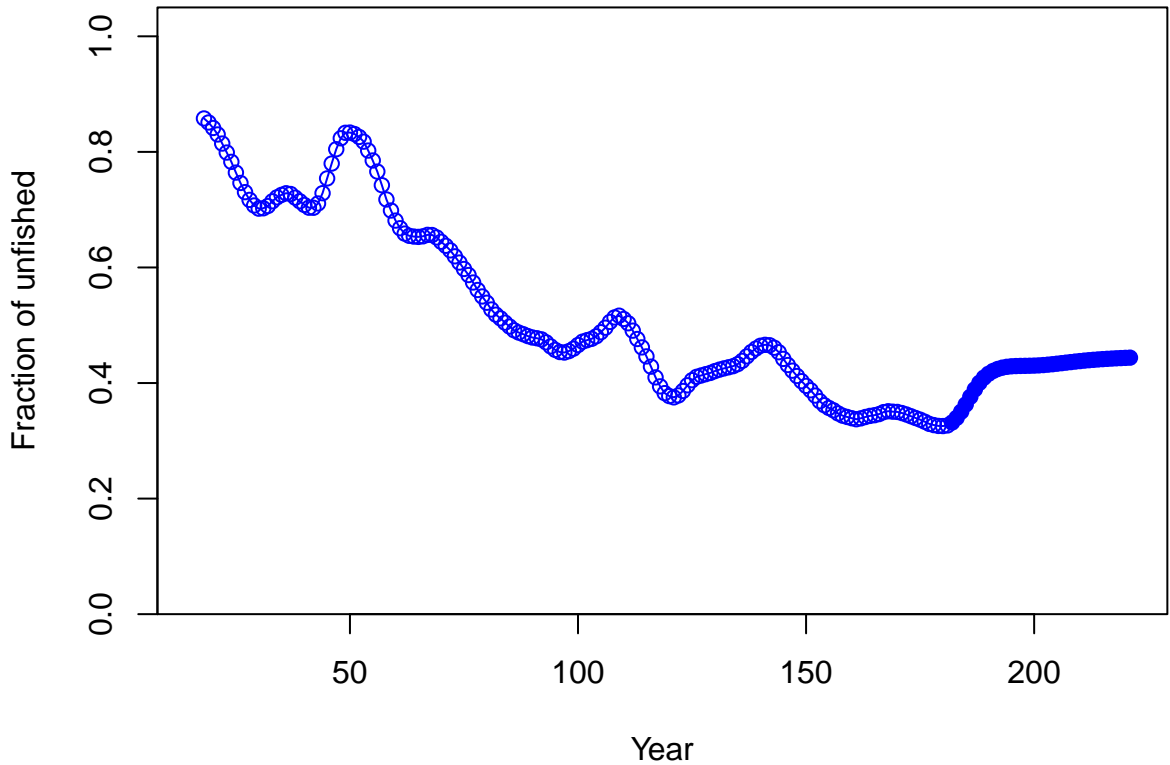
# Fraction of unfished



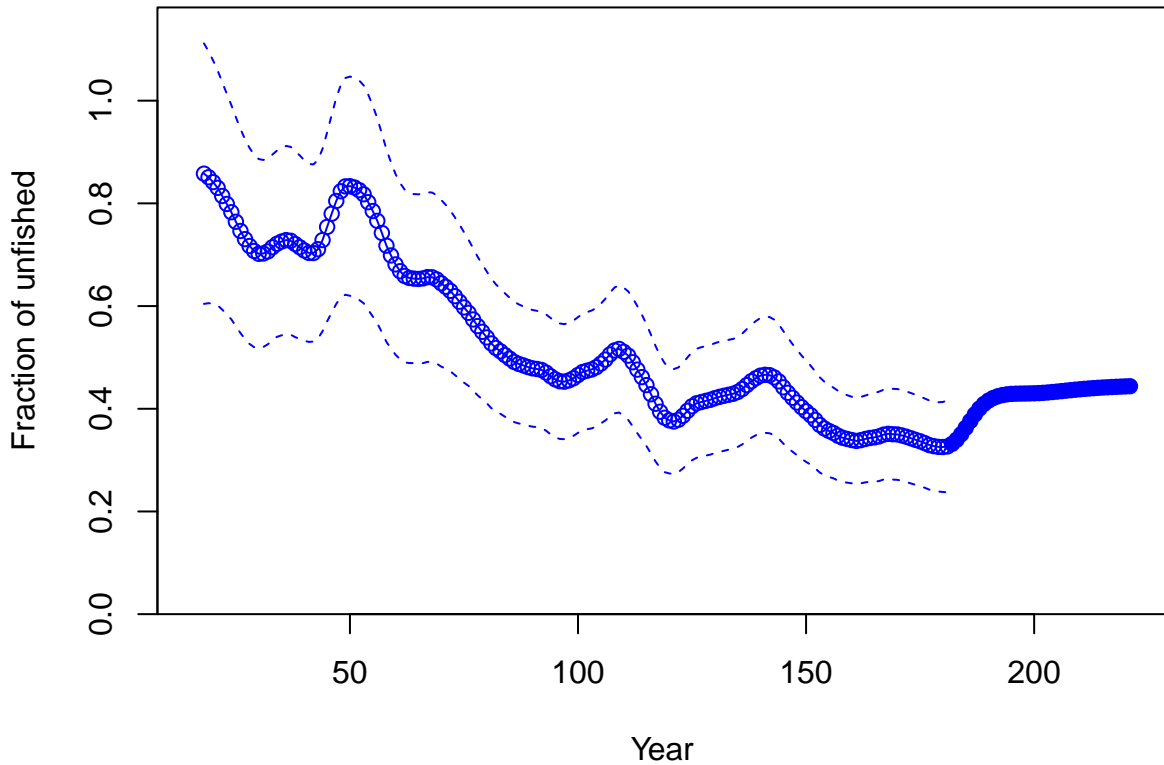
Fraction of unfished with ~95% asymptotic intervals



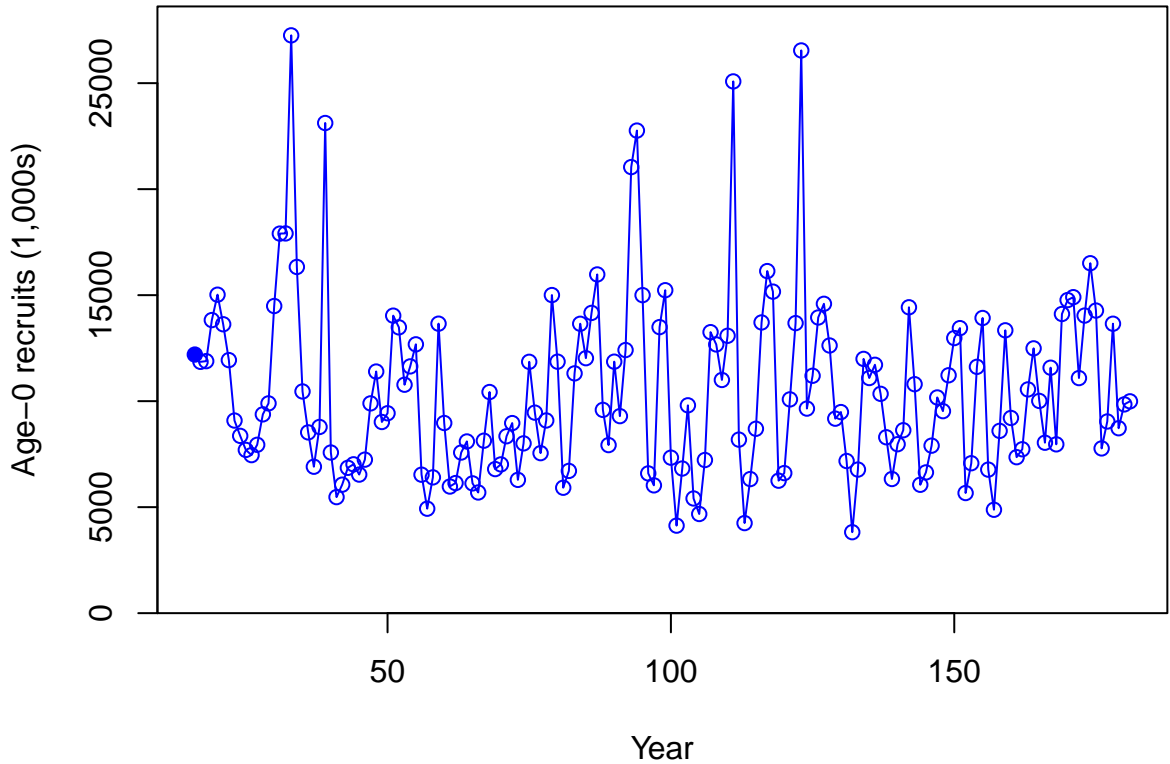
**Fraction of unfished with forecast**



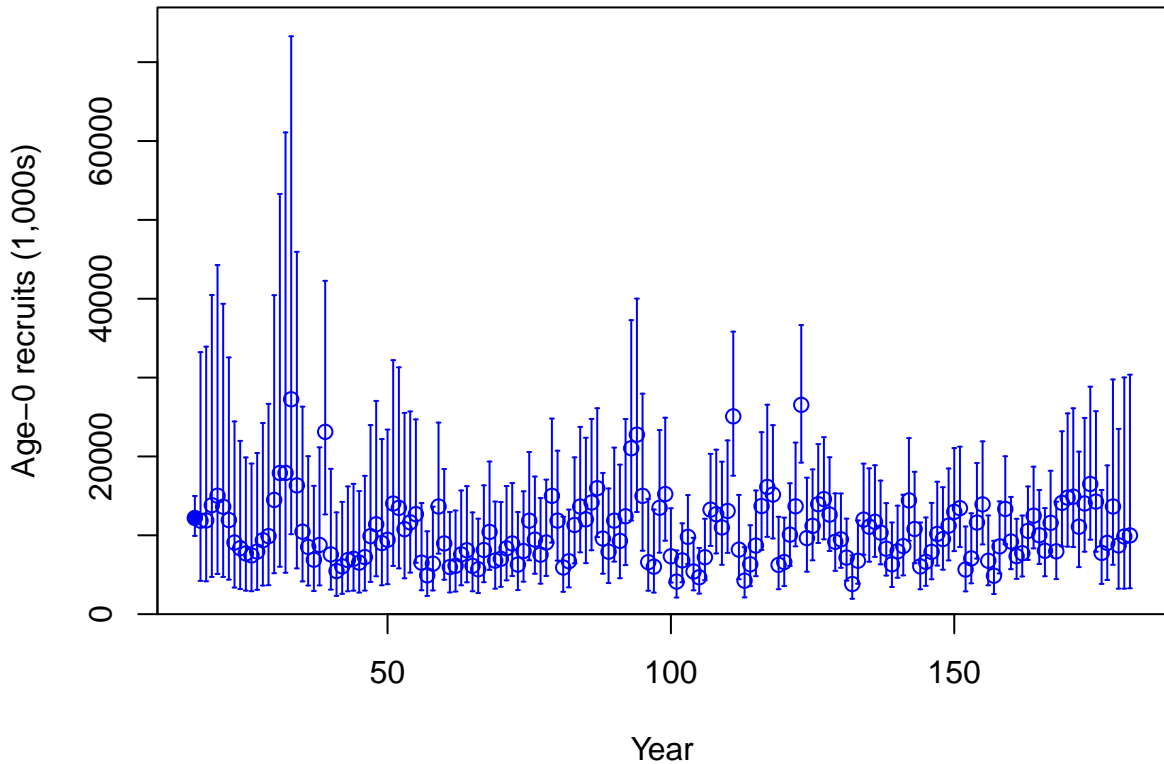
**Fraction of unfished with forecast with ~95% asymptotic intervals**



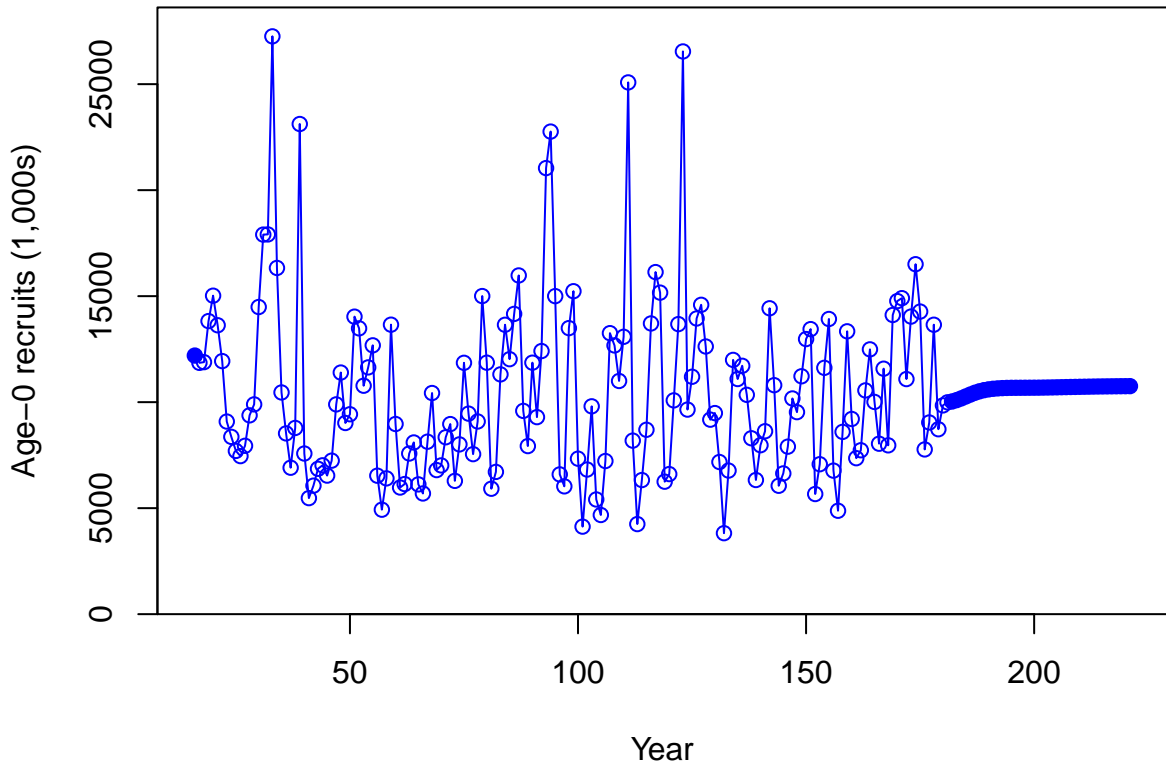
### Age-0 recruits (1,000s)



# Age-0 recruits (1,000s) with ~95% asymptotic intervals

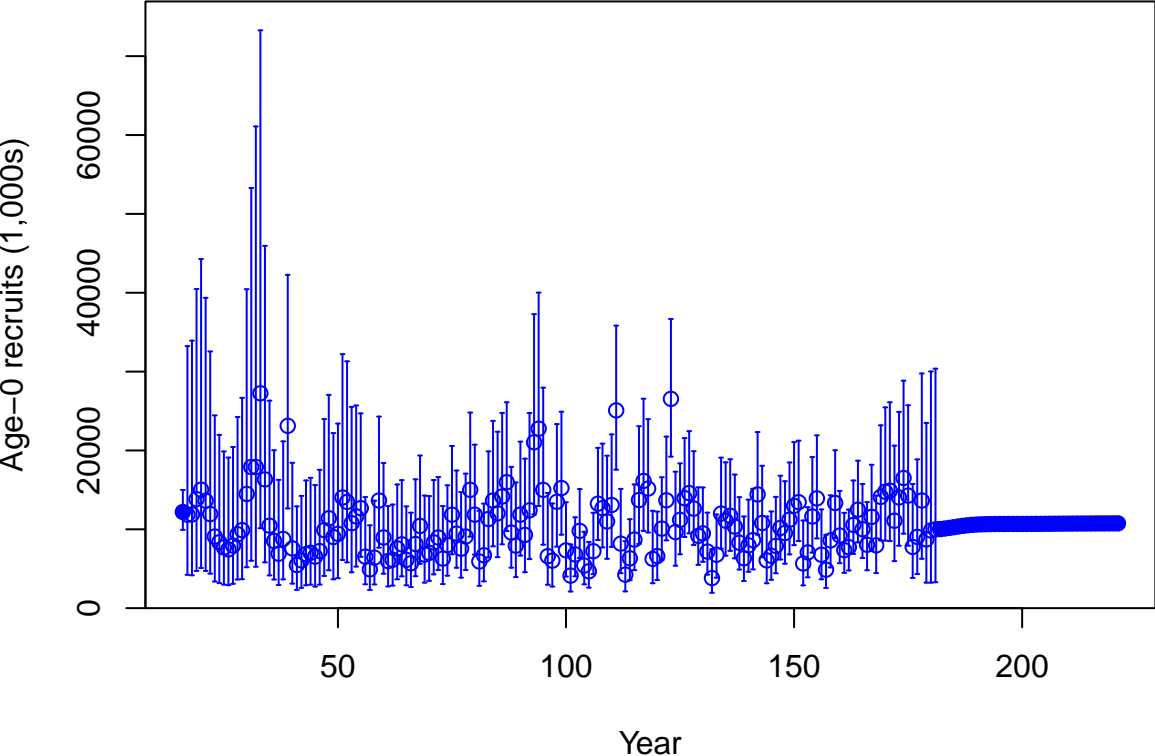


**Age-0 recruits (1,000s) with forecast**

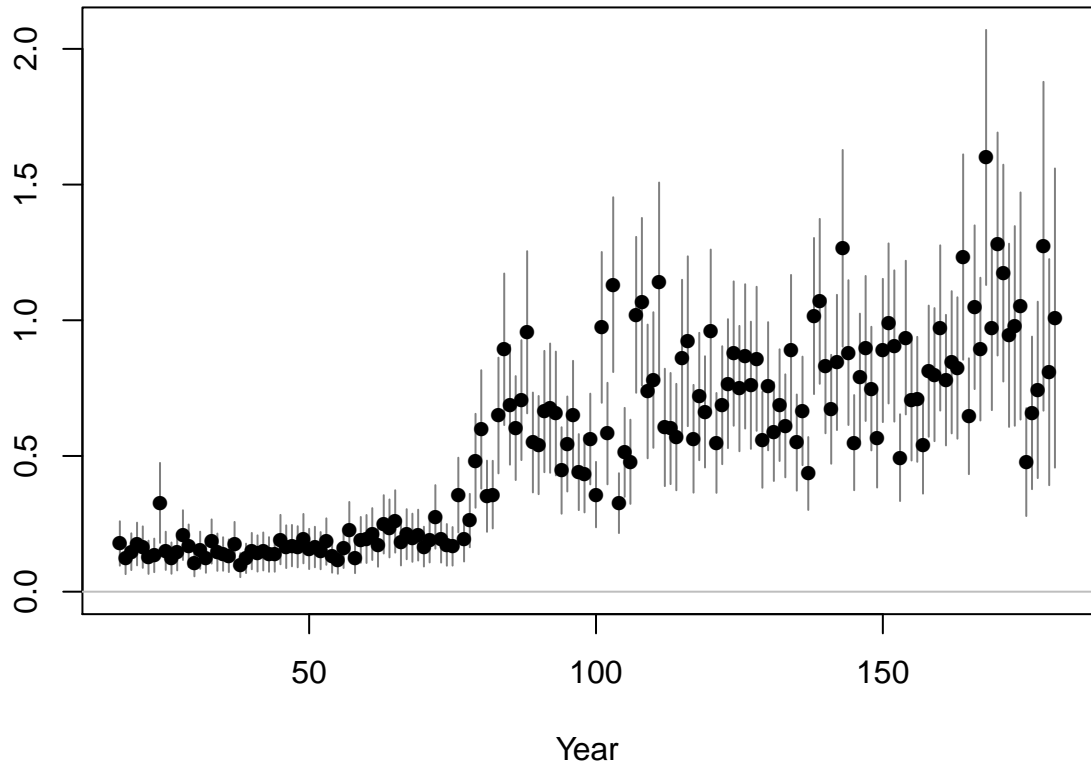


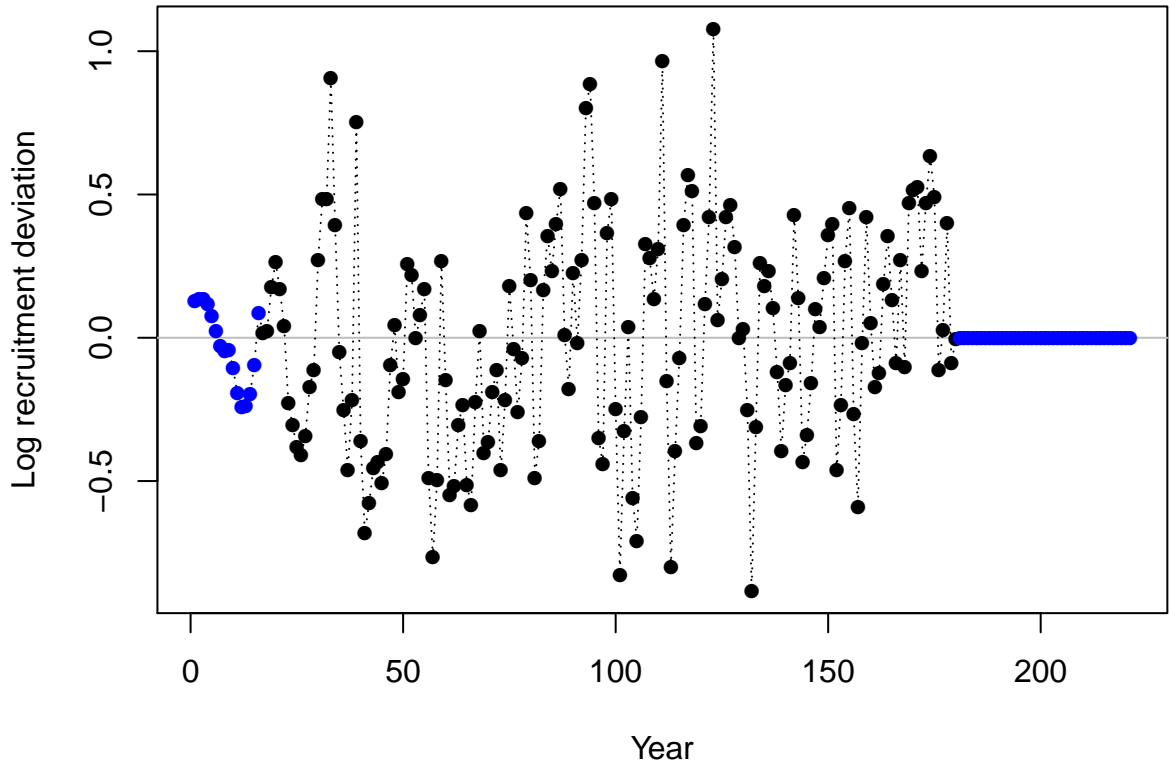


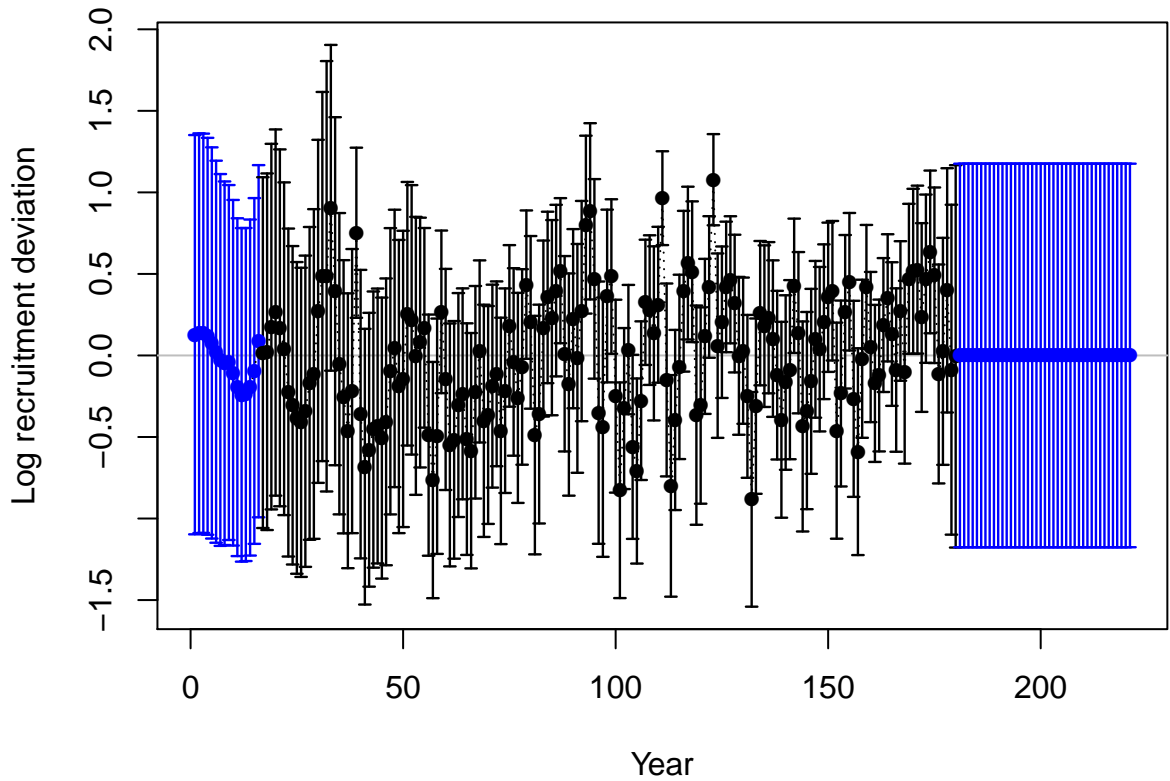
**Age-0 recruits (1,000s) with forecast with ~95% asymptotic intervals**



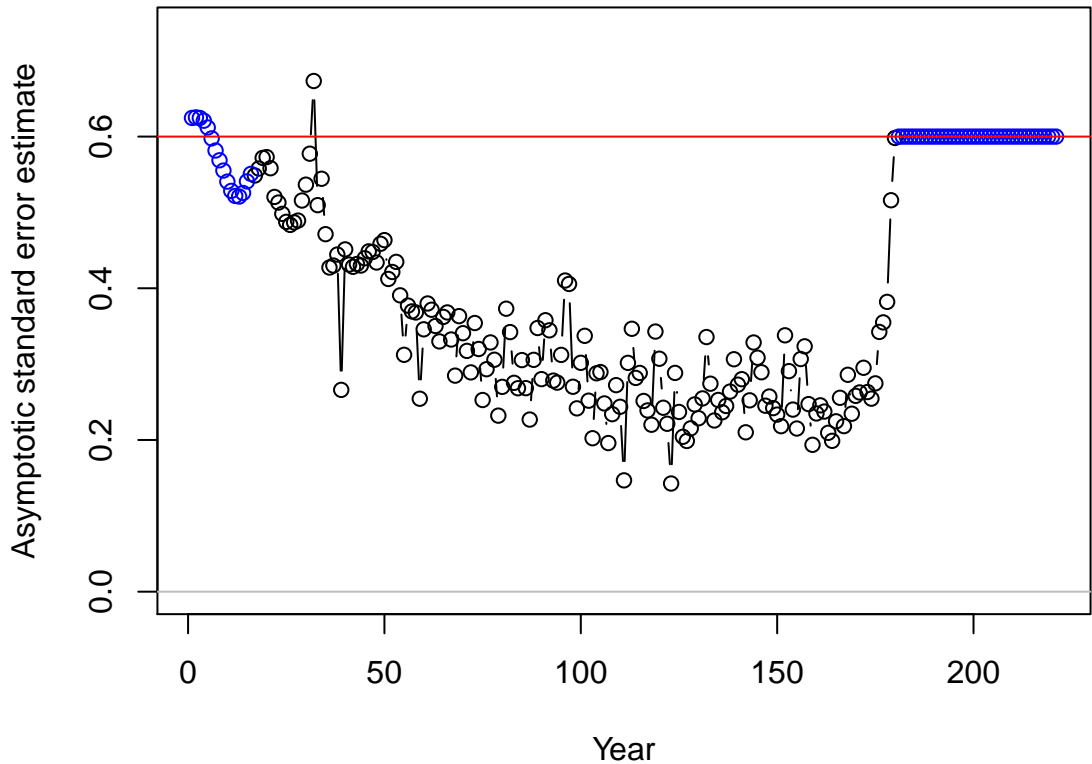
Summary Fishing Mortality

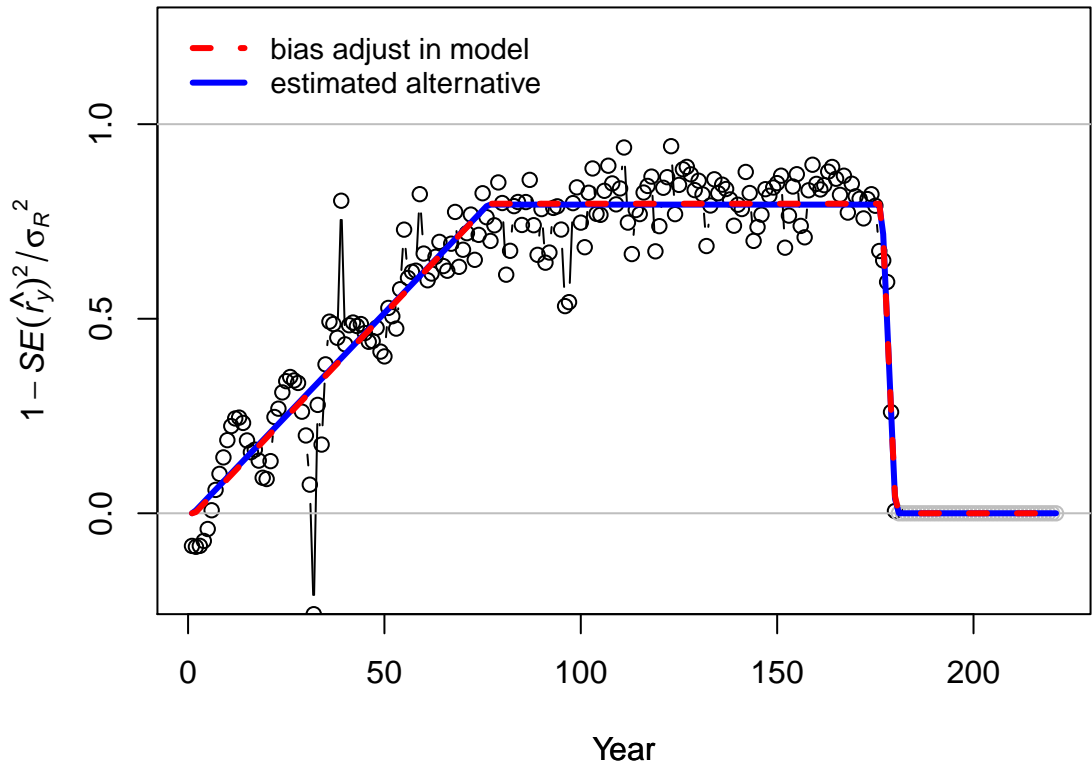


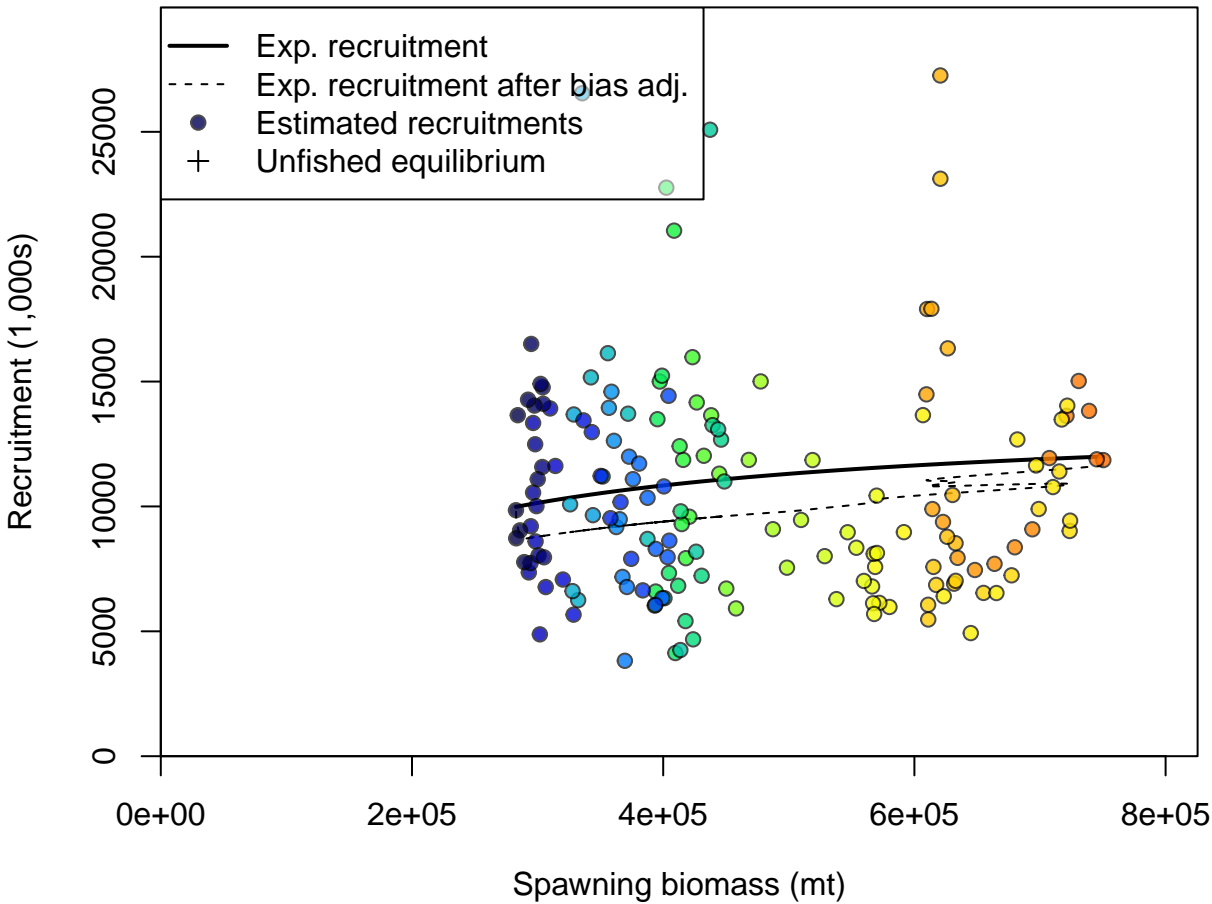


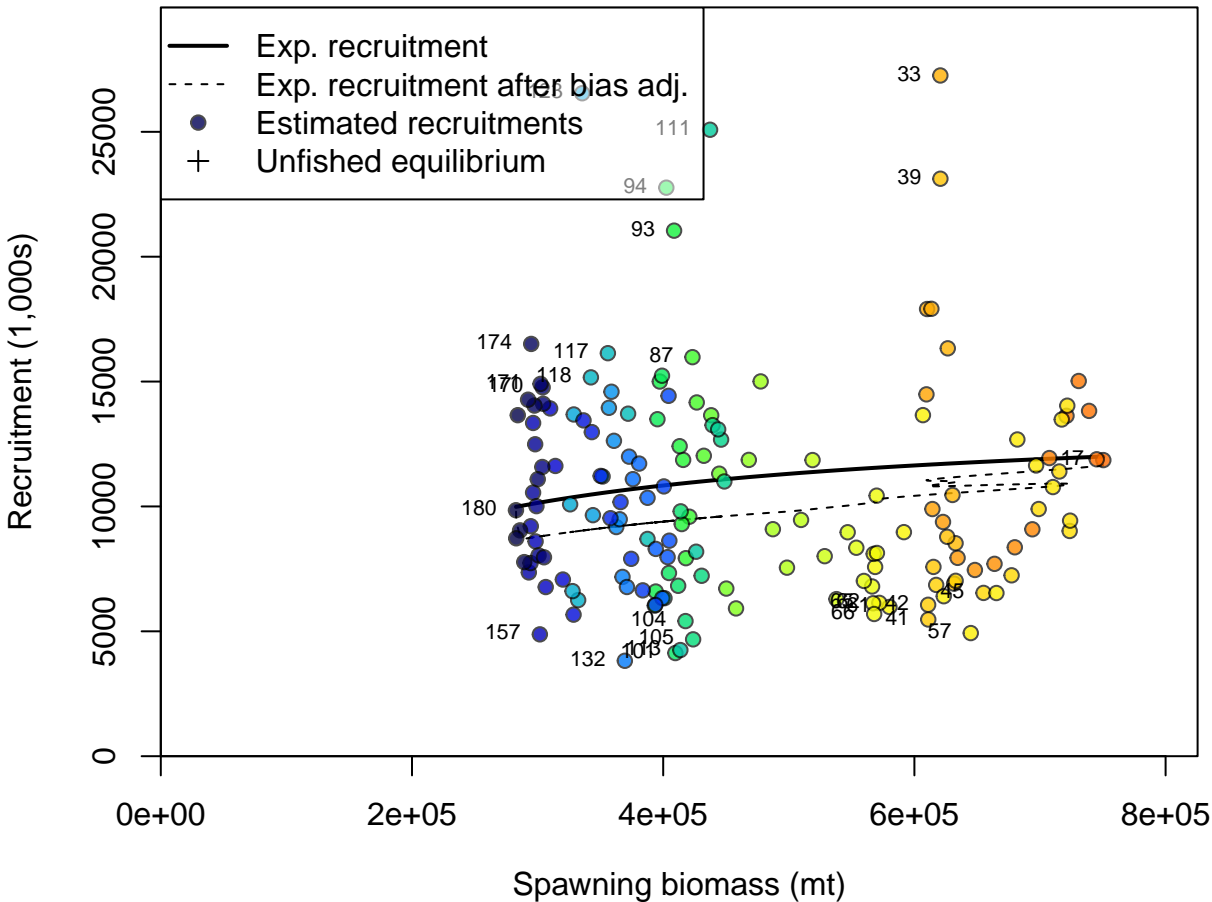


# Recruitment deviation variance

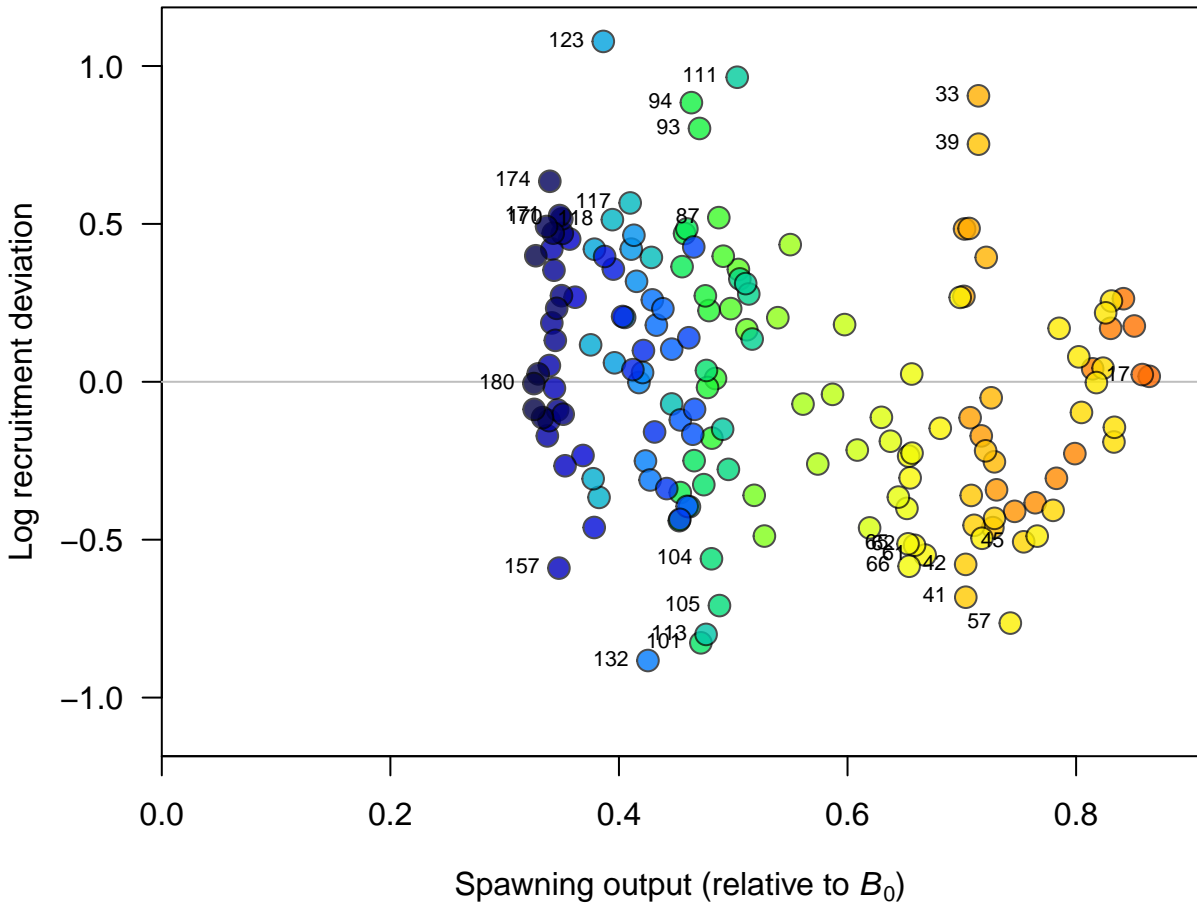








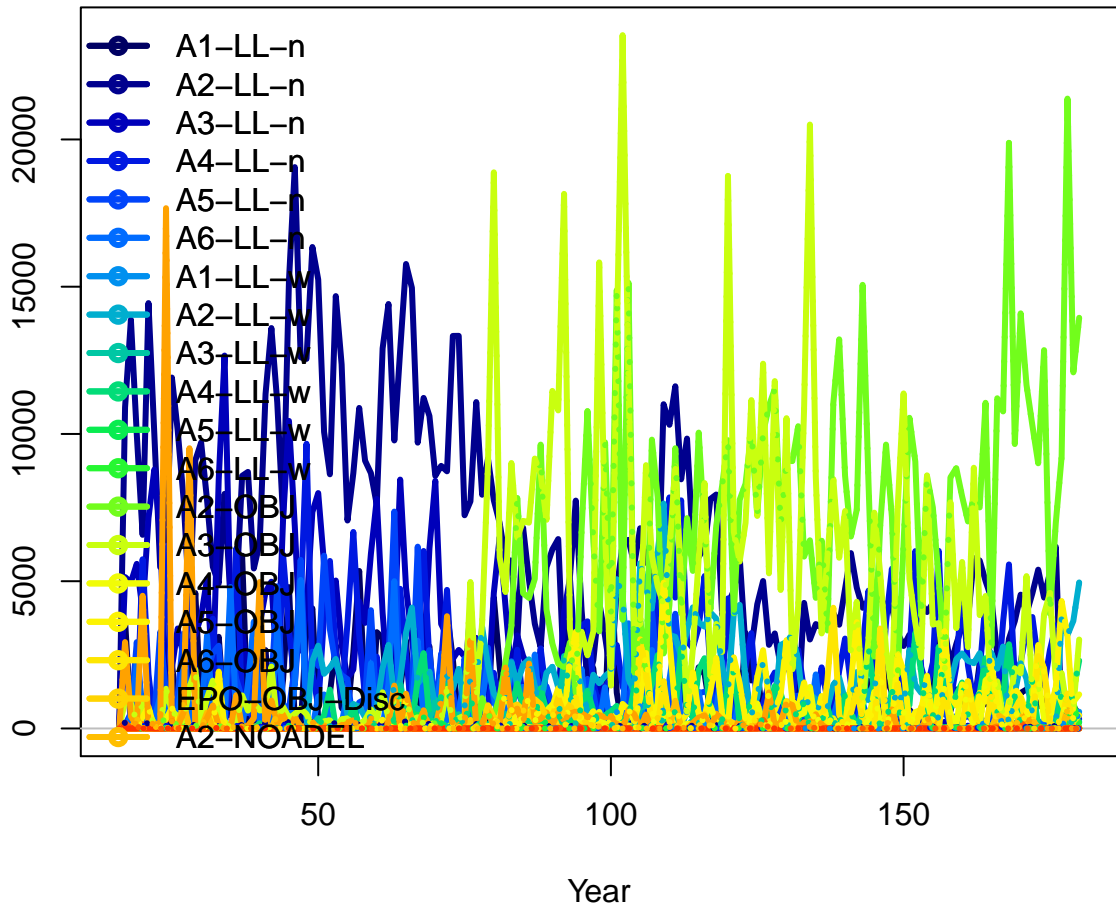




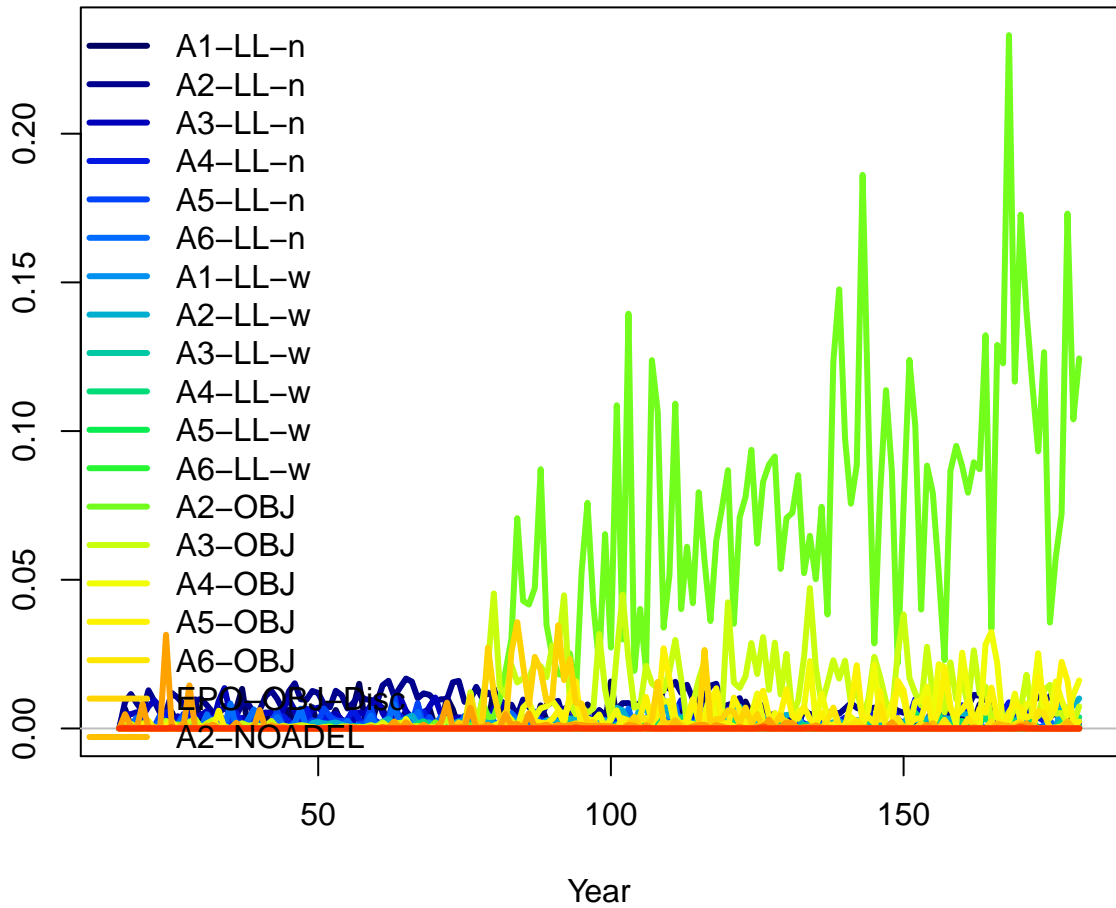




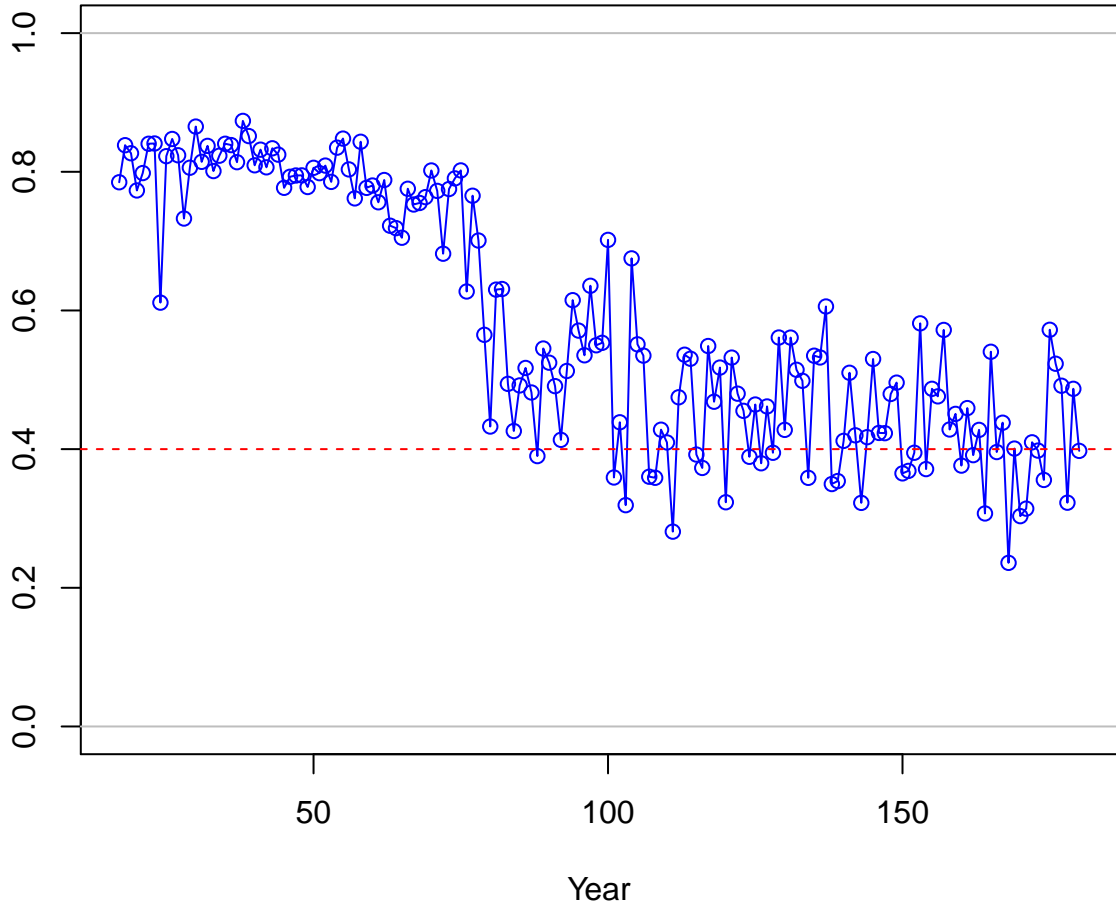
Observed and expected Landings (mt)

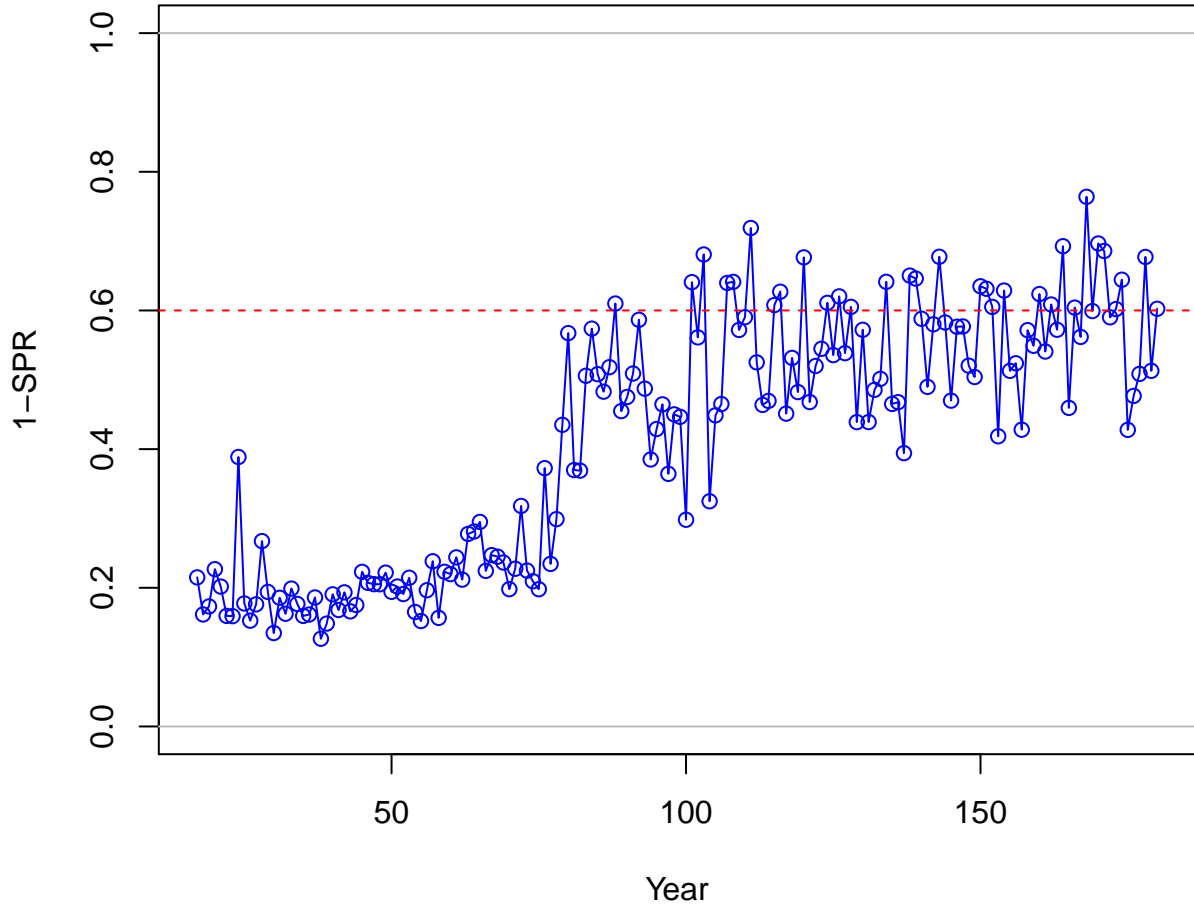


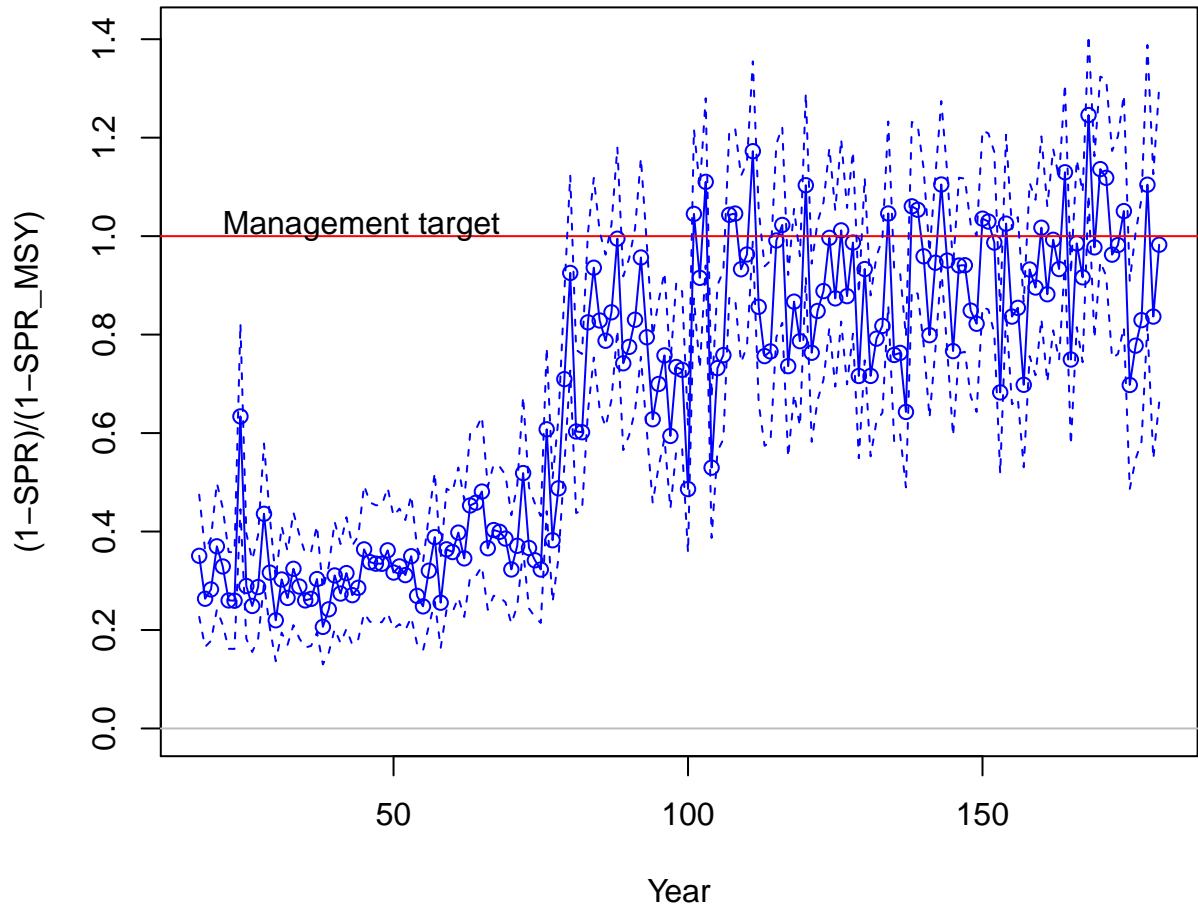
Continuous F



SPR

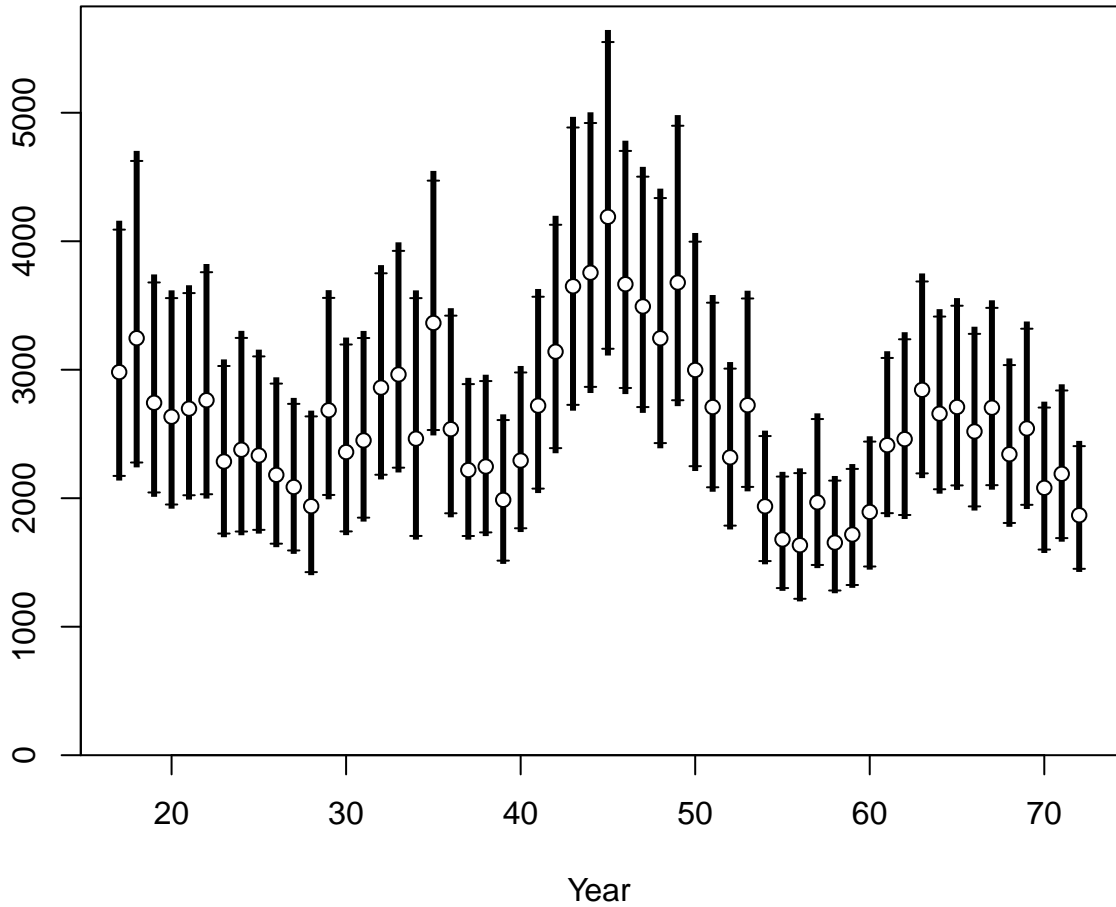




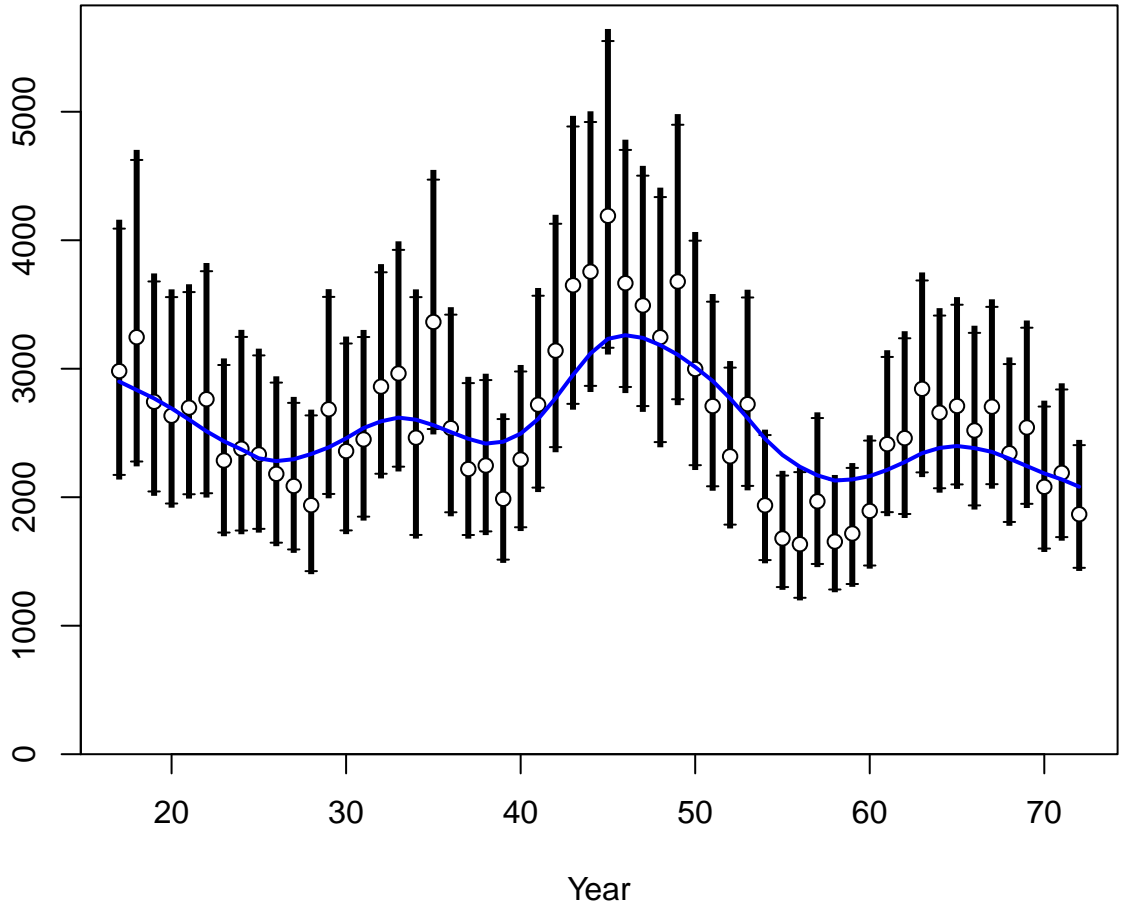




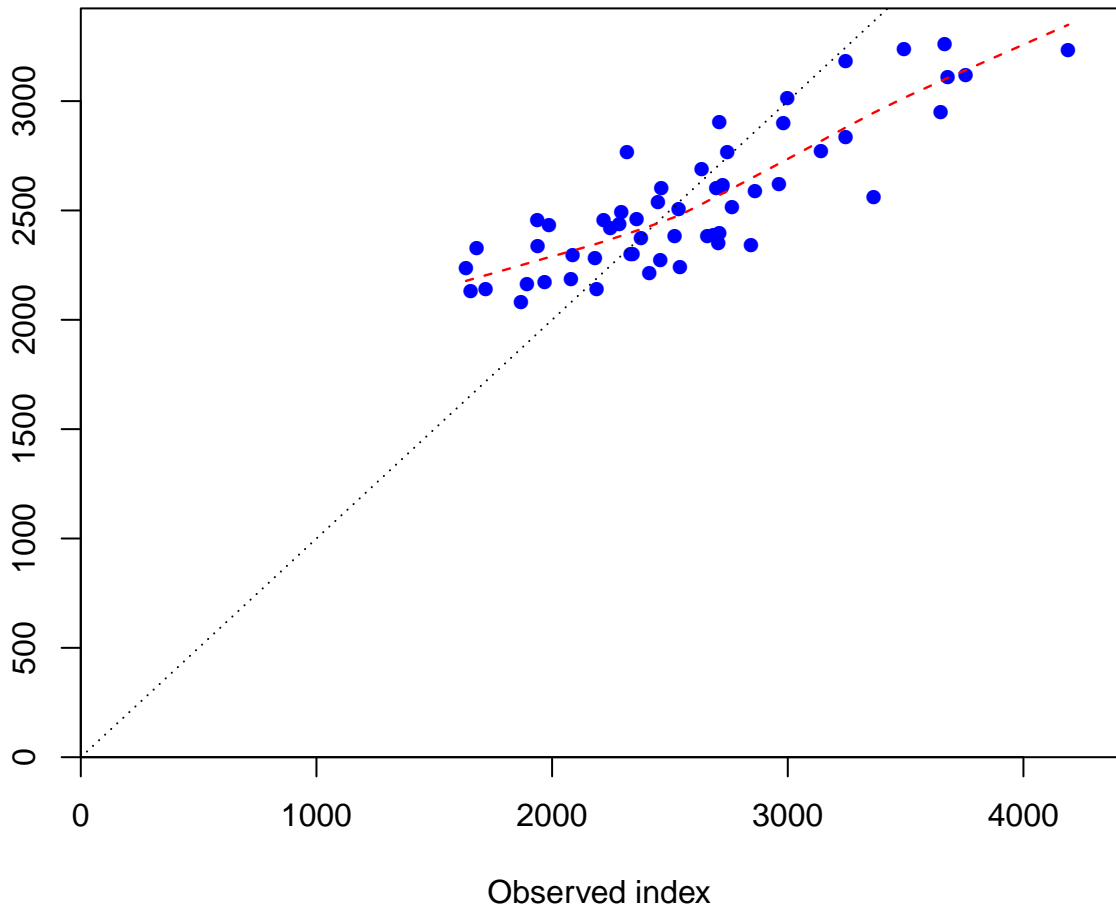
Index



Index



Expected index



Observed index

Log index

8.5

8.0

7.5

20

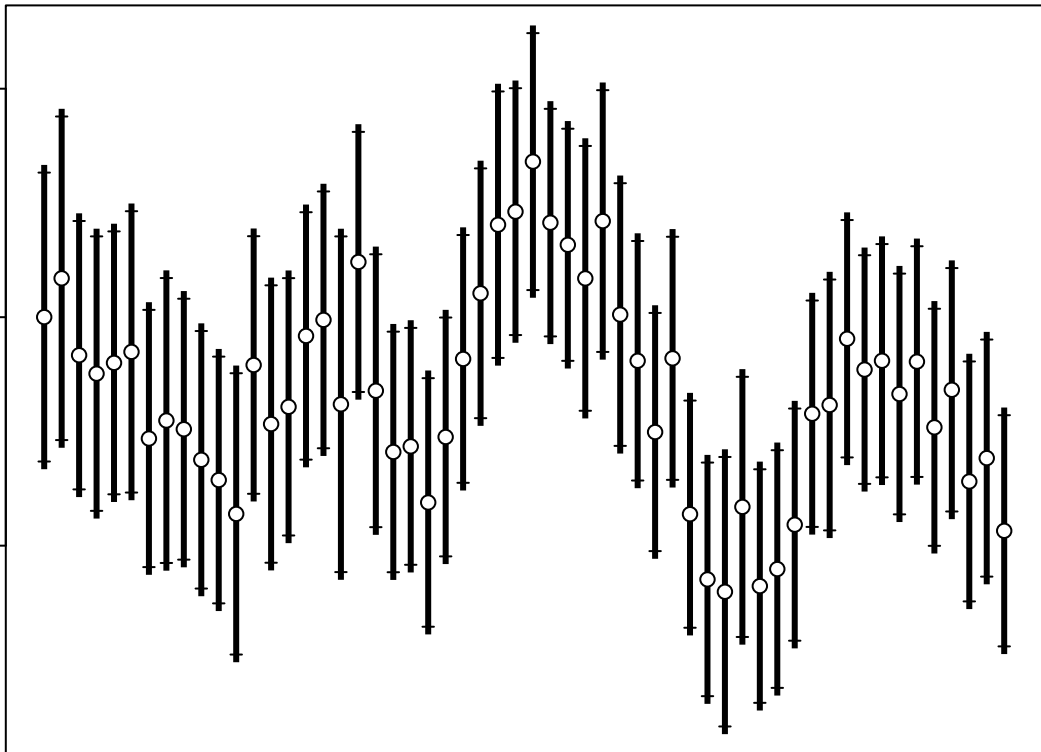
30

40

60

70

Year



Log index

8.5

8.0

7.5

20

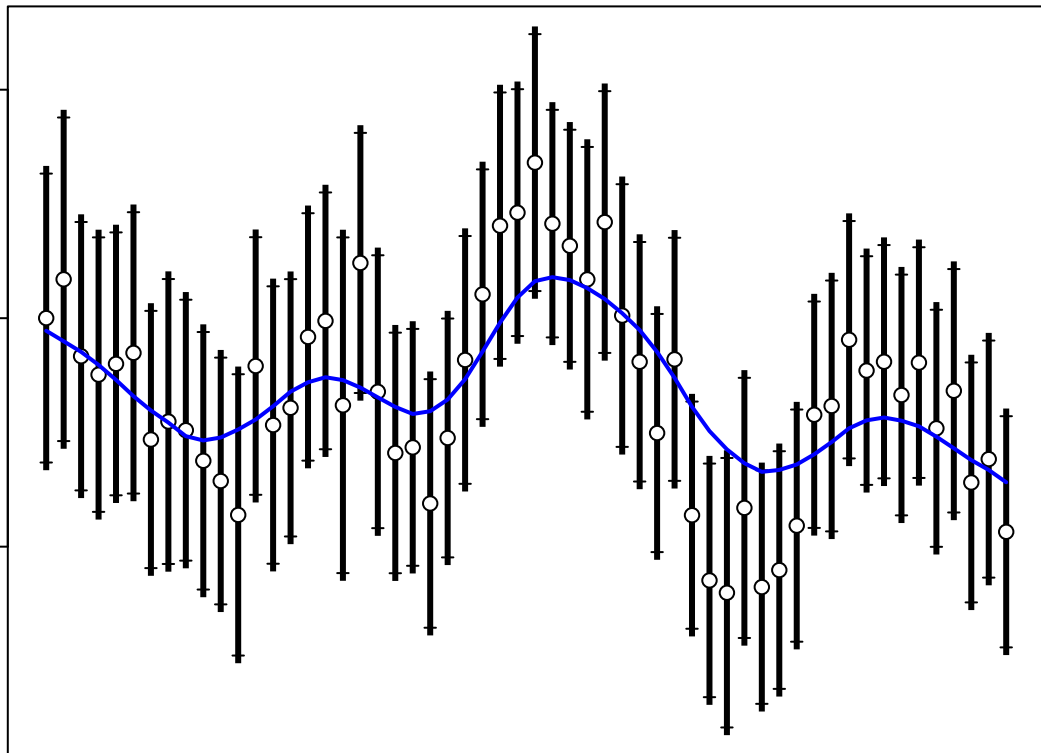
30

40

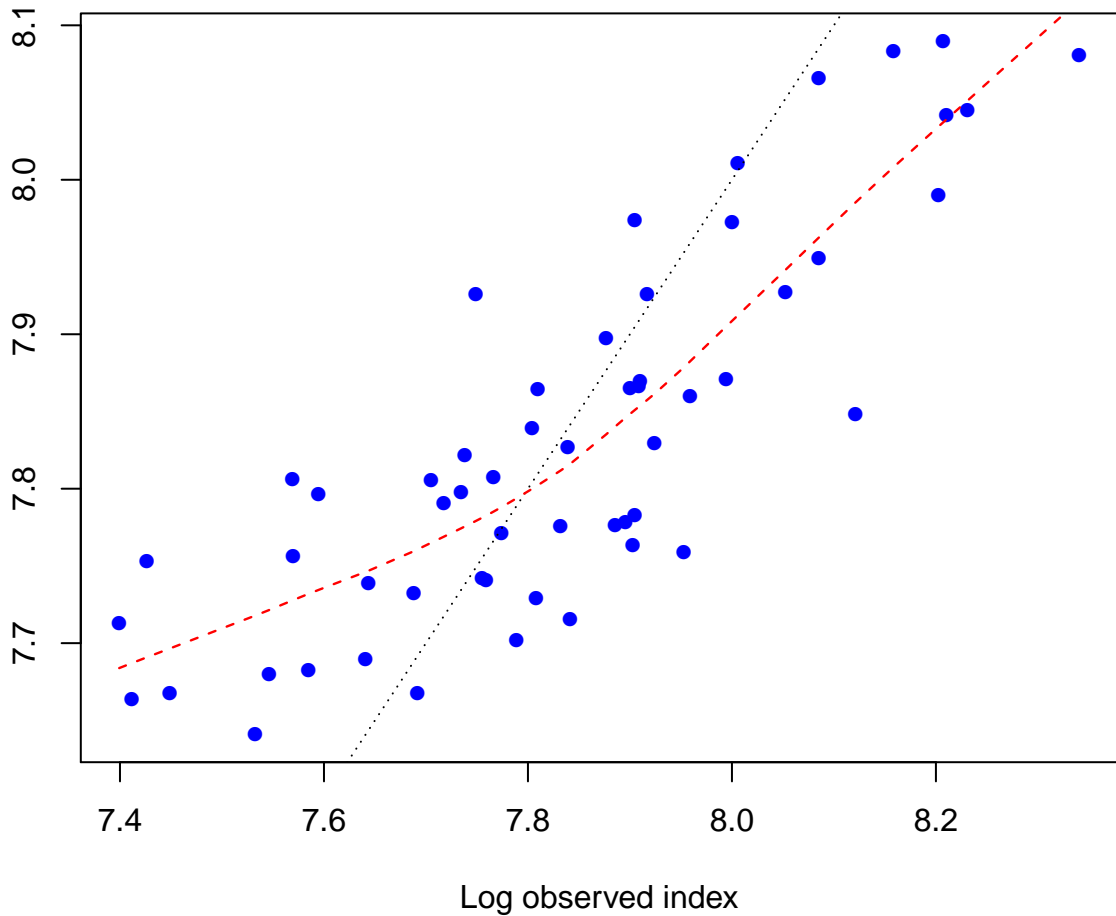
60

70

Year

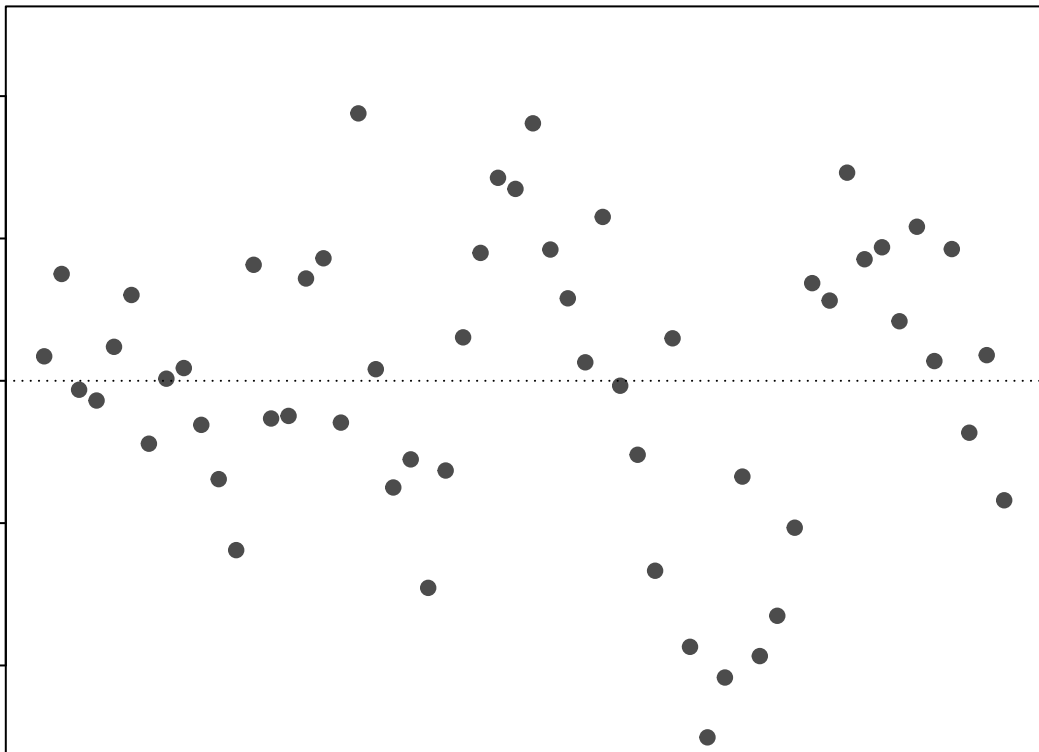


Log expected index

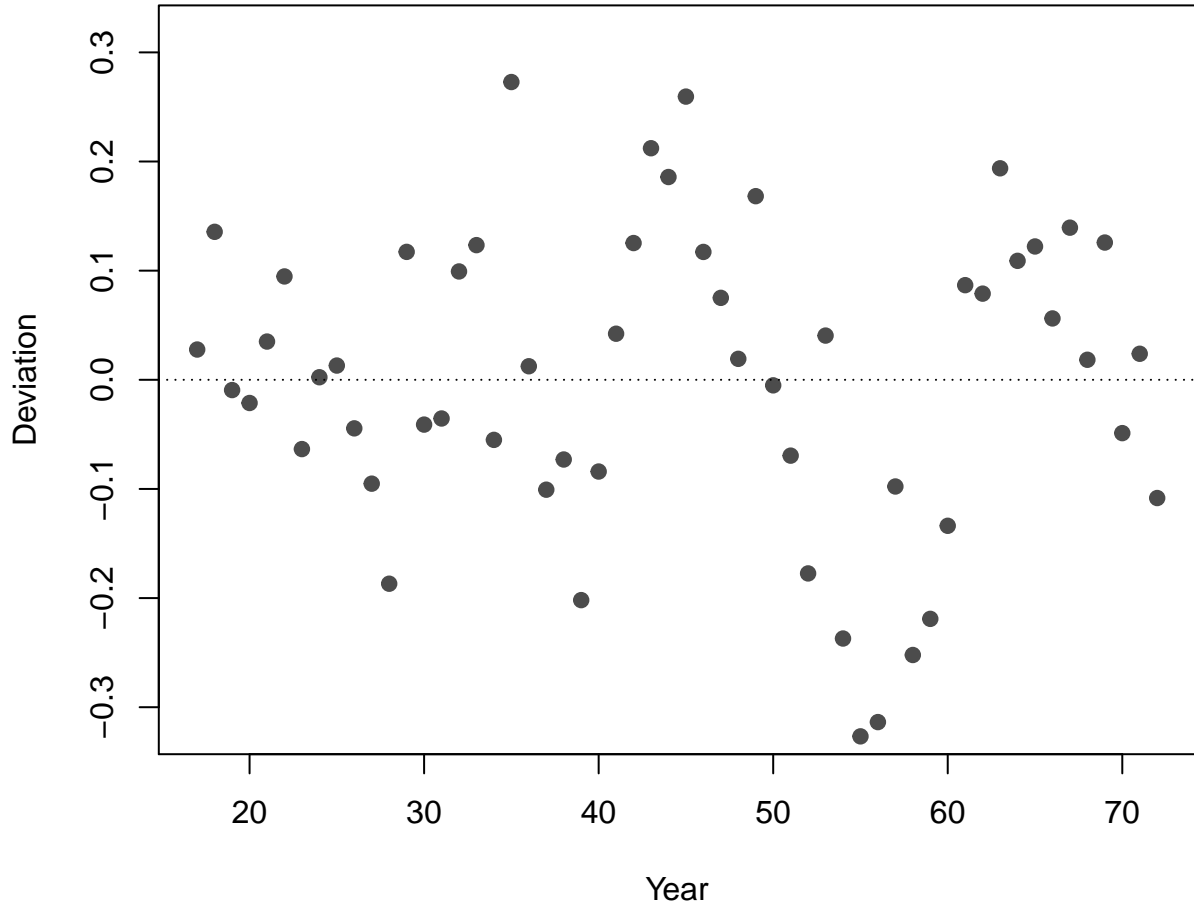


Residual

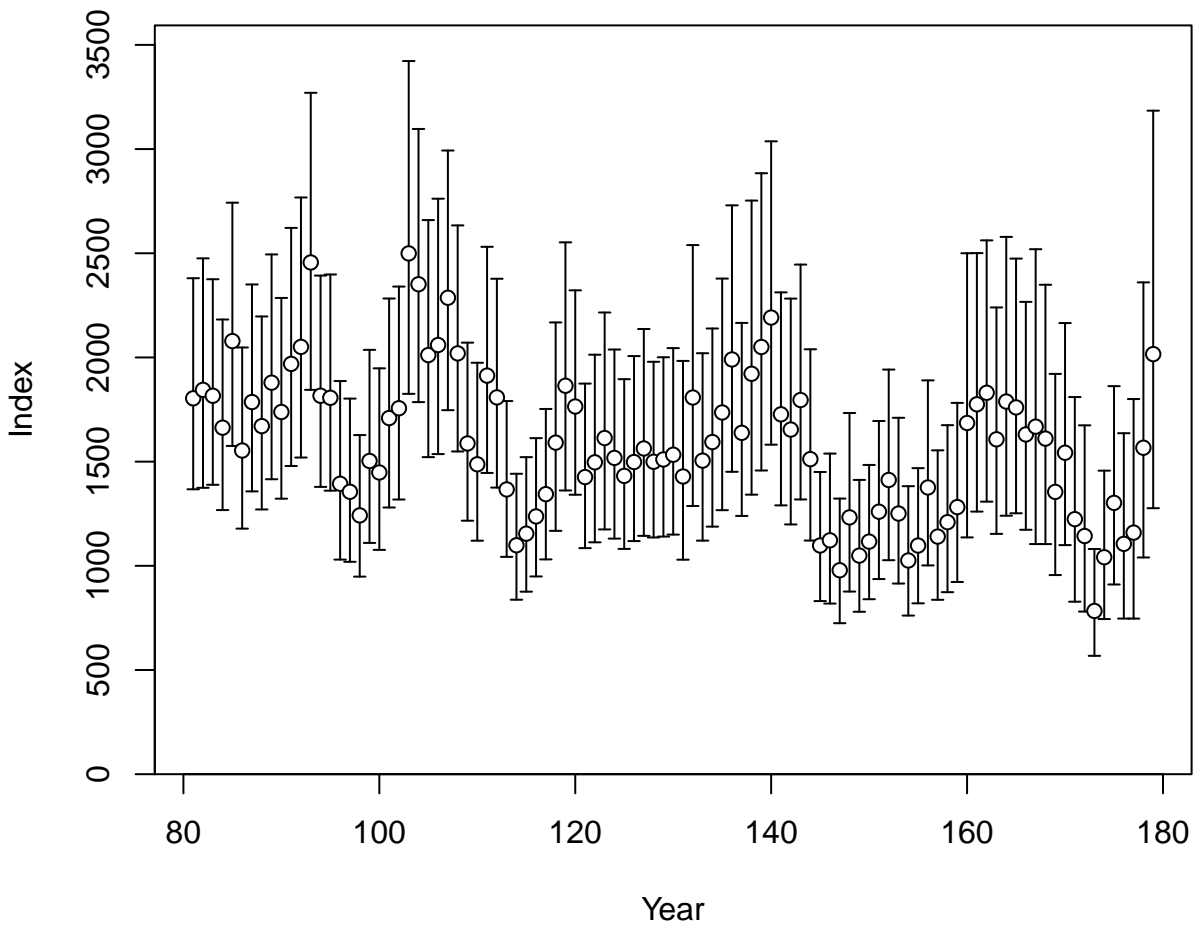
2  
1  
0  
-1  
-2

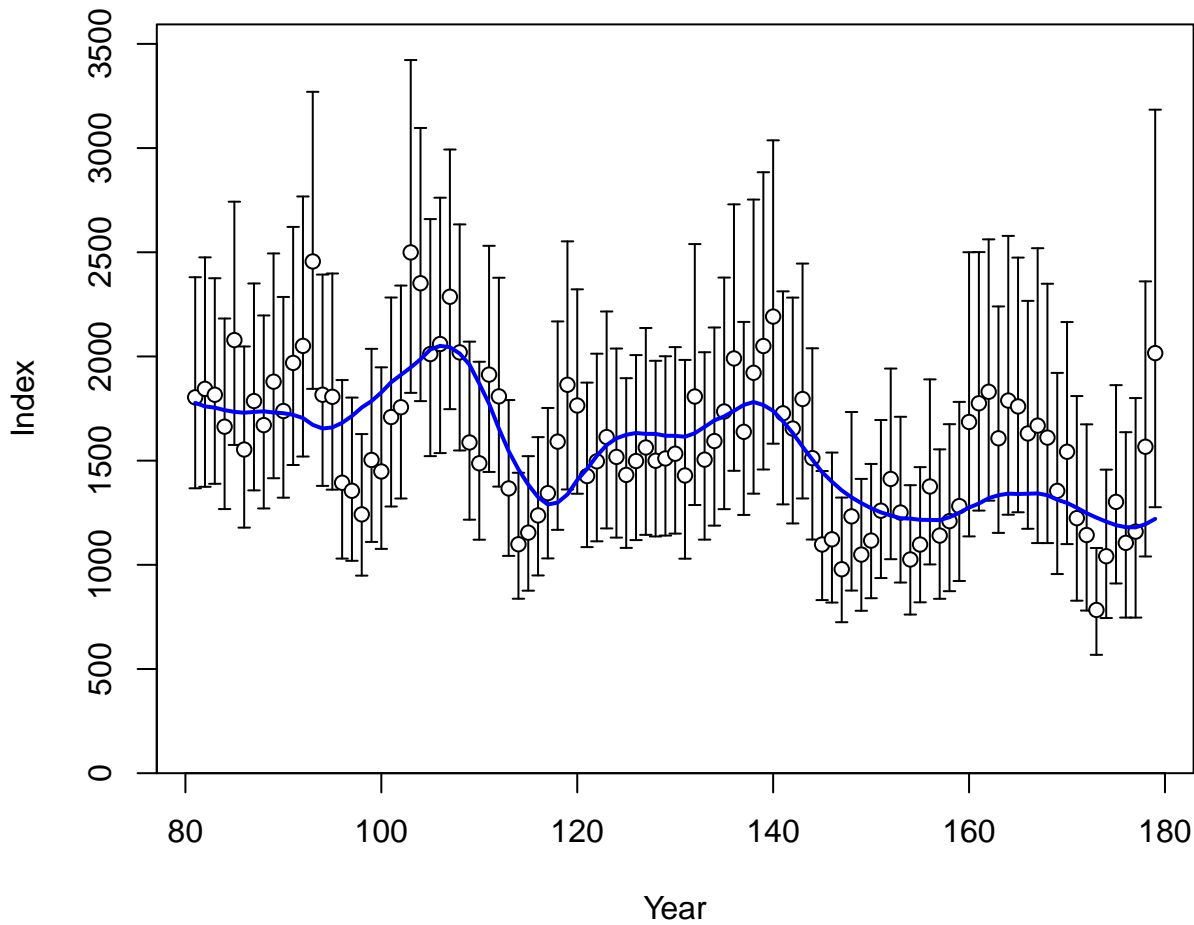


Year

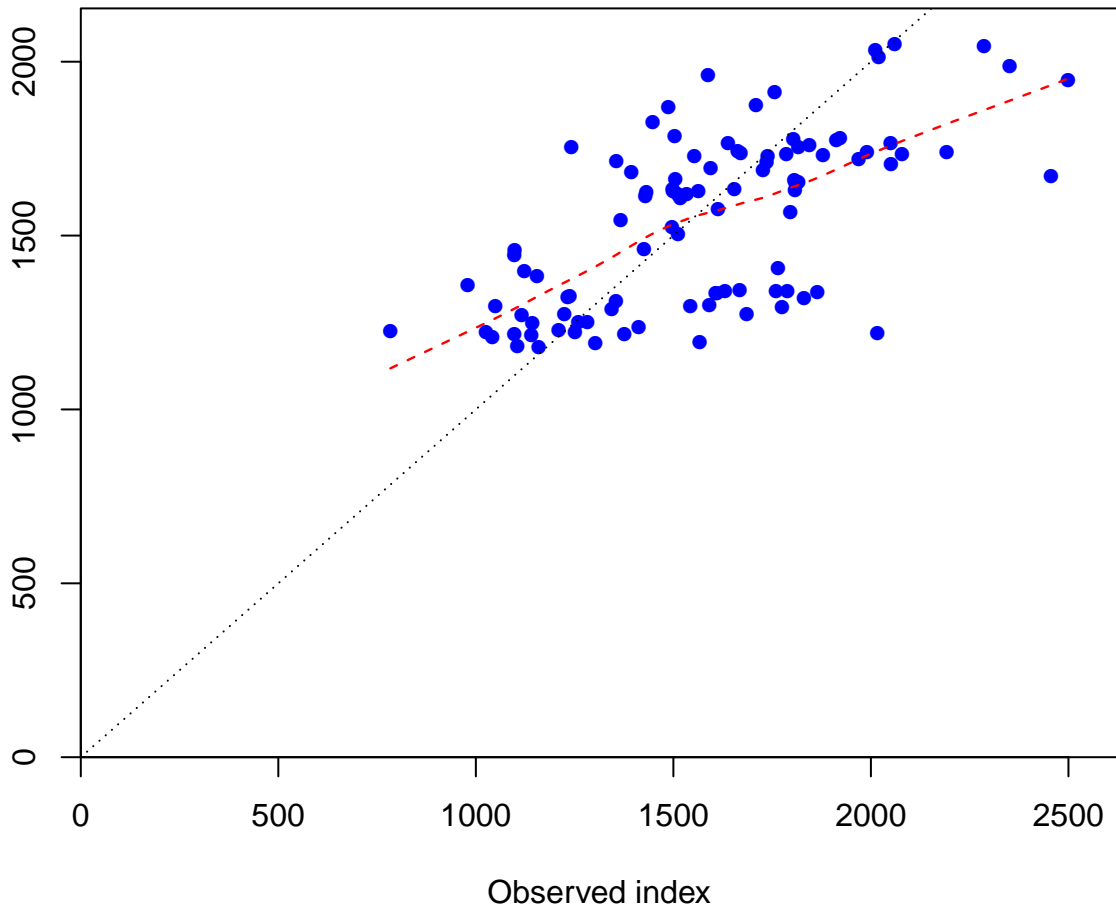








Expected index



Log index

8.0  
7.5  
7.0  
6.5

80

100

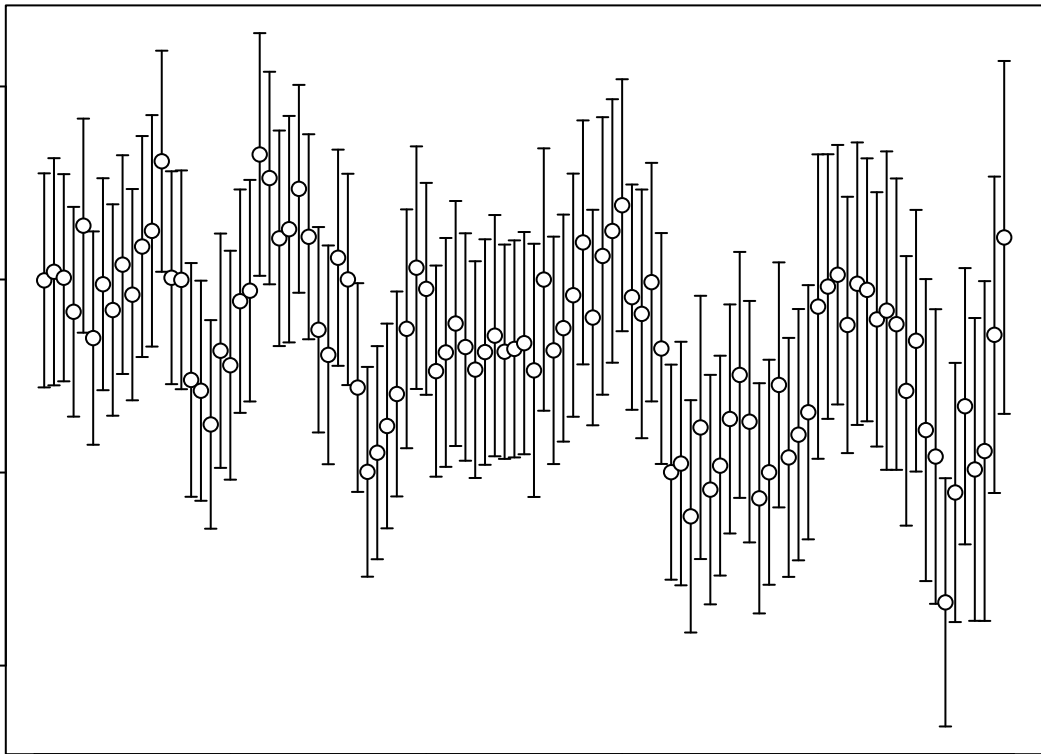
120

140

160

180

Year



Log index

8.0  
7.5  
7.0  
6.5

80

100

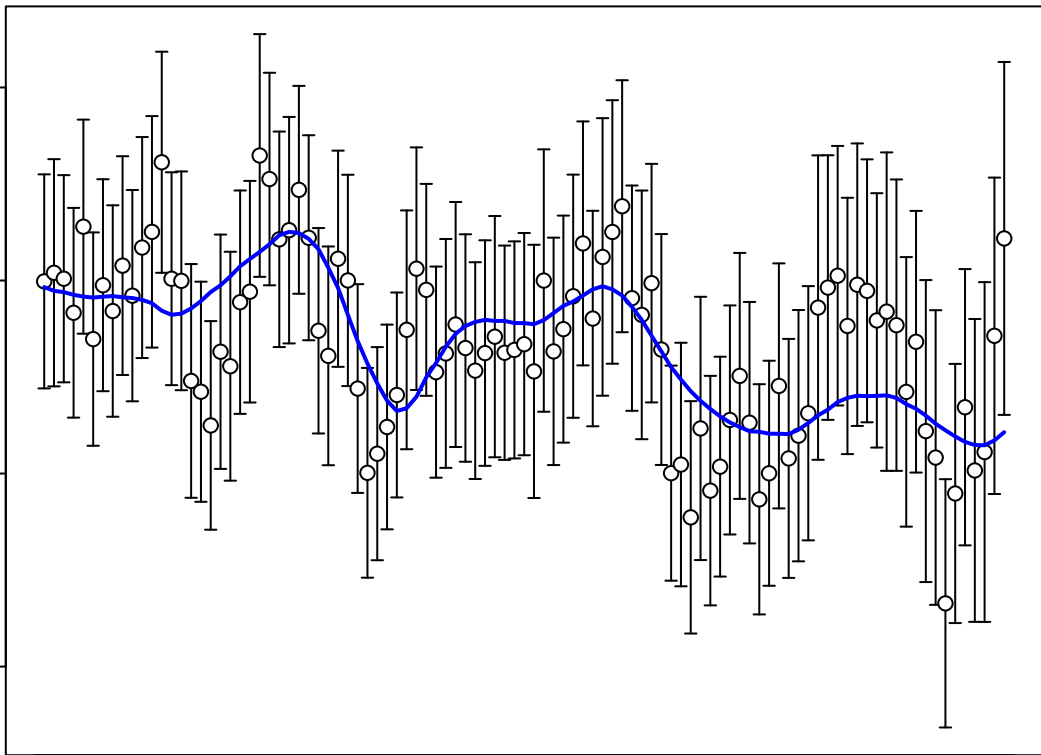
120

140

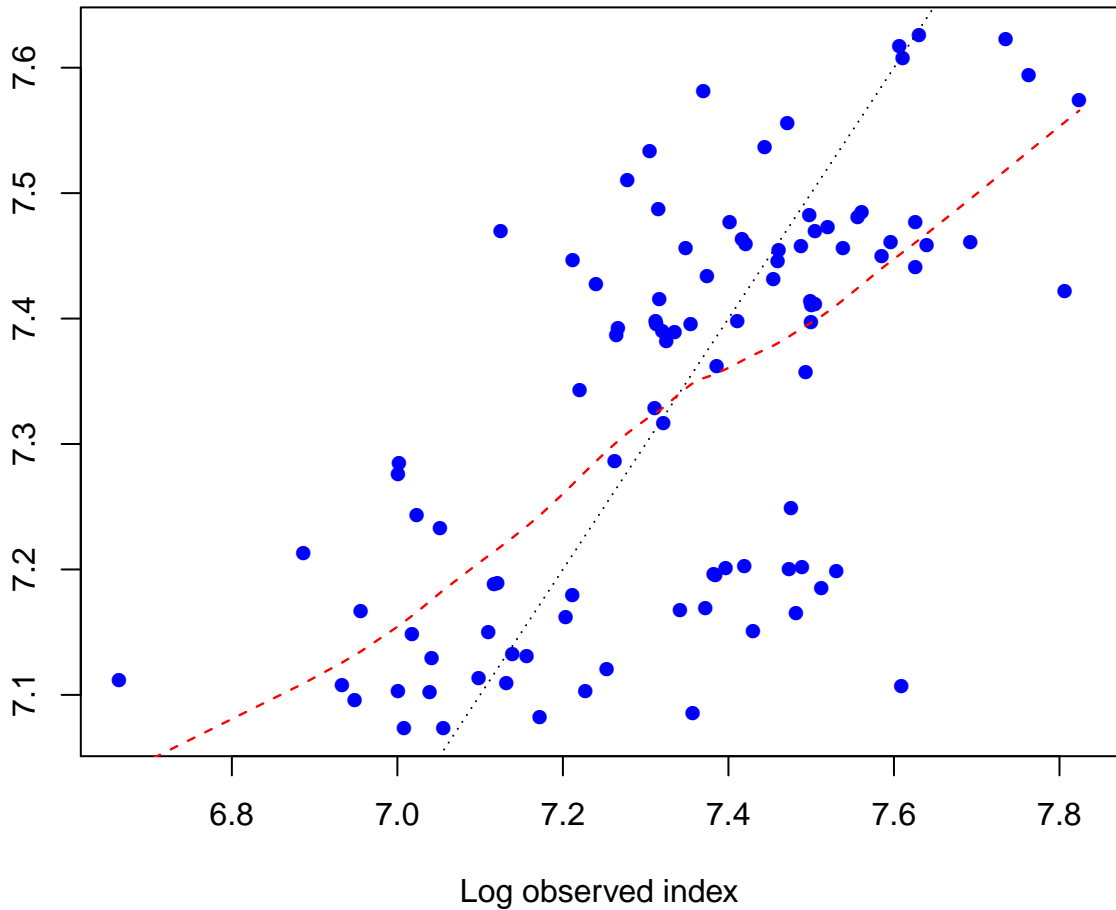
160

180

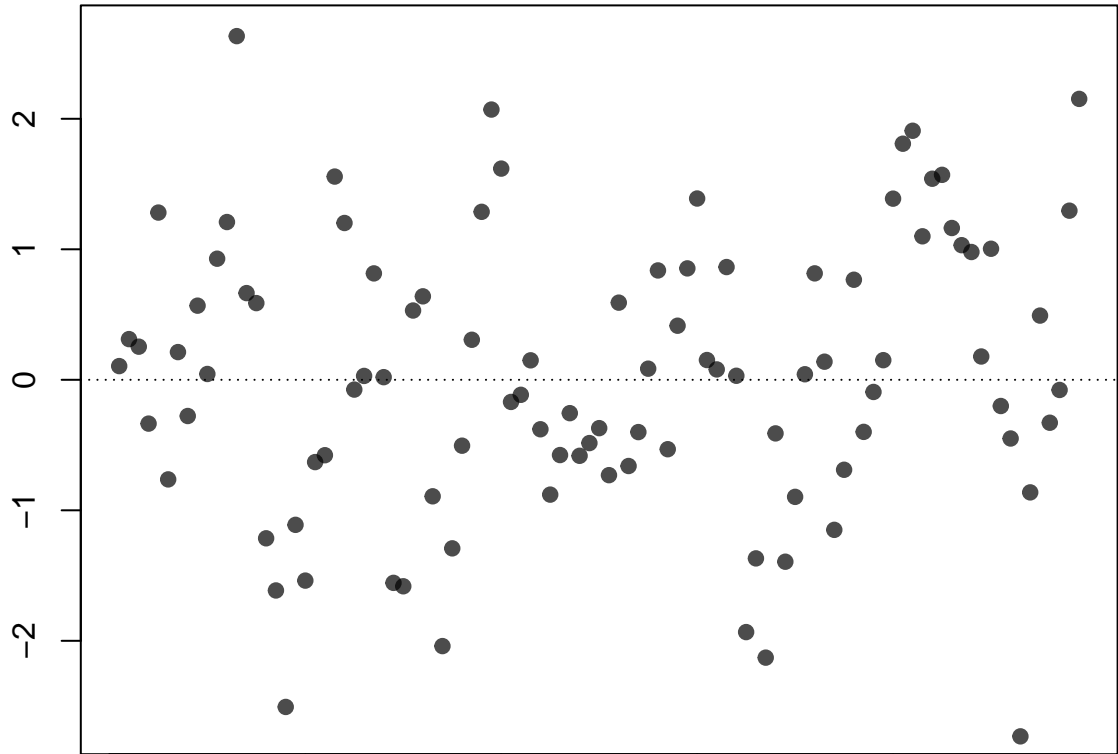
Year



Log expected index



Residual



Year

Deviation

0.4  
0.2  
0.0  
-0.2  
-0.4

80

100

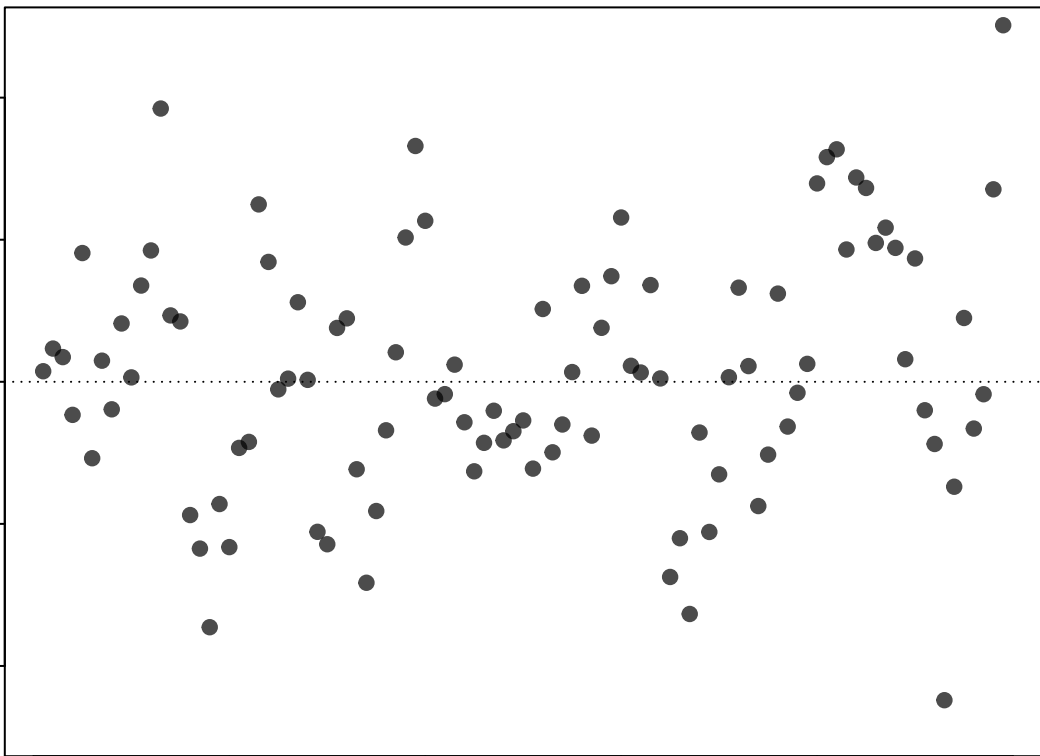
120

140

160

180

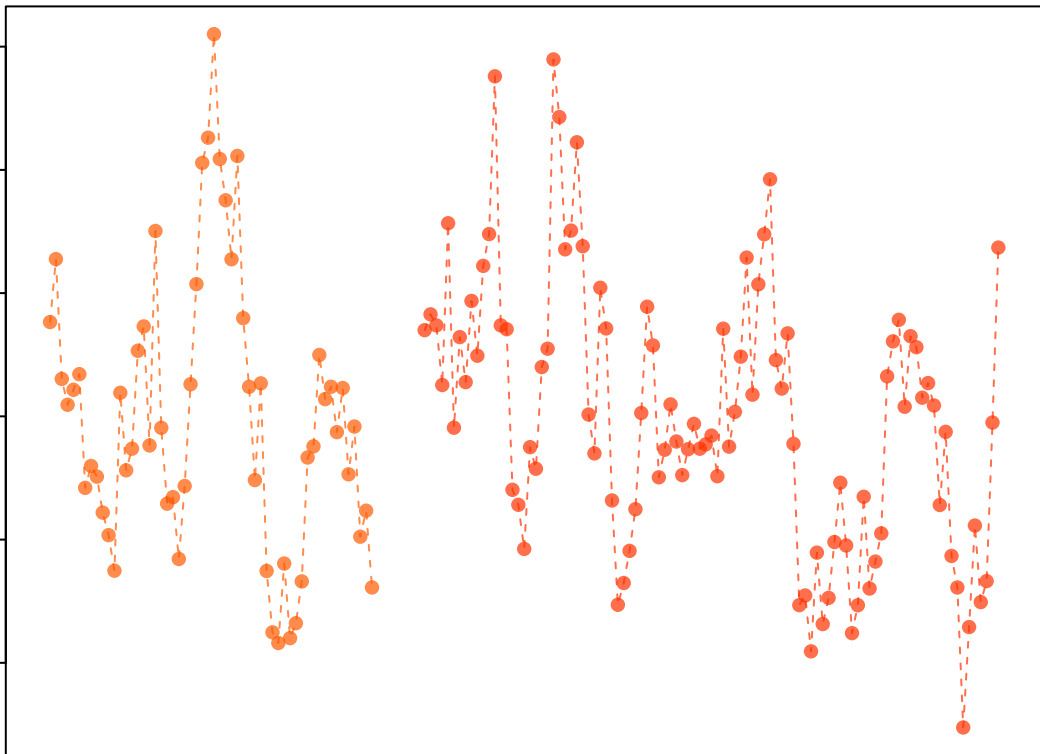
Year





Standardized index

1.6  
1.4  
1.2  
1.0  
0.8  
0.6



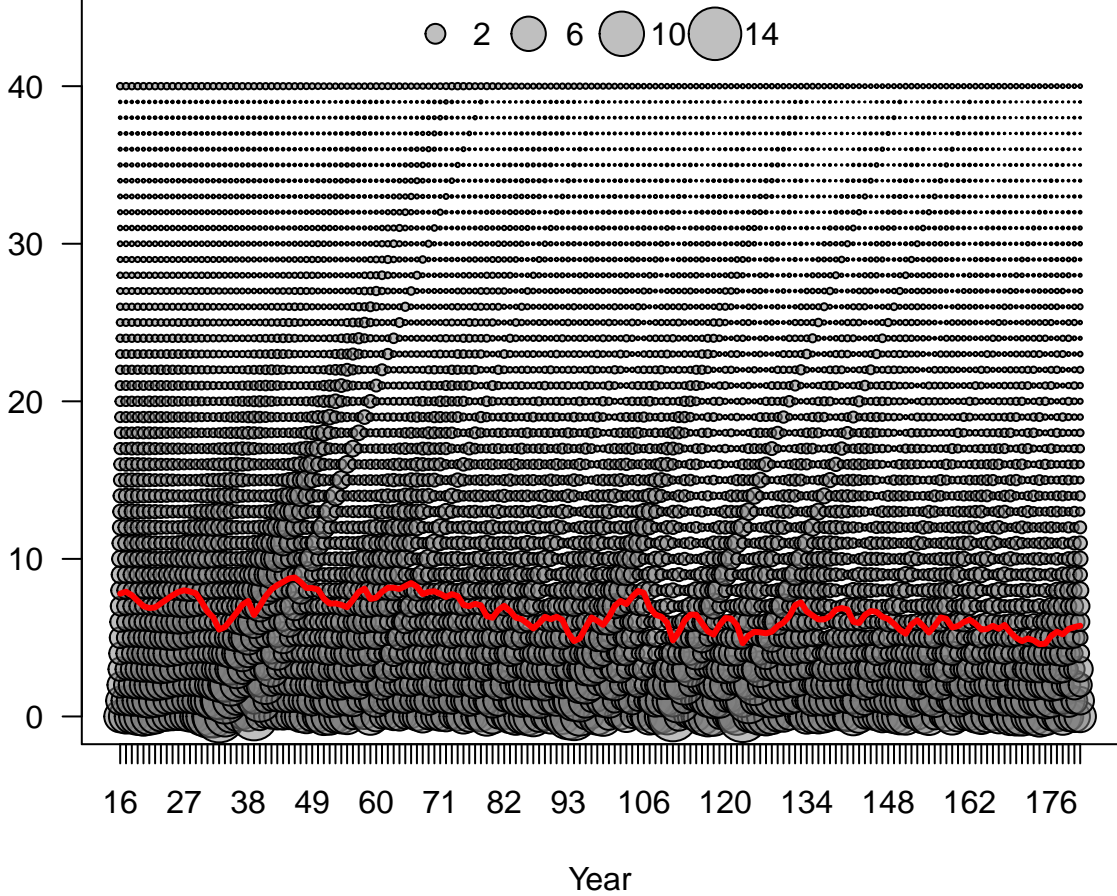
50

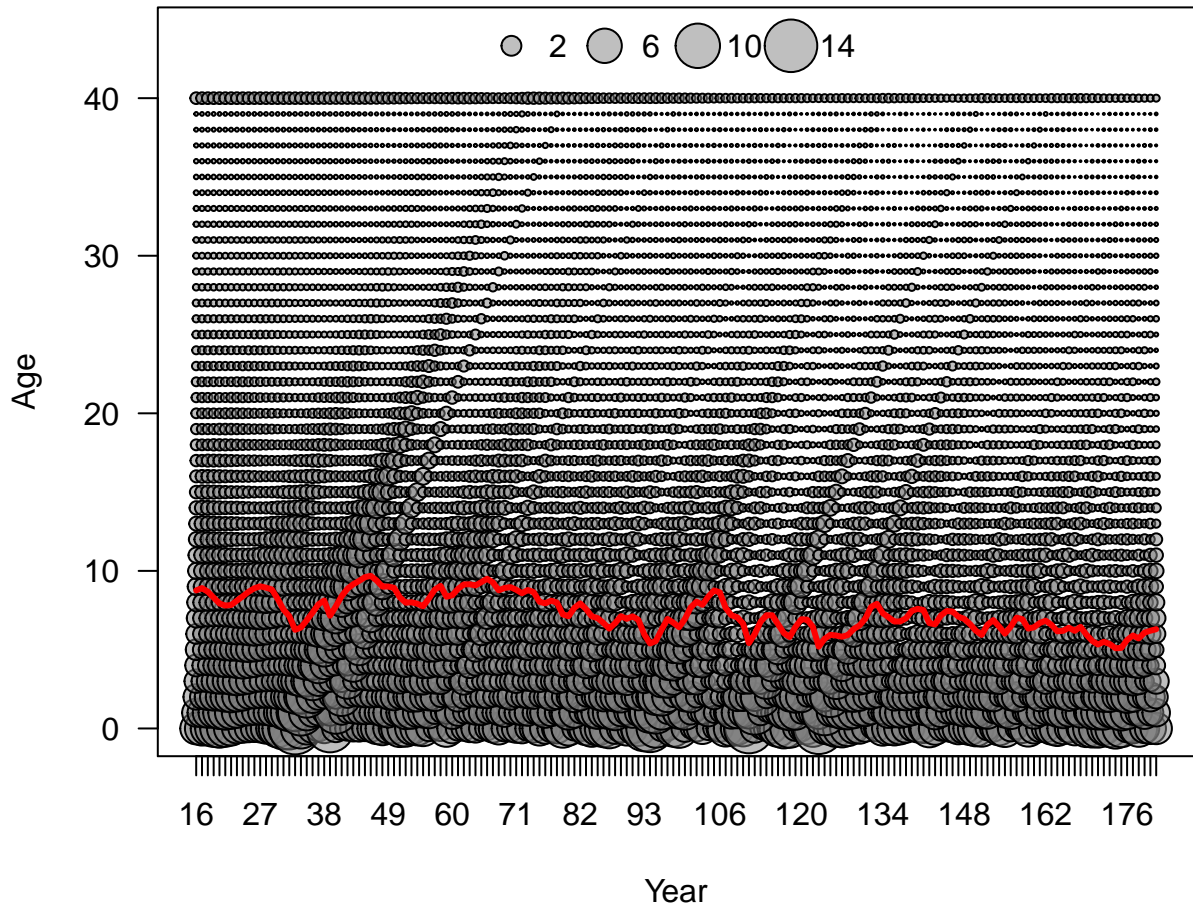
100

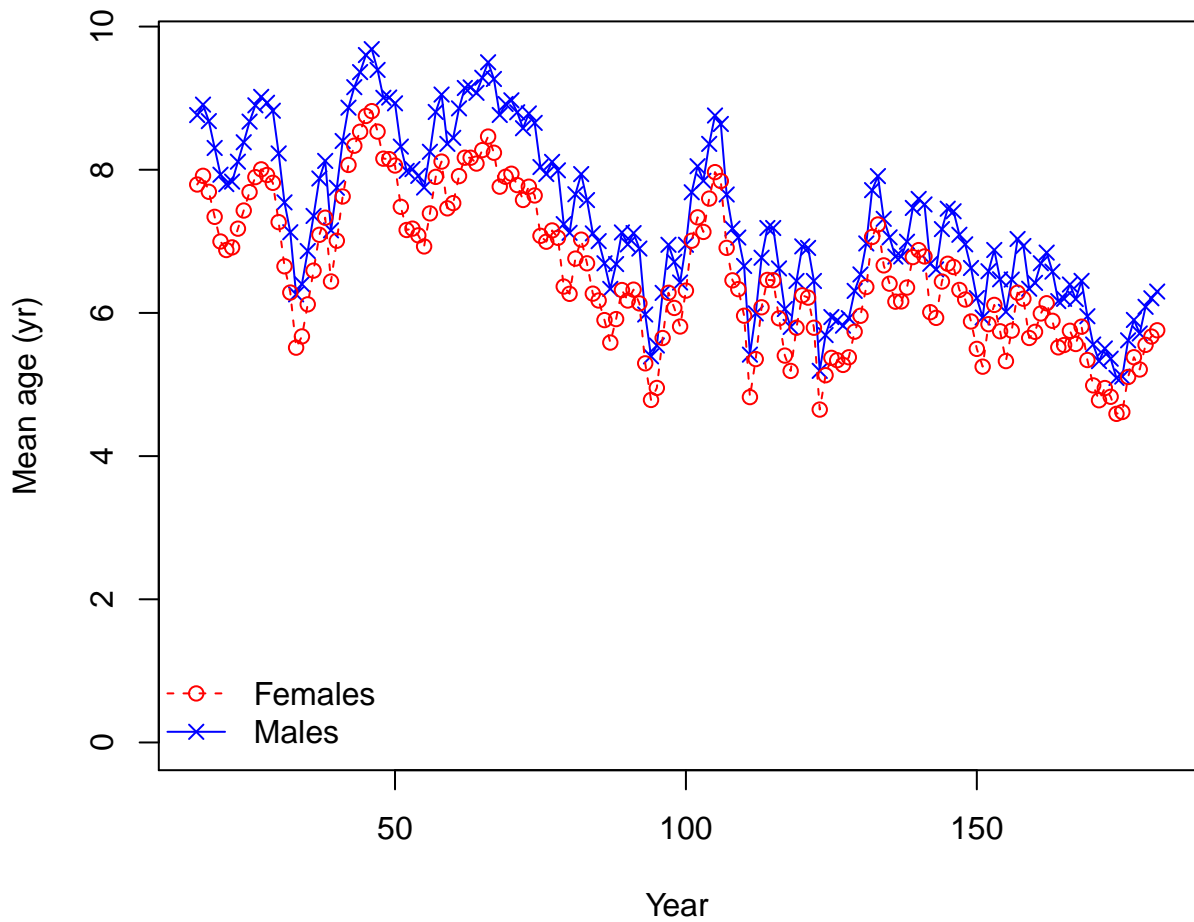
150

Year

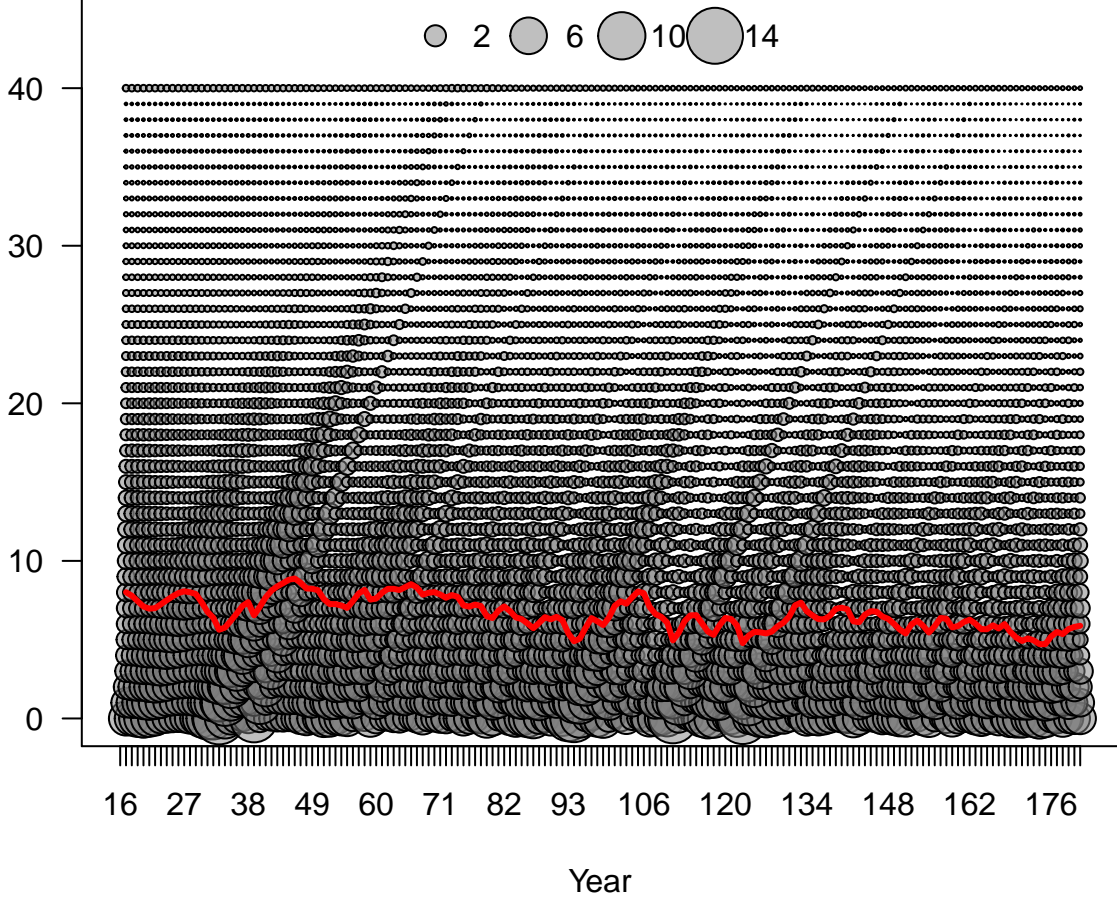
Age



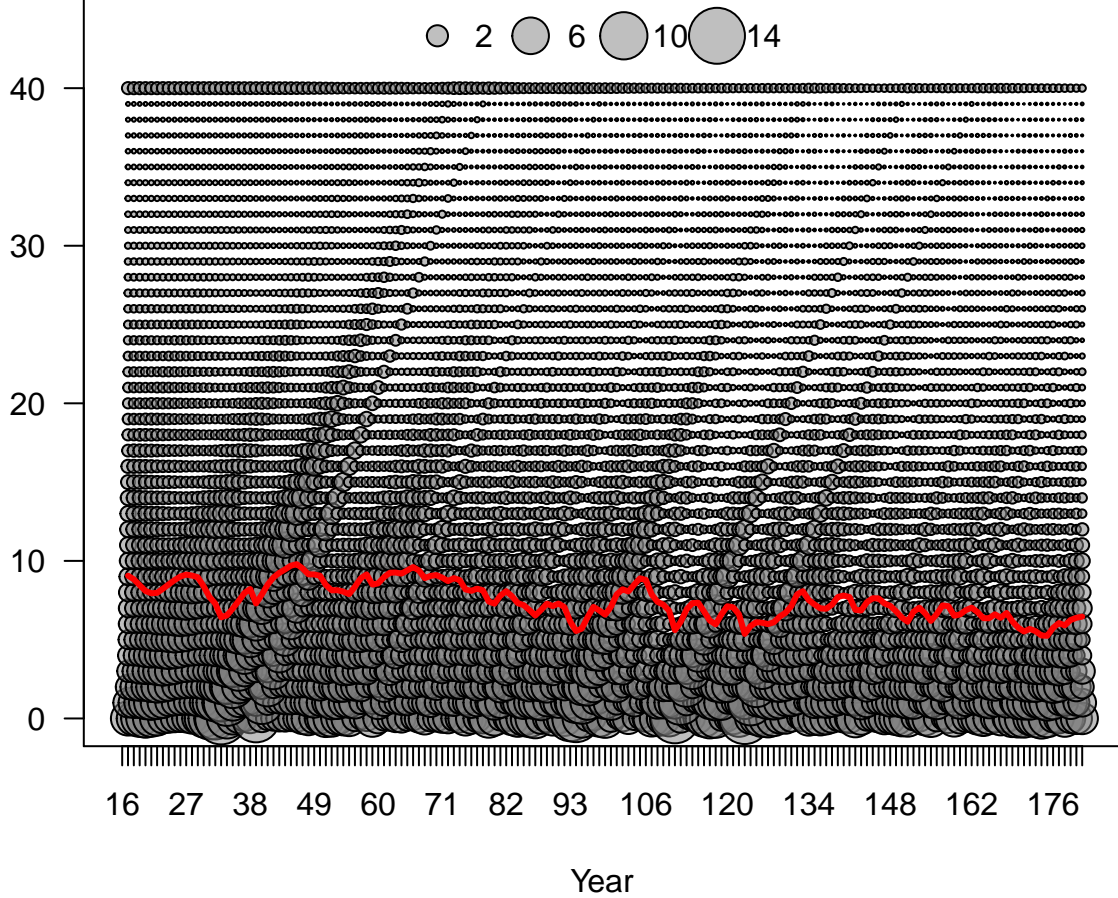


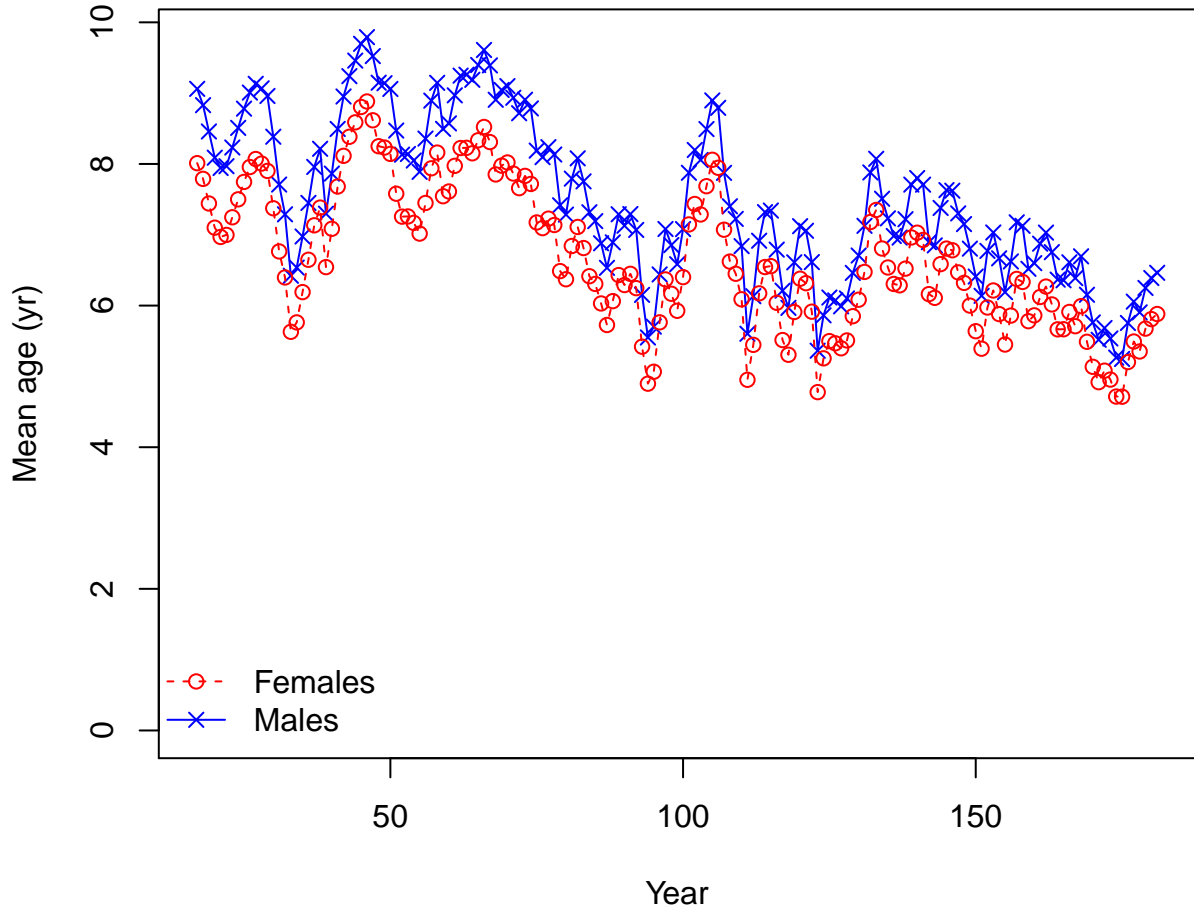


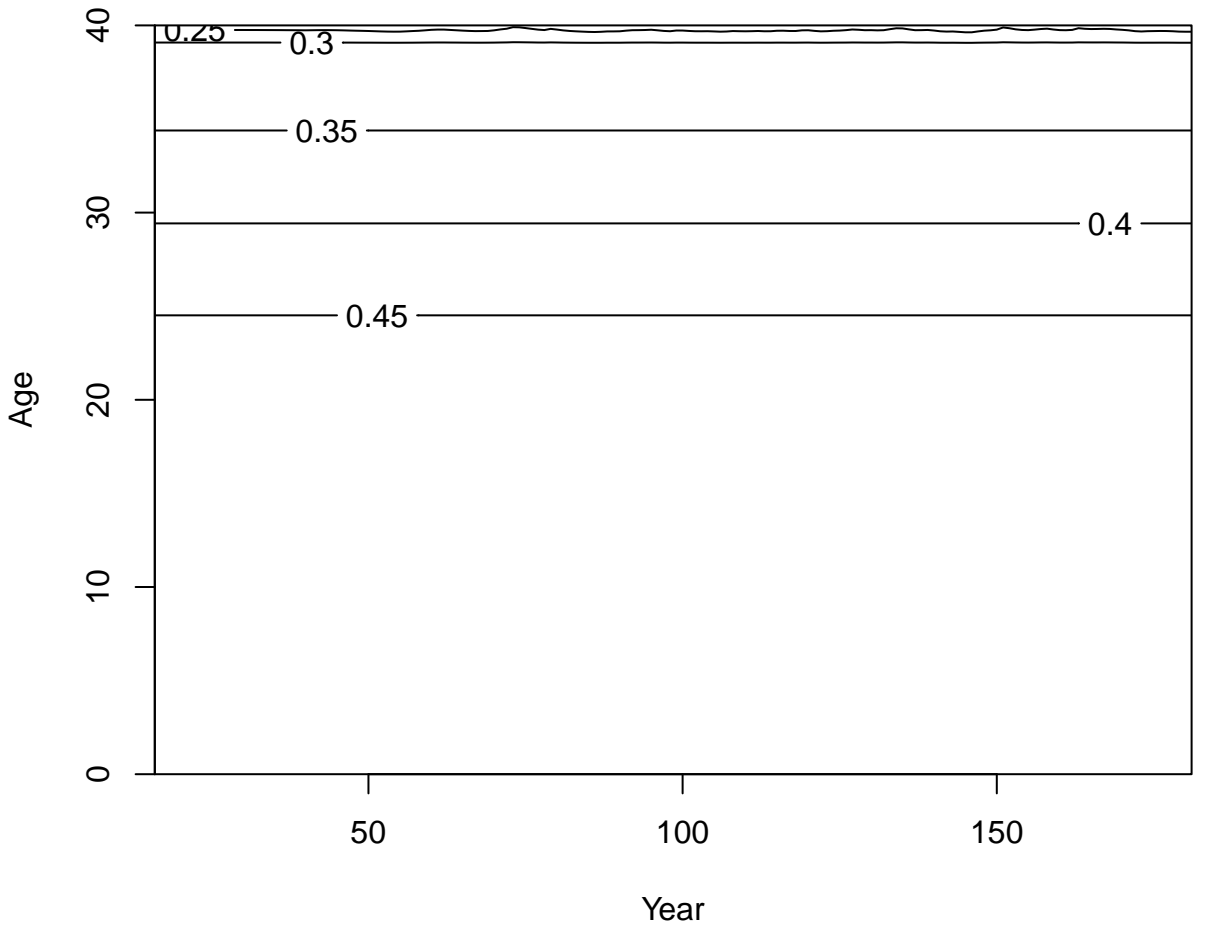
Age



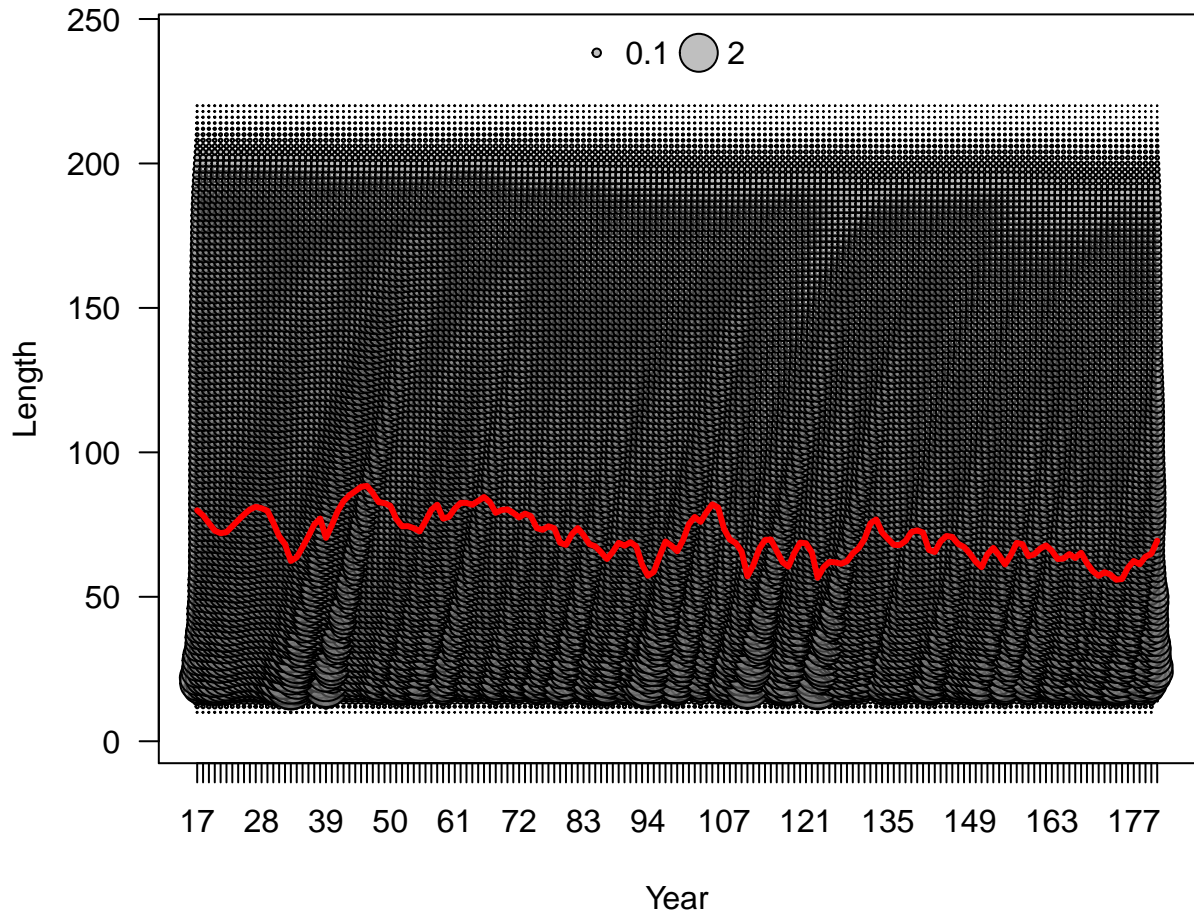
Age

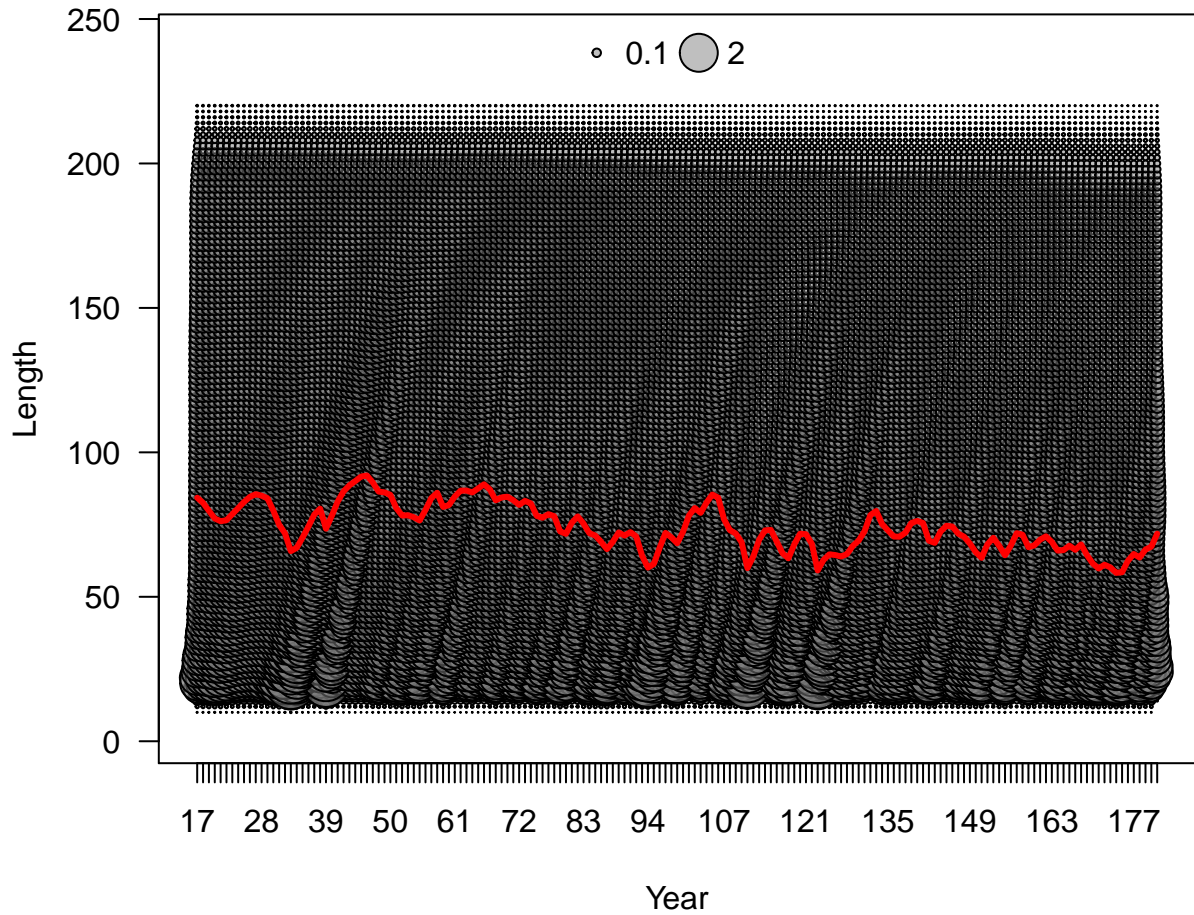


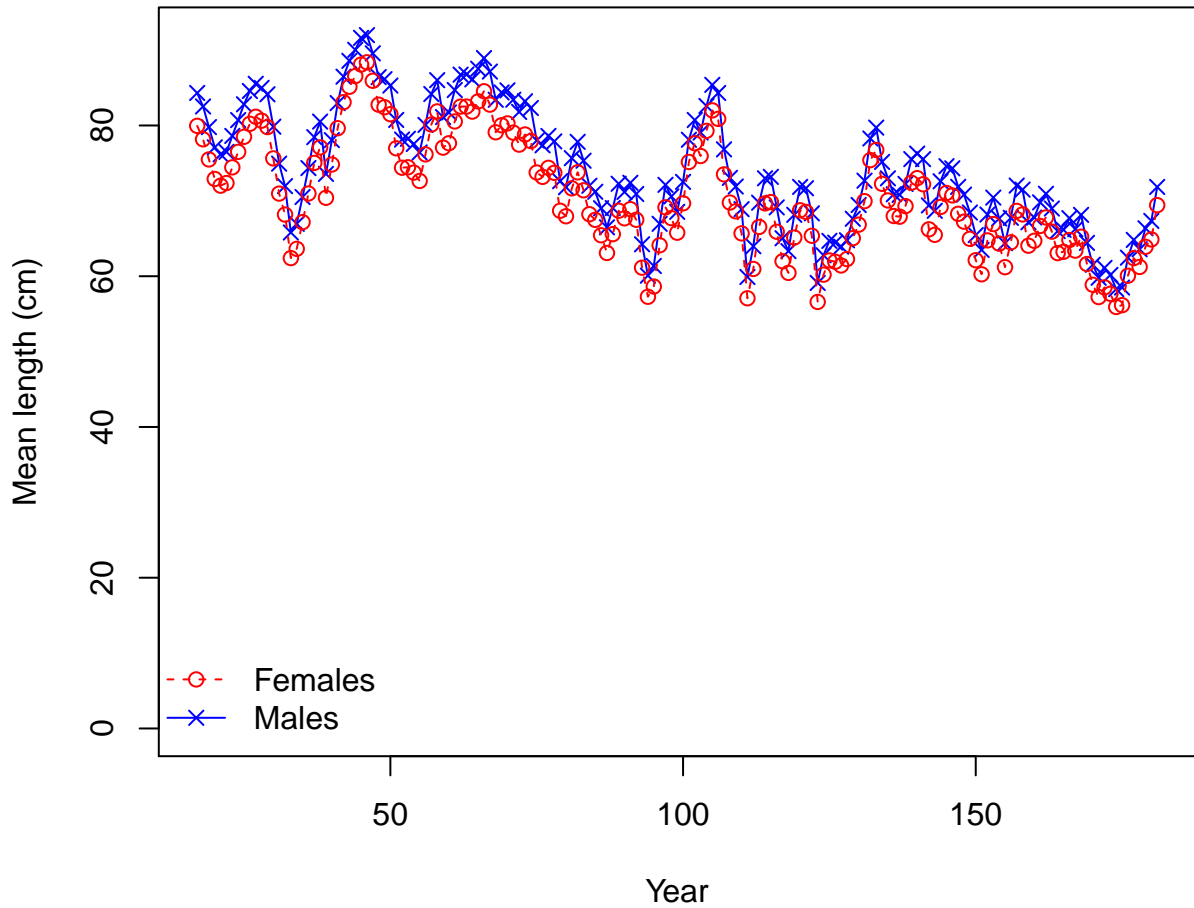


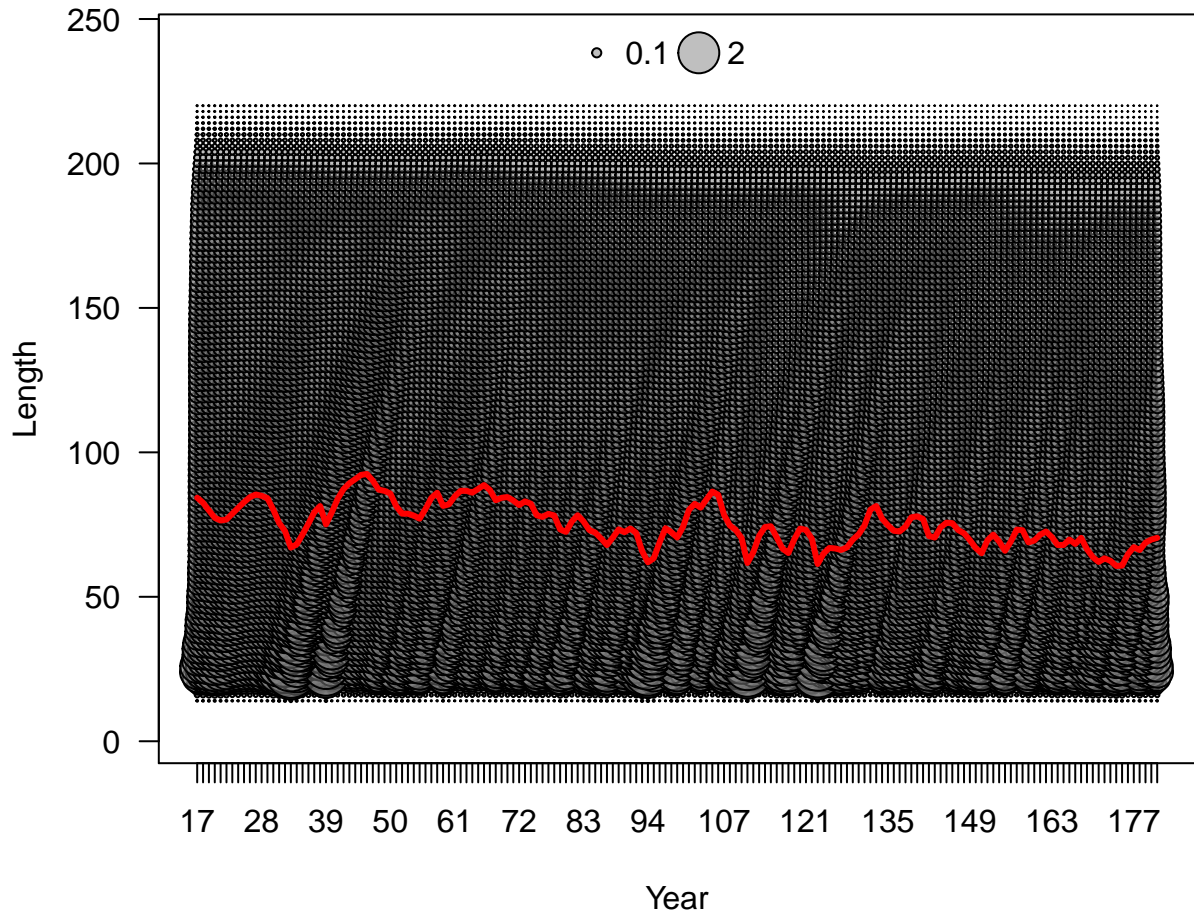




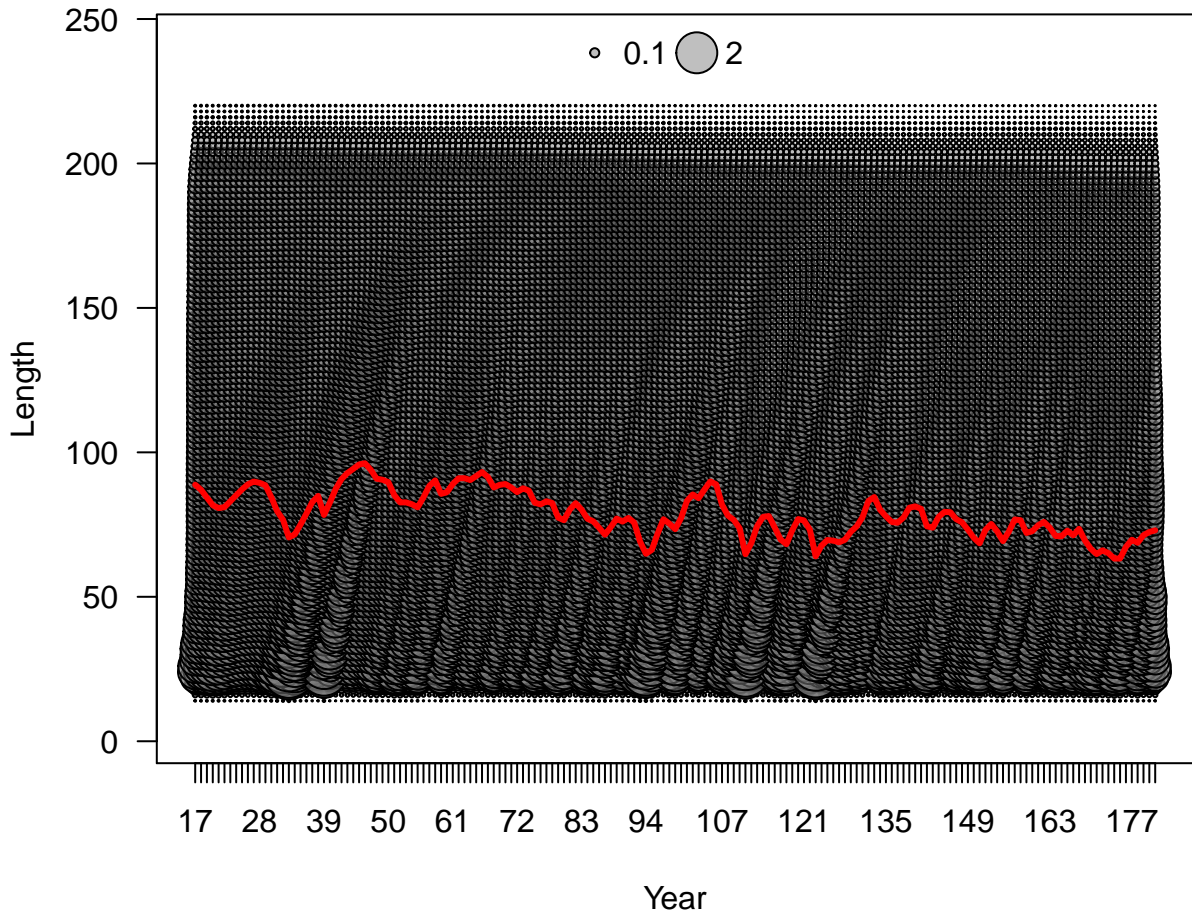


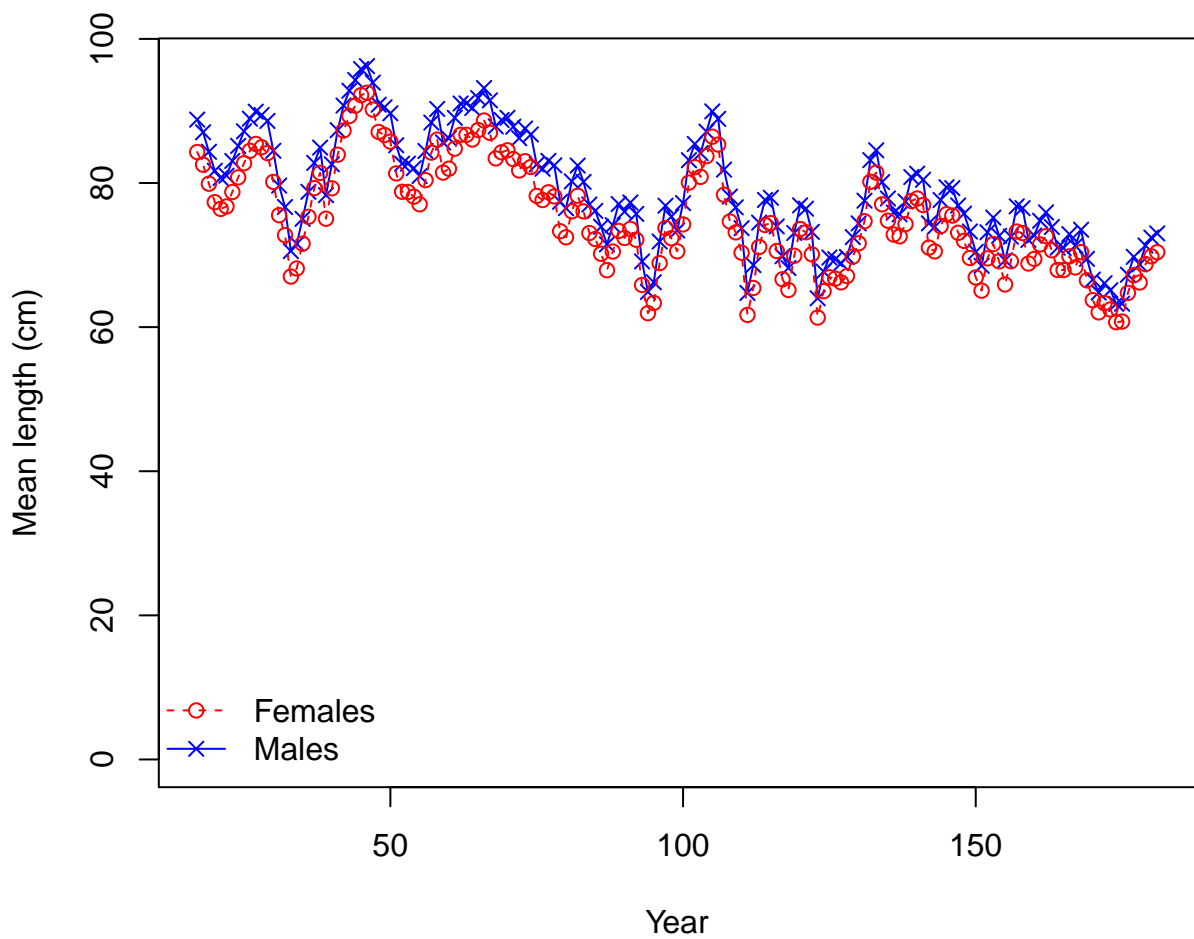




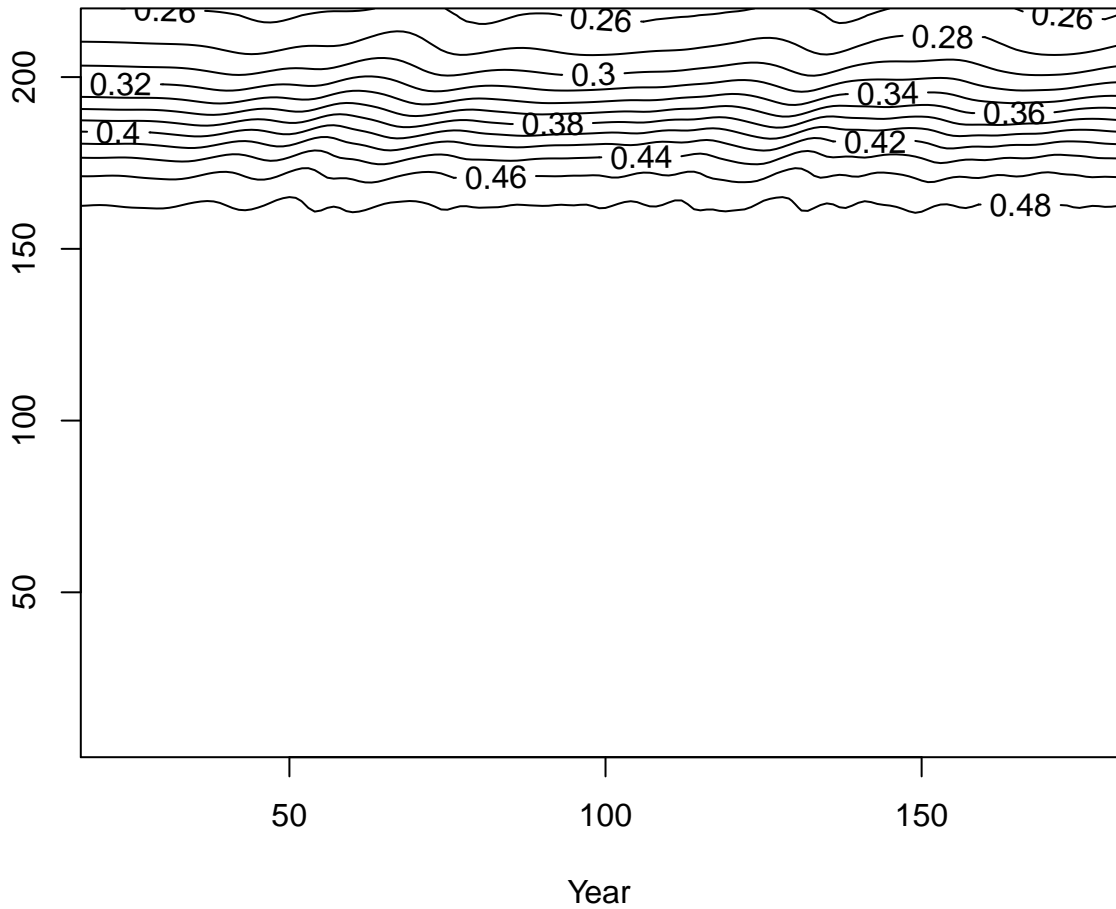


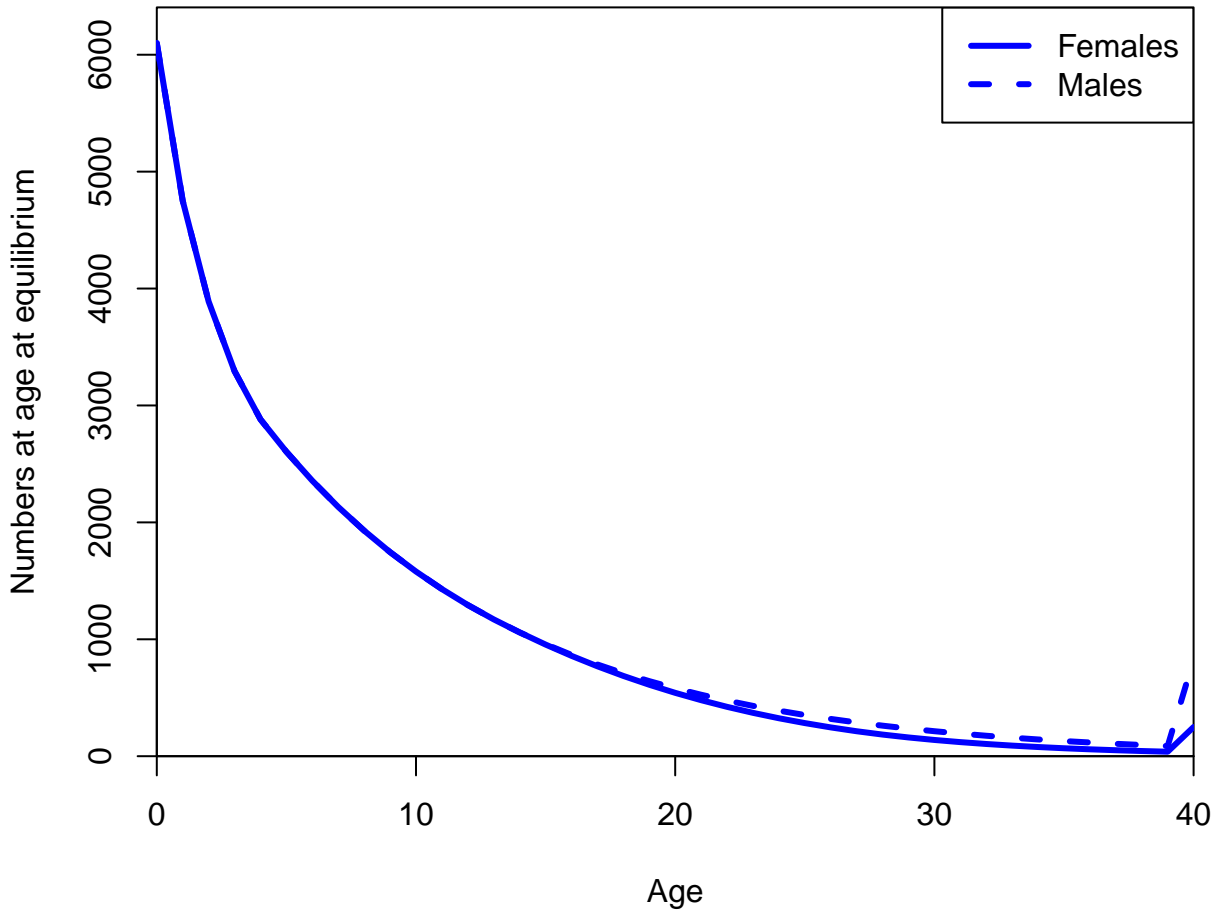




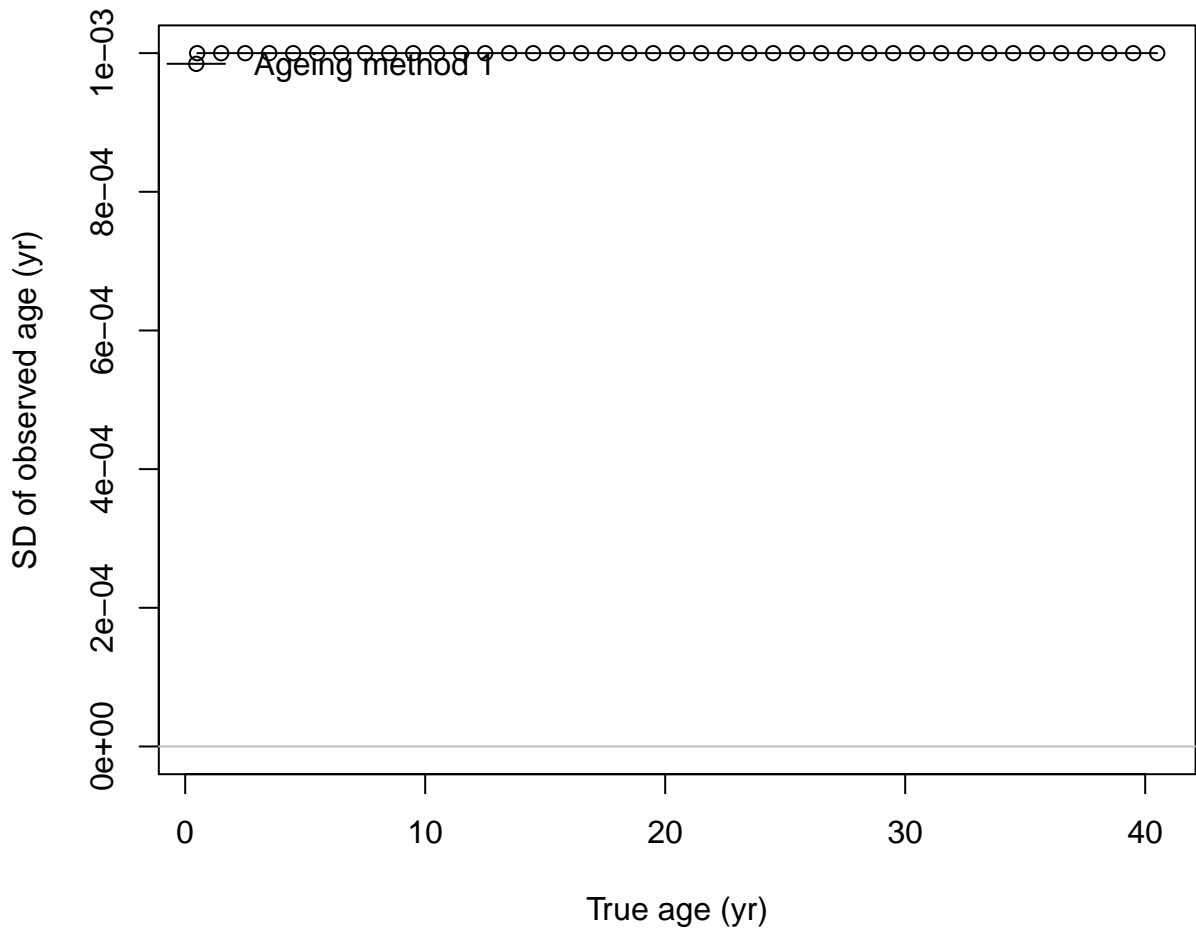


Length

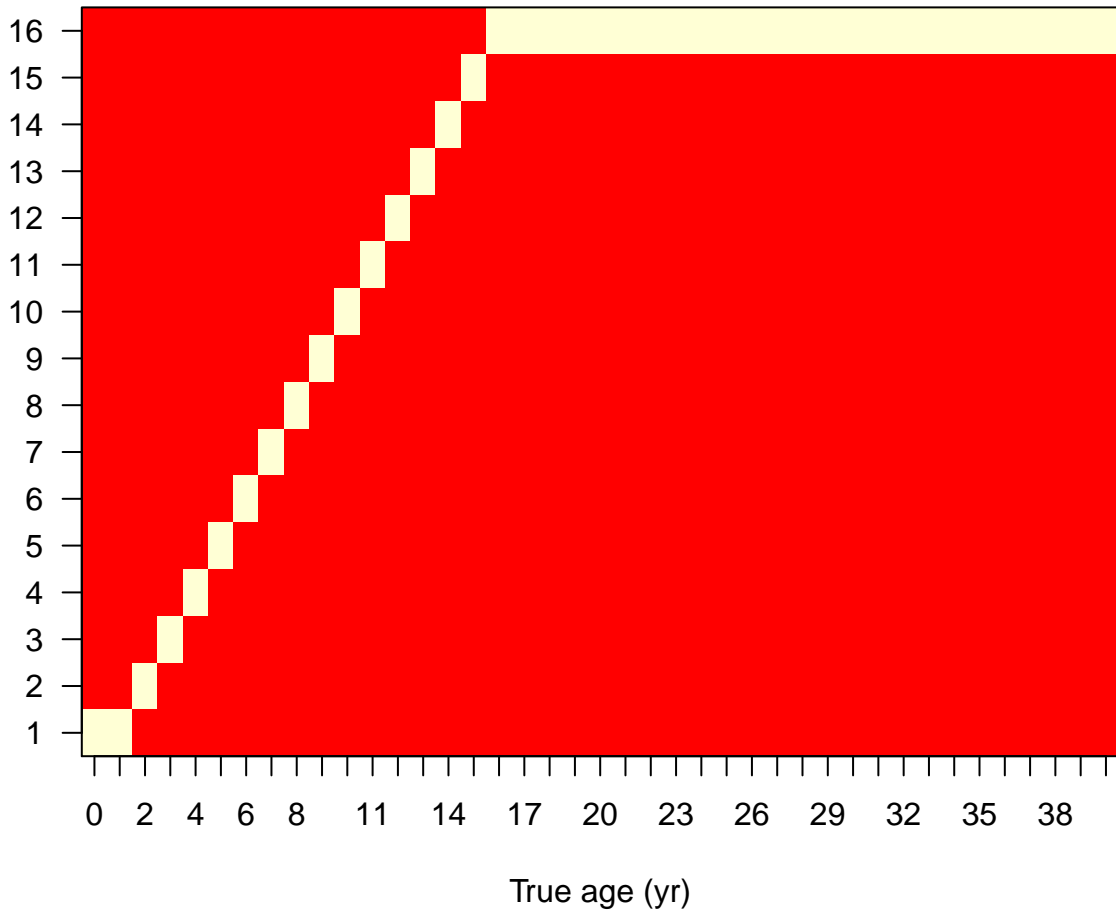






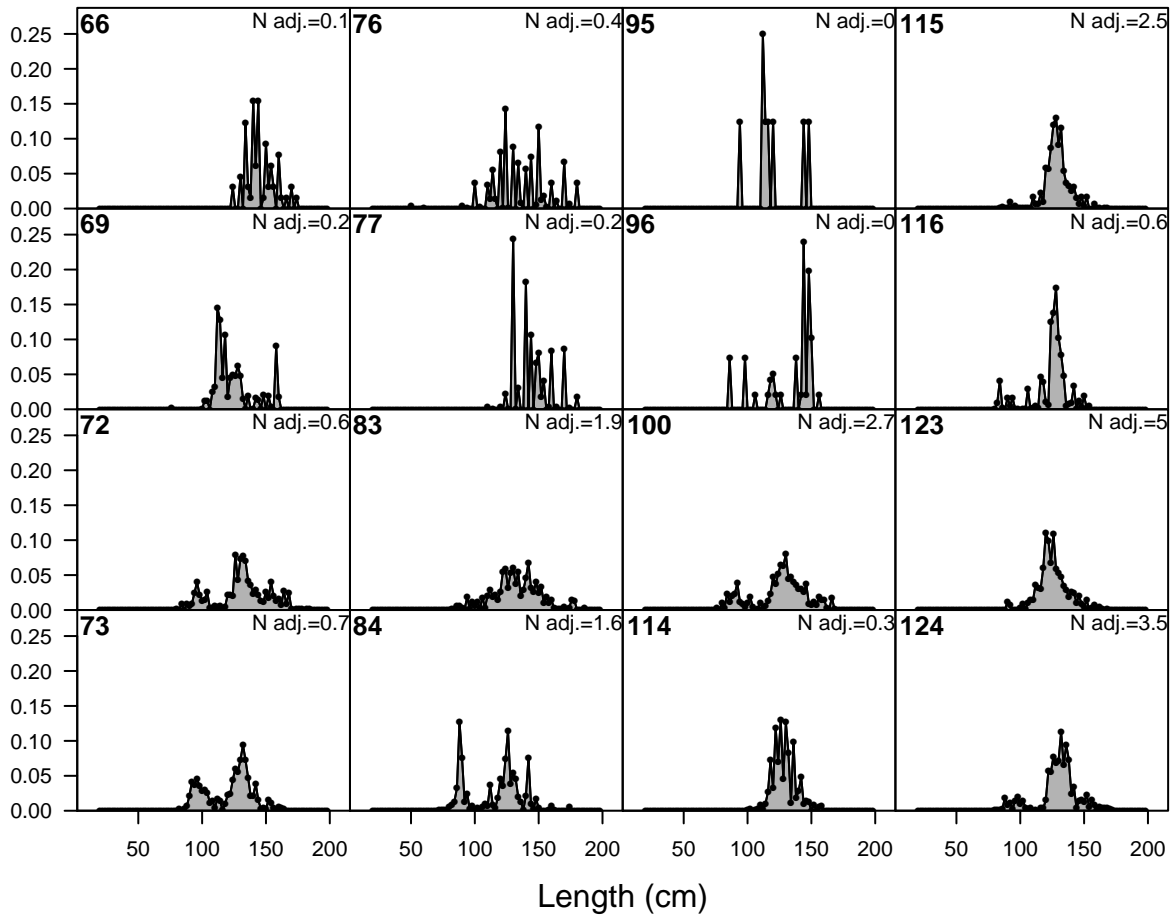


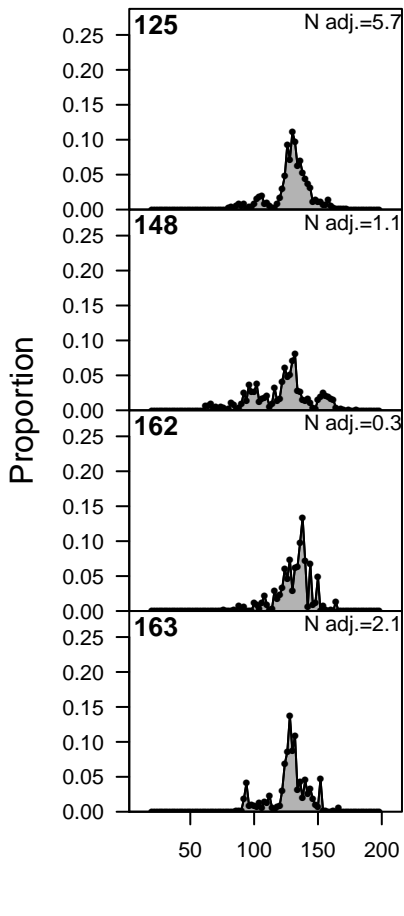
Observed age (yr)



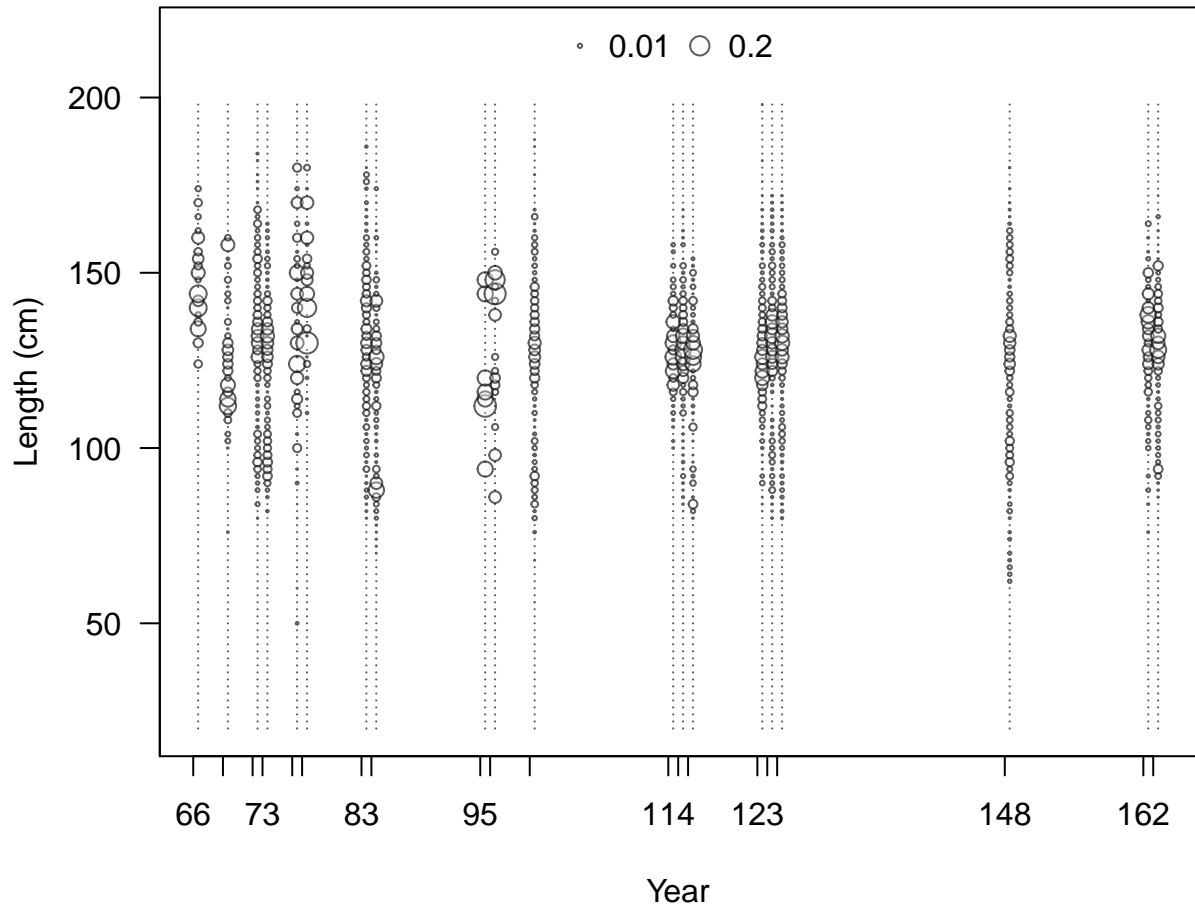
True age (yr)

Proportion

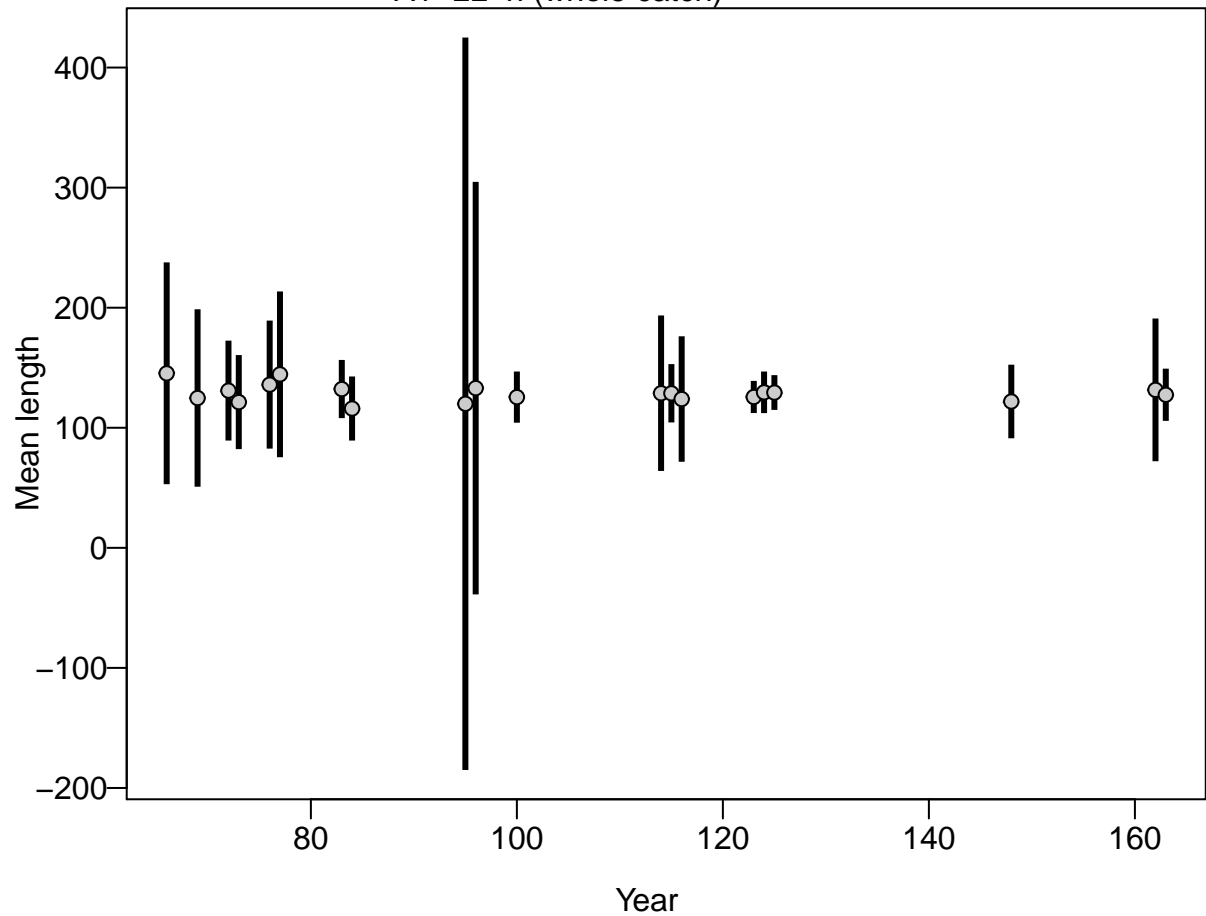




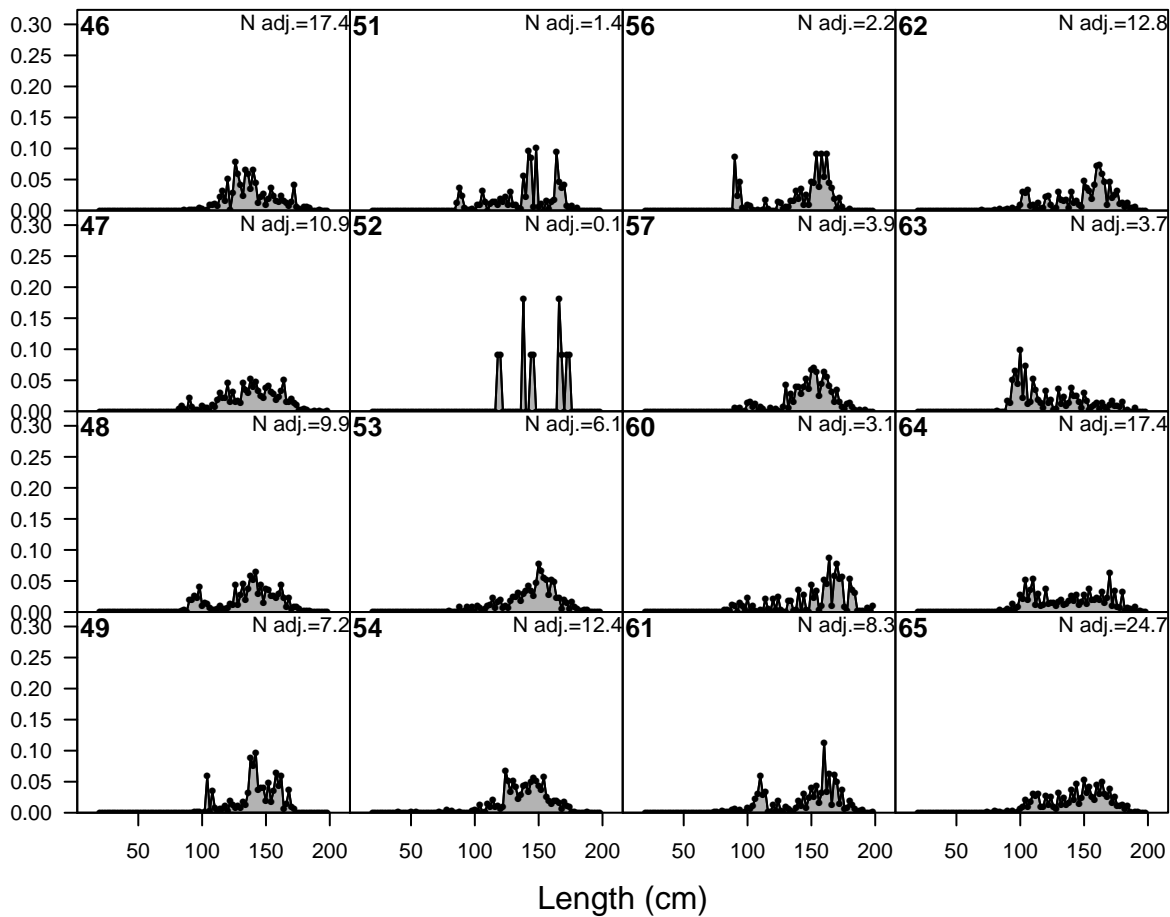
Length (cm)



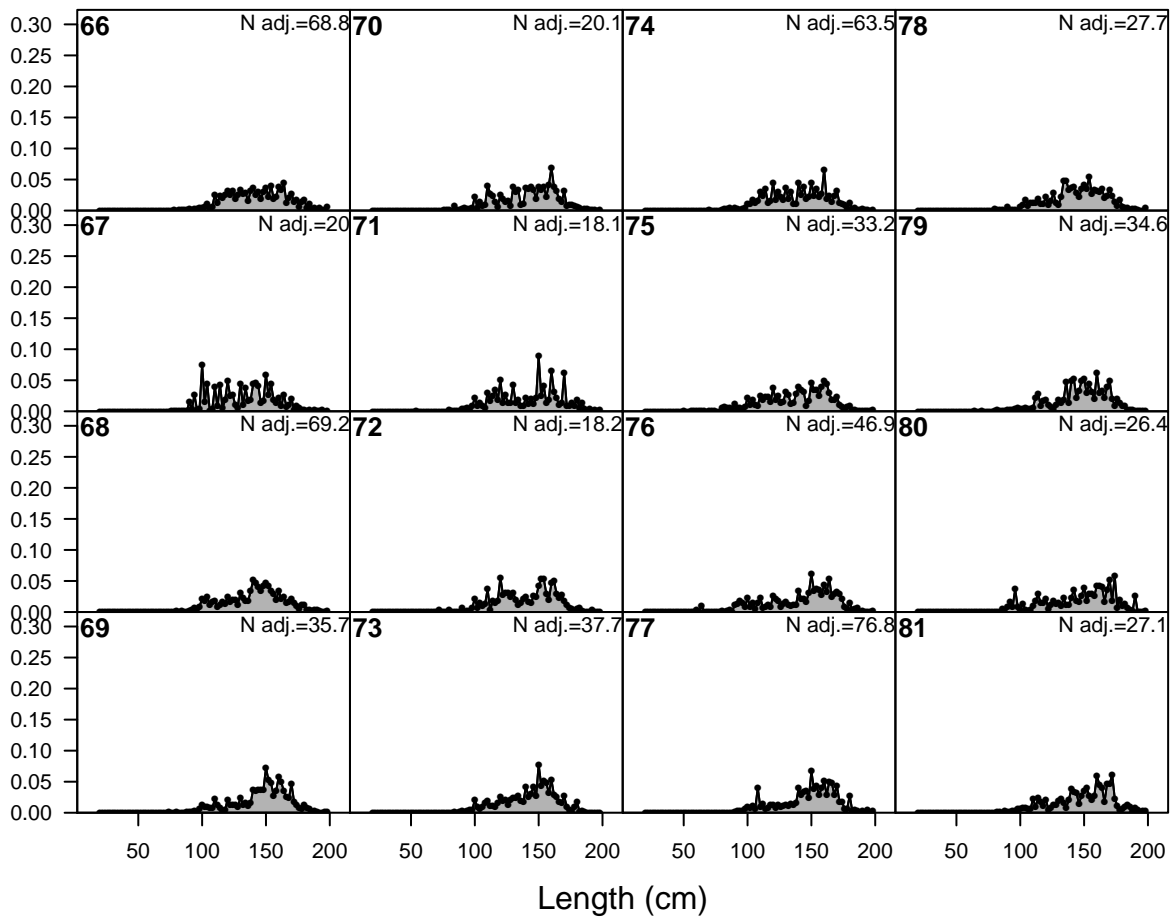
A1-LL-n (whole catch)



Proportion

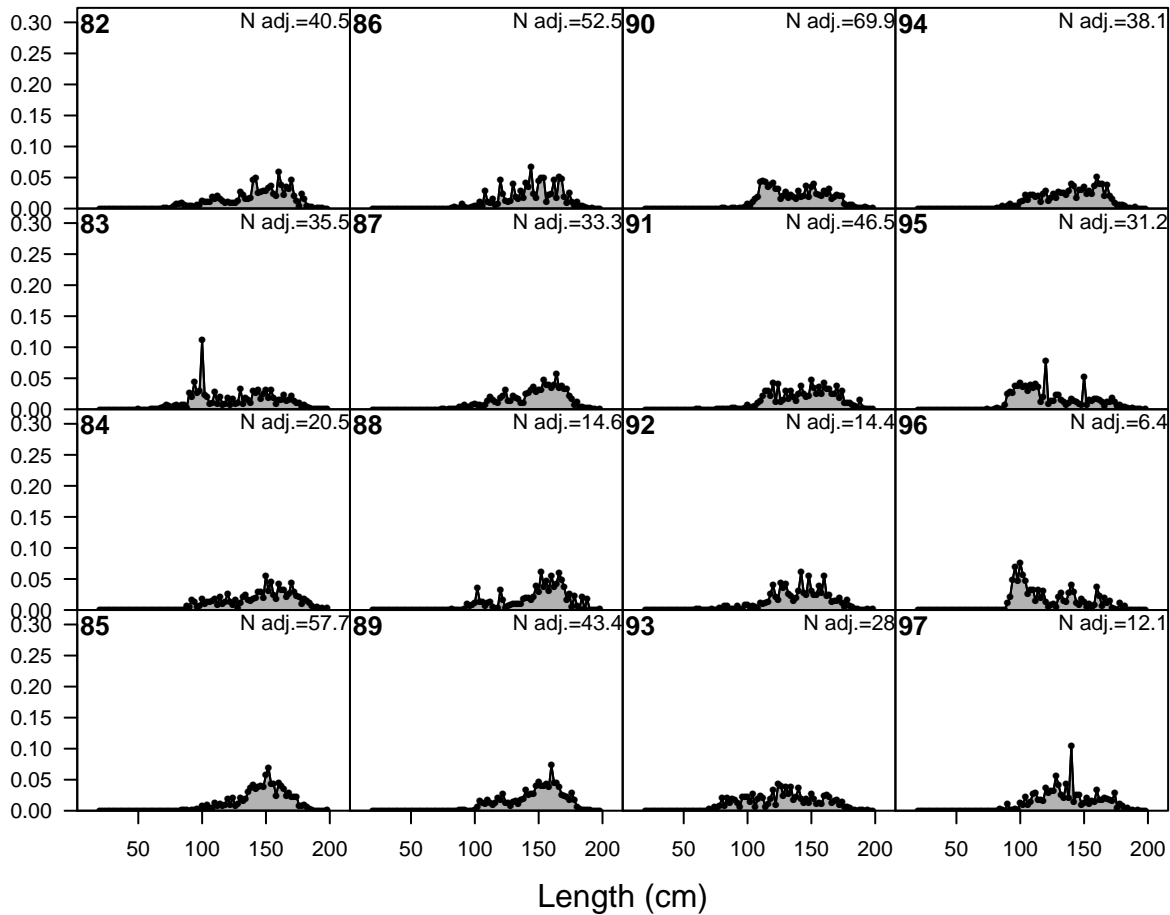


Proportion

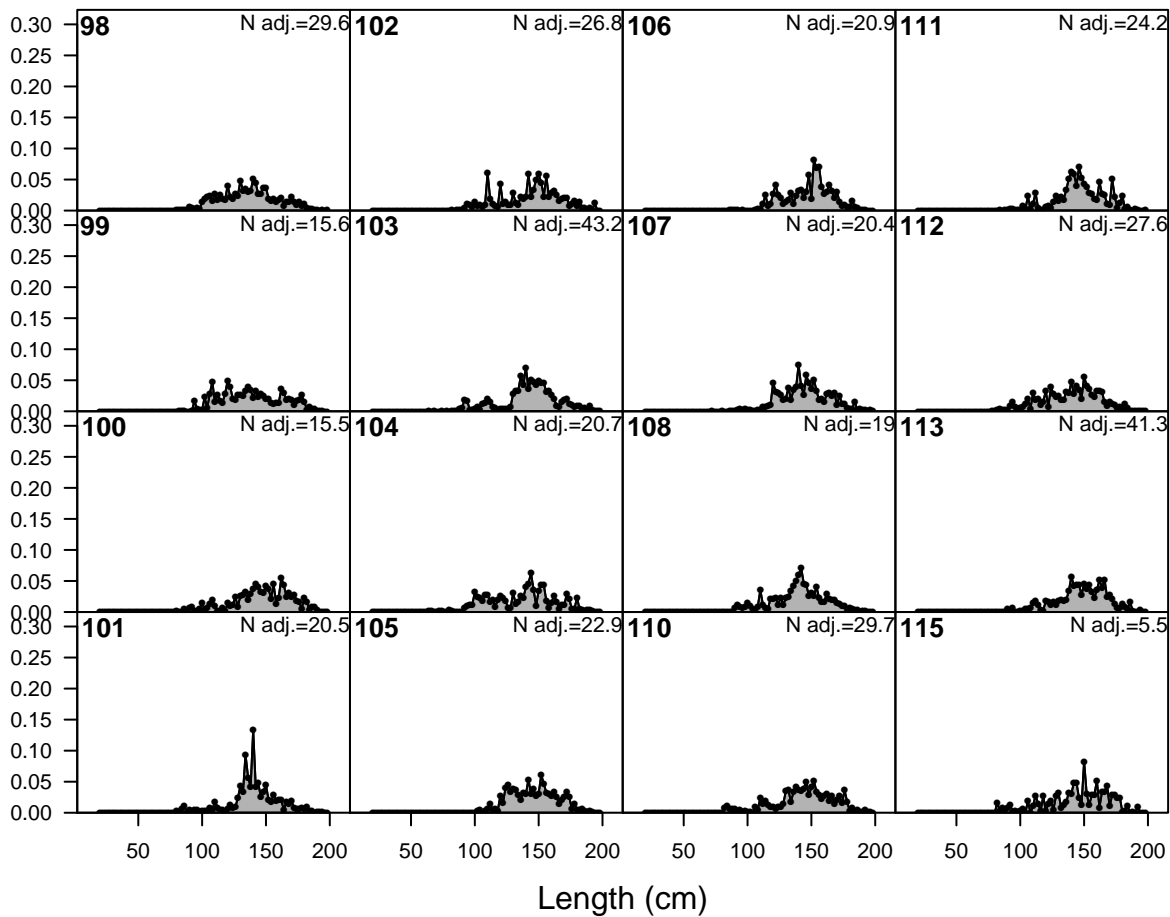




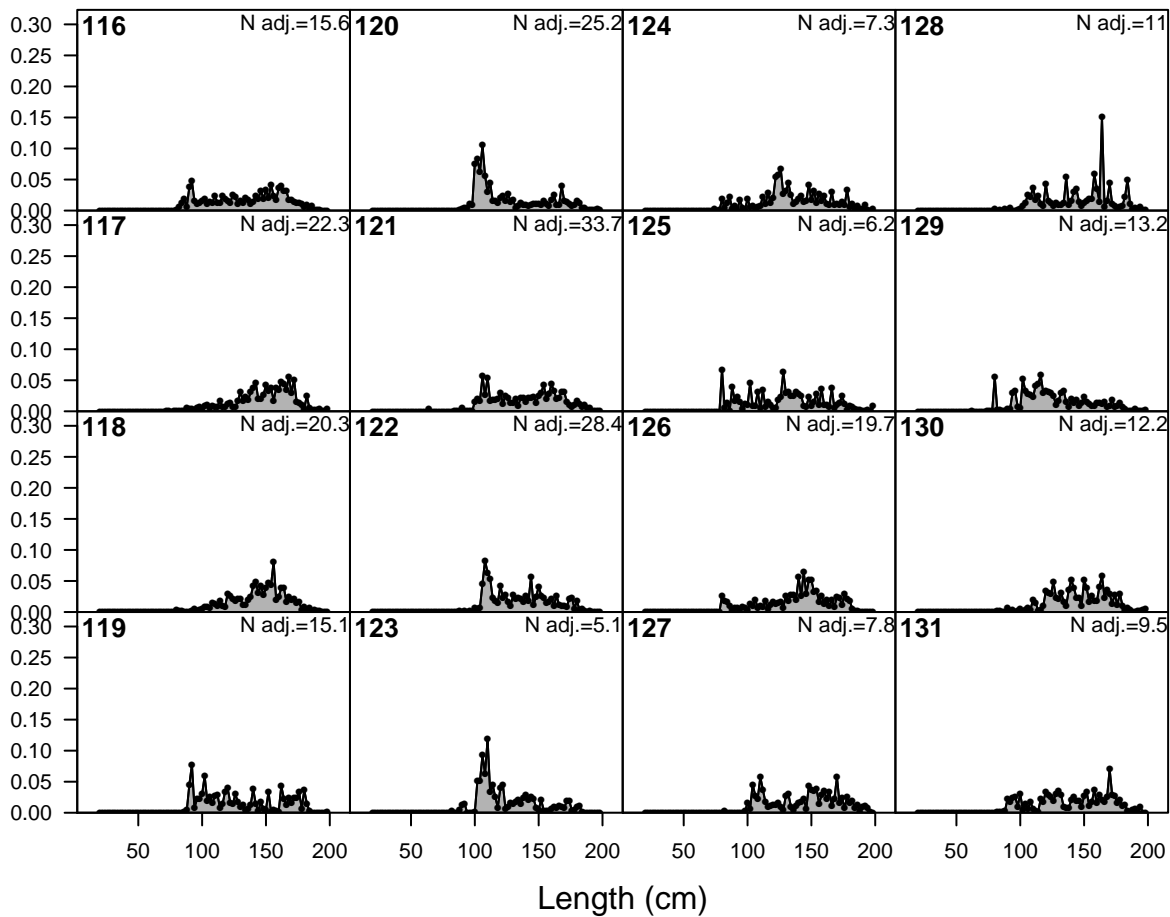
Proportion



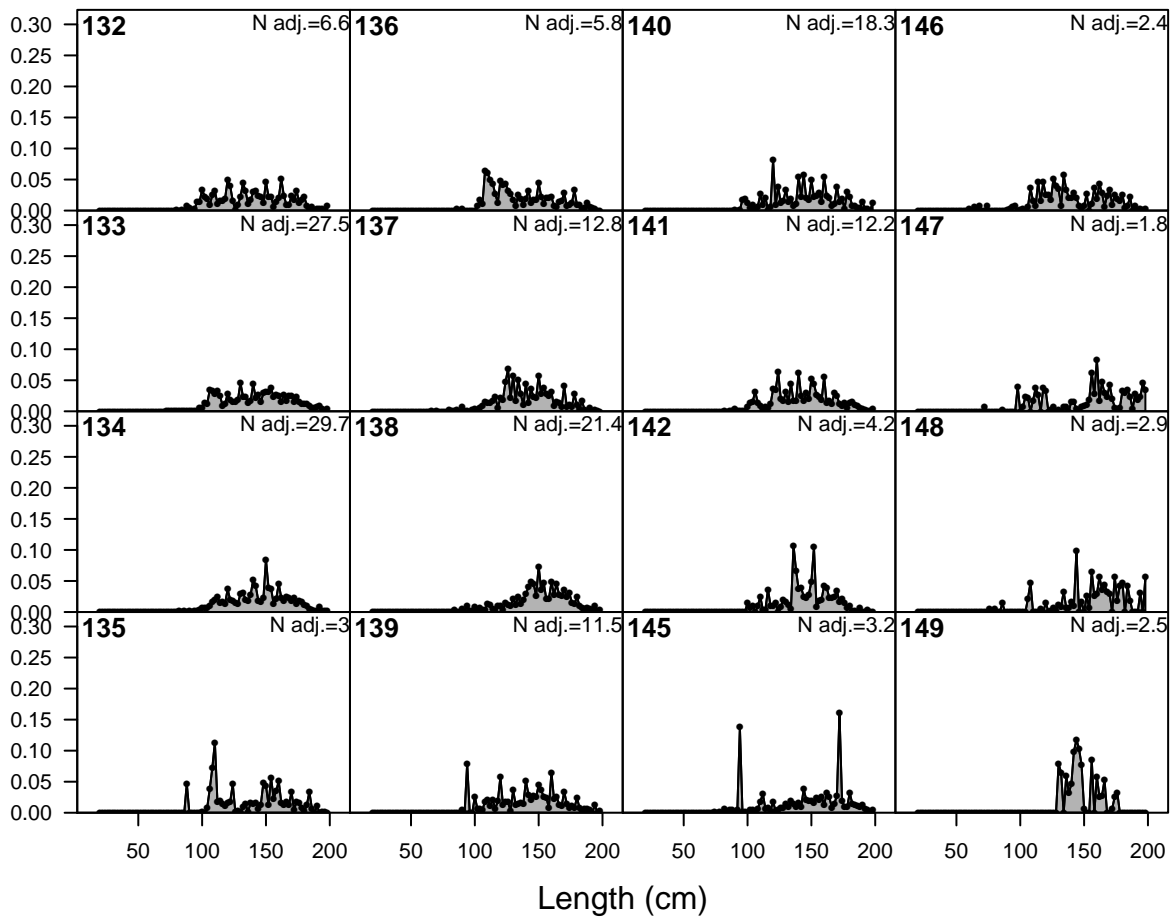
Proportion



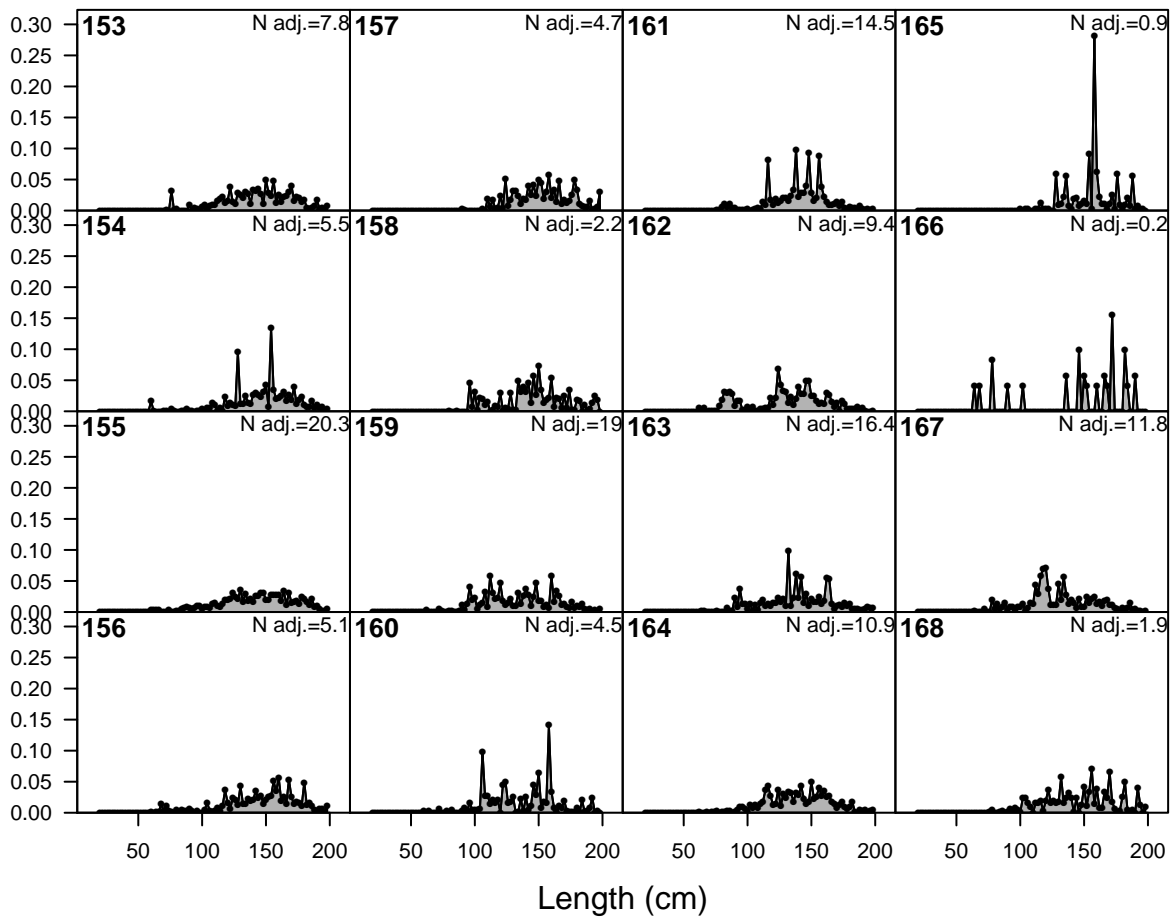
Proportion



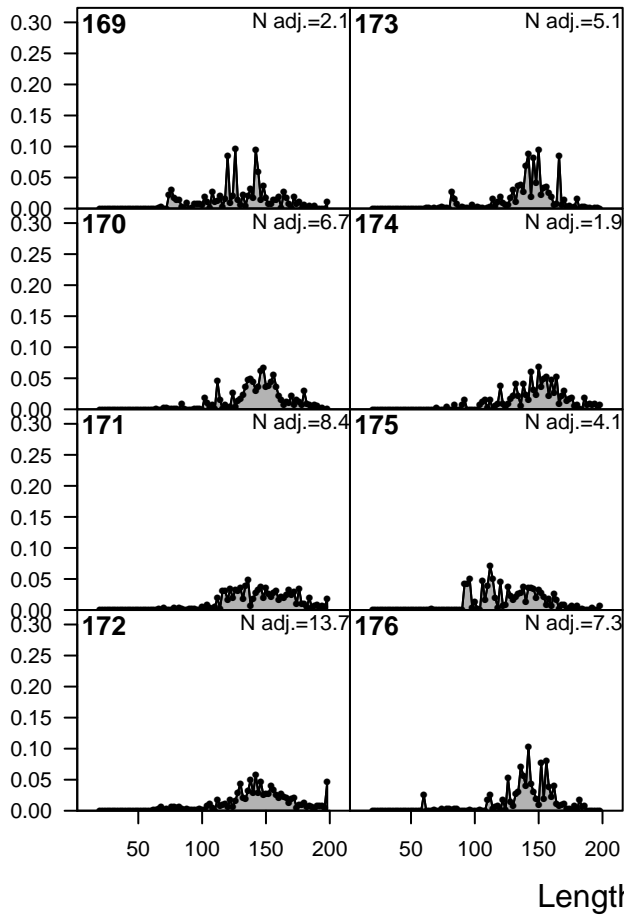
Proportion

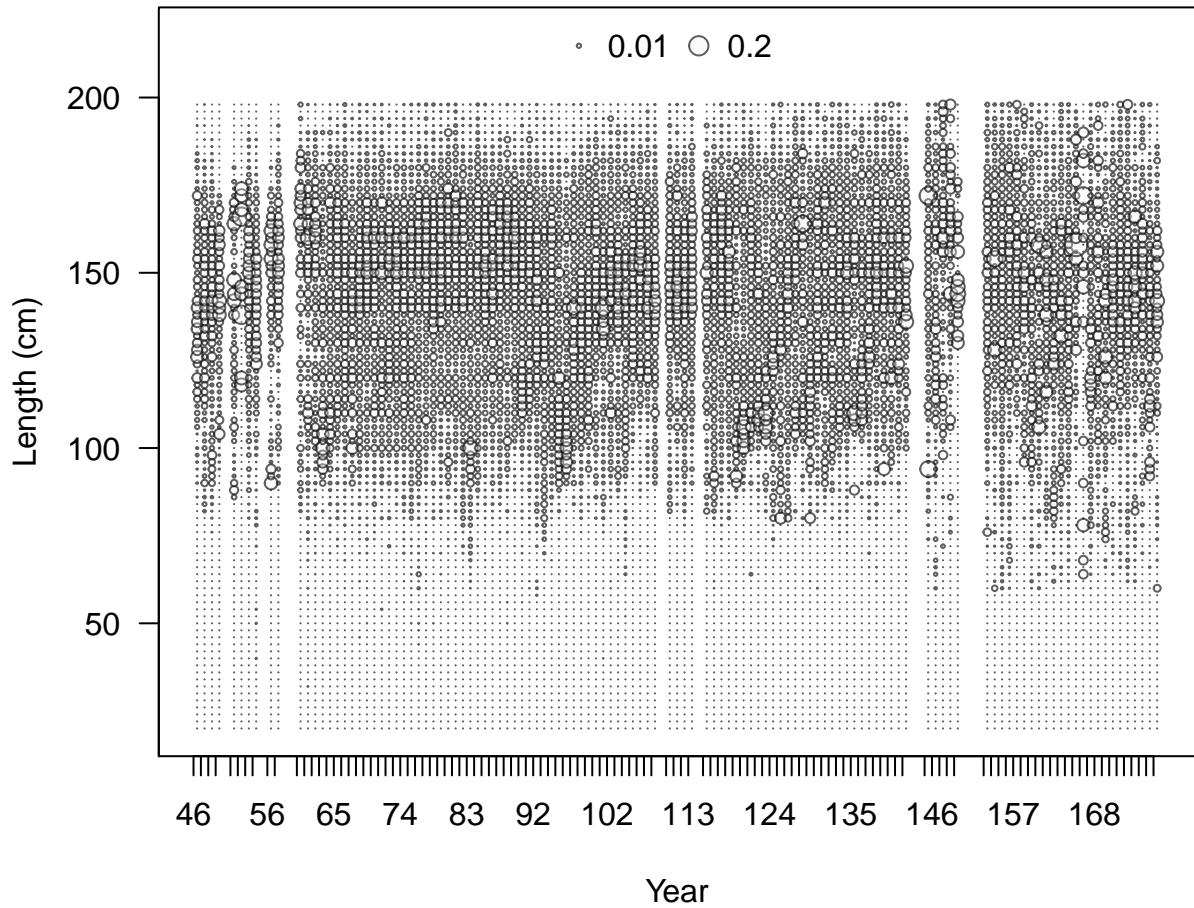


Proportion

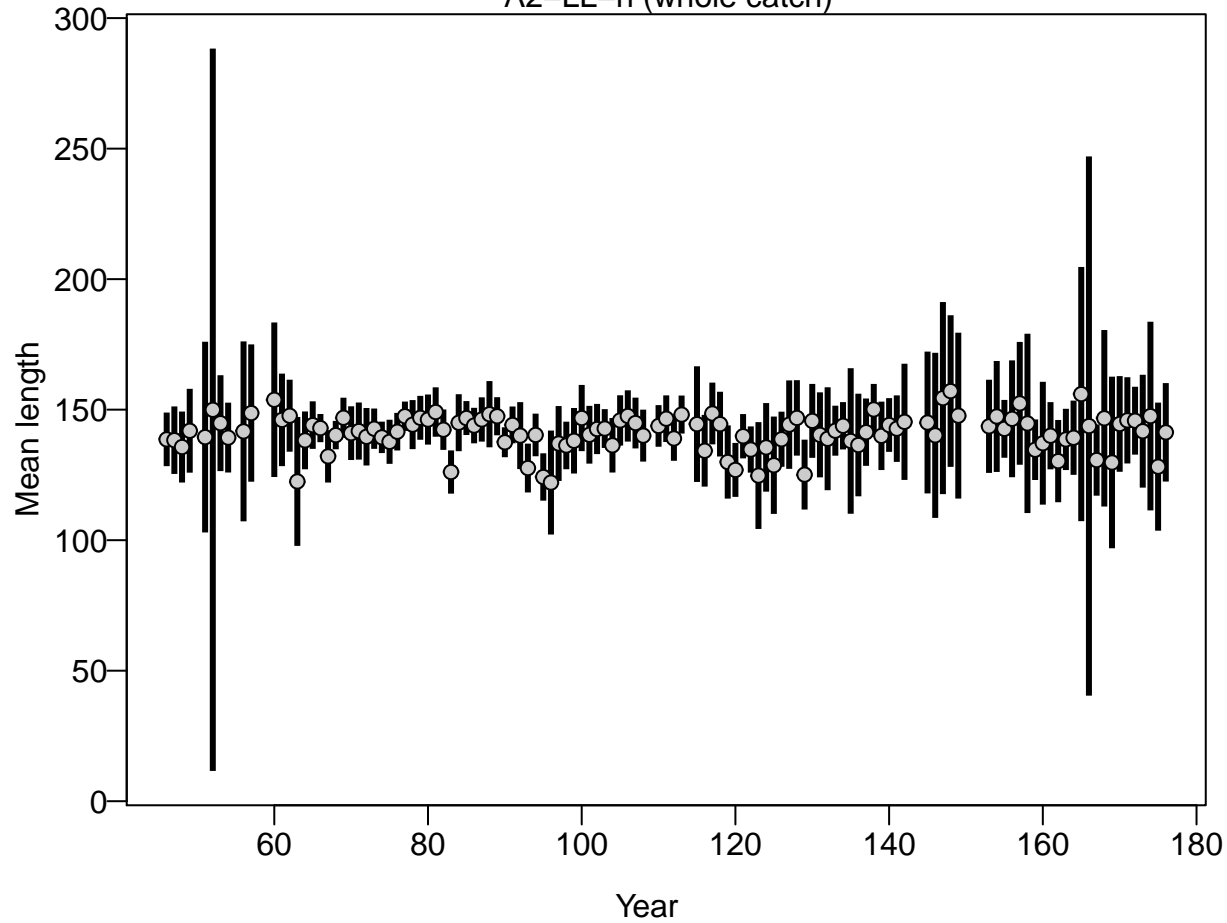


Proportion



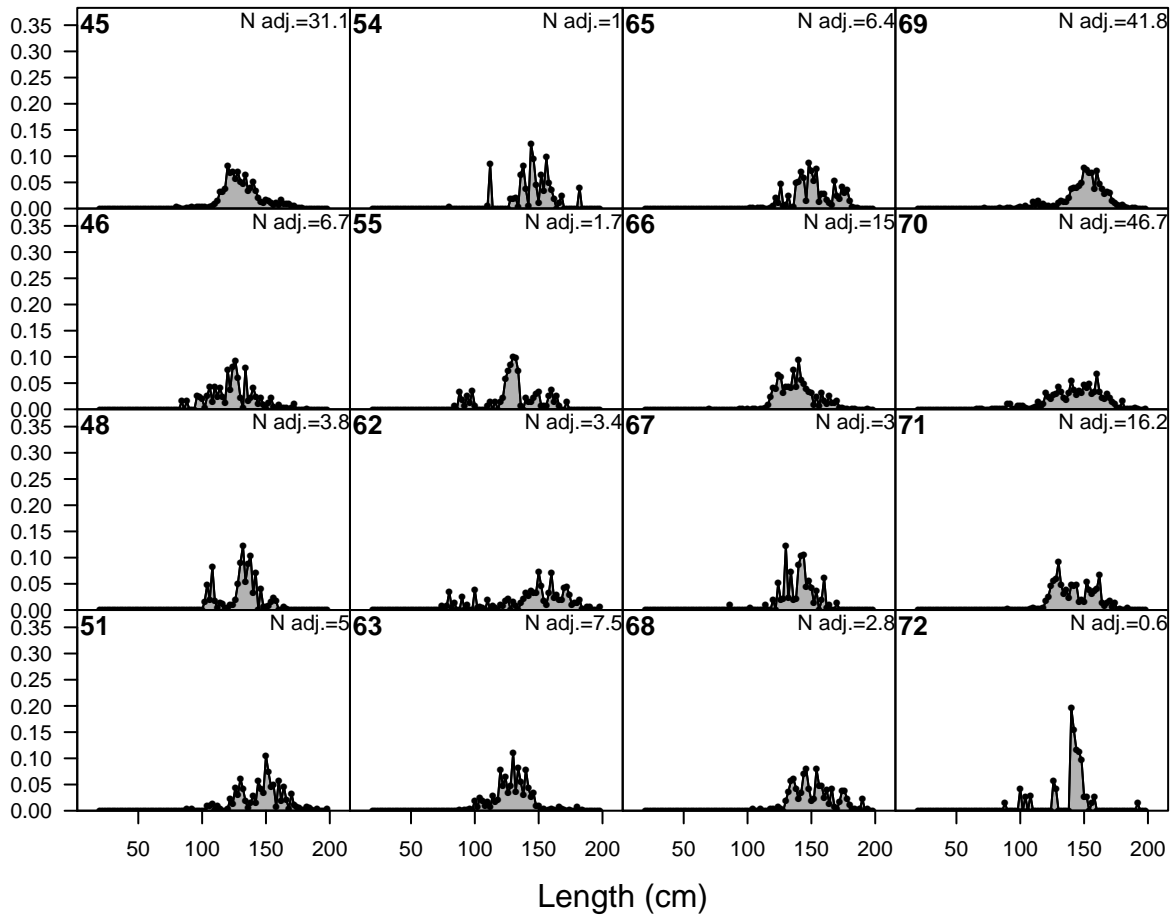


A2-LL-n (whole catch)

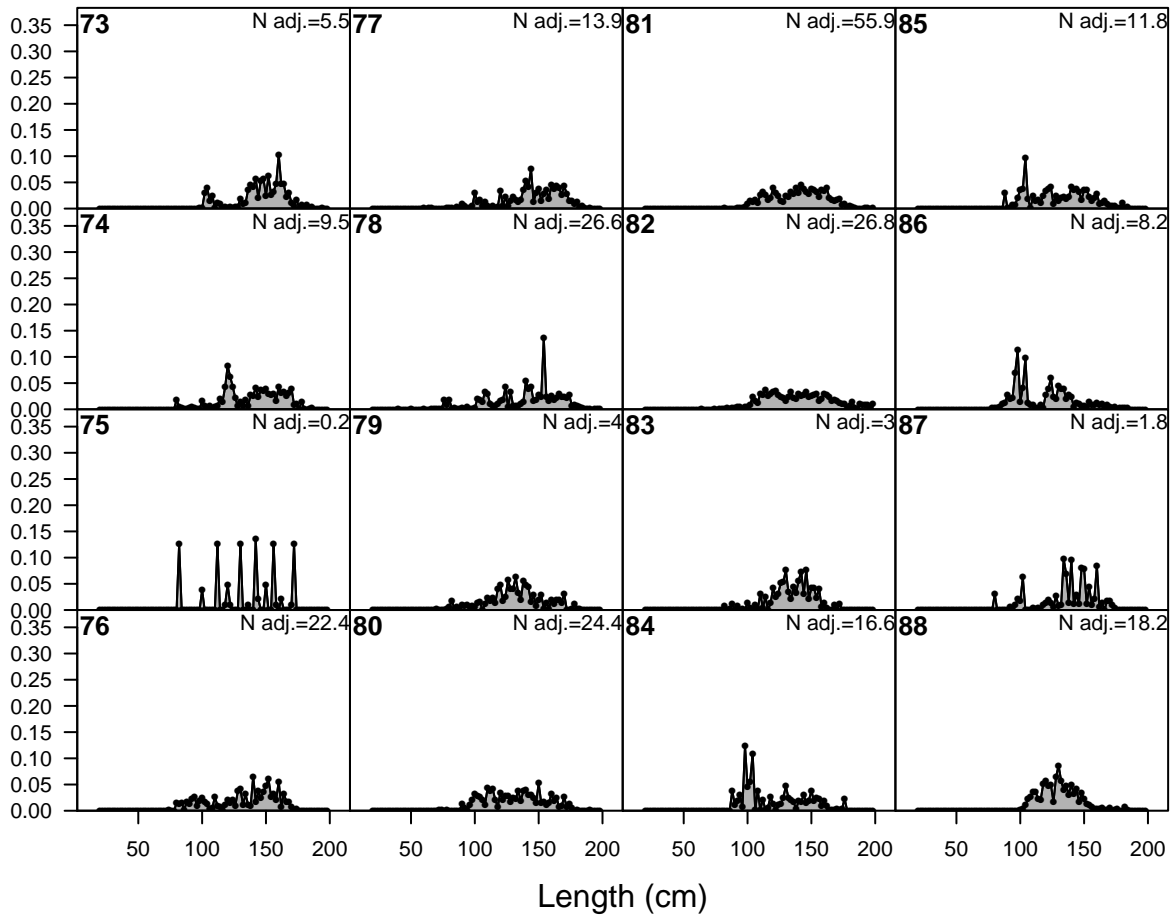




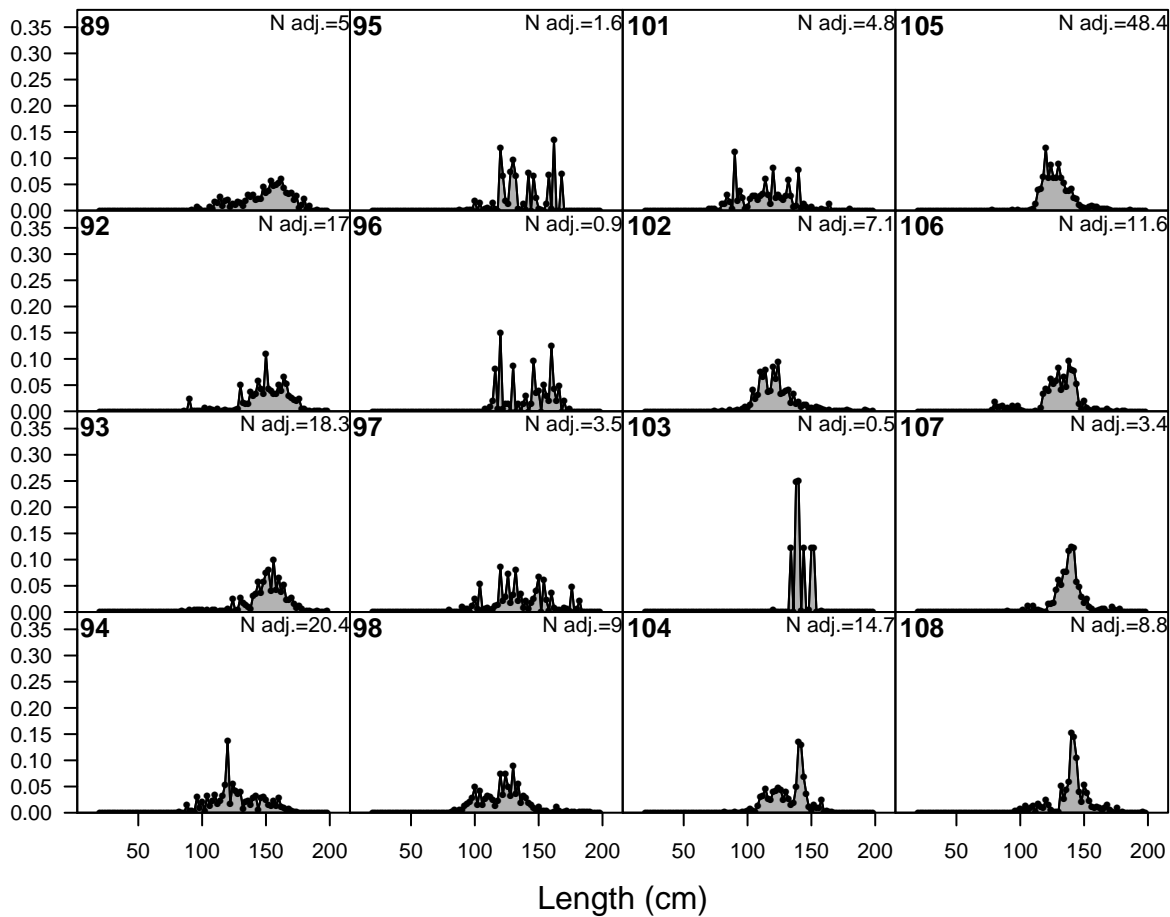
Proportion



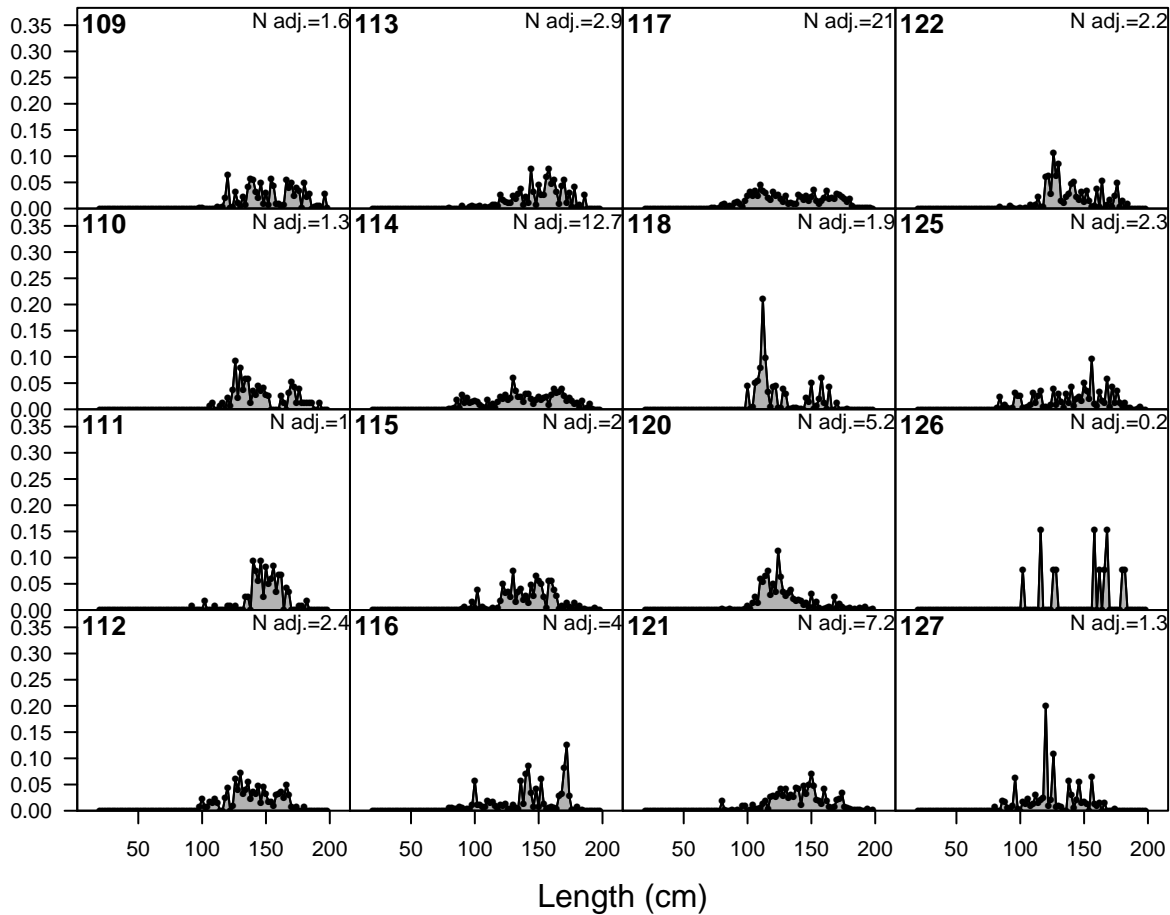
Proportion



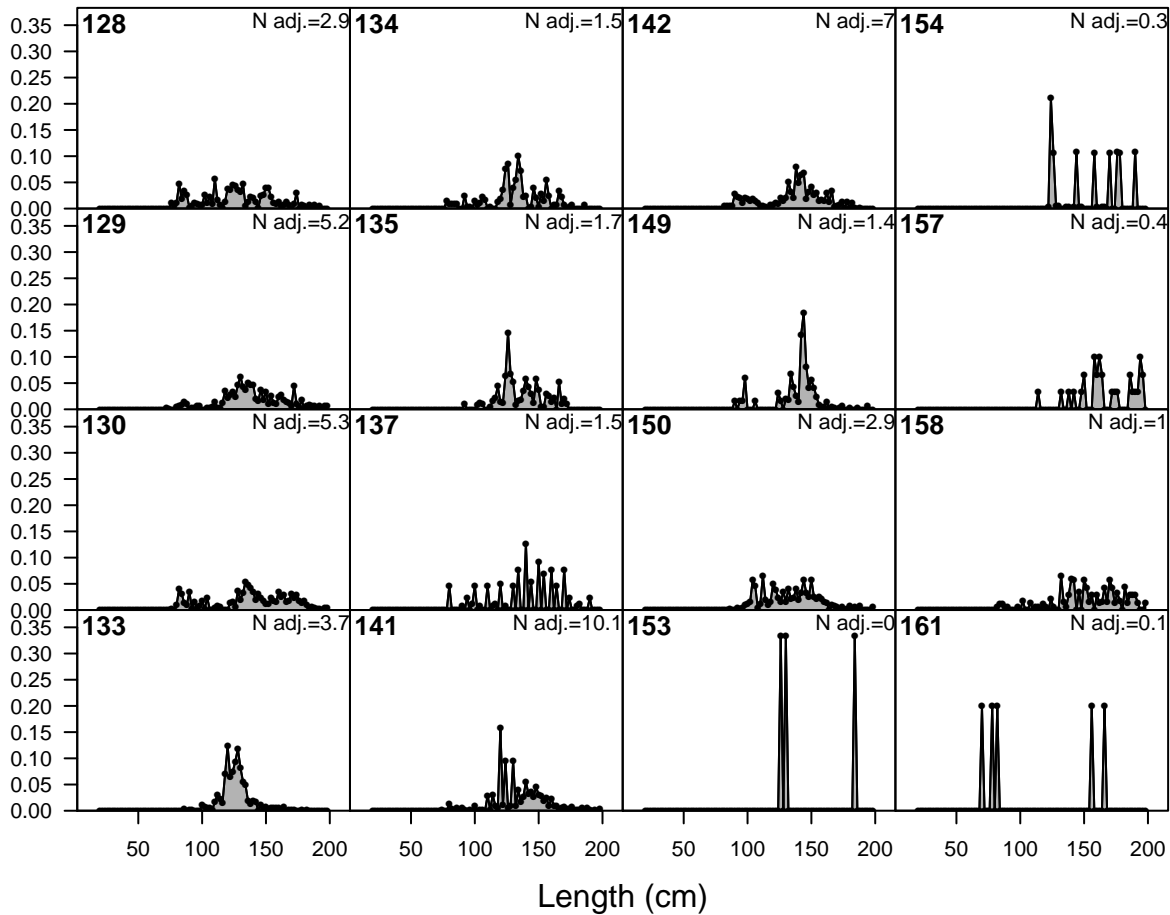
Proportion



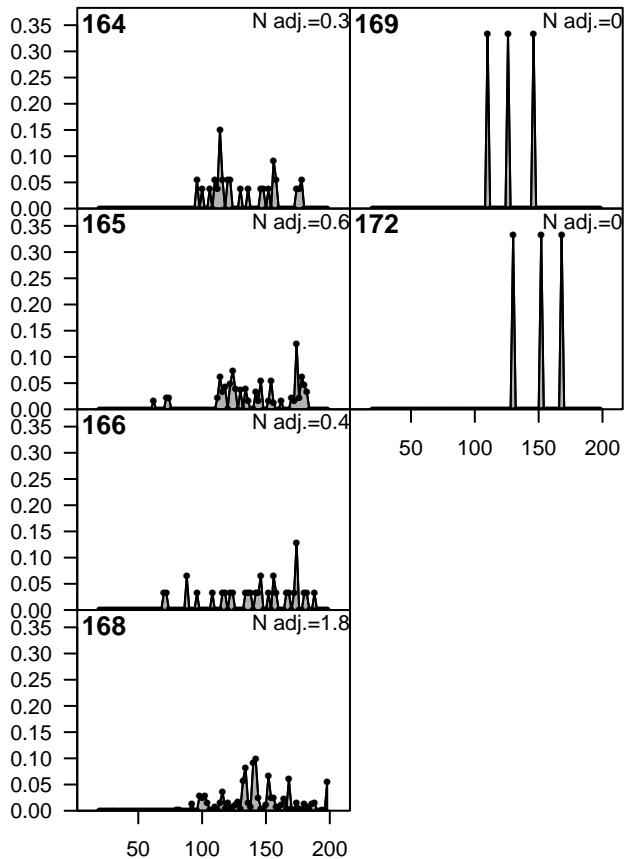
Proportion



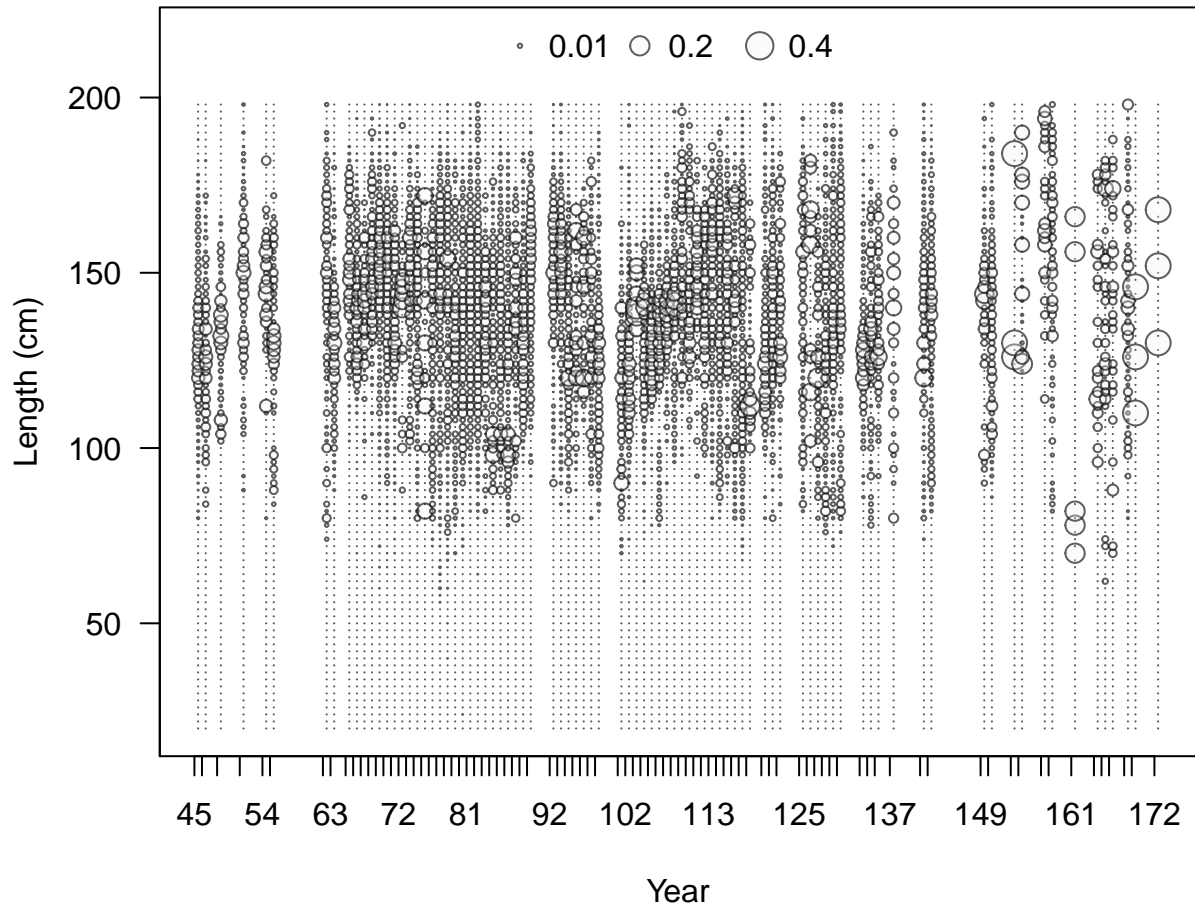
Proportion



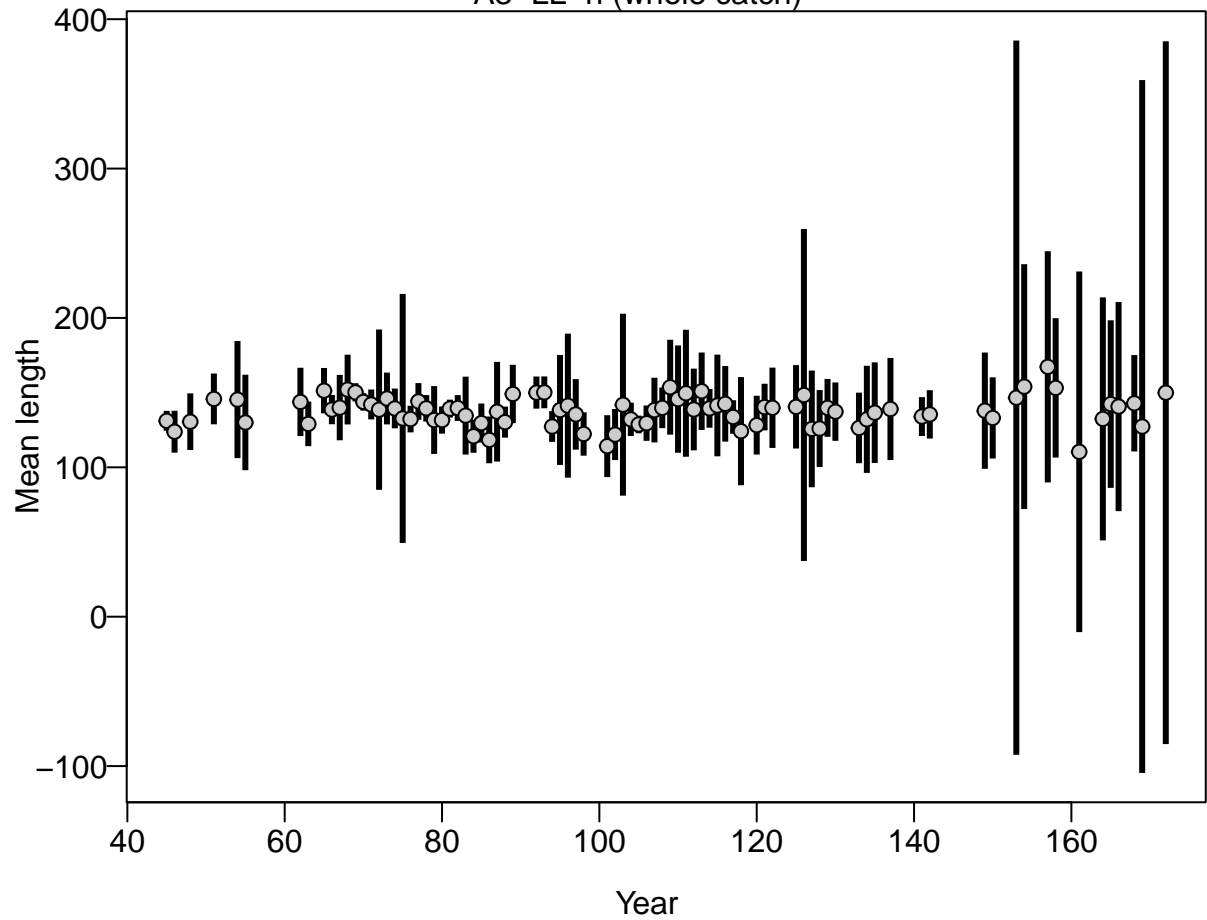
Proportion



Length (cm)

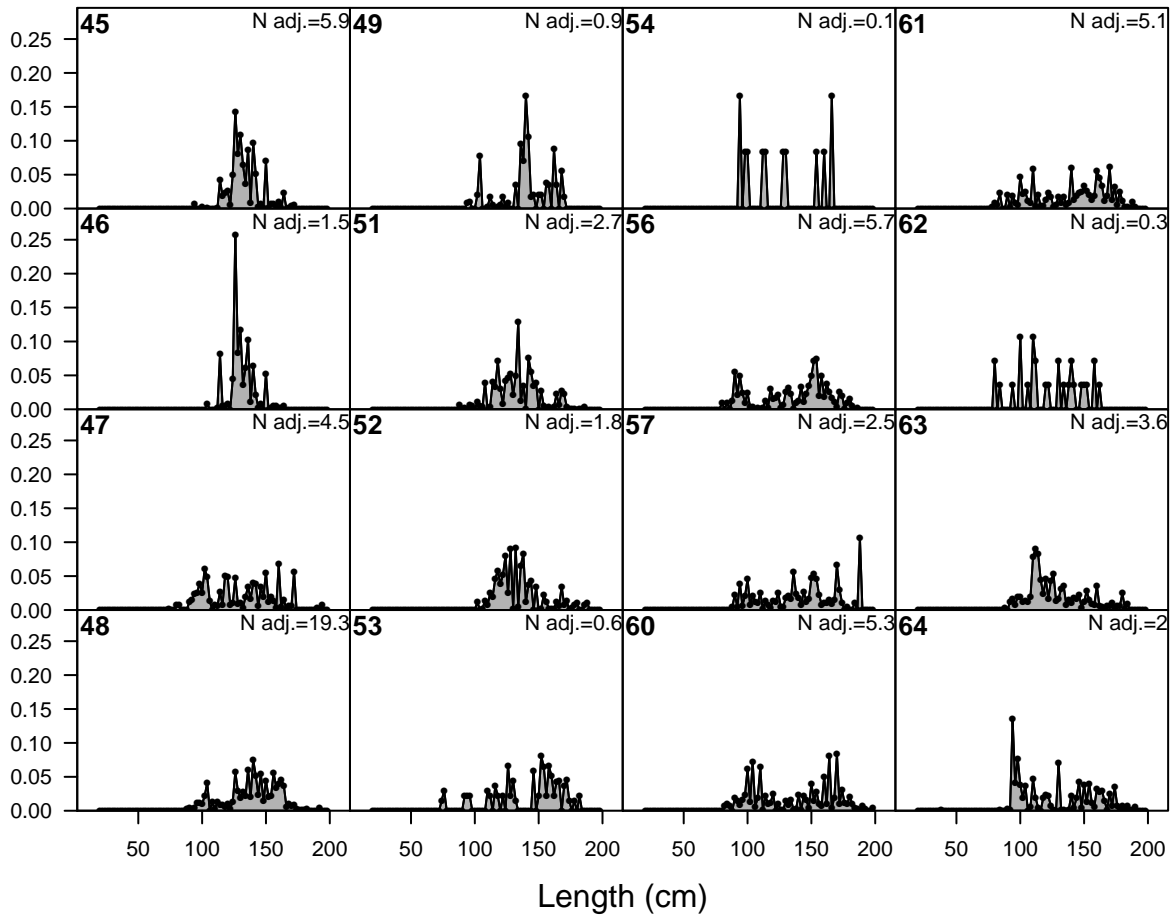


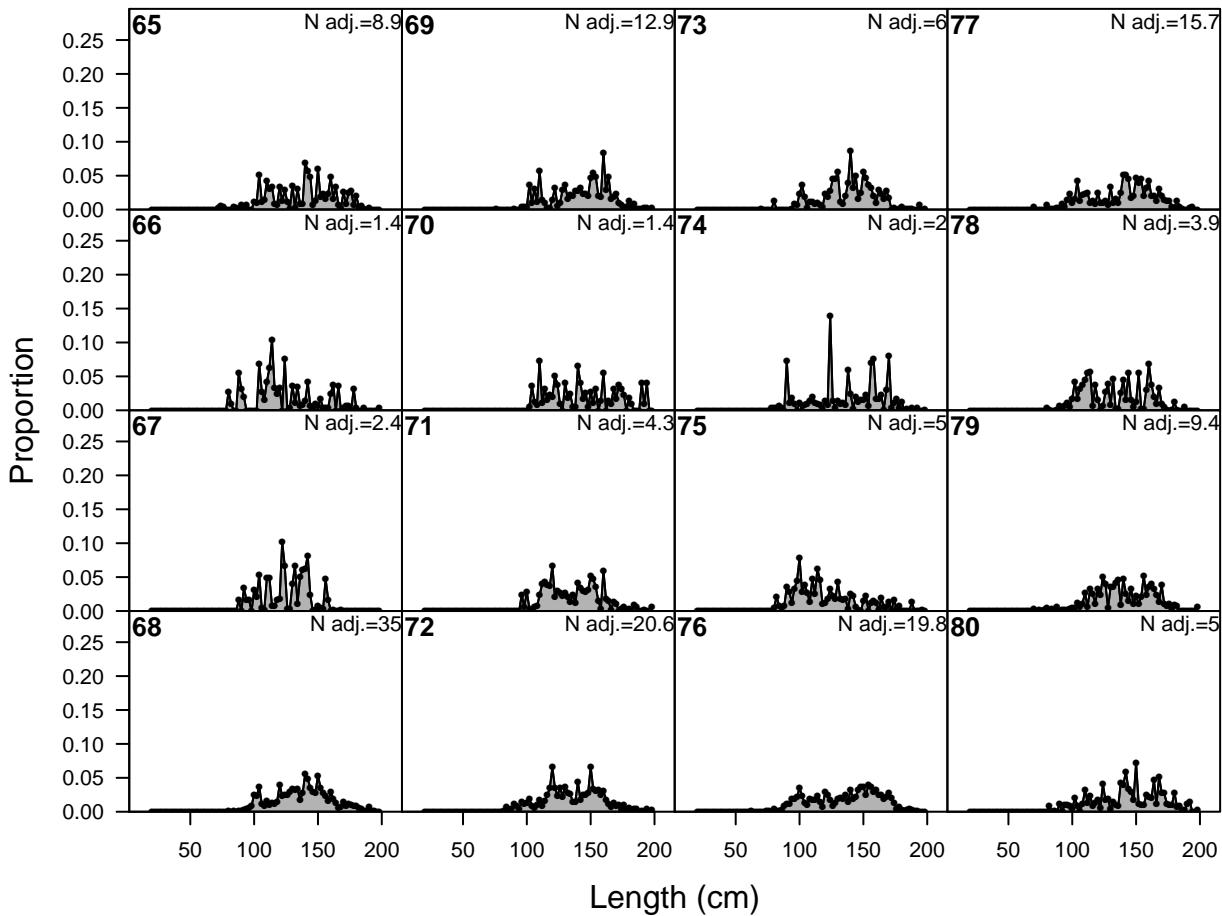
A3-LL-n (whole catch)



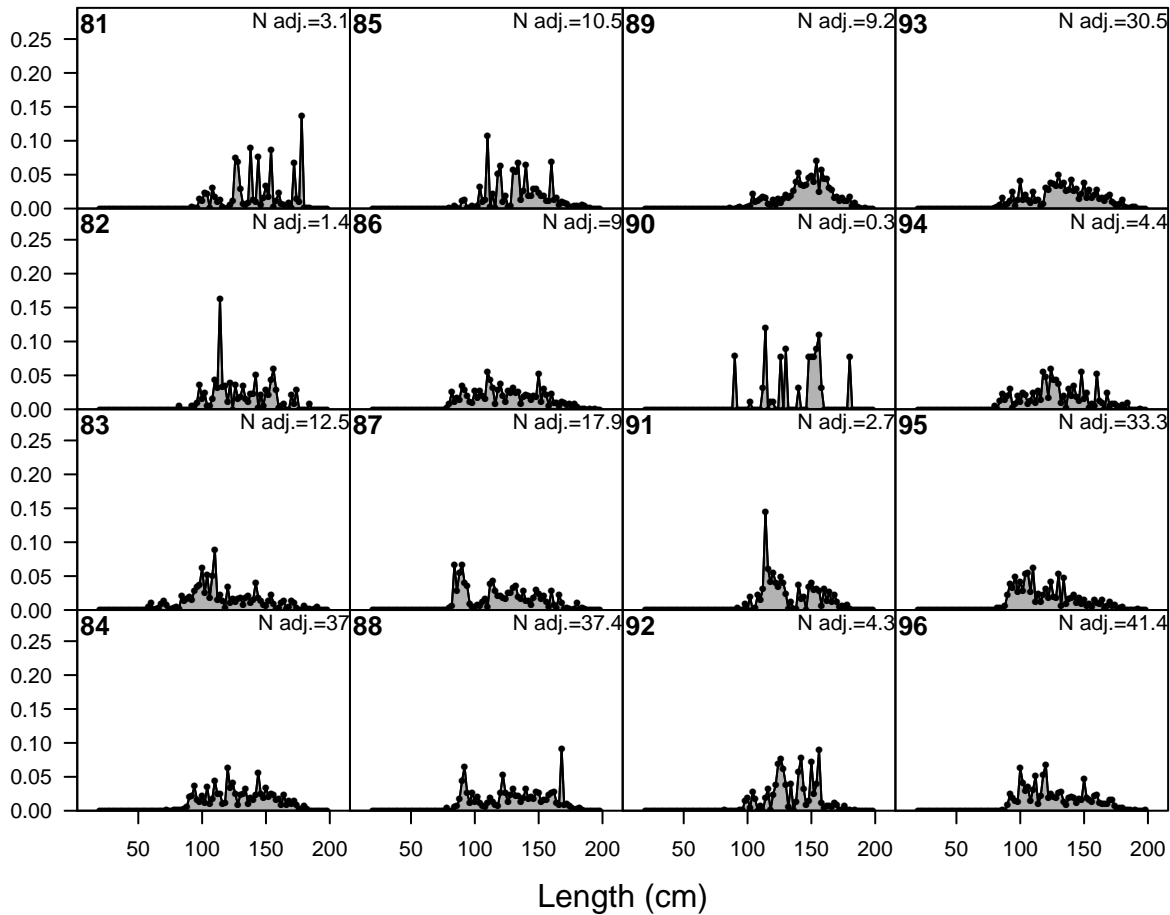


Proportion

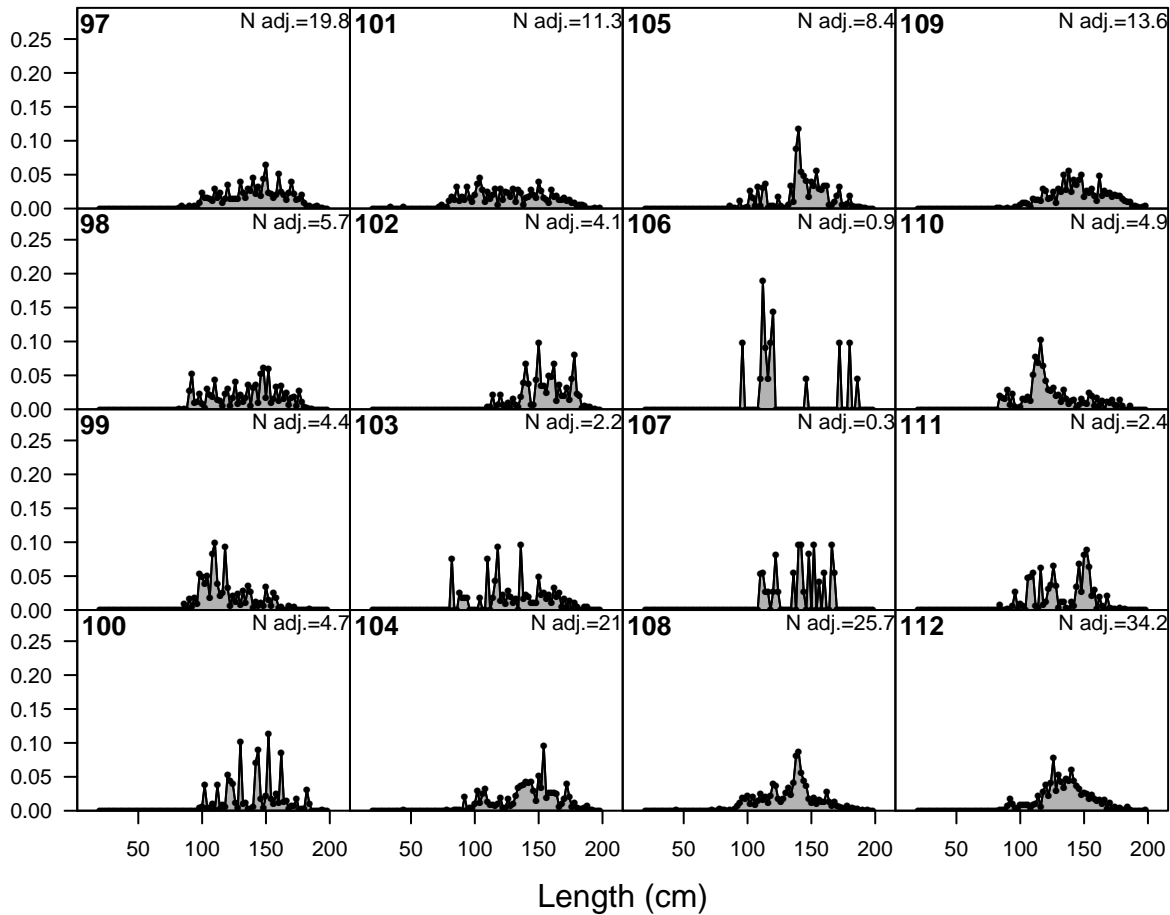




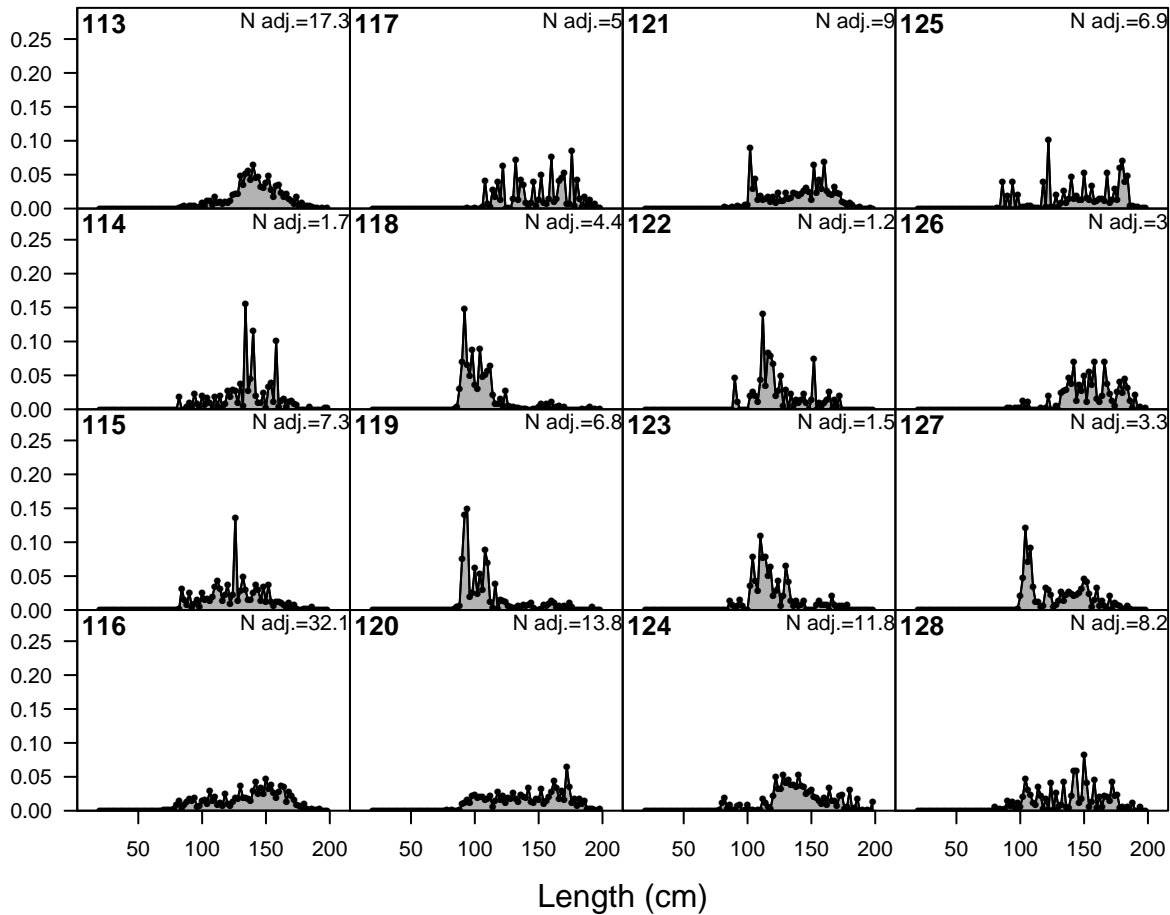
Proportion



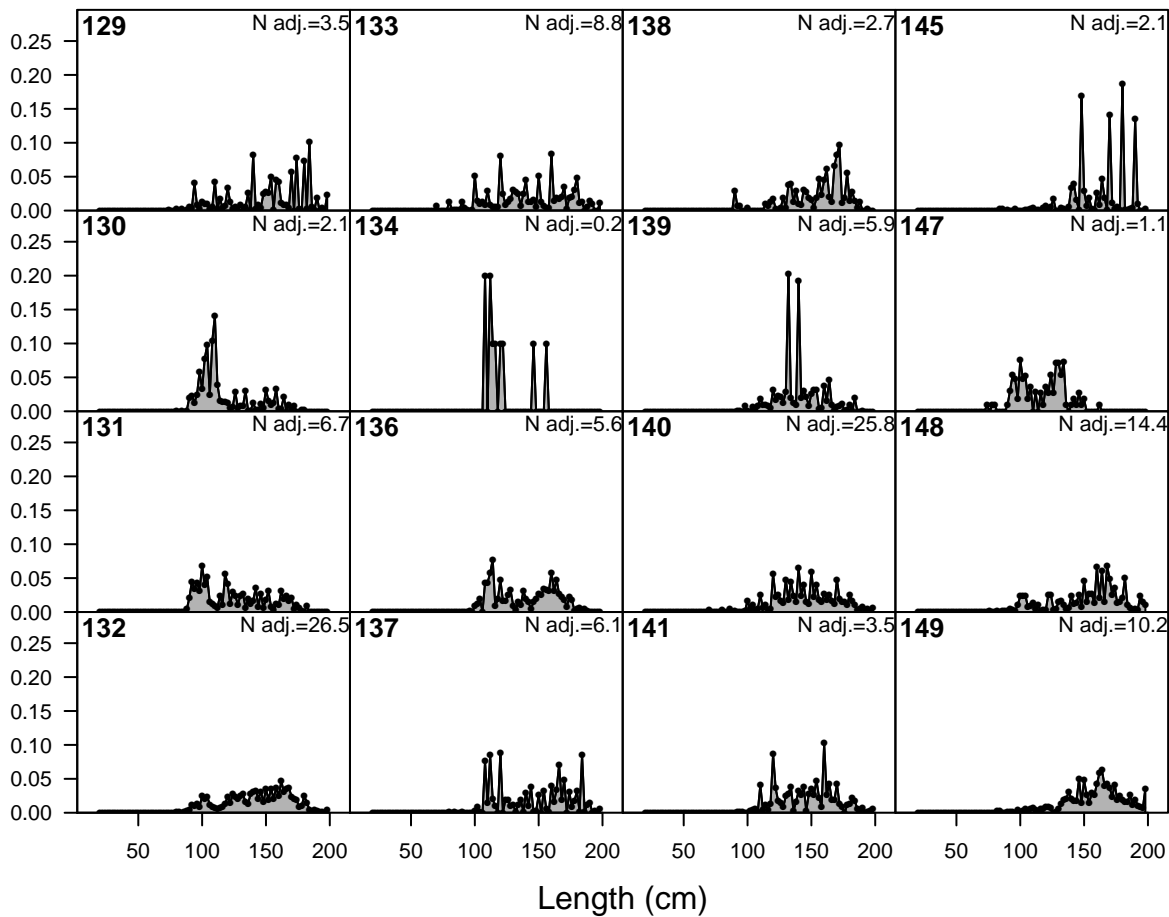
Proportion



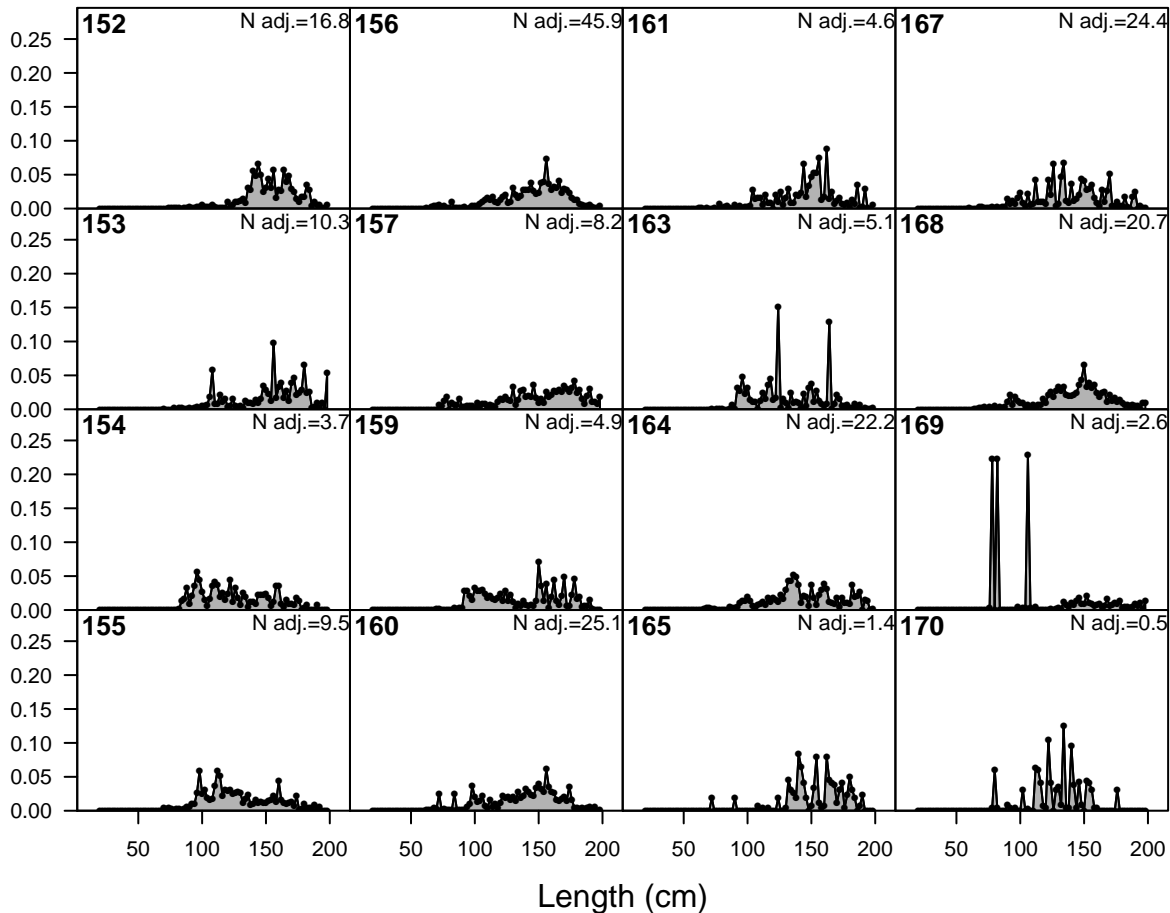
Proportion



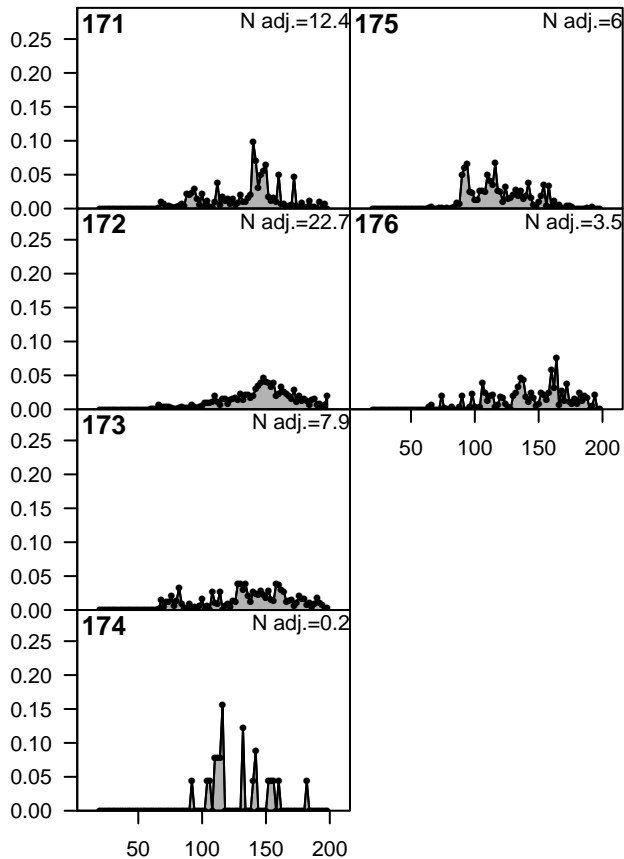
Proportion



Proportion

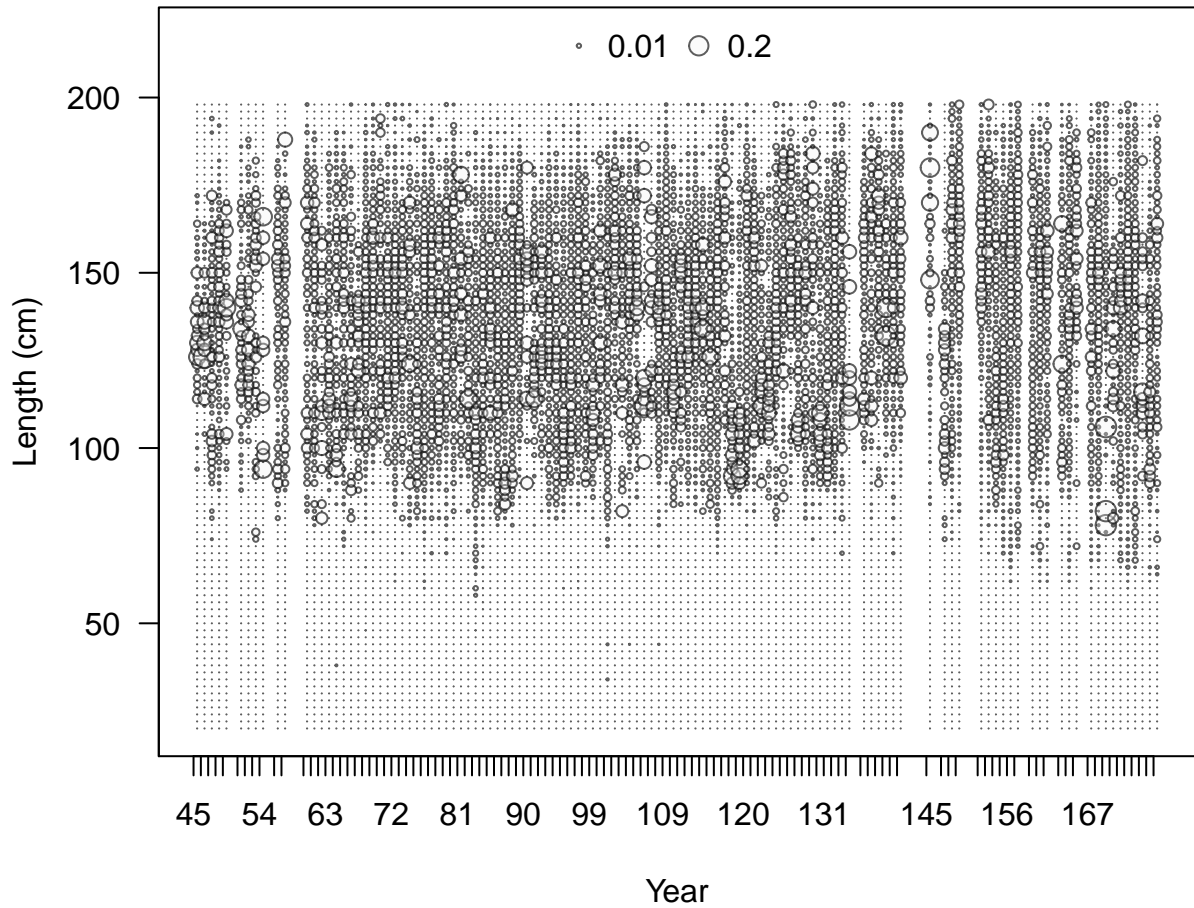


Proportion

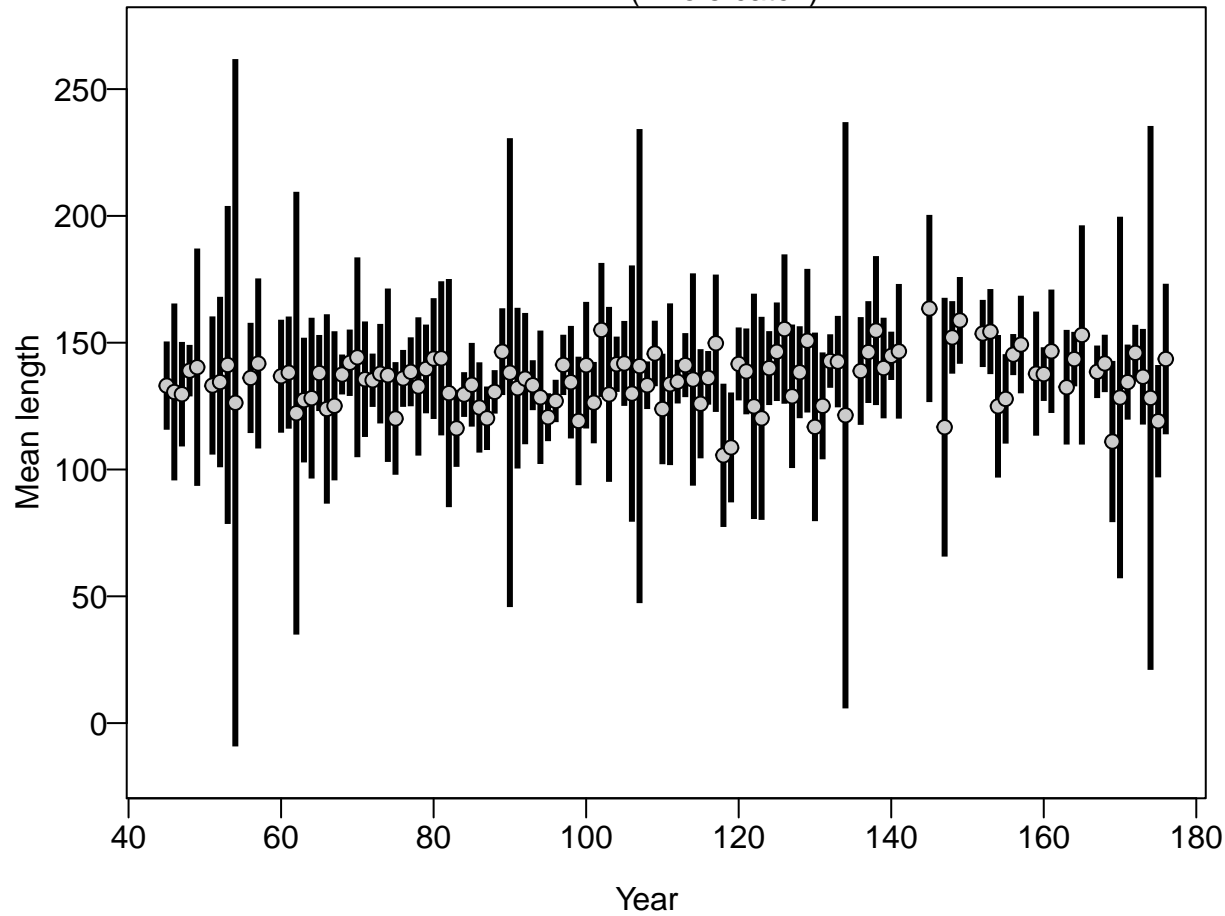


Length (cm)

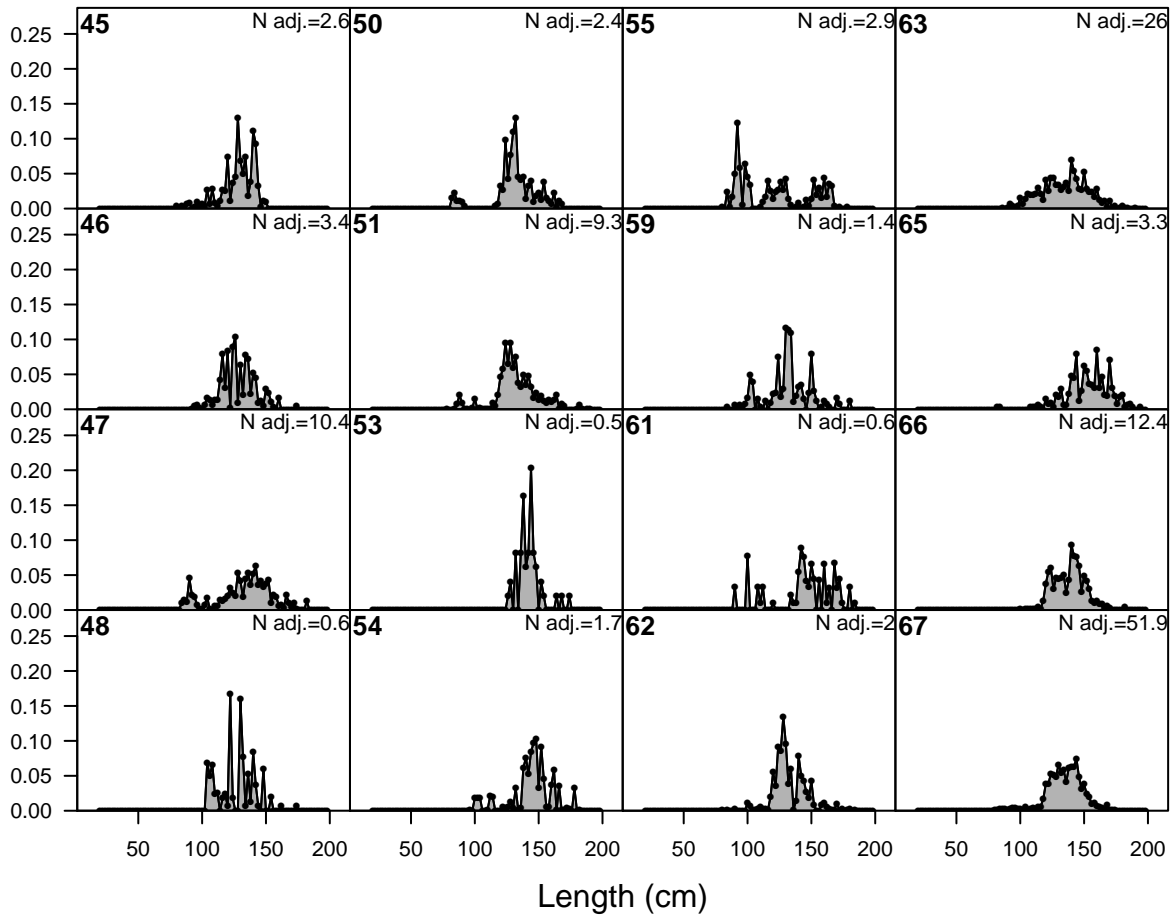




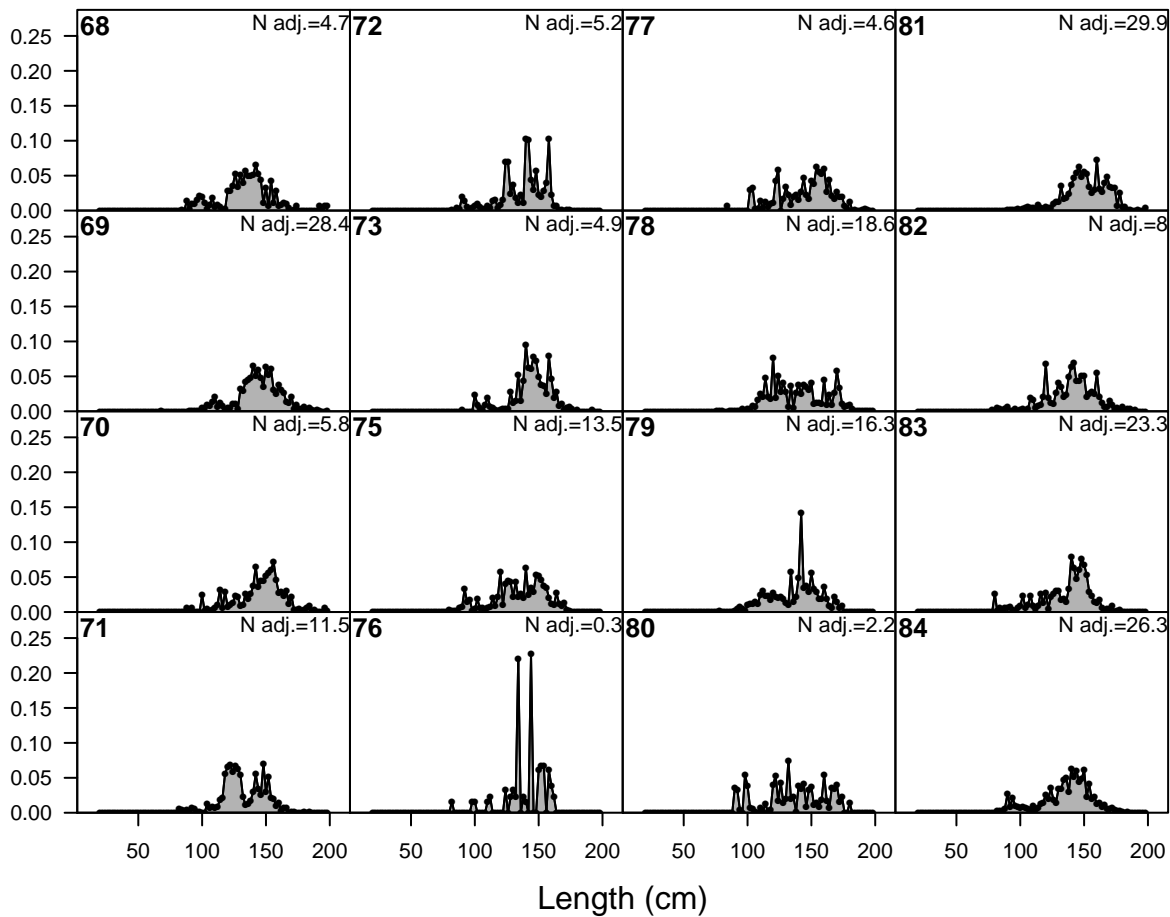
A4-LL-n (whole catch)



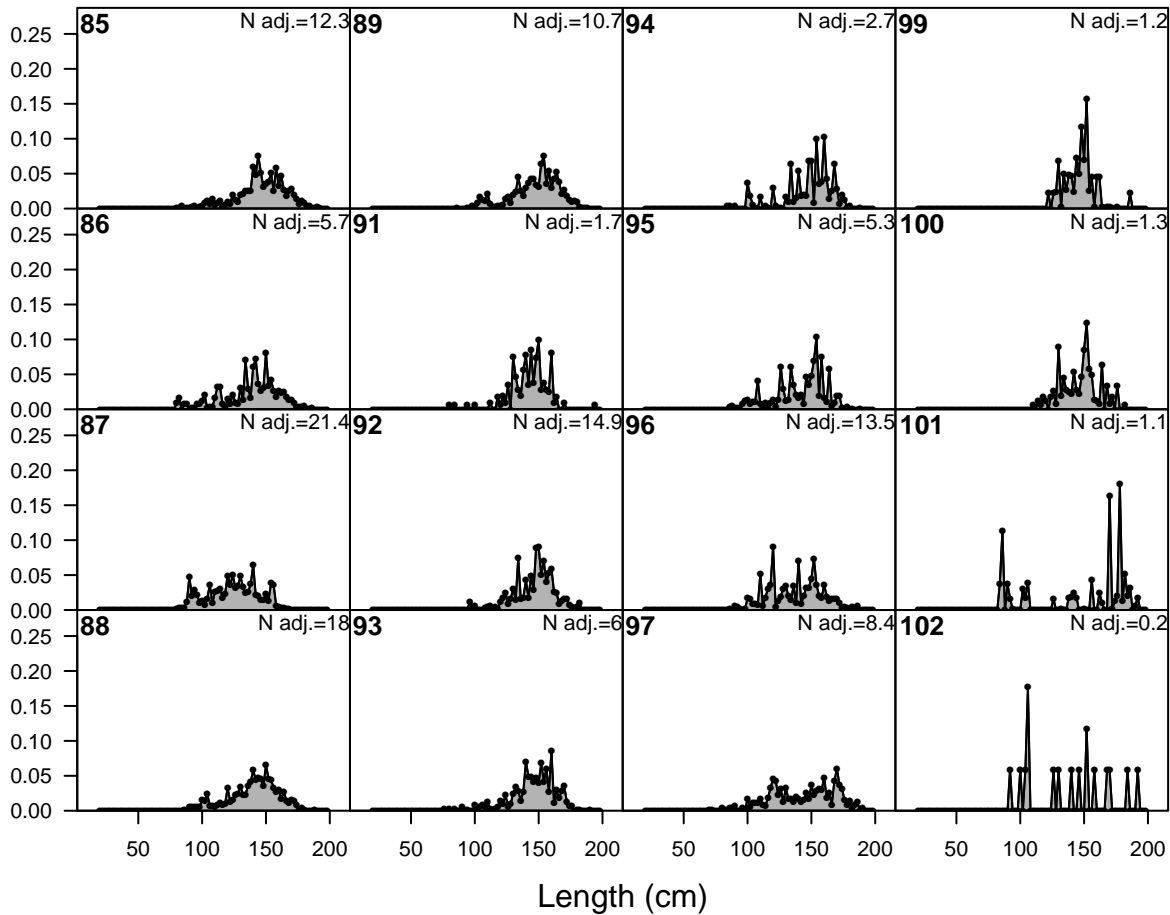
Proportion



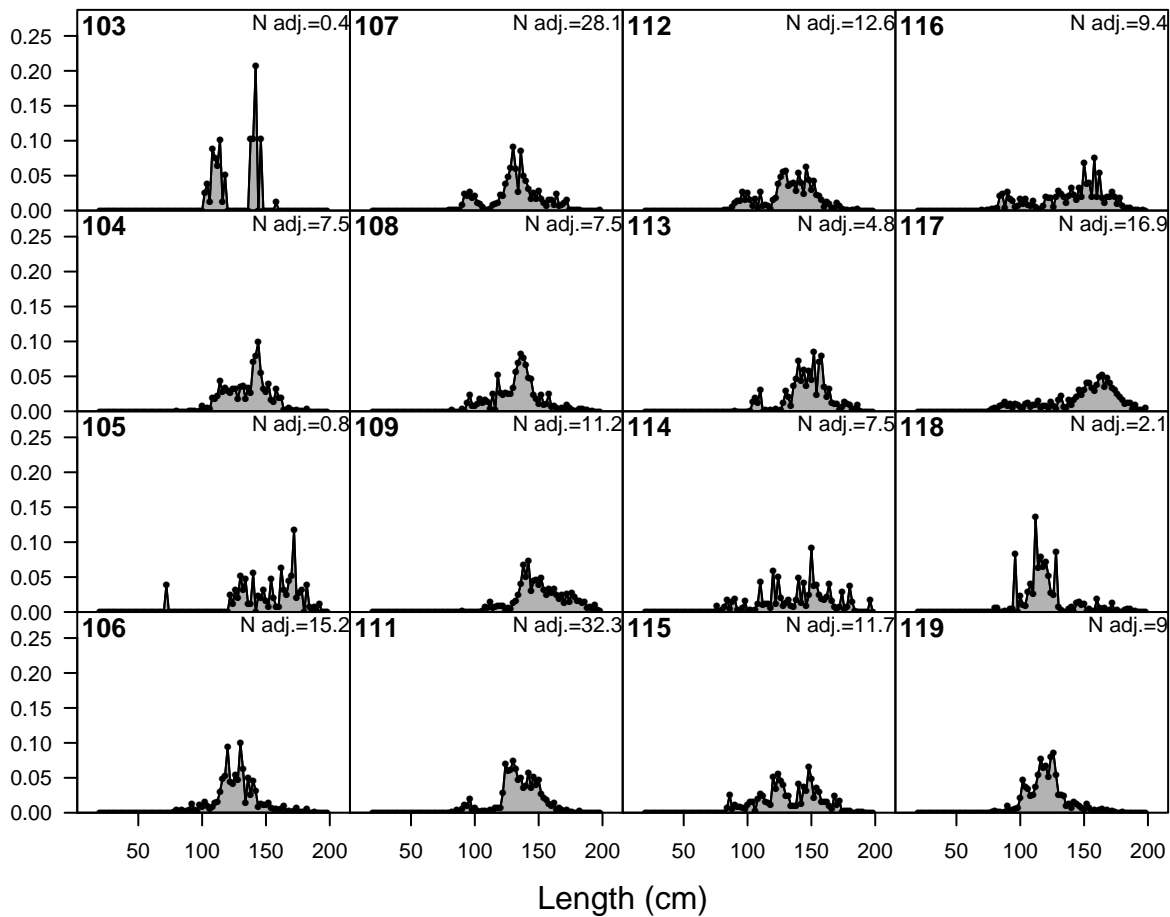
Proportion



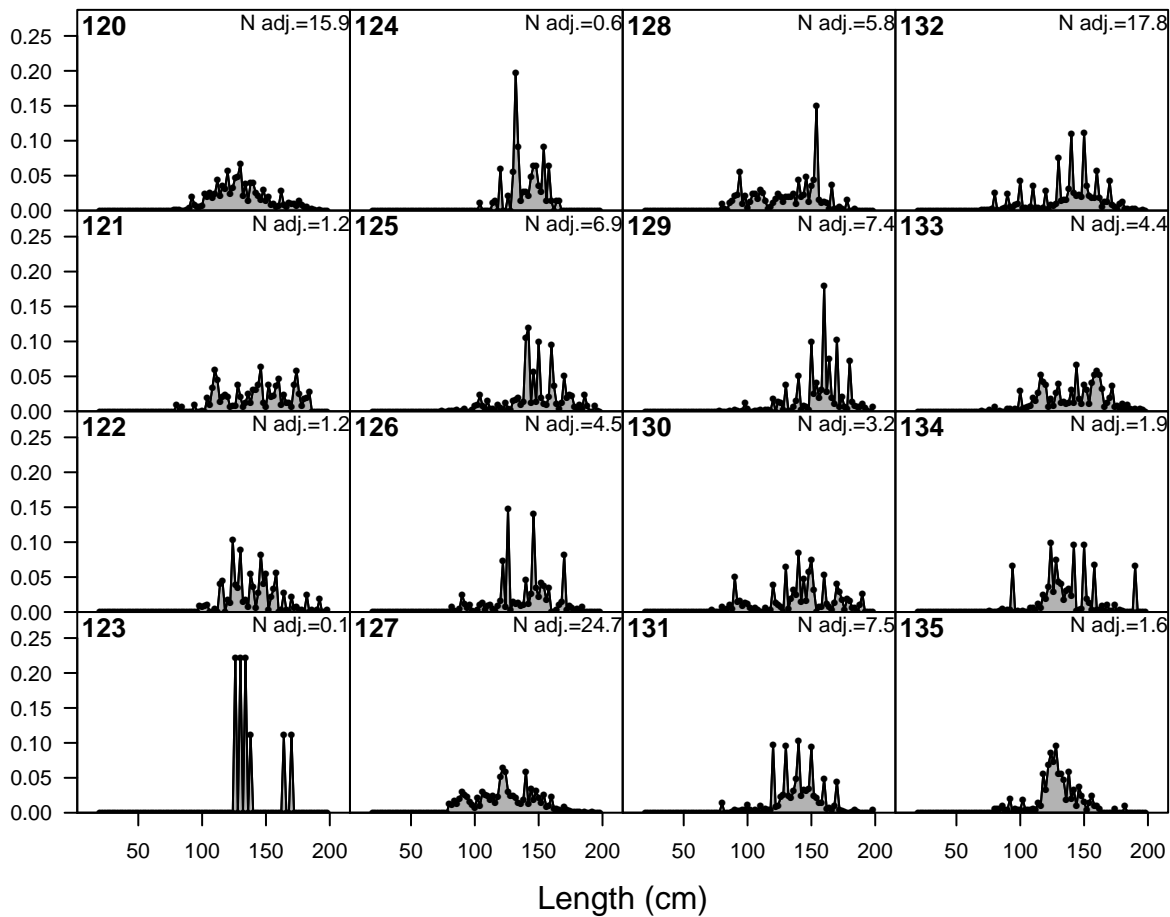
Proportion



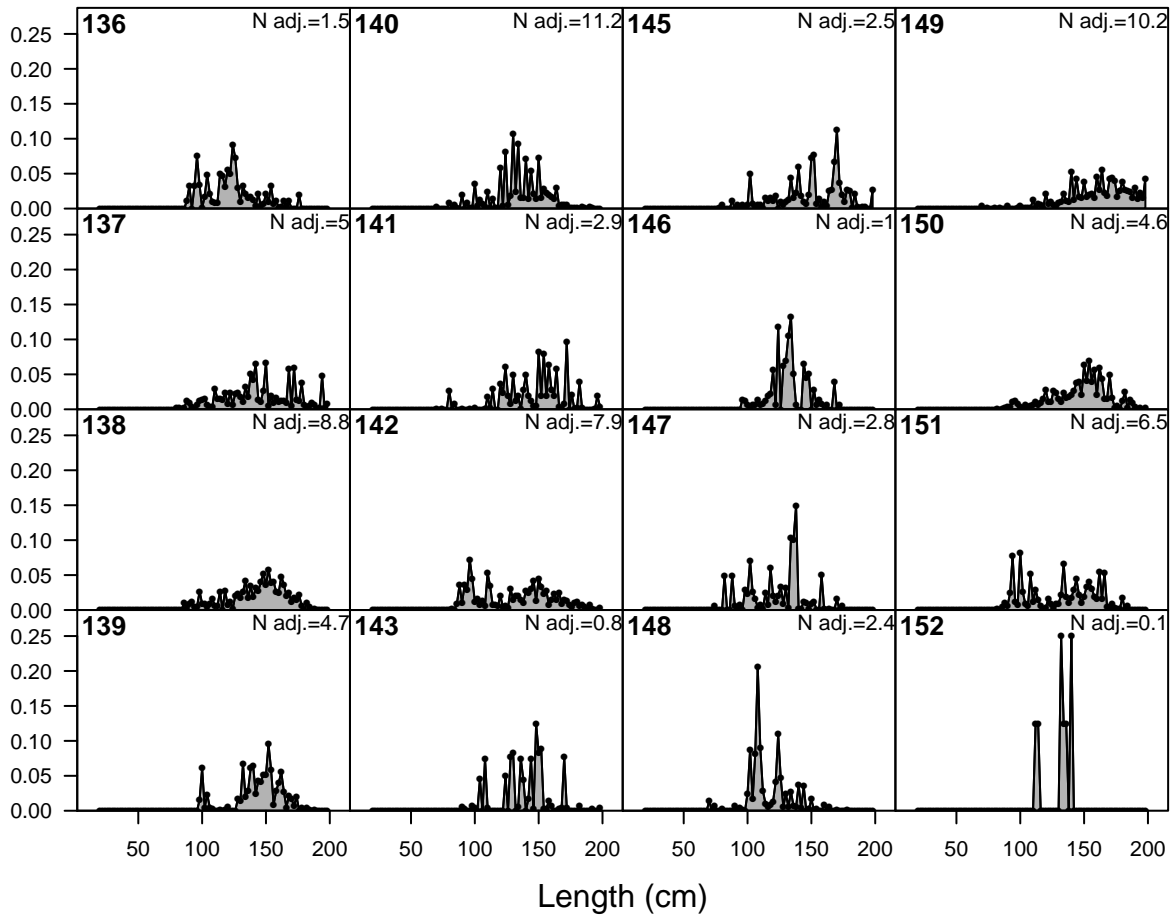
Proportion



Proportion

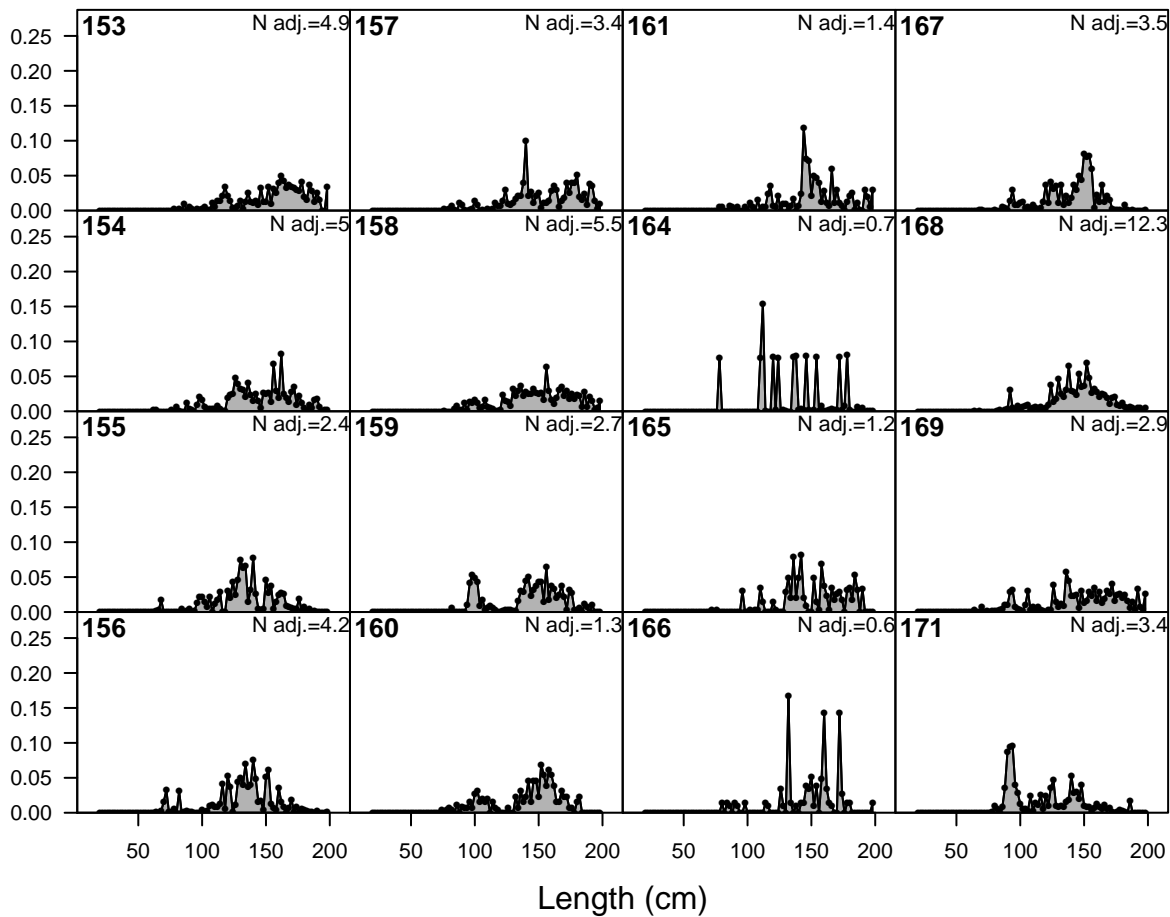


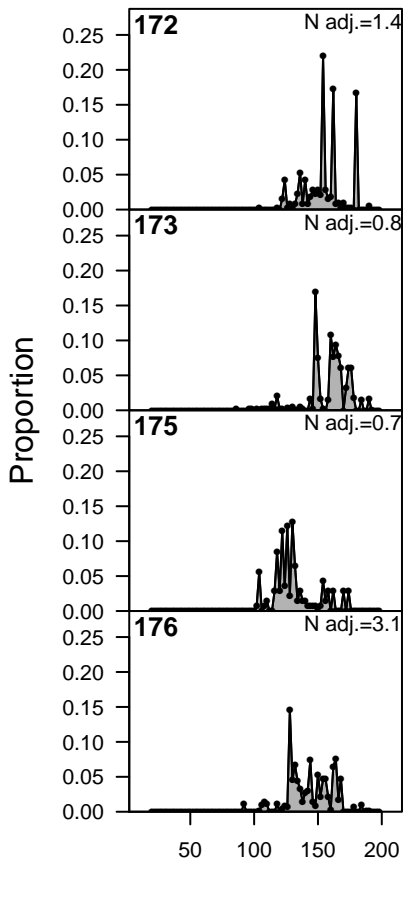
Proportion



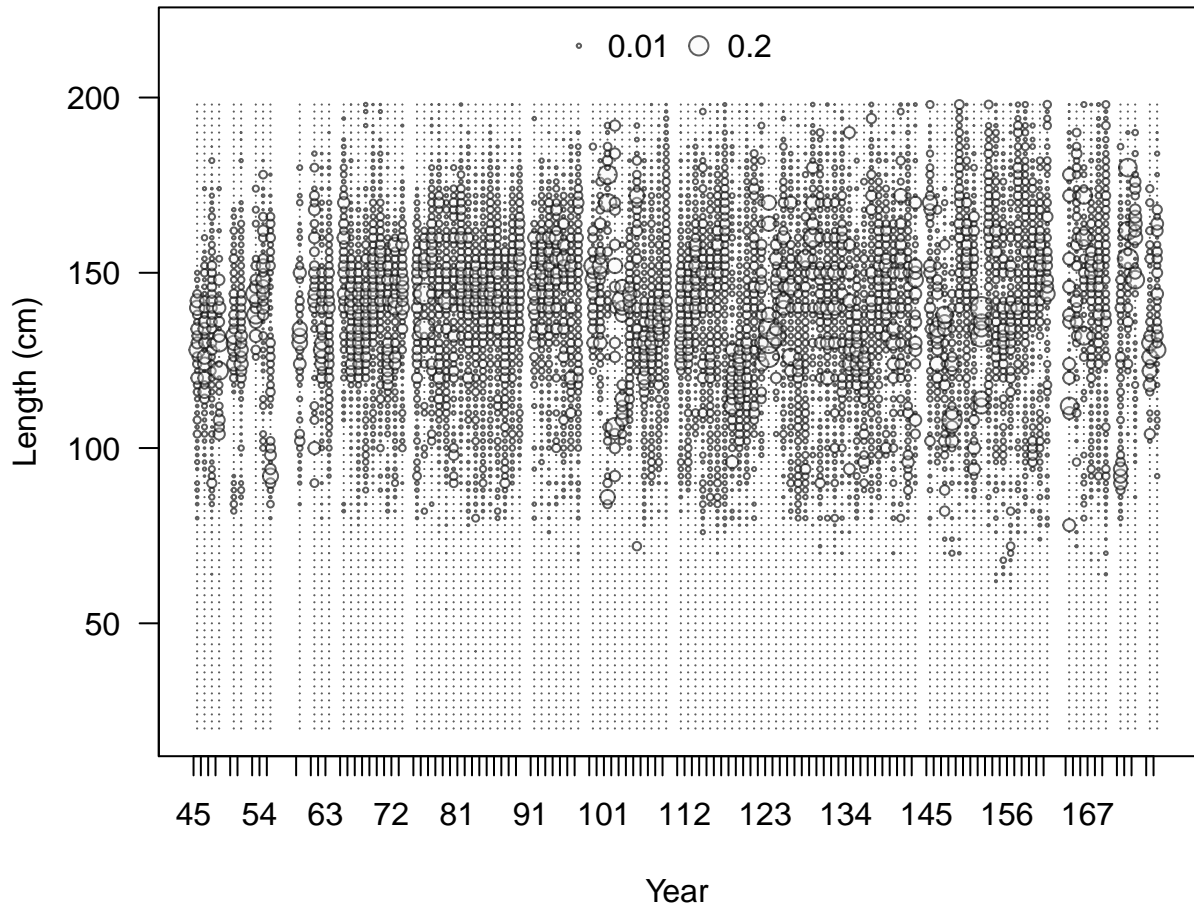


Proportion

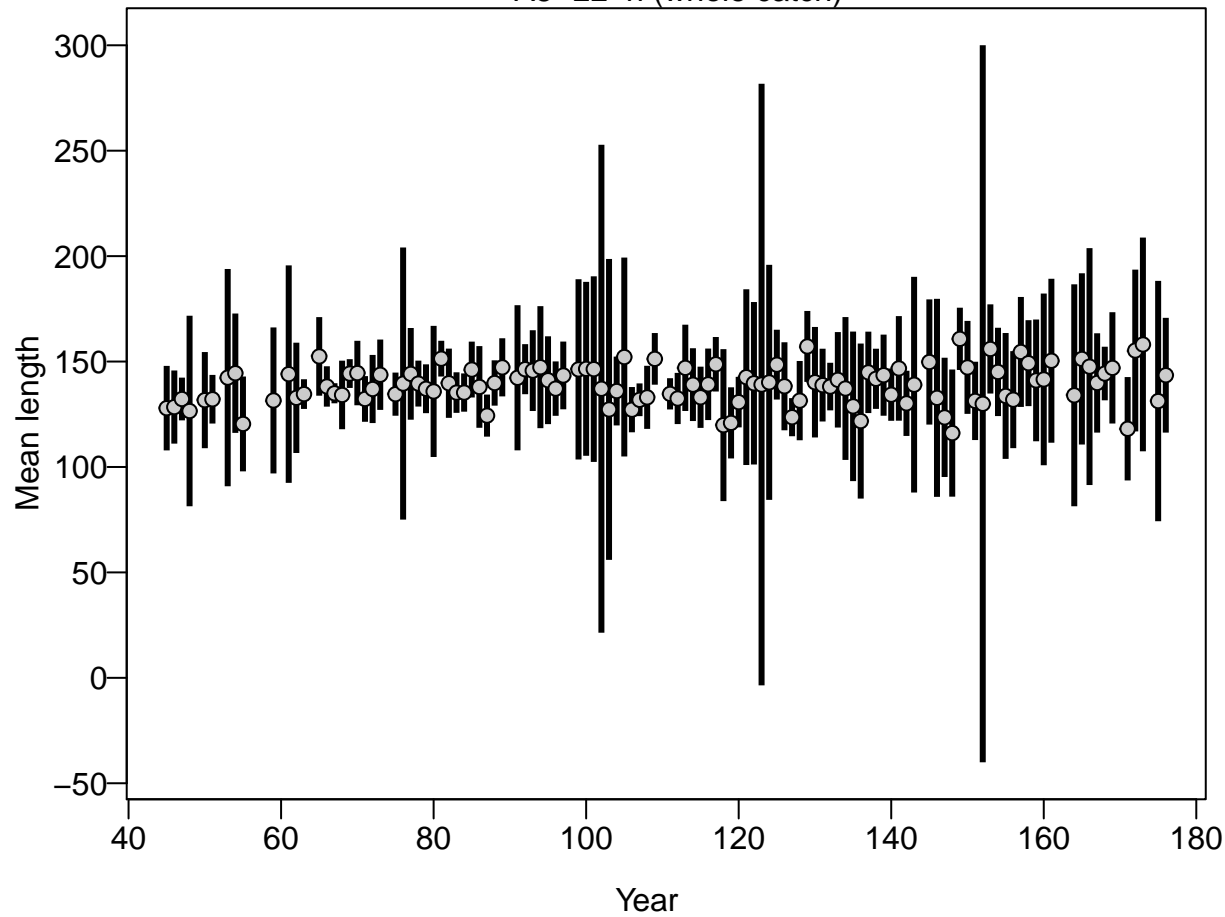


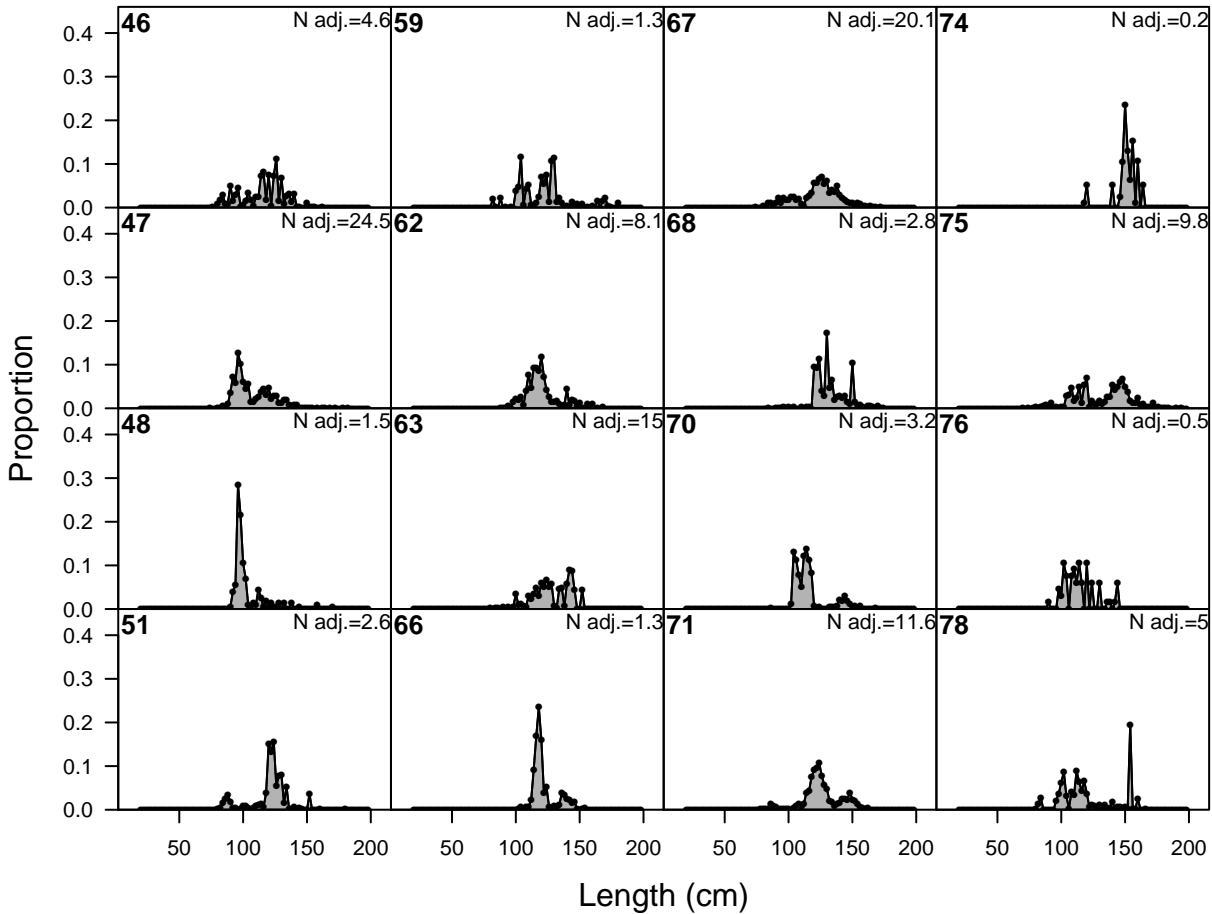


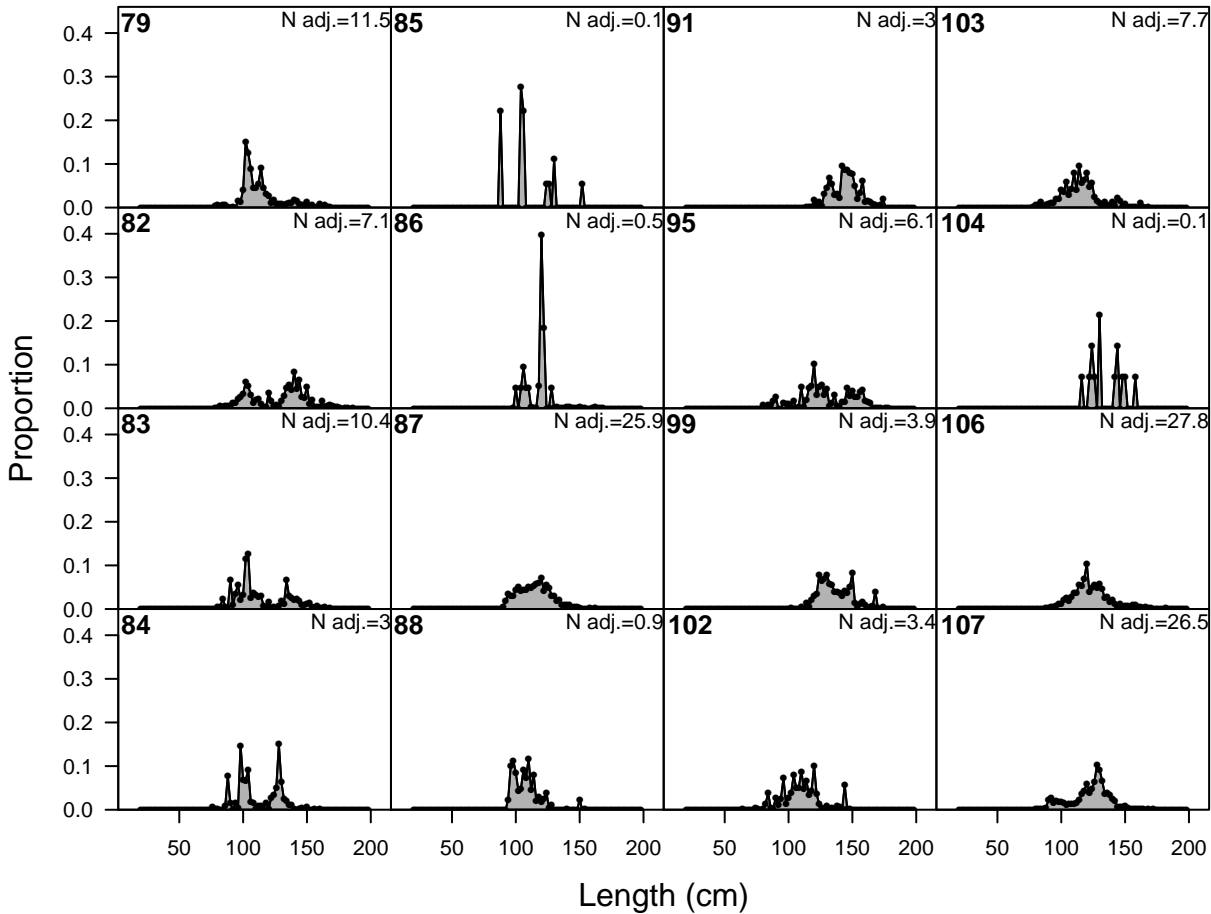
Length (cm)

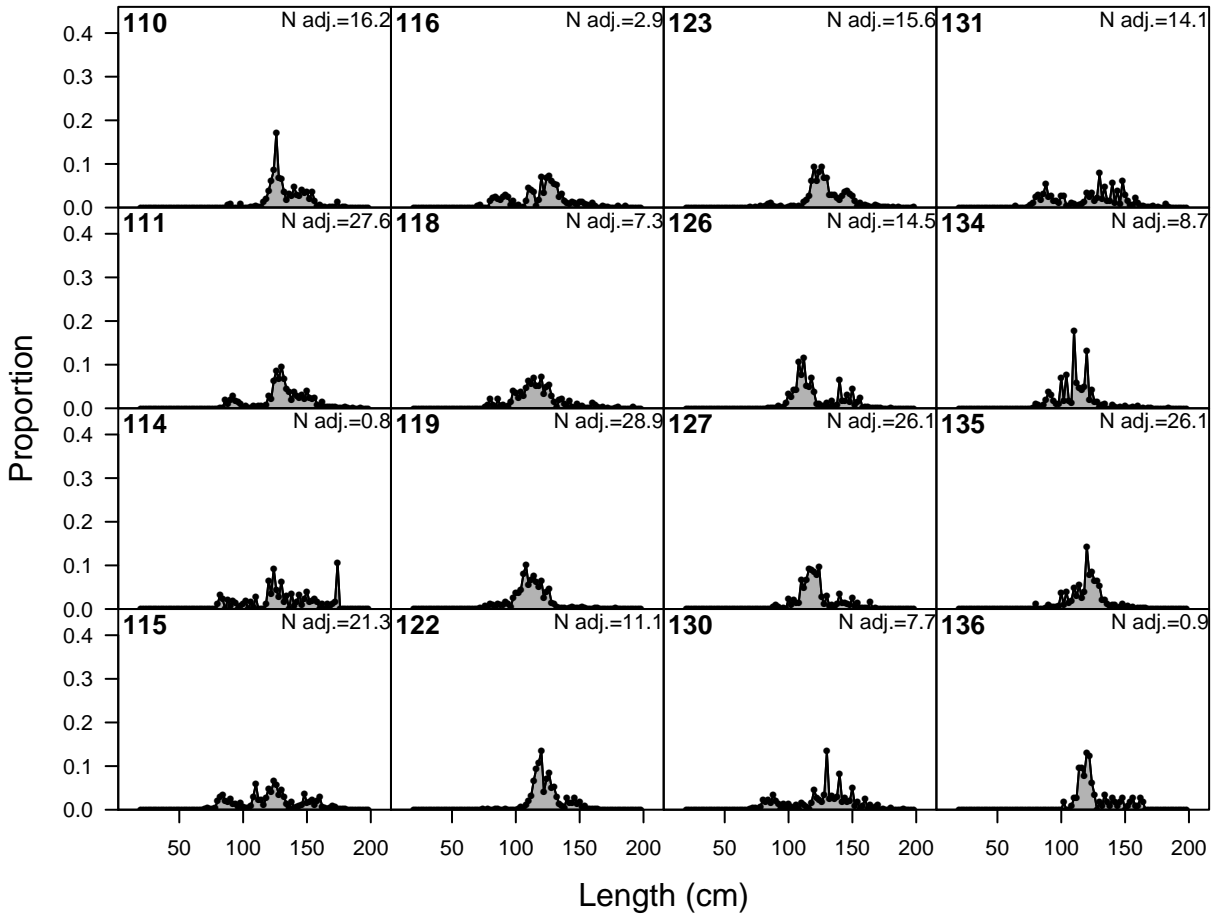


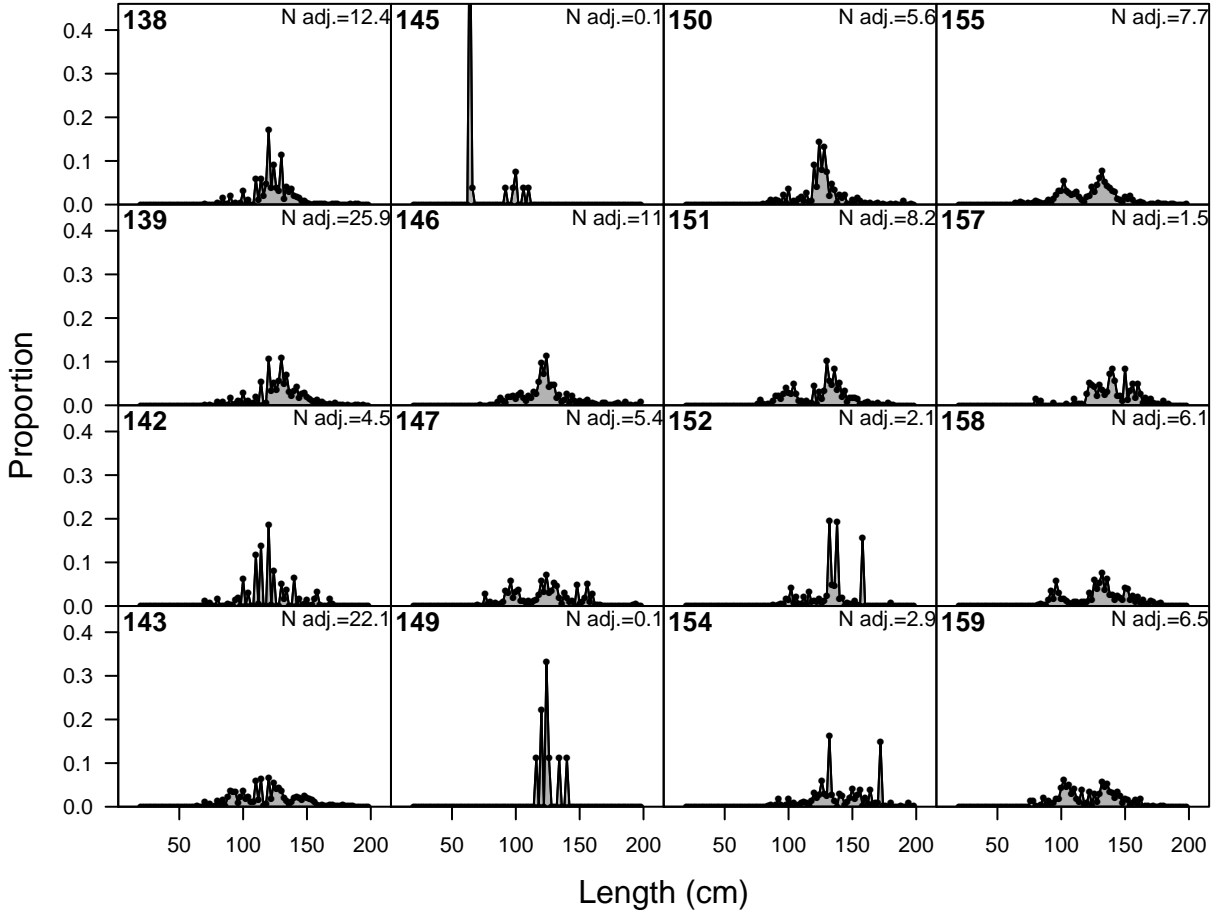
A5-LL-n (whole catch)



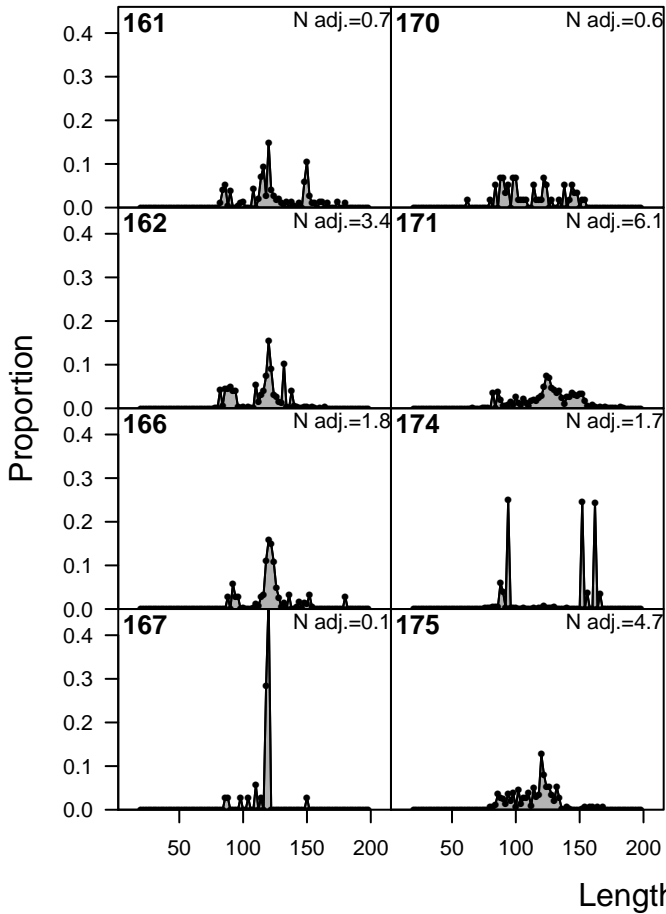


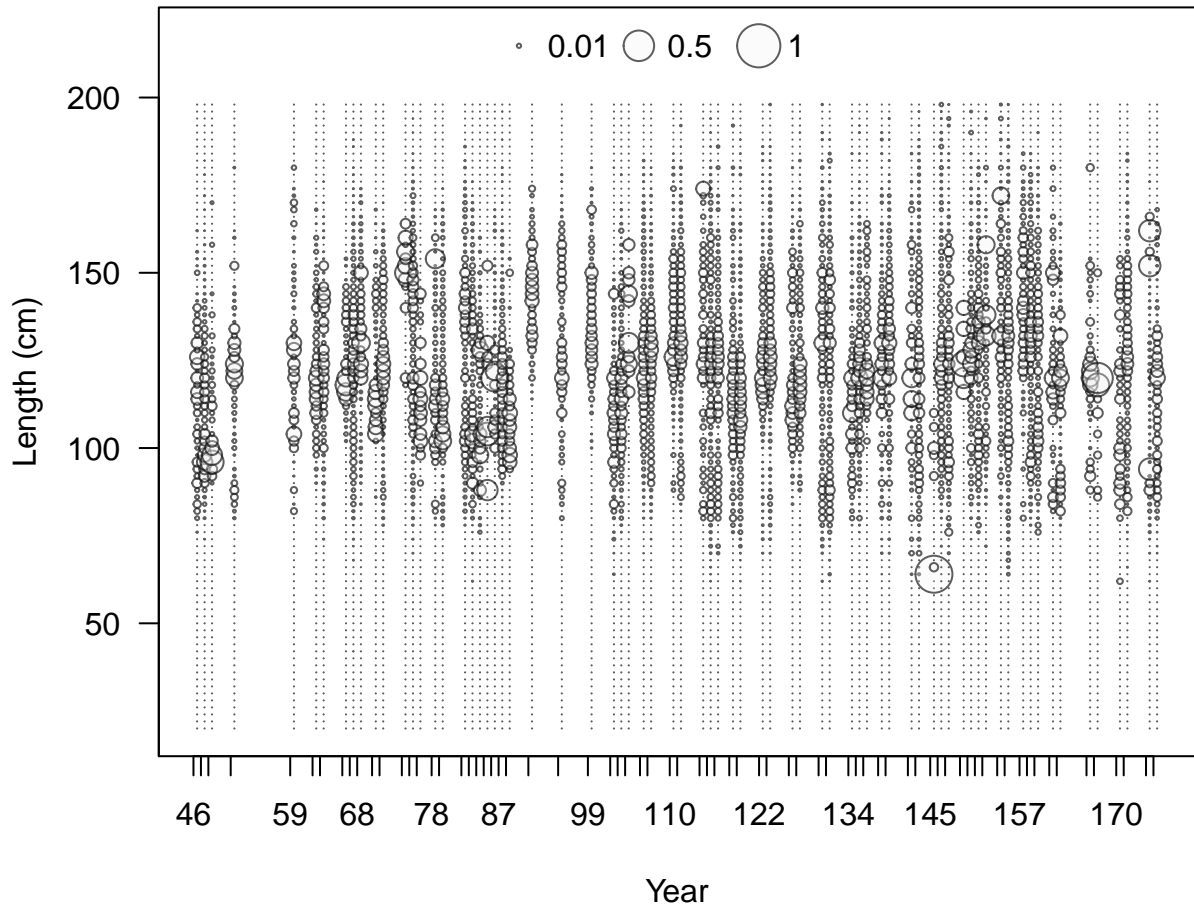




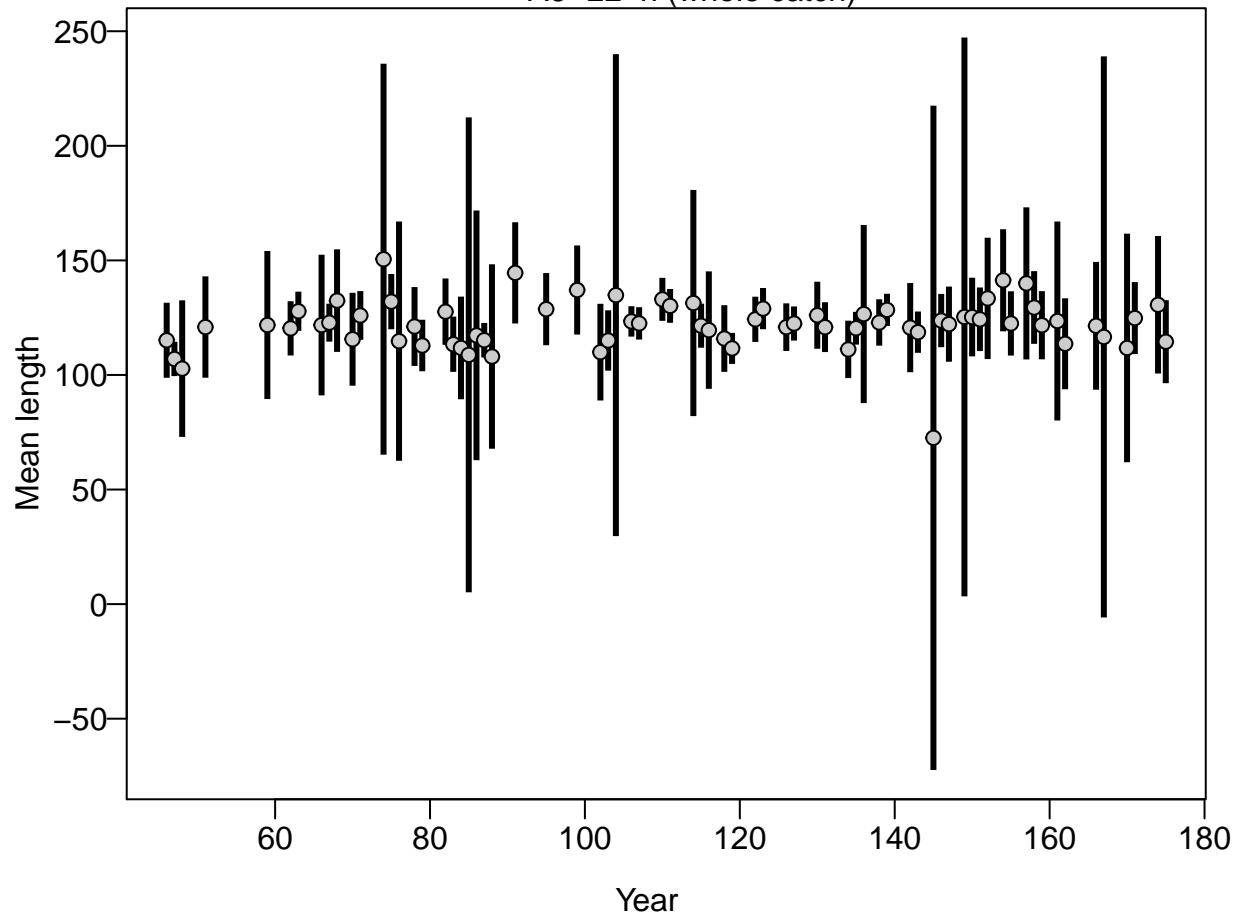


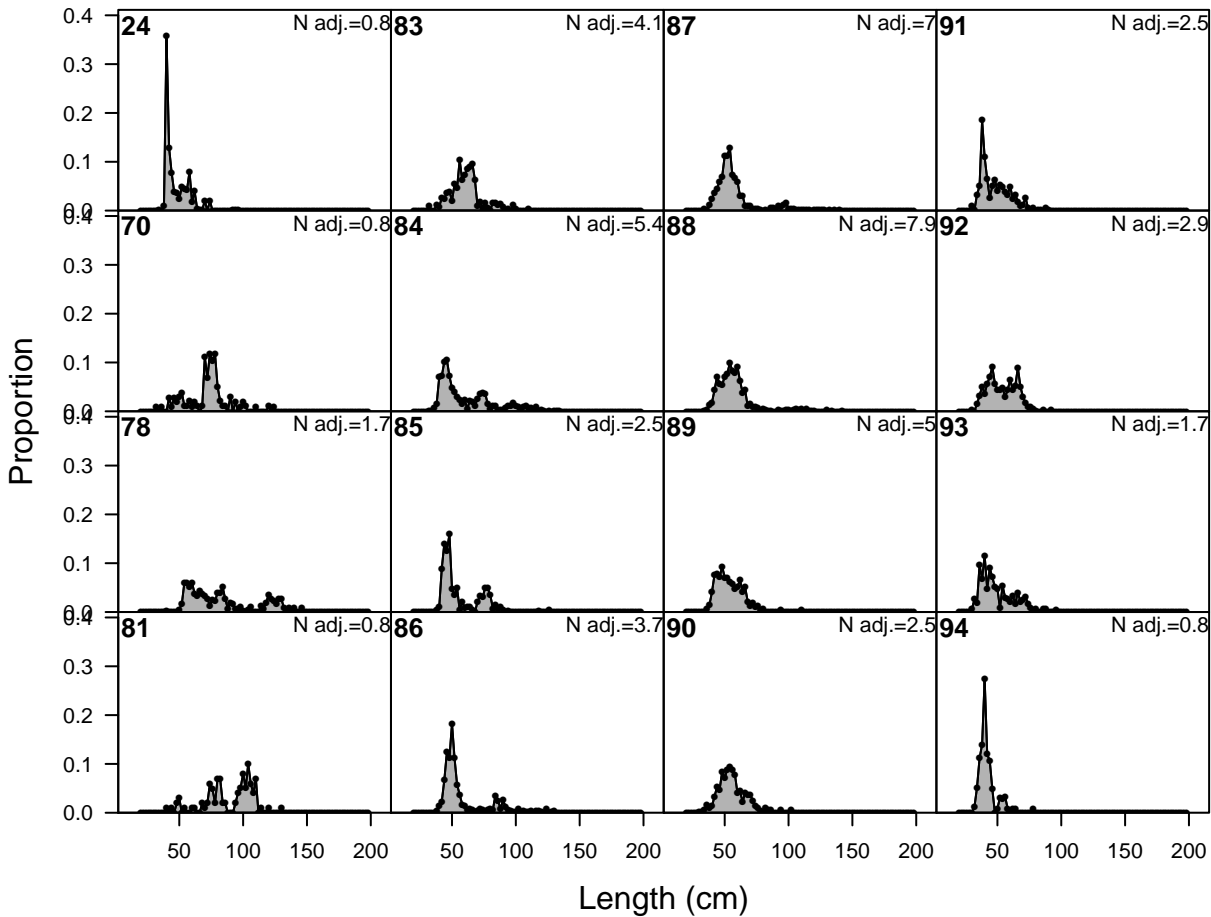


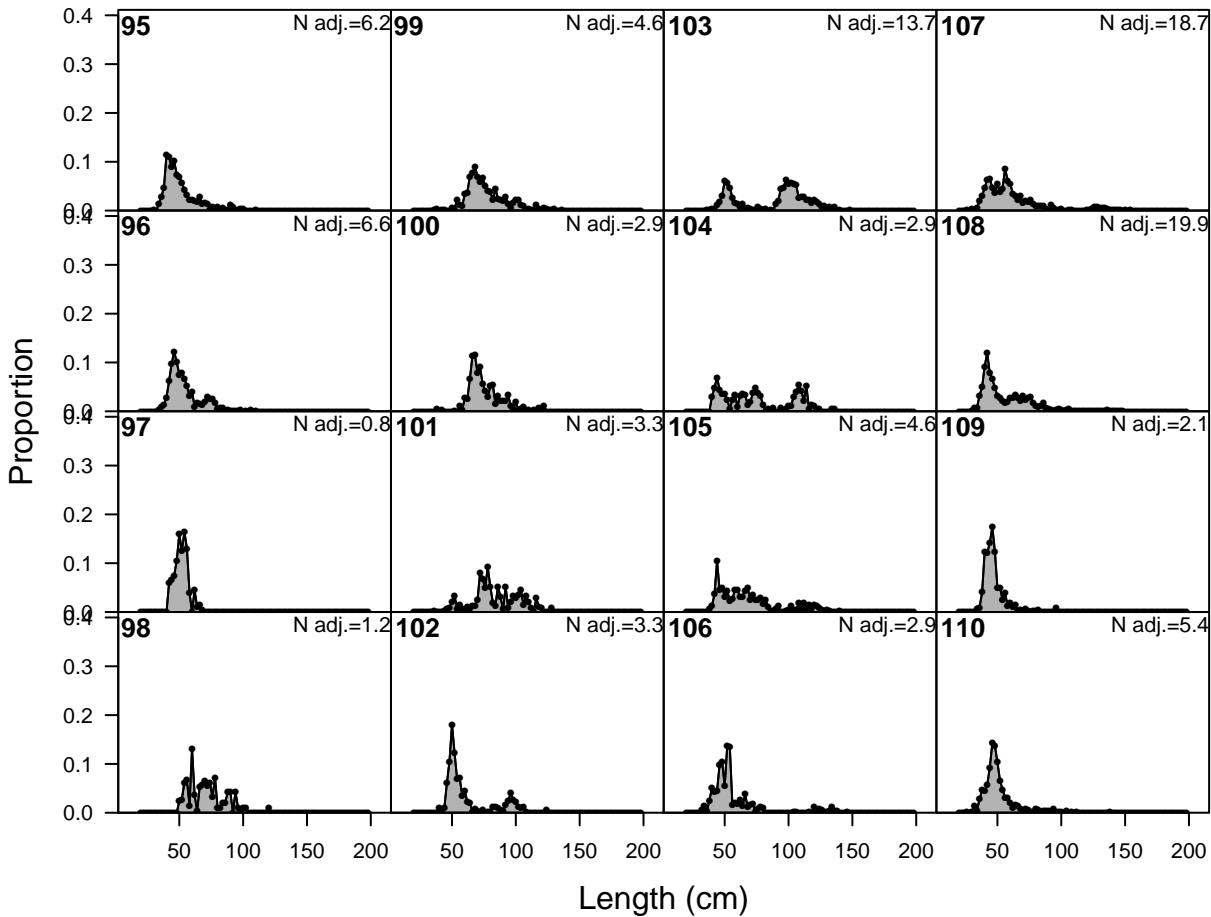


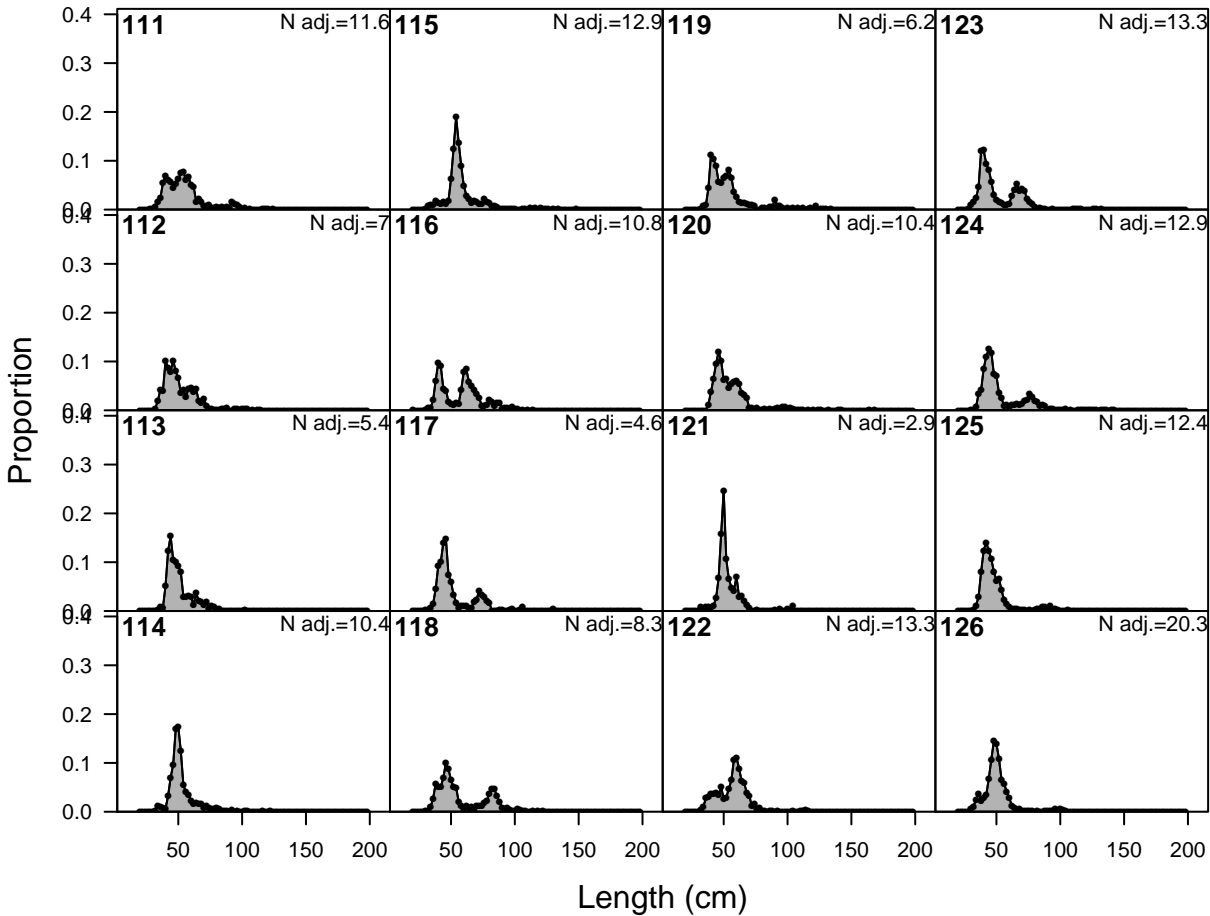


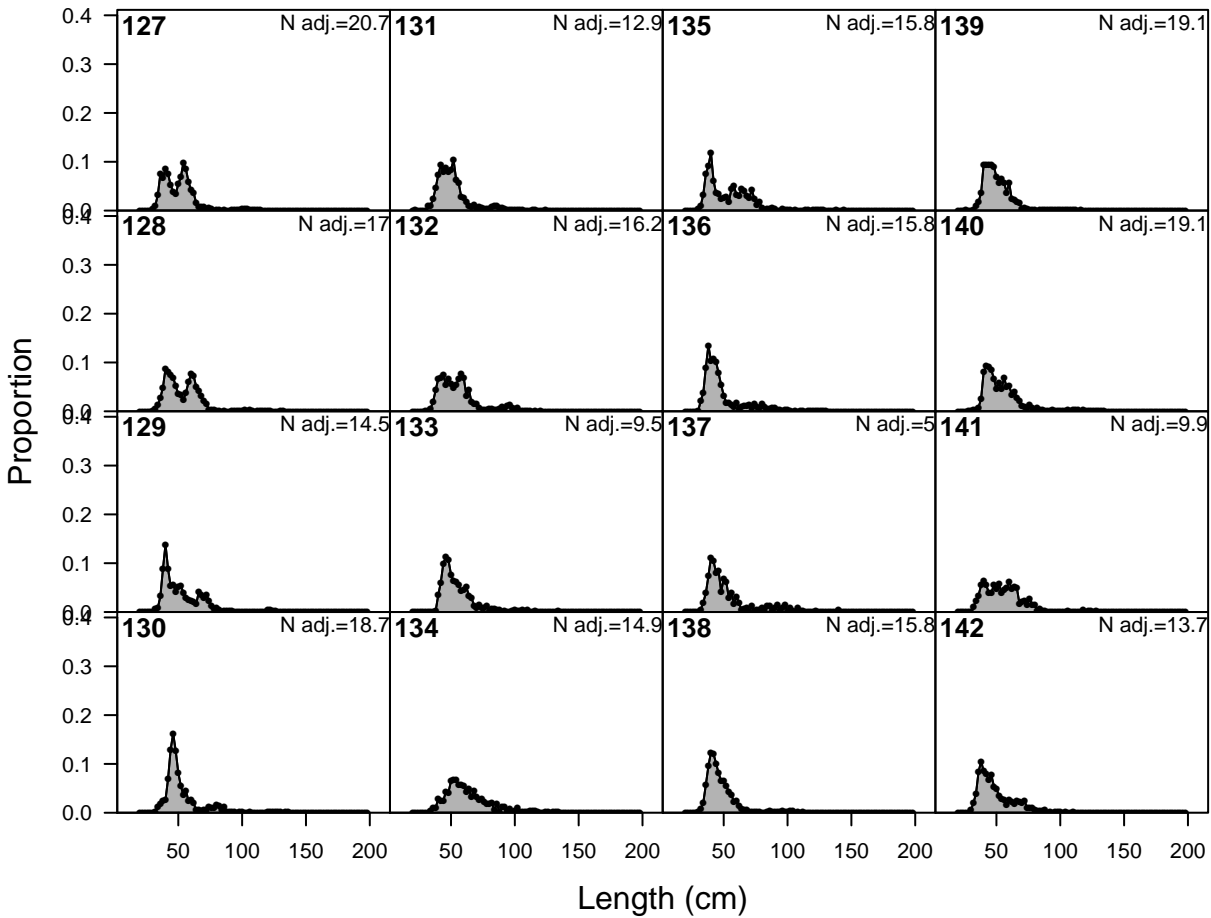
A6-LL-n (whole catch)

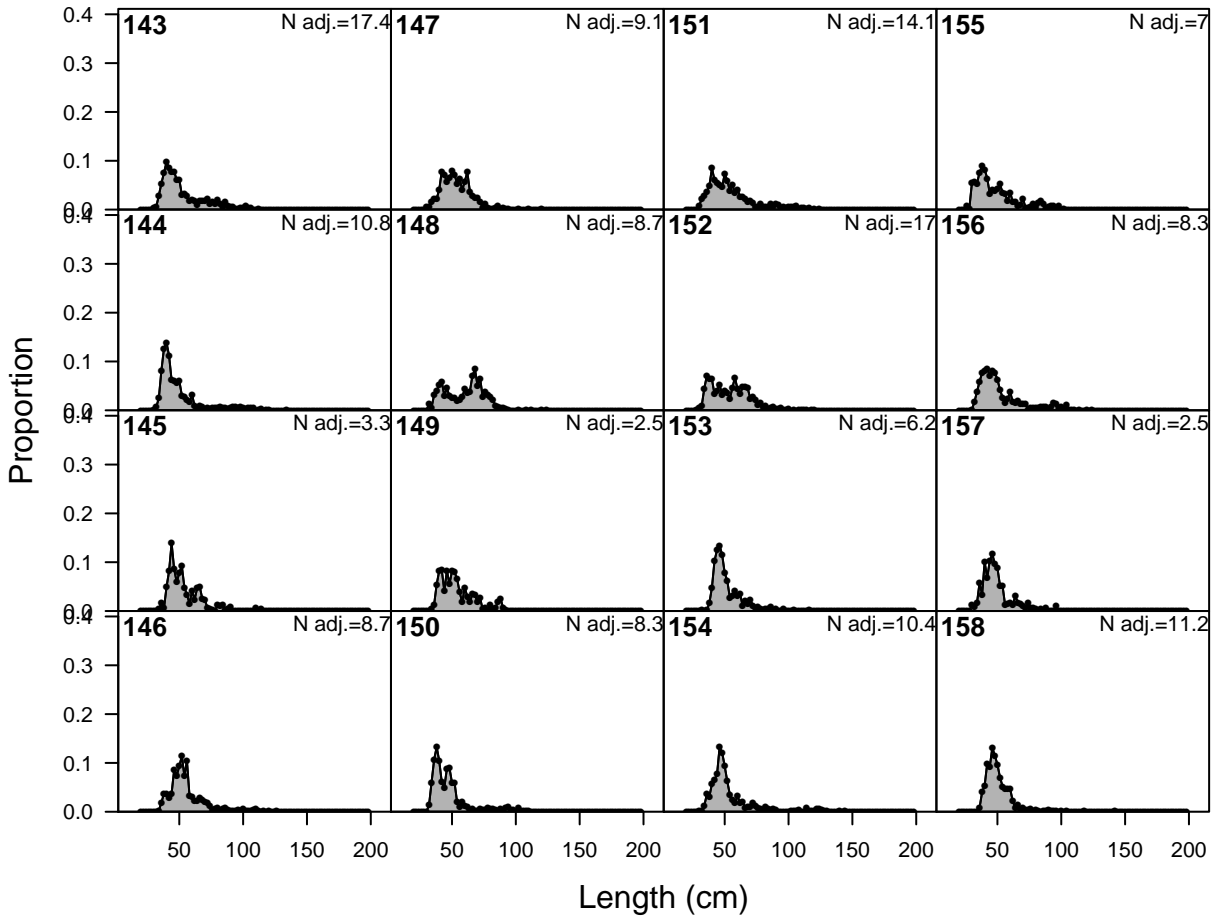




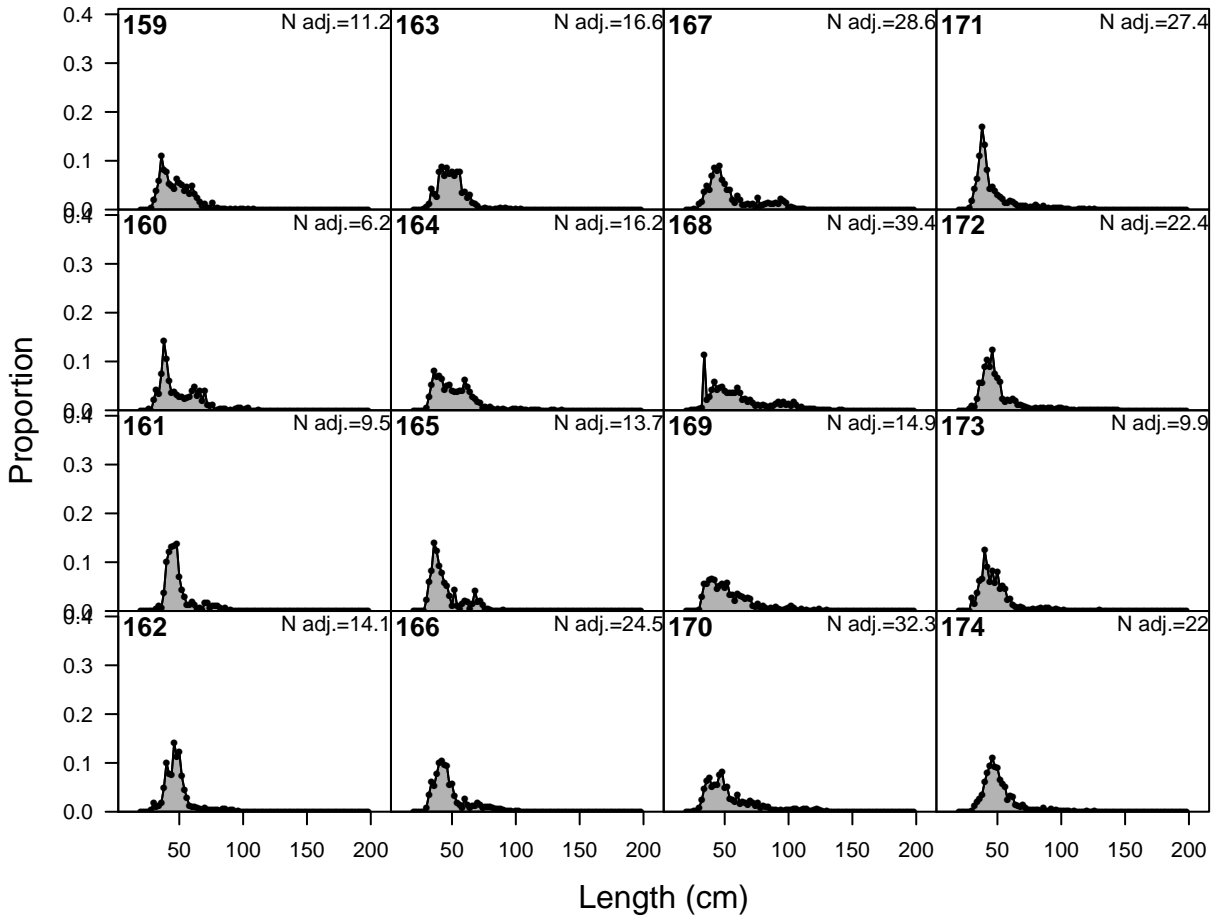


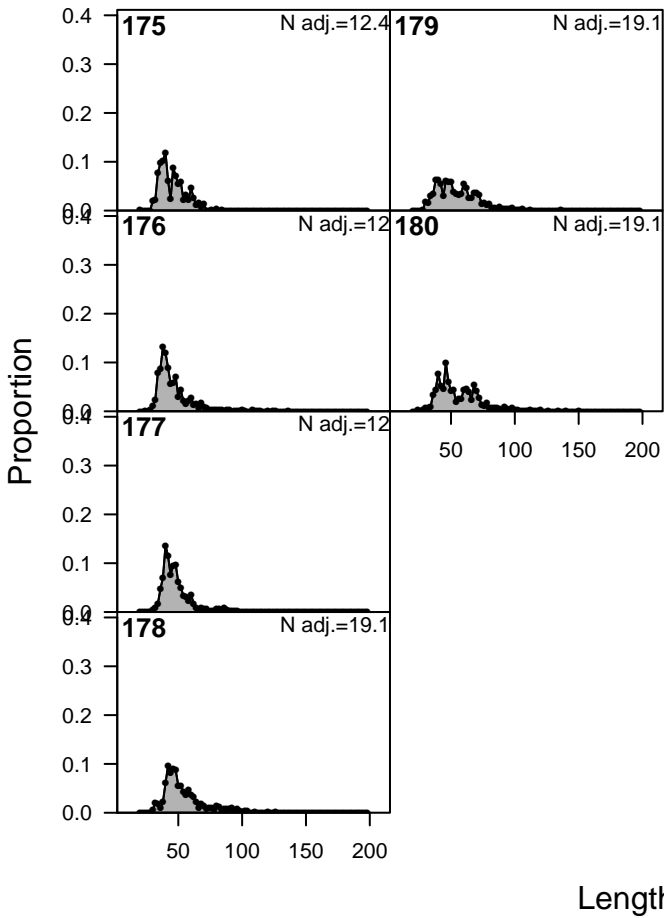


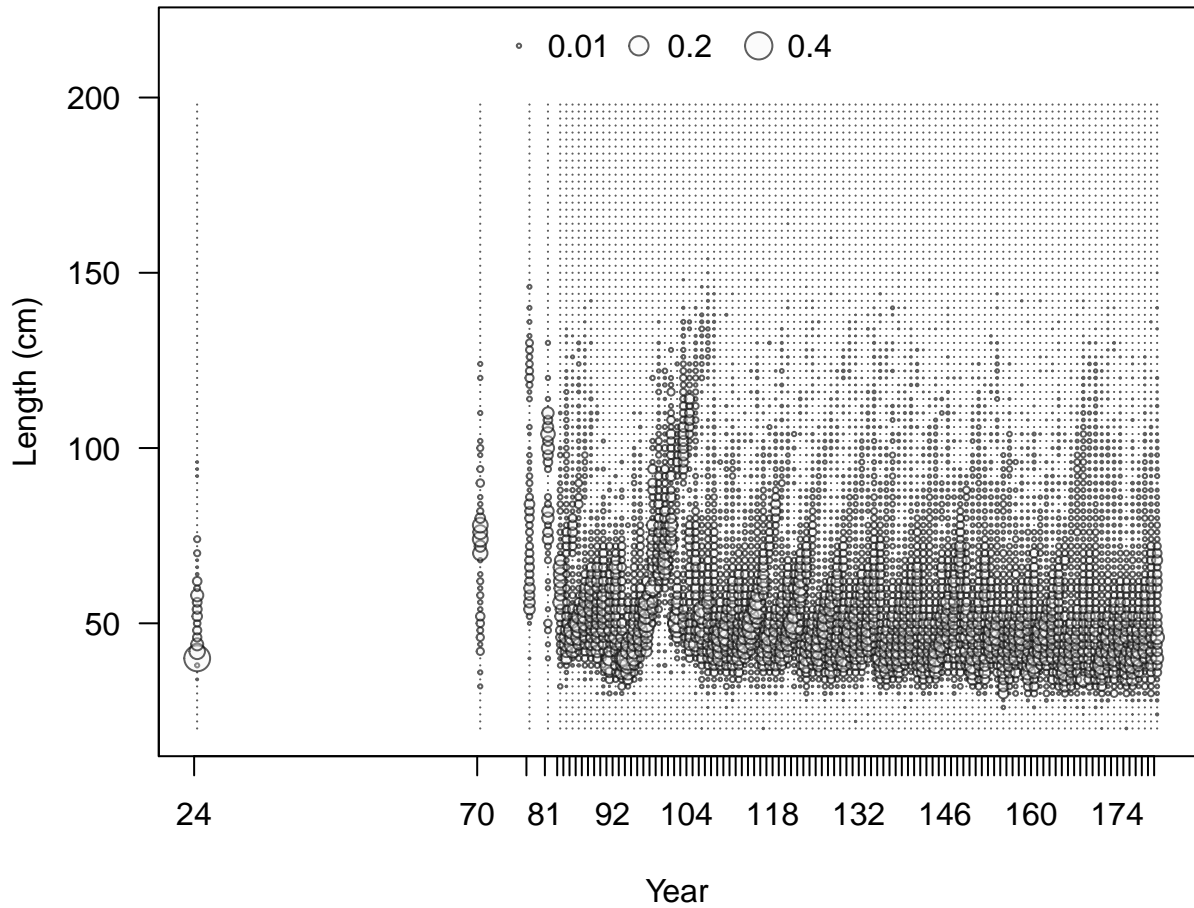




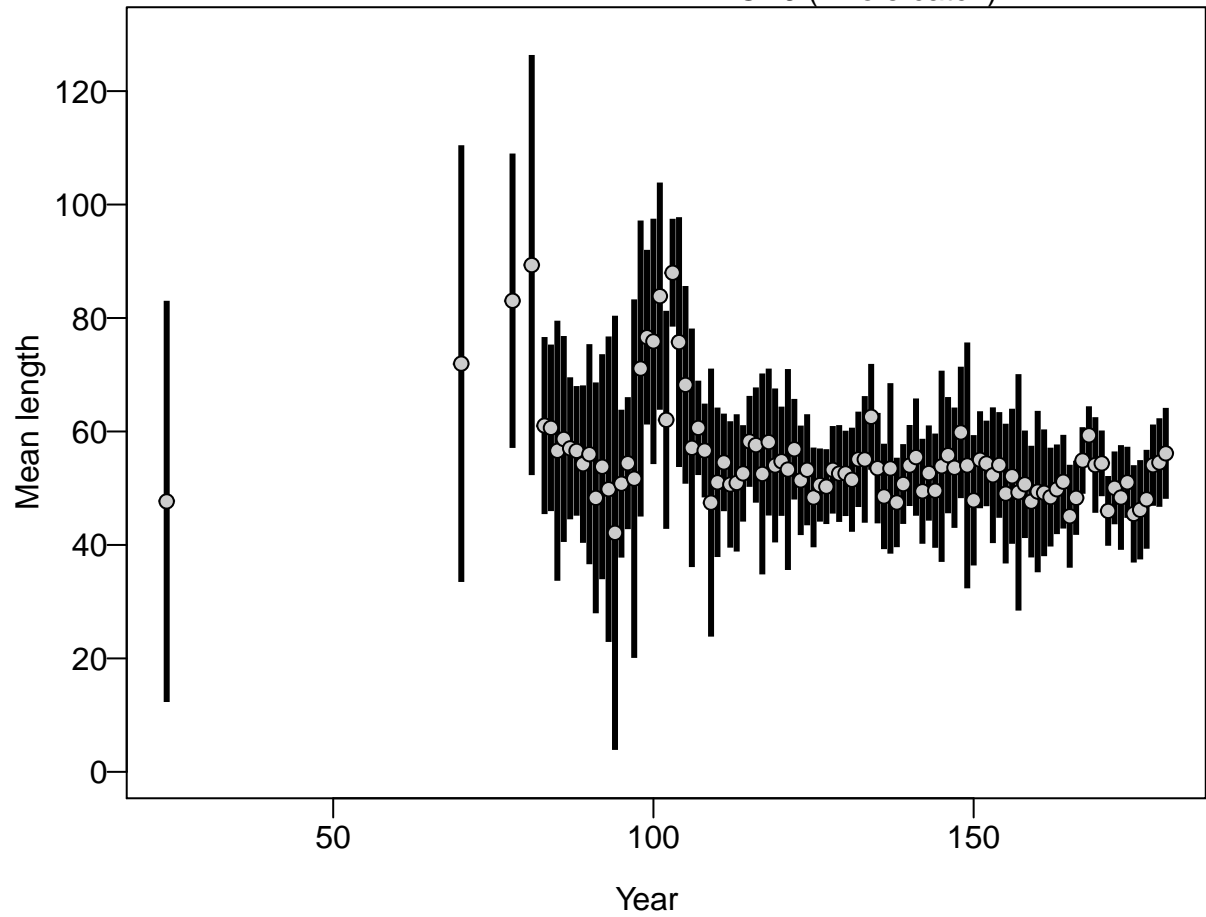


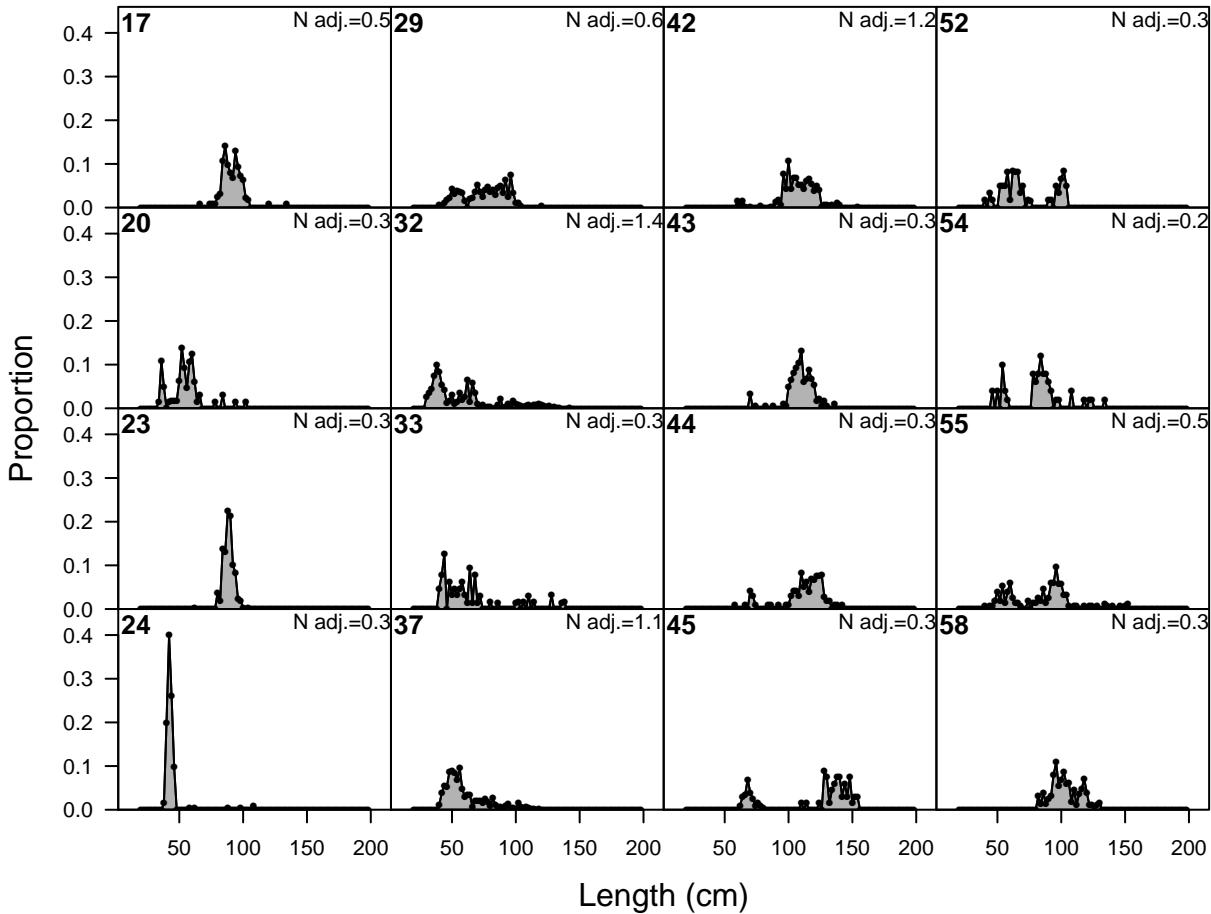


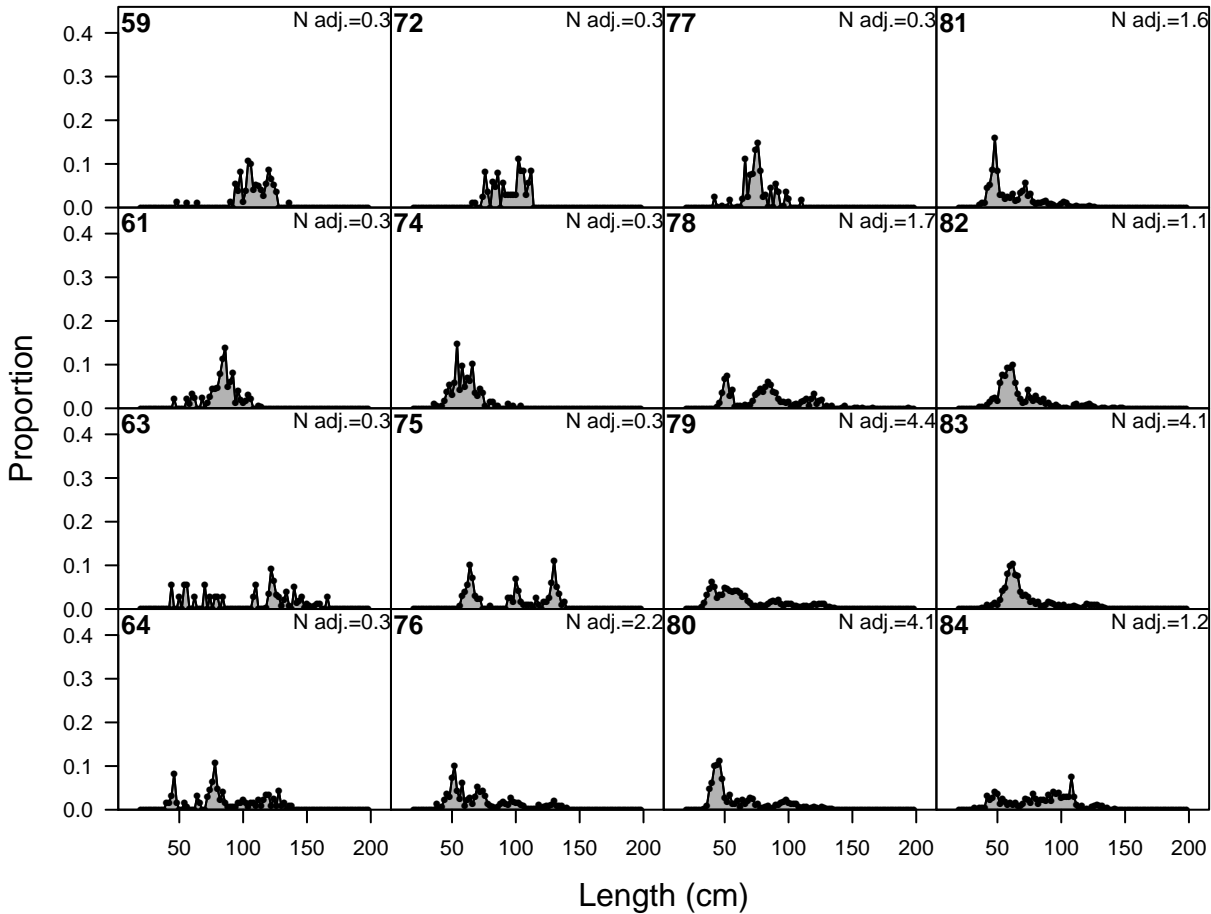


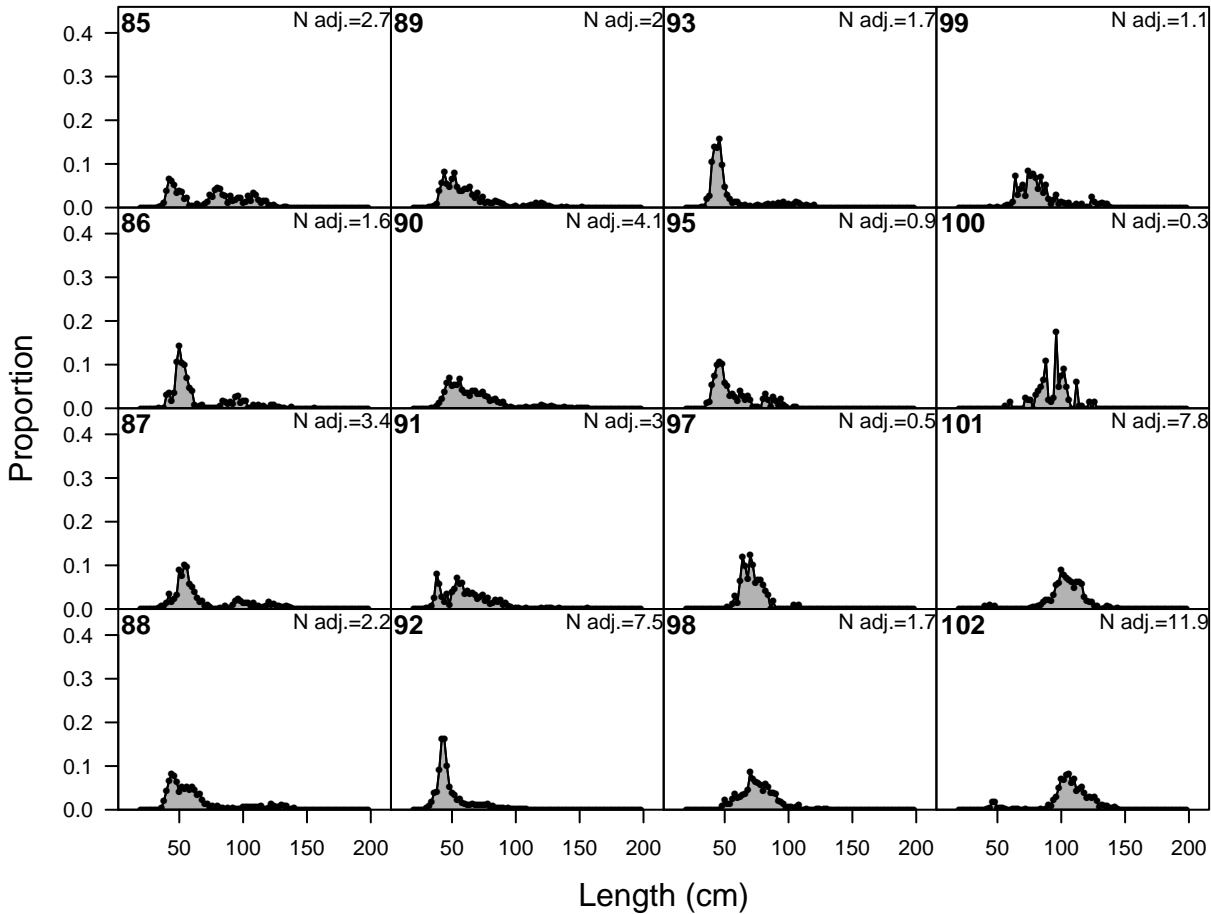


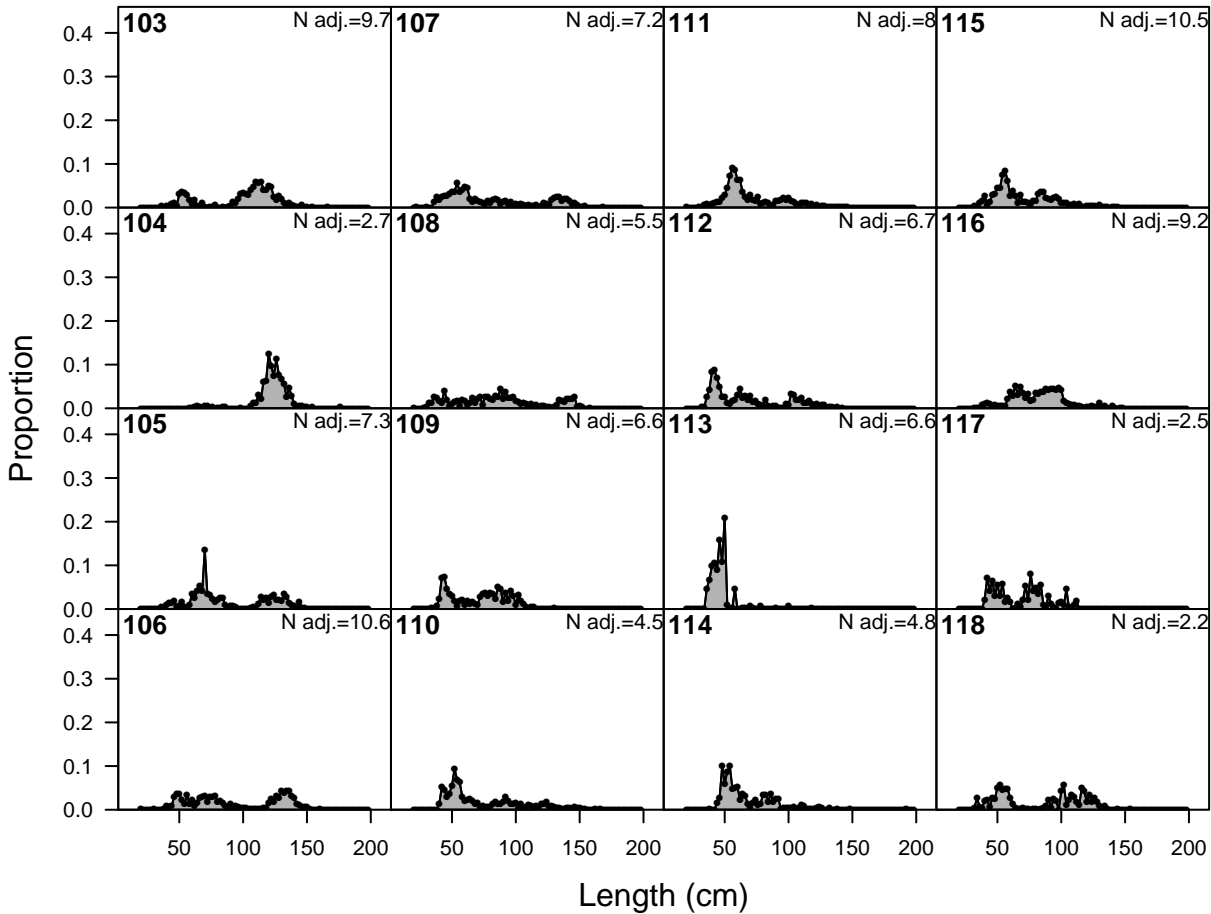
## A2-OBJ (whole catch)



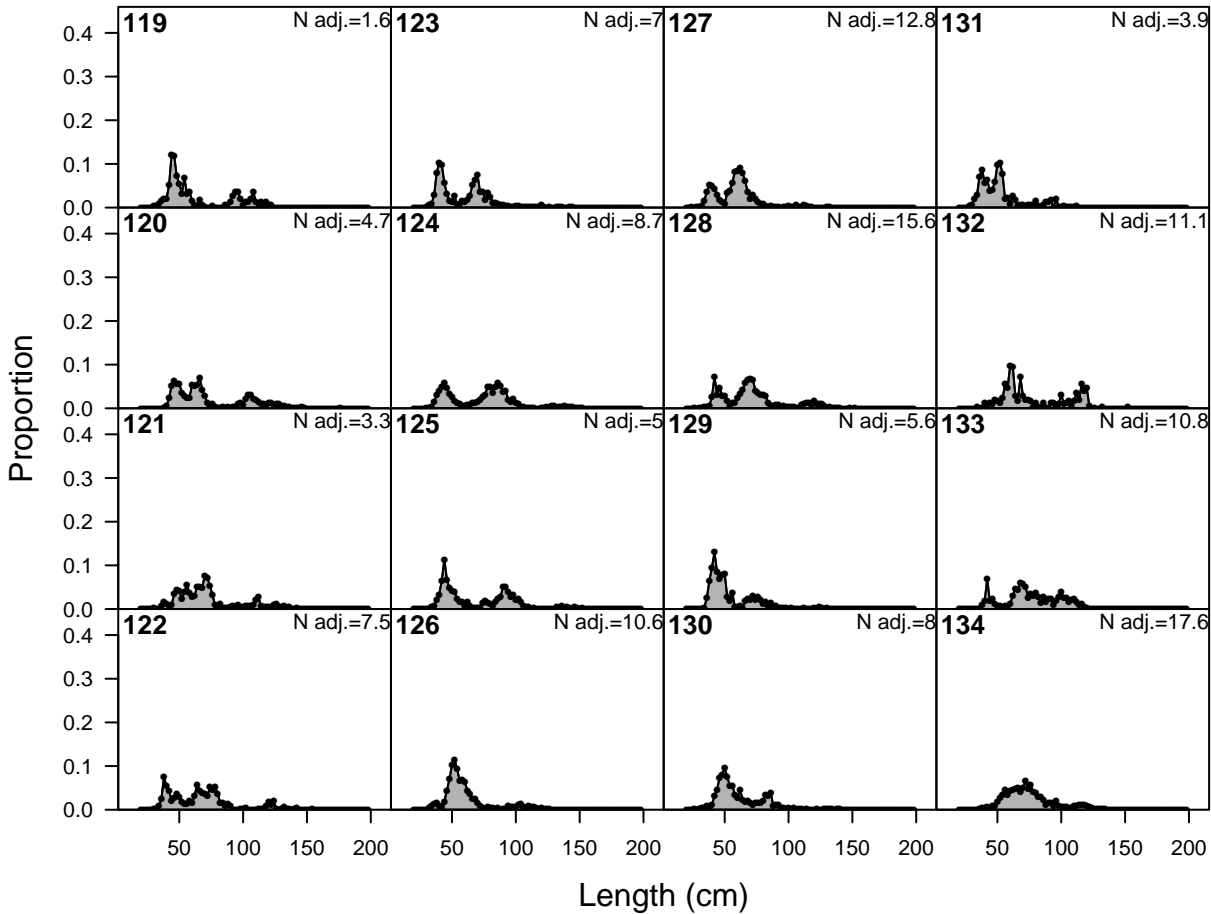


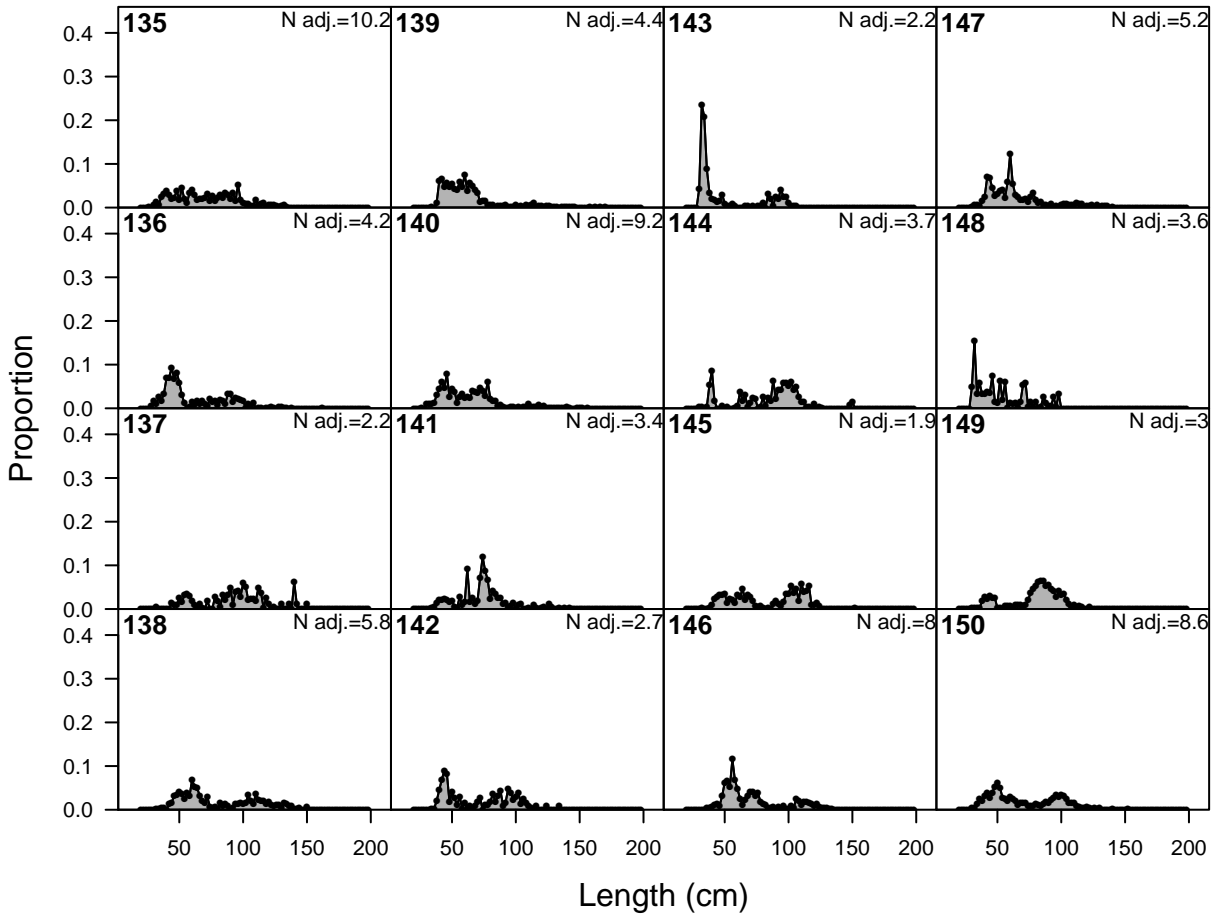


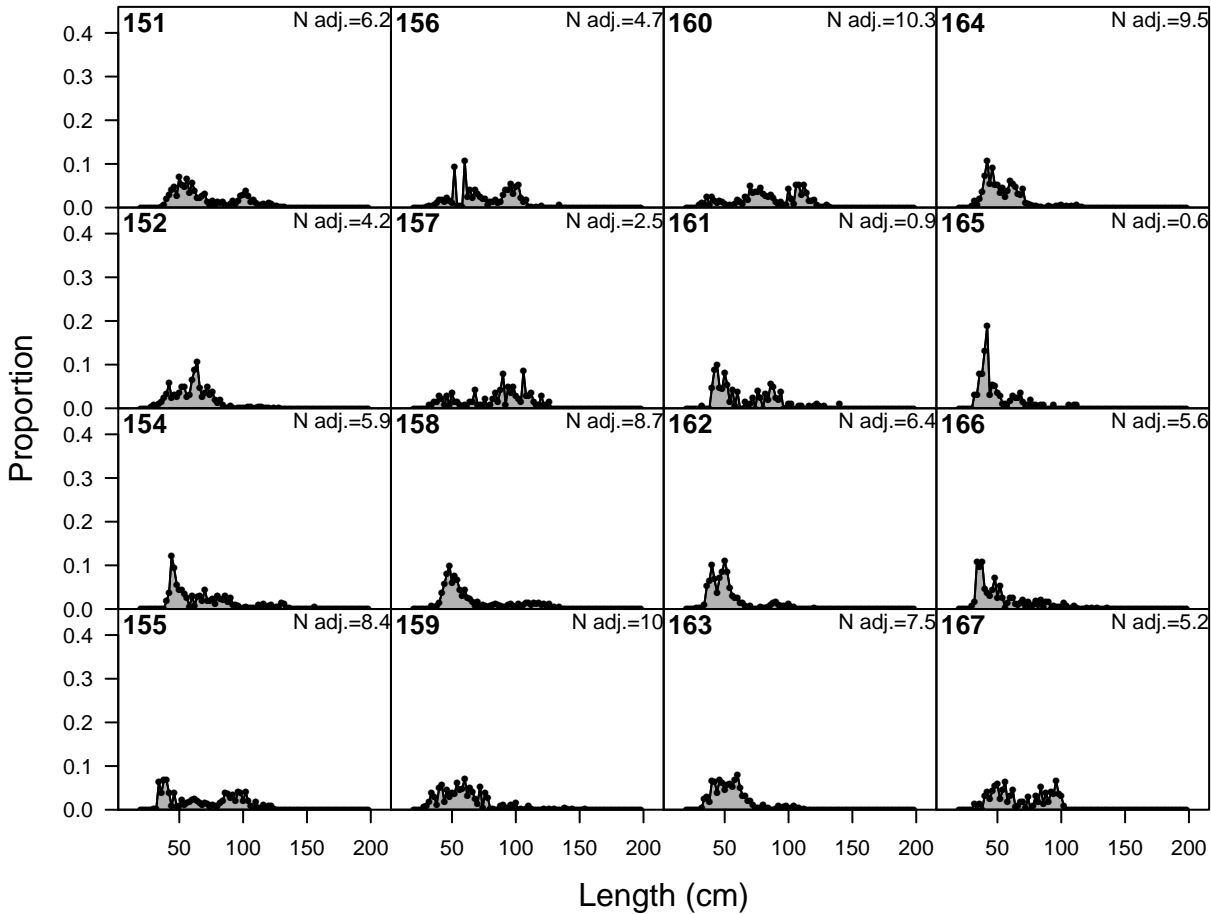


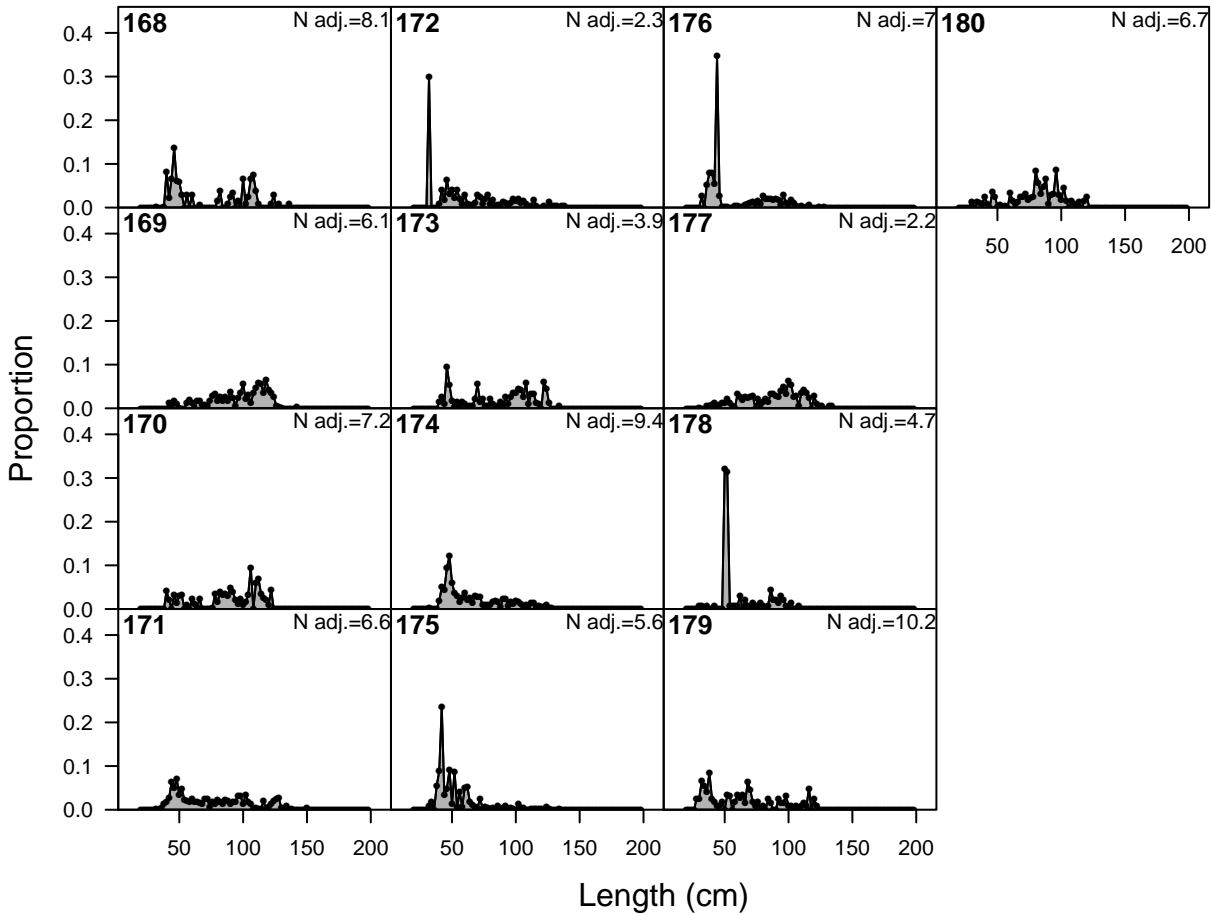


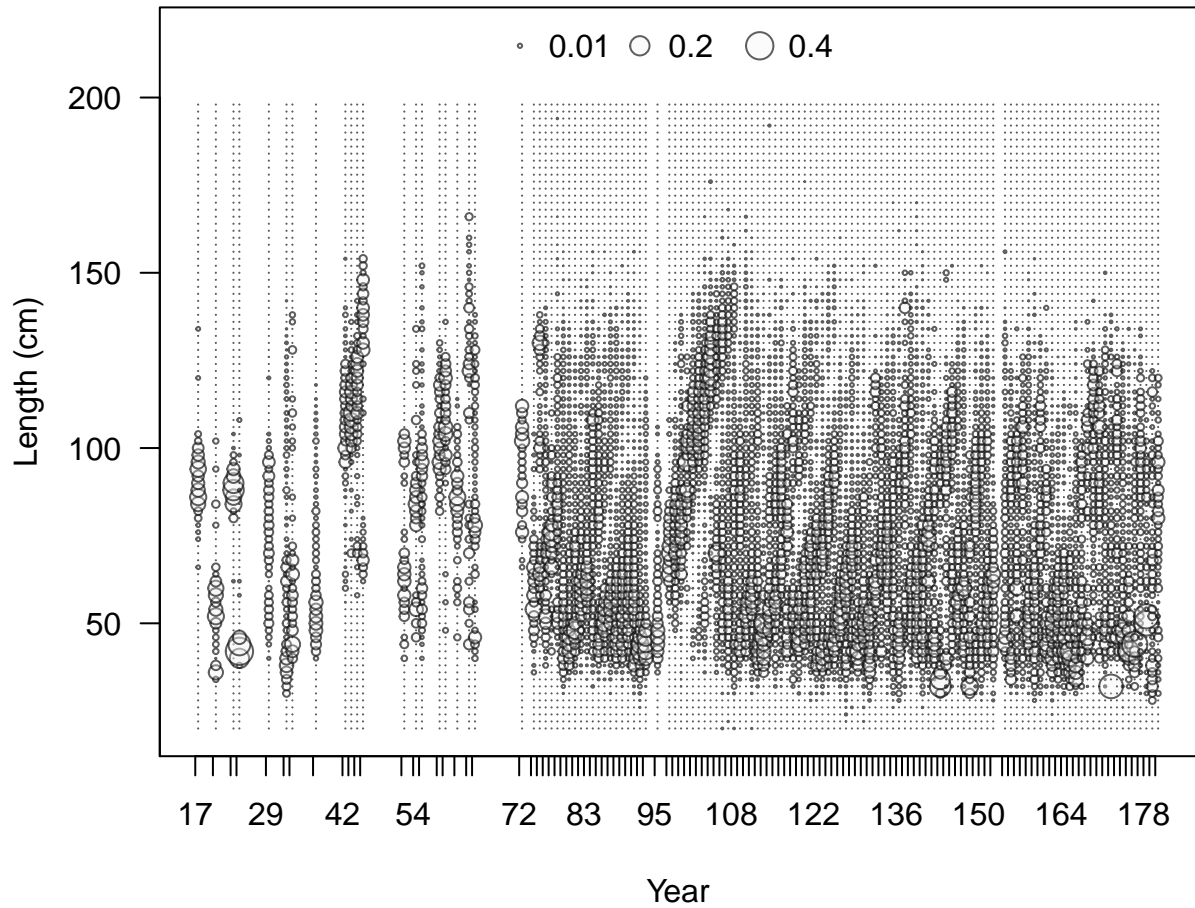




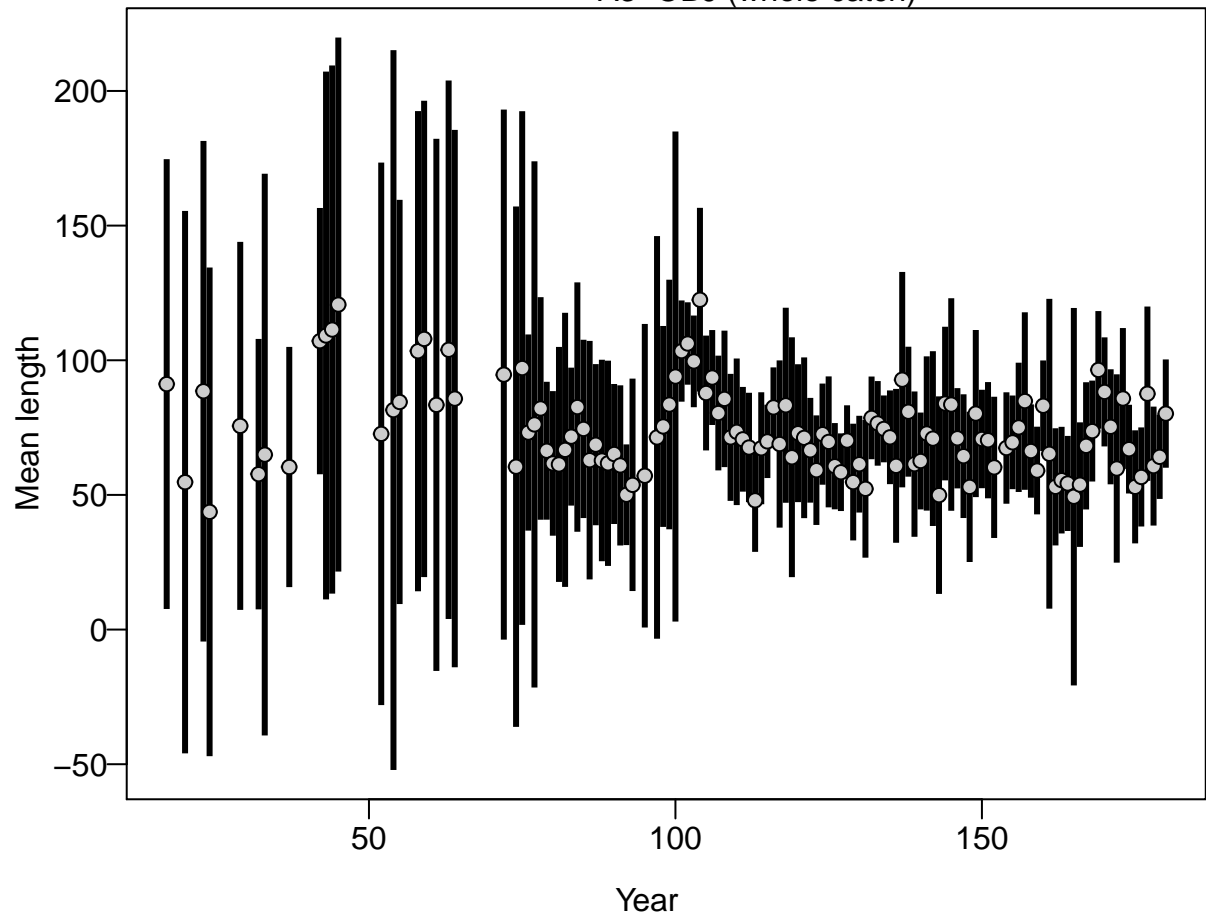




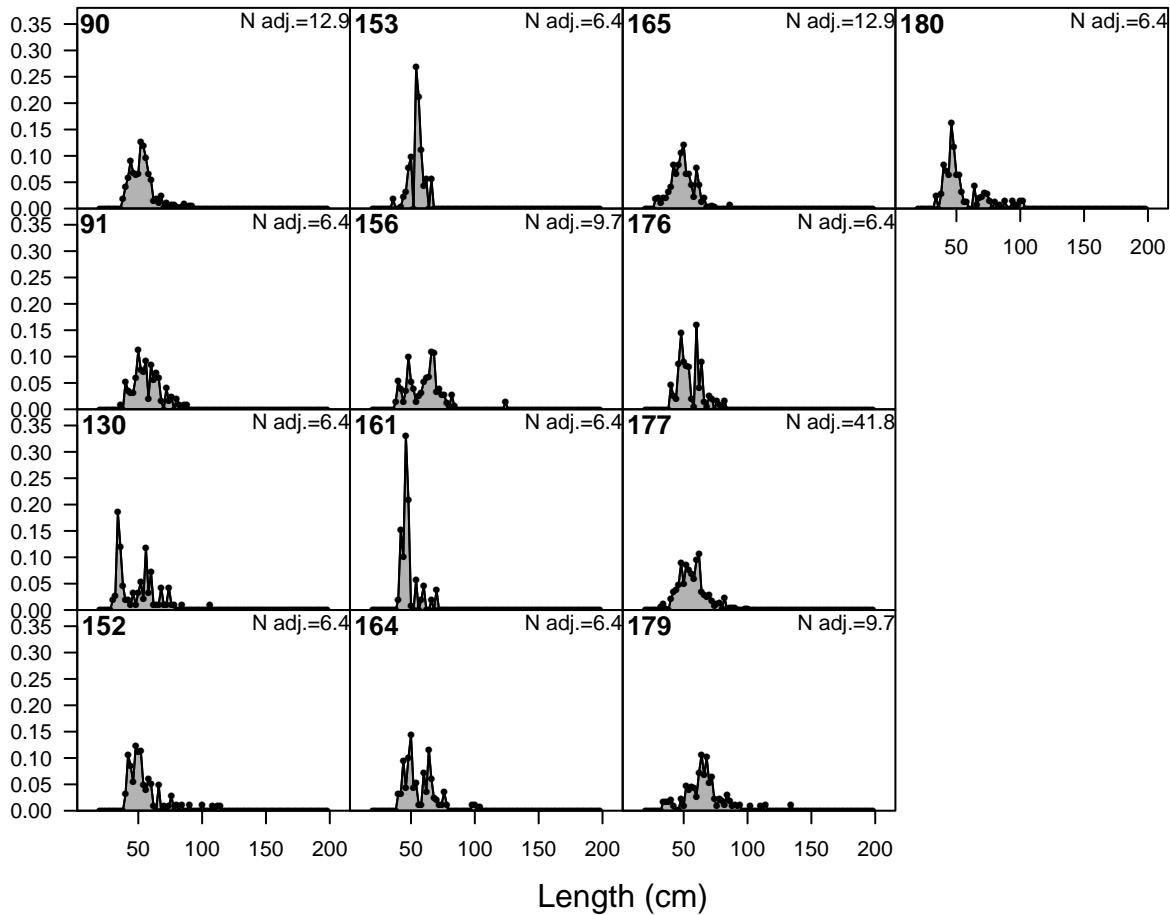


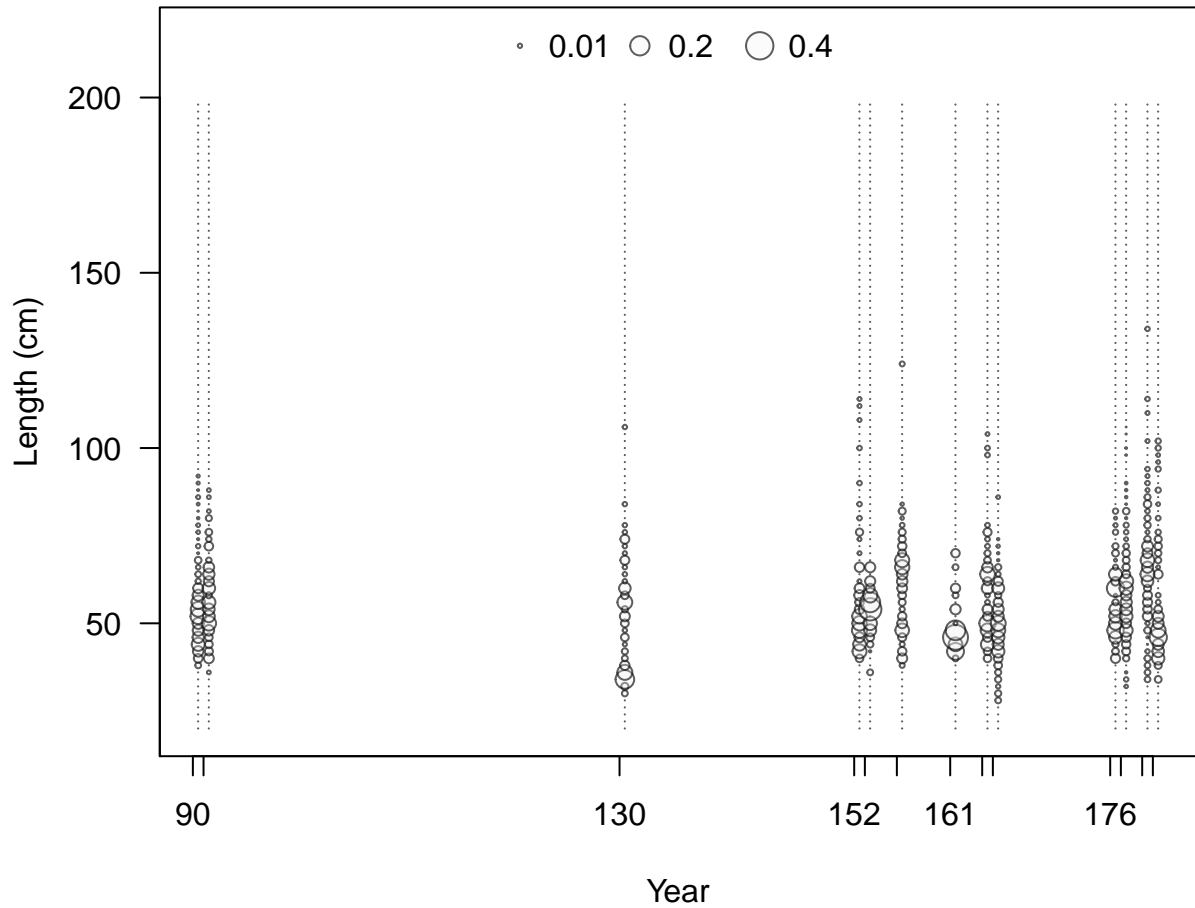


## A3-OBJ (whole catch)



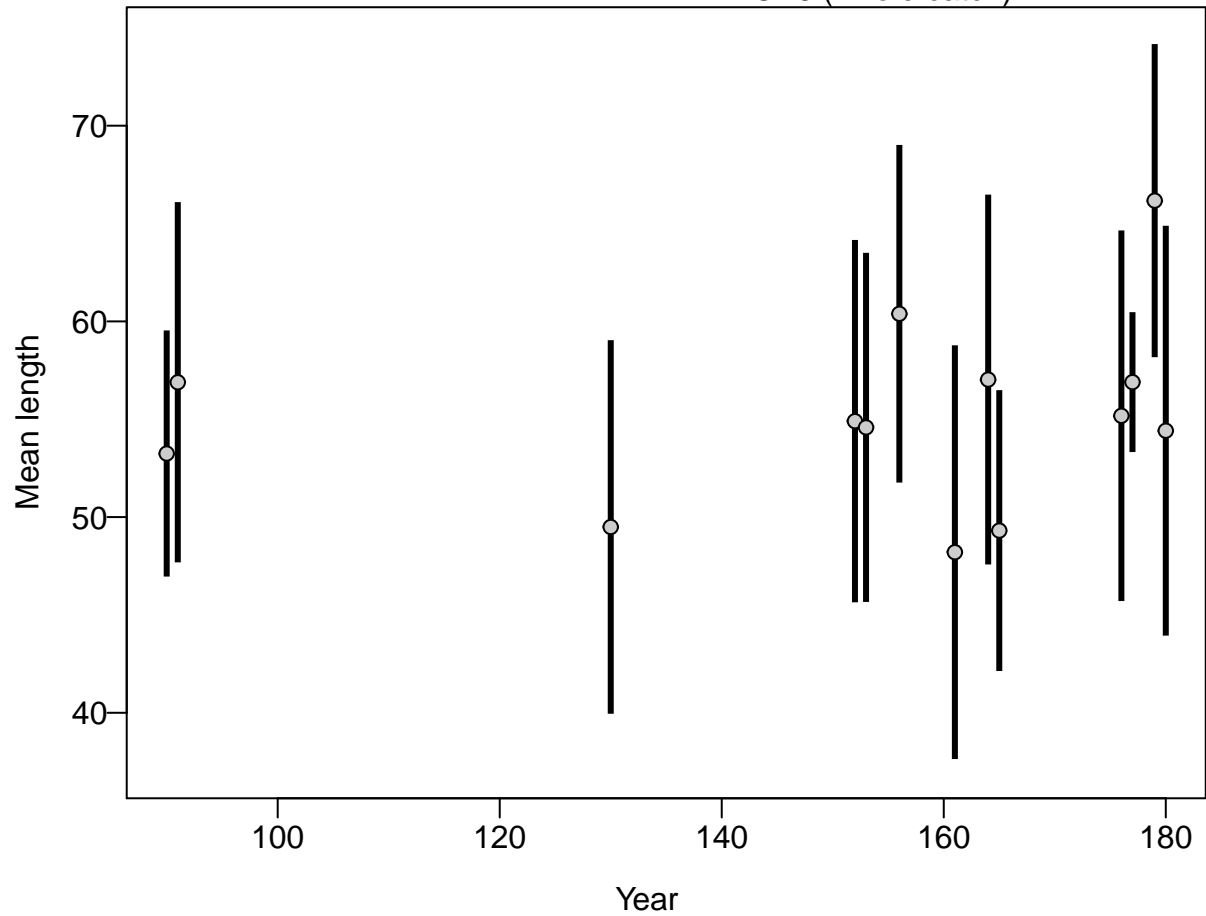
Proportion



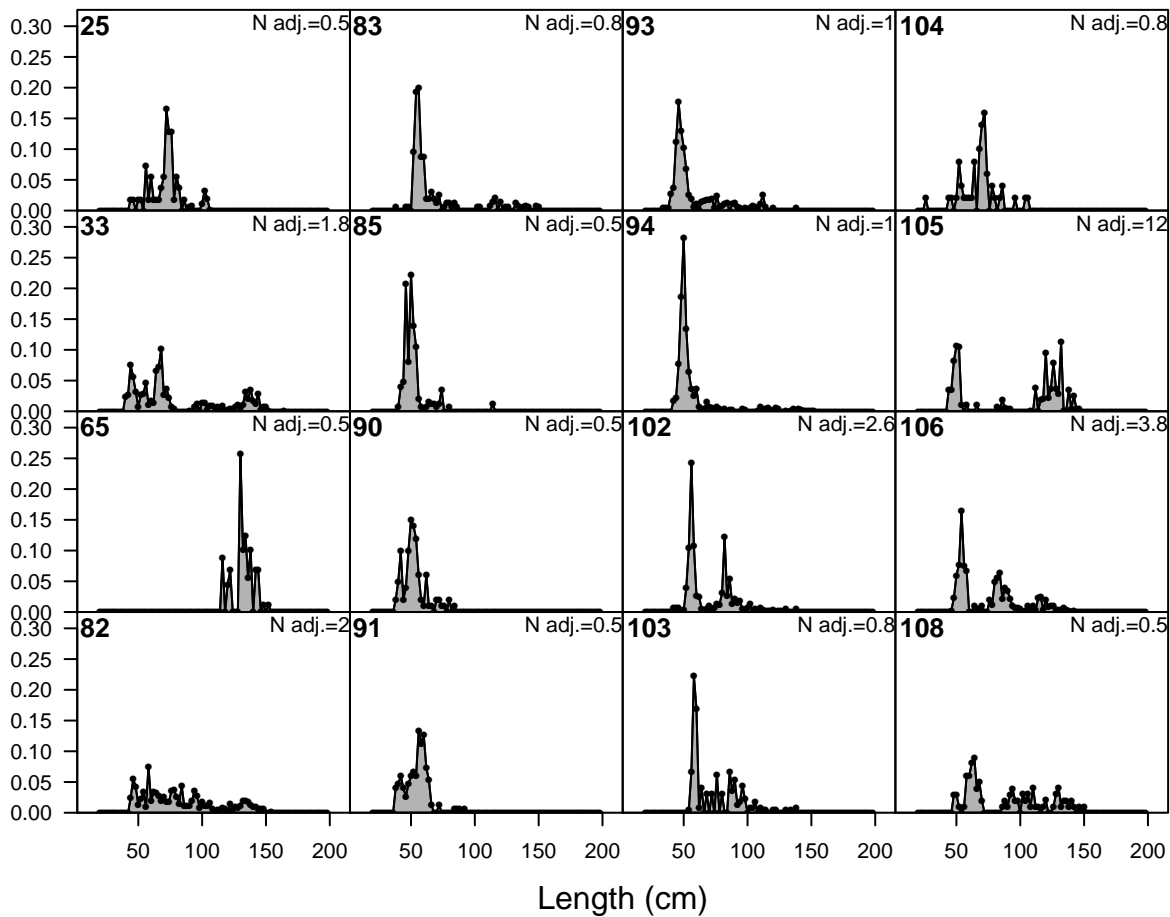




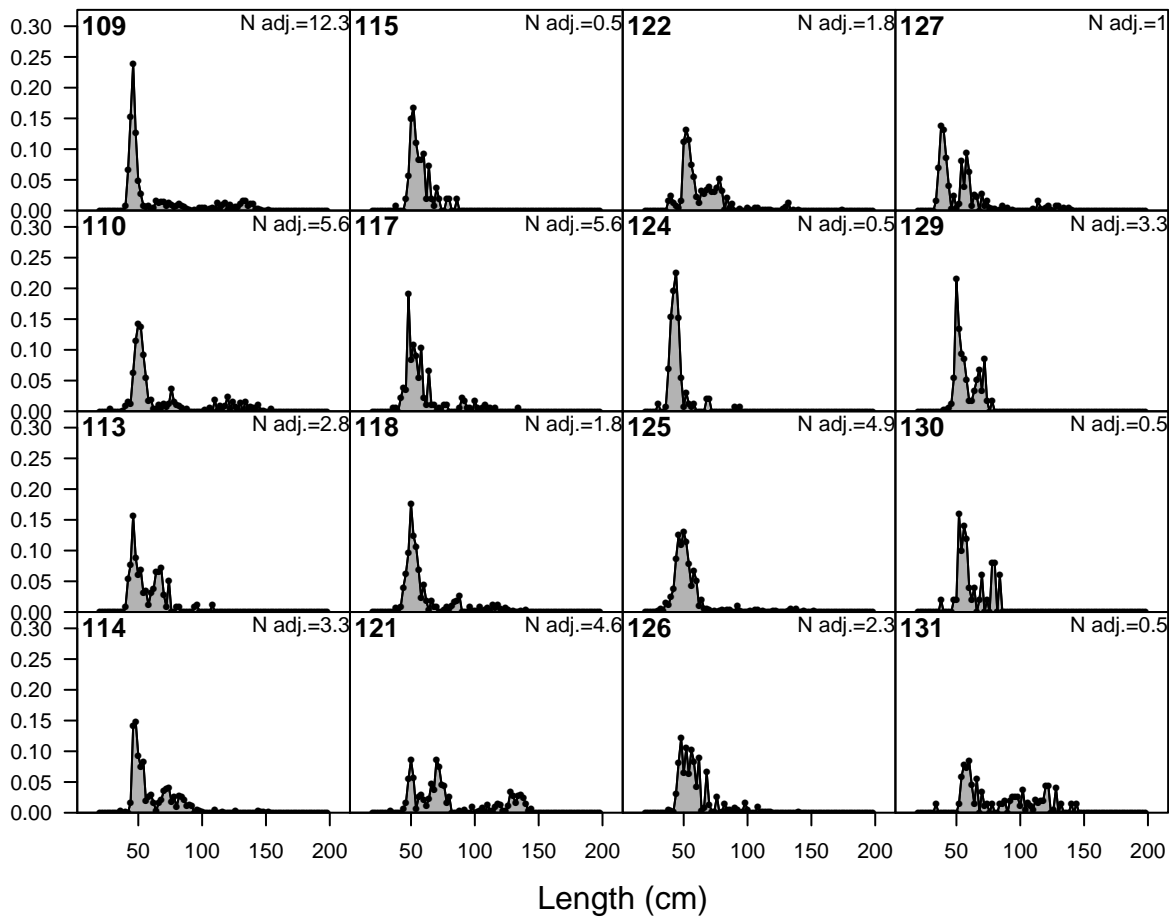
## A4-OBJ (whole catch)



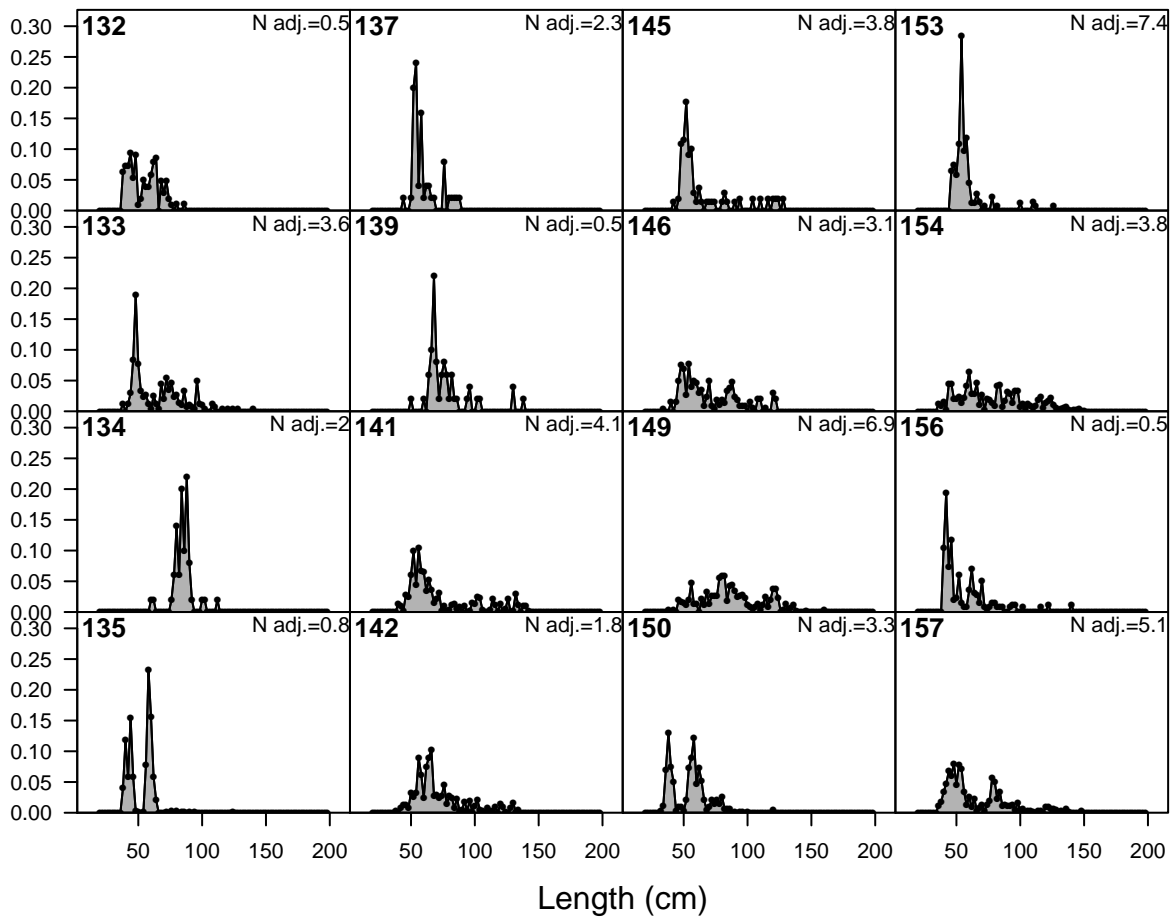
Proportion



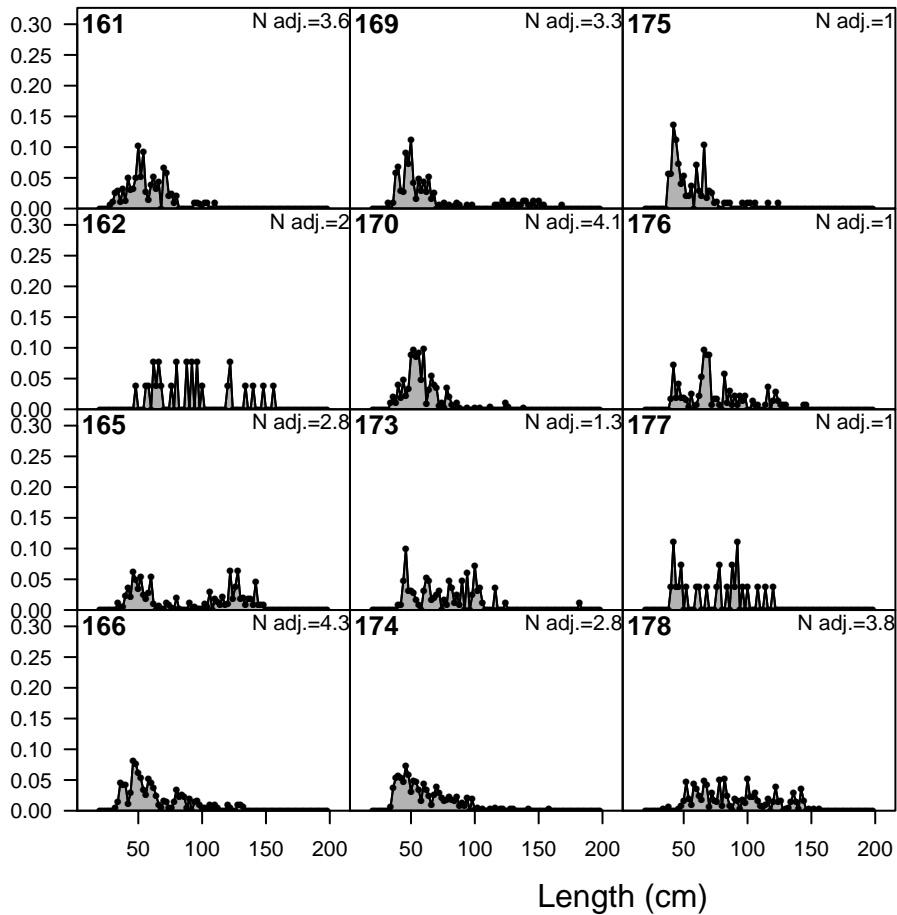
Proportion

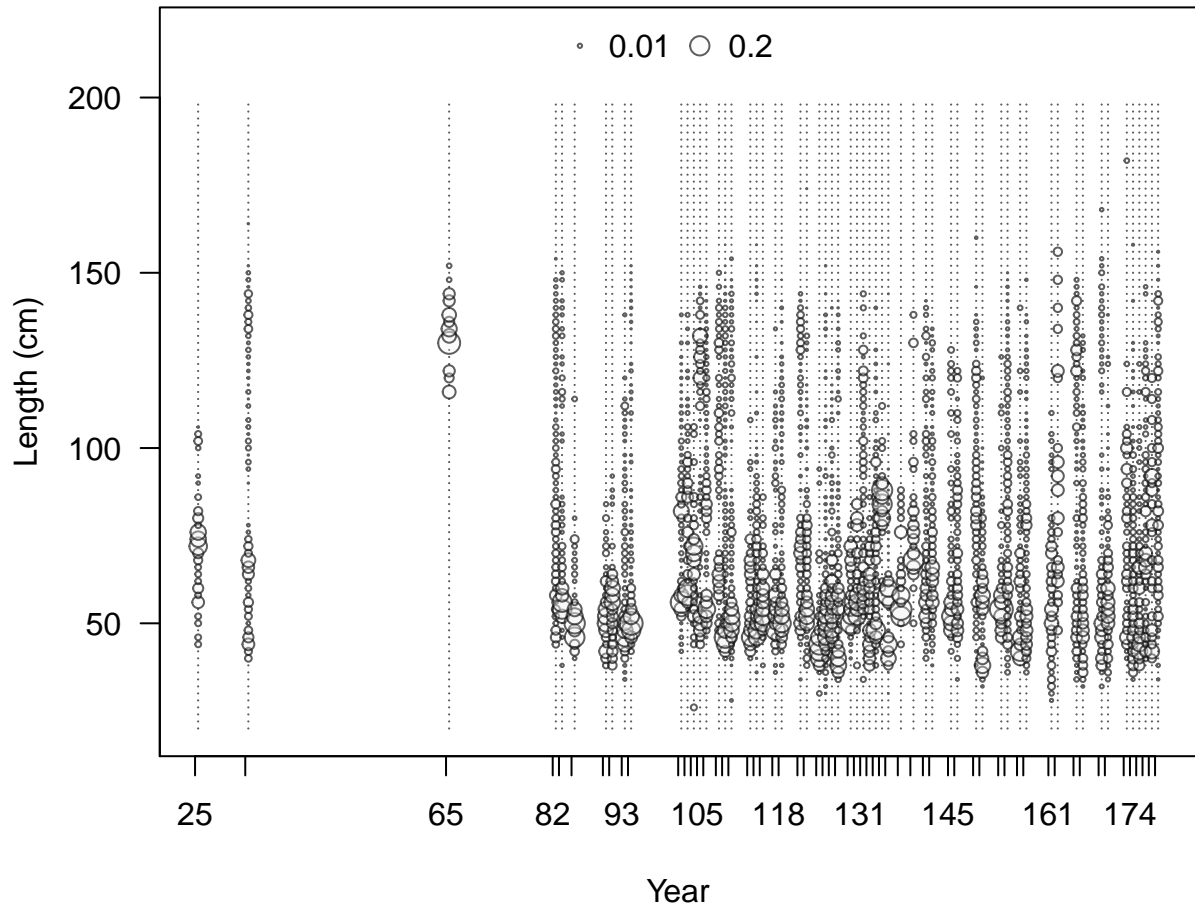


Proportion

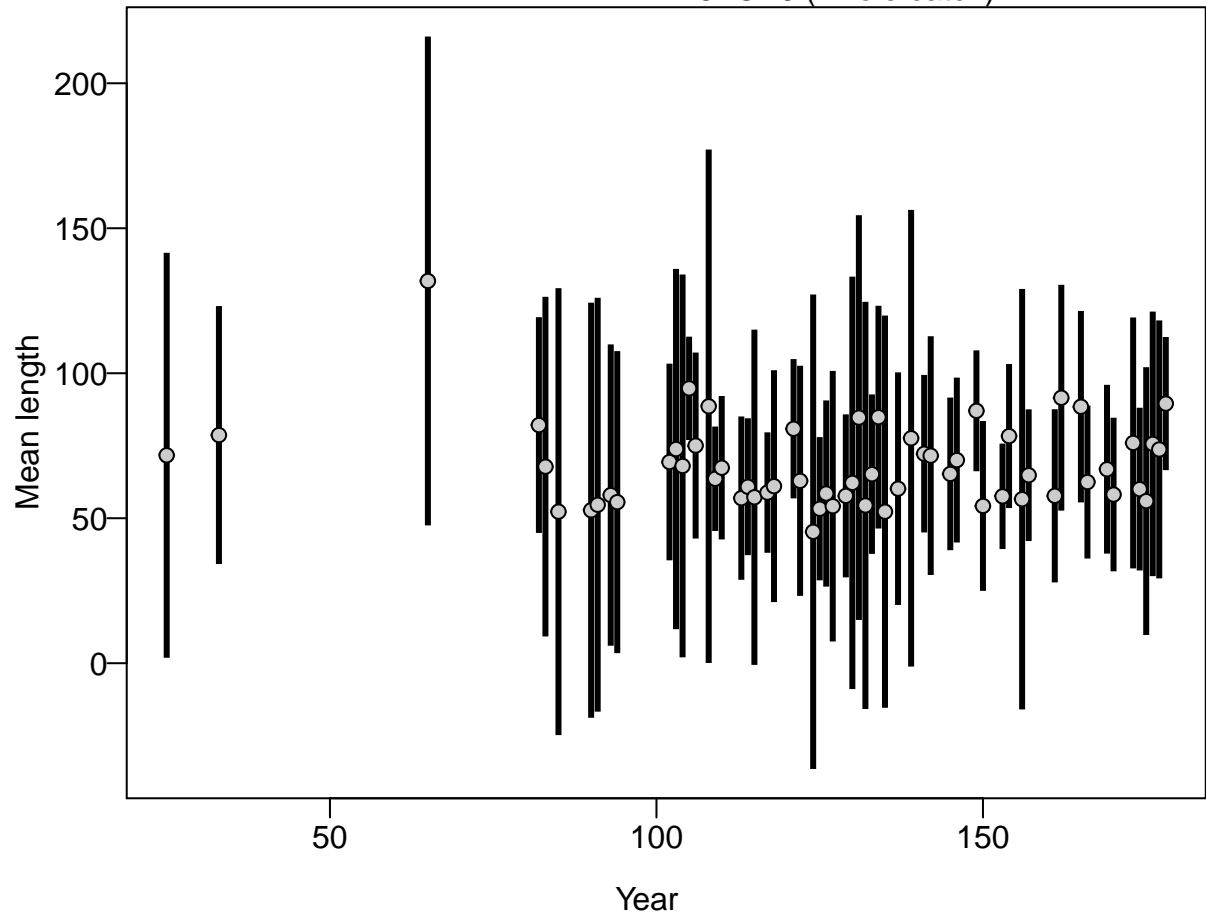


Proportion

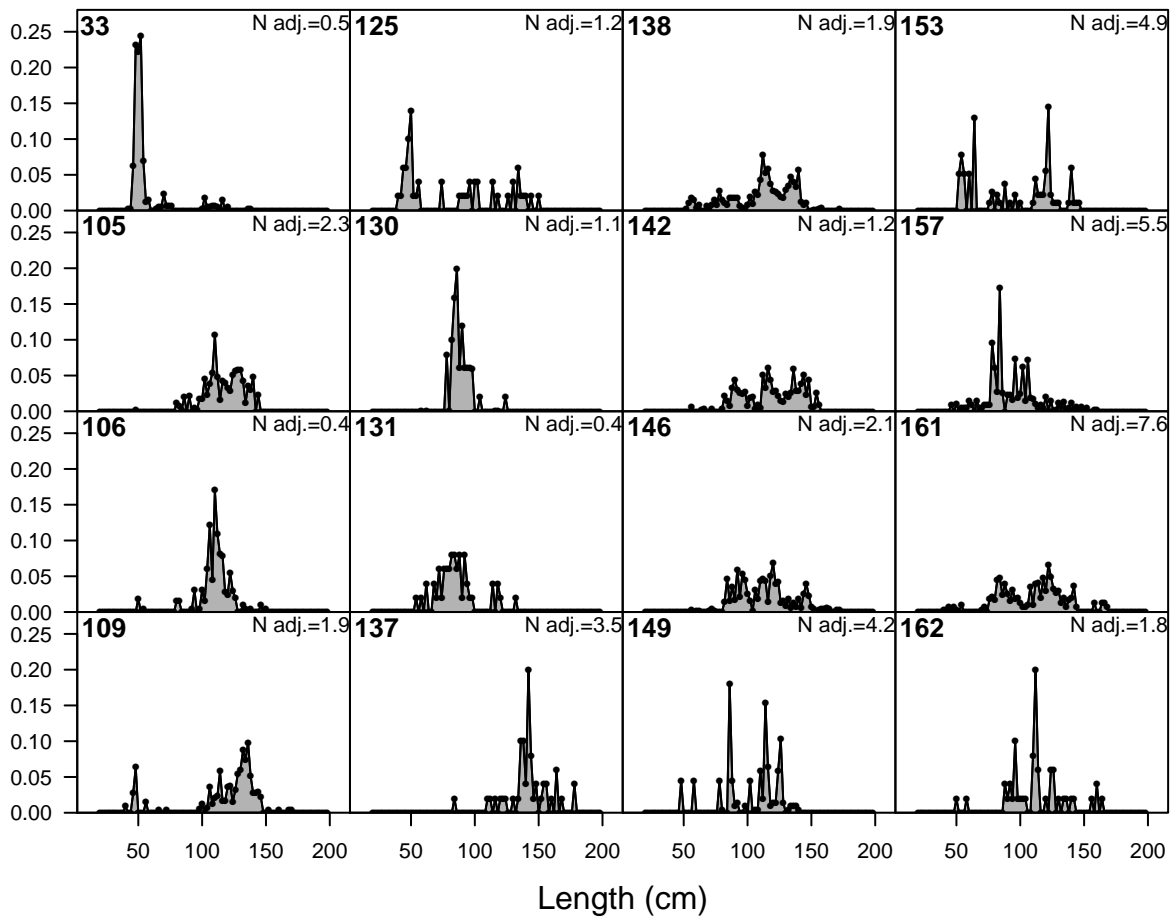




## A5-OBJ (whole catch)

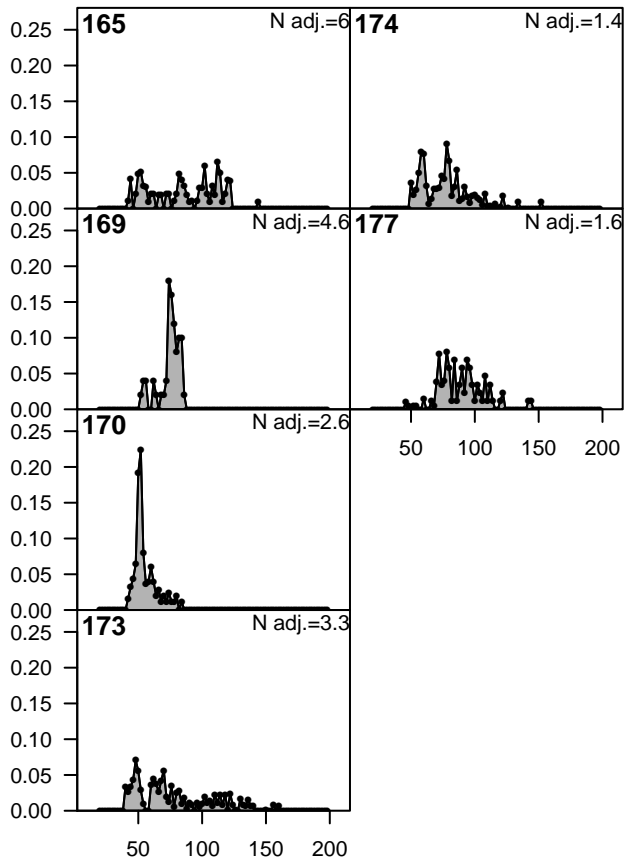


Proportion

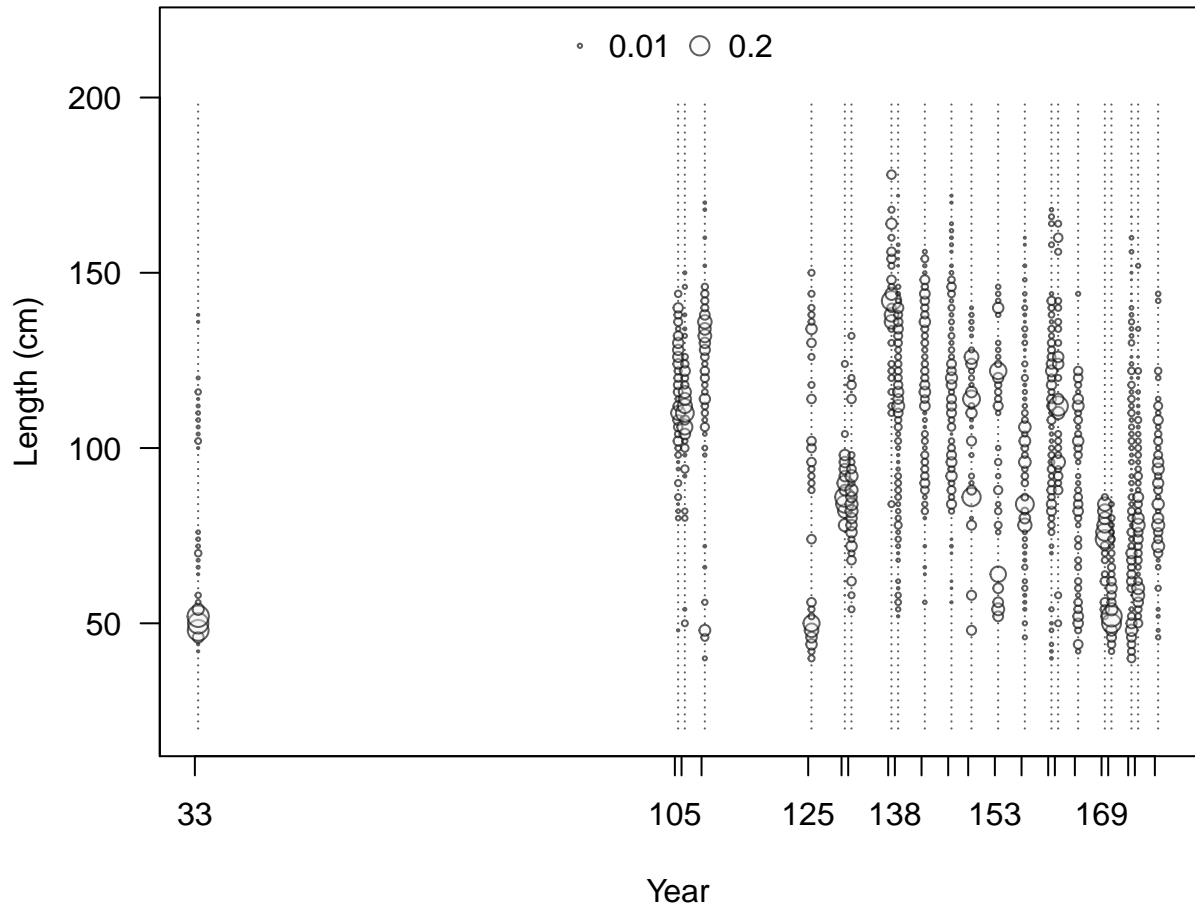




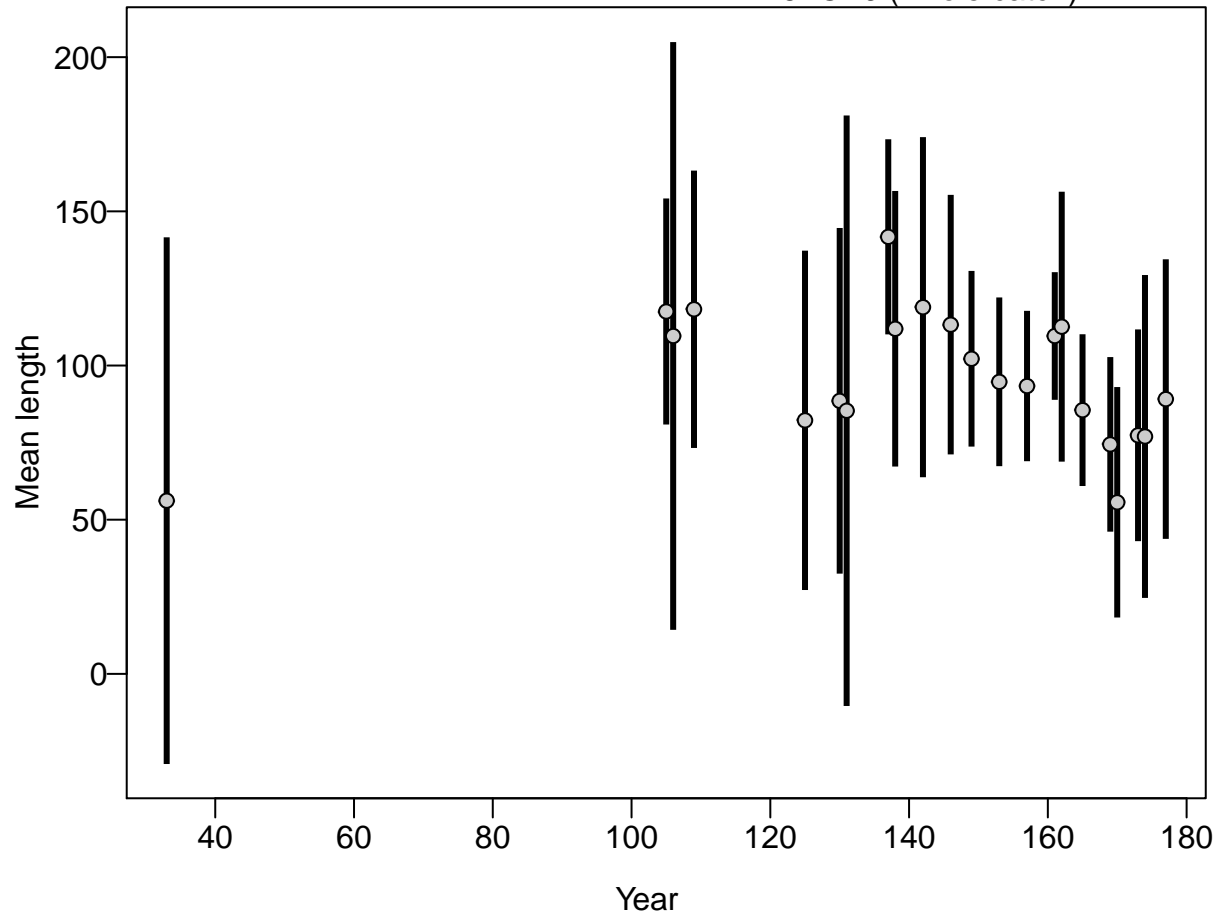
Proportion

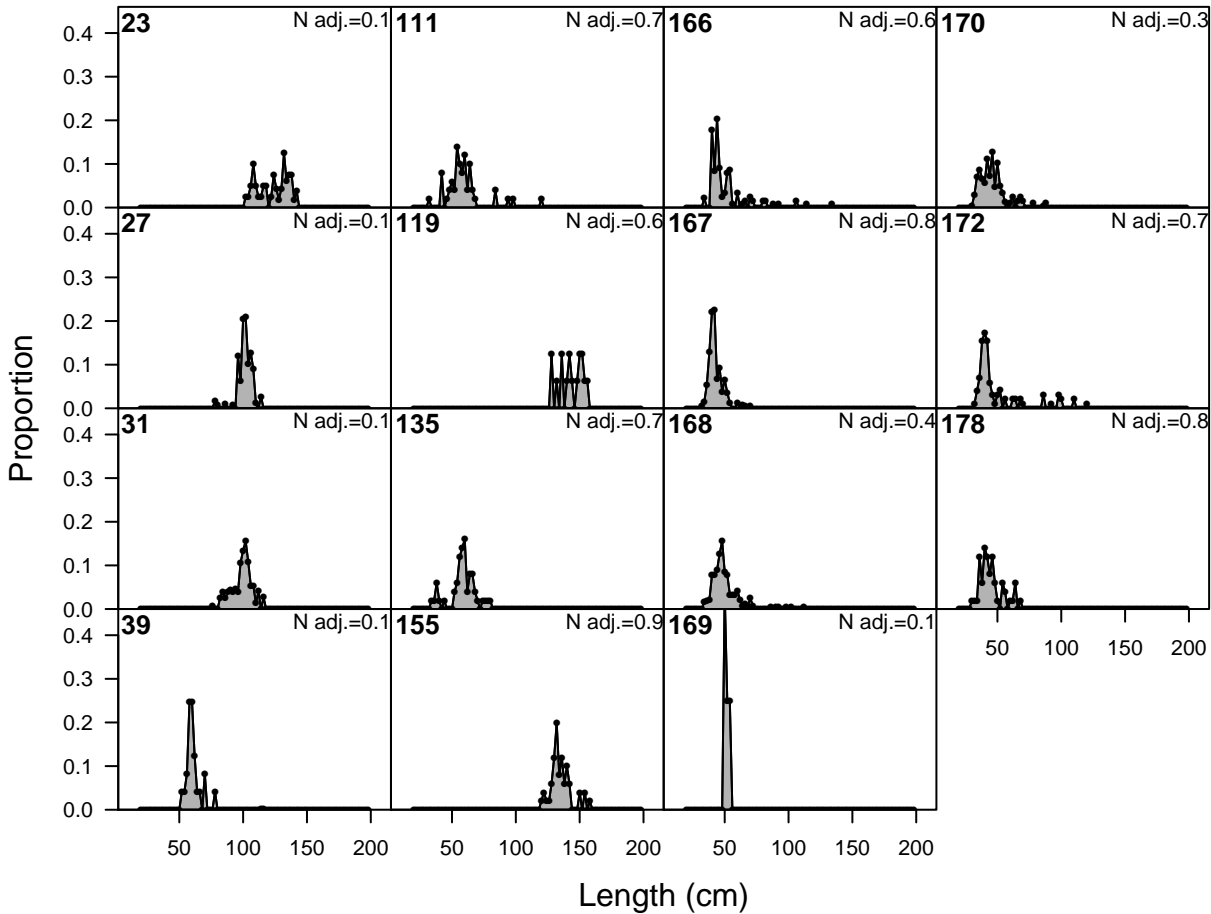


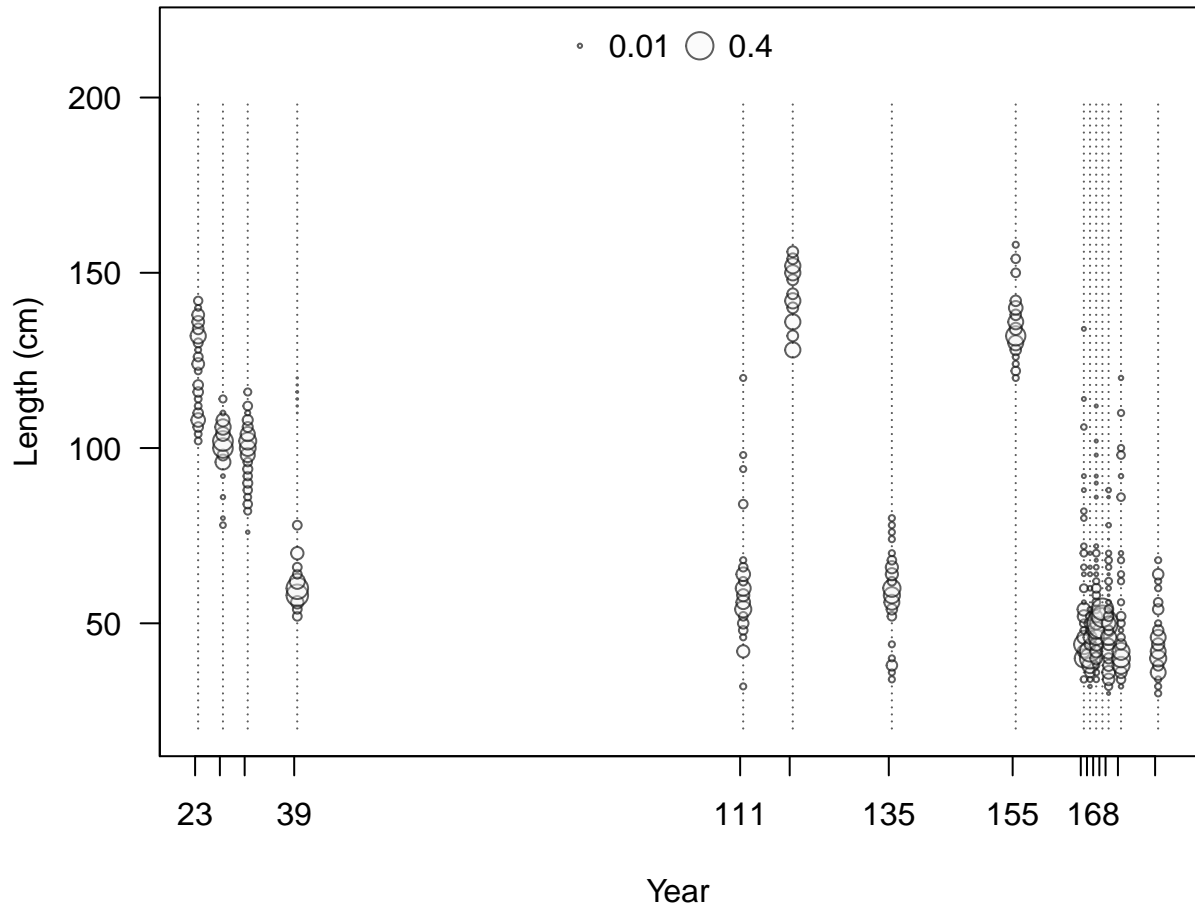
Length (cm)



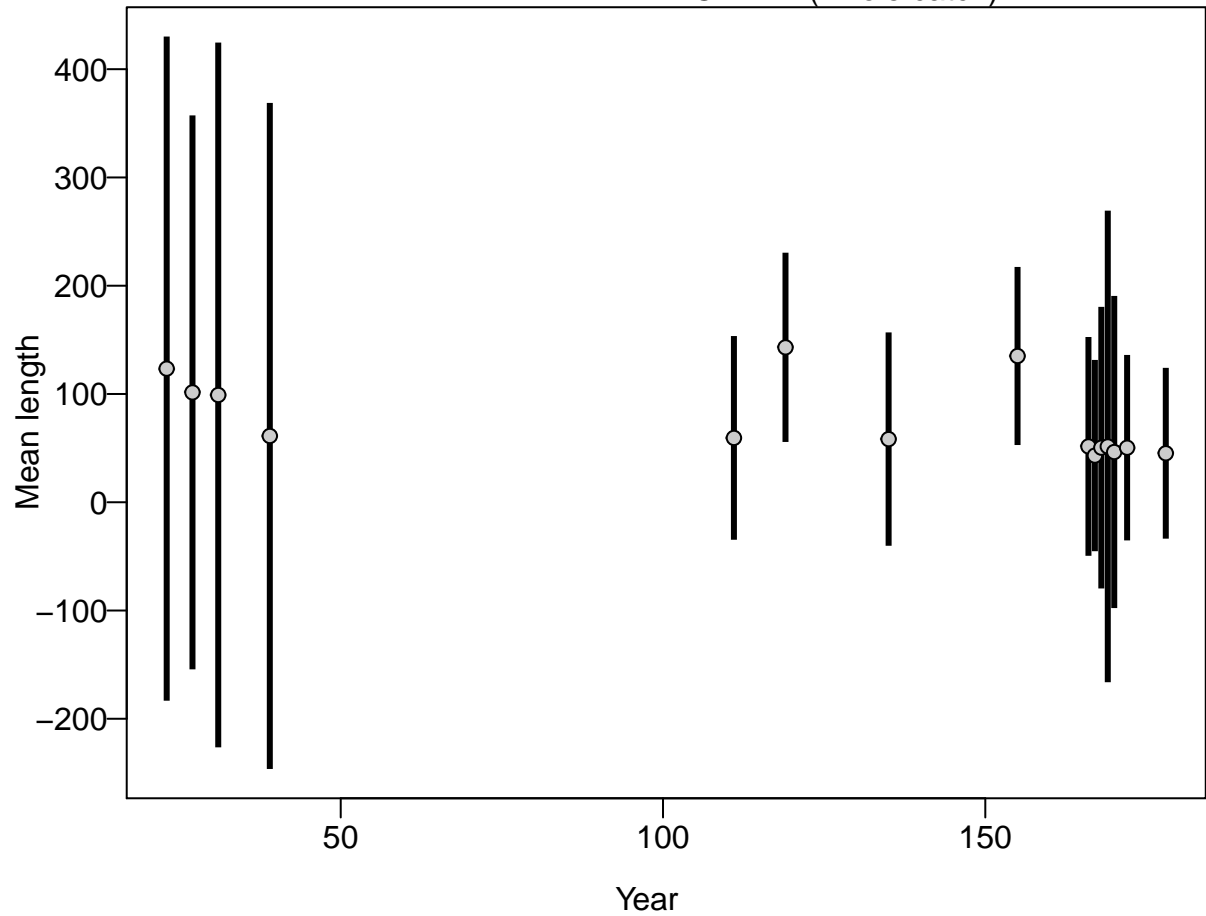
## A6-OBJ (whole catch)

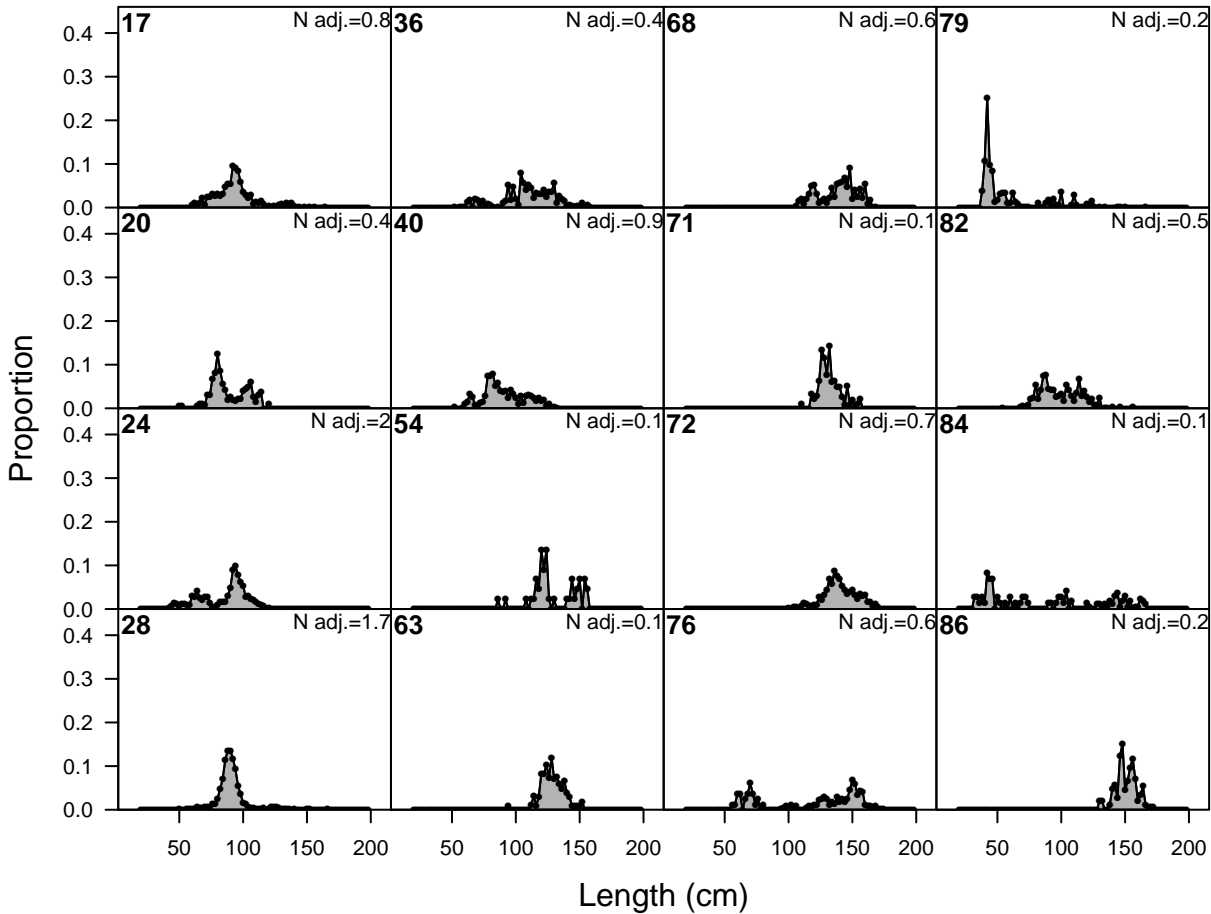


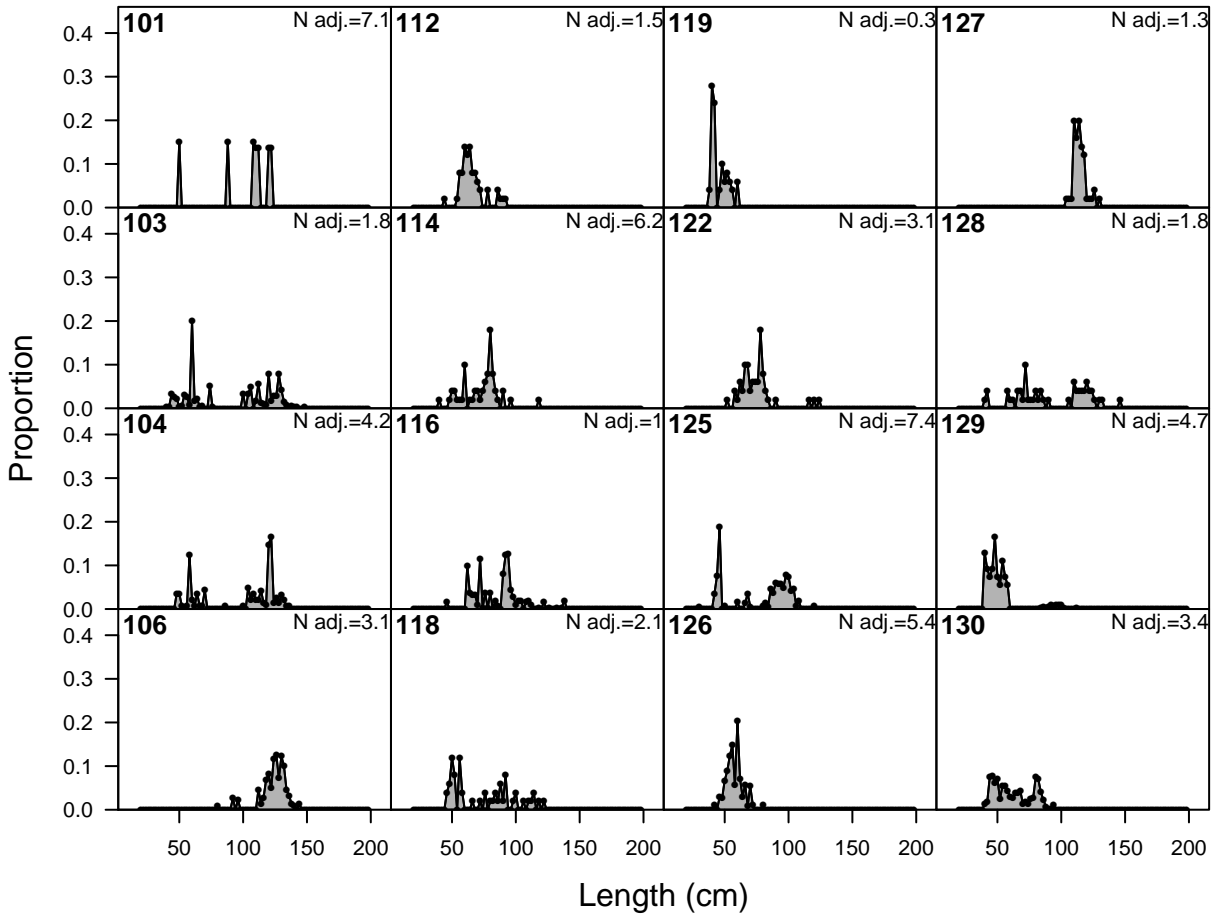




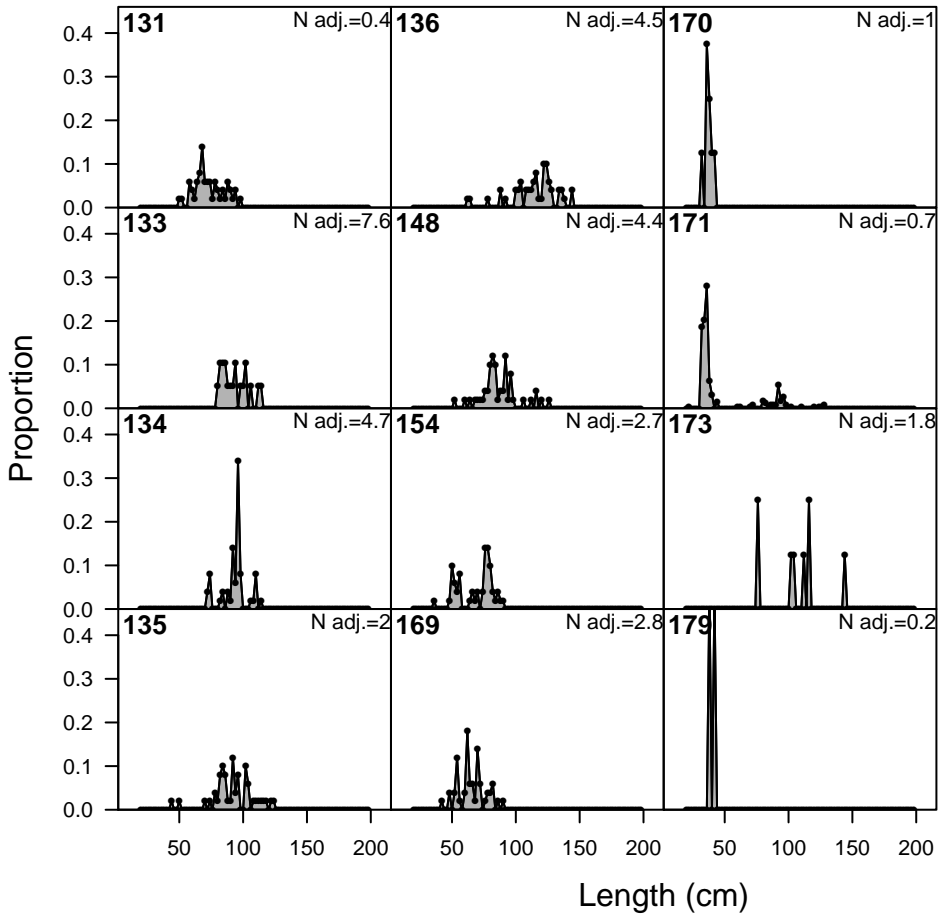
## A2-NOADEL (whole catch)

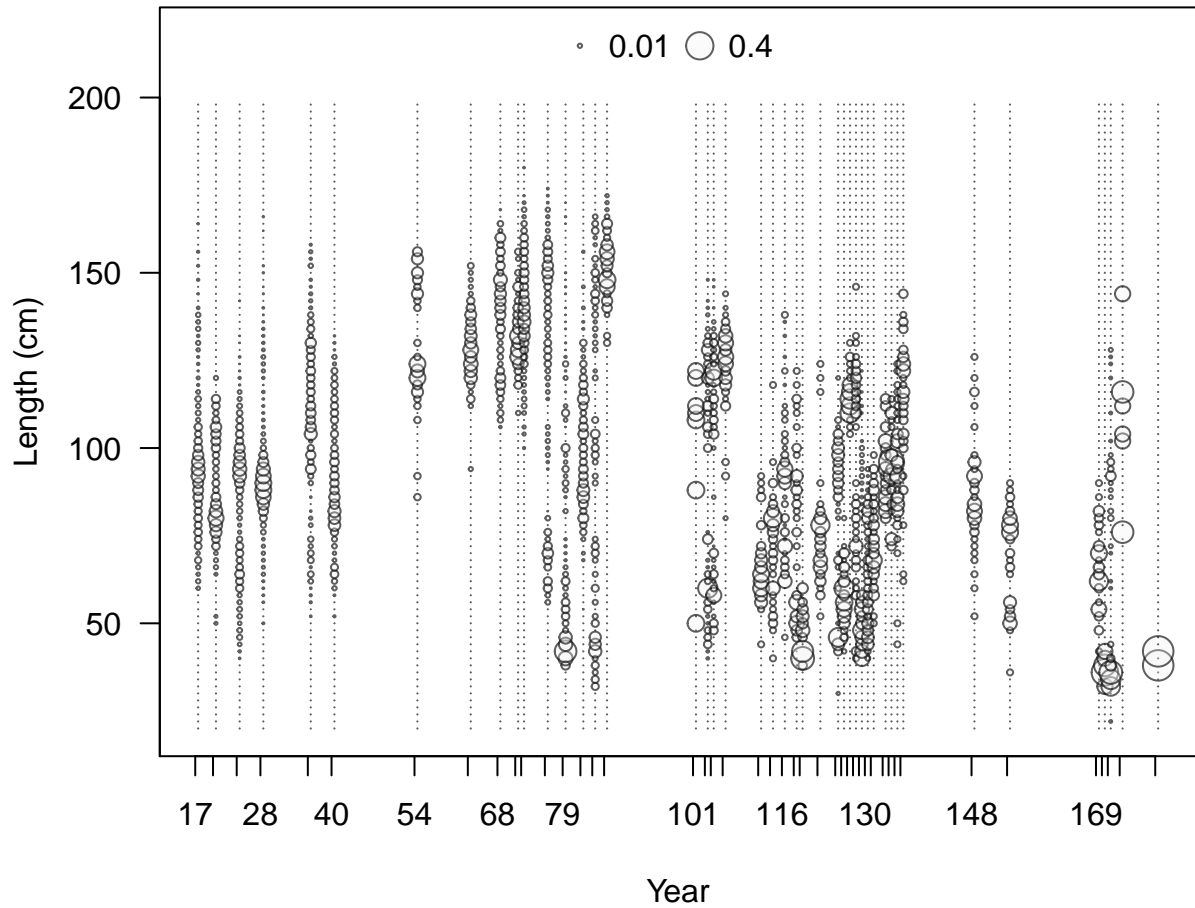




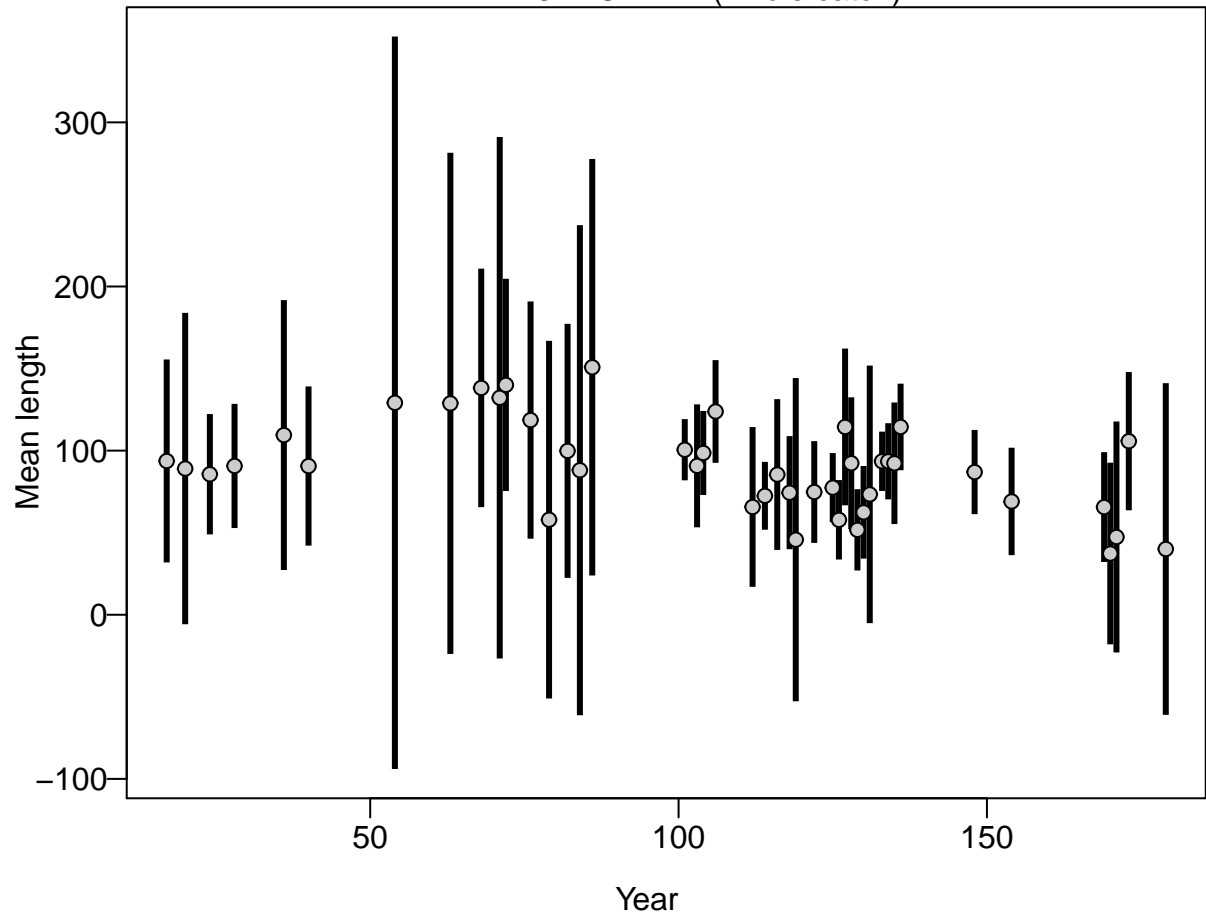


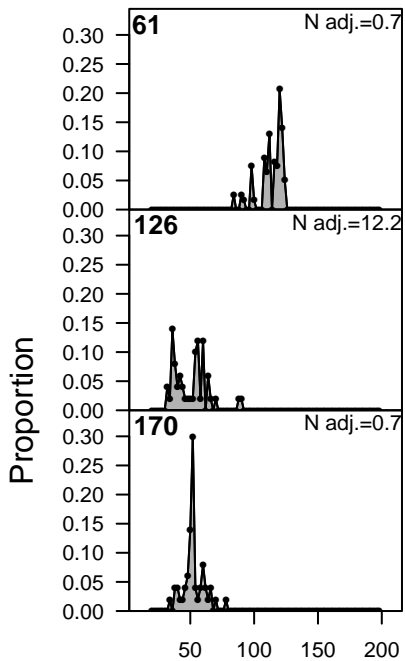




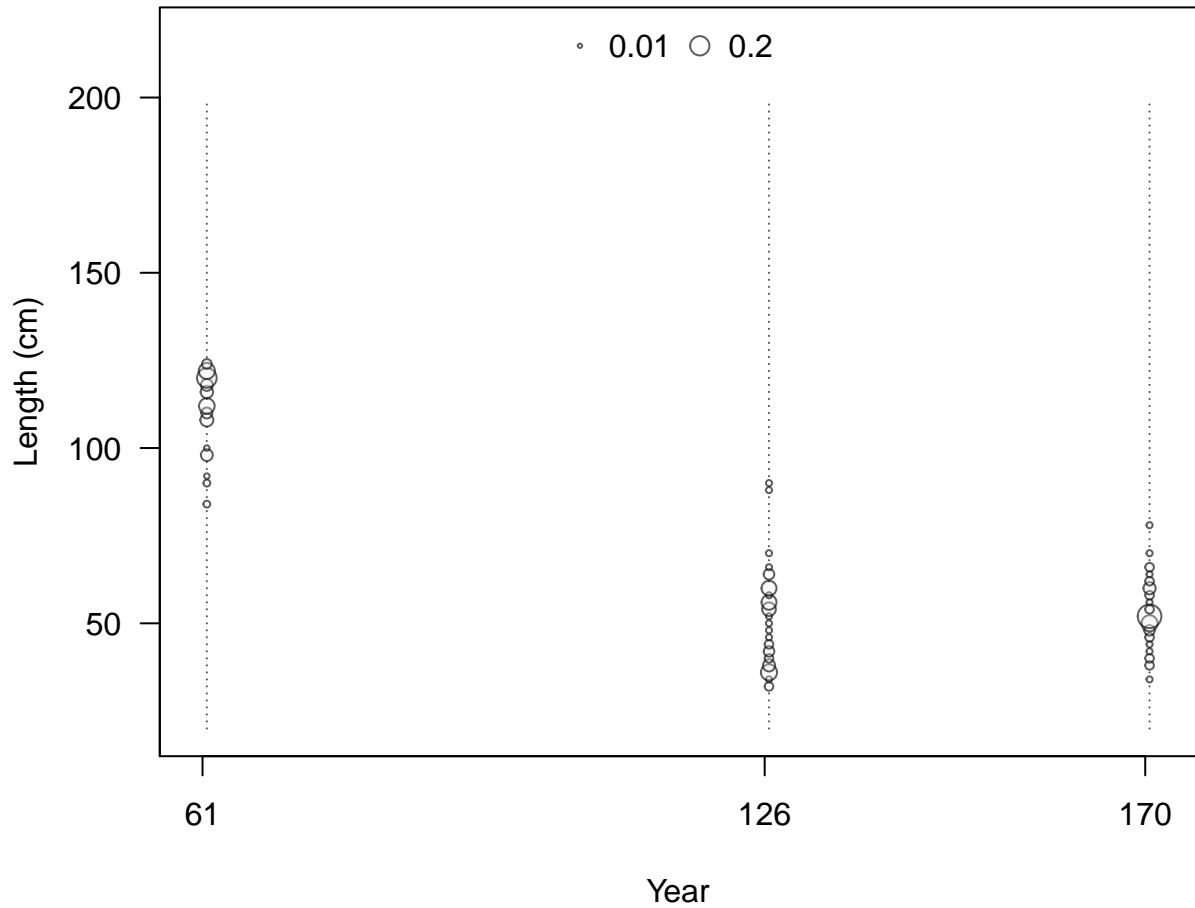


A3-NOADEL (whole catch)

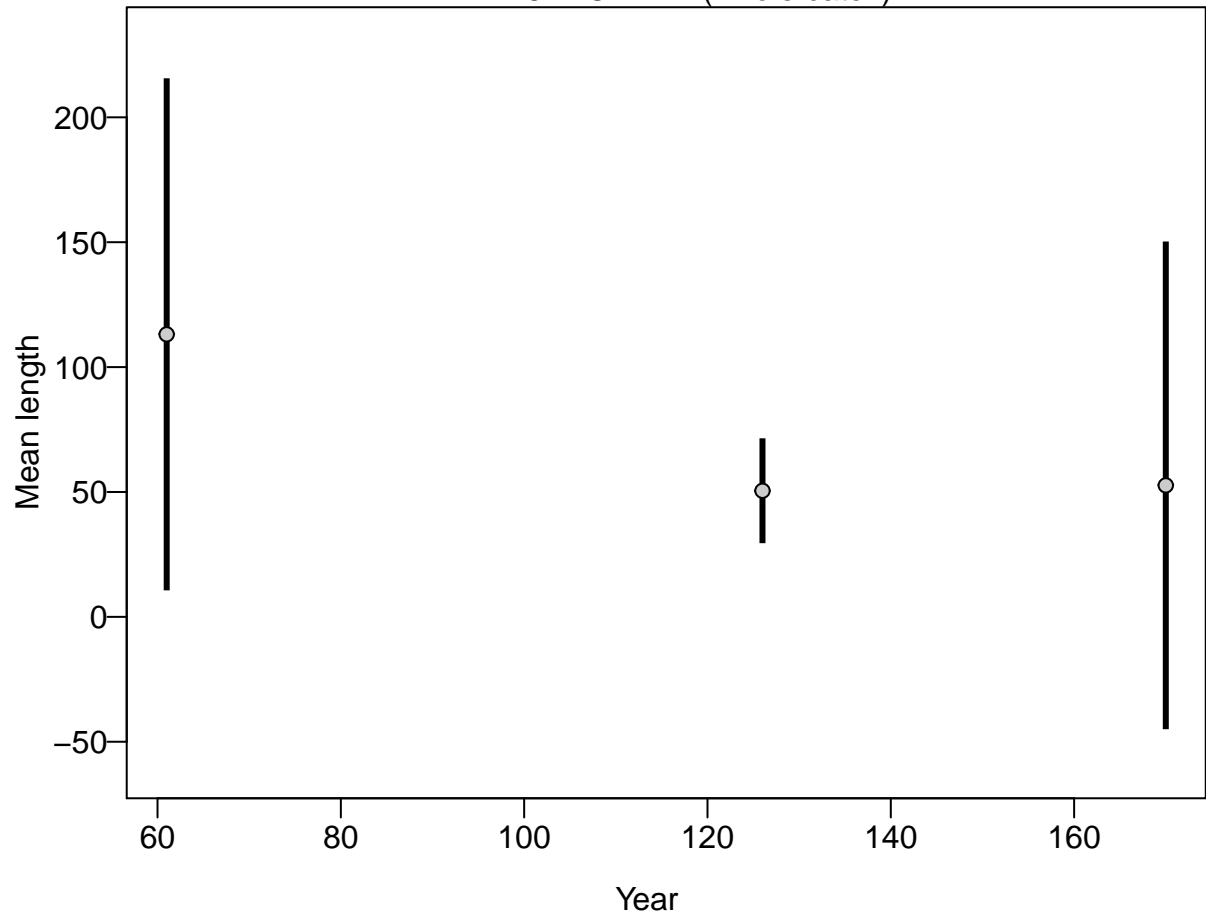




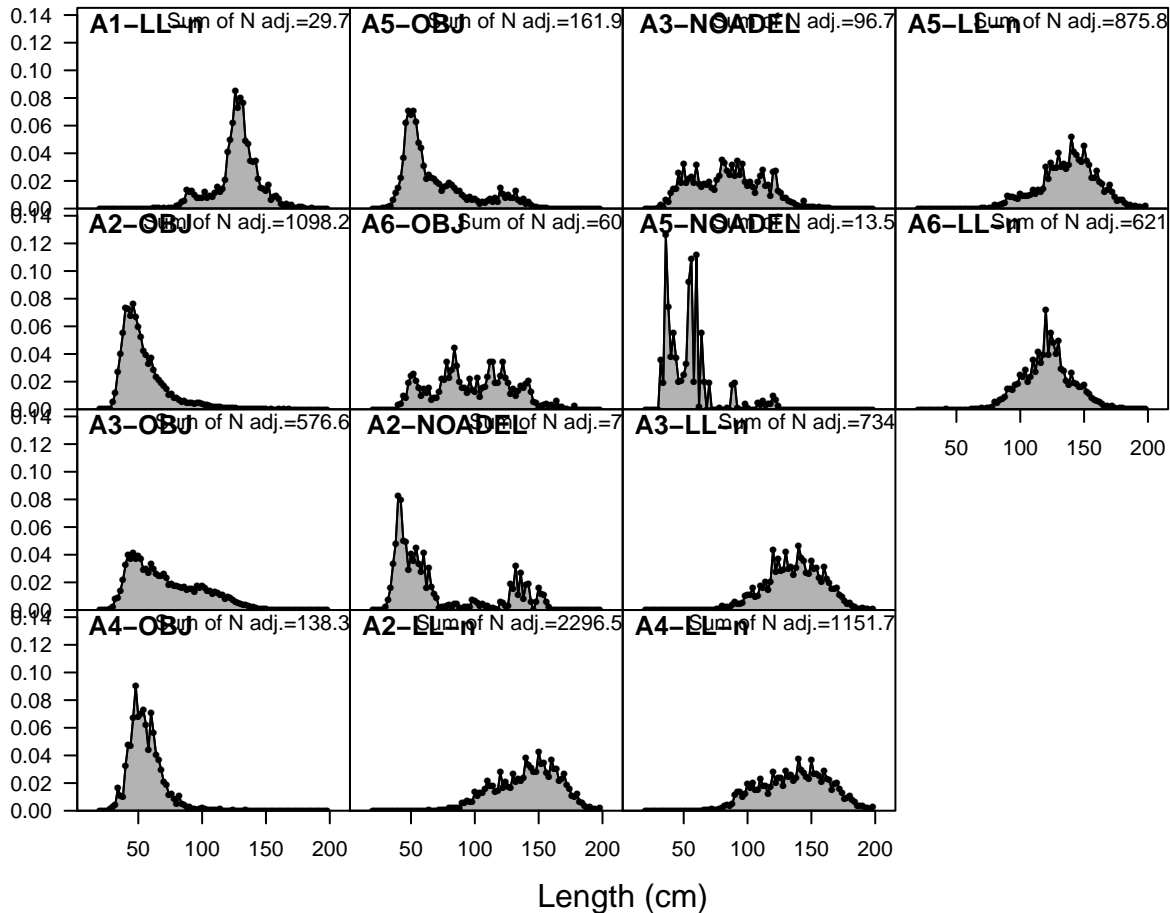
Length (cm)

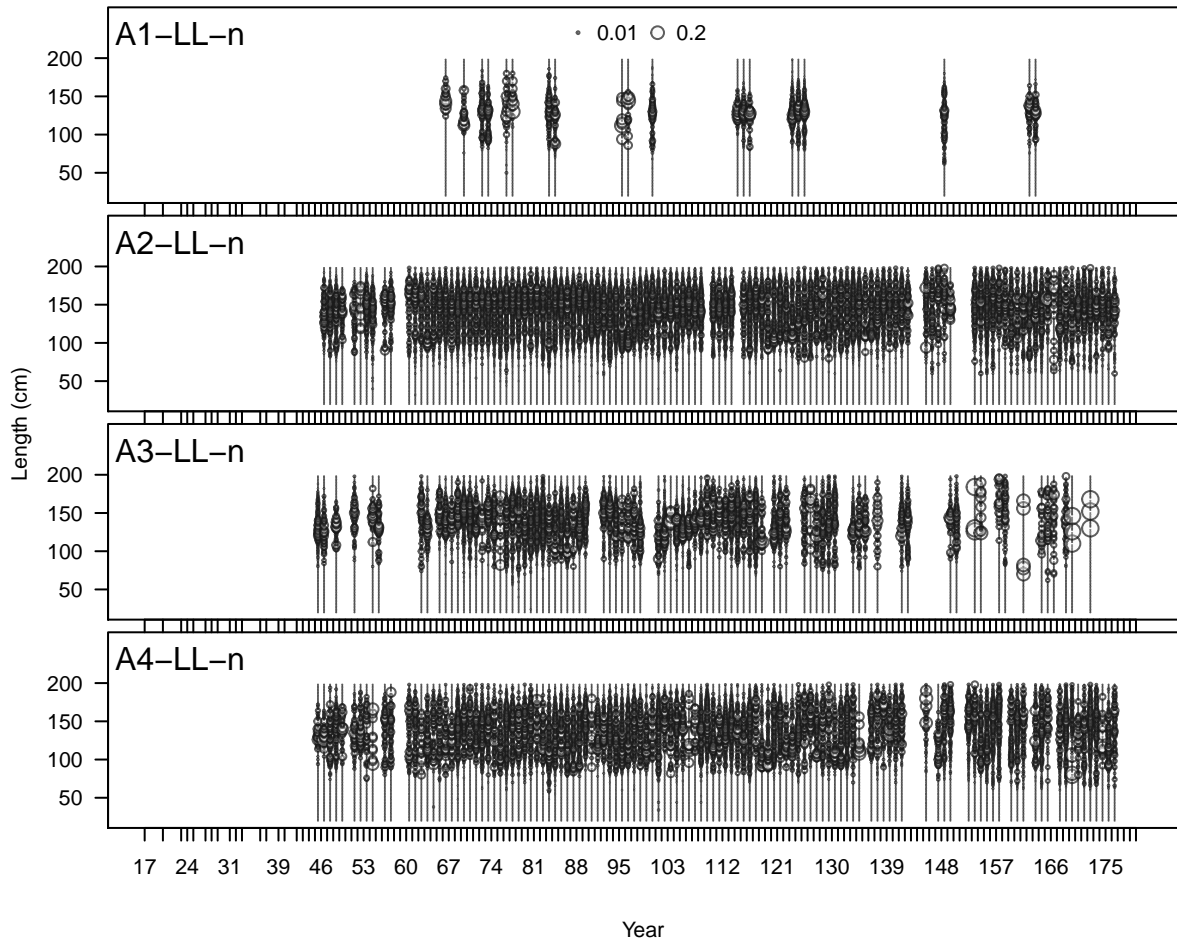


A5-NOADEL (whole catch)

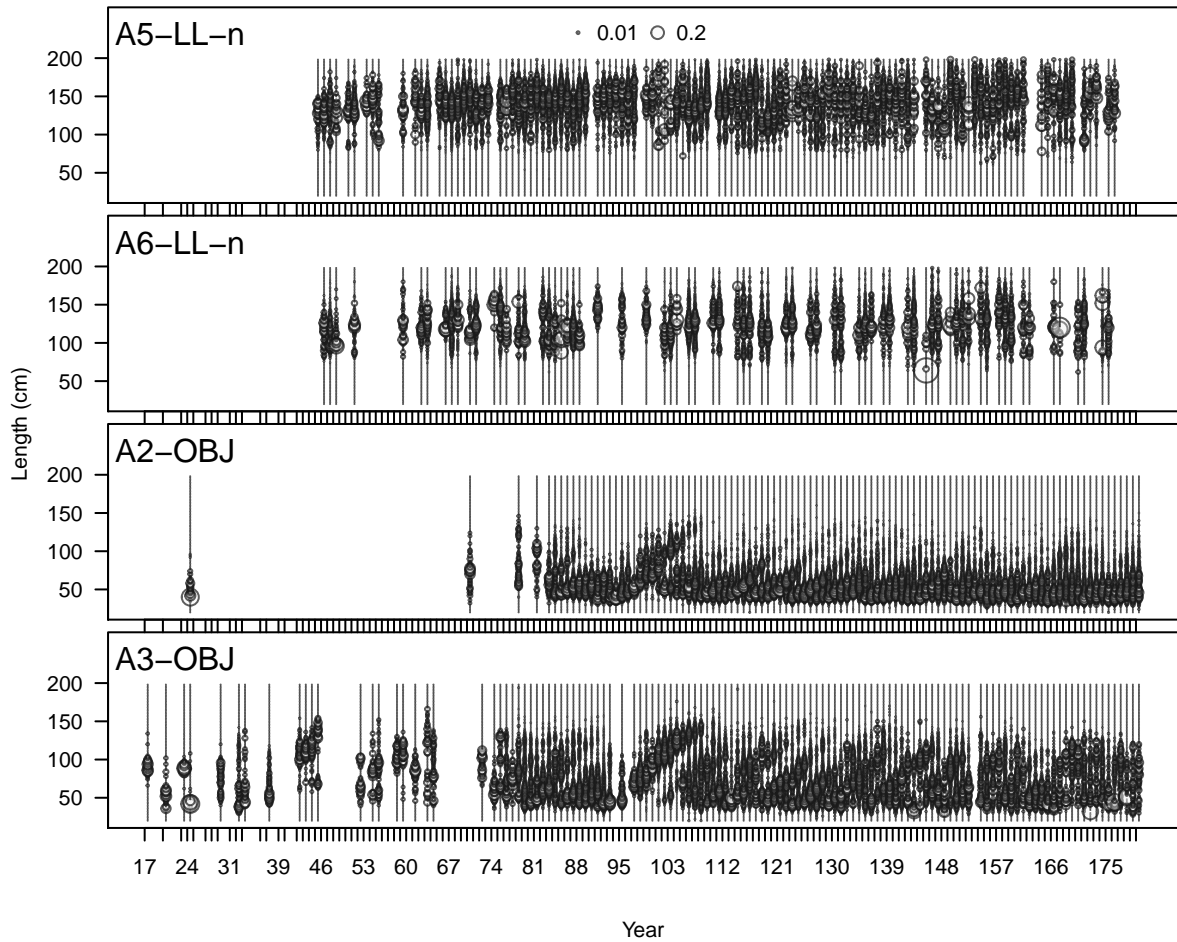


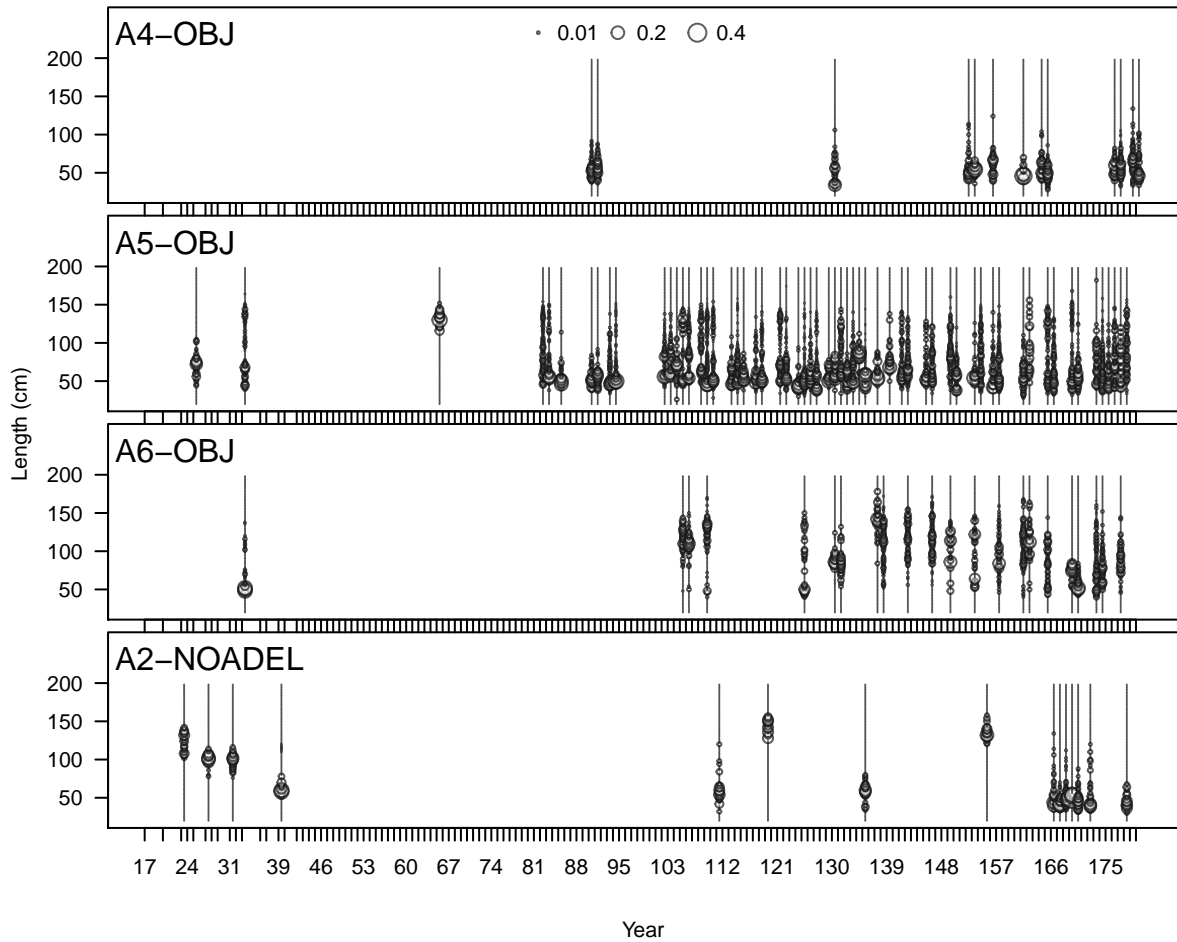
Proportion

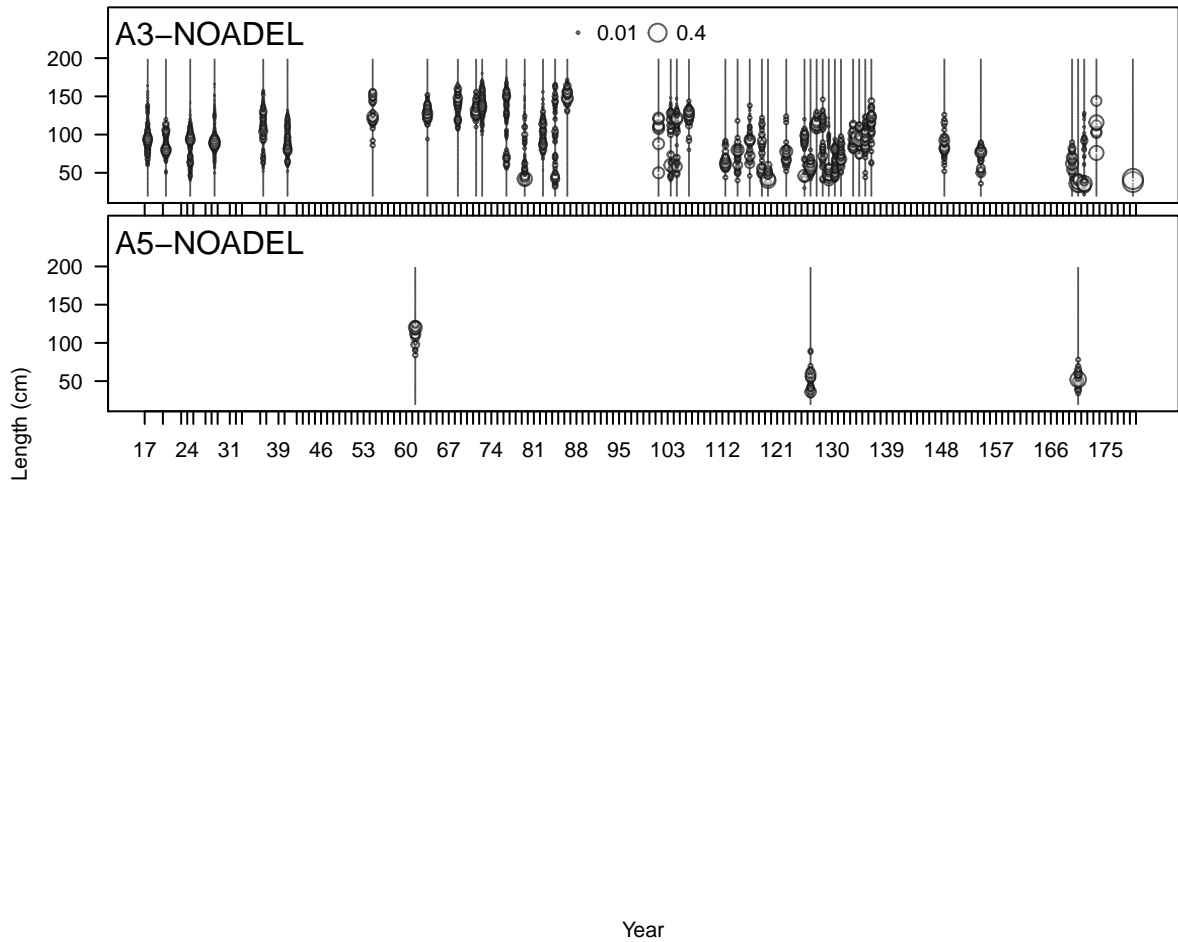




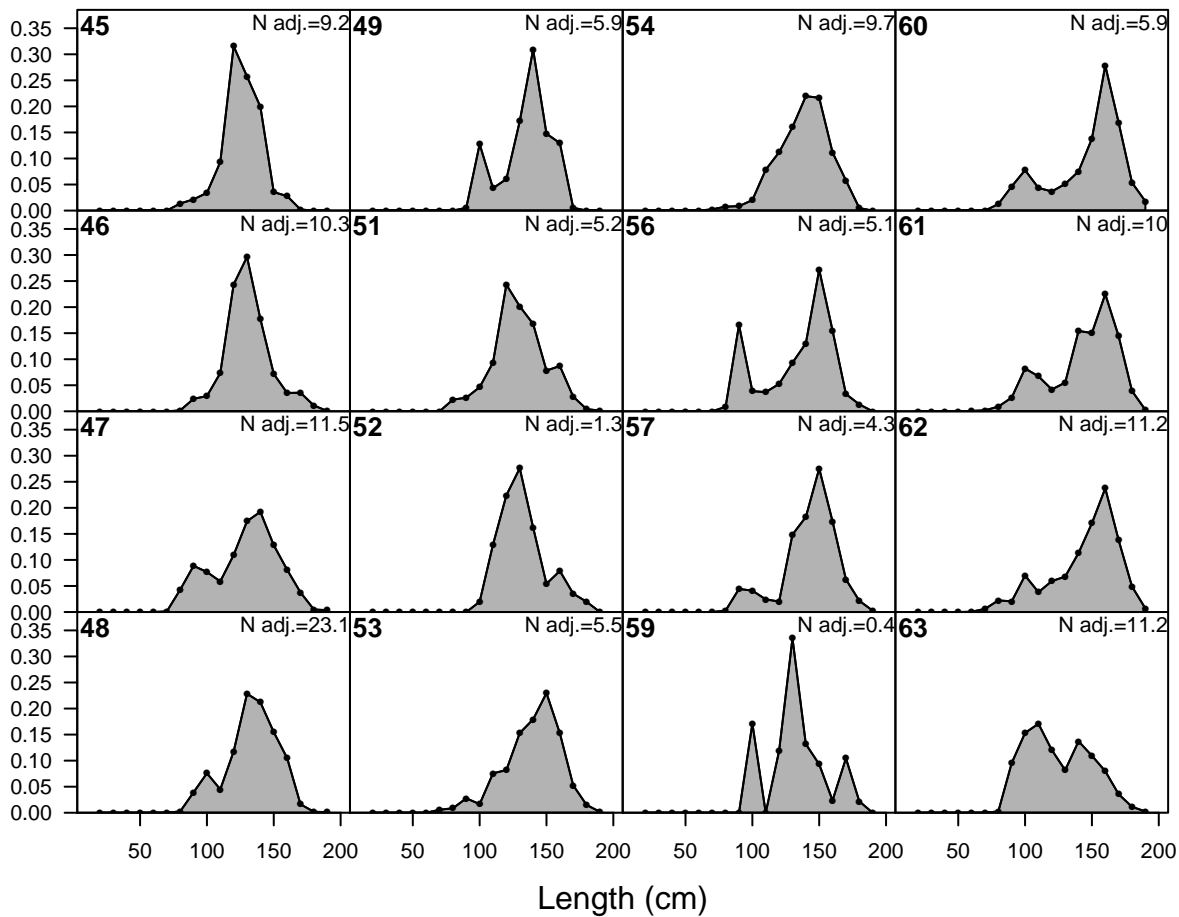




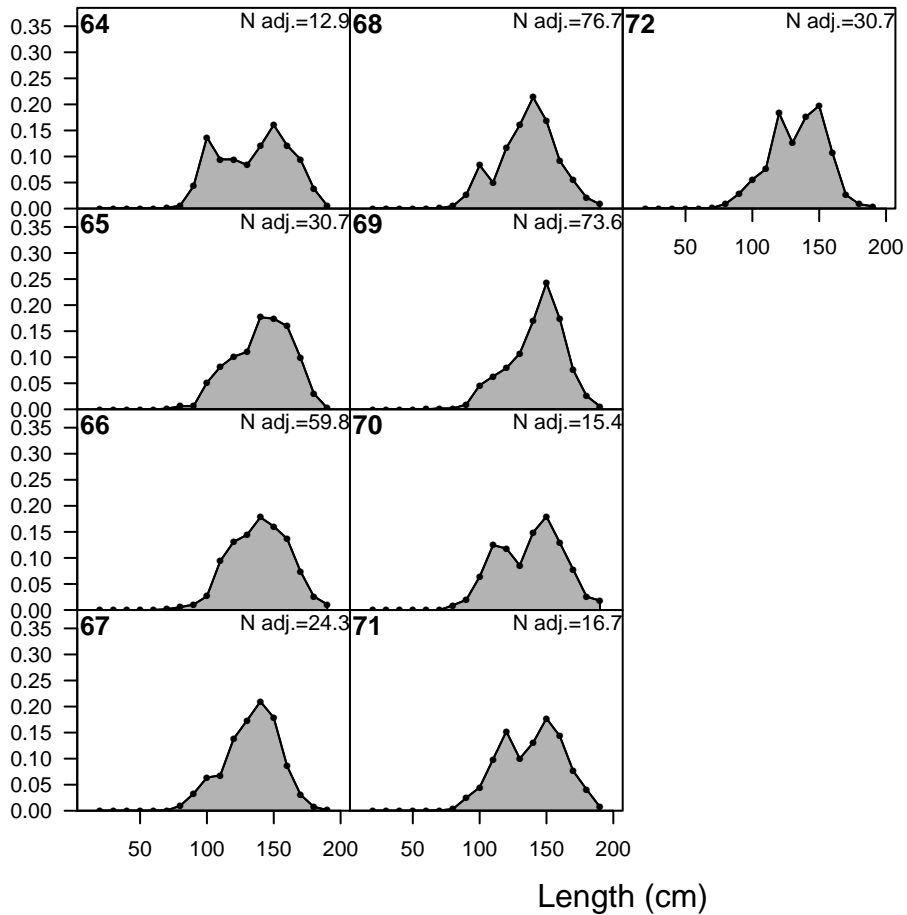




Proportion

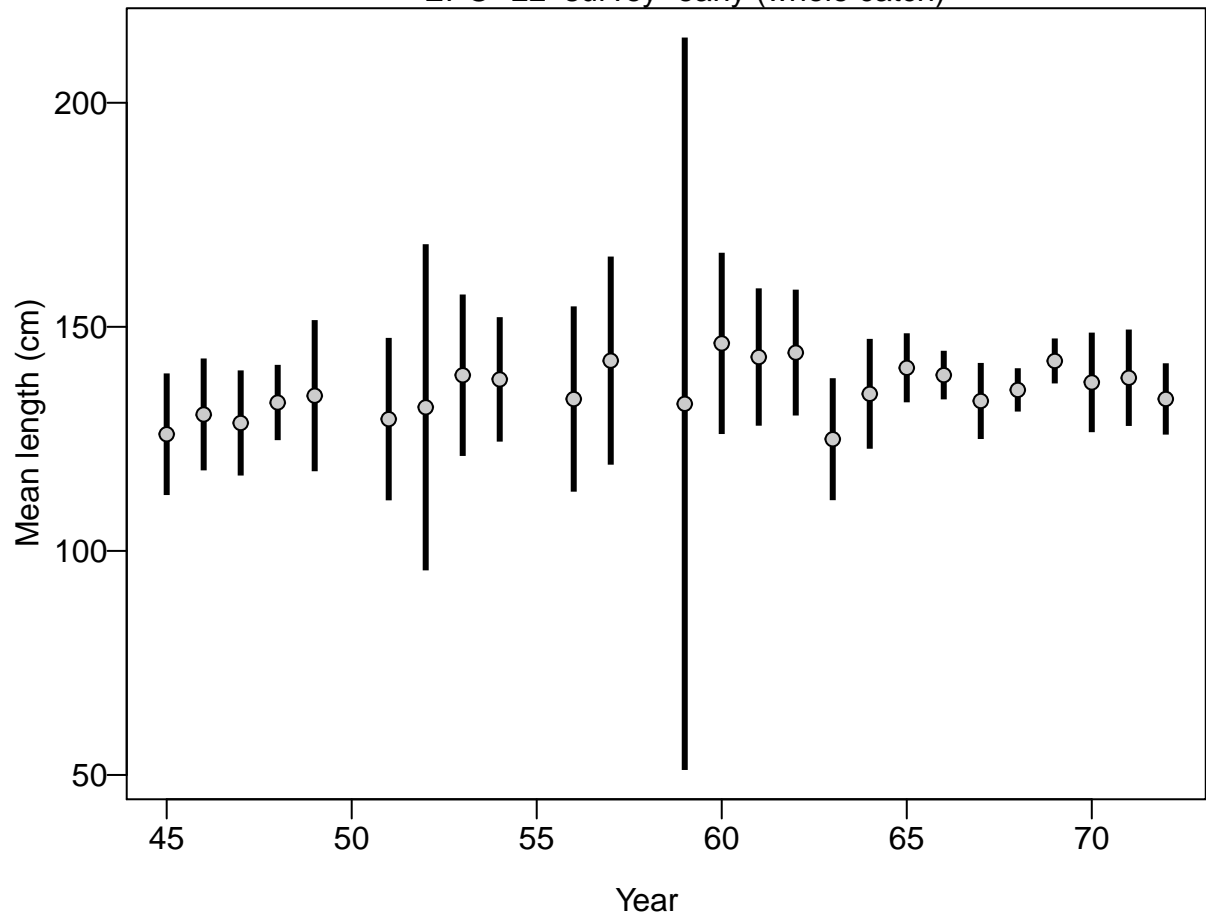


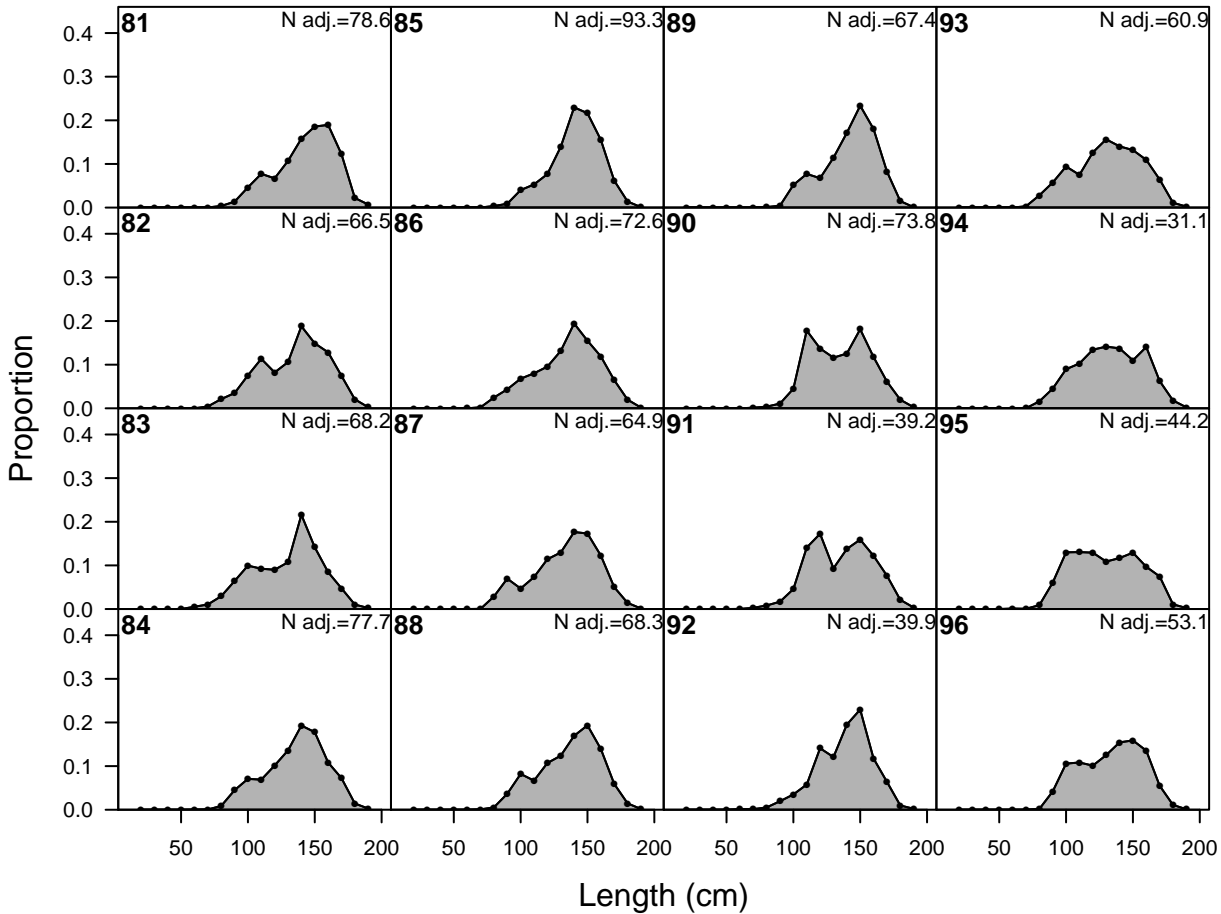
Proportion



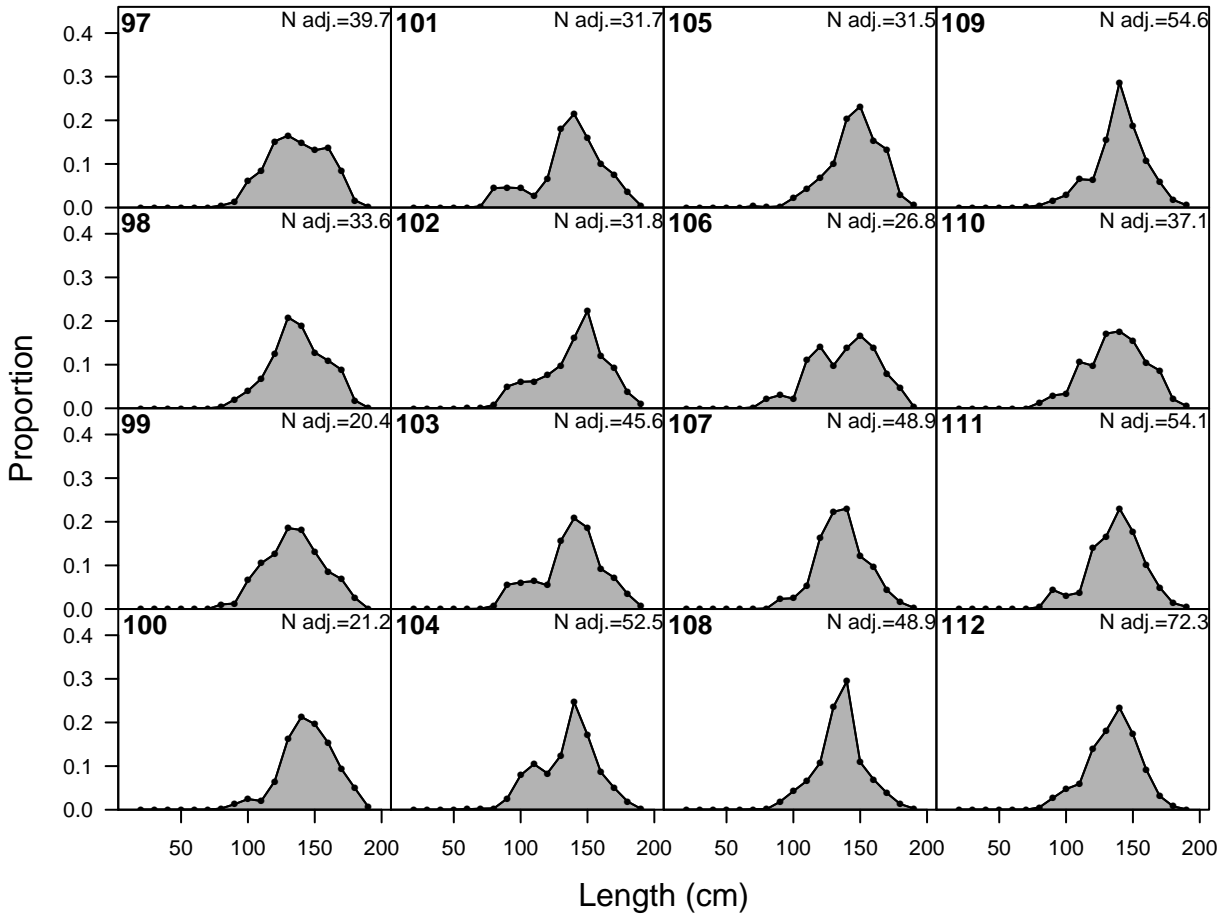


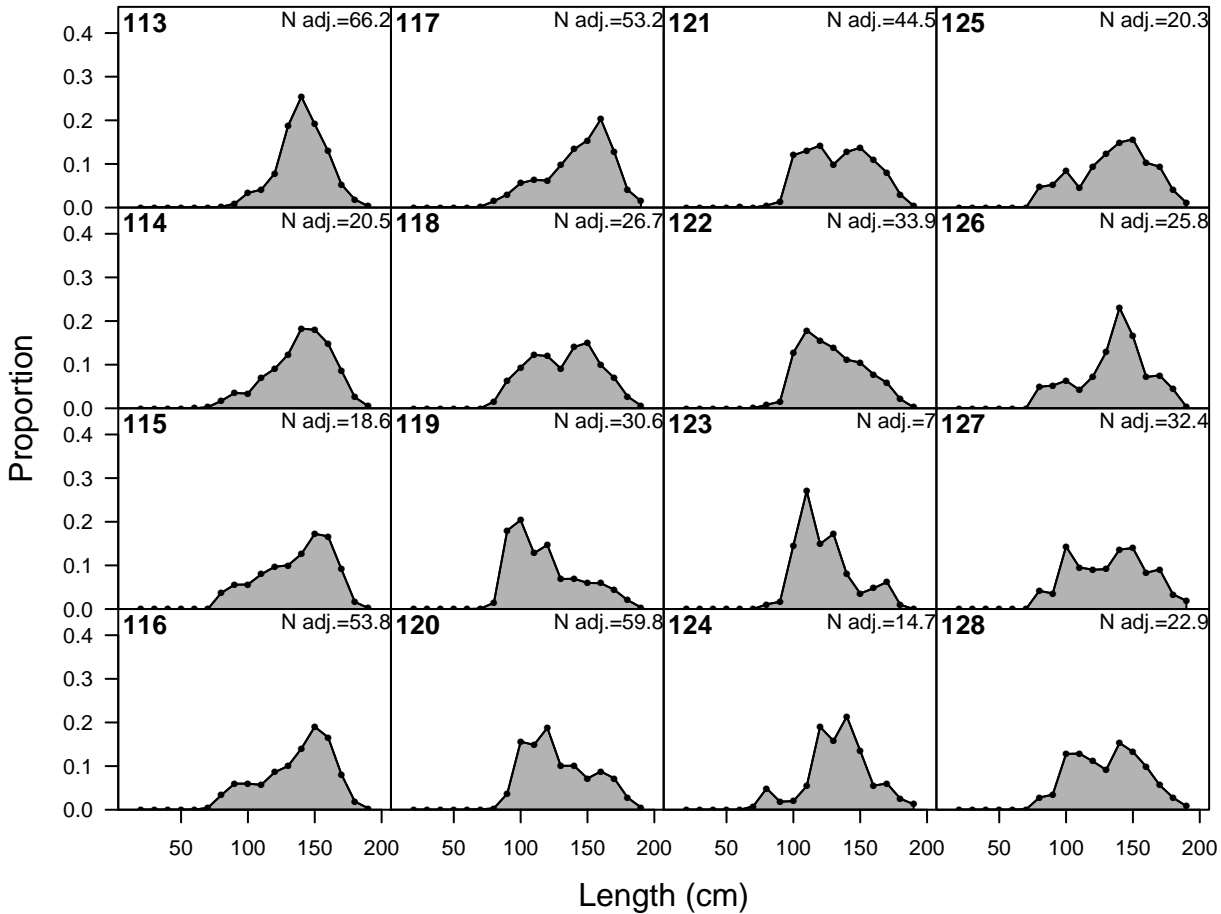
EPO-LL-survey-early (whole catch)

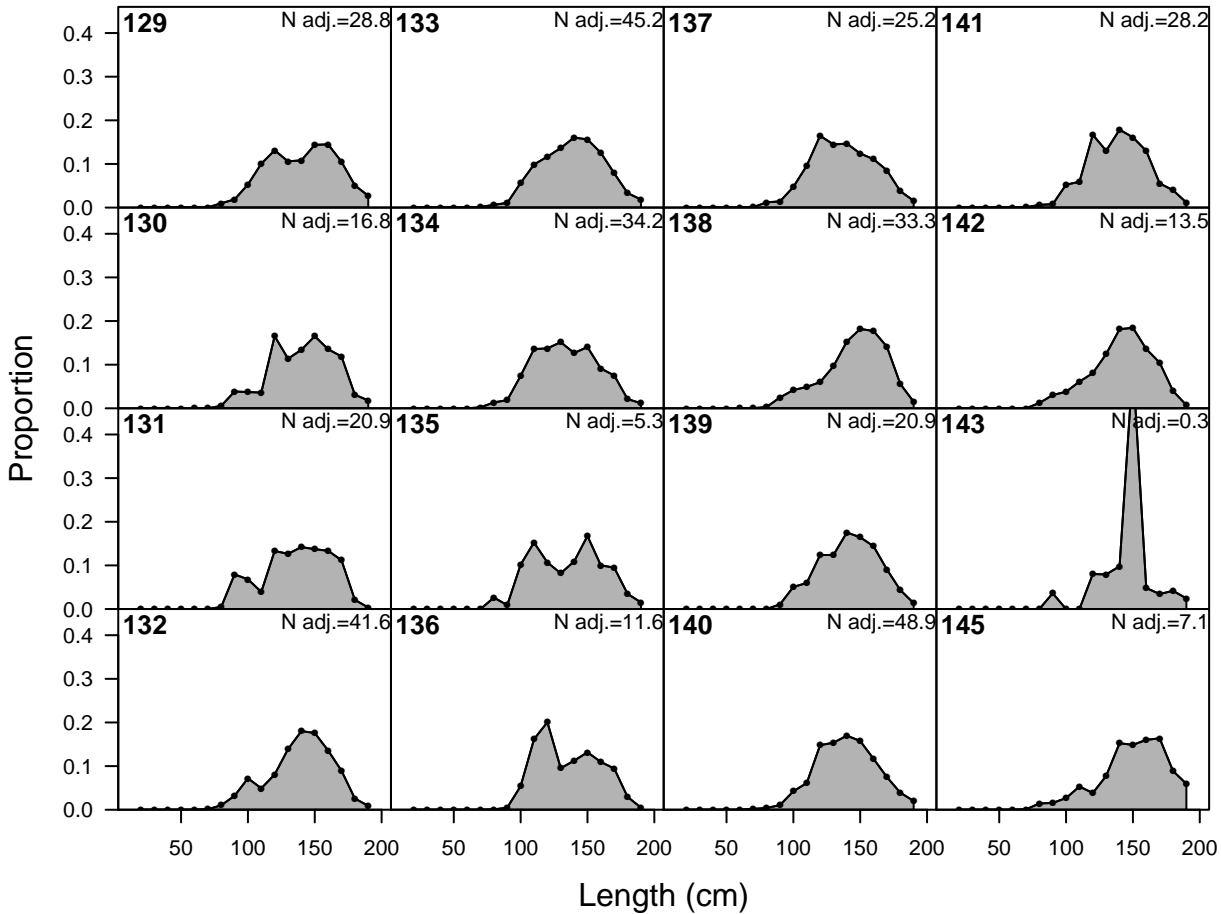


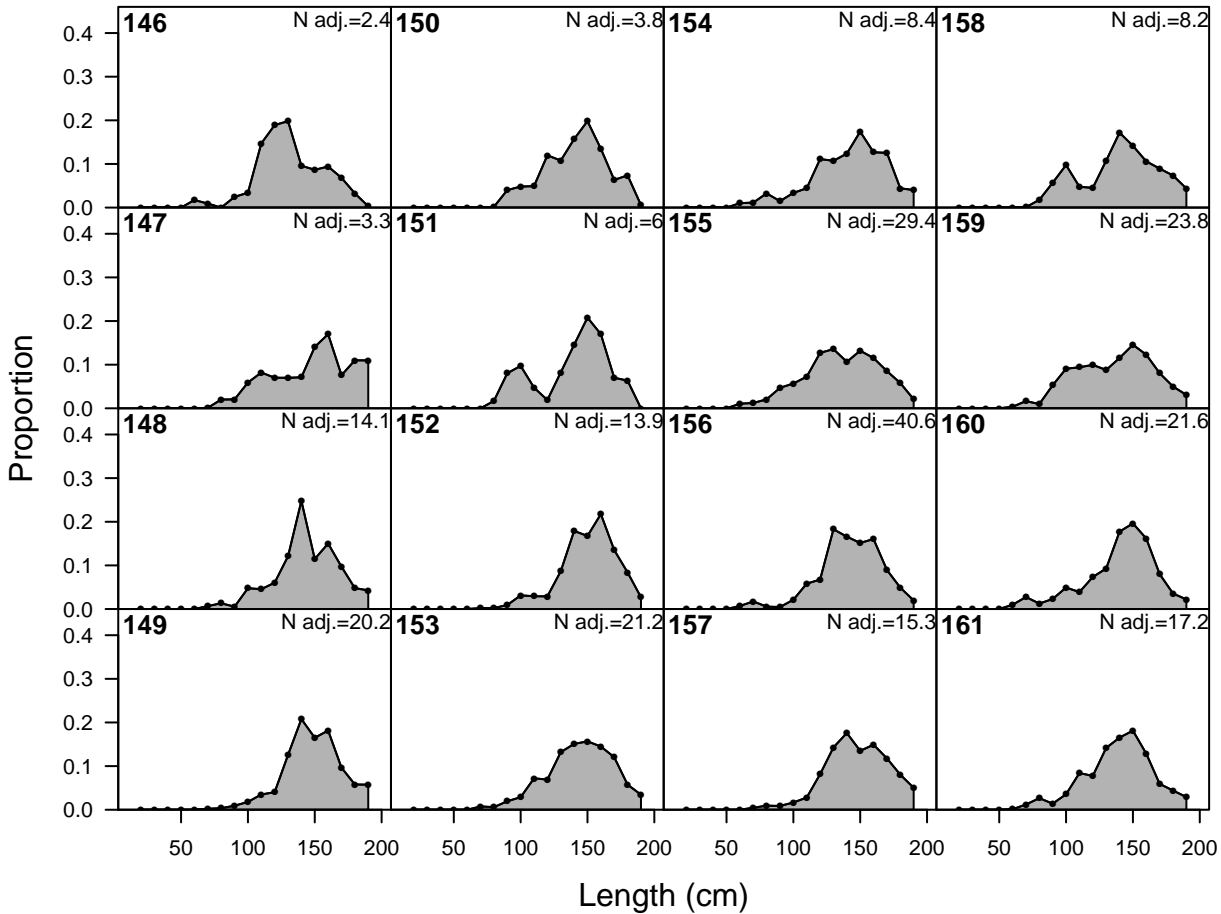


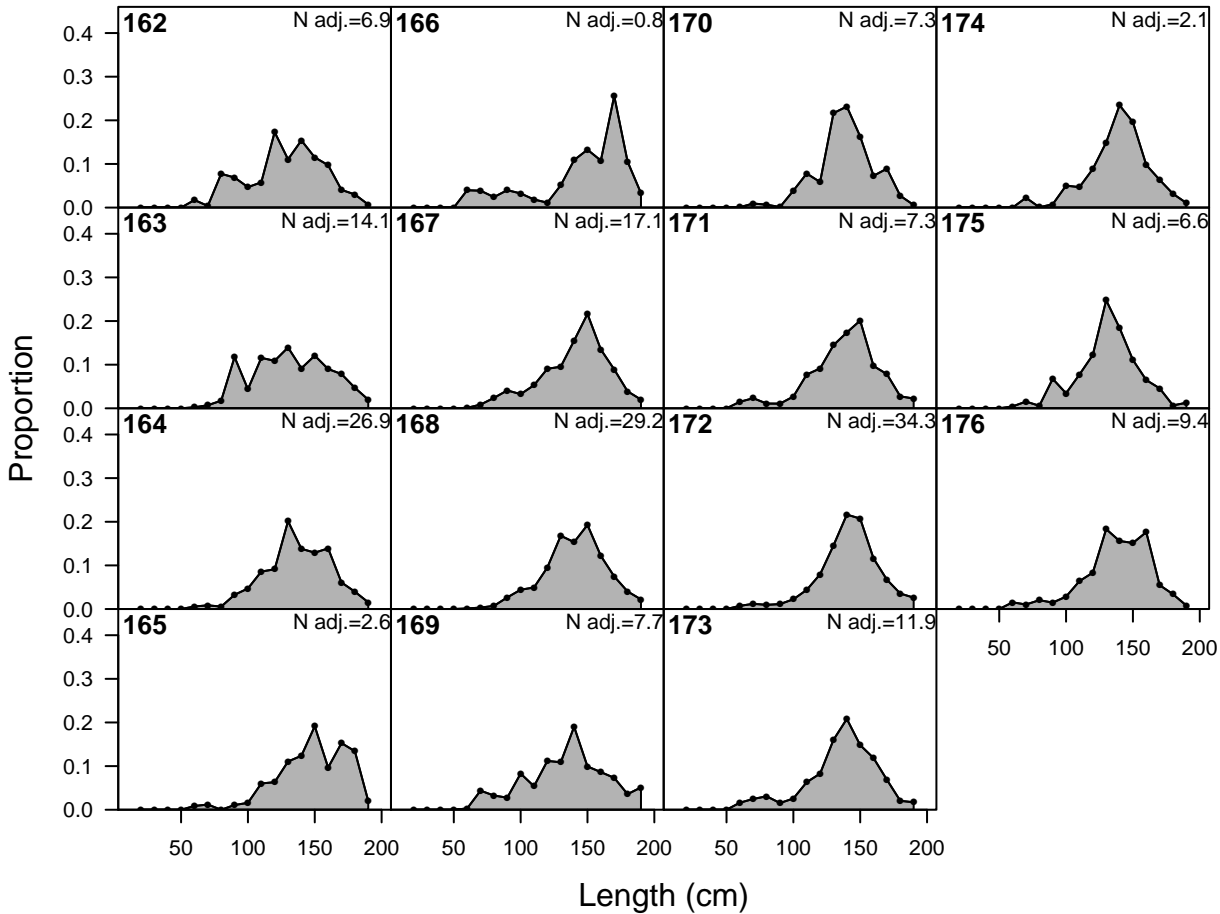


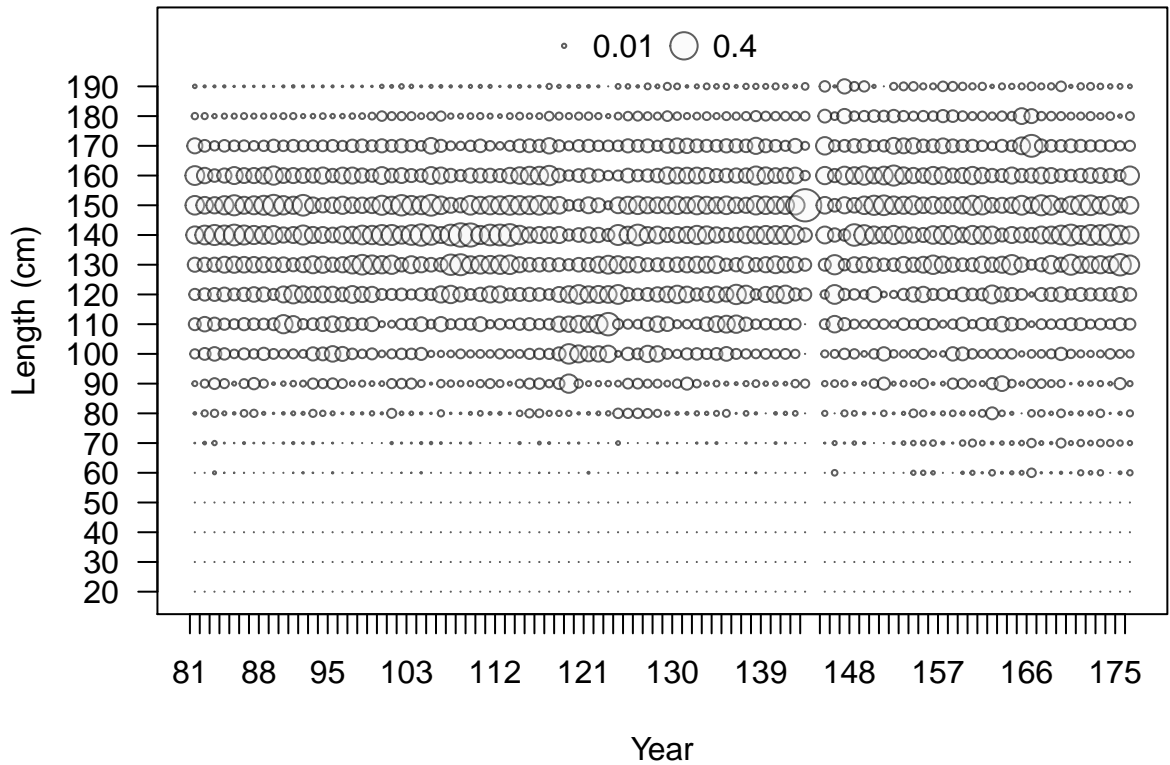




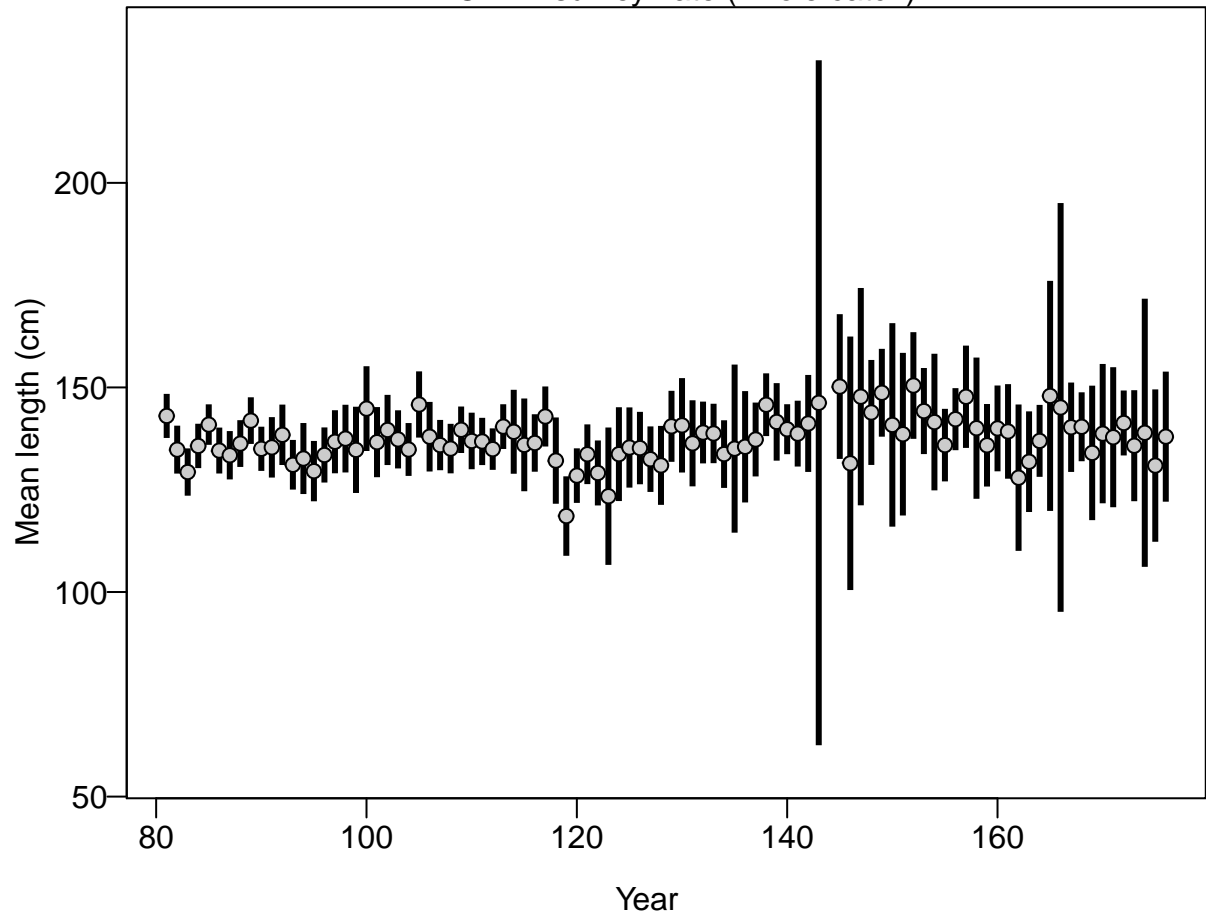




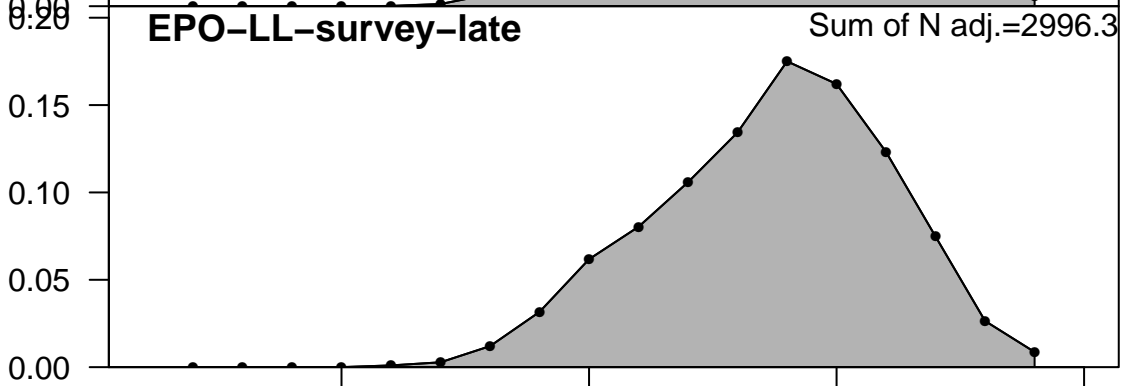
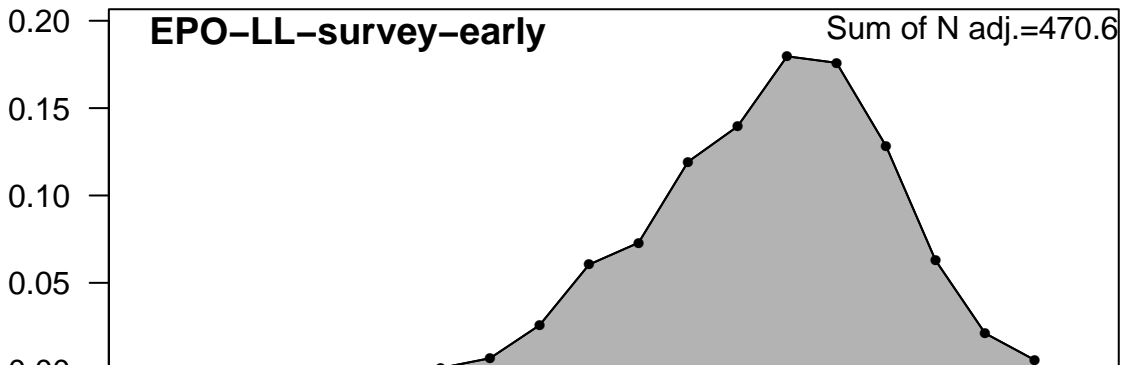




EPO-LL-survey-late (whole catch)



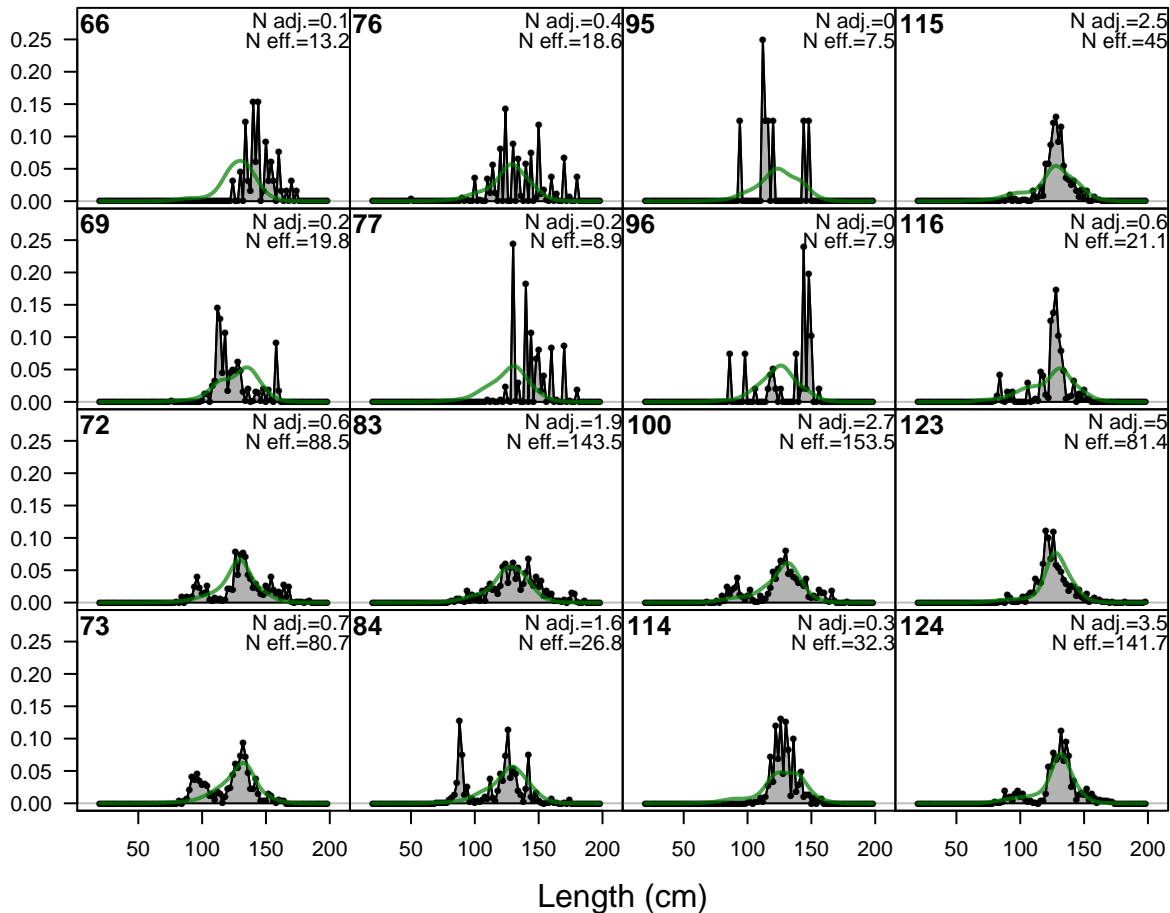
Proportion



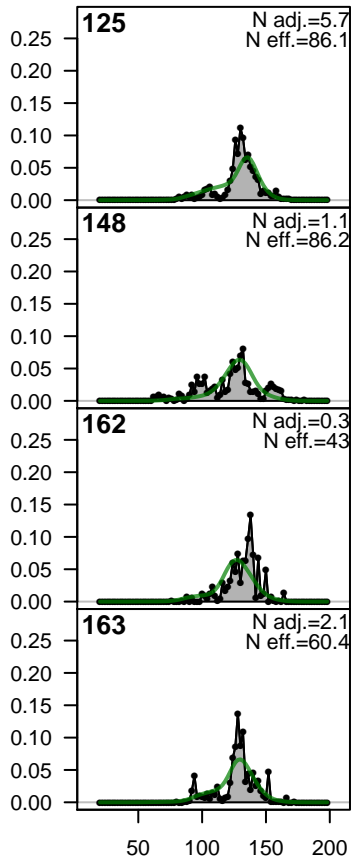
Length (cm)



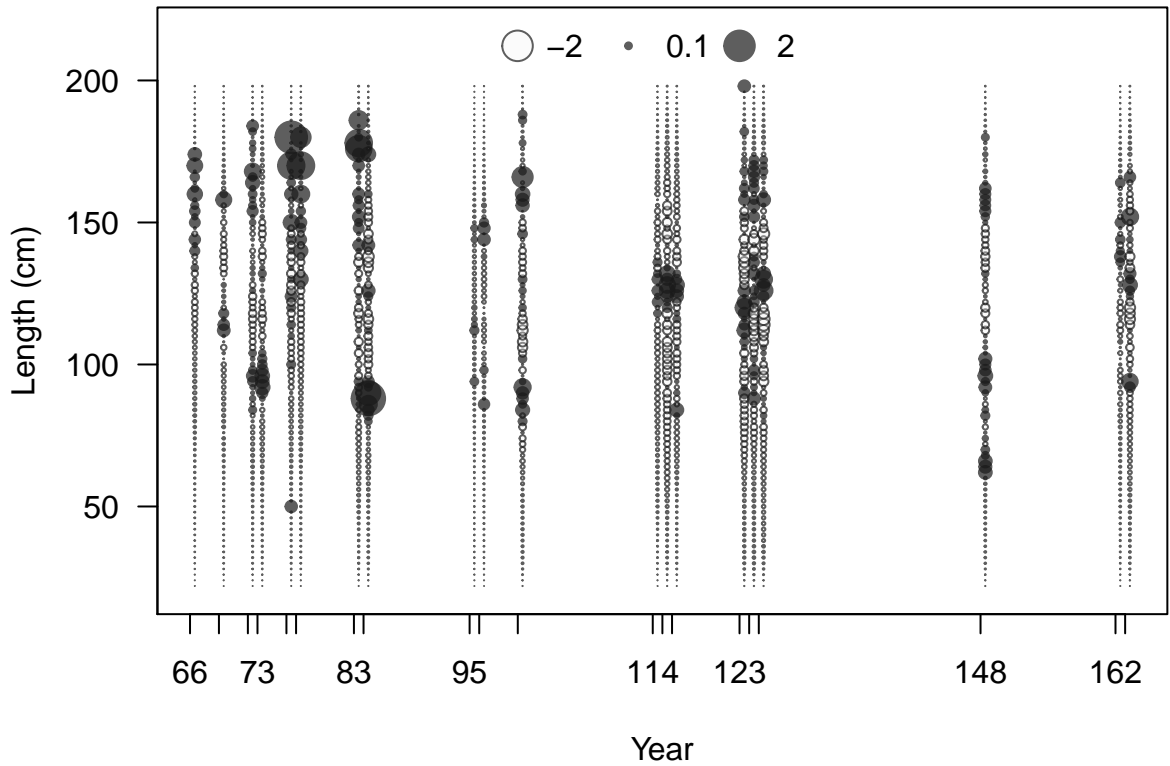
Proportion

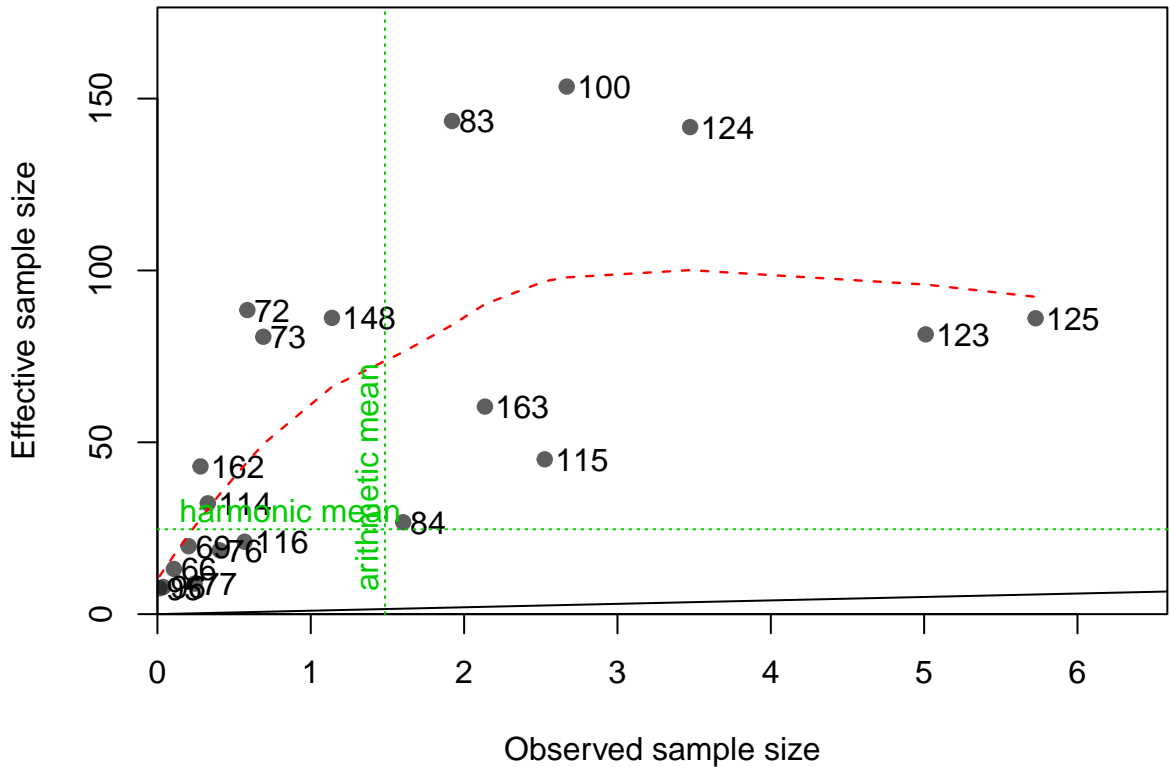


Proportion

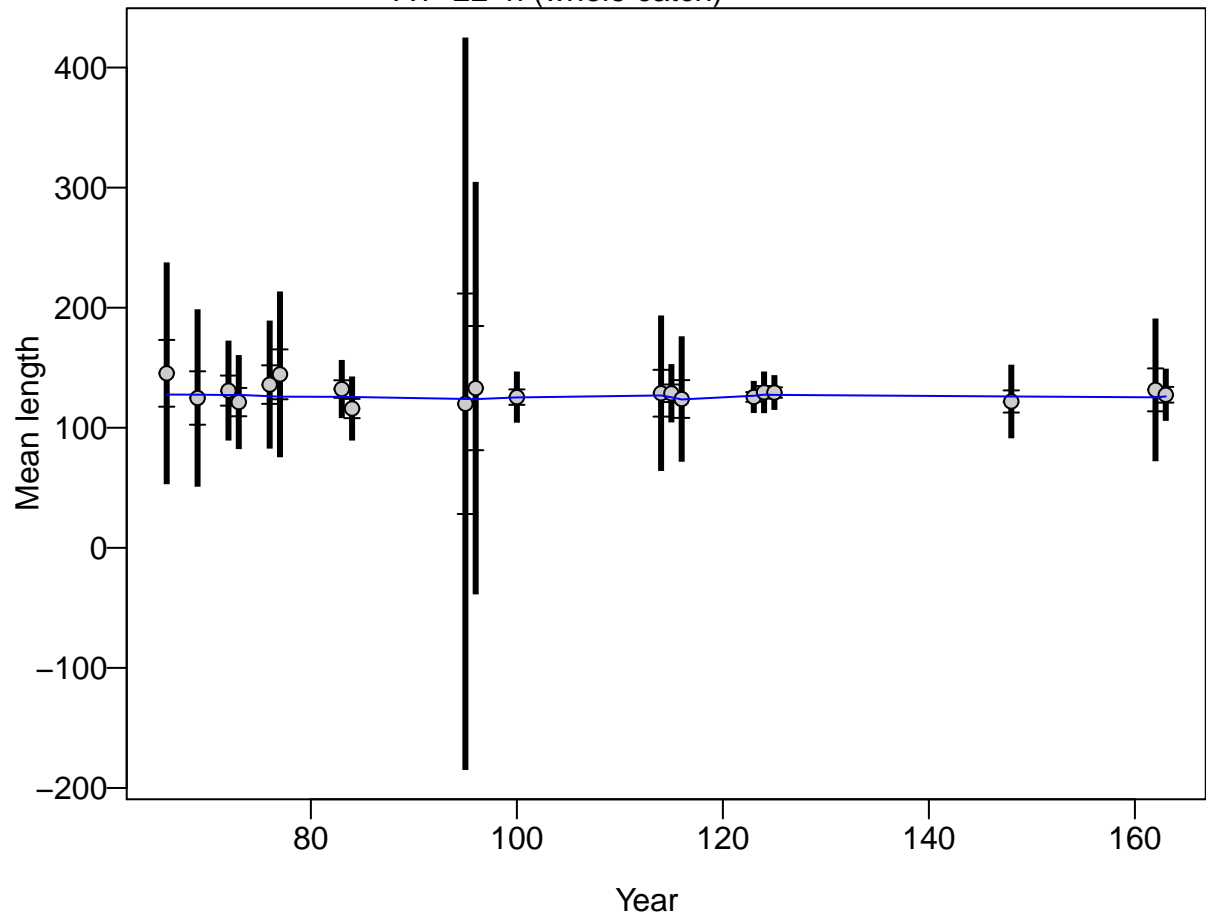


Length (cm)

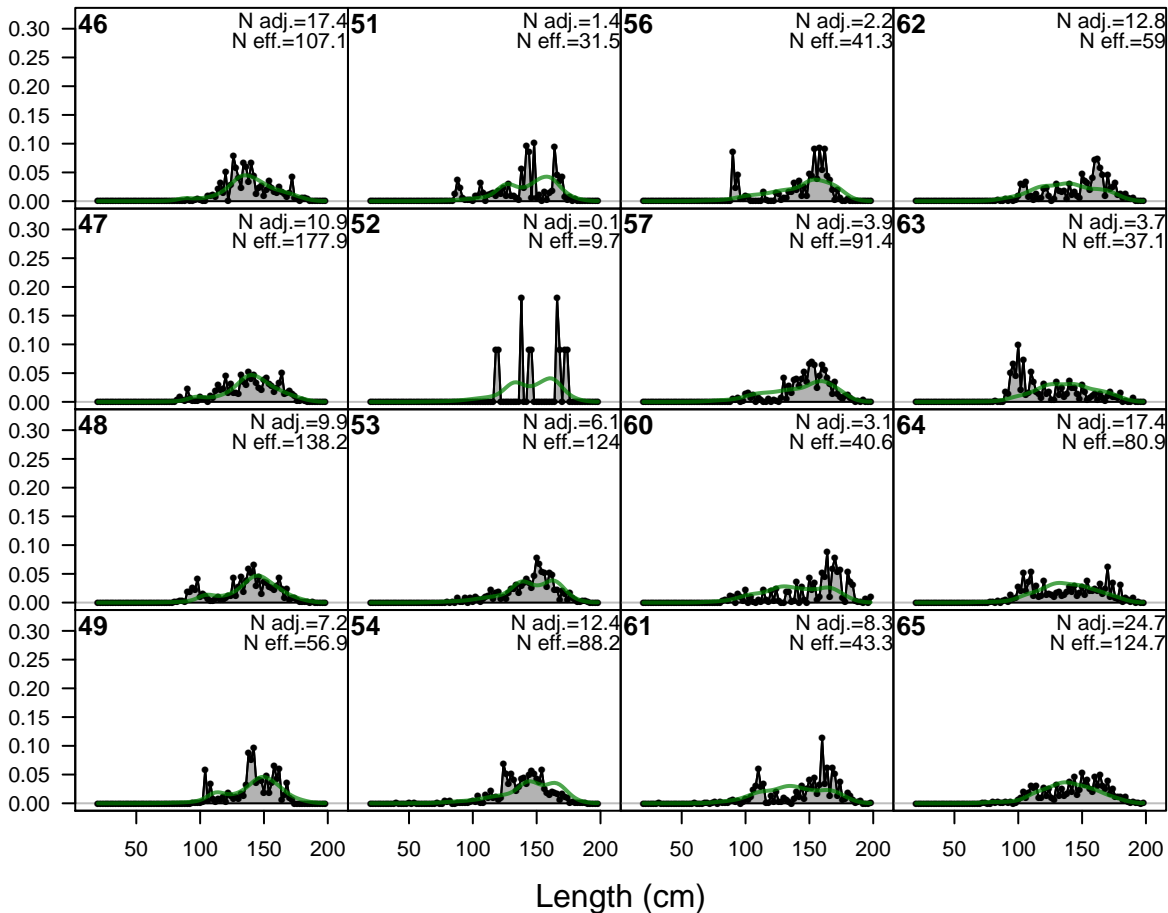




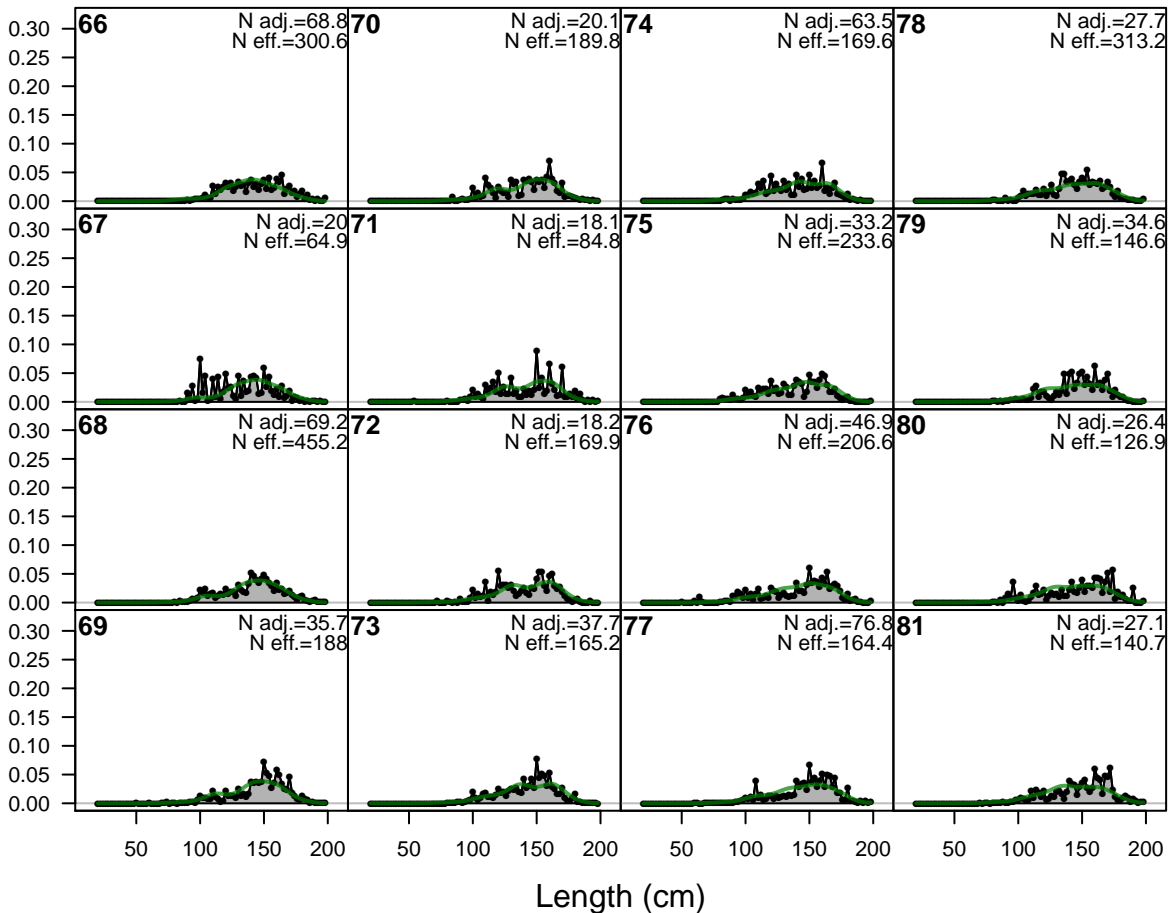
A1-LL-n (whole catch)



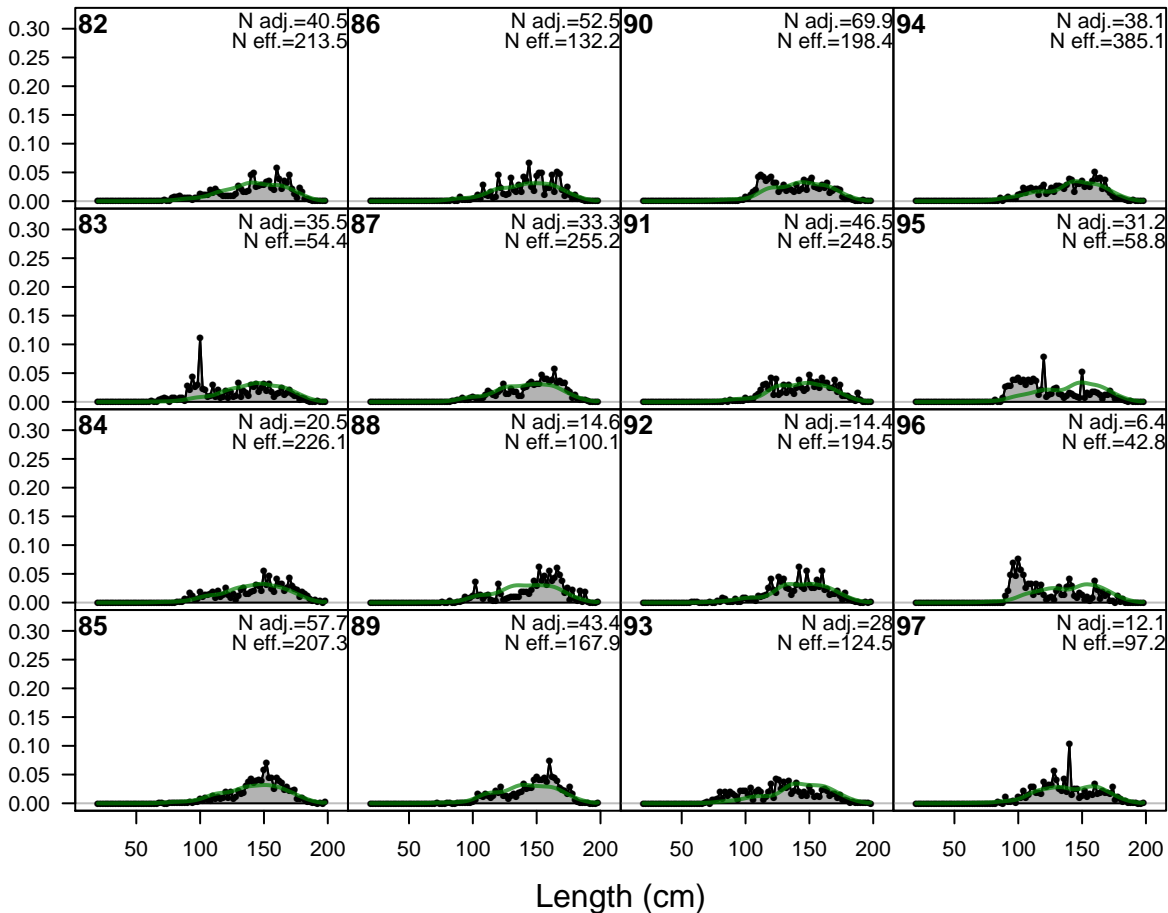
Proportion



Proportion

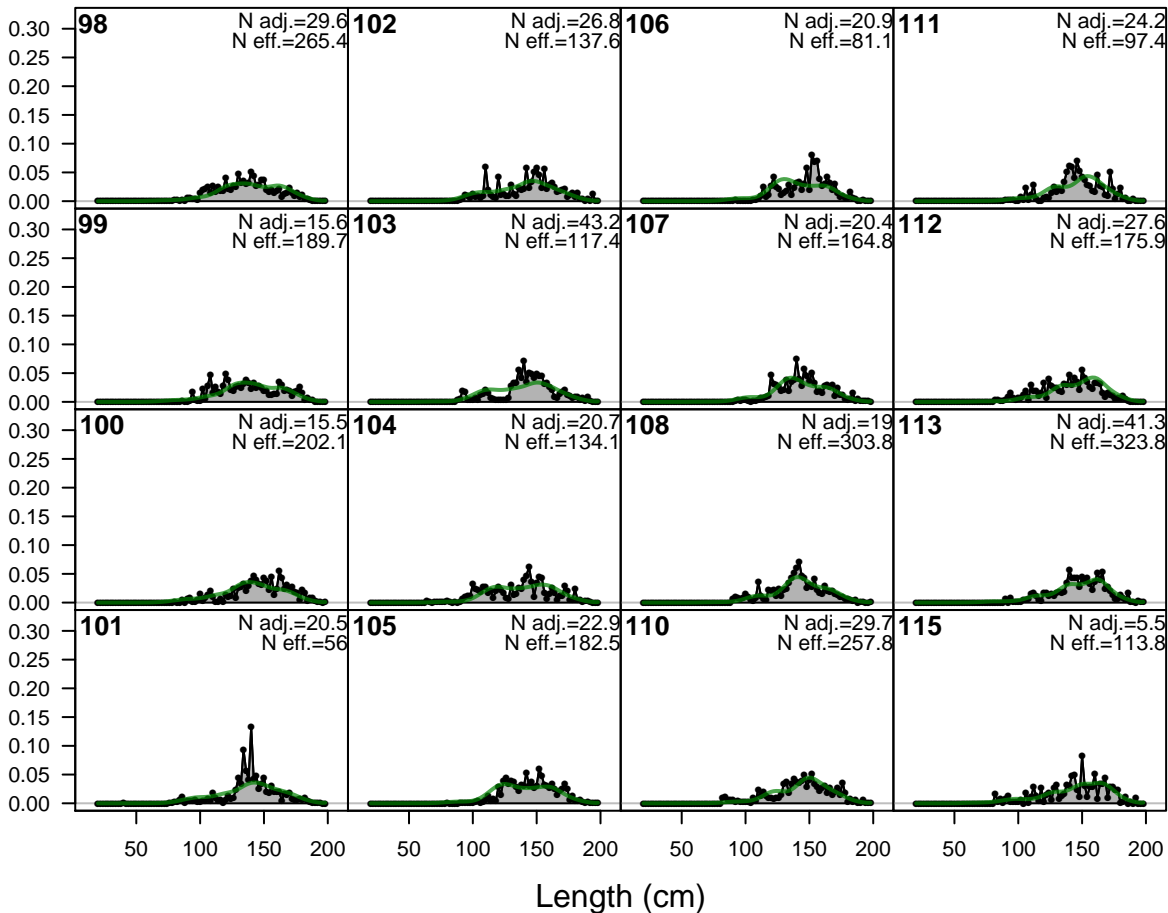


Proportion

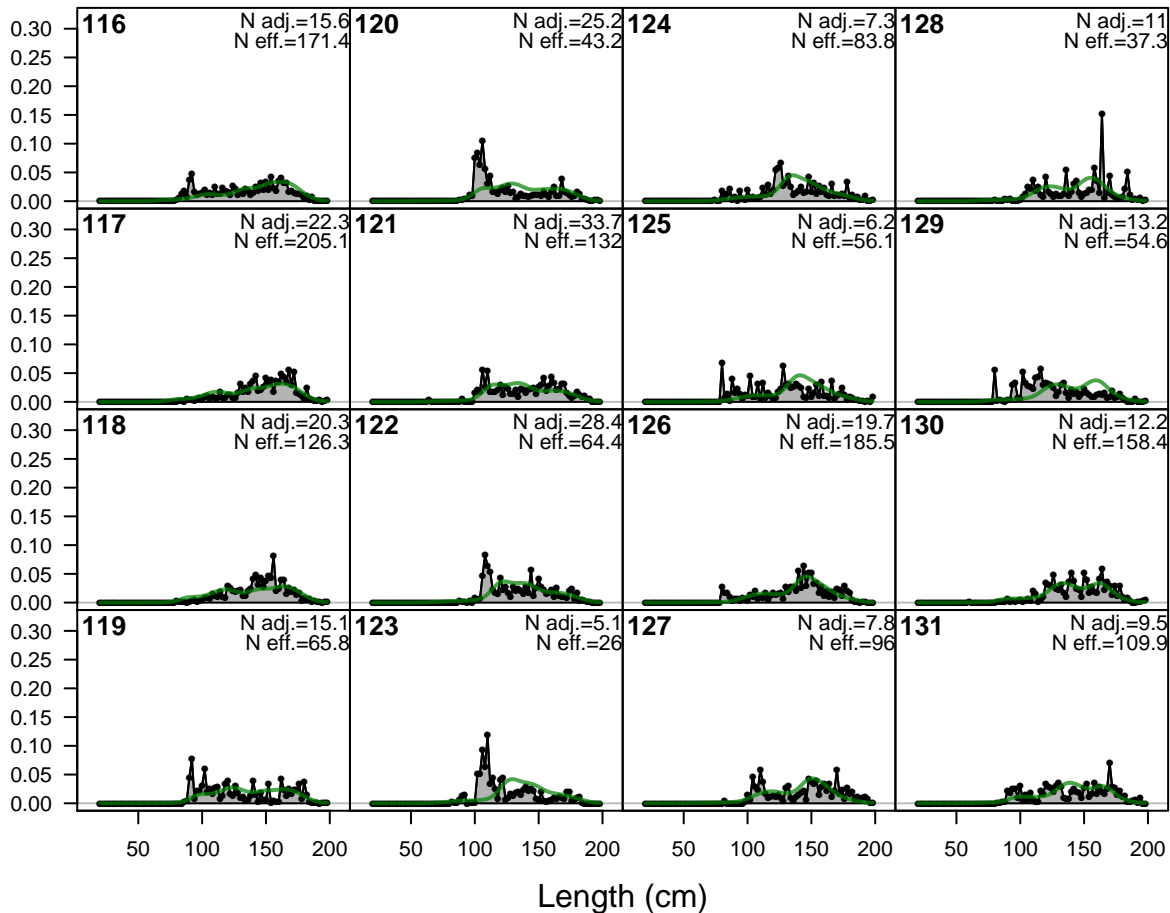




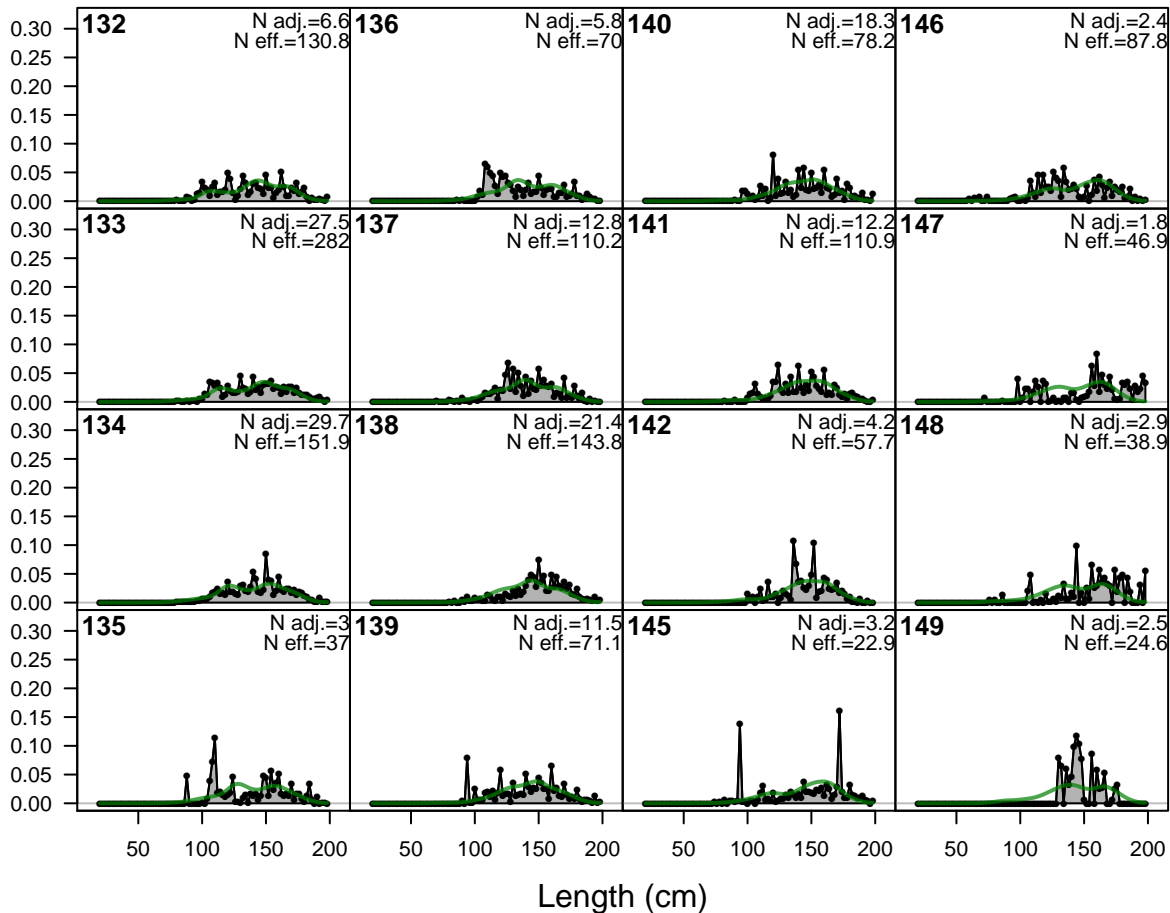
Proportion



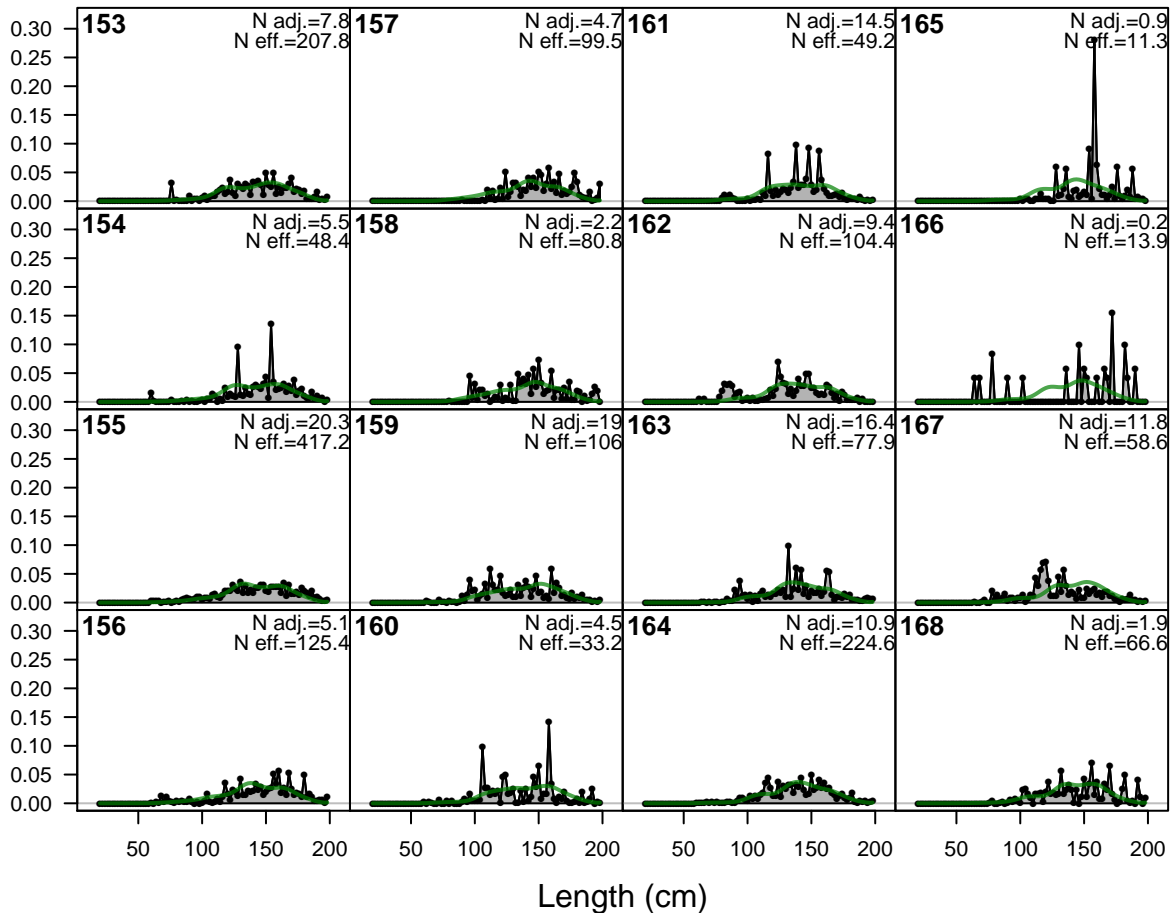
Proportion



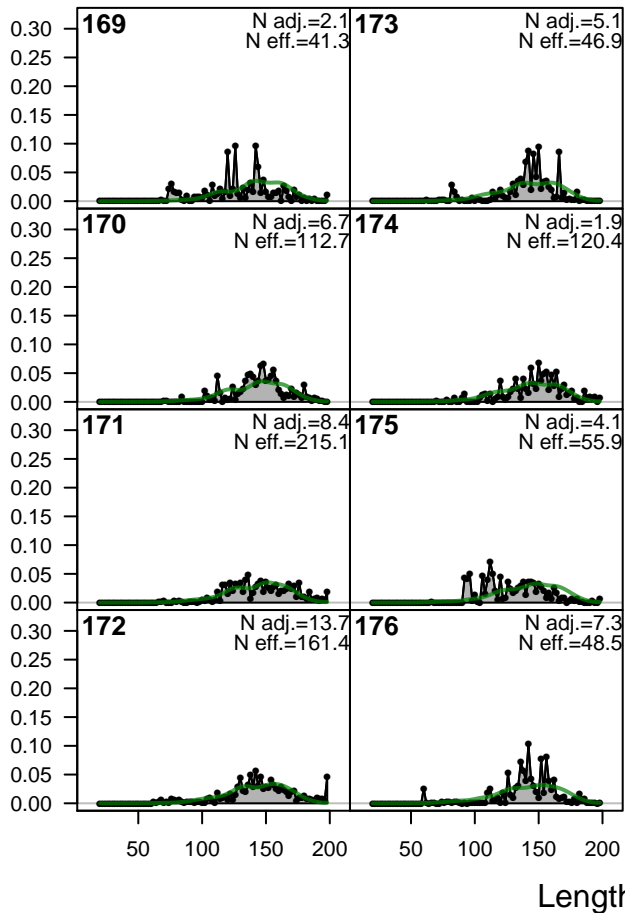
Proportion

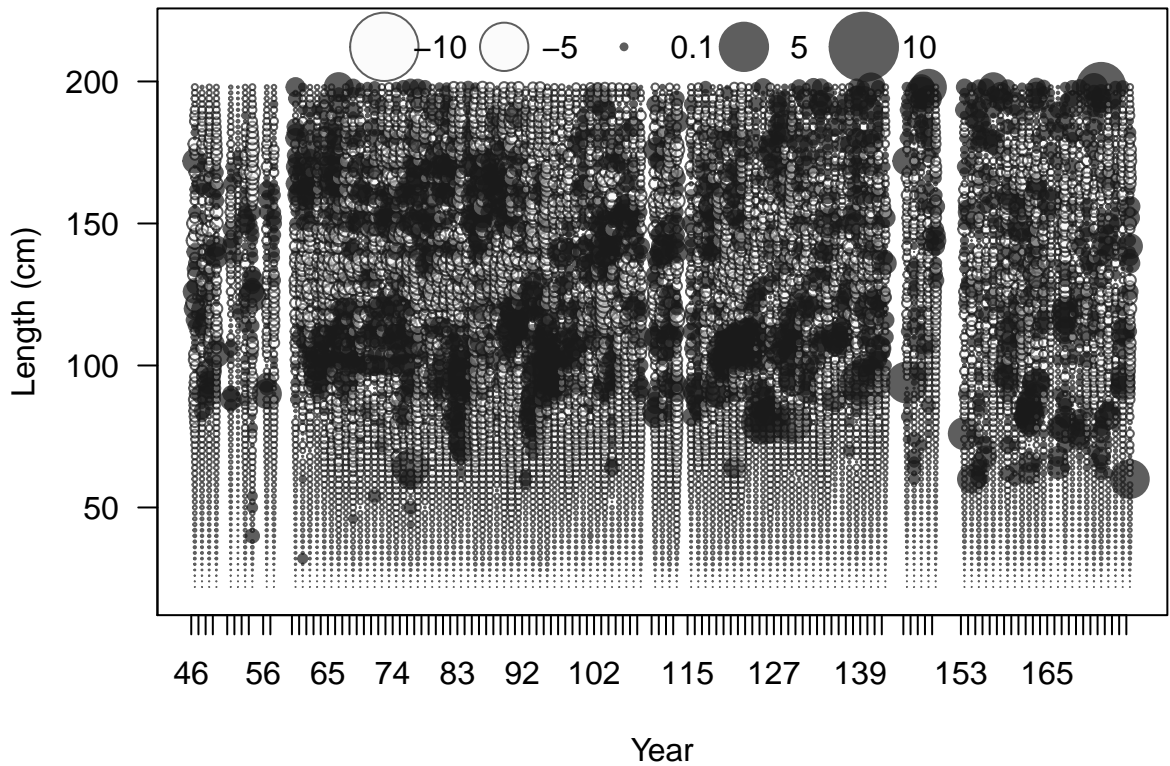


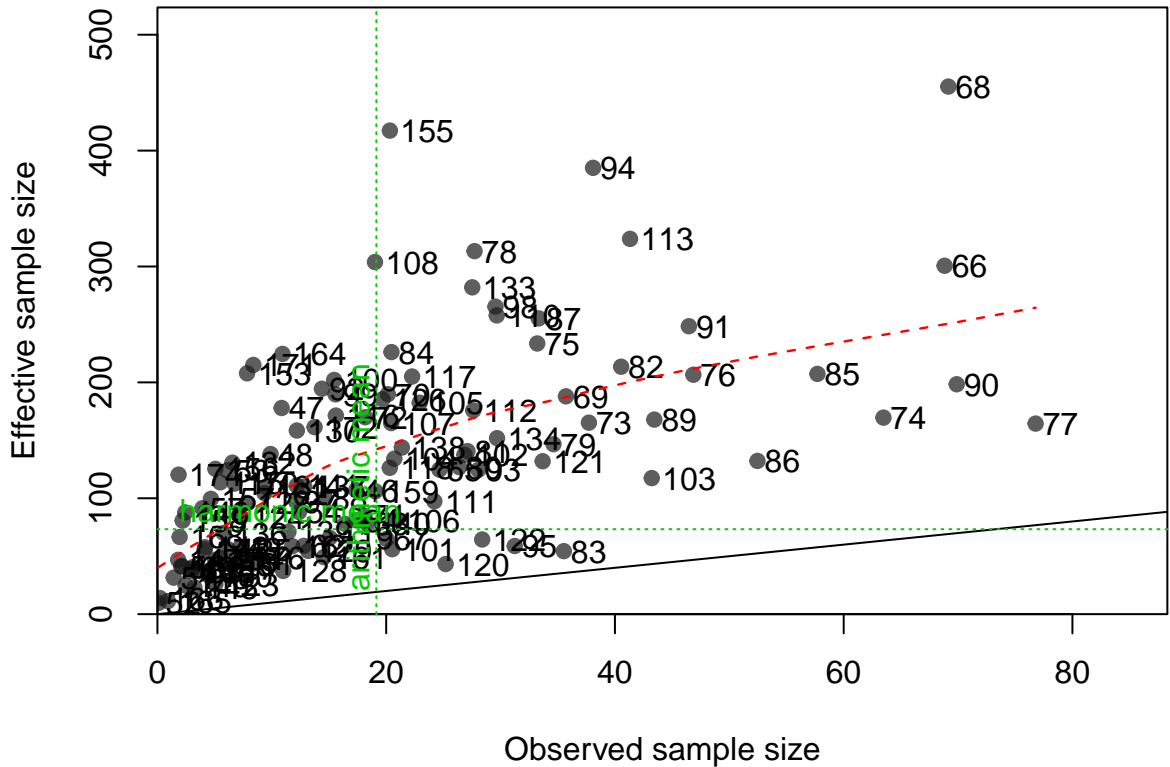
Proportion



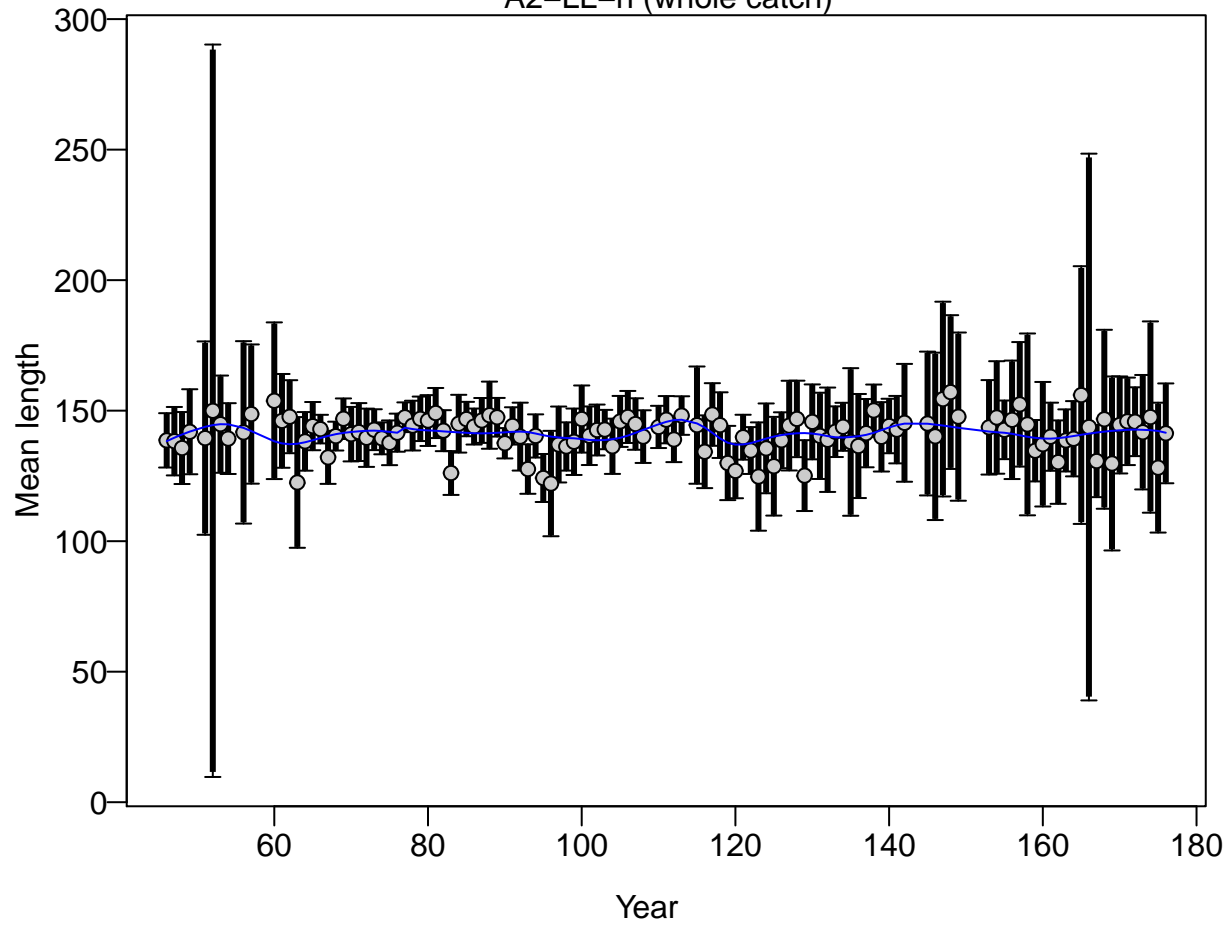
Proportion





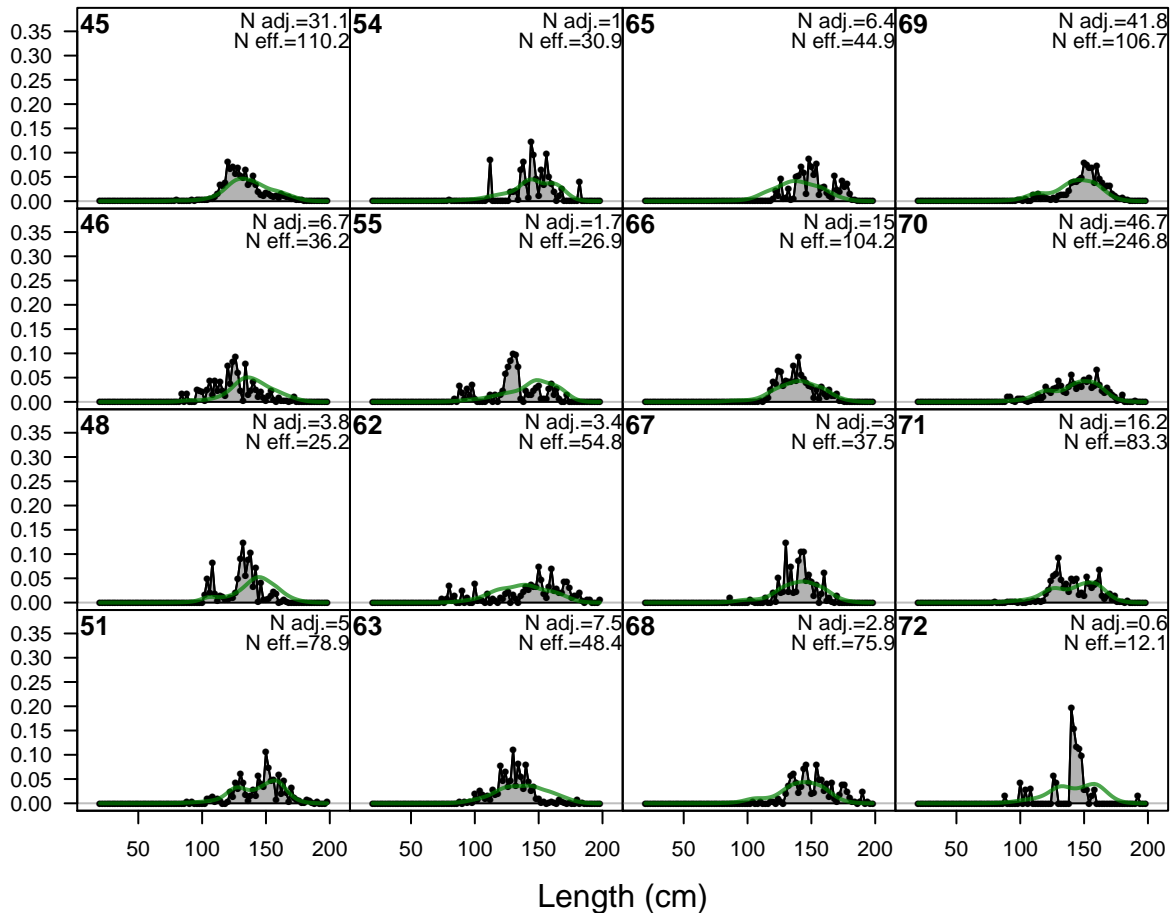


A2-LL-n (whole catch)

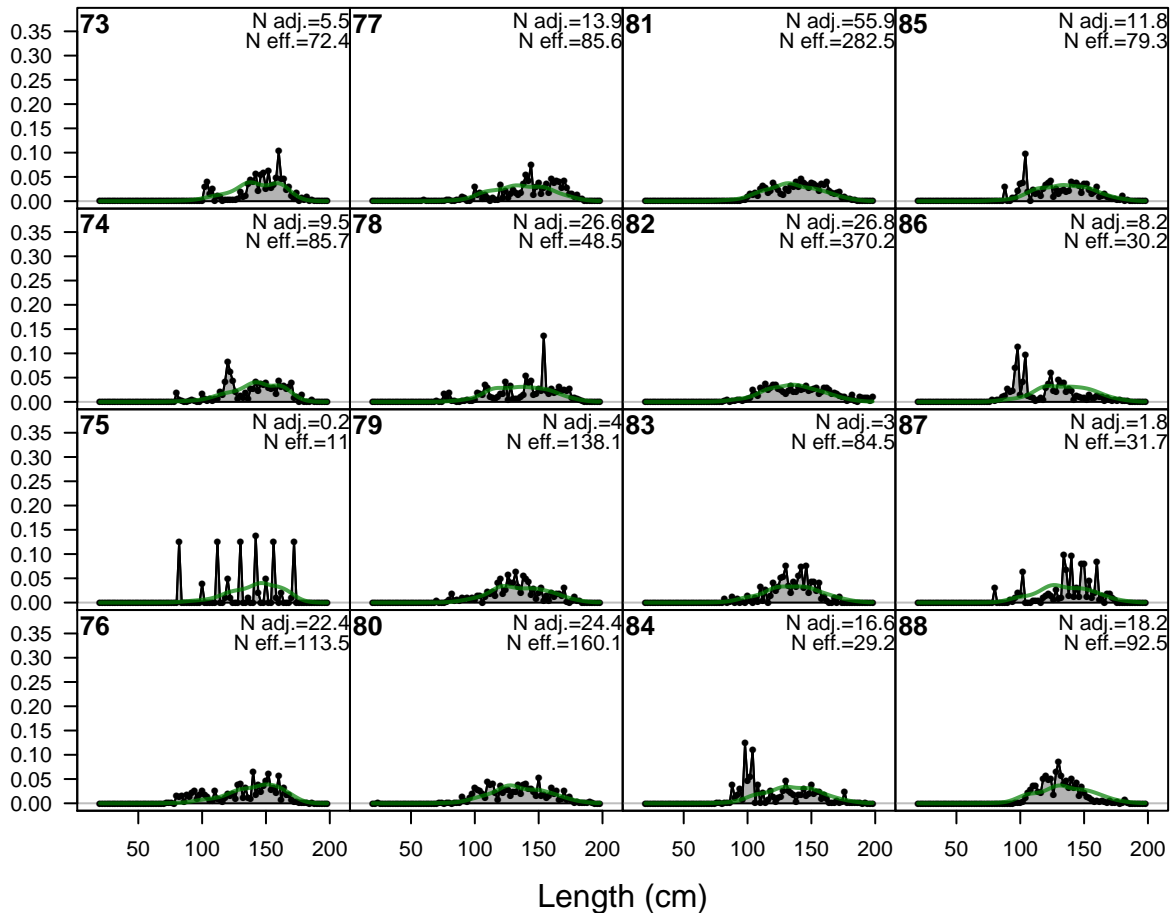




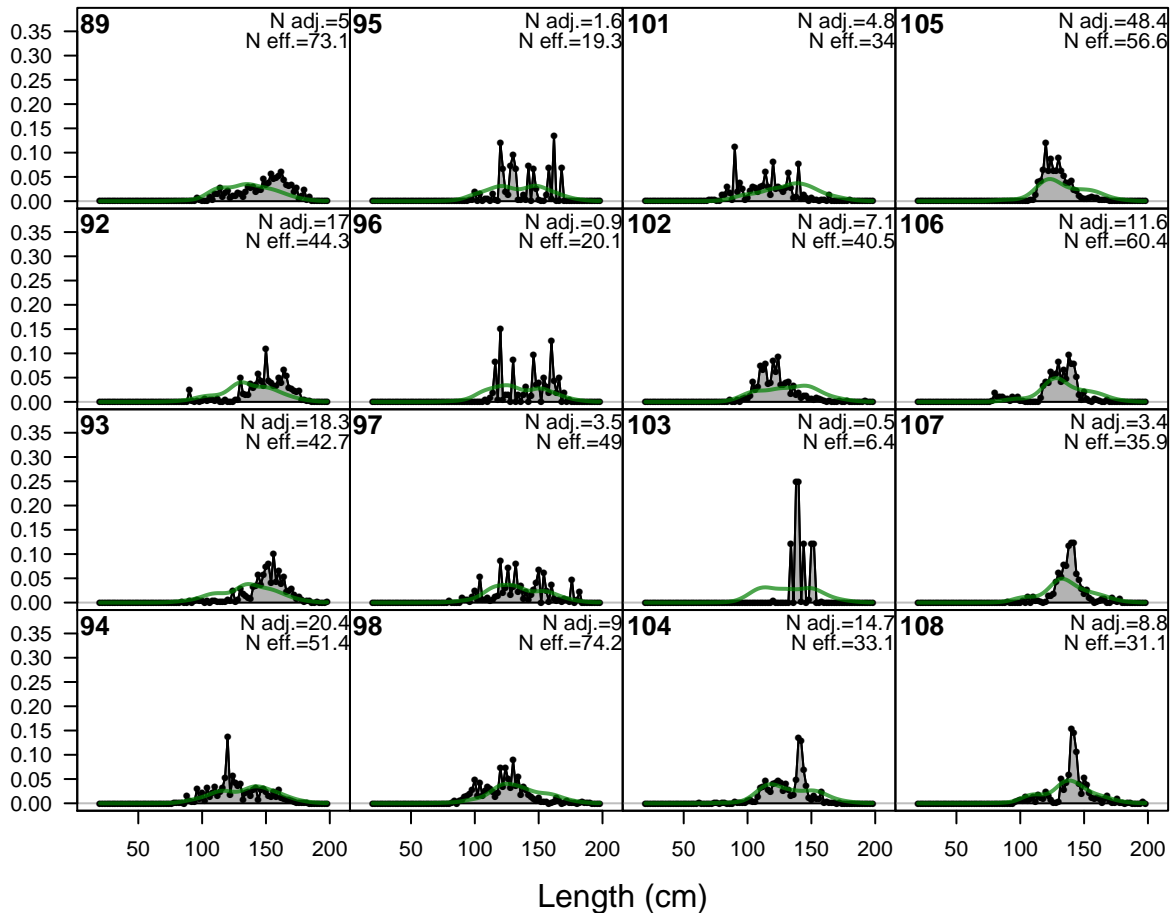
Proportion



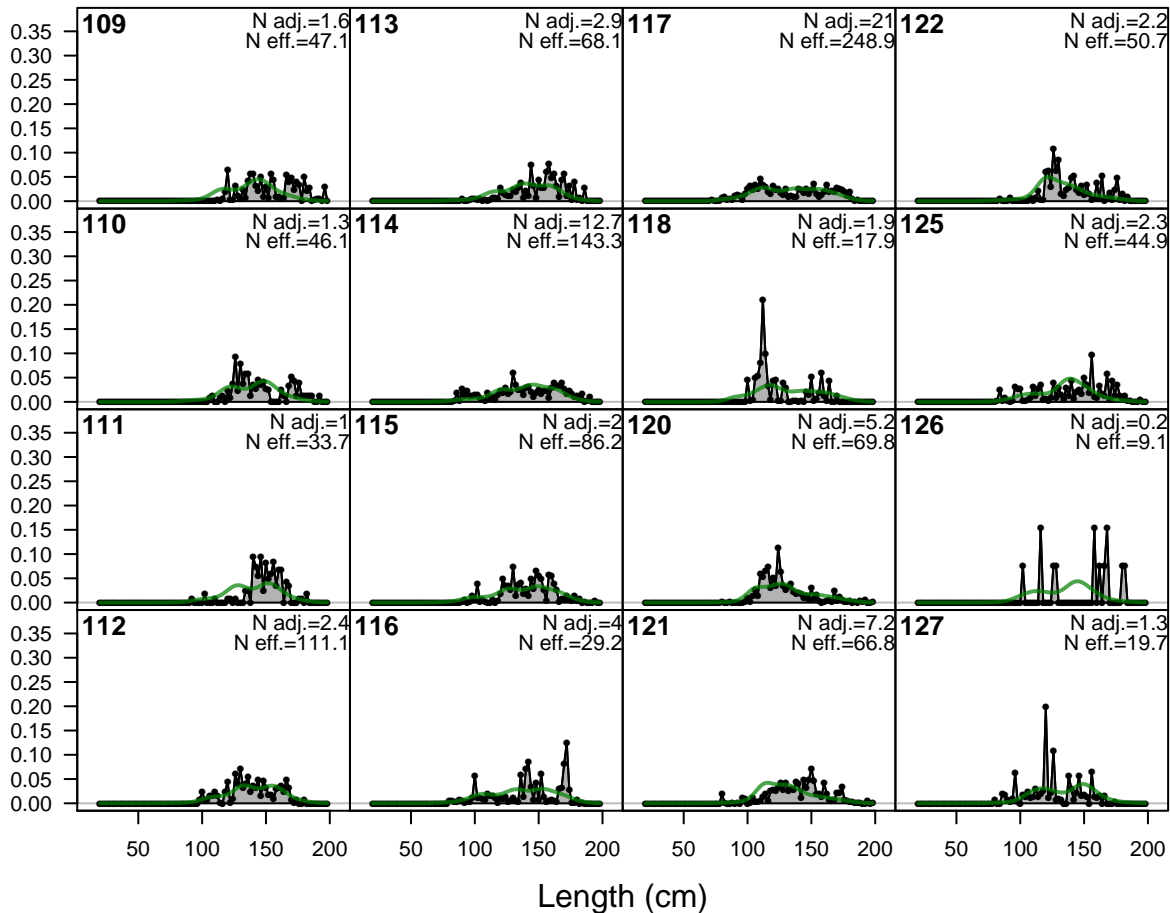
Proportion



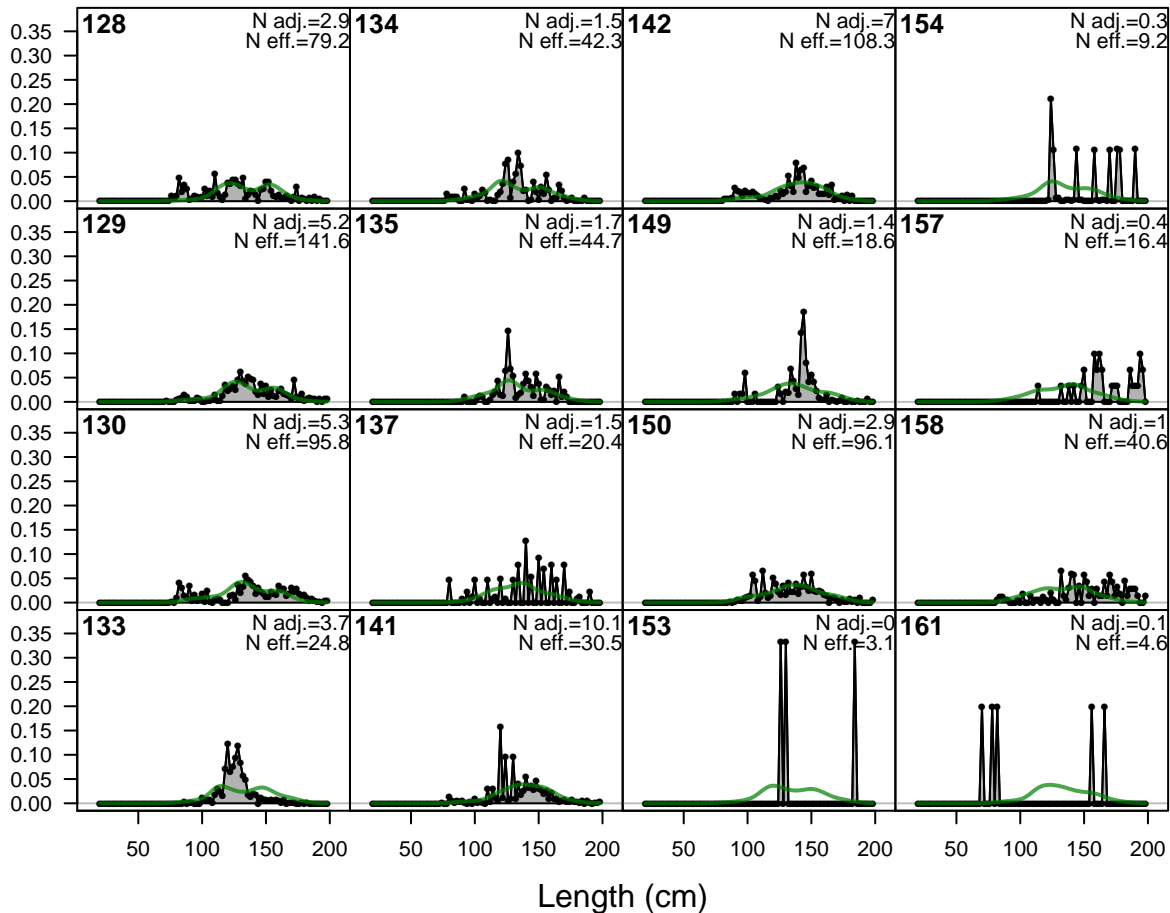
Proportion



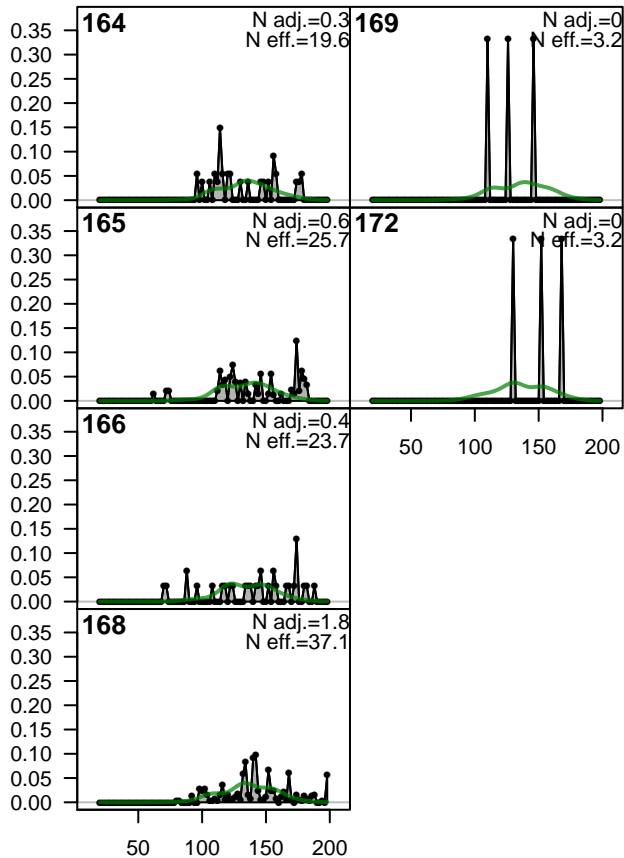
Proportion



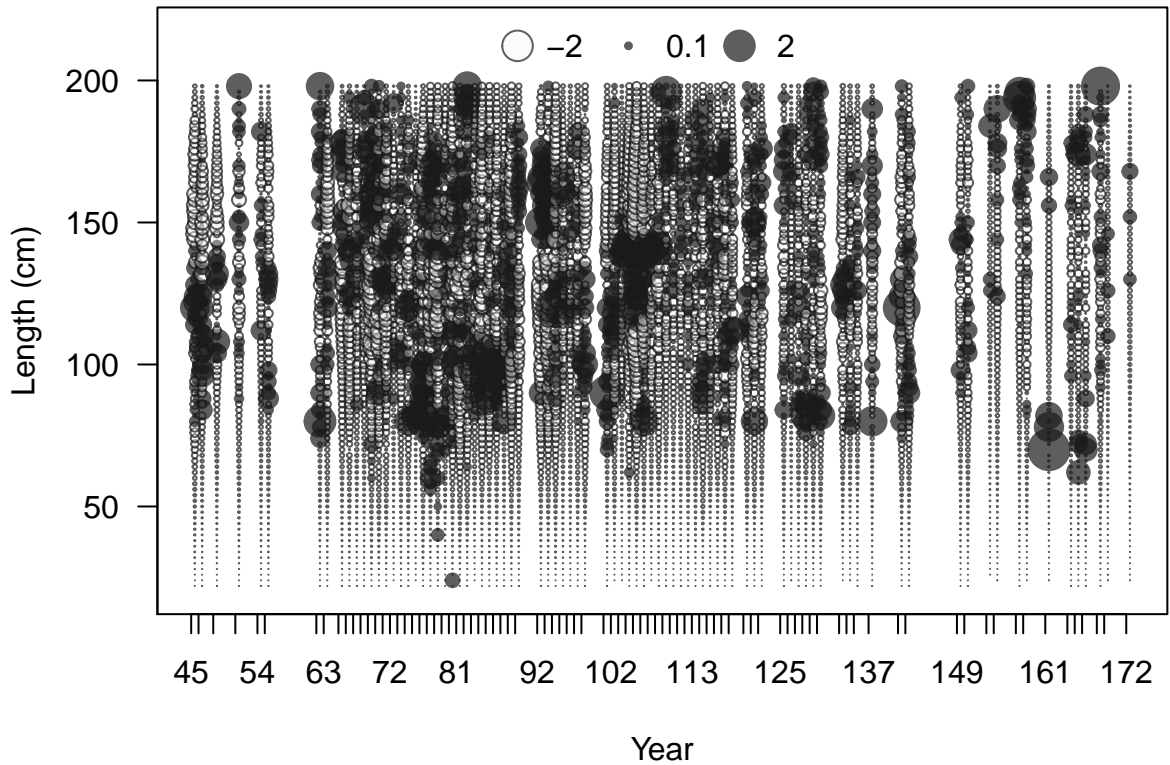
Proportion

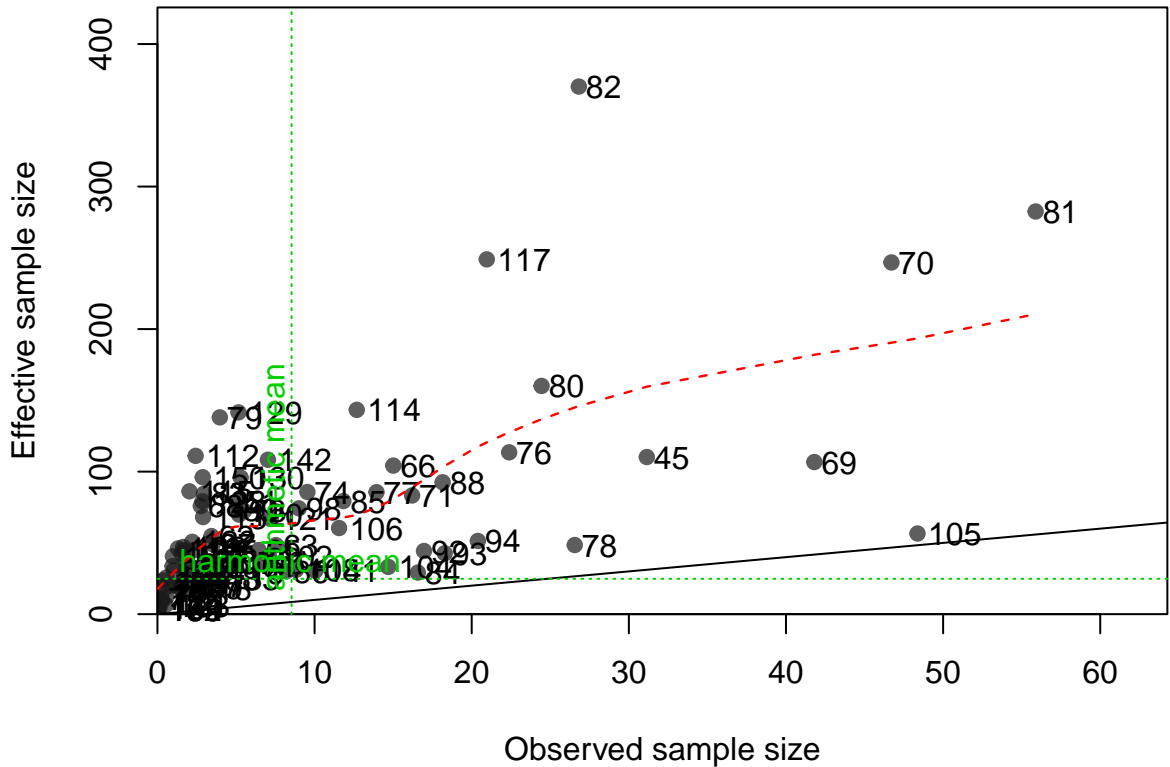


Proportion



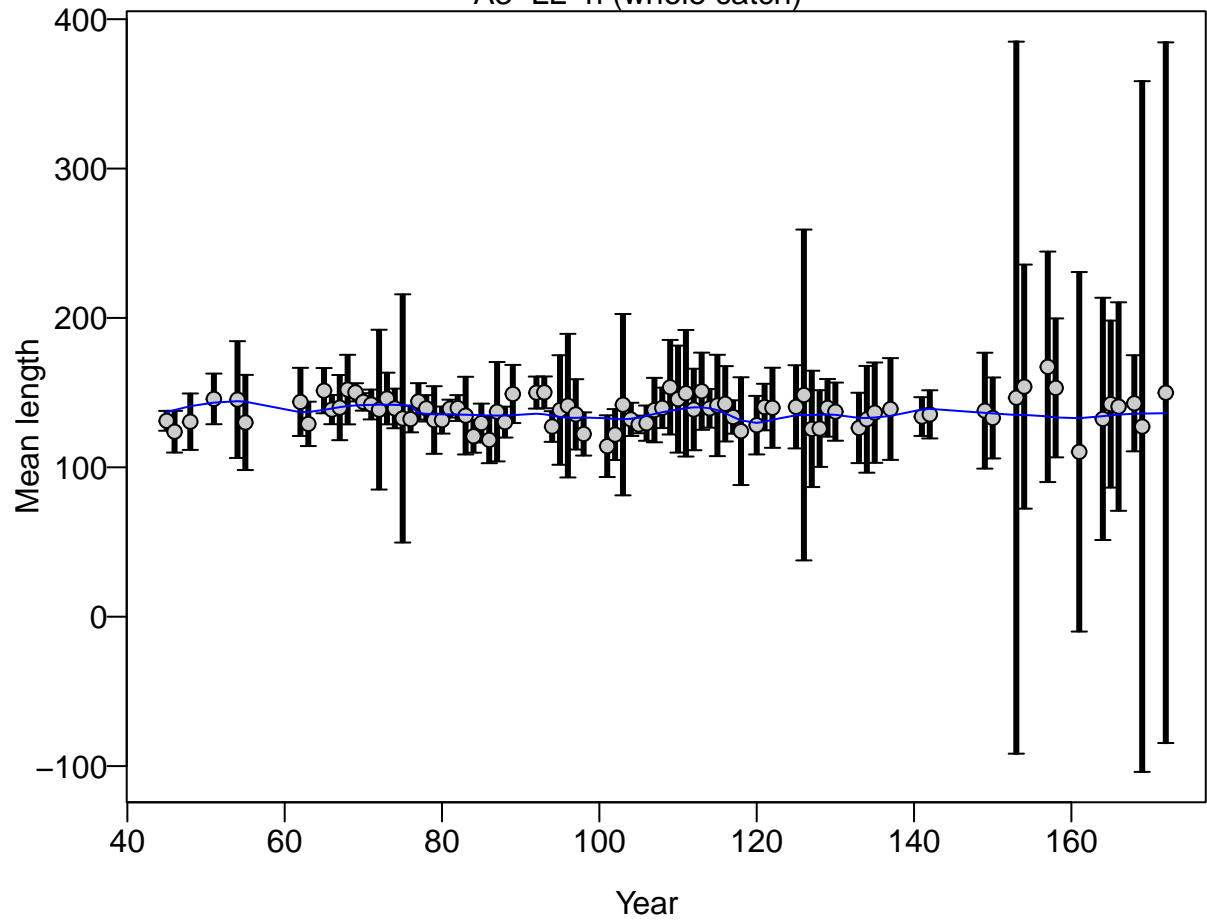
Length (cm)



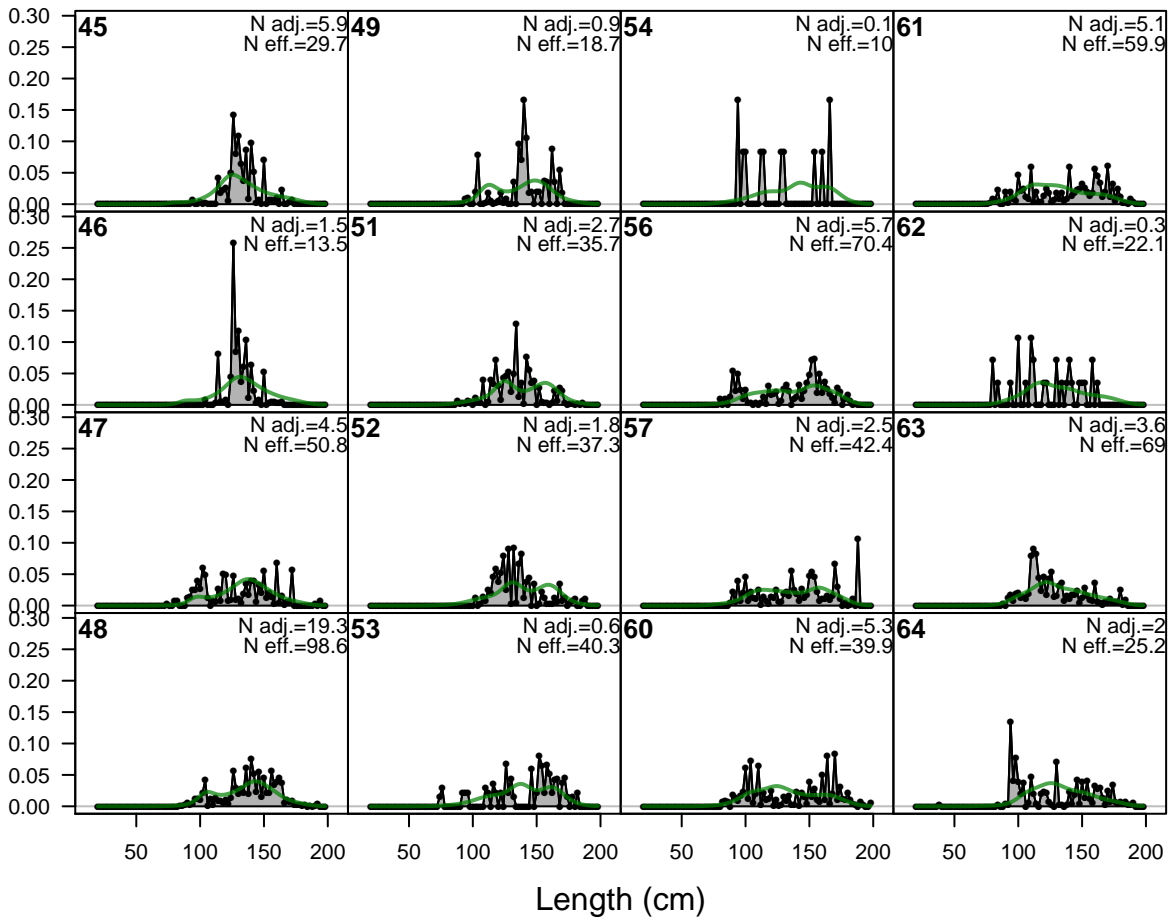




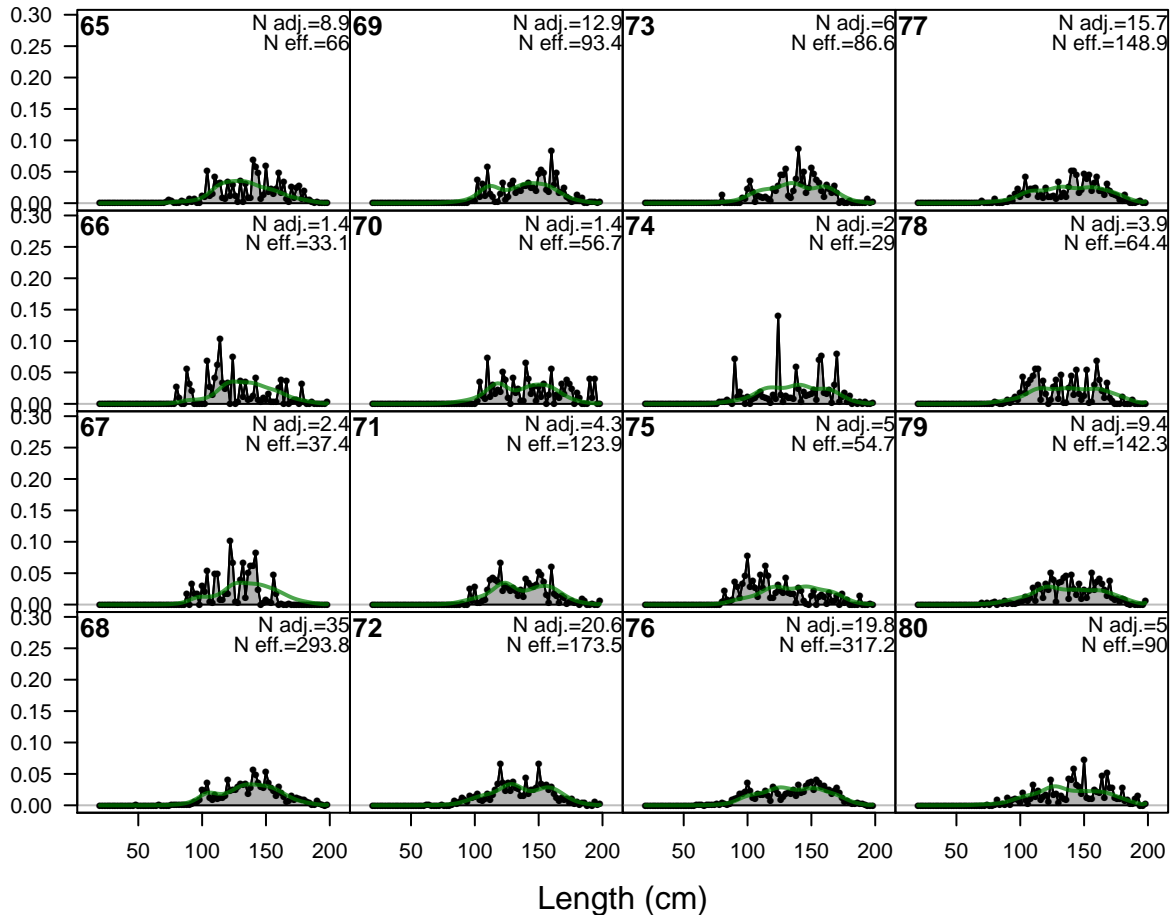
A3-LL-n (whole catch)



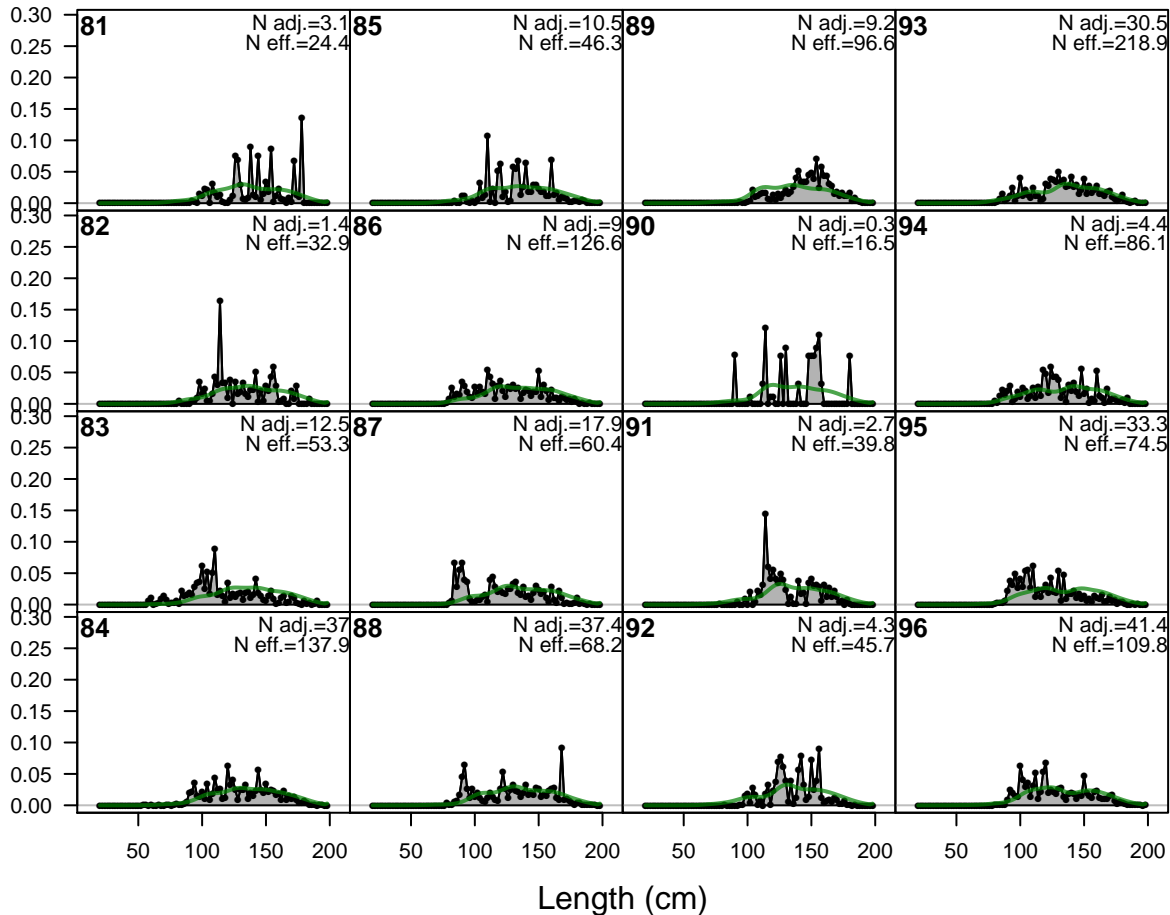
Proportion



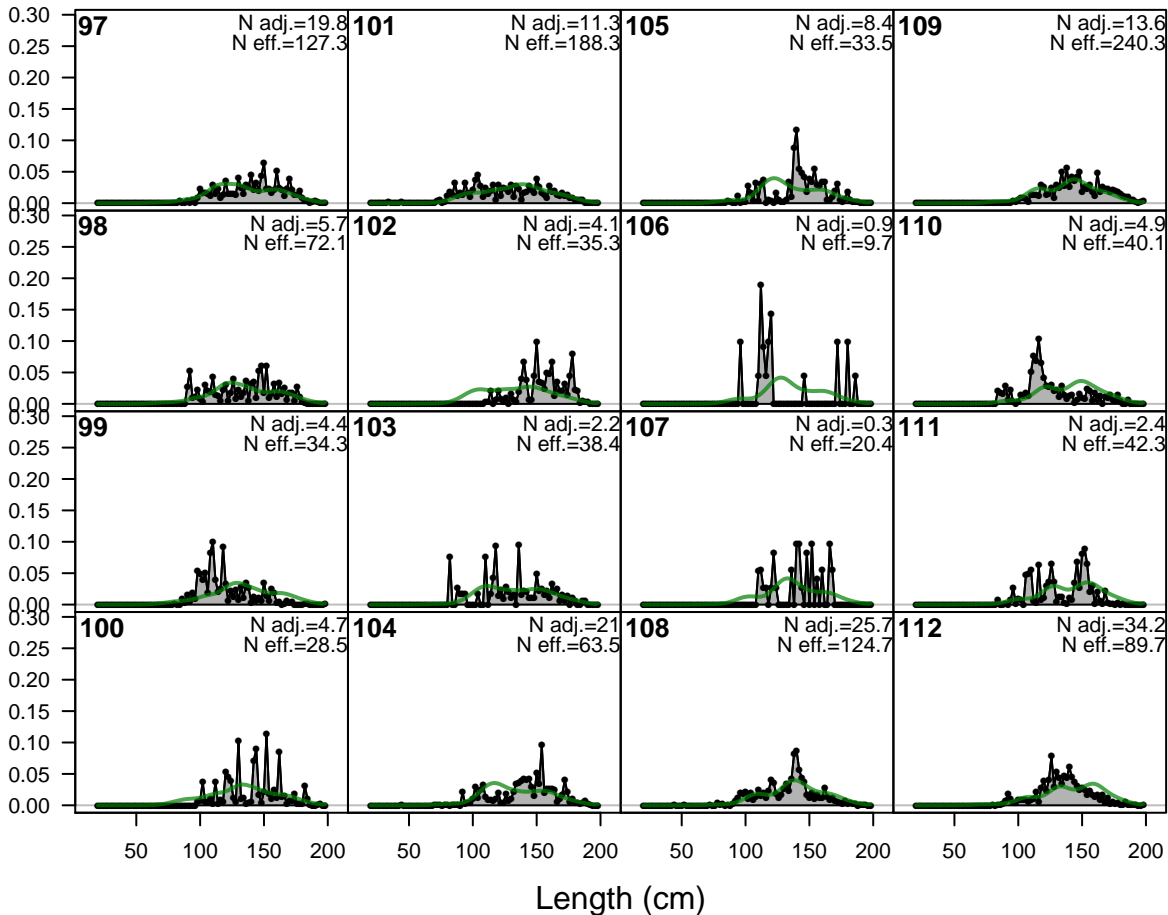
Proportion



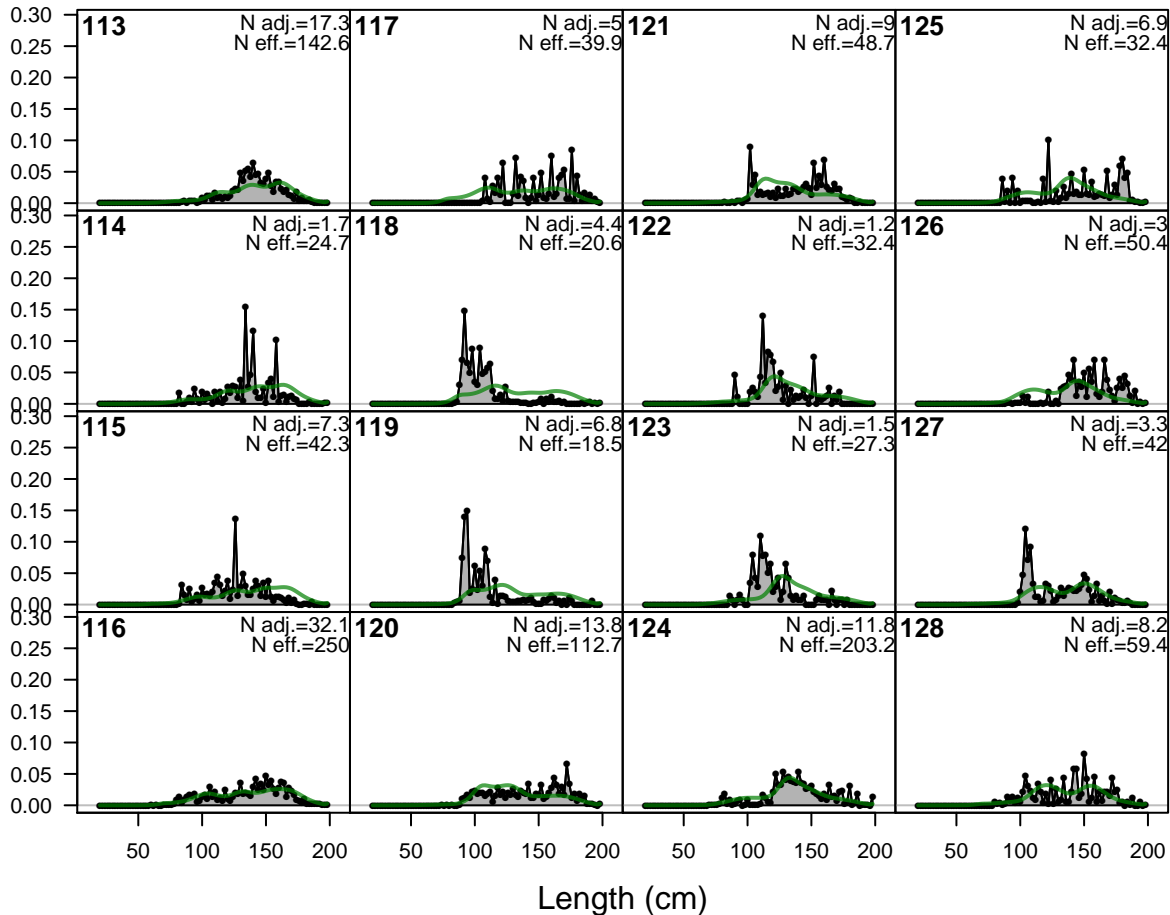
Proportion



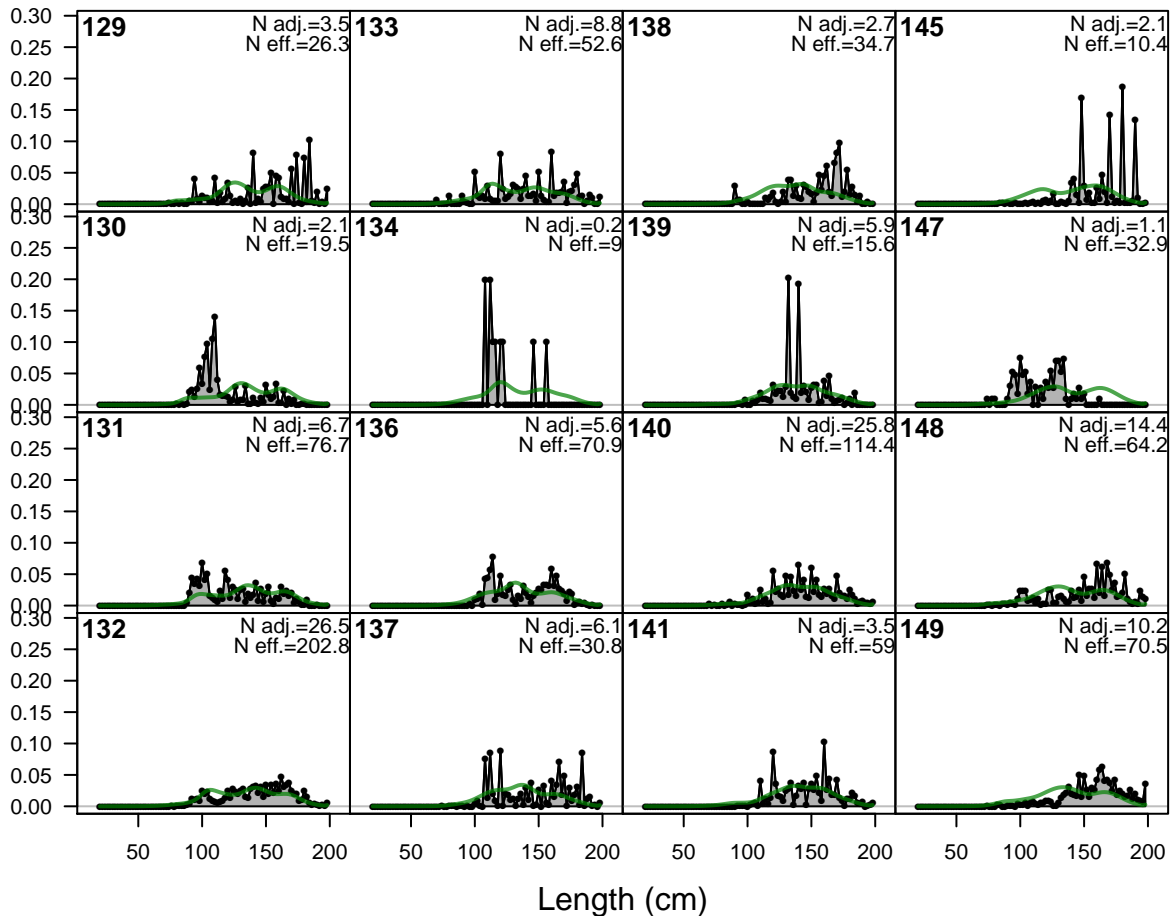
Proportion



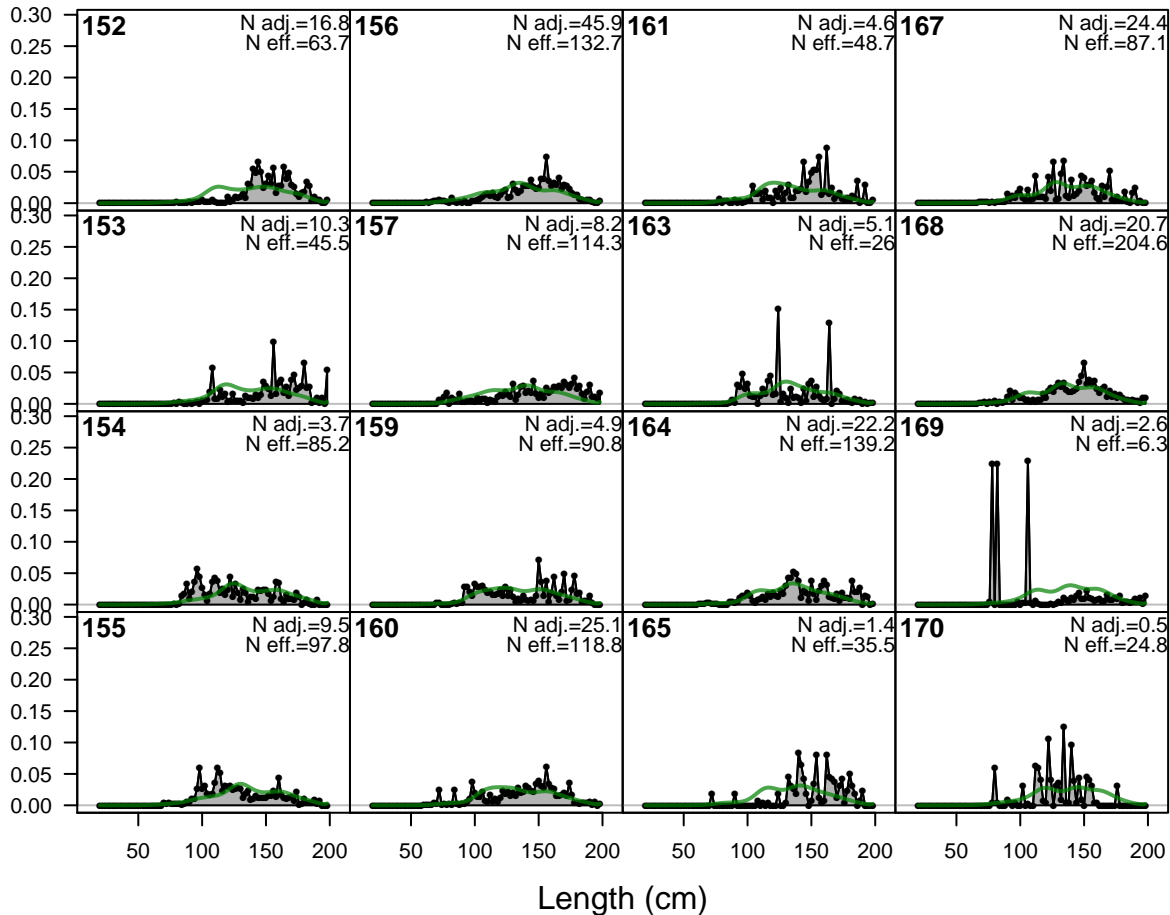
Proportion



Proportion

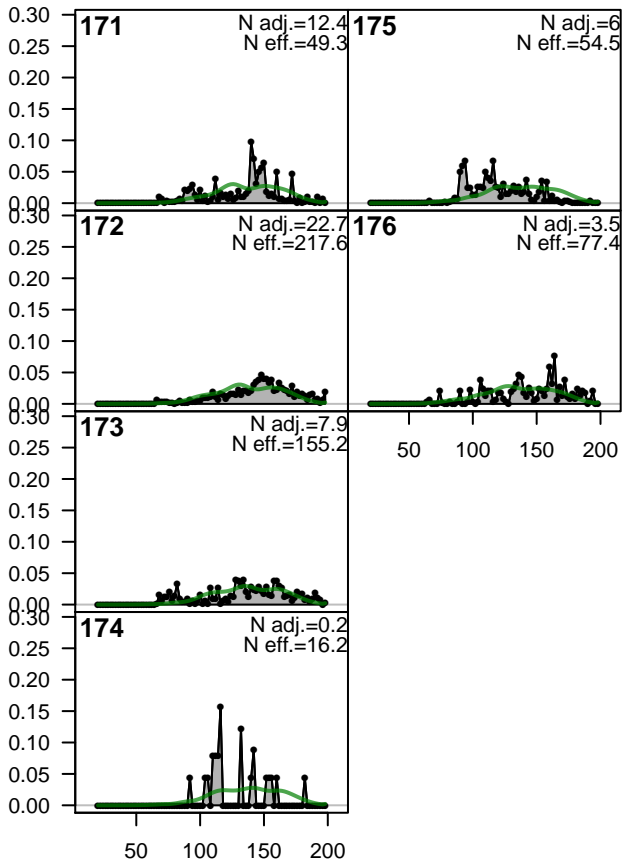


Proportion

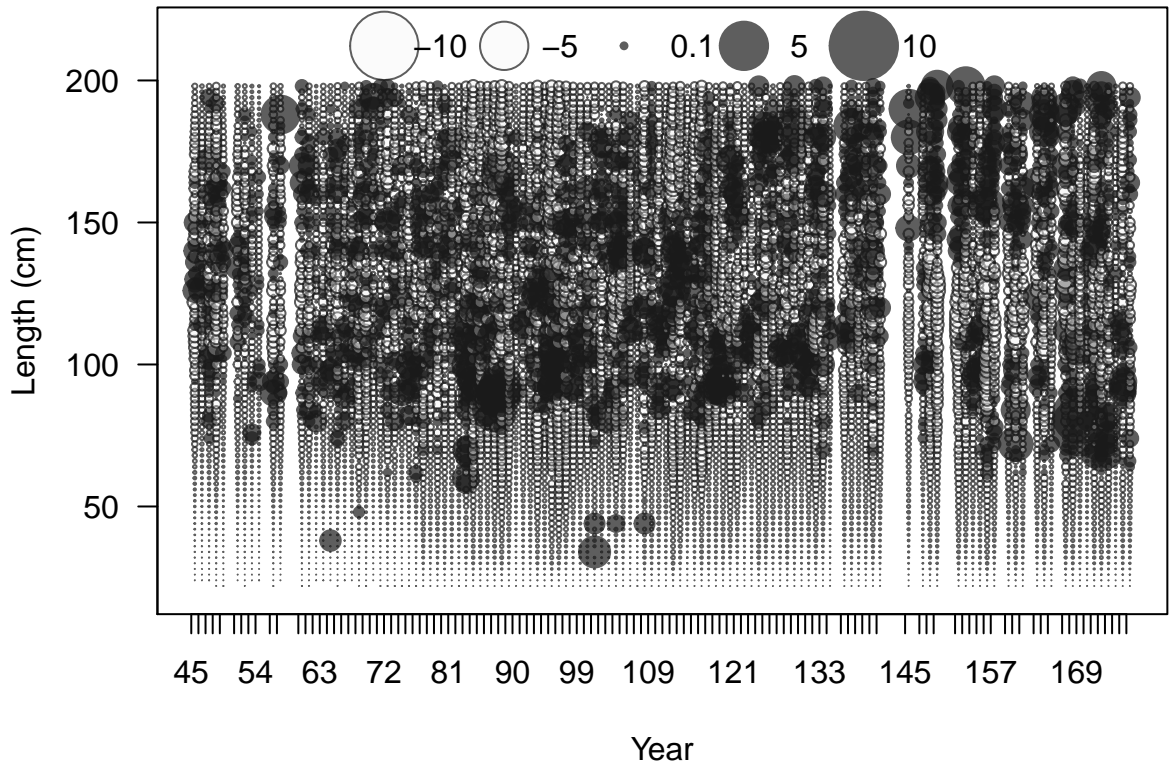


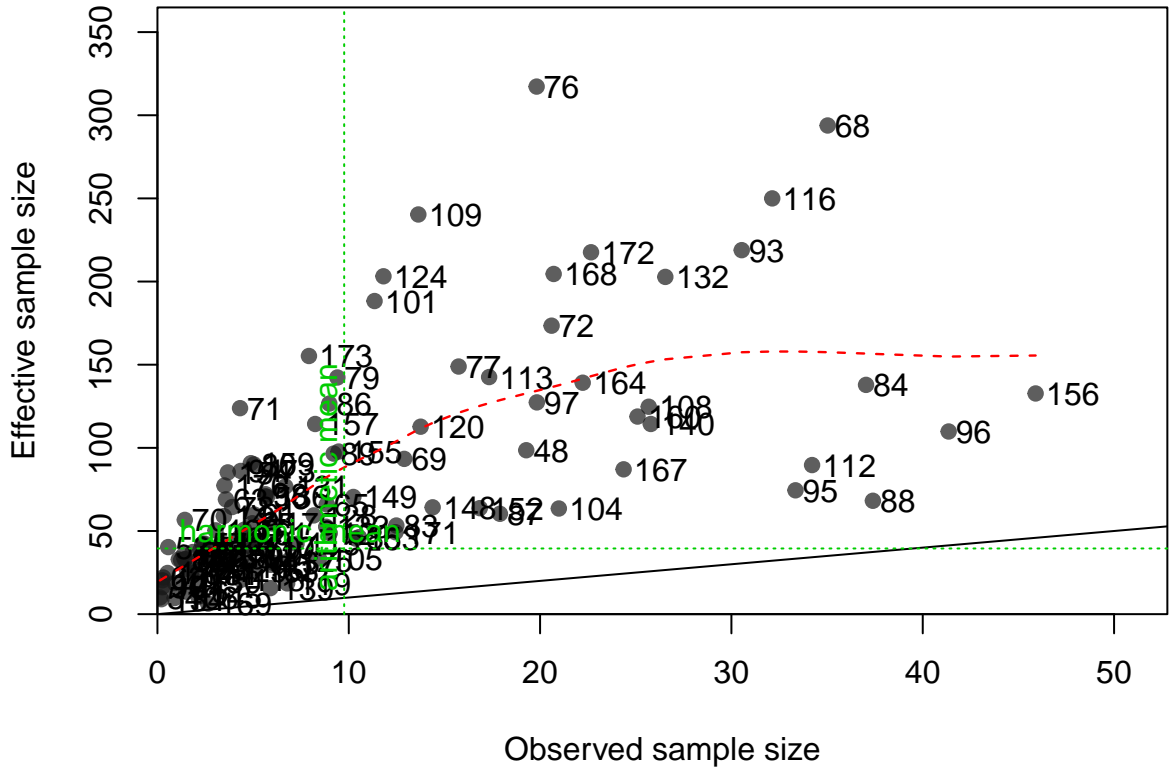


Proportion

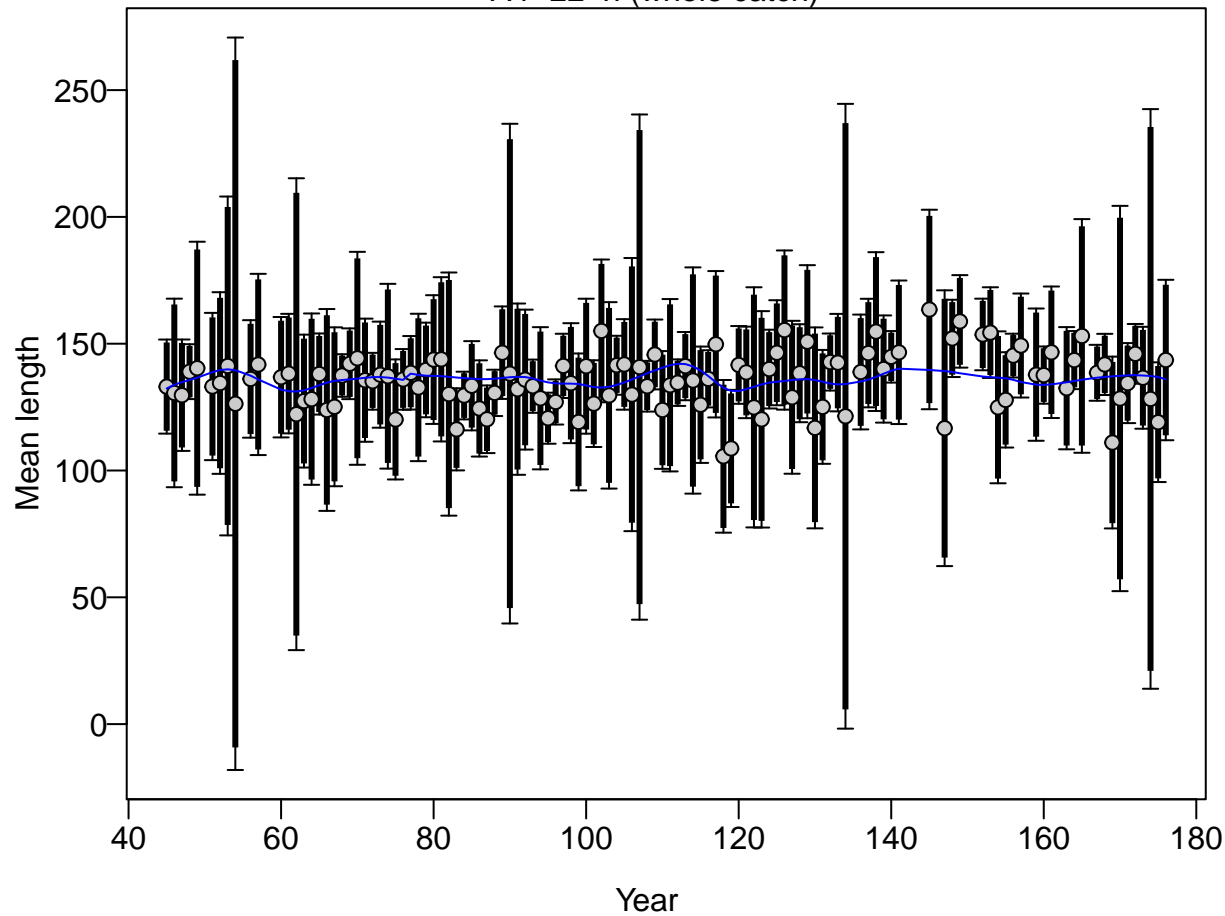


Length (cm)

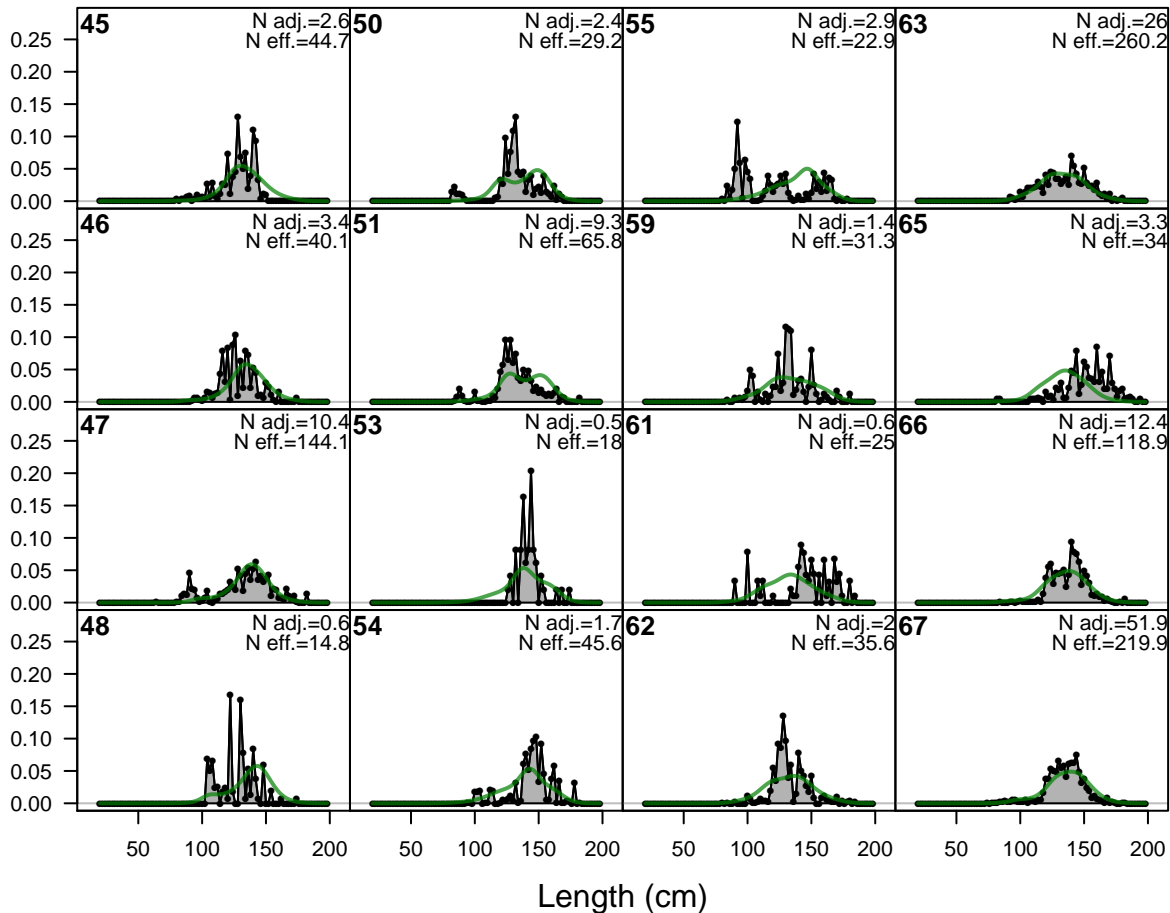




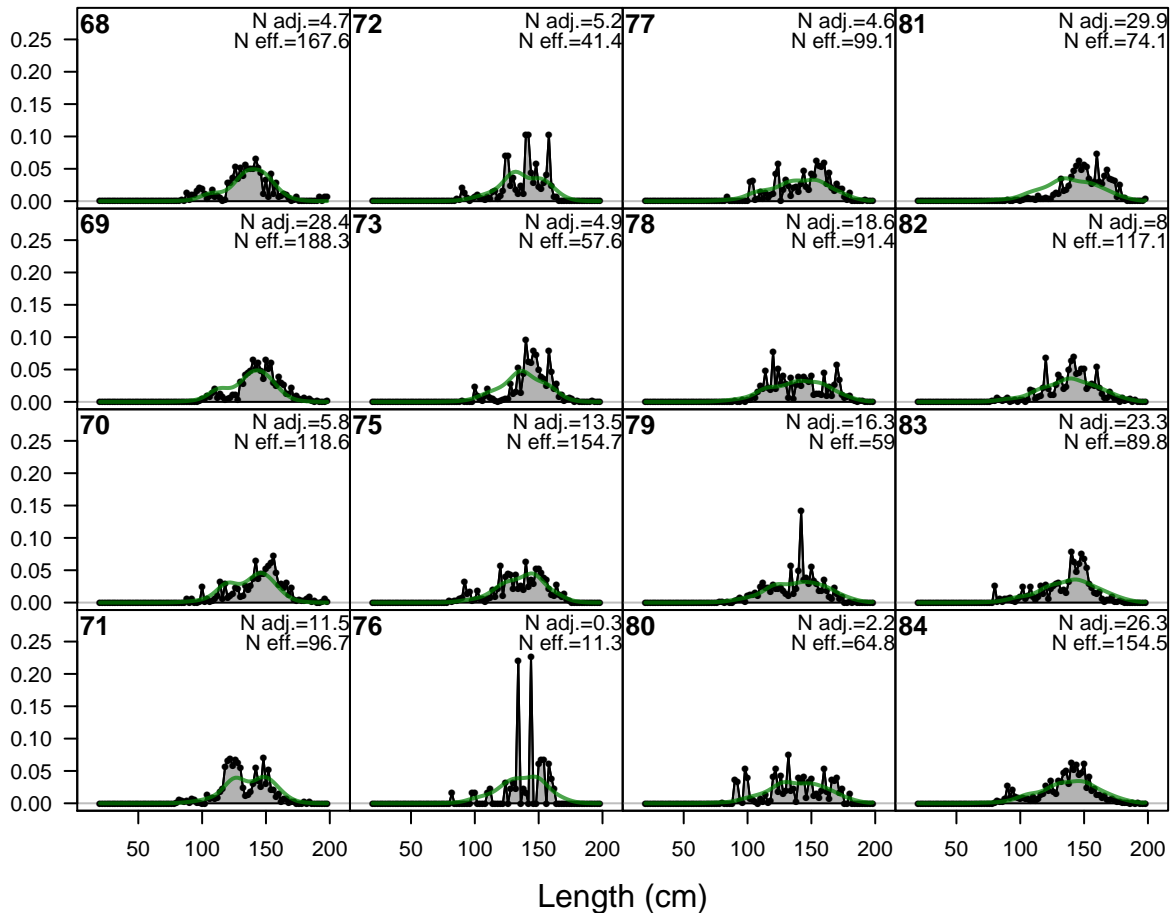
A4-LL-n (whole catch)



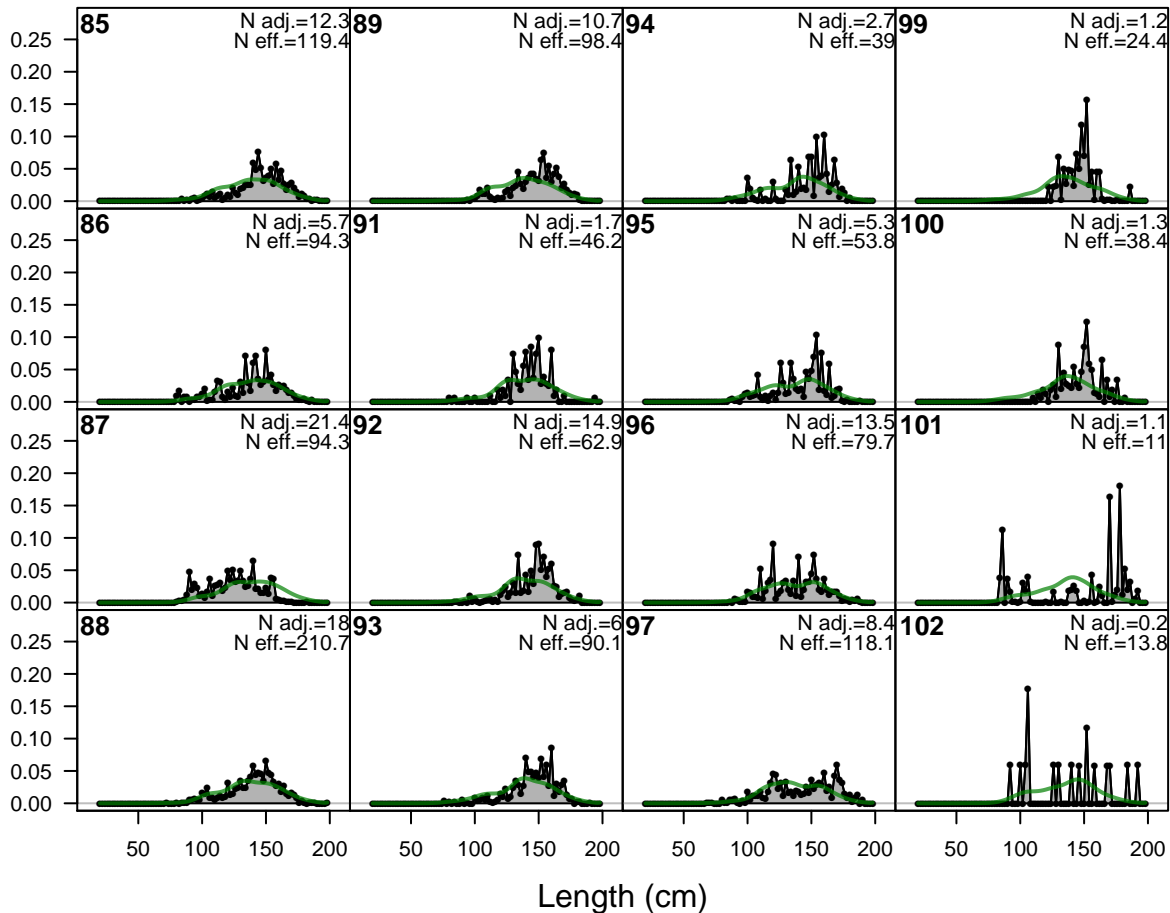
Proportion



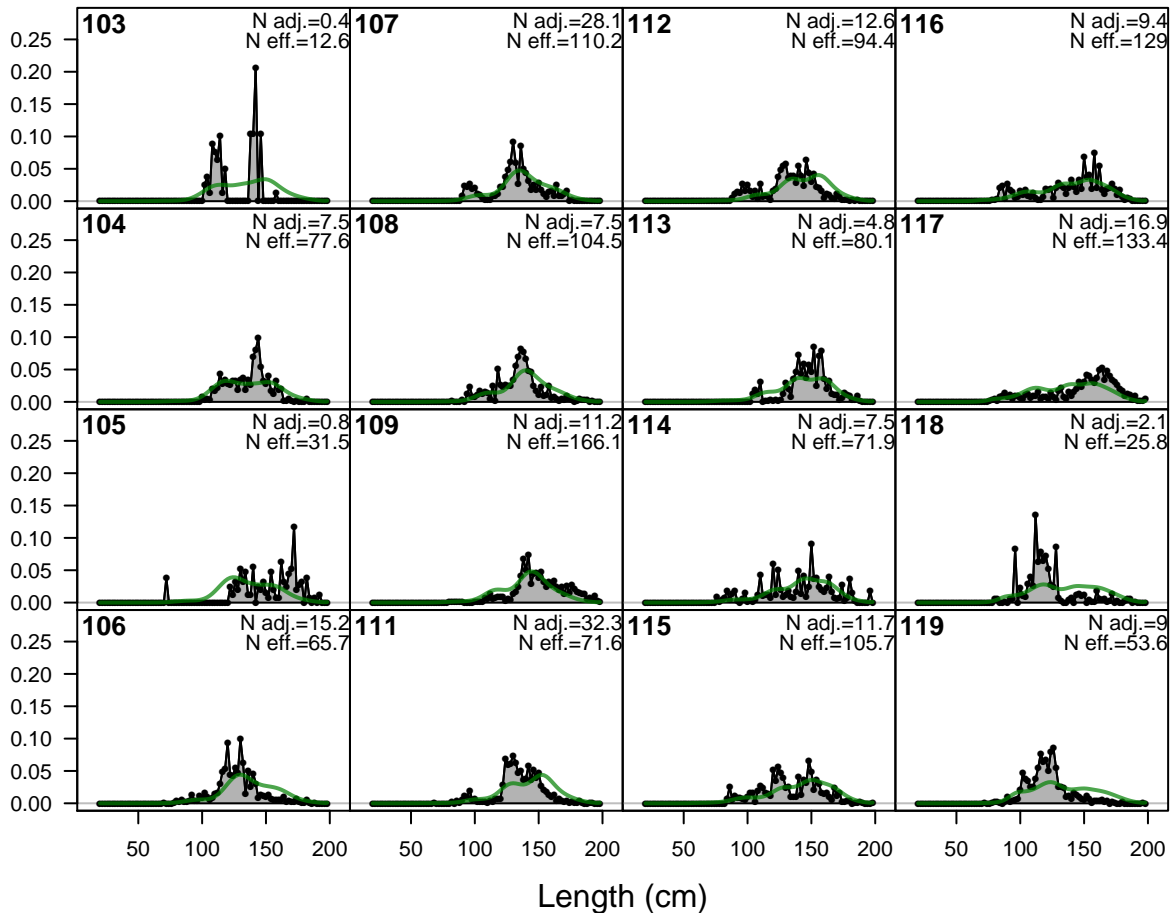
Proportion



Proportion

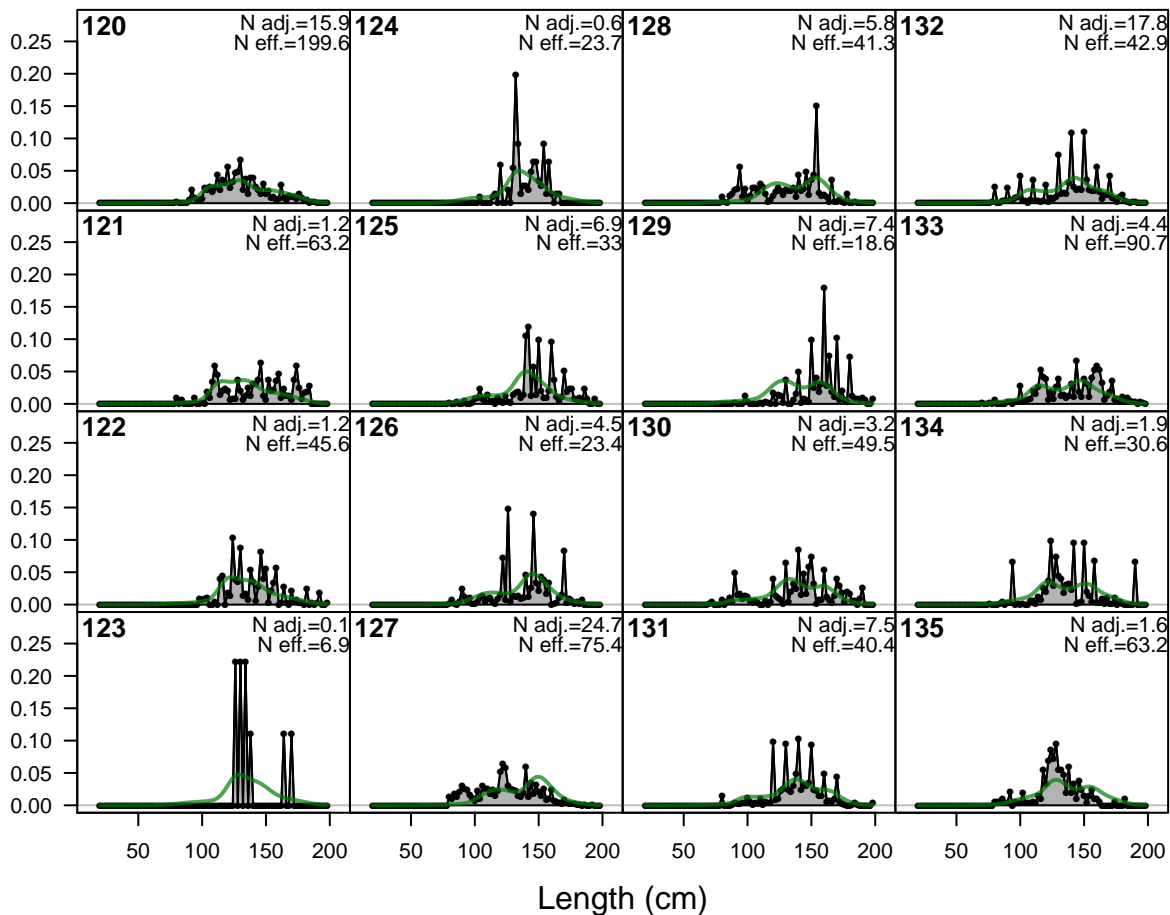


Proportion

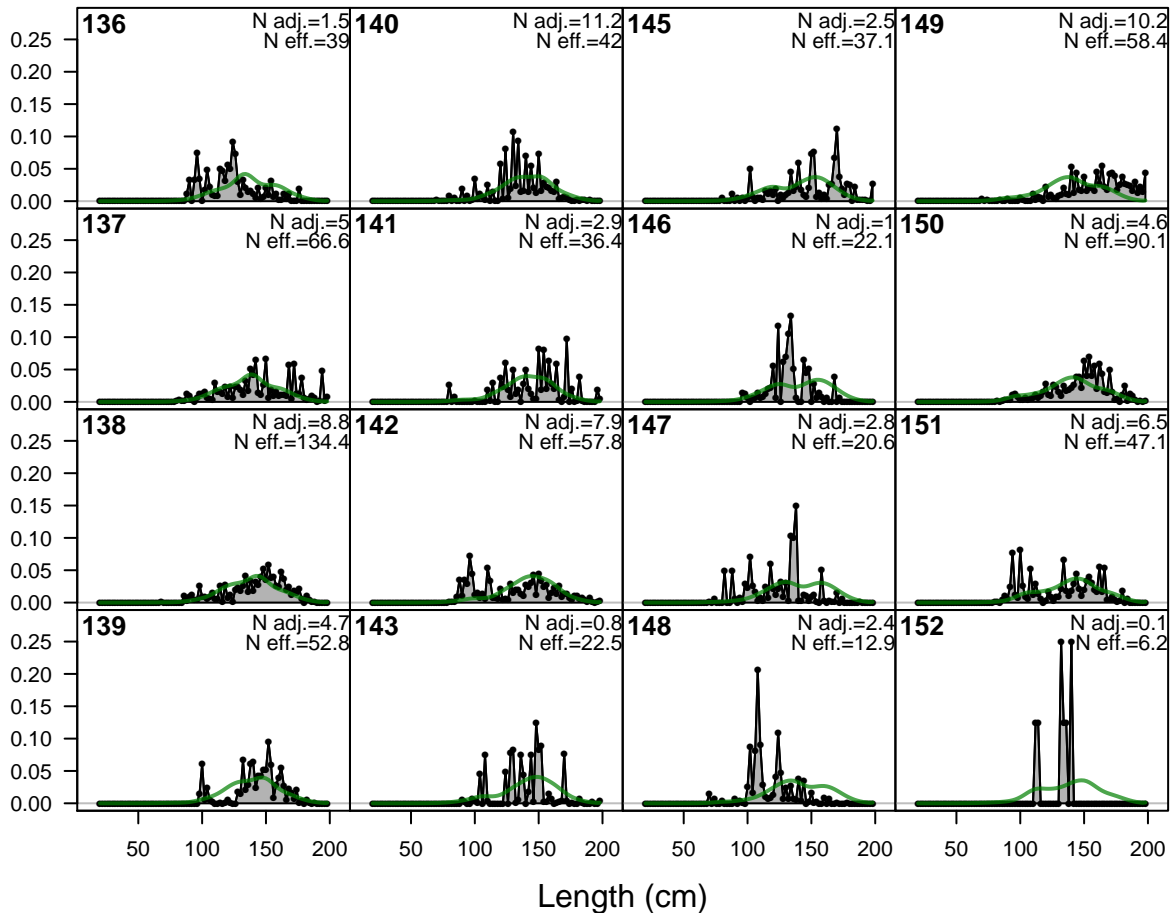




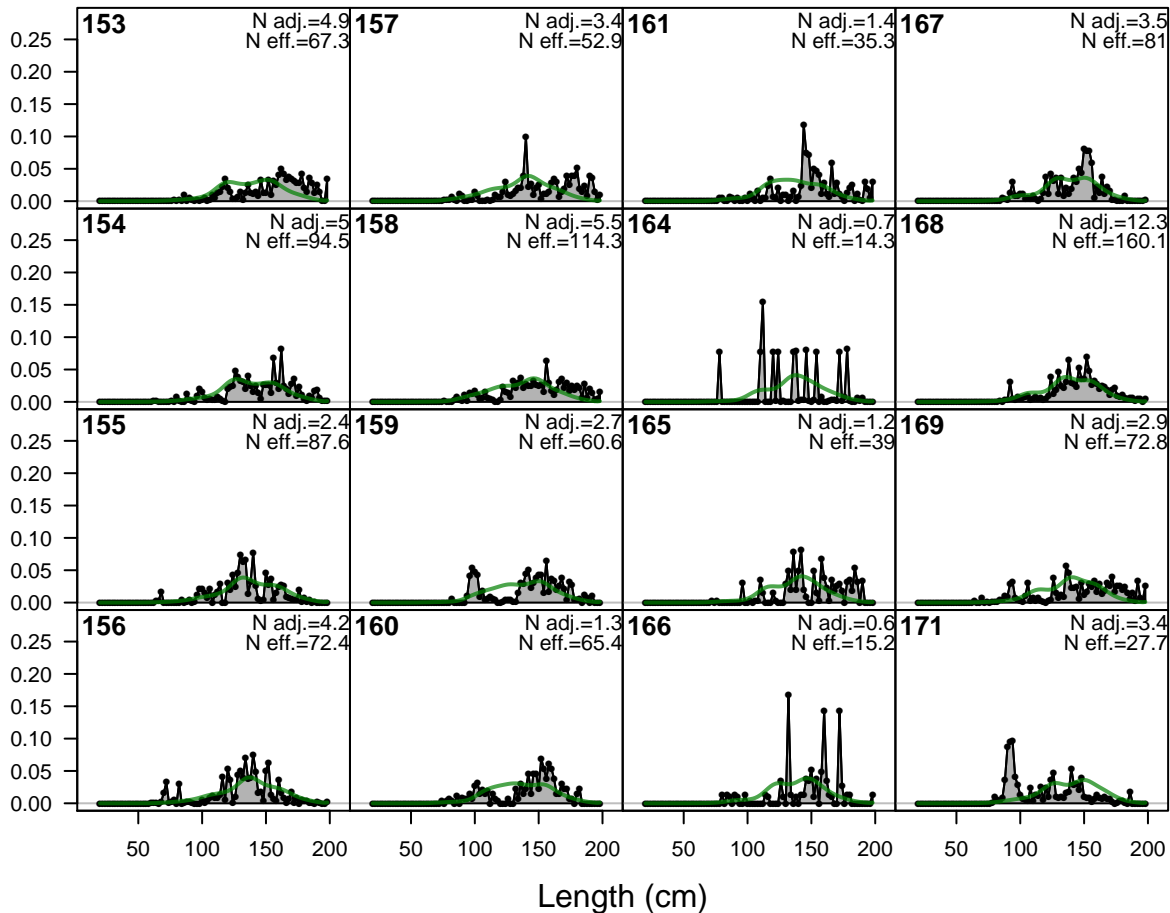
Proportion



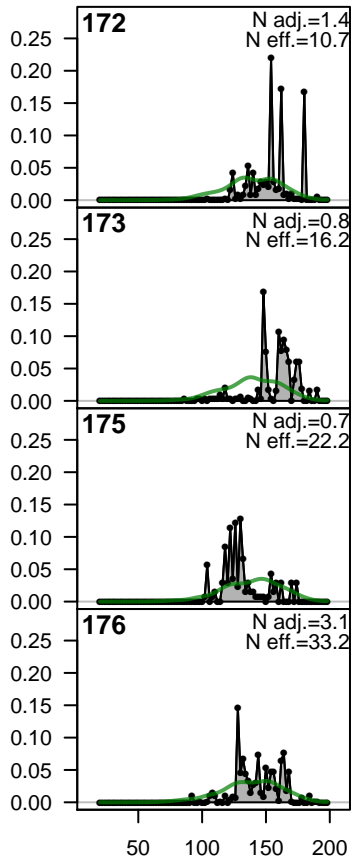
Proportion



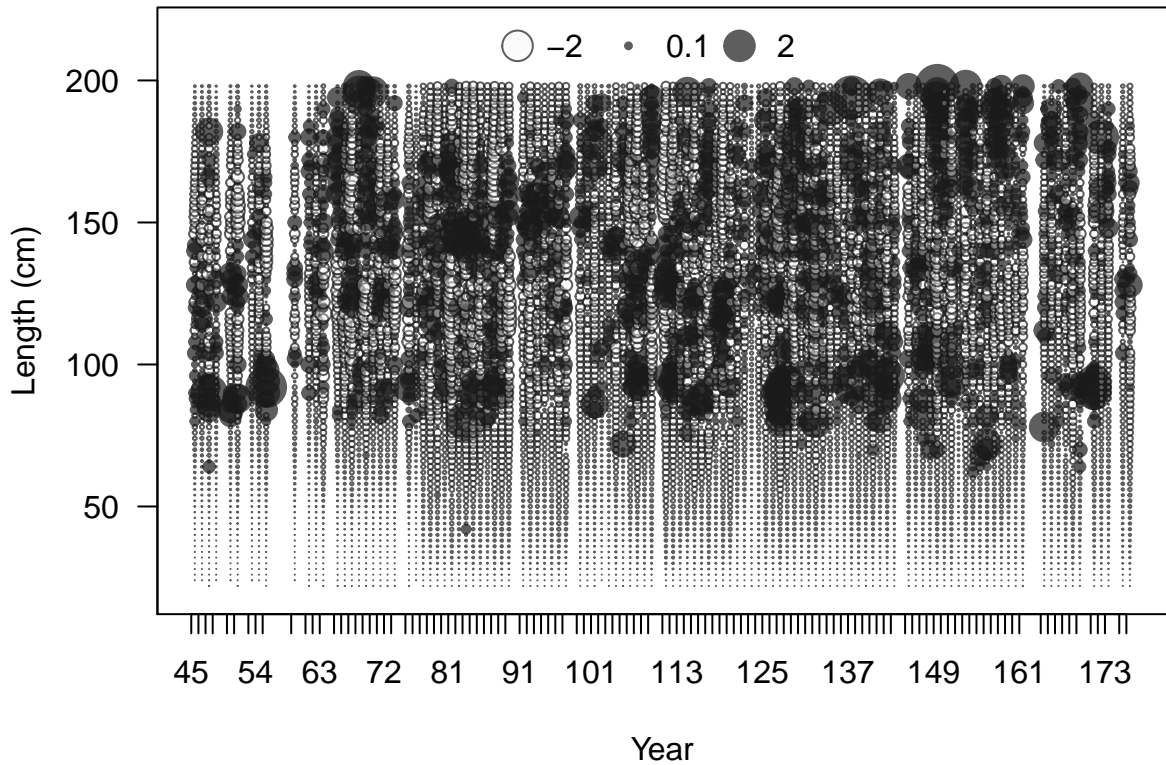
Proportion

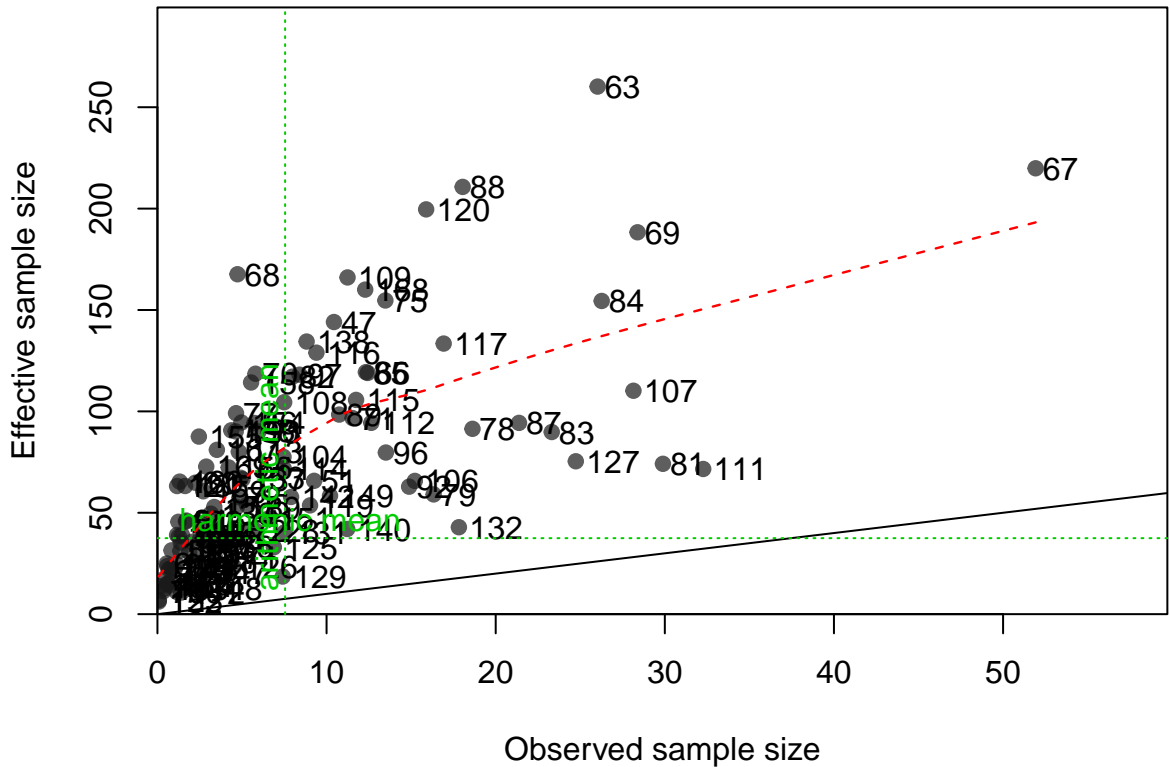


Proportion

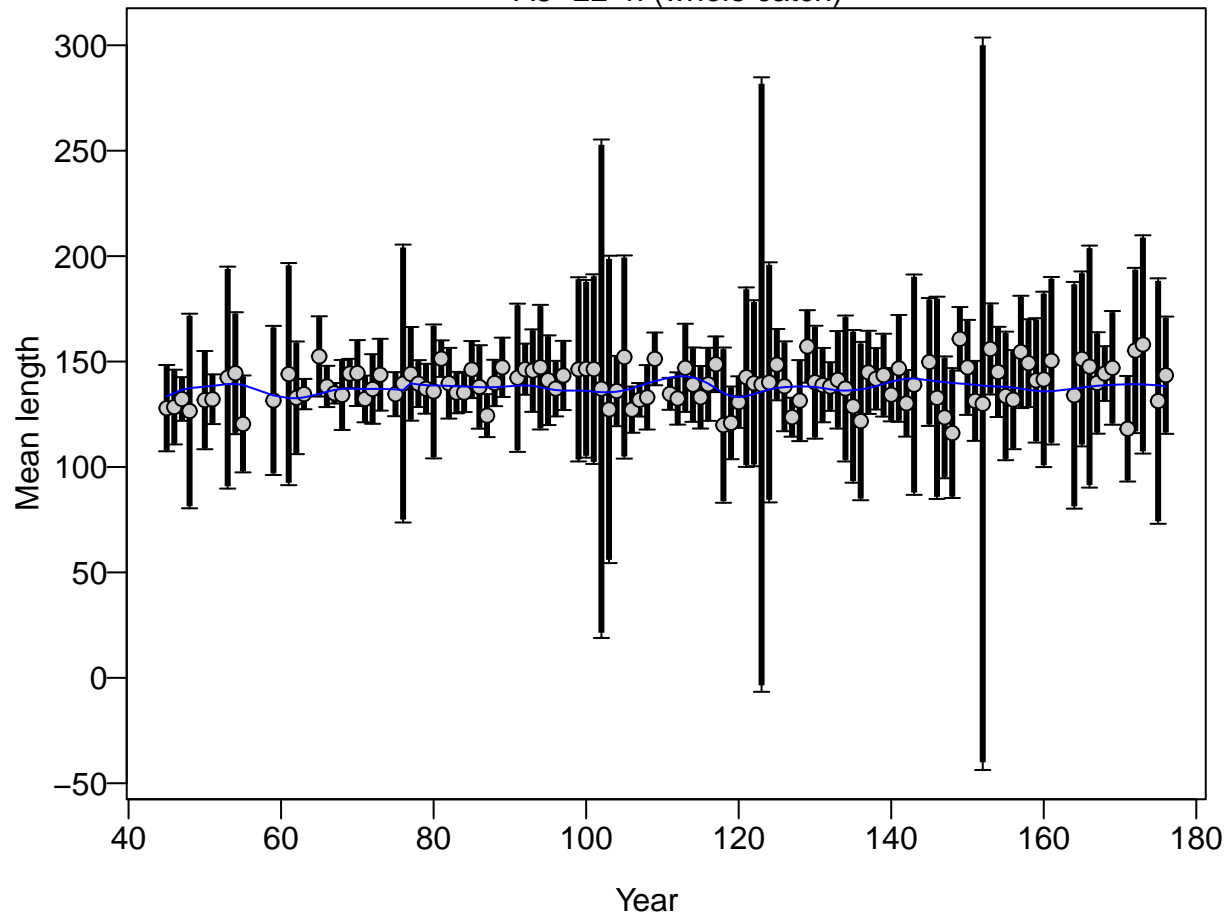


Length (cm)

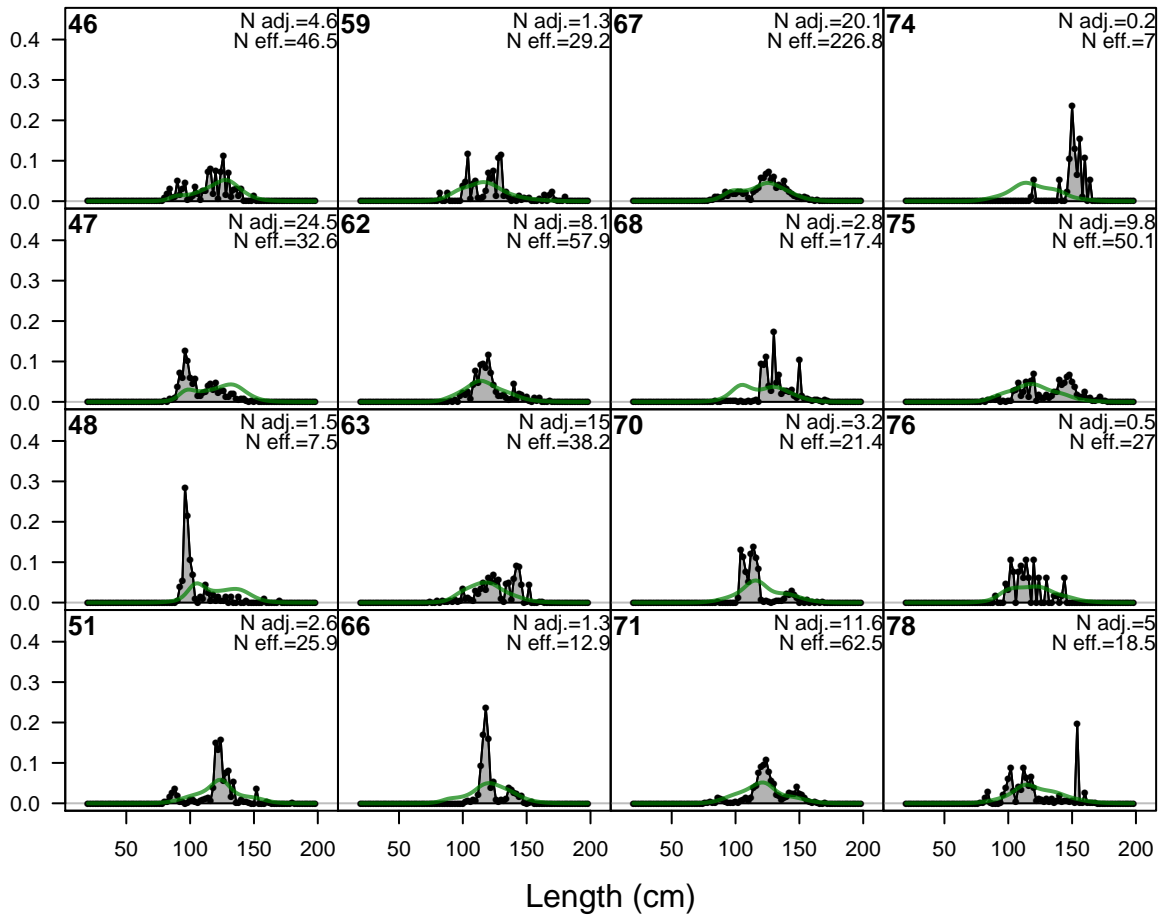




A5-LL-n (whole catch)

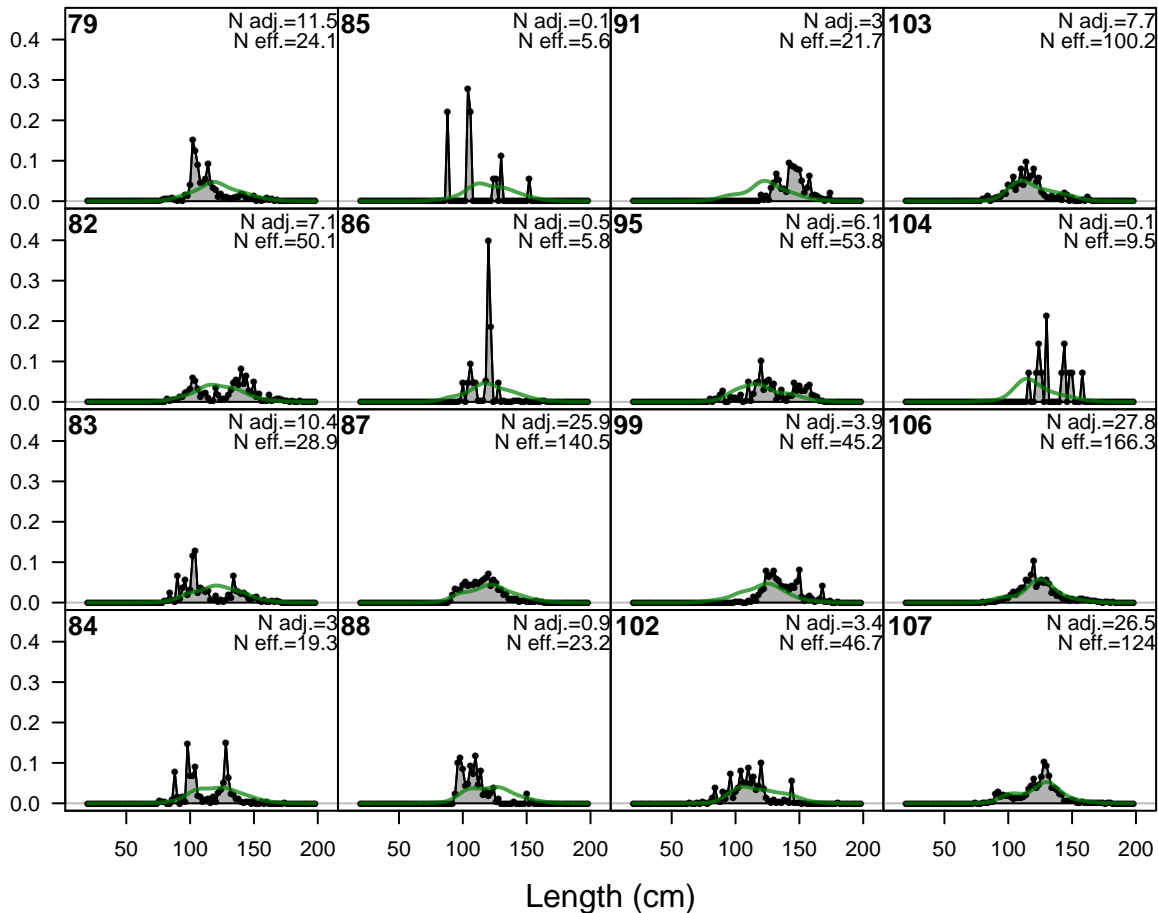


Proportion

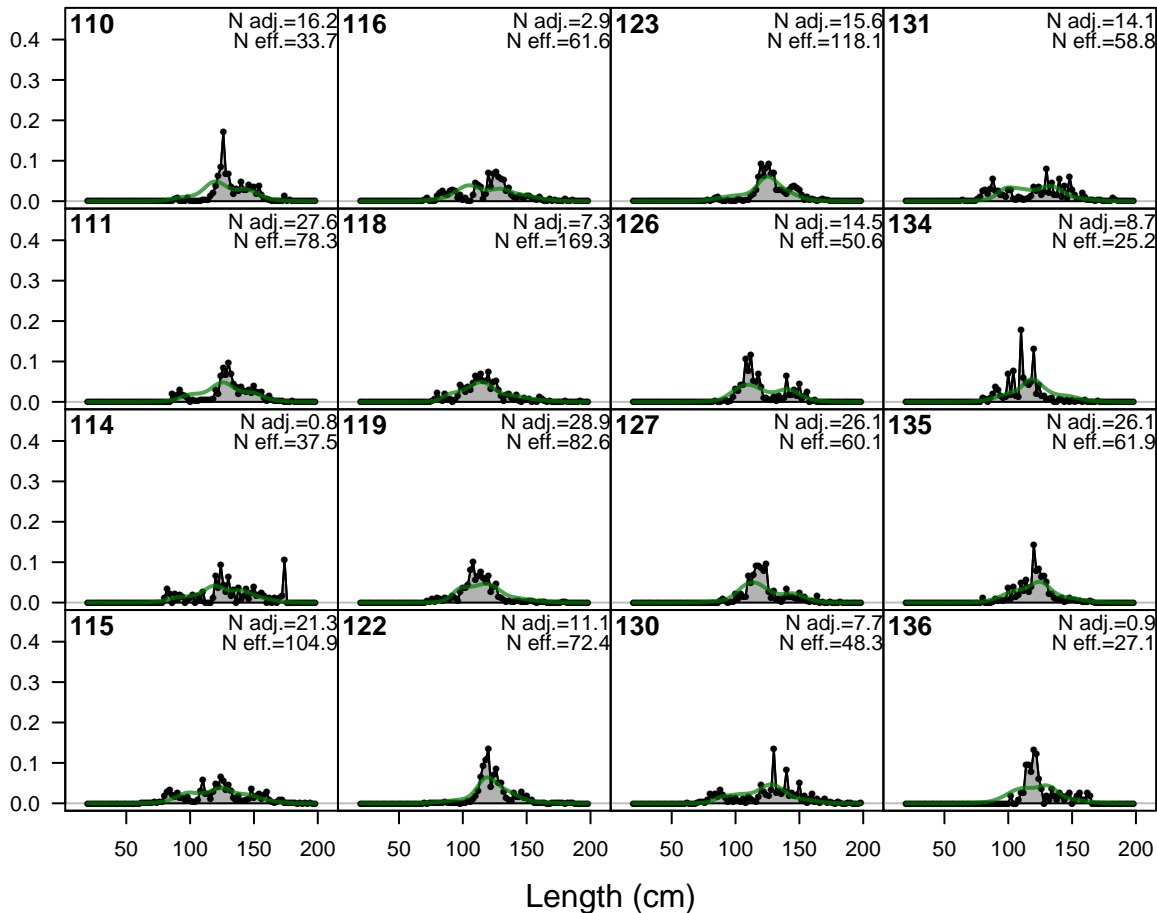




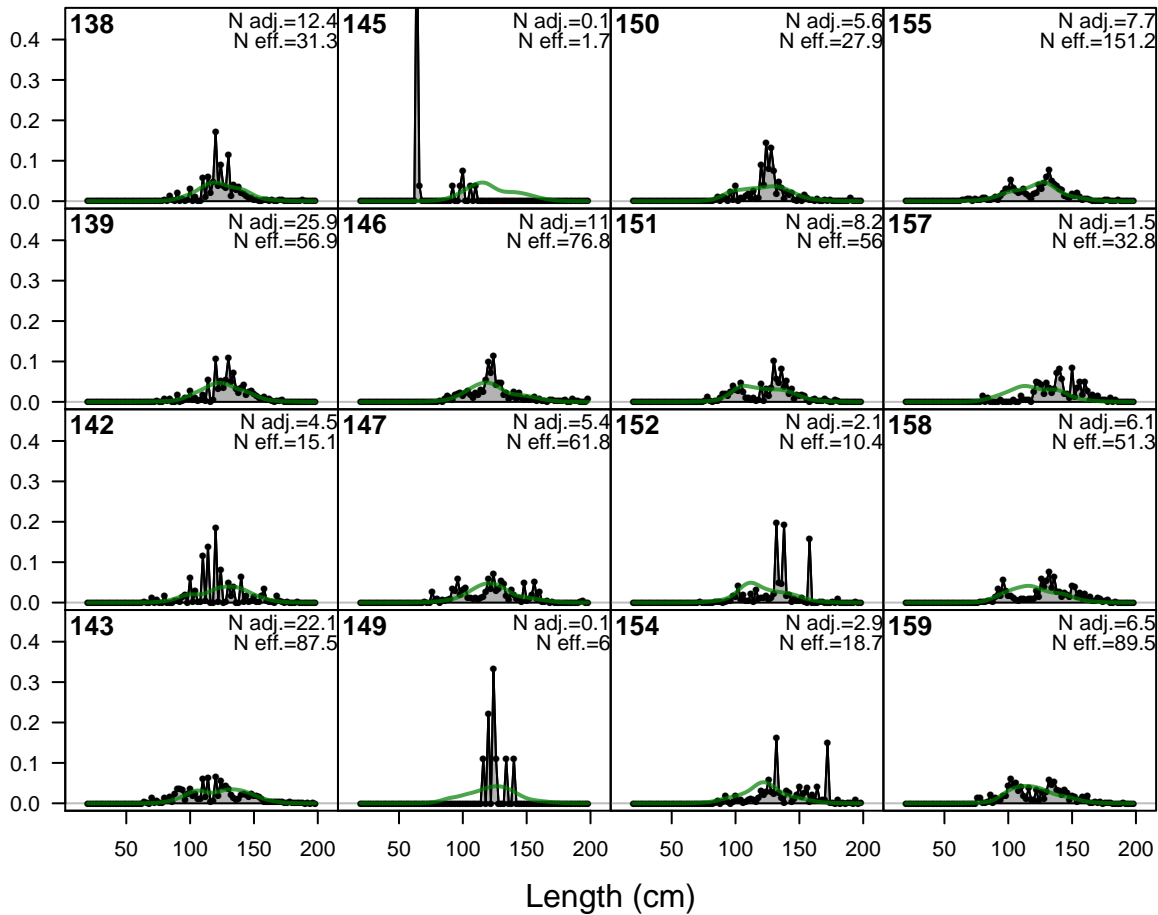
Proportion



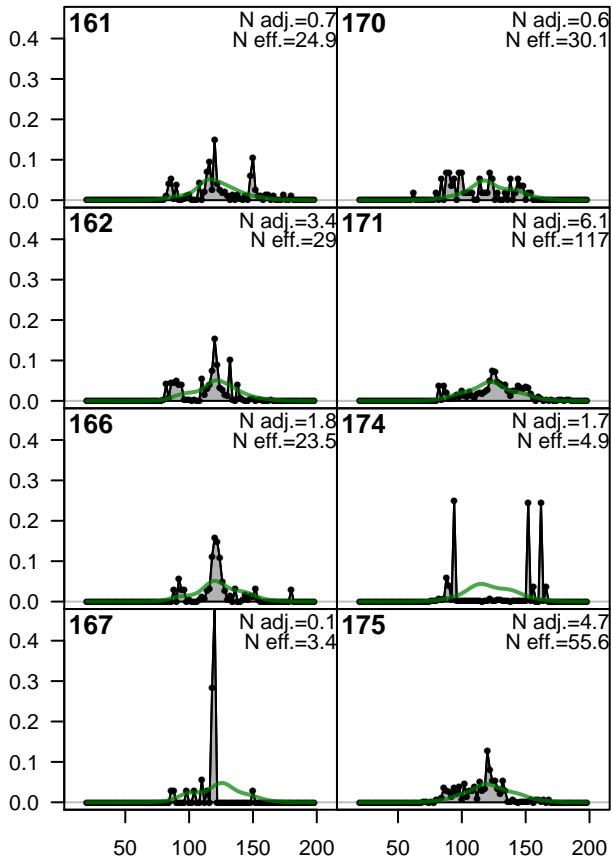
Proportion



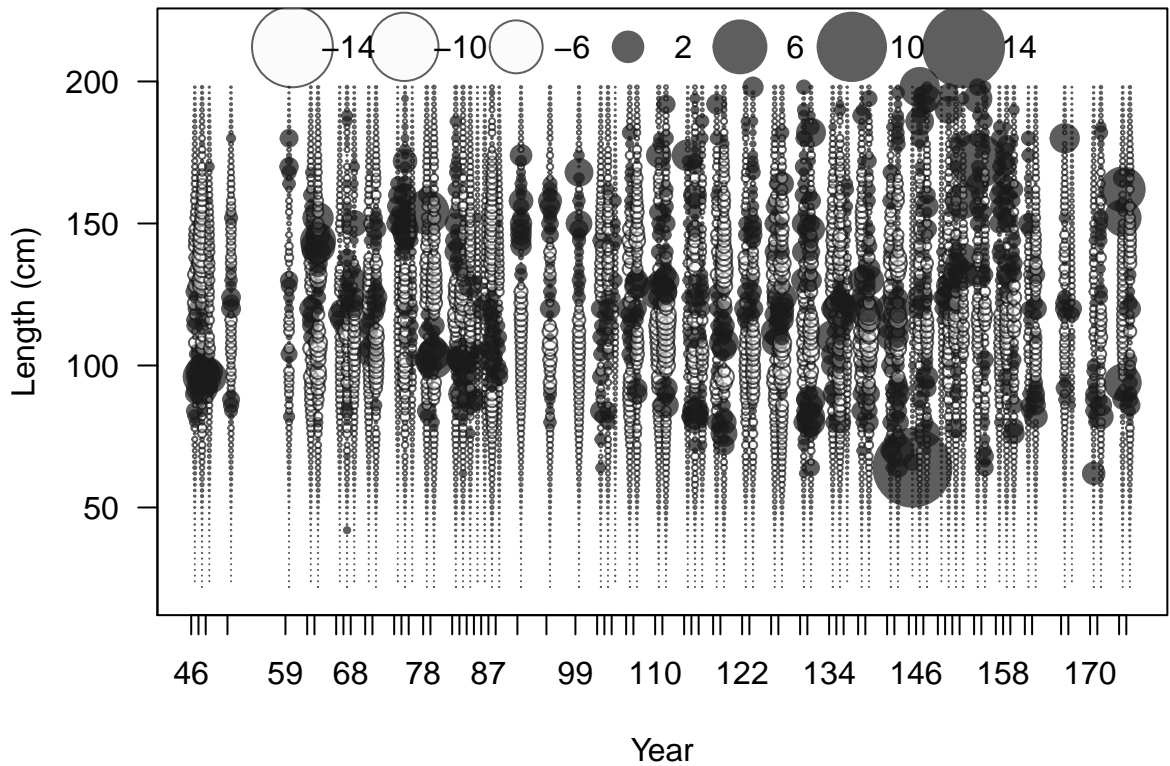
Proportion

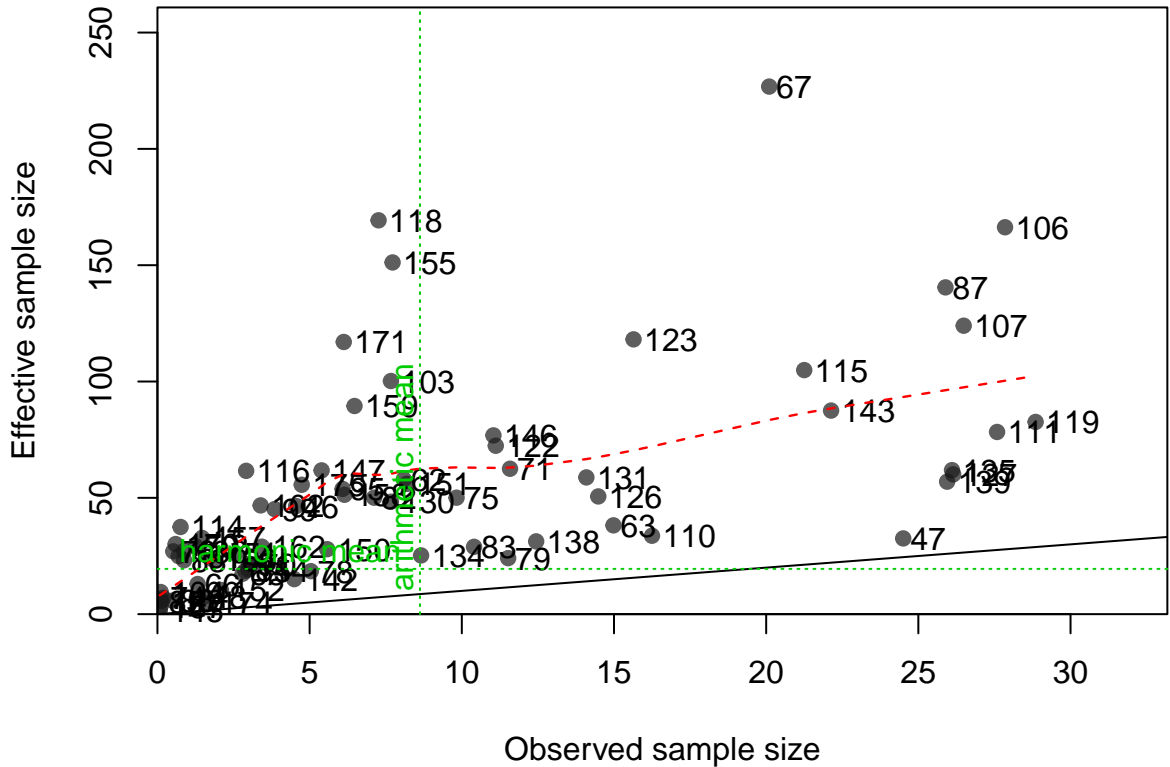


Proportion

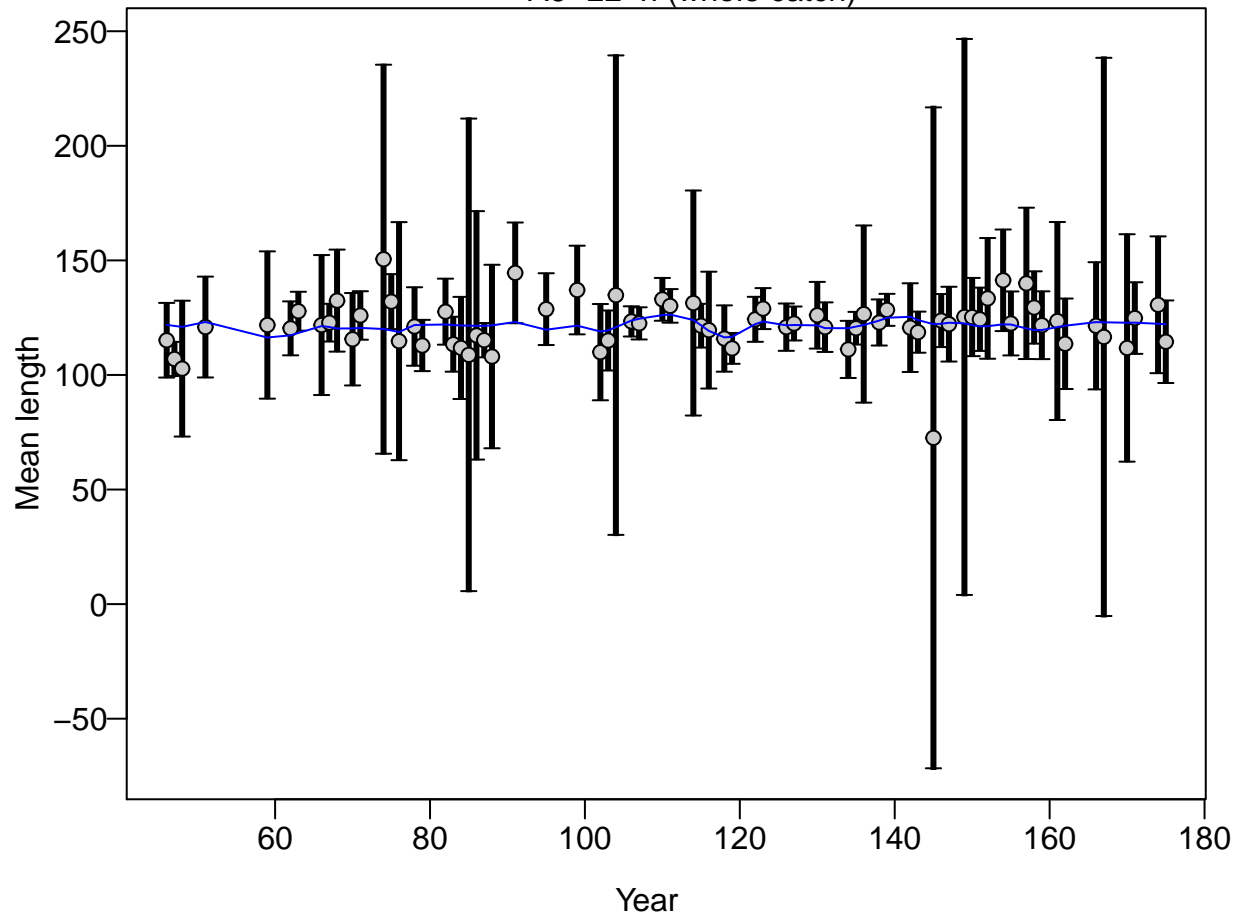


Length (cm)

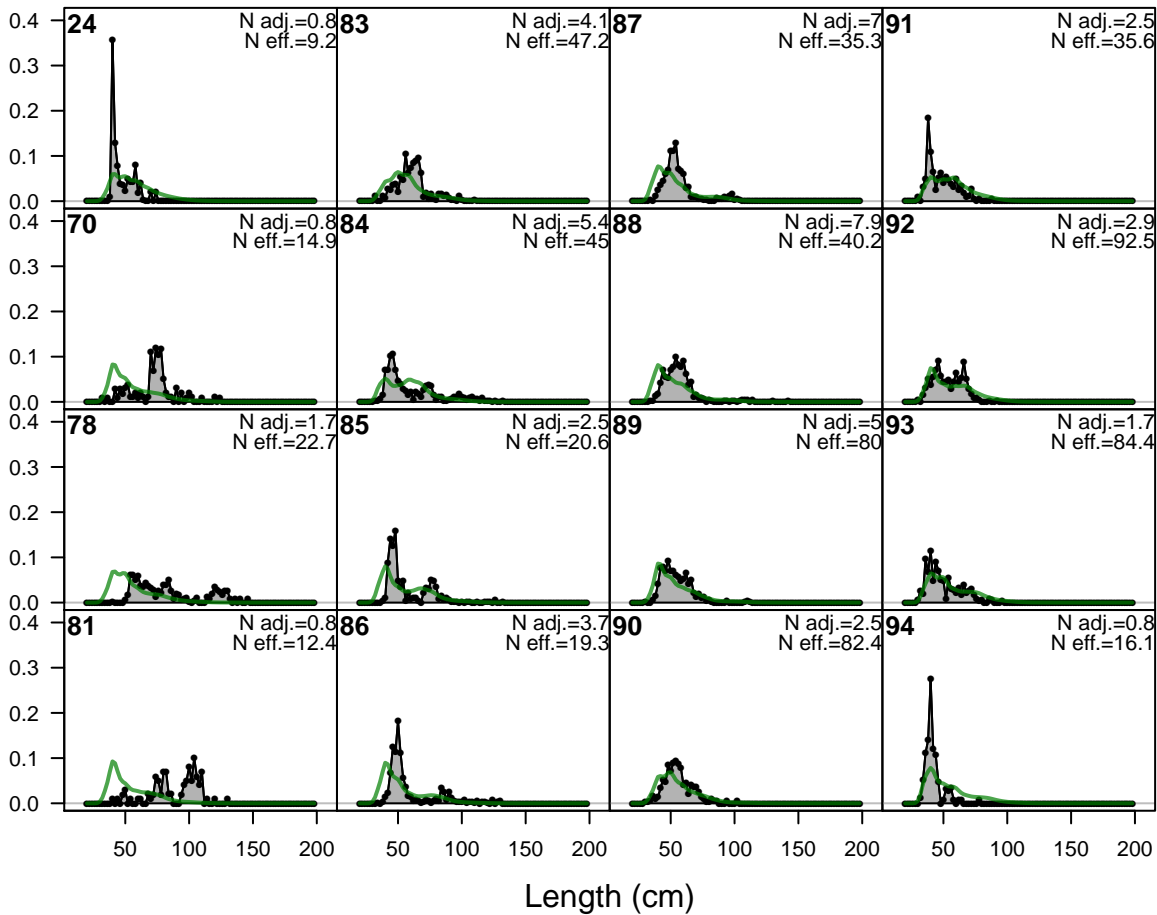




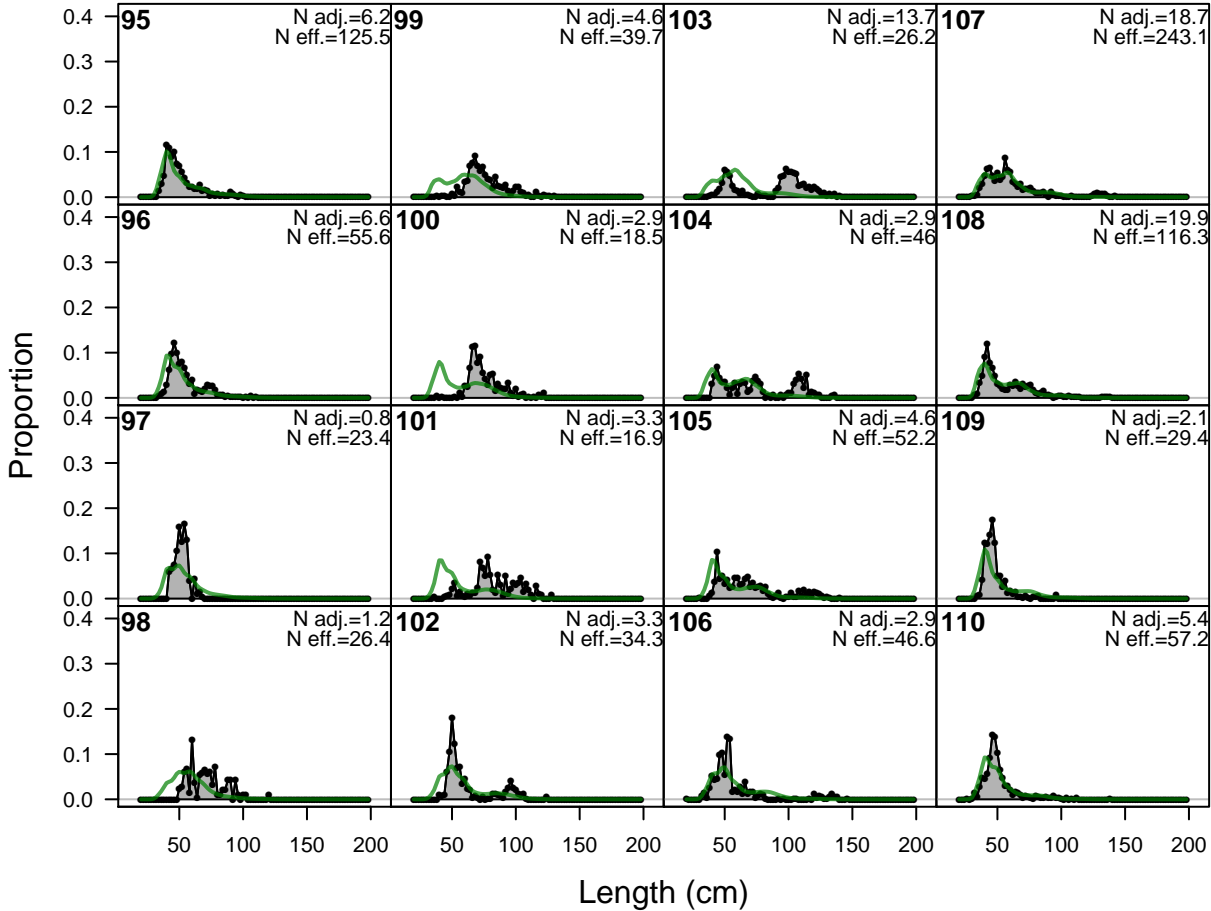
A6-LL-n (whole catch)



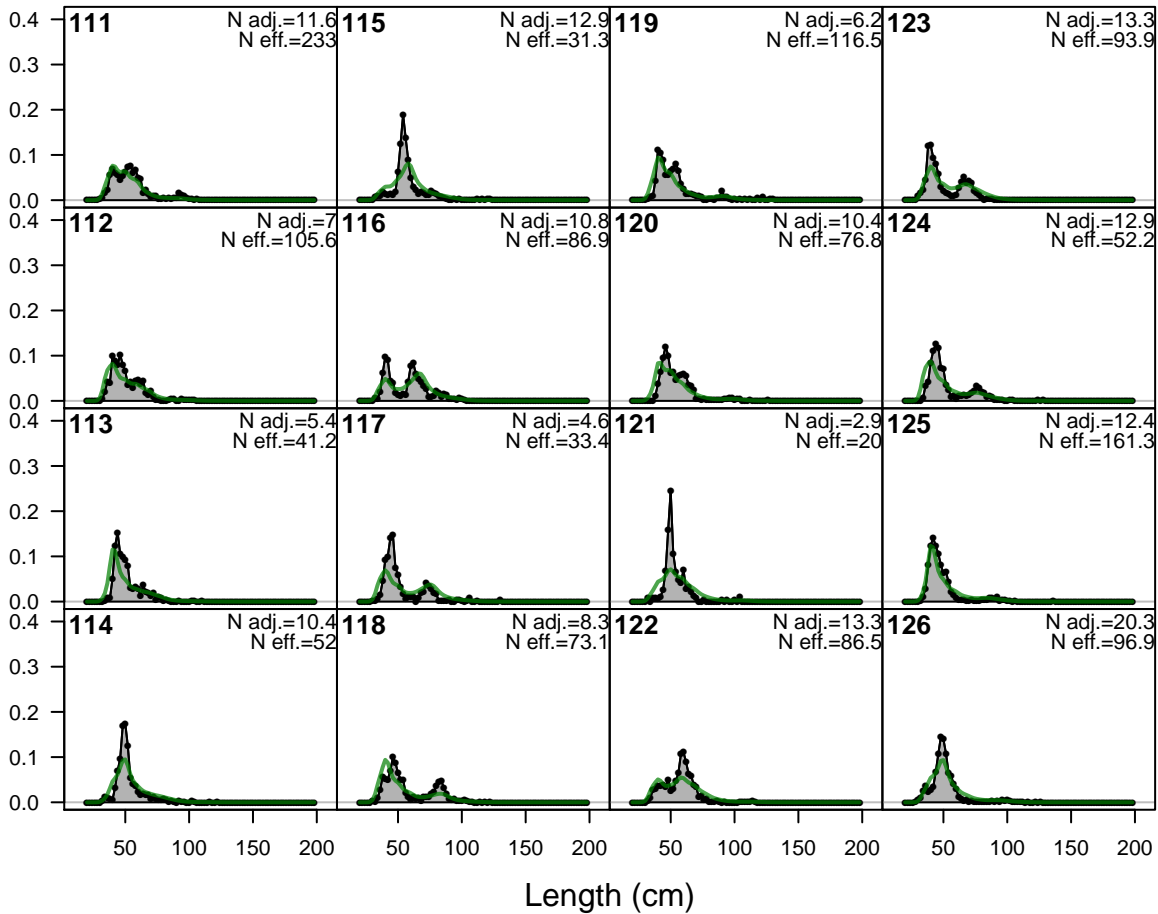
Proportion



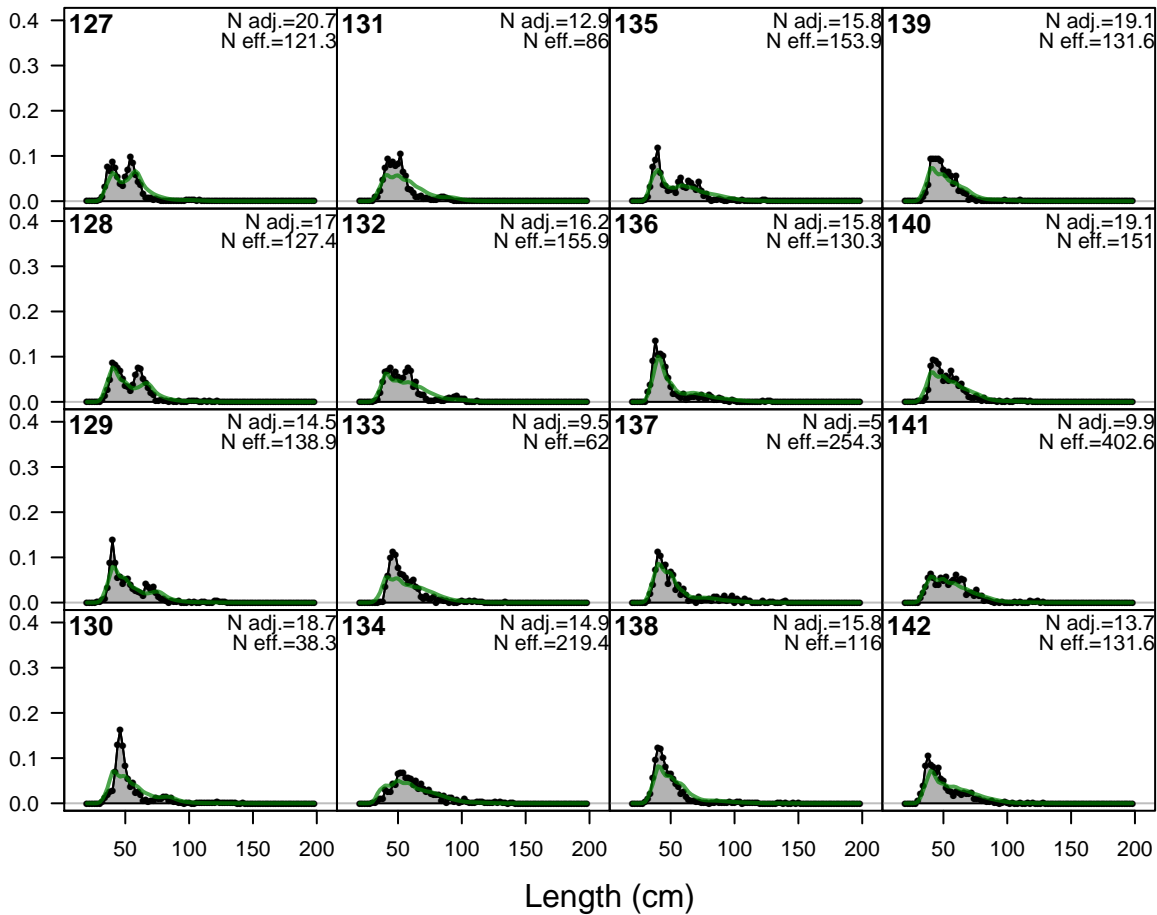




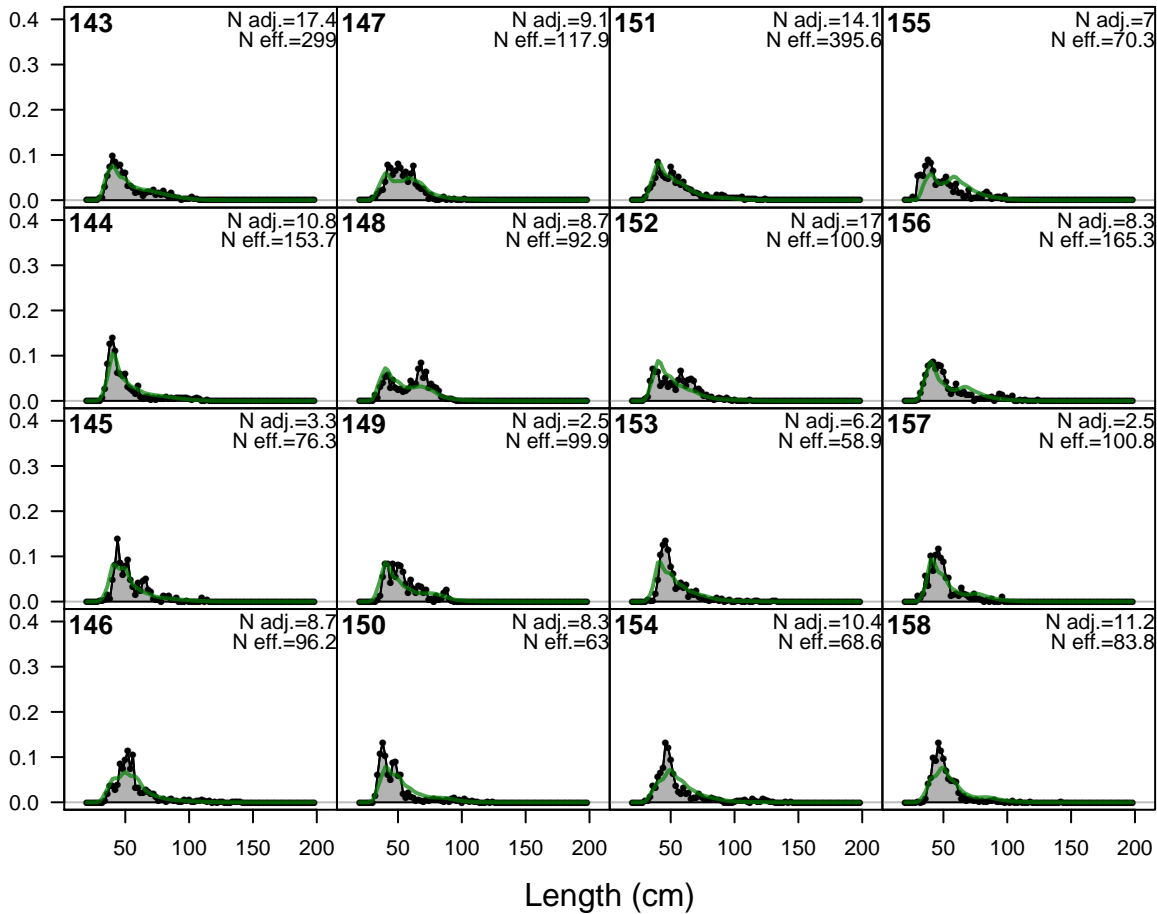
Proportion



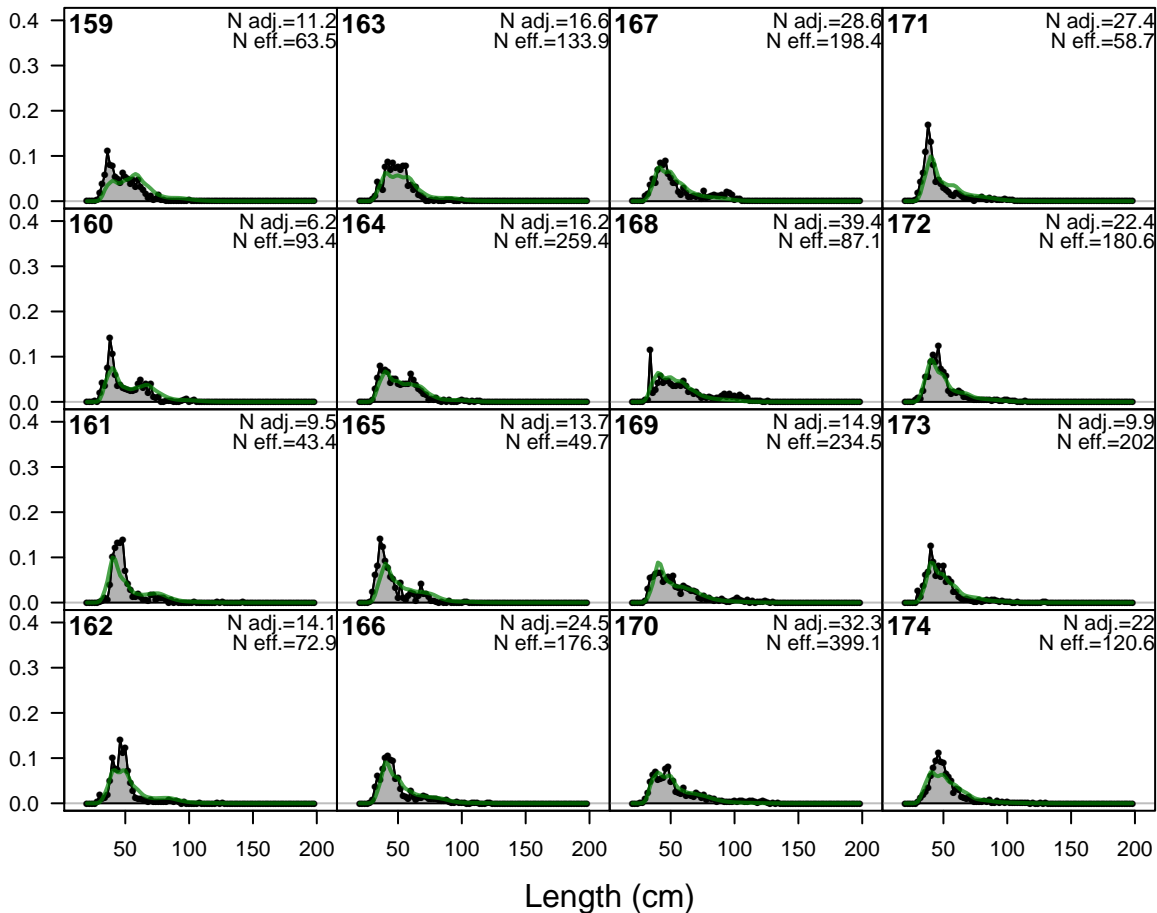
Proportion

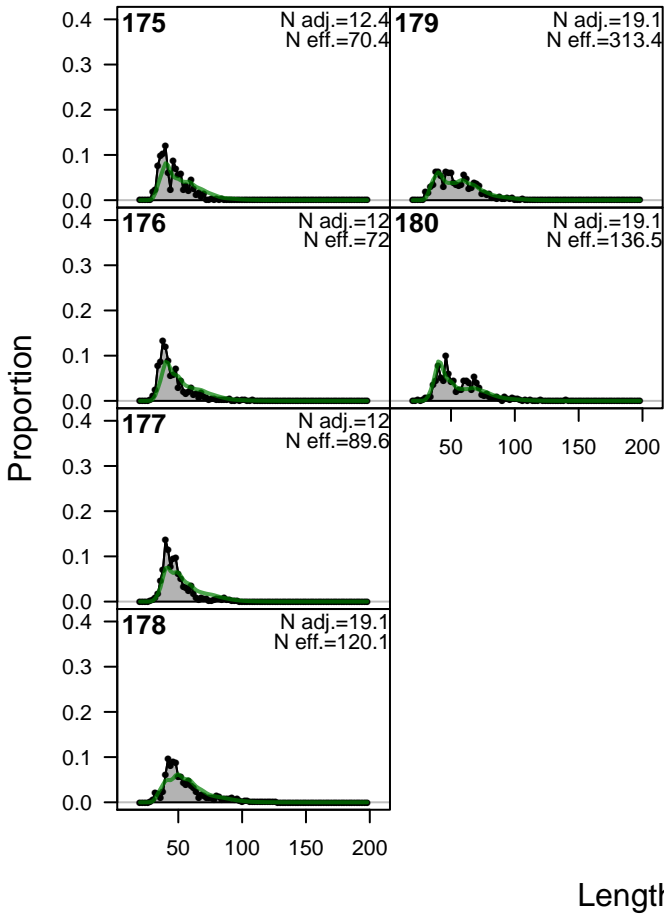


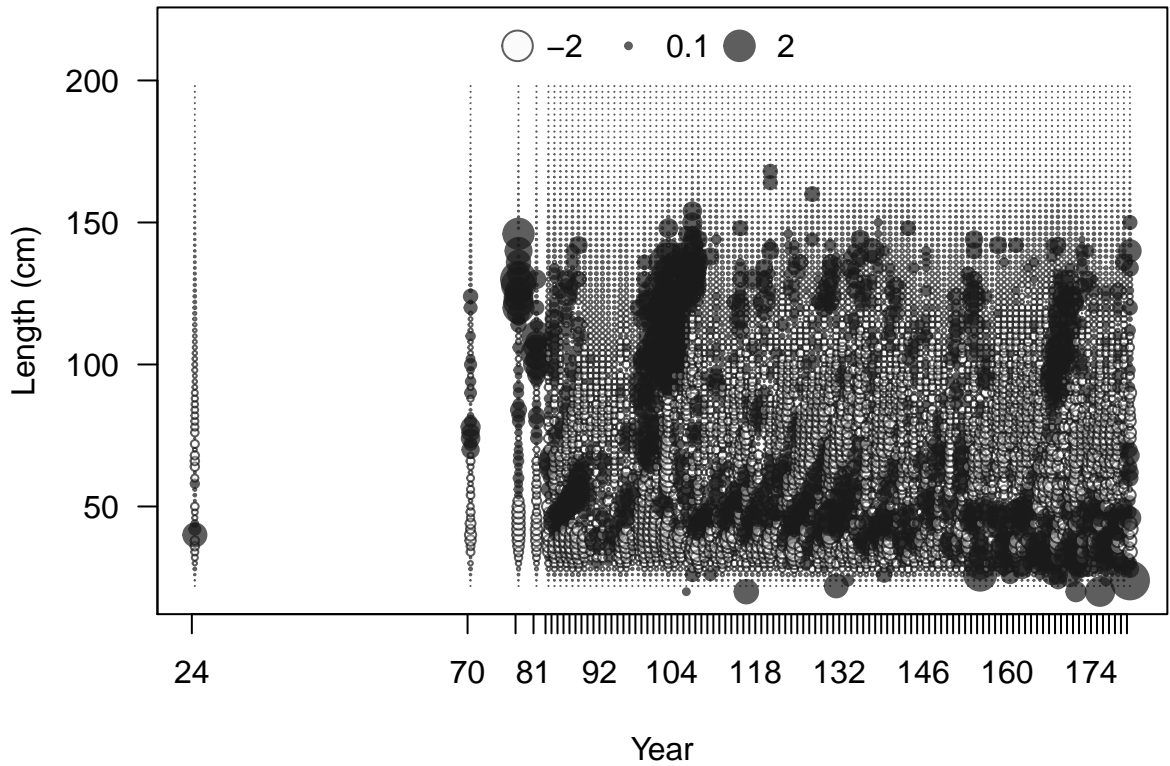
Proportion



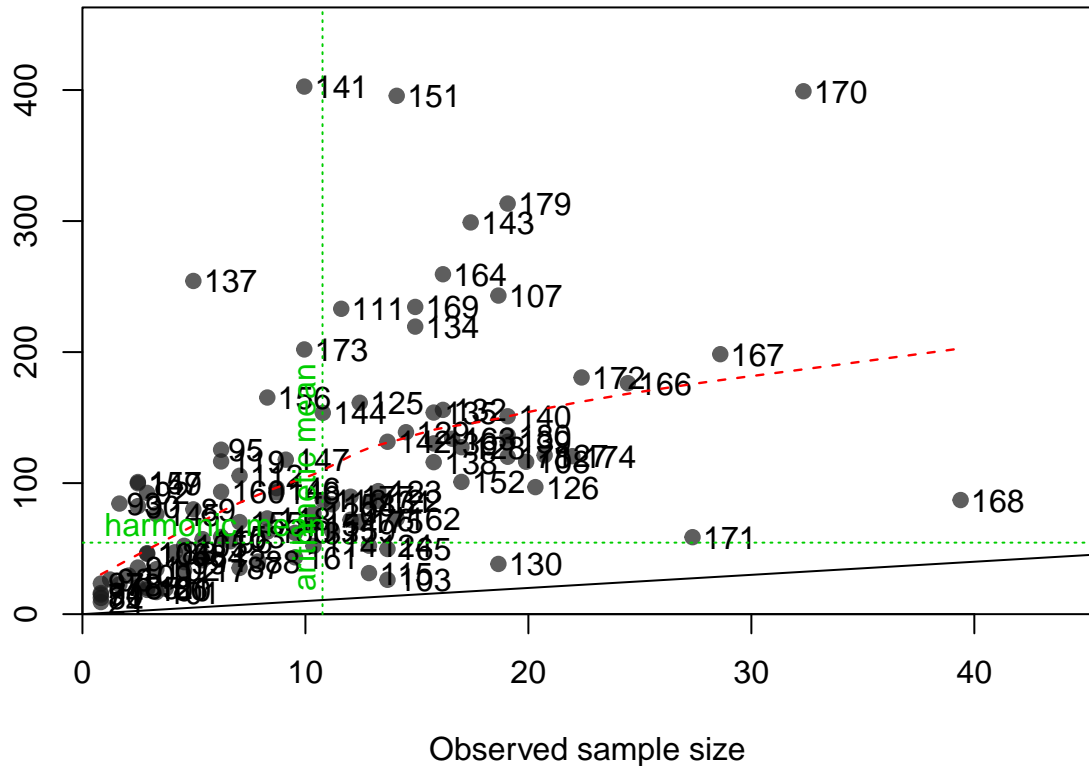
Proportion





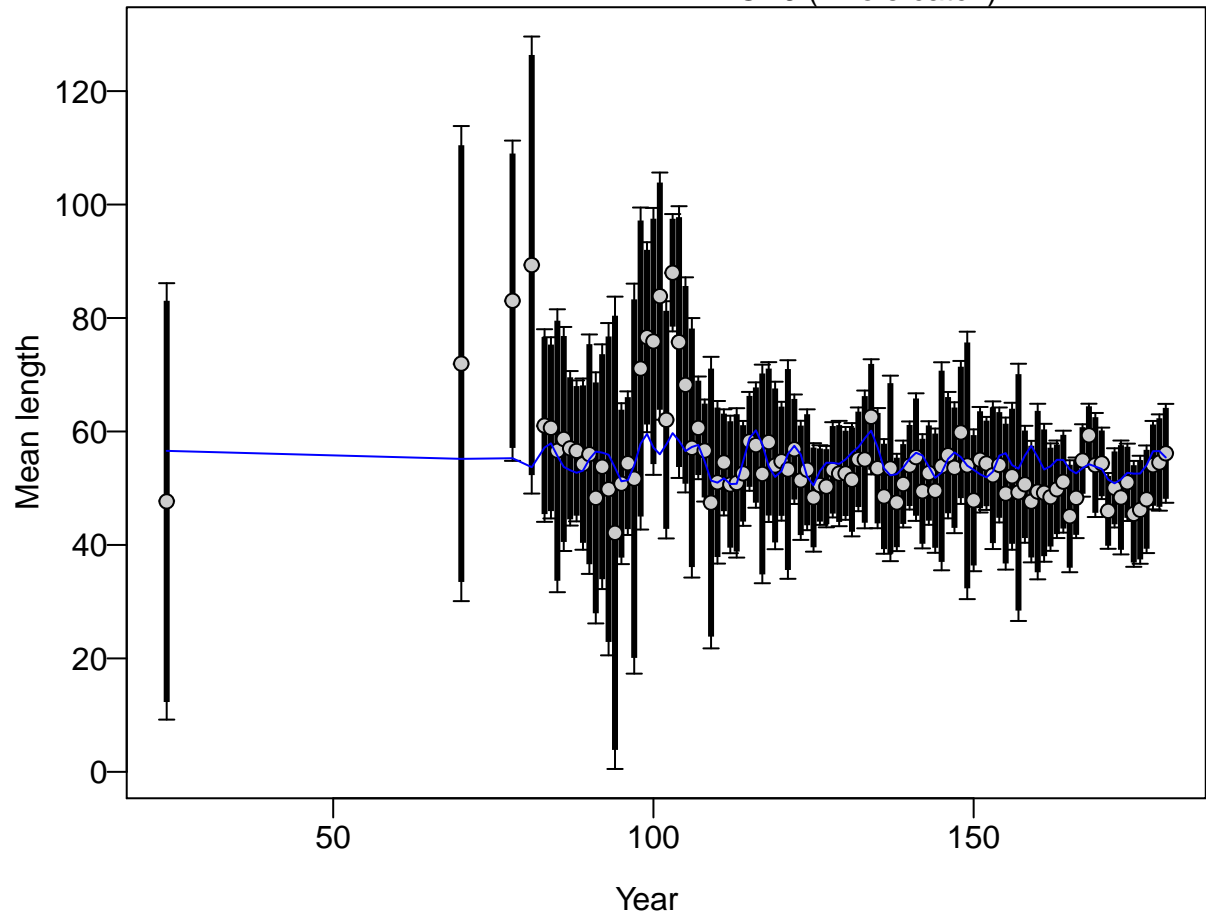


Effective sample size

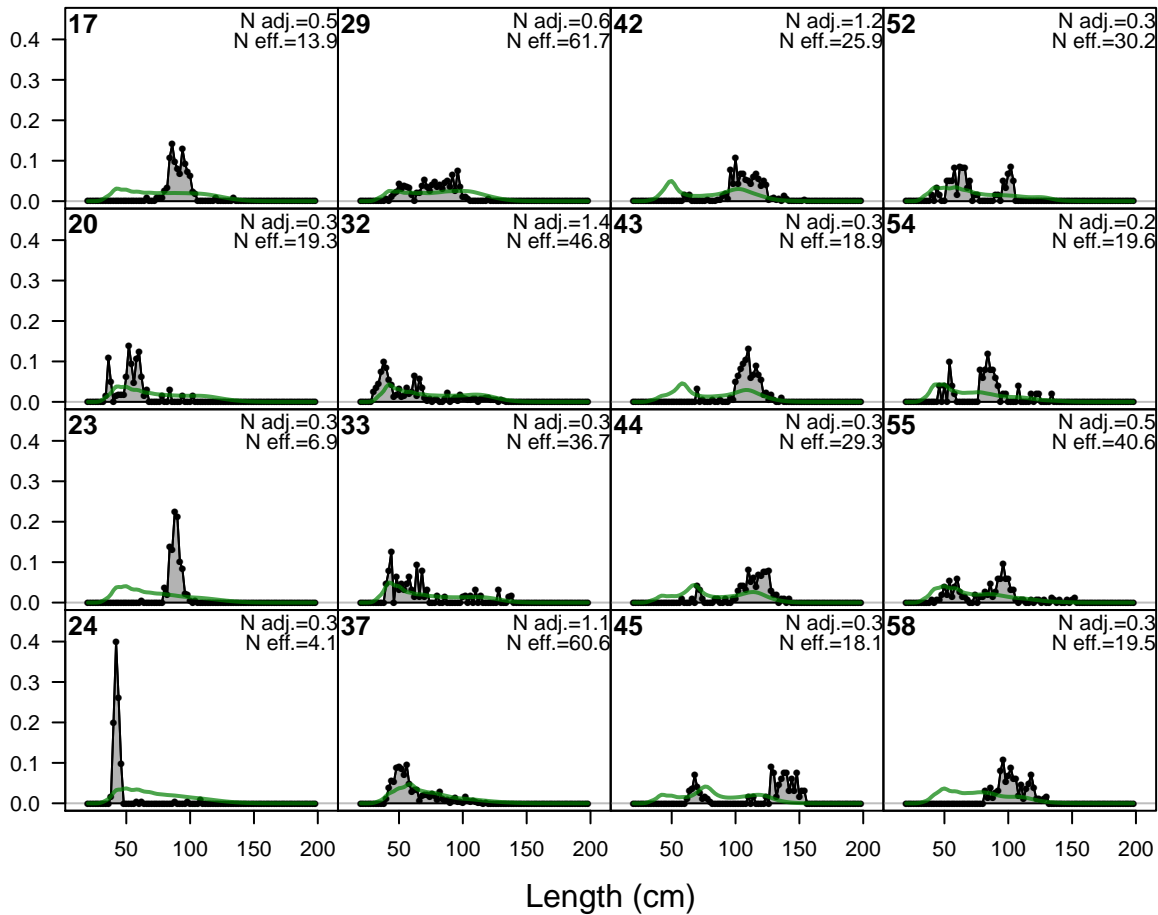




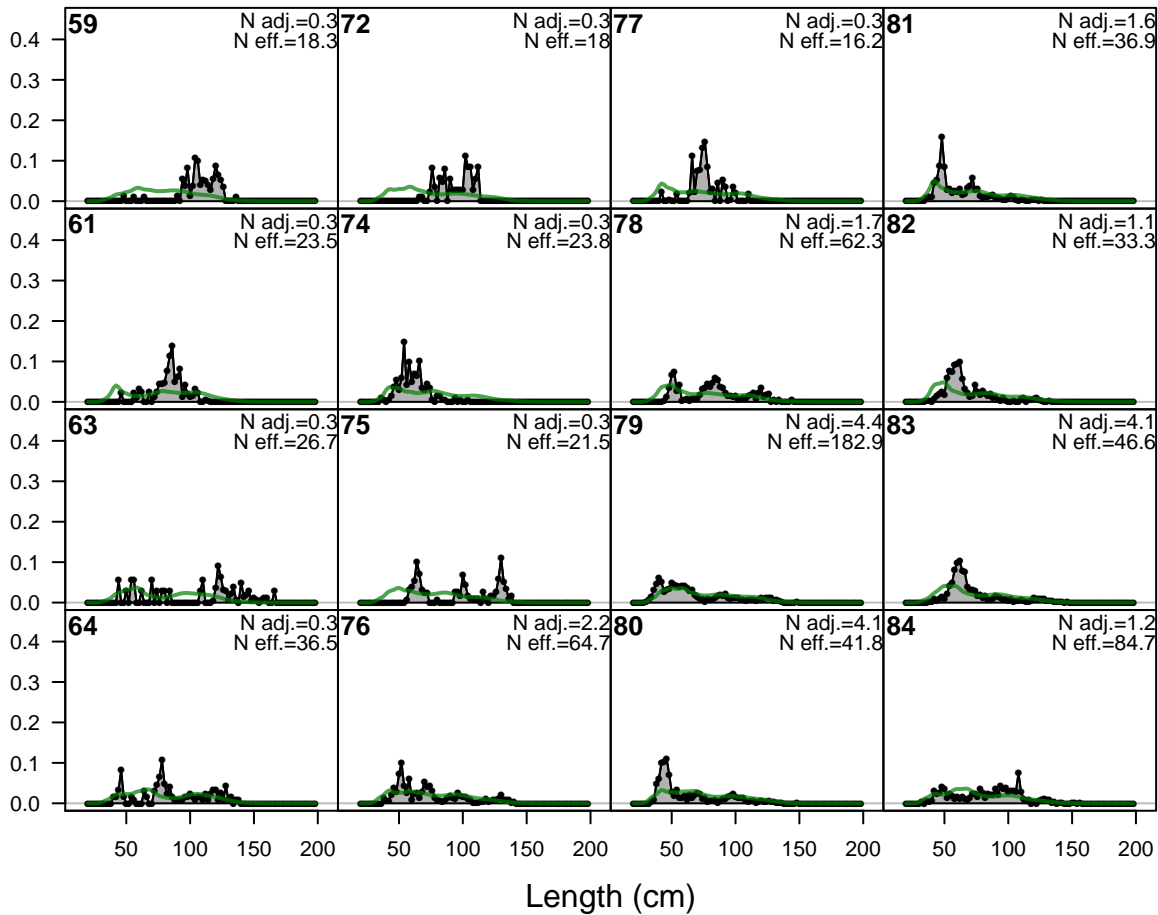
## A2-OBJ (whole catch)

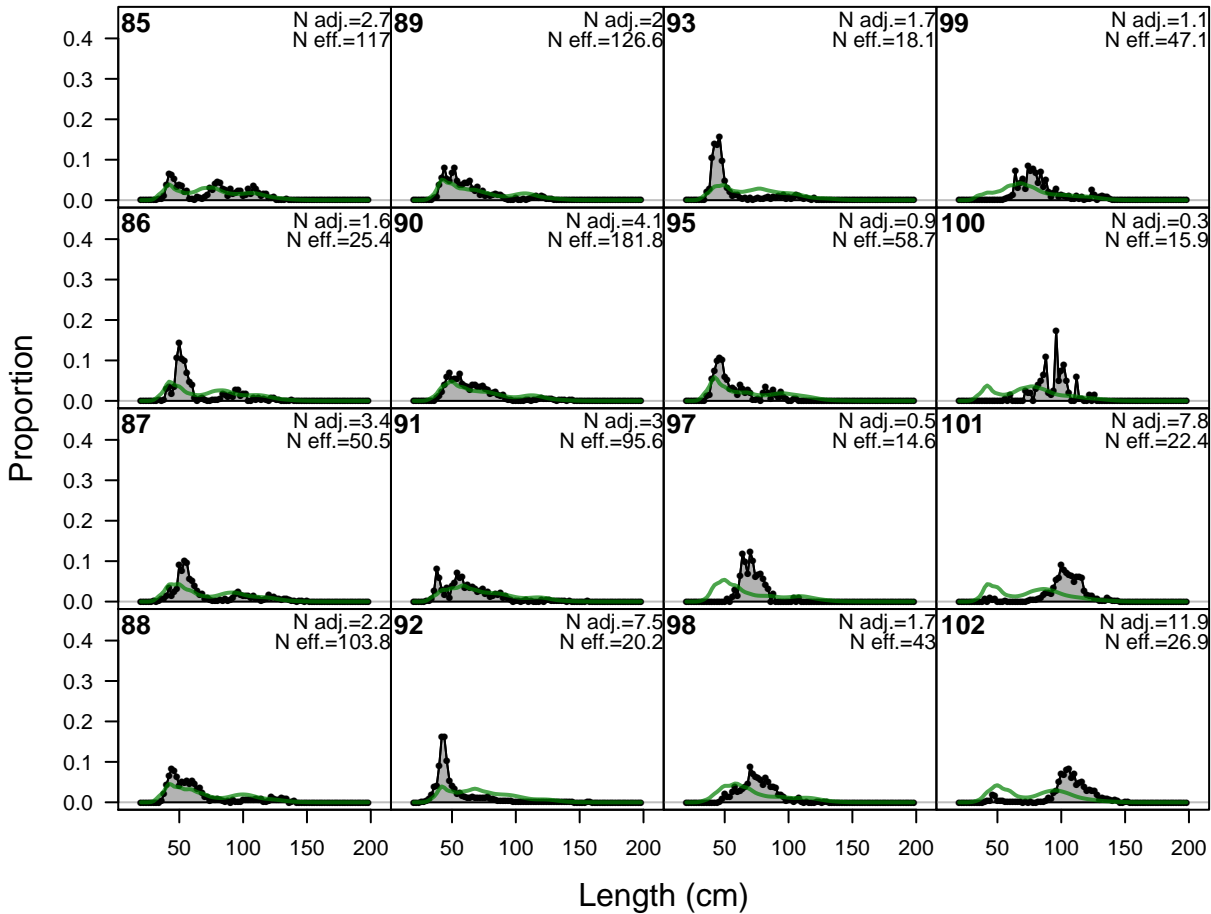


Proportion

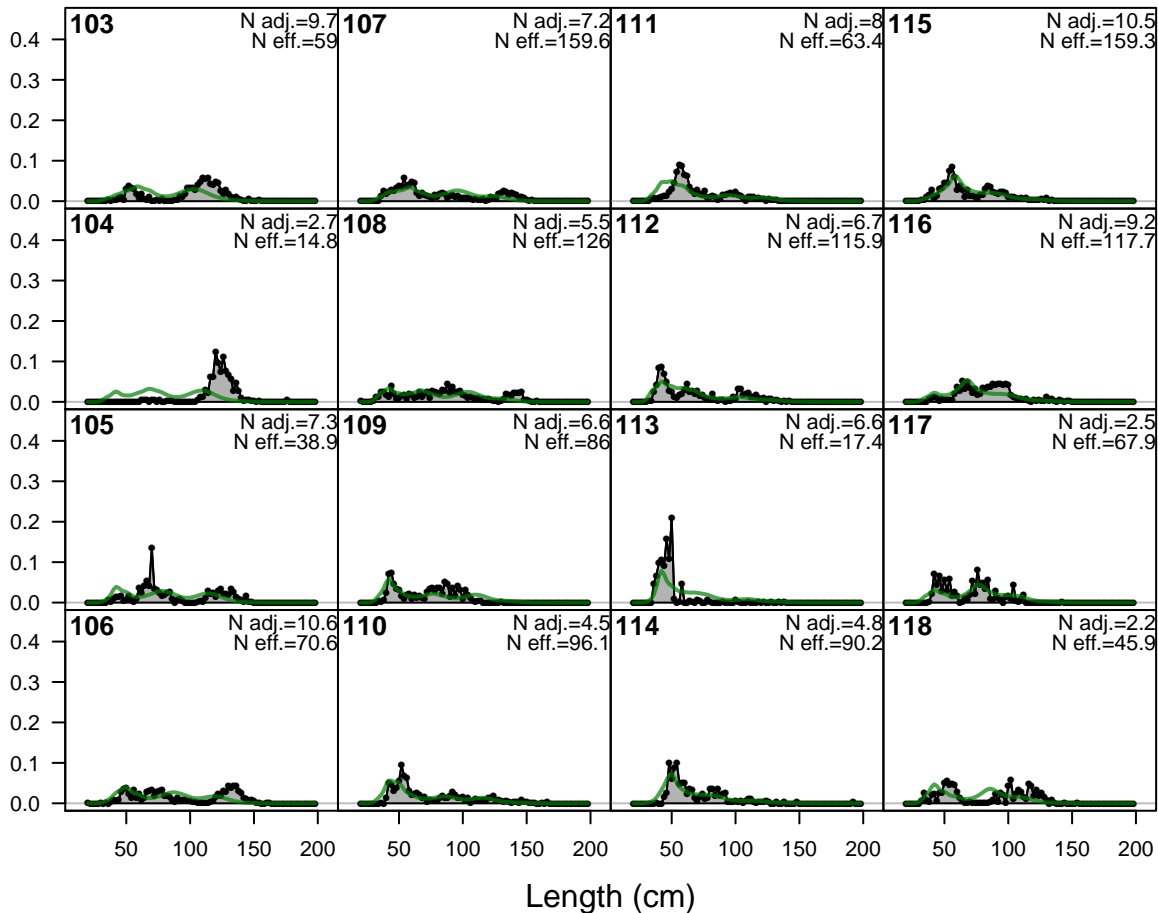


Proportion

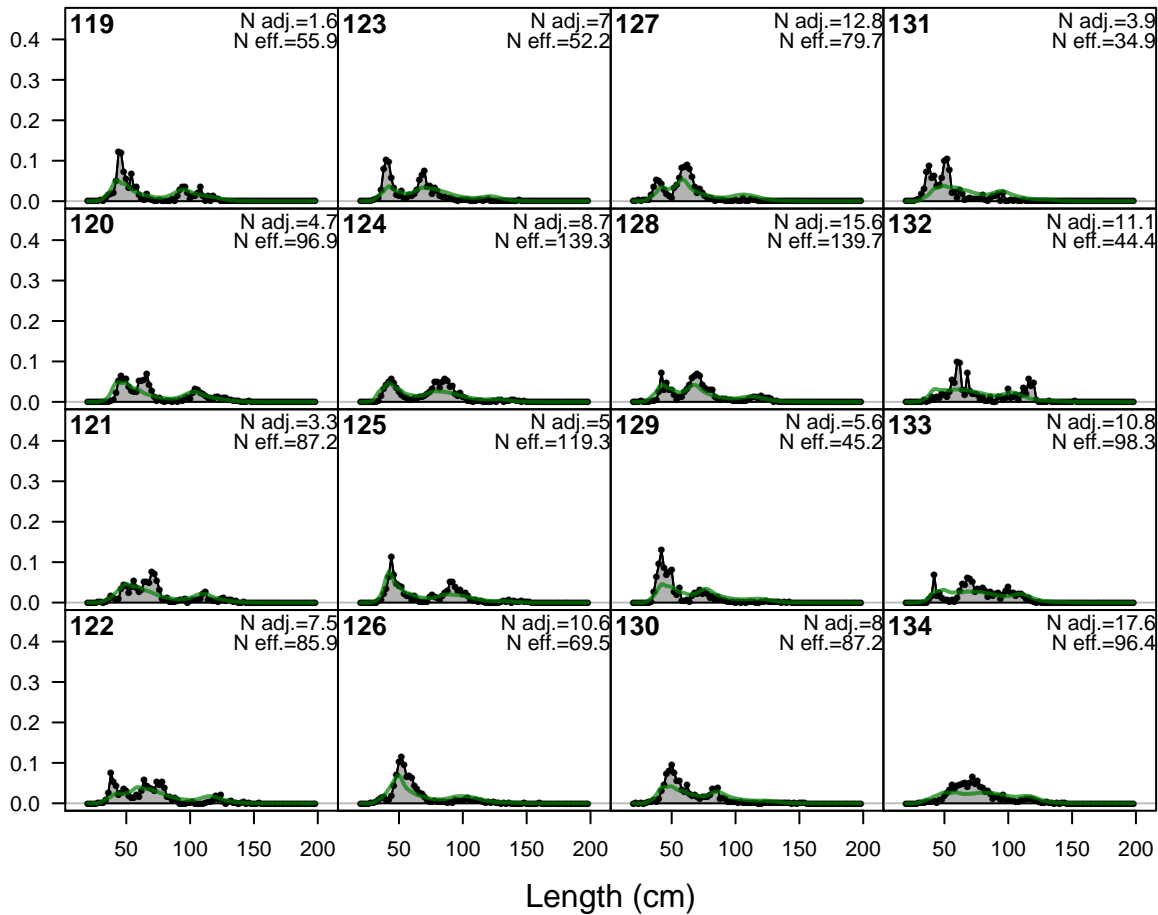




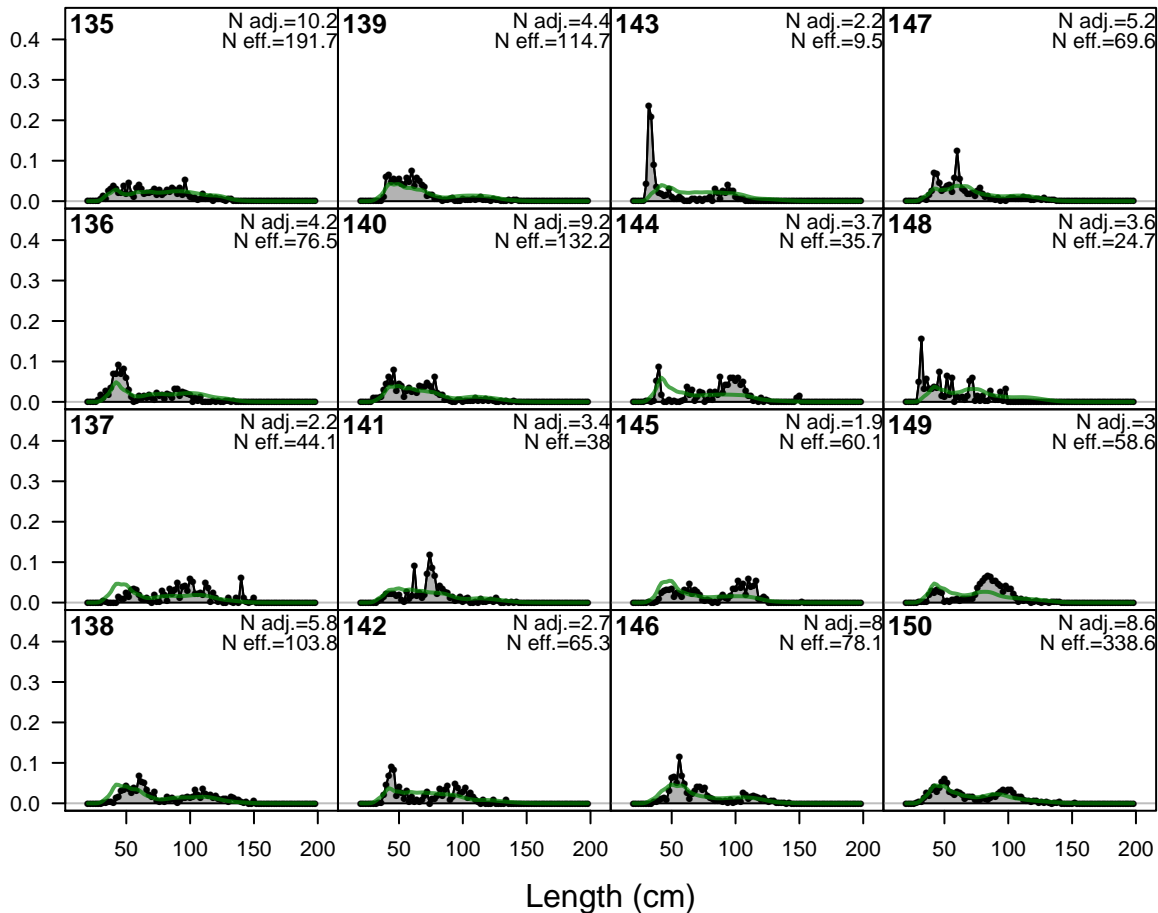
Proportion



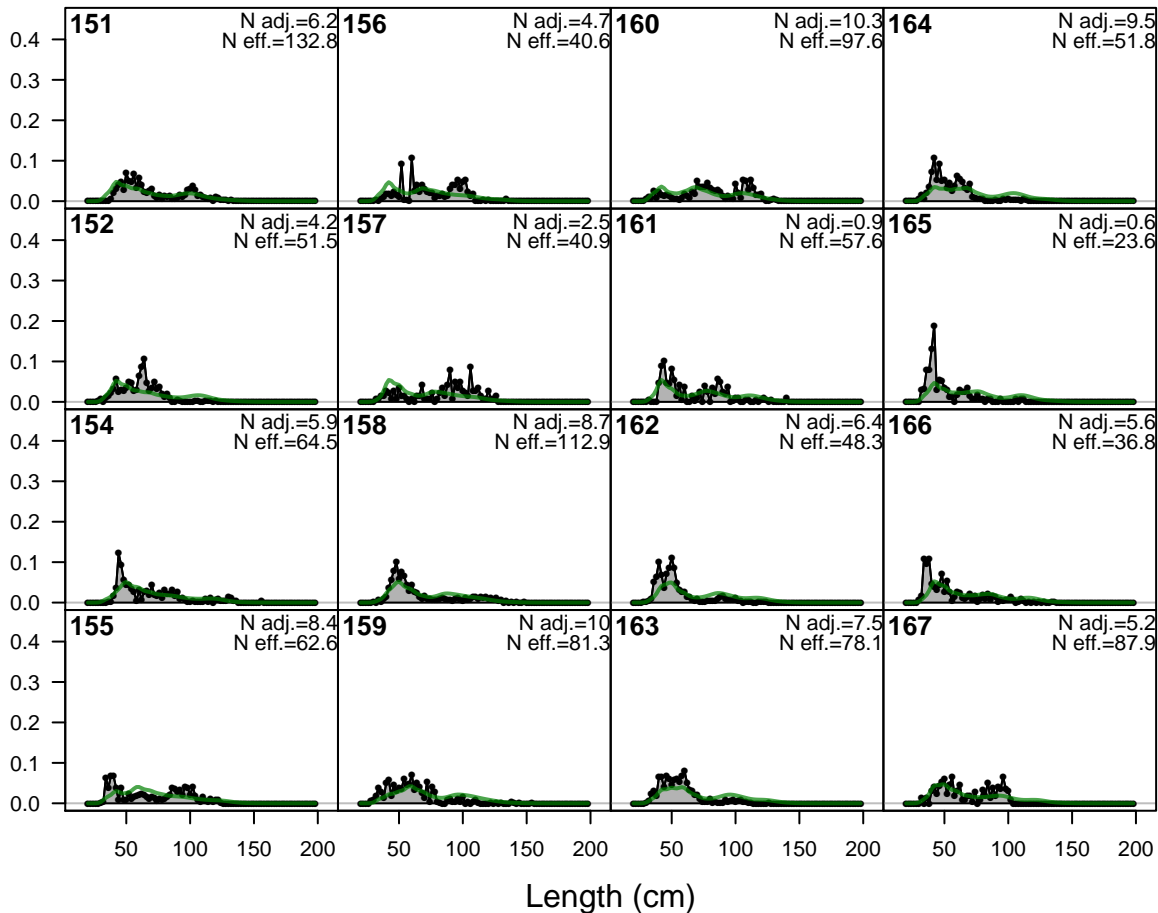
Proportion



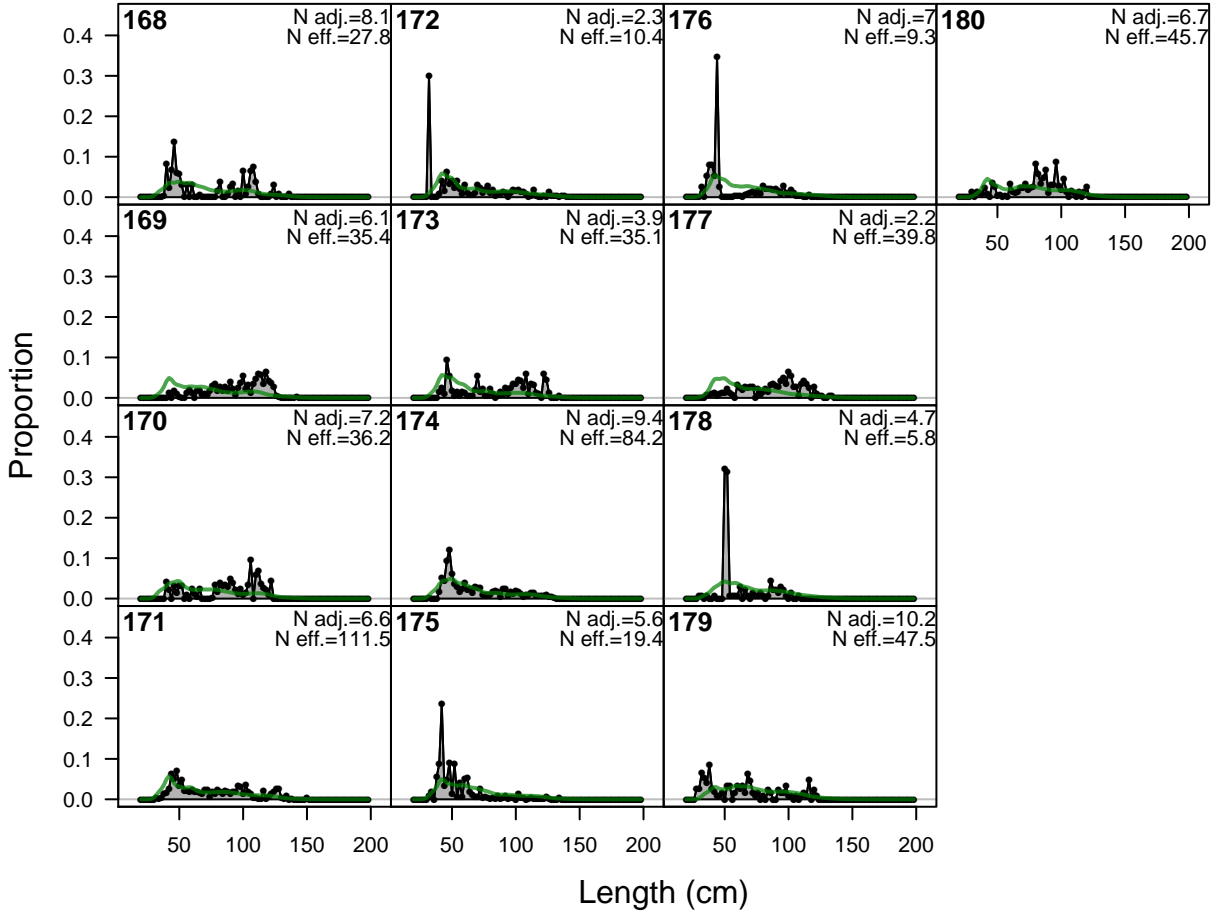
Proportion

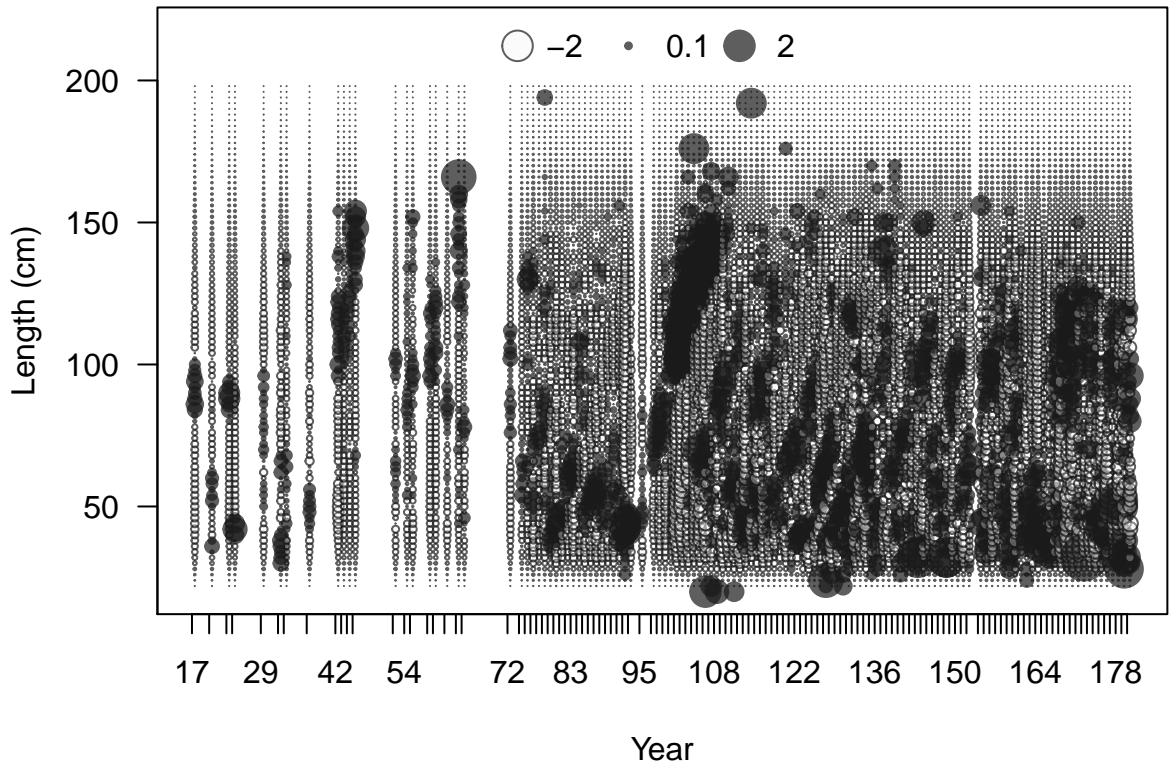


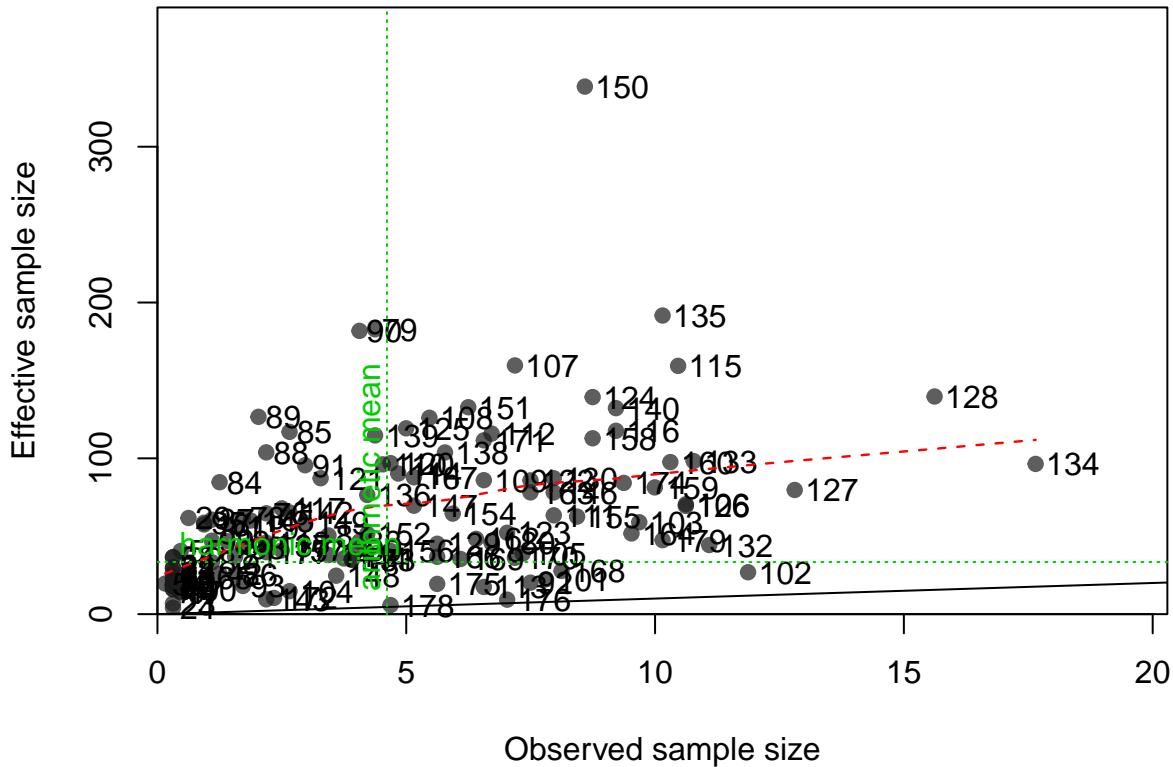
Proportion



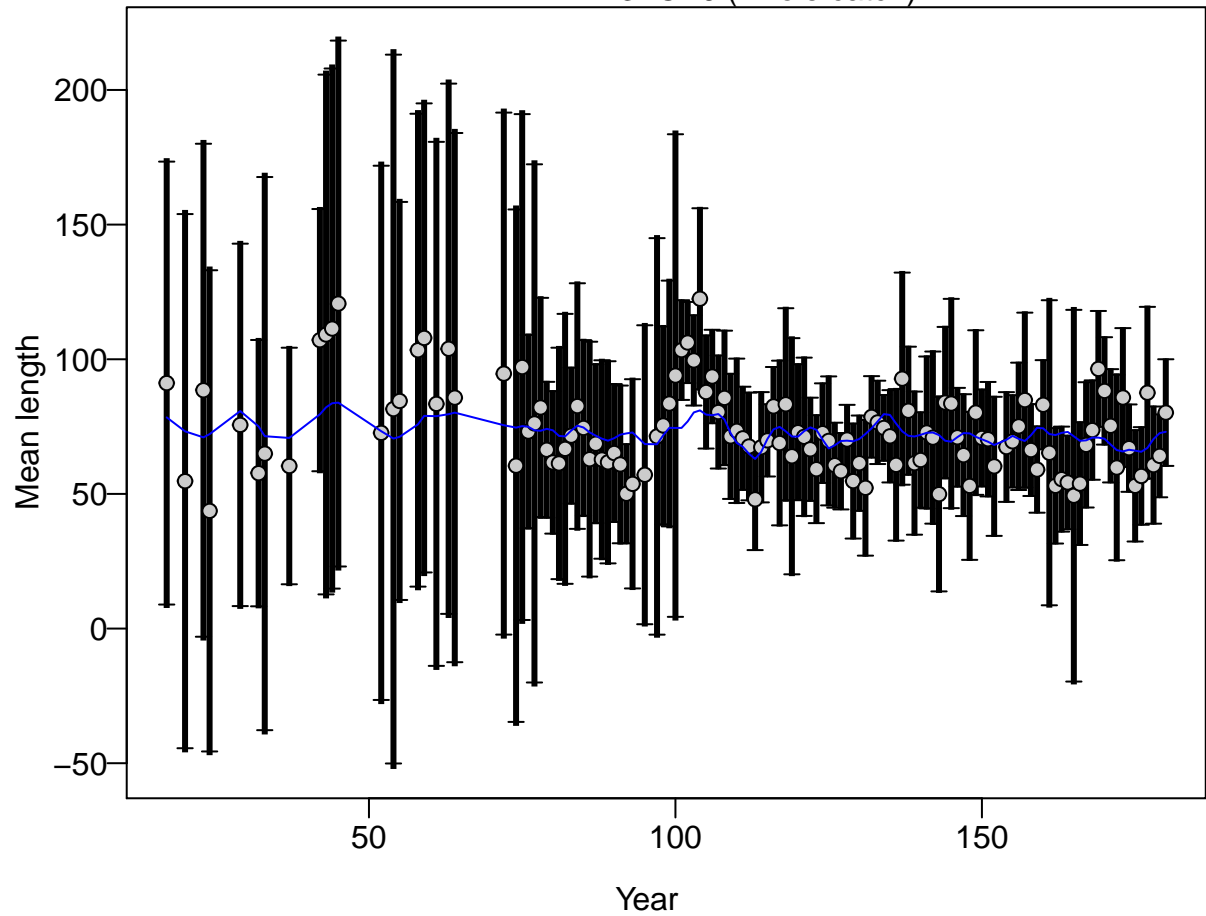




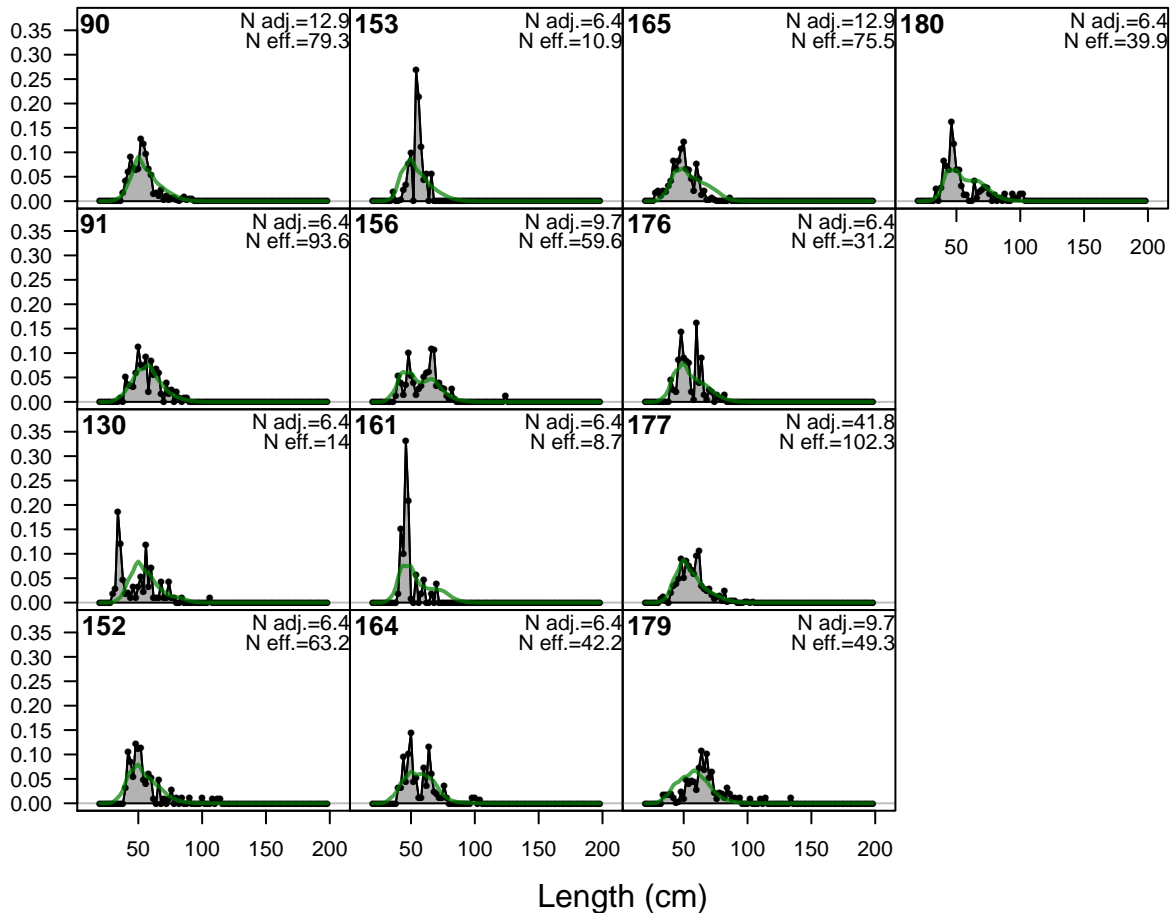


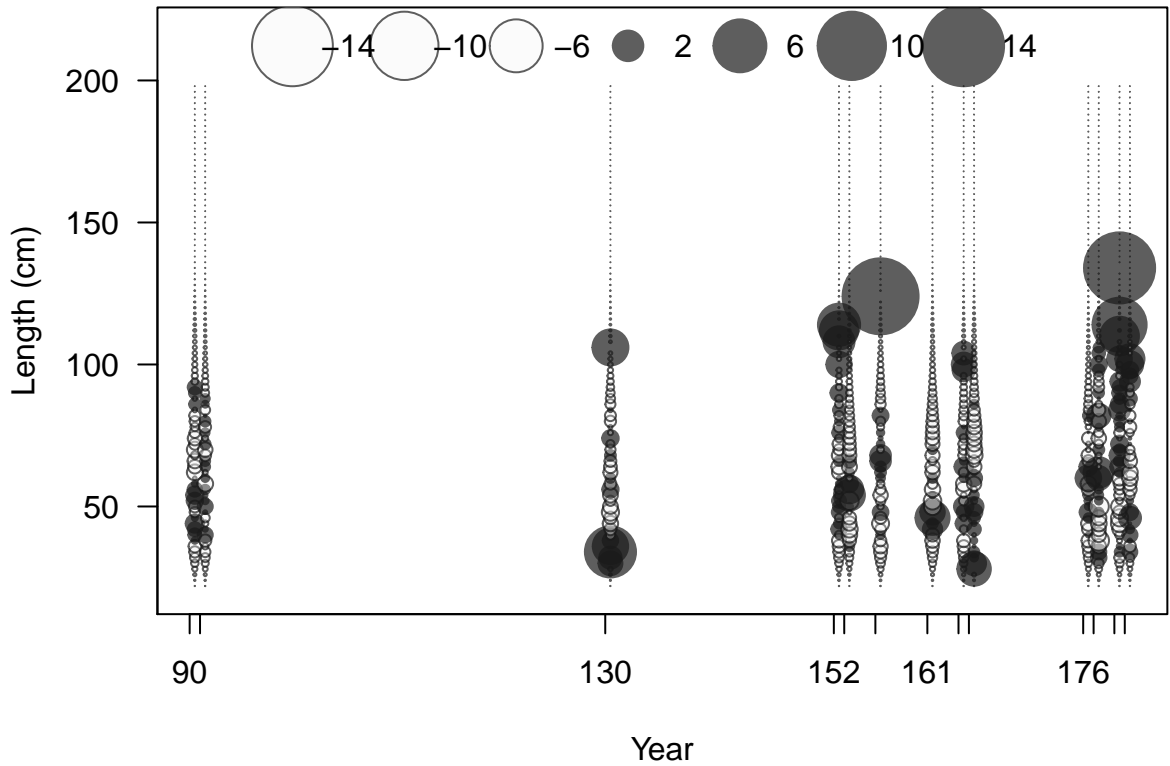


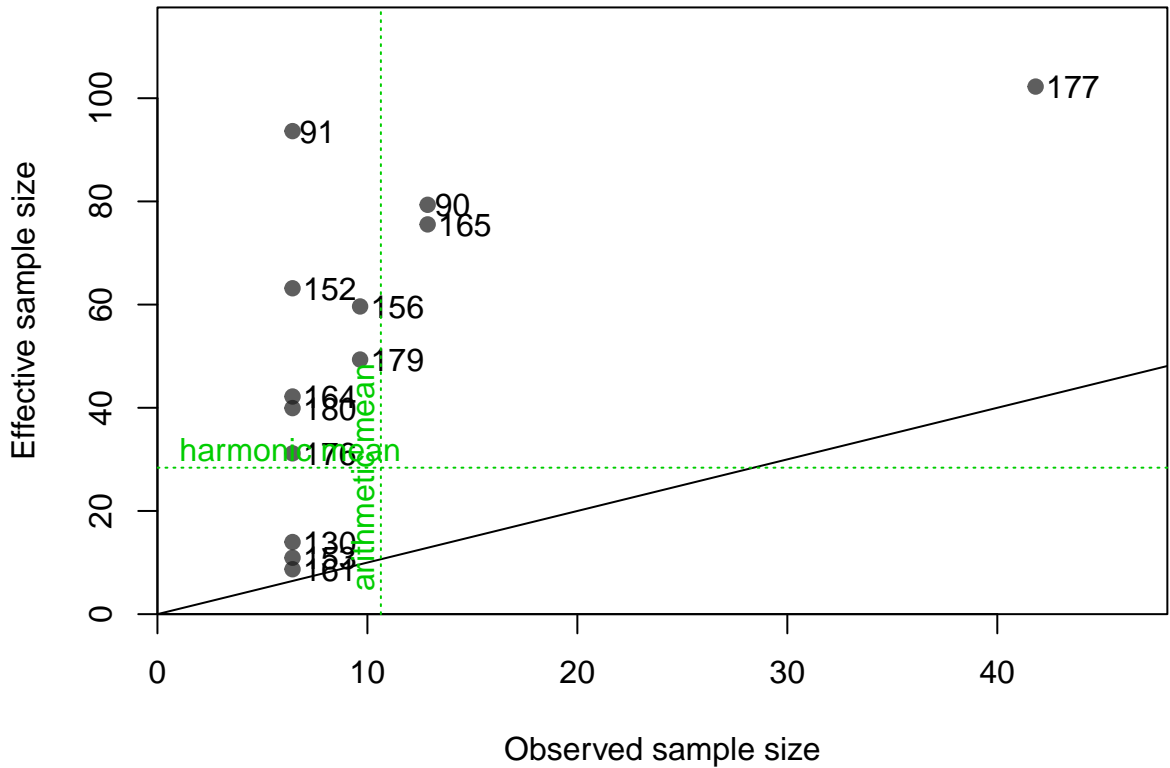
## A3-Obj (whole catch)



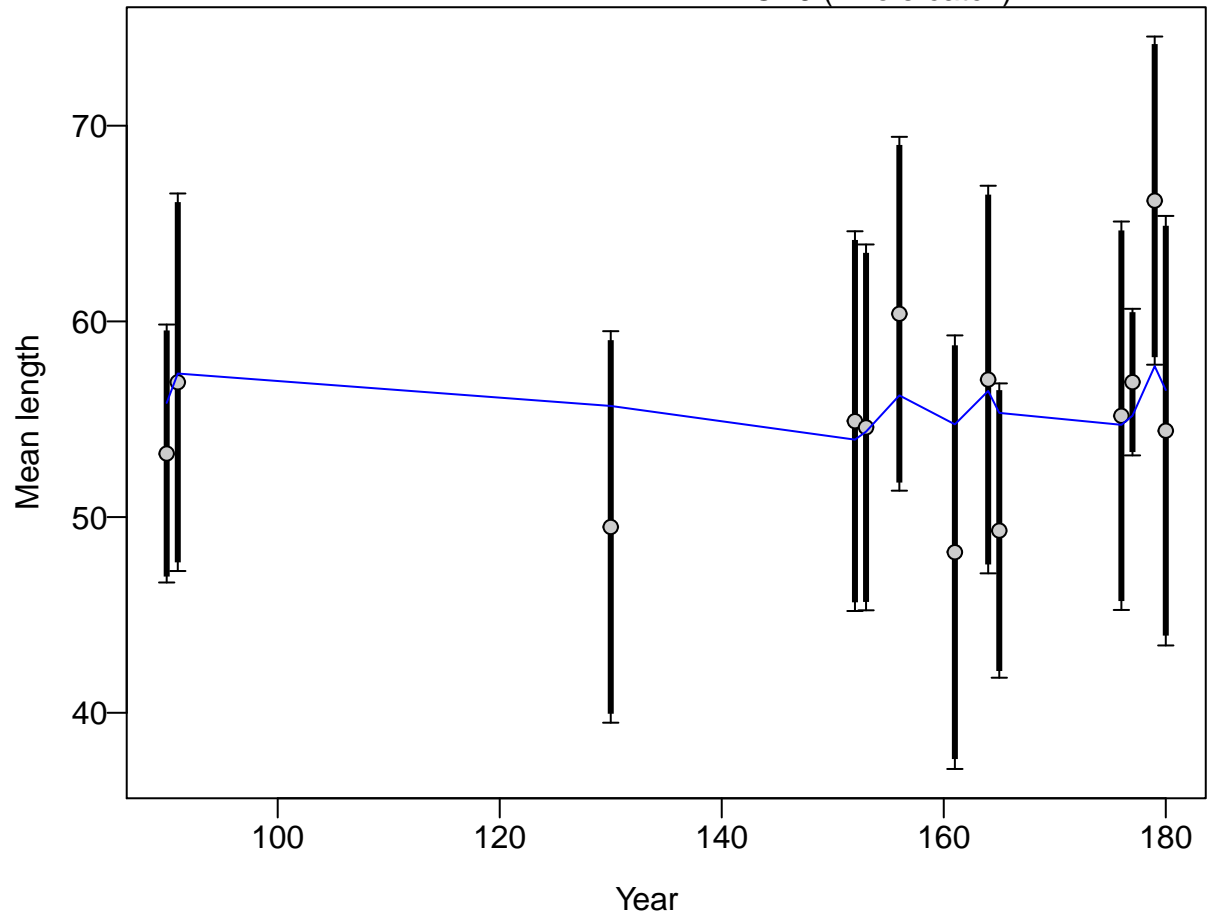
Proportion





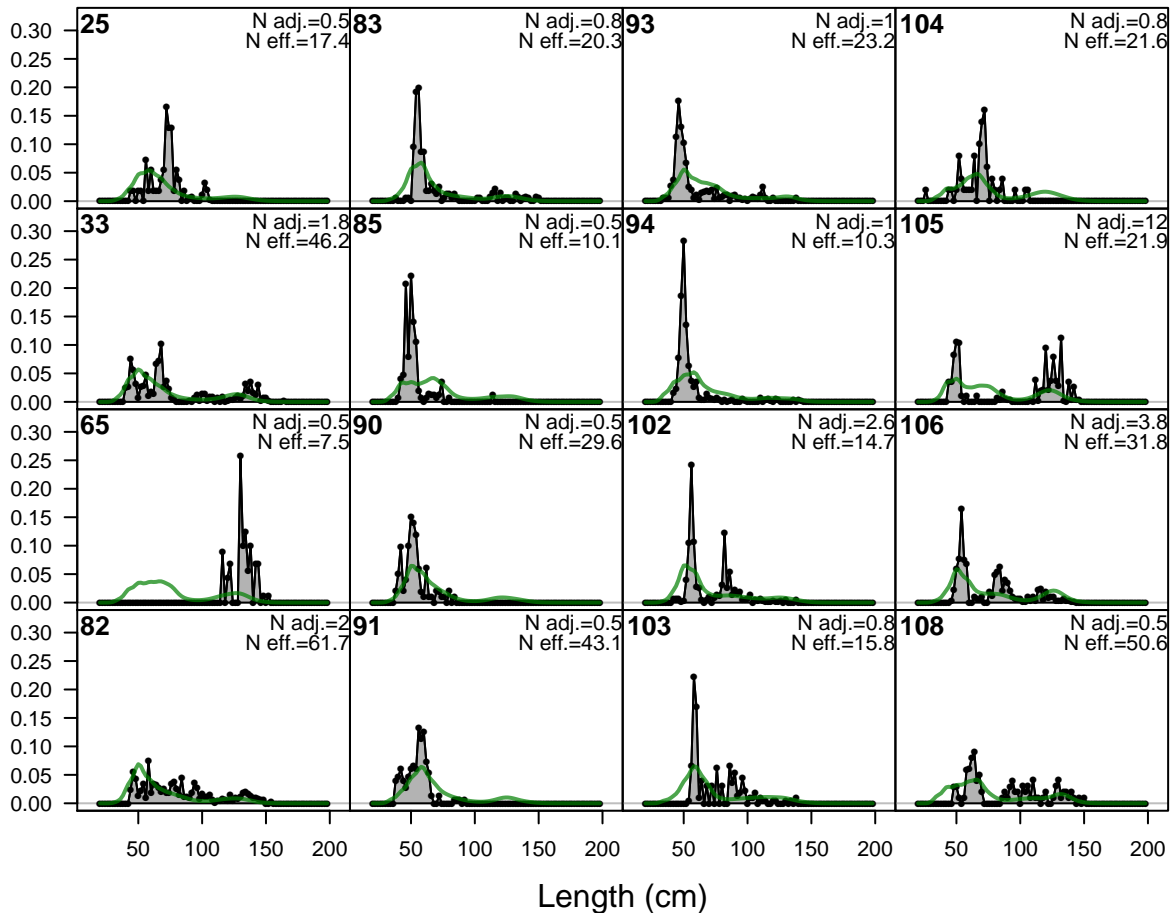


## A4-OBJ (whole catch)

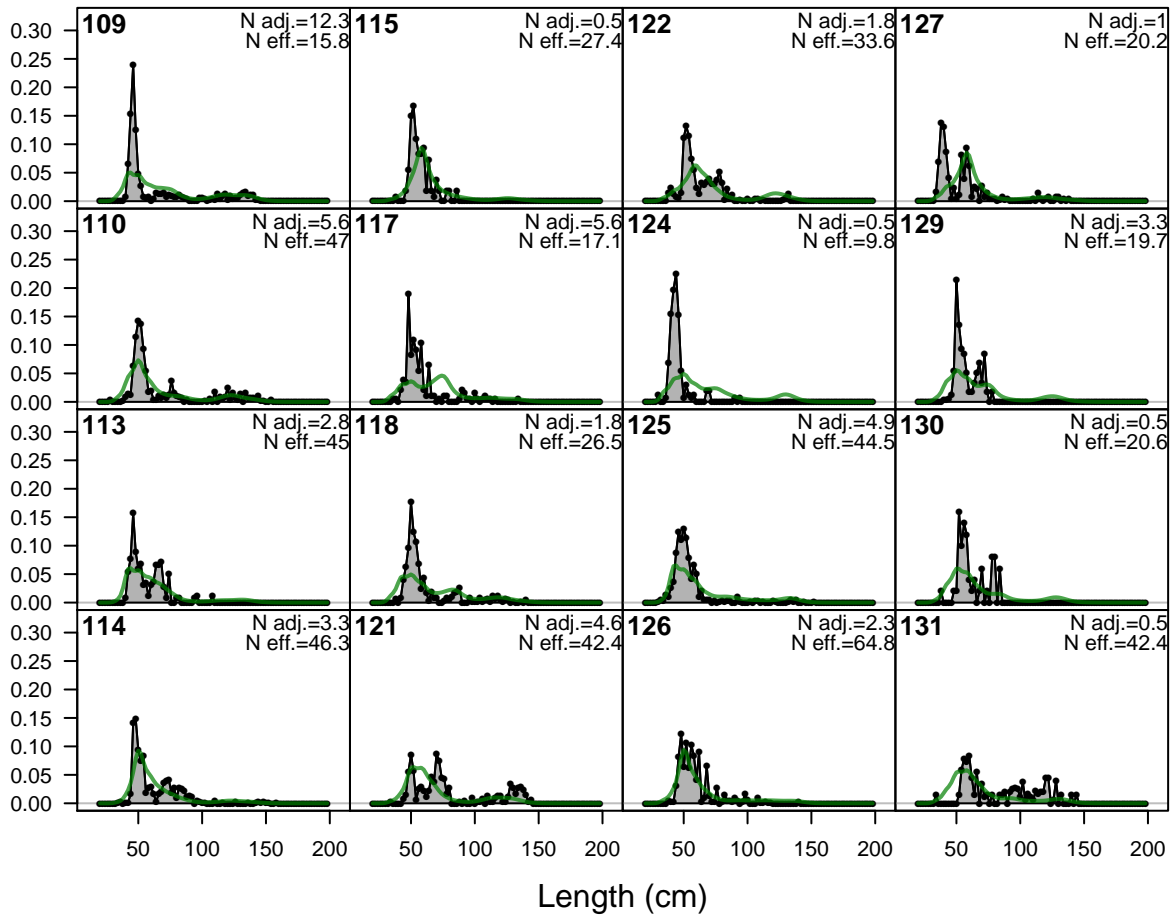




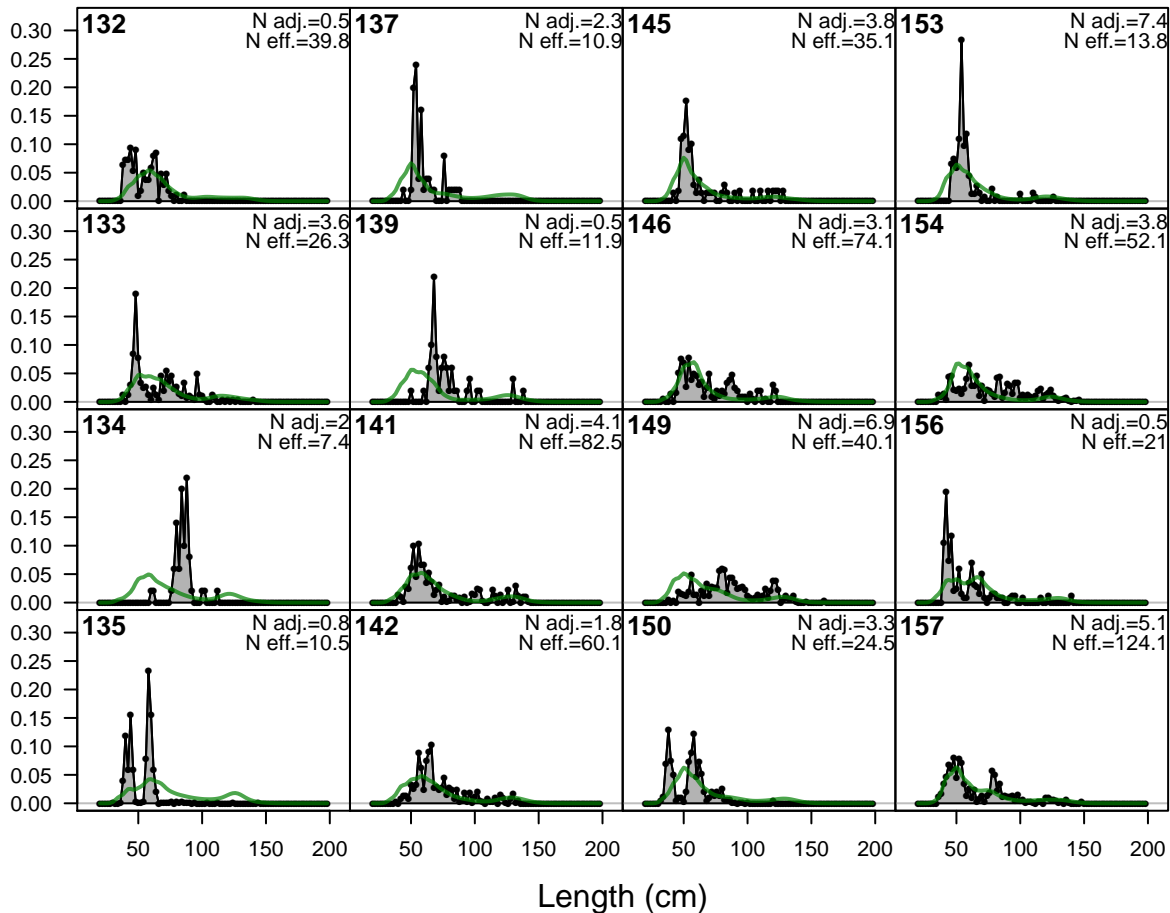
Proportion



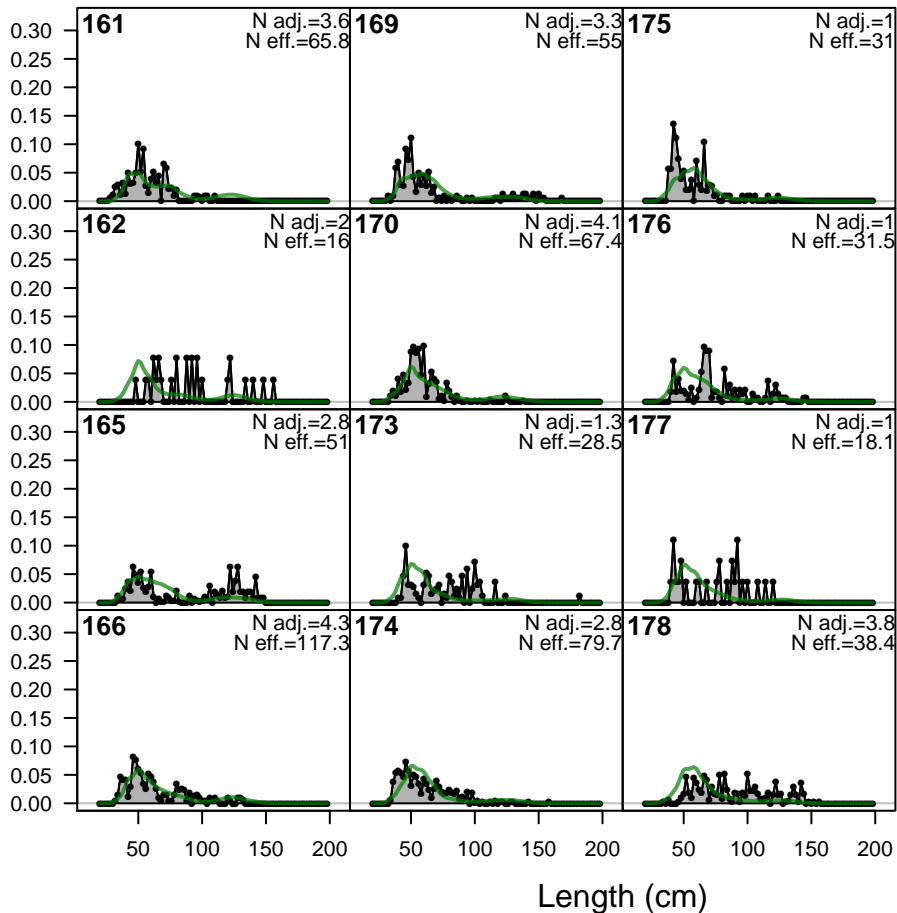
Proportion

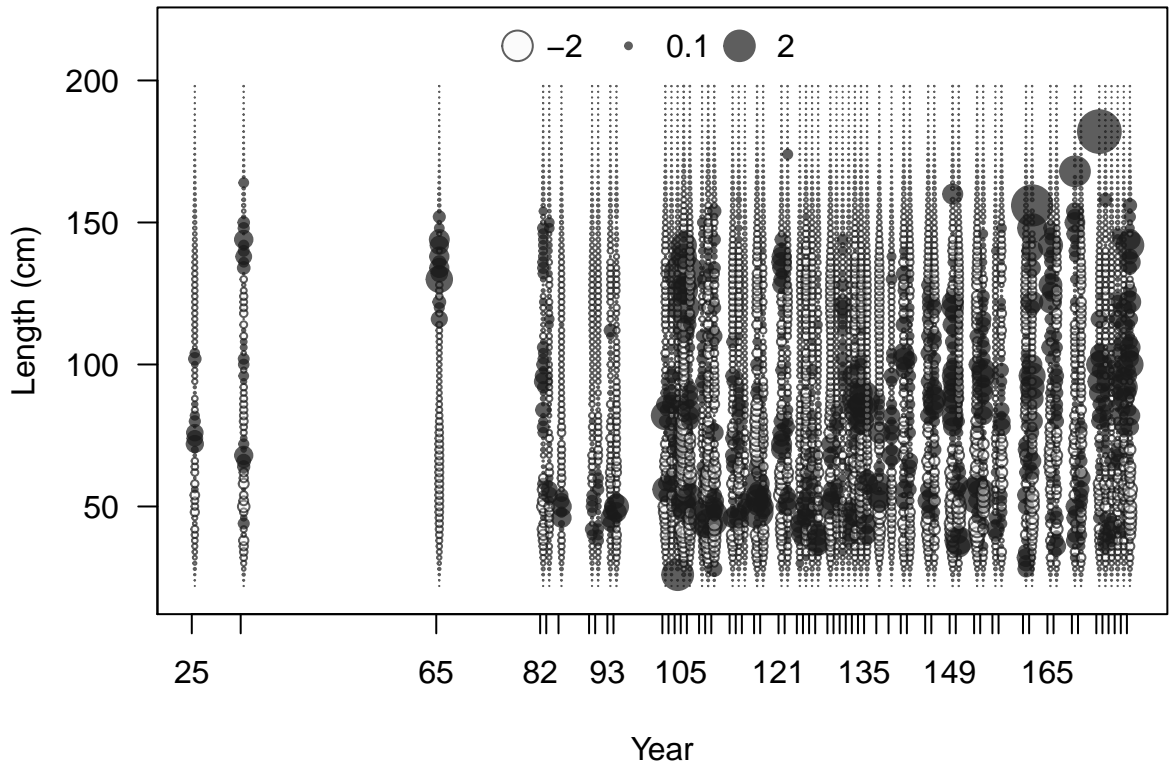


Proportion



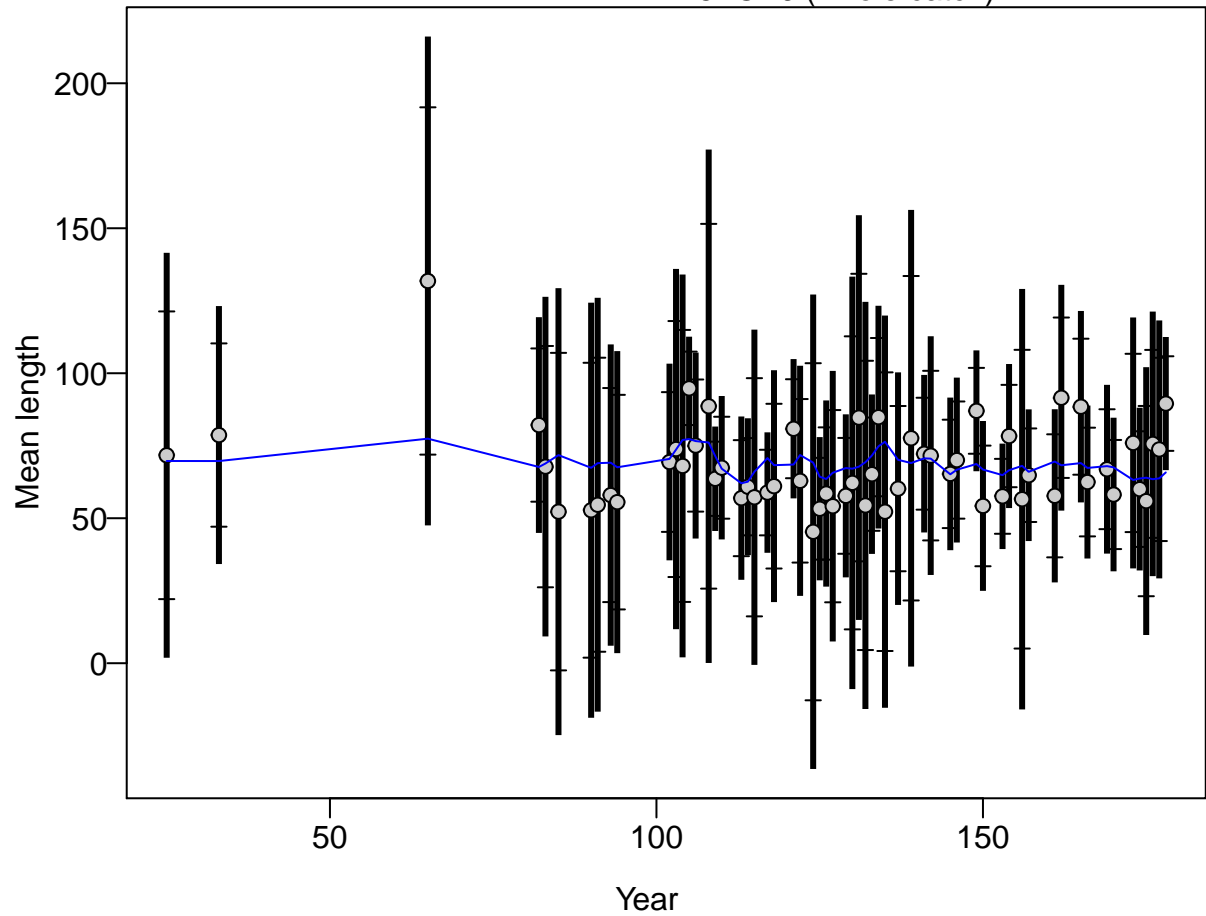
Proportion



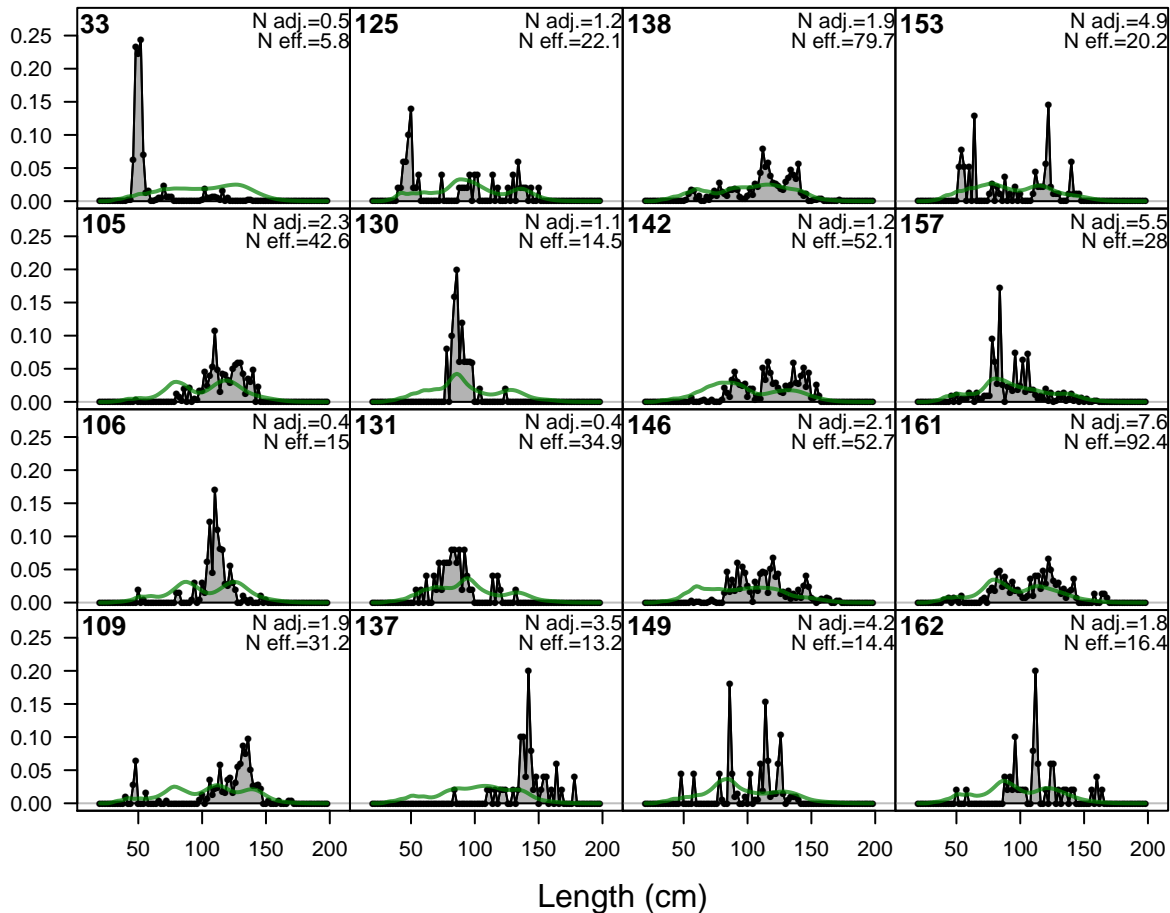




## A5-OBJ (whole catch)

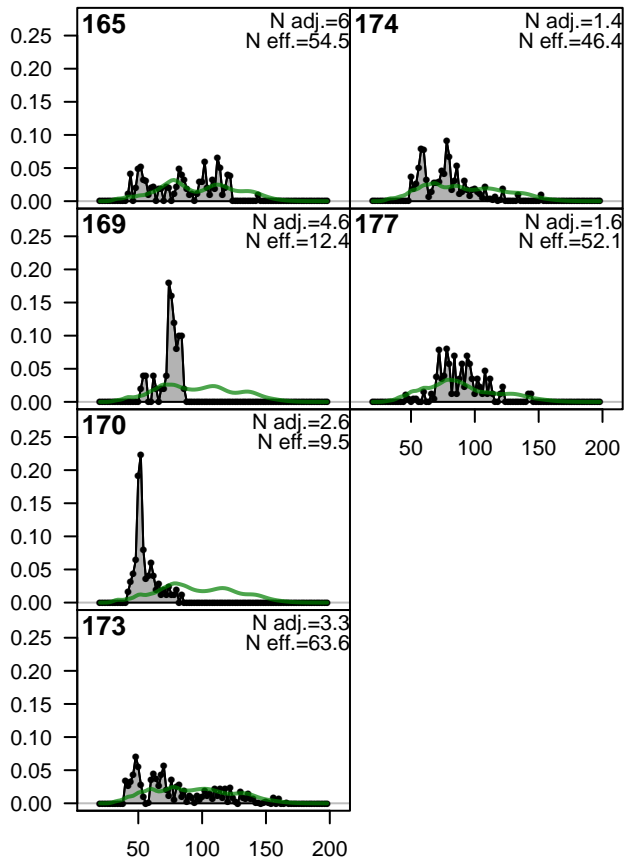


Proportion

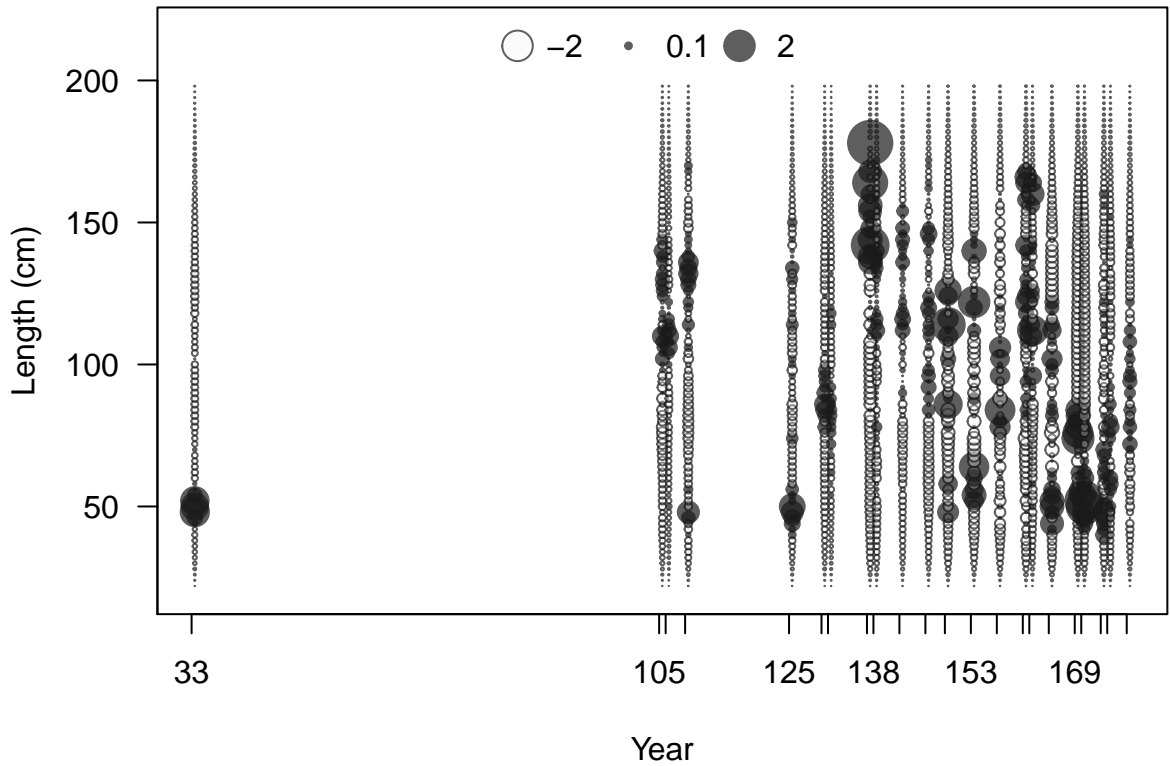


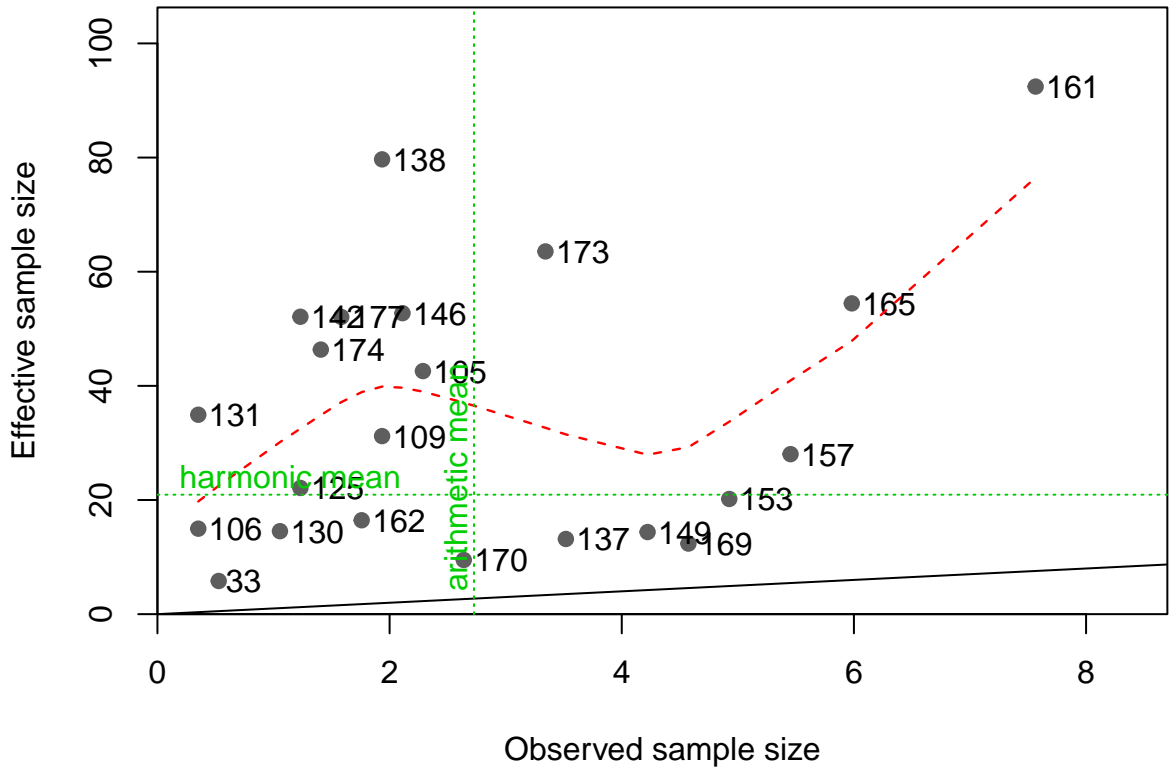


Proportion

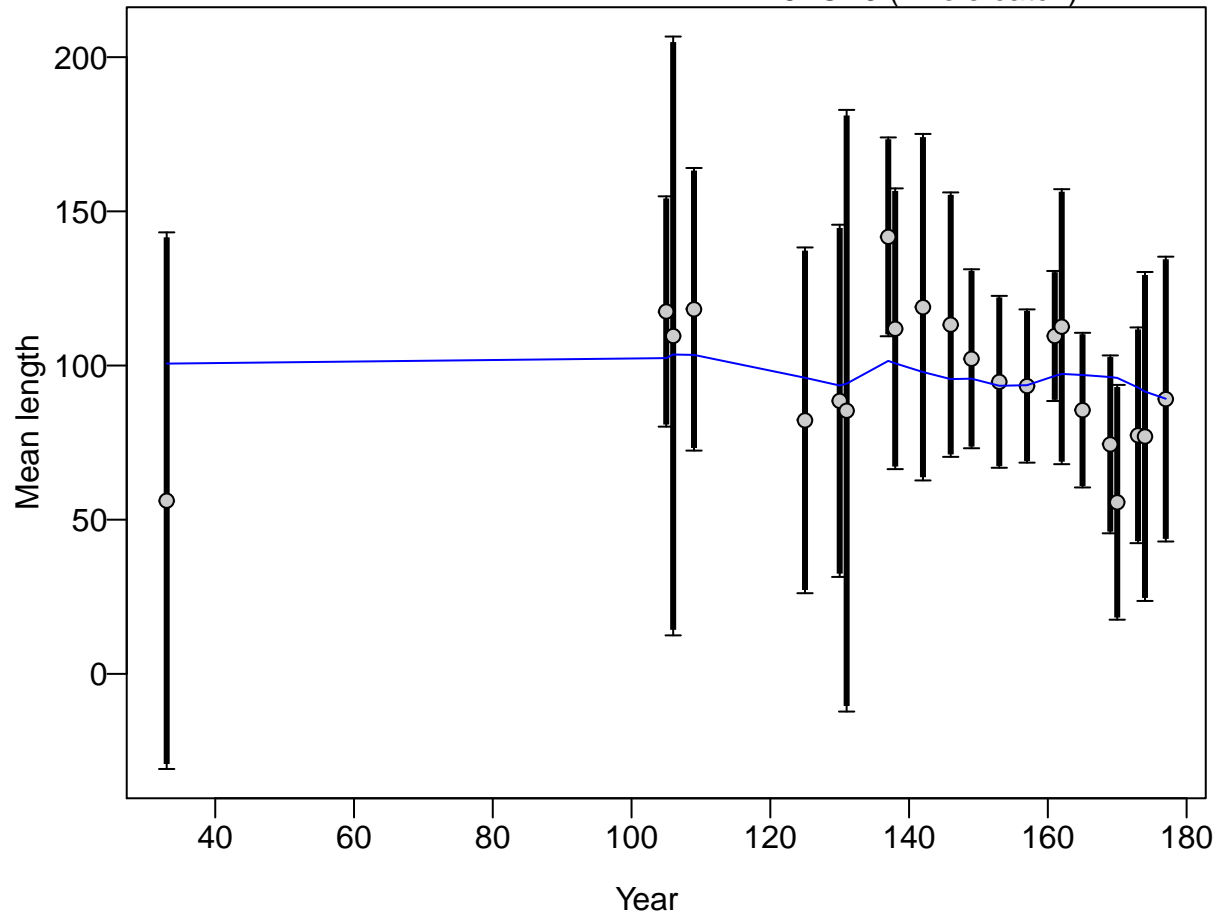


Length (cm)

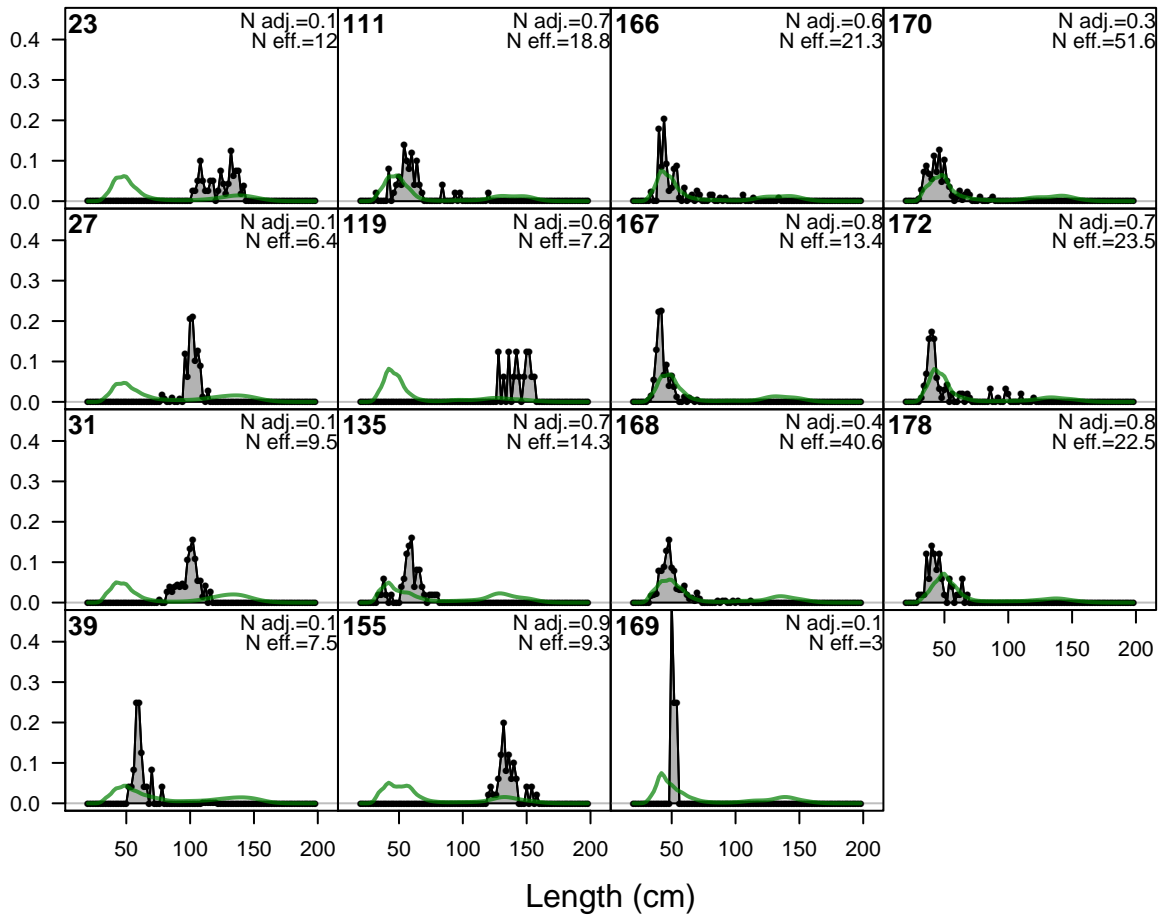


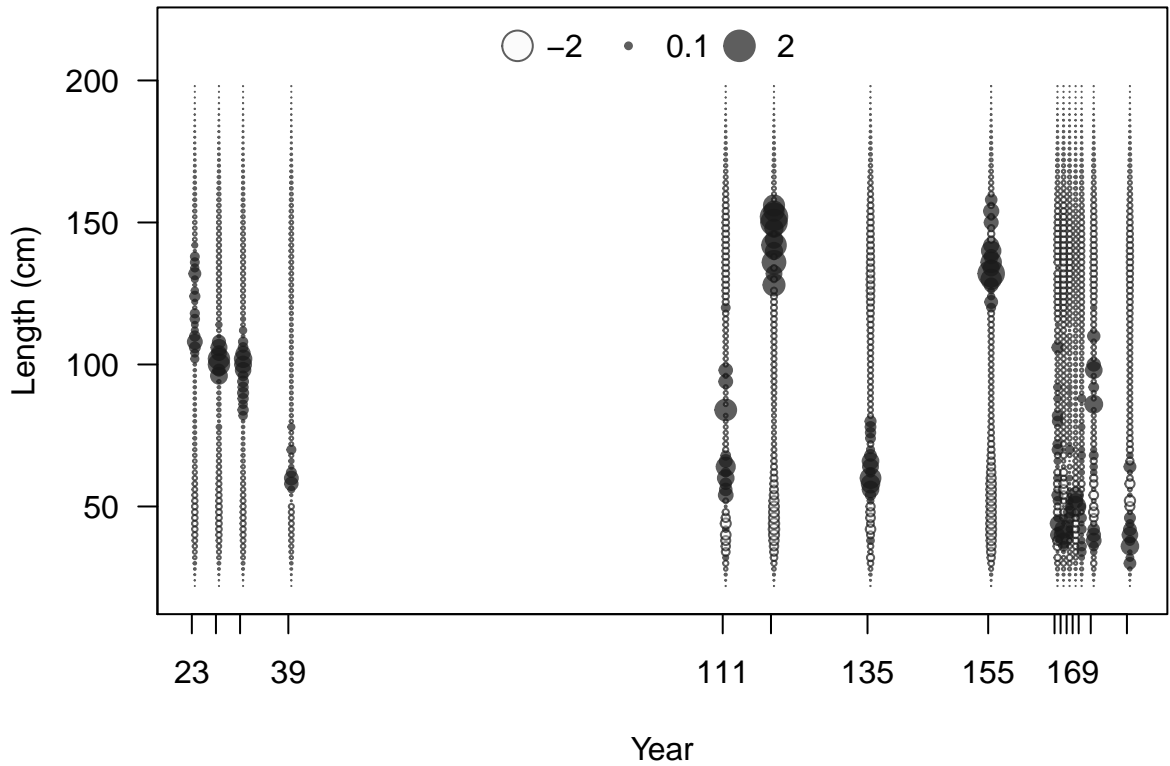


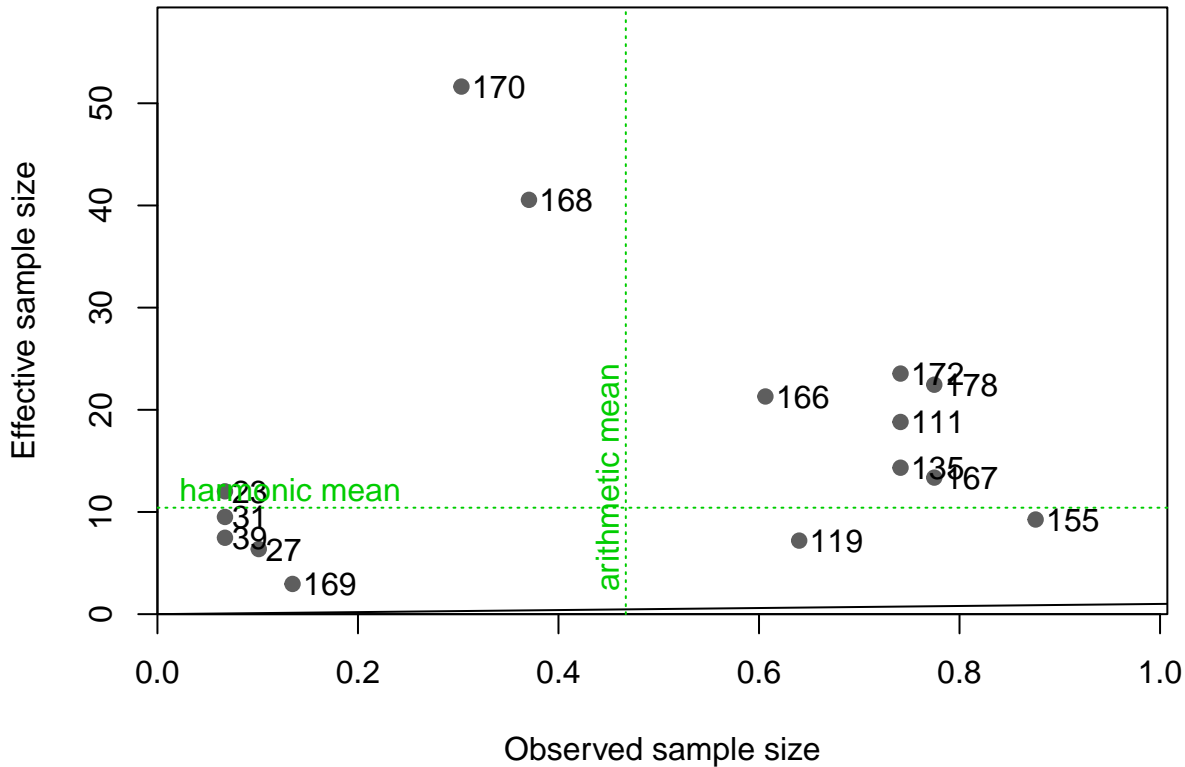
## A6-OBJ (whole catch)



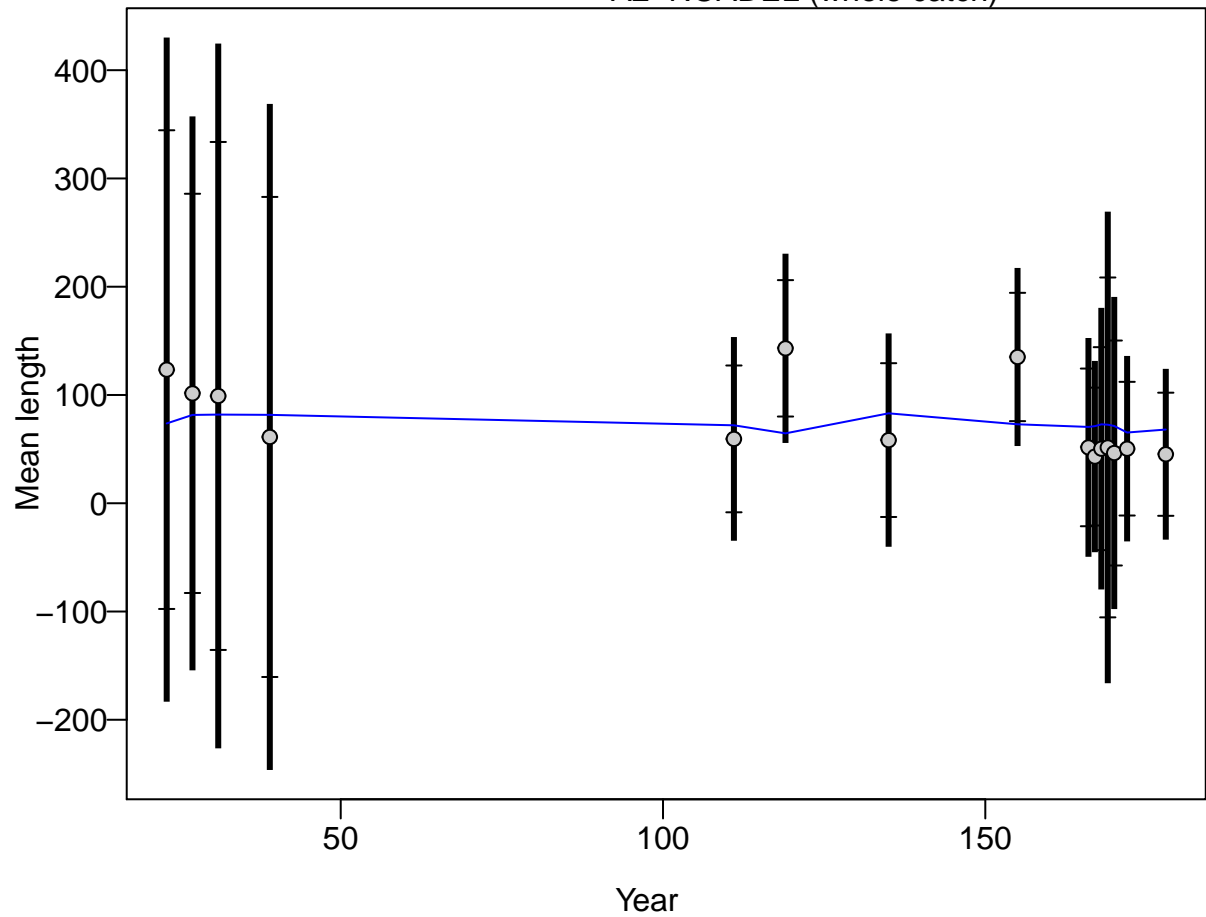
Proportion





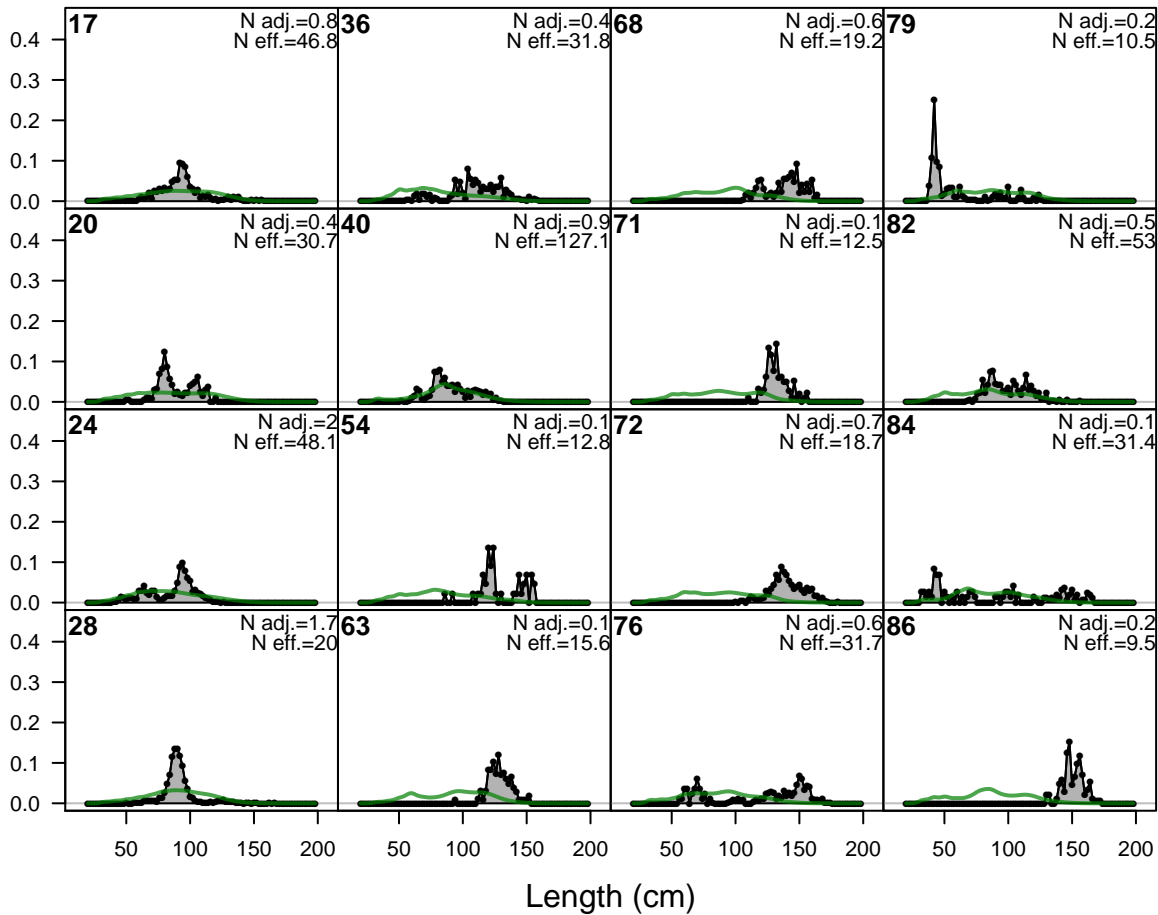


A2-NOADEL (whole catch)

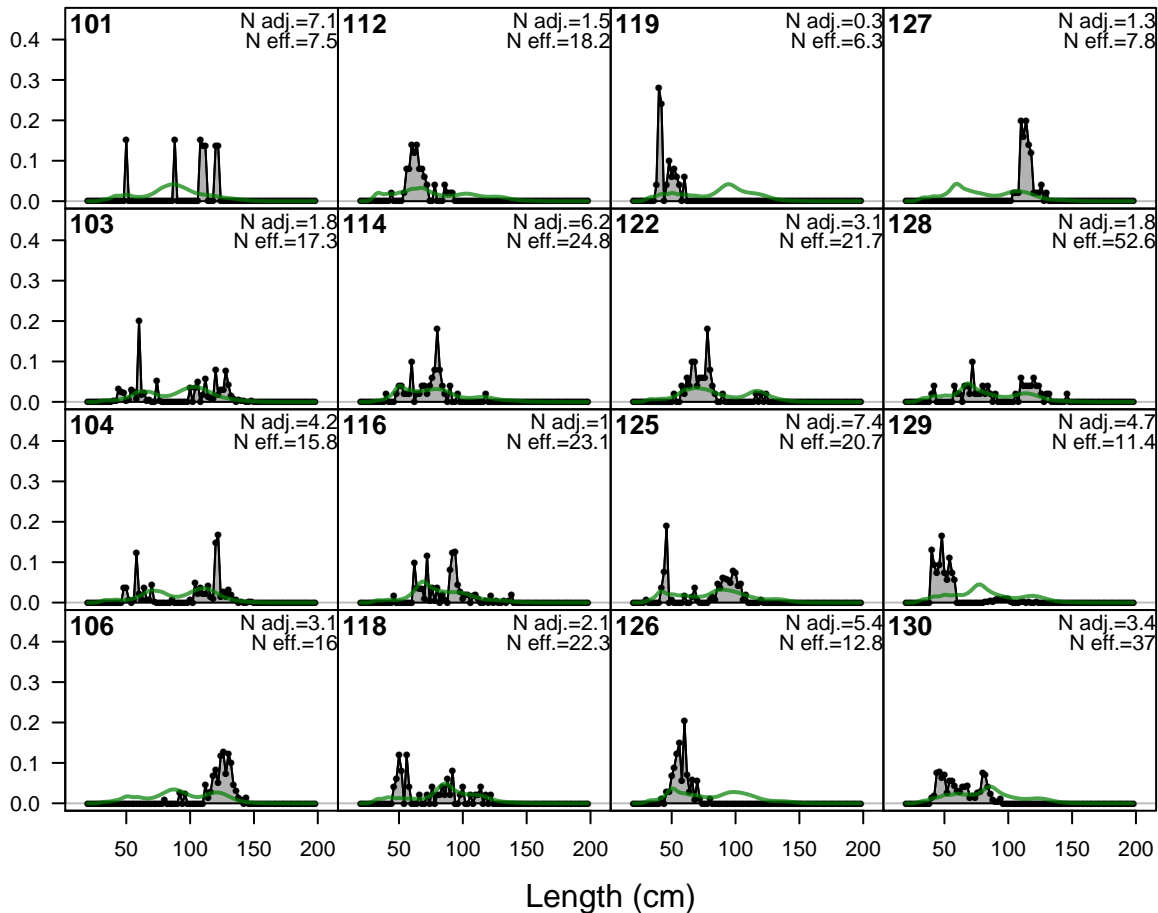




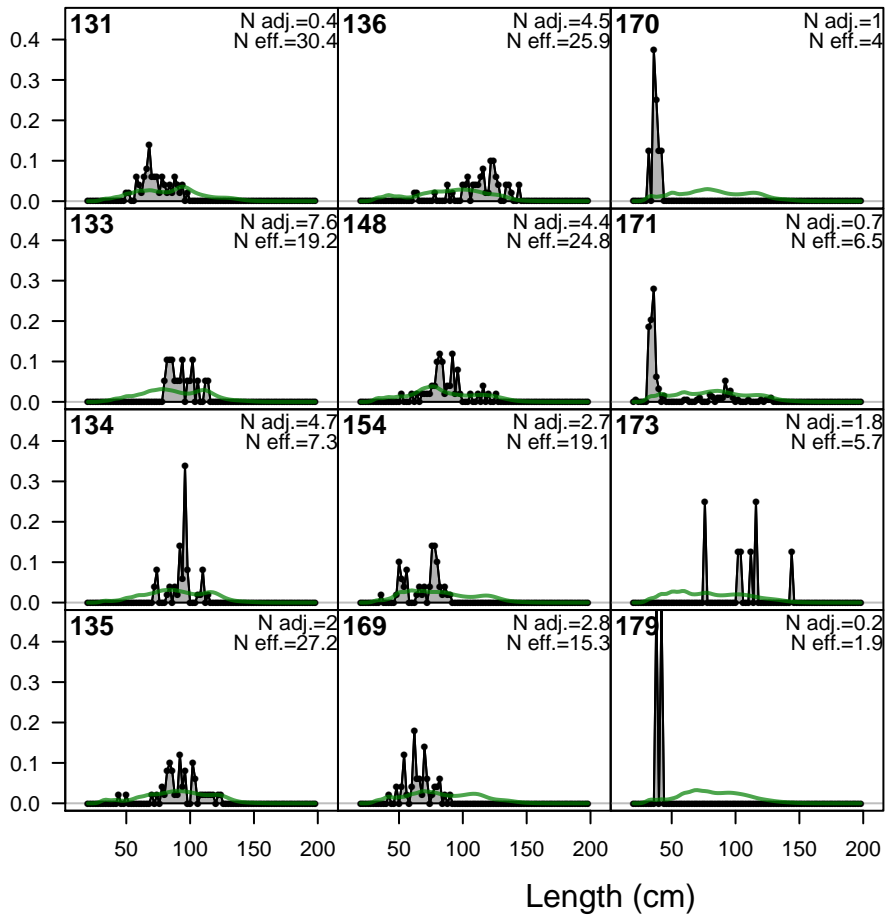
Proportion

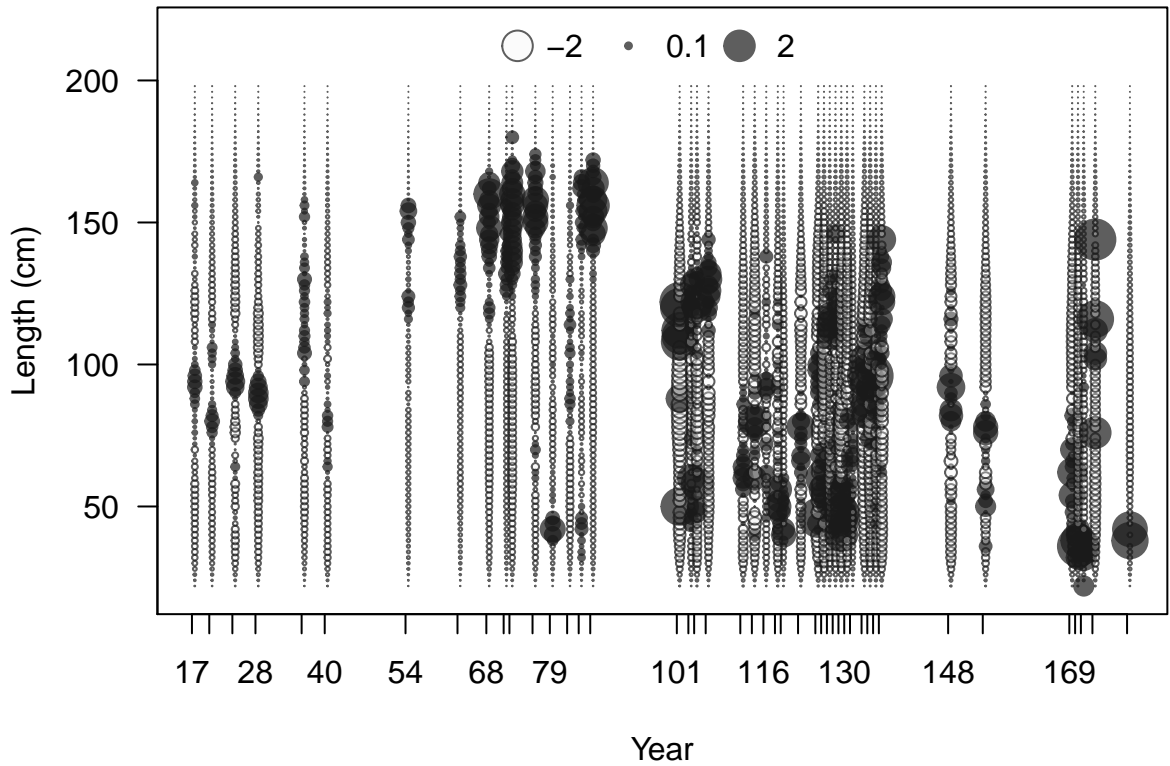


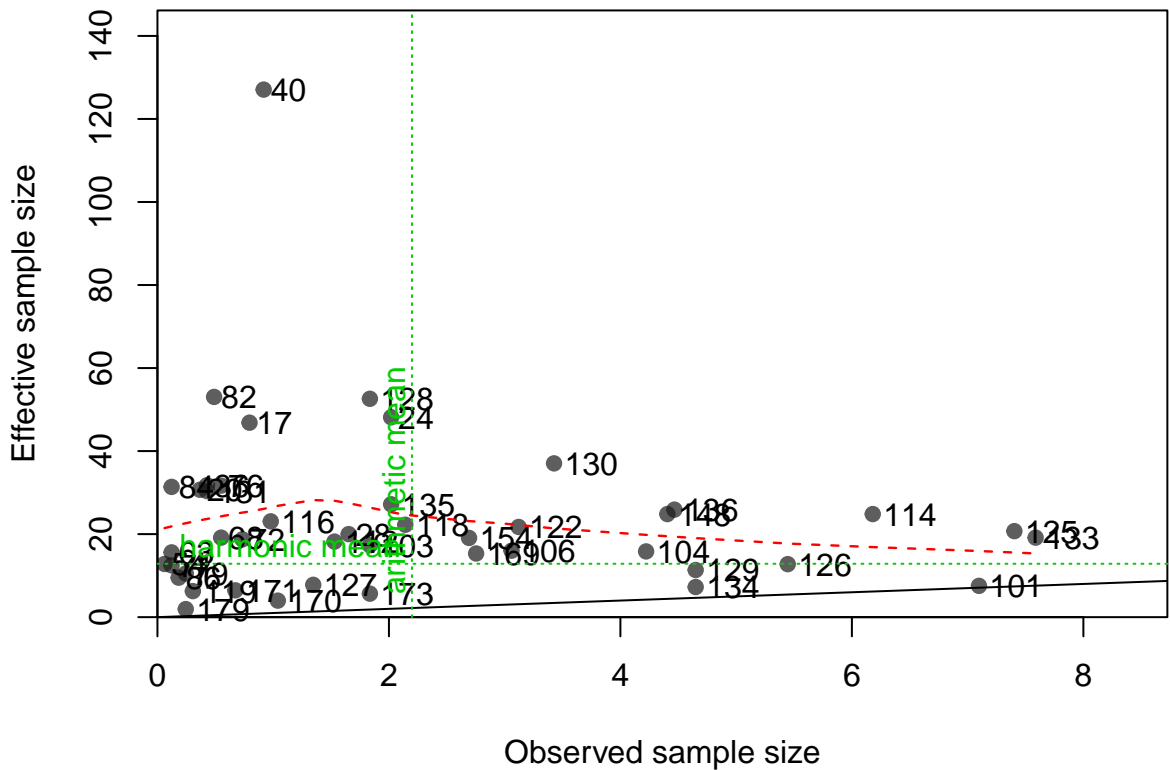
Proportion



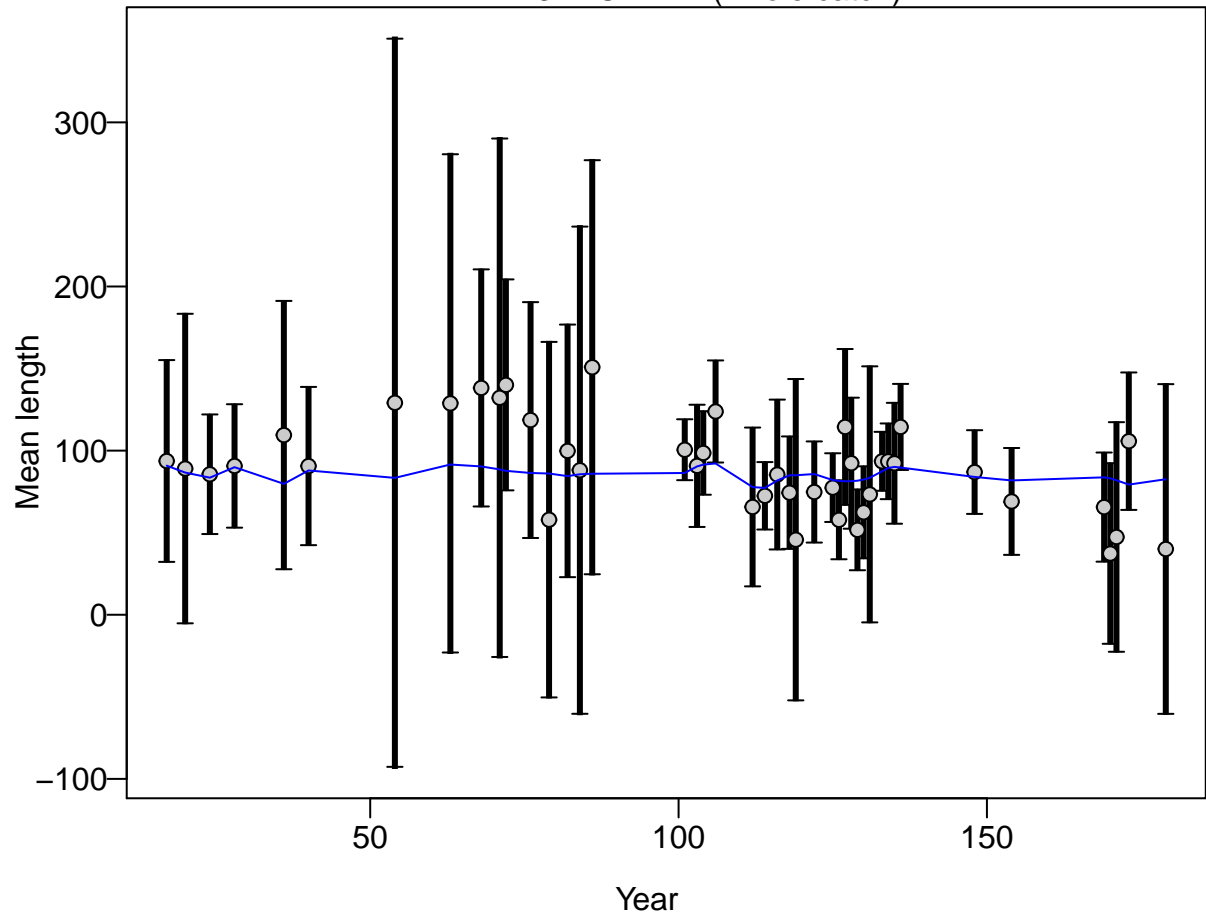
Proportion

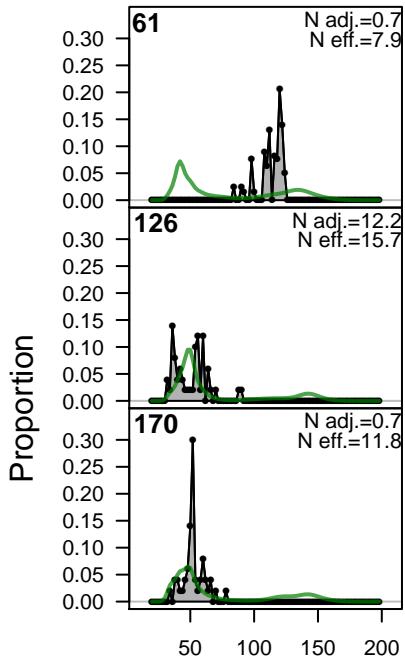




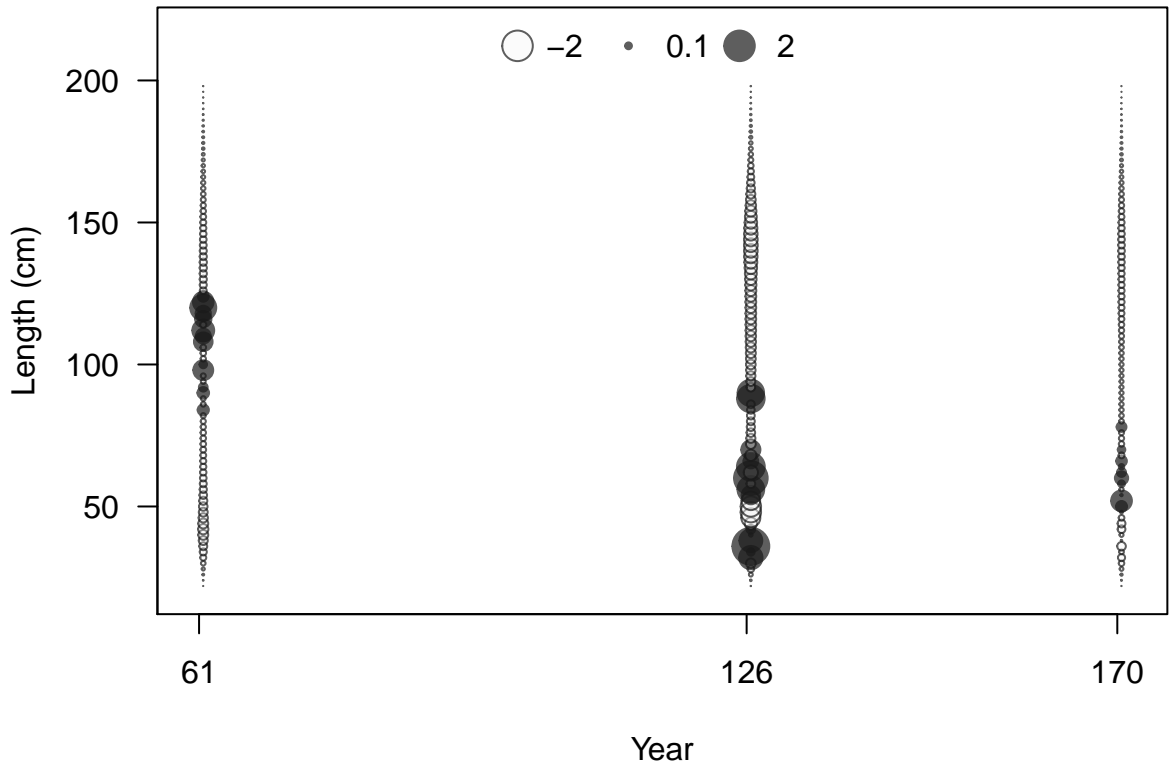


A3-NOADEL (whole catch)

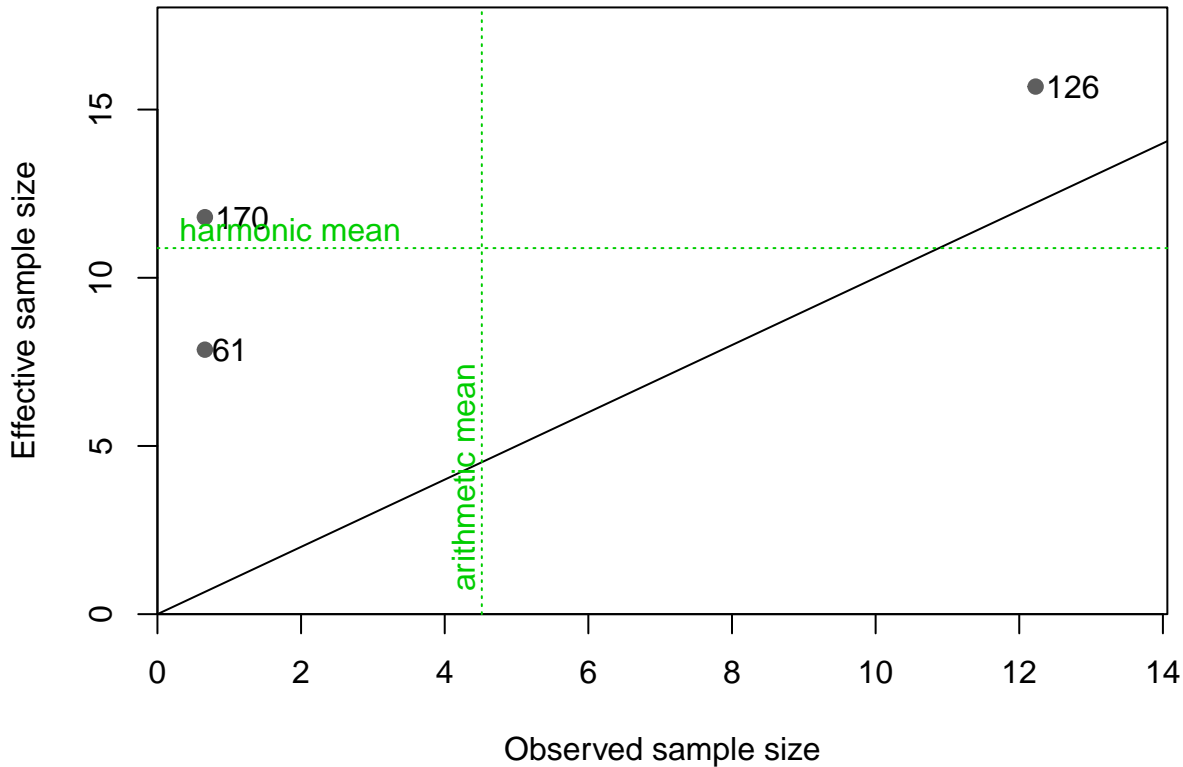




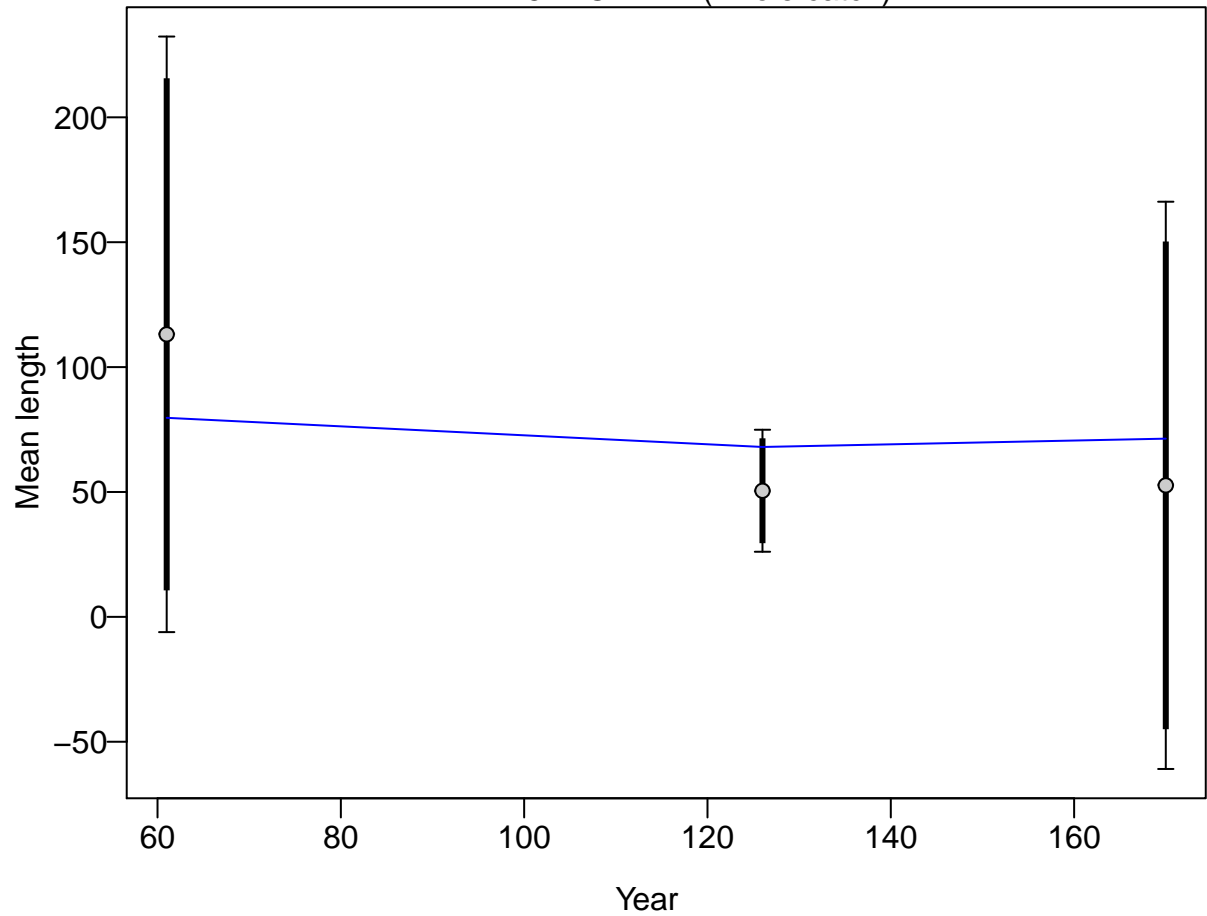
Length (cm)



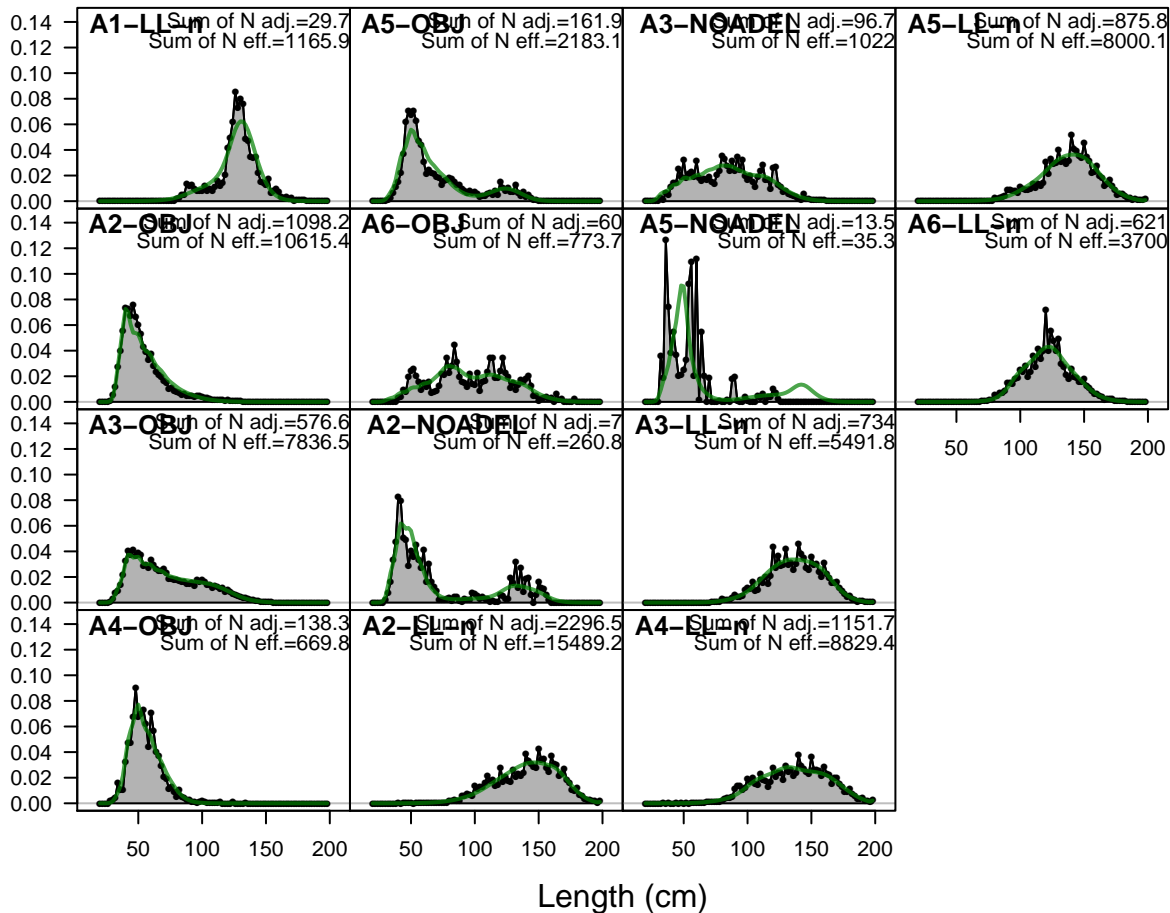


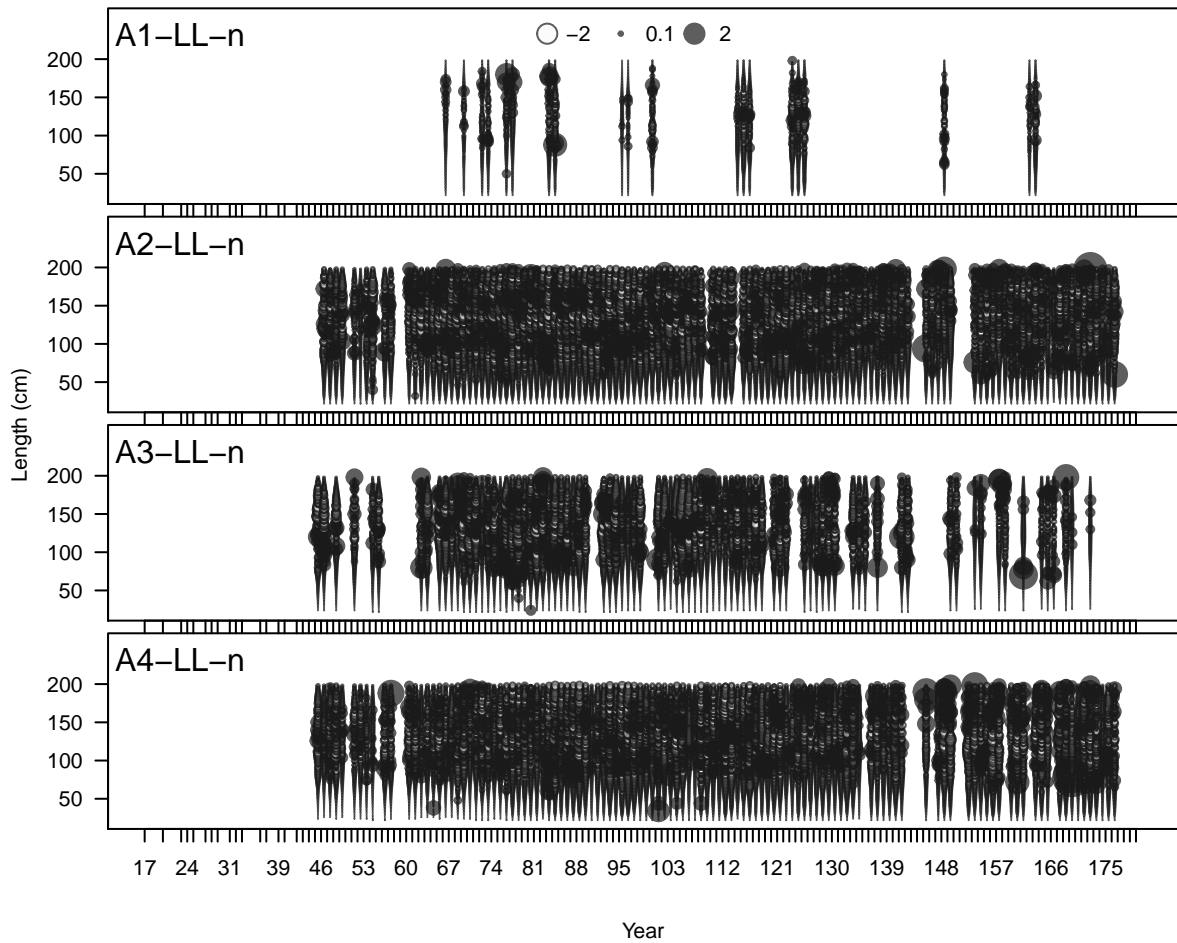


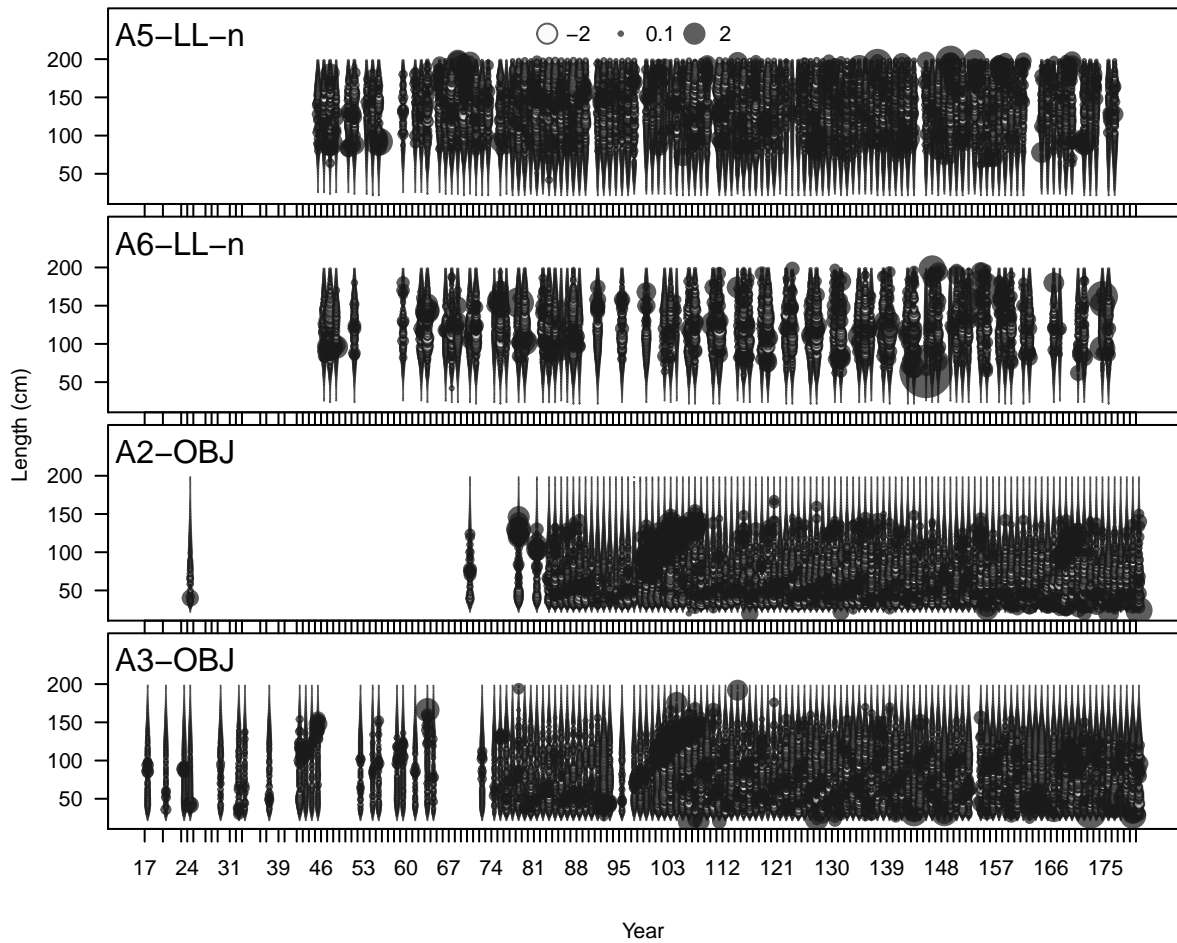
A5-NOADEL (whole catch)

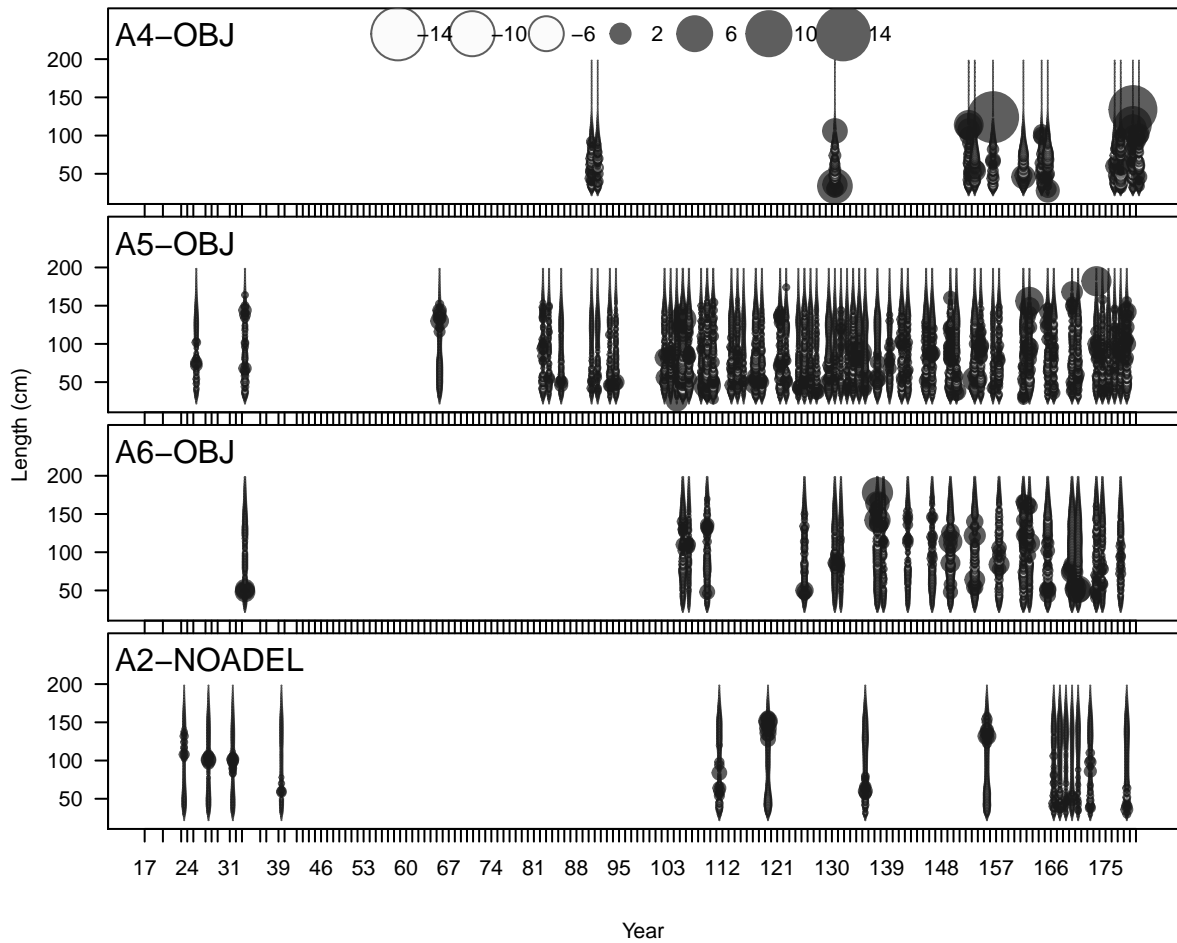


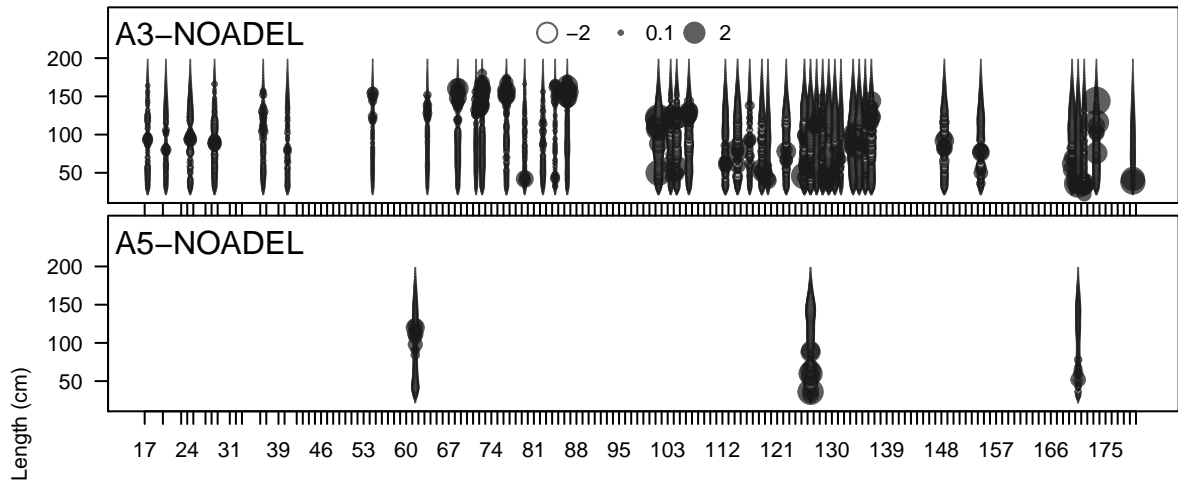
Proportion





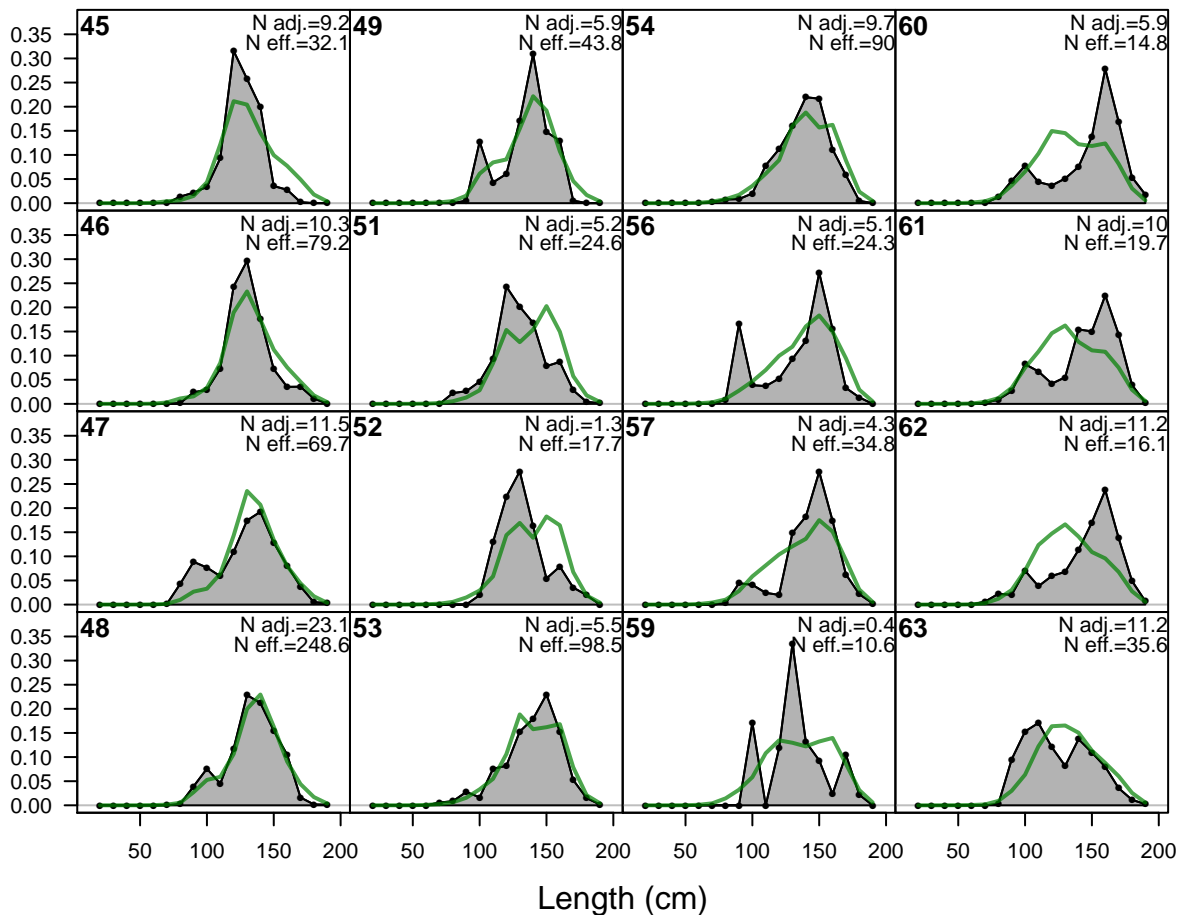






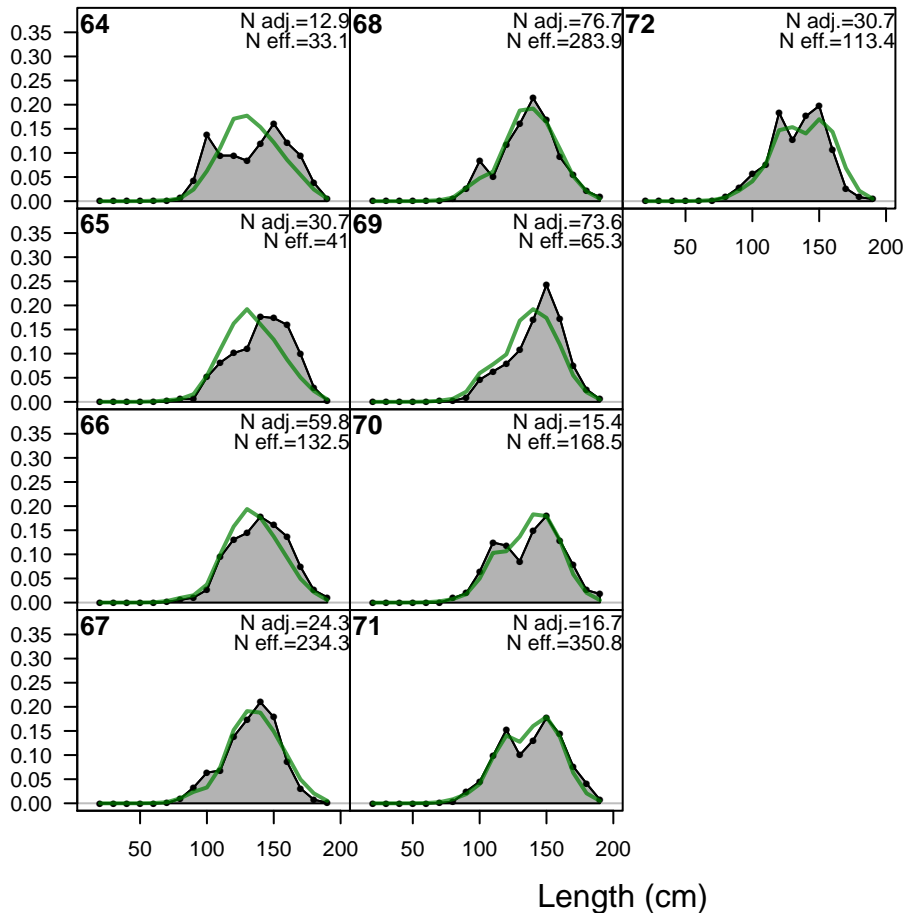
Year

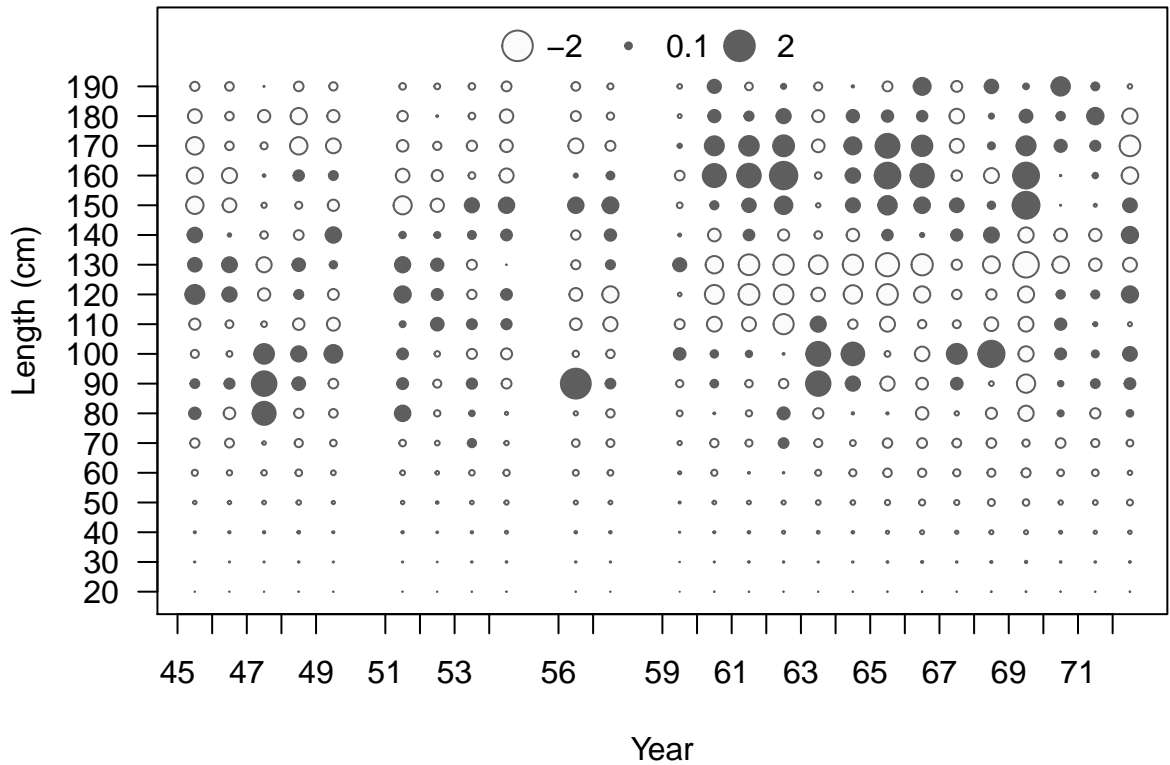
Proportion

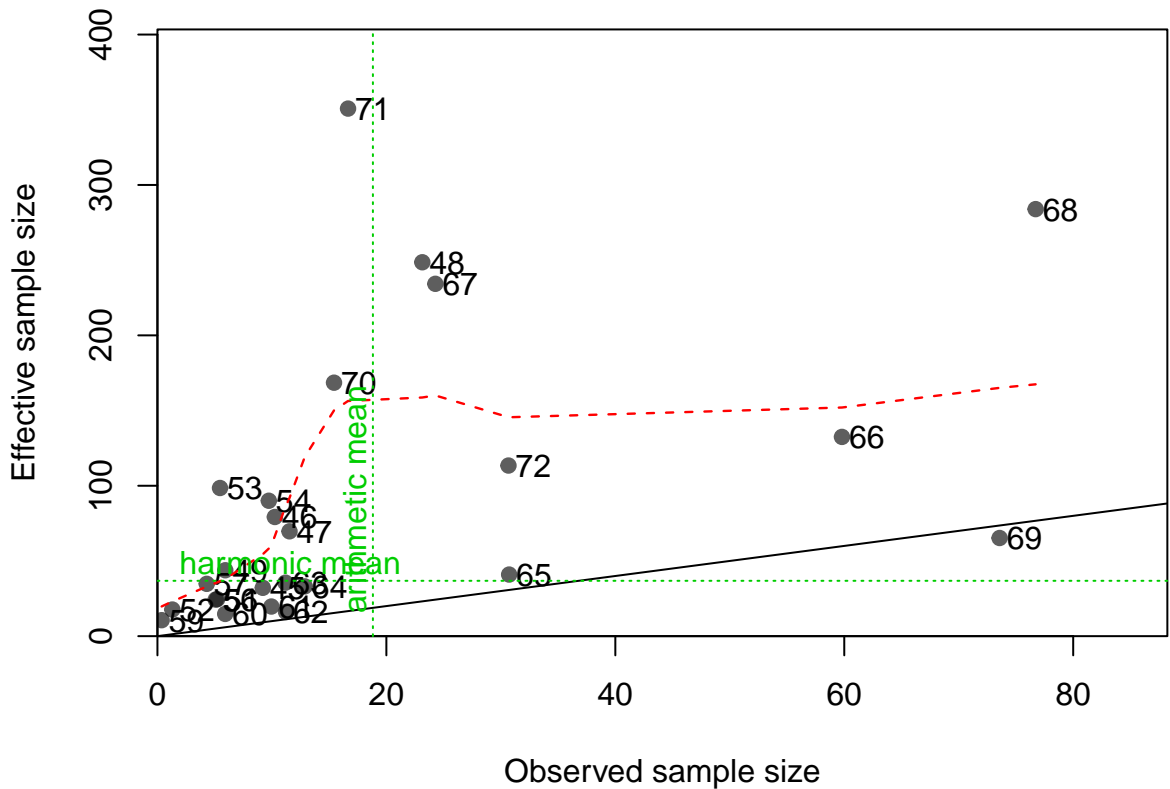




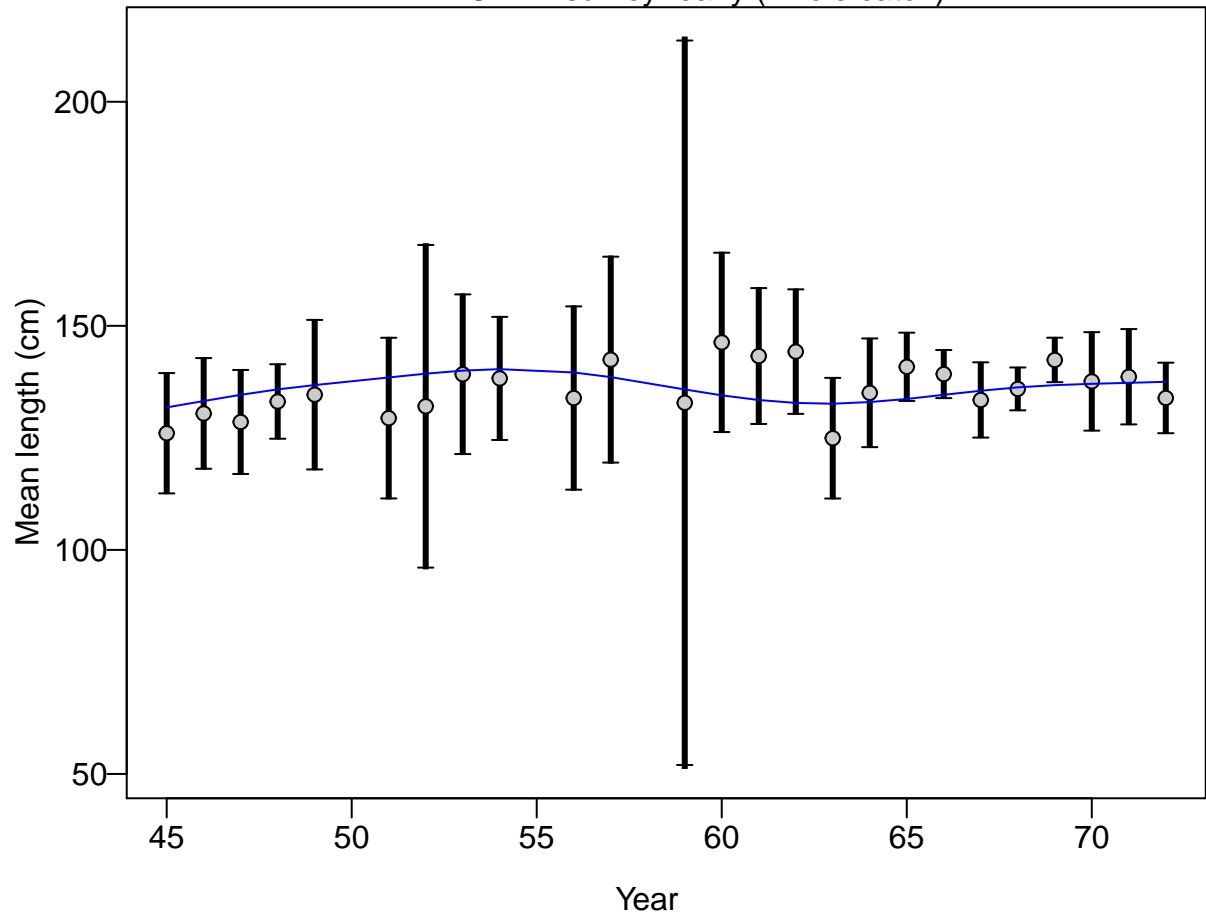
Proportion



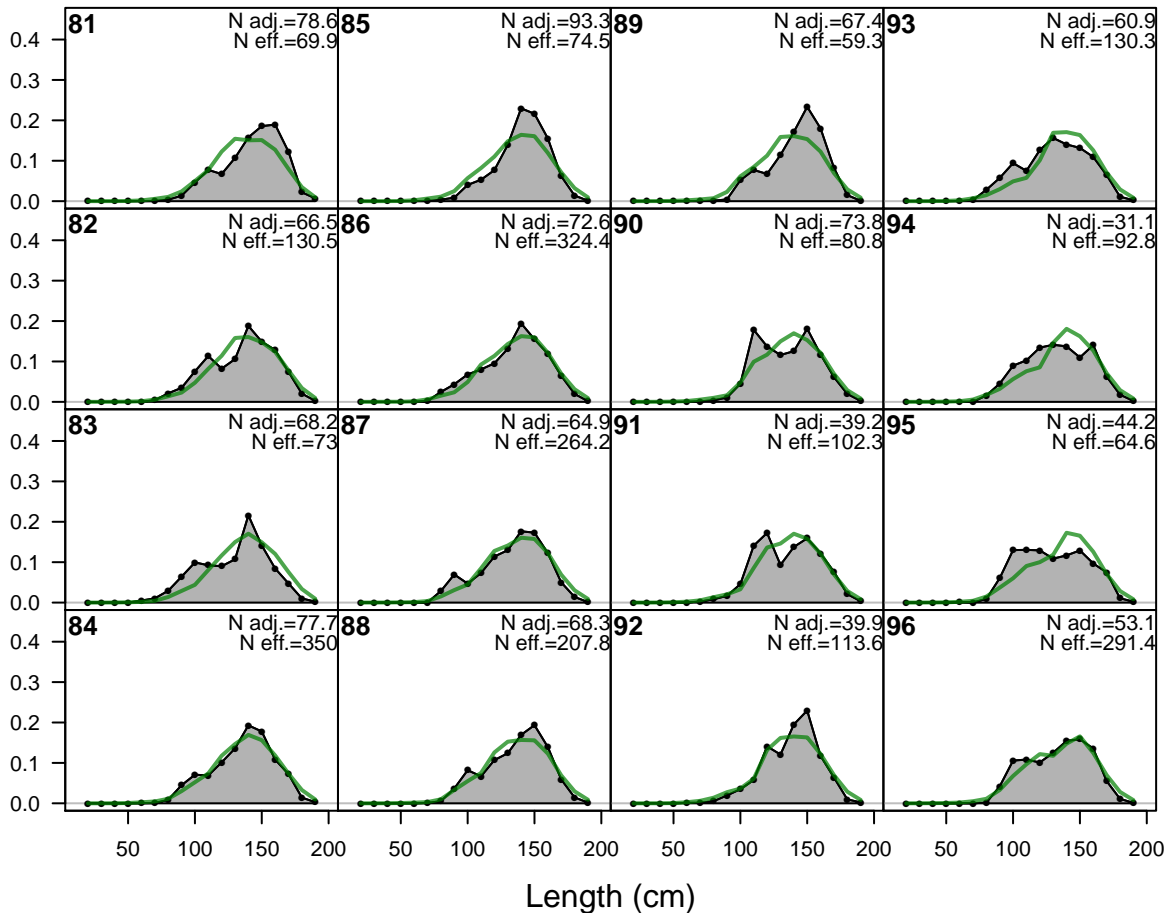




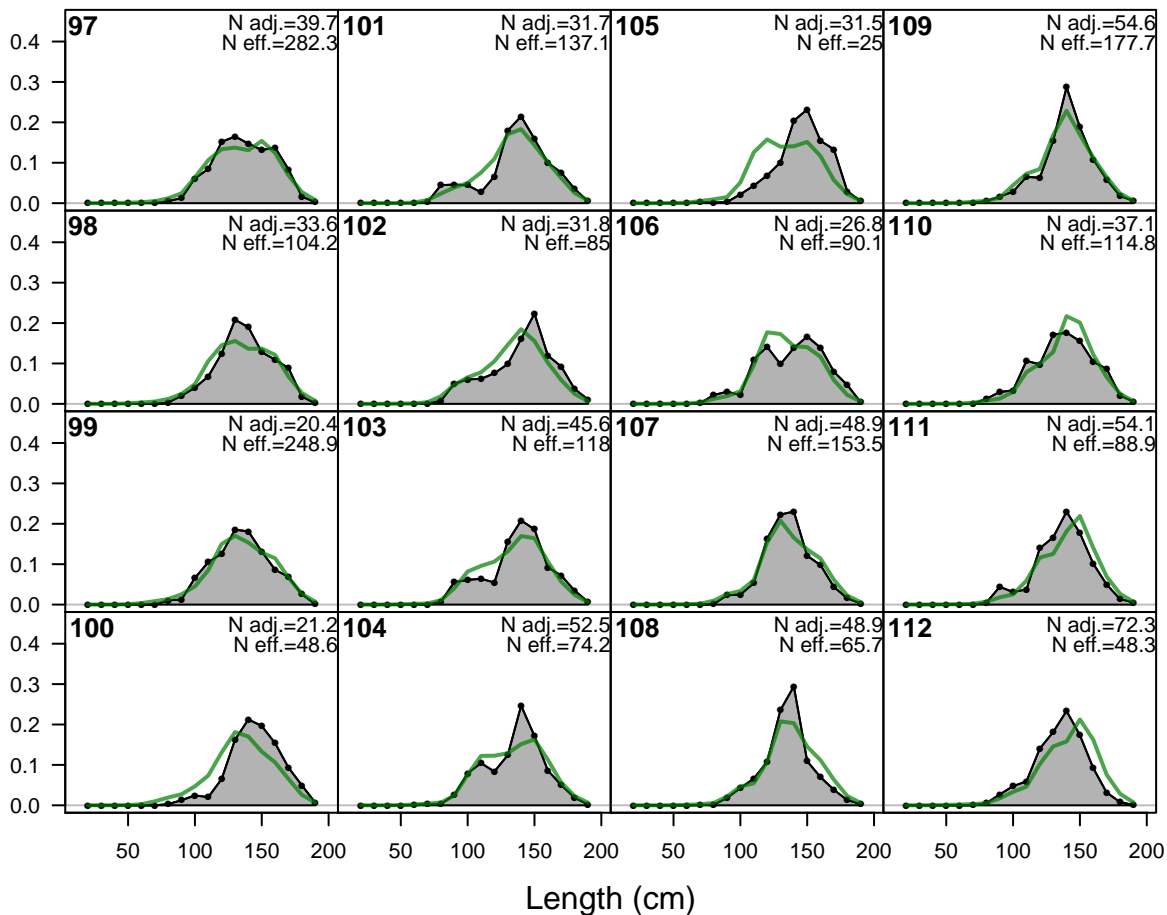
EPO-LL-survey-early (whole catch)



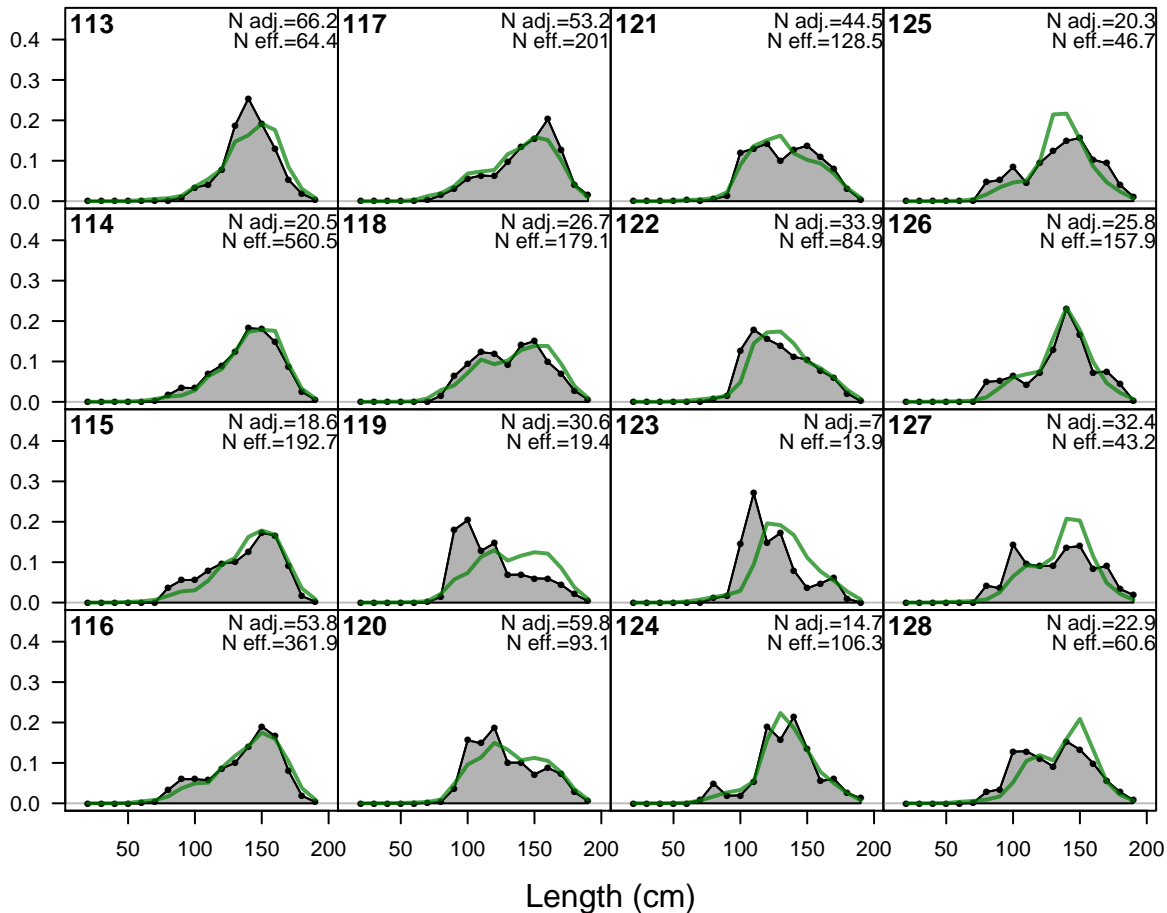
Proportion



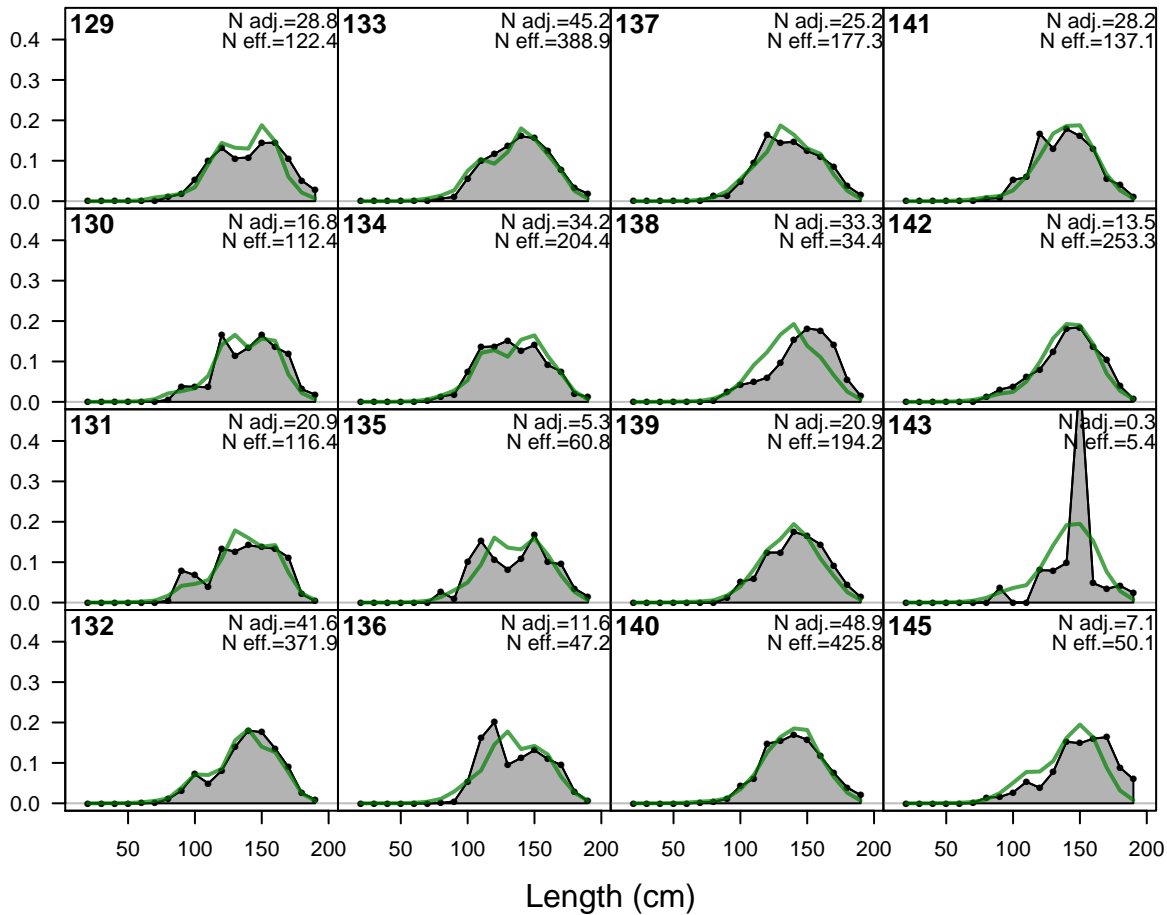
Proportion



Proportion

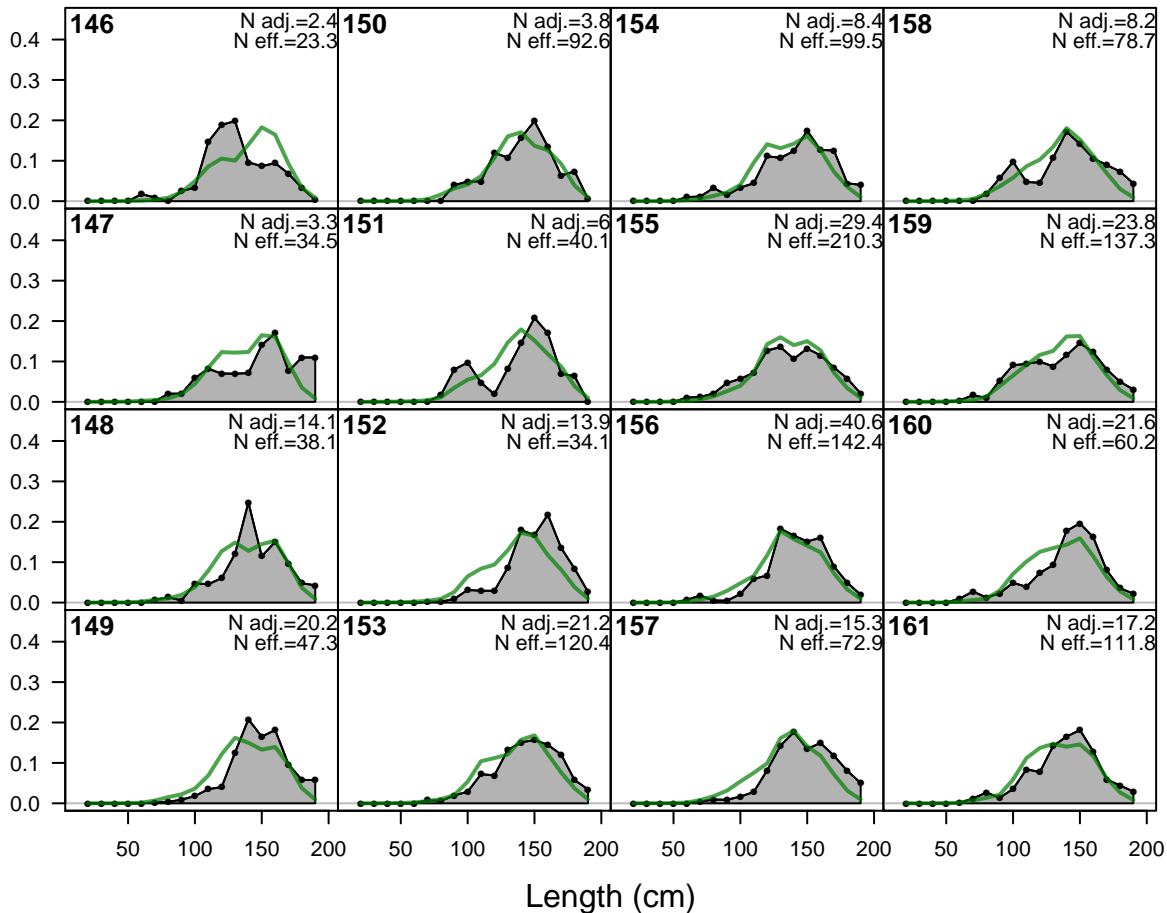


Proportion

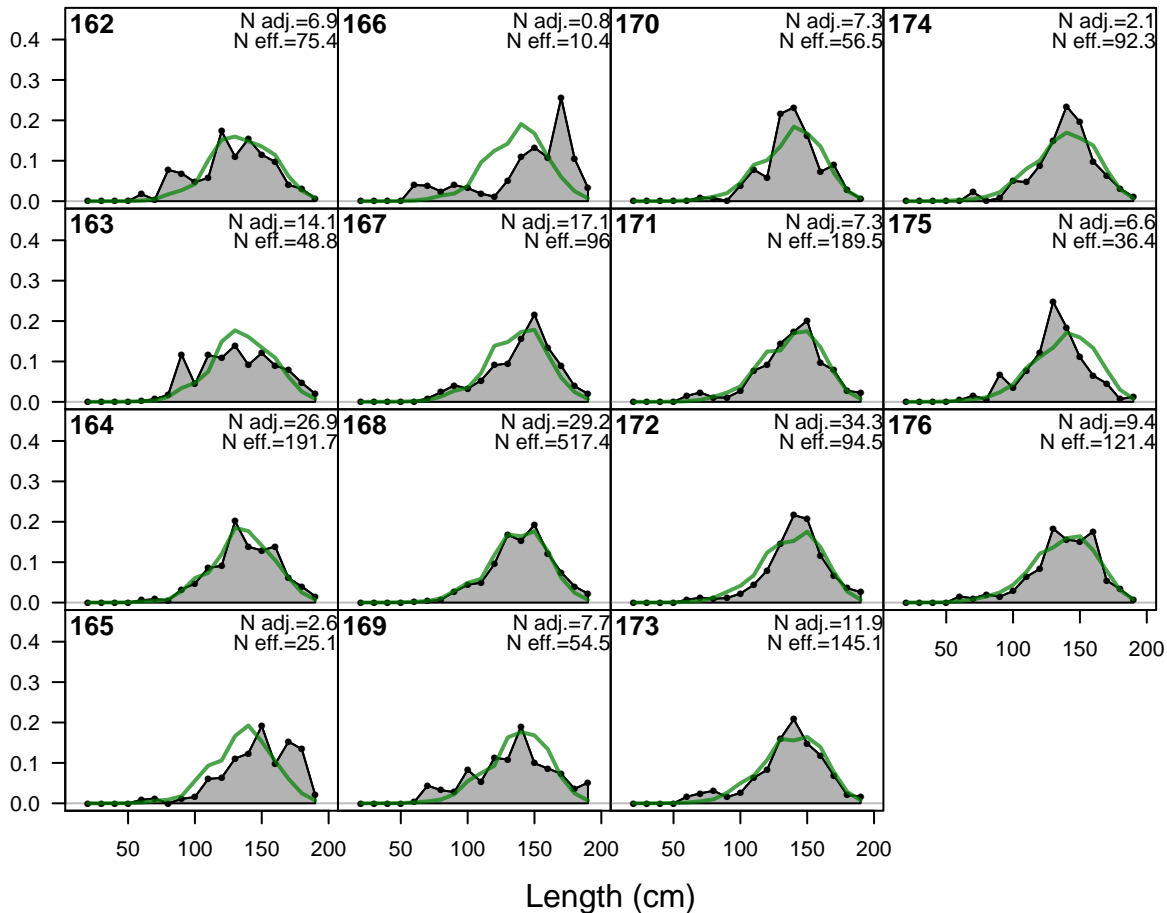


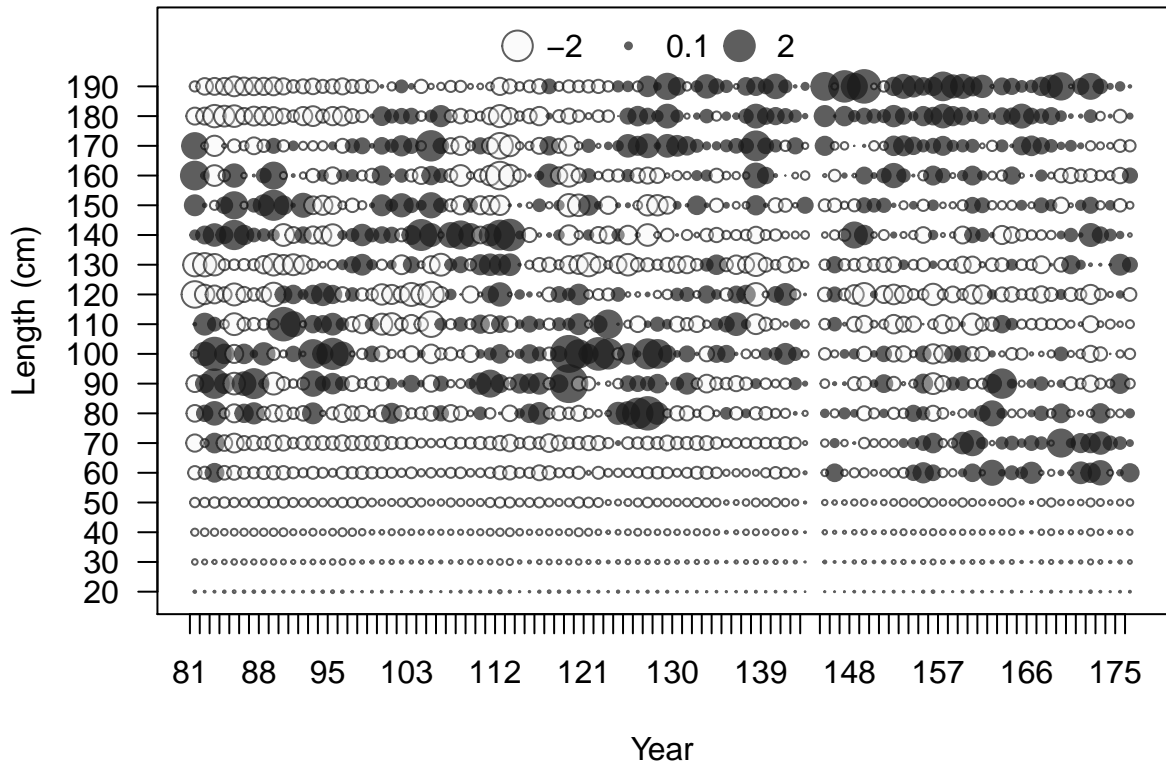


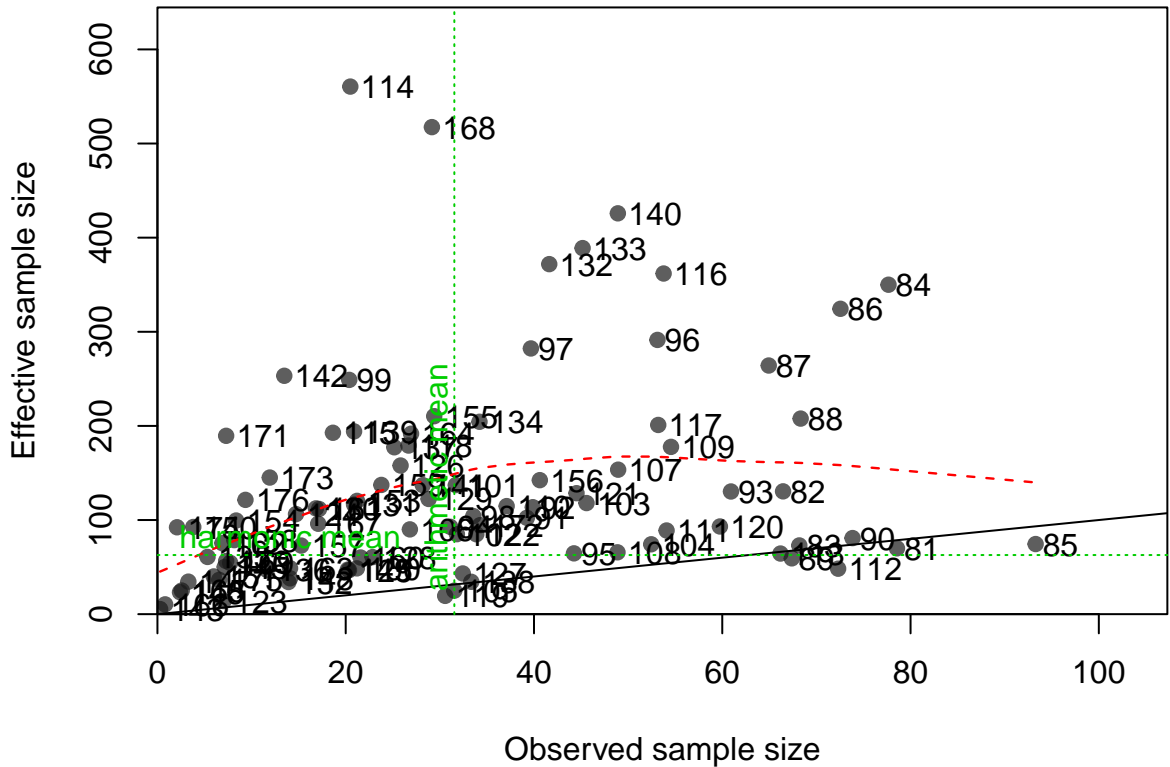
Proportion



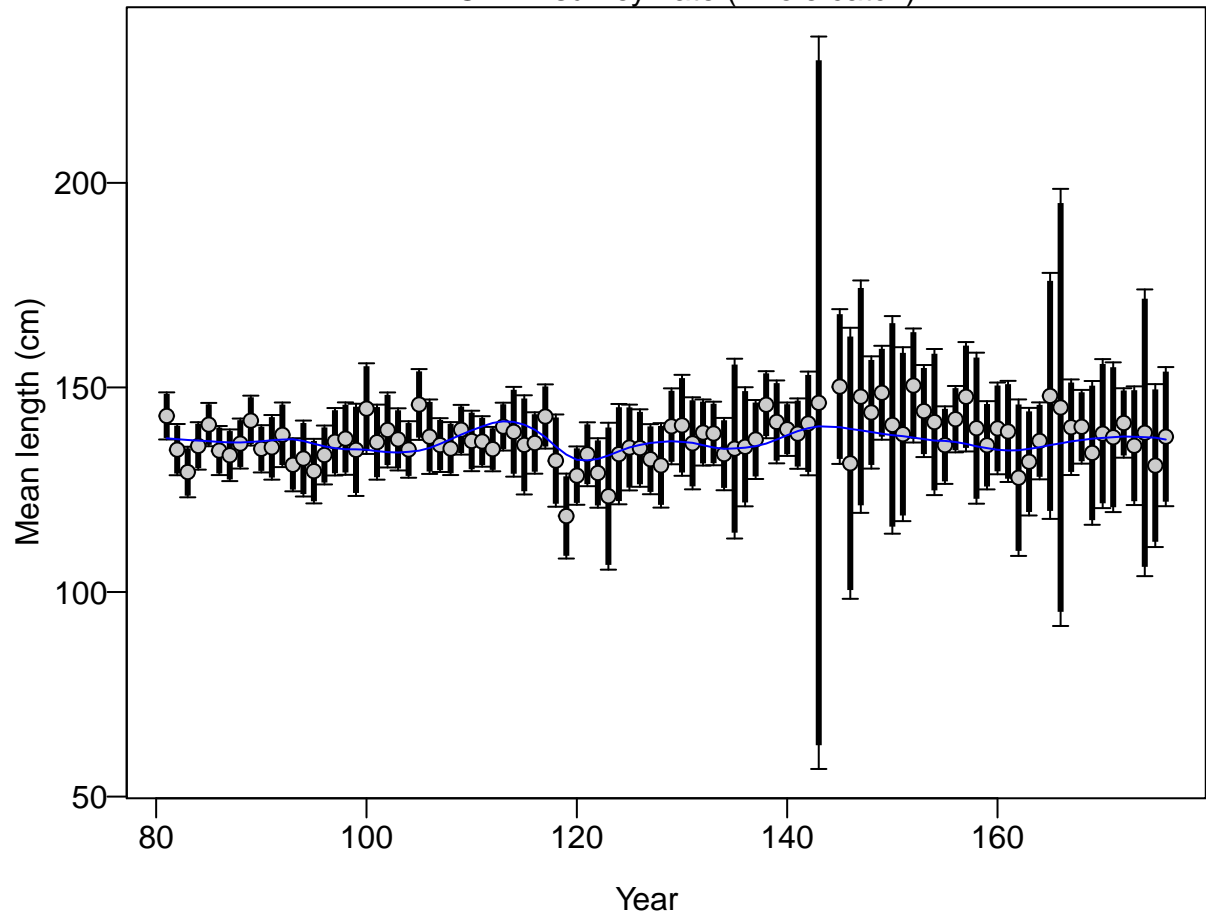
Proportion



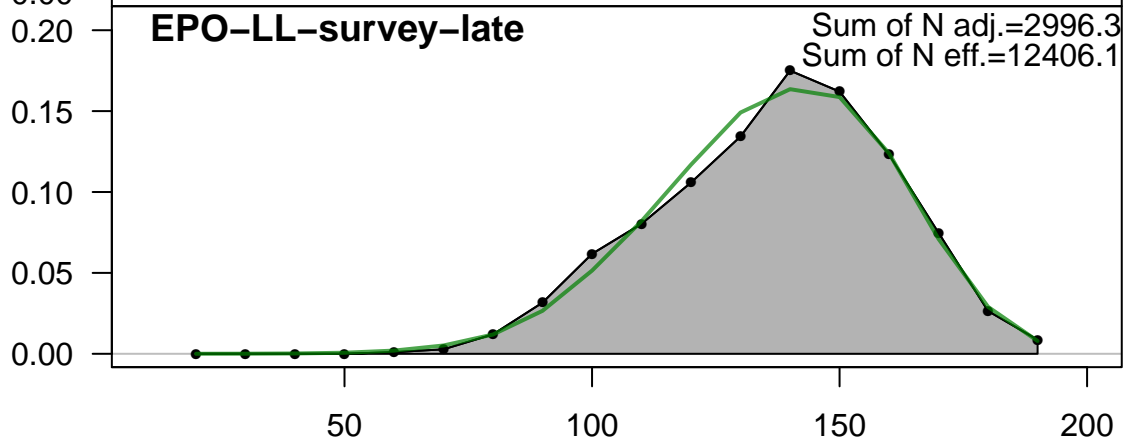
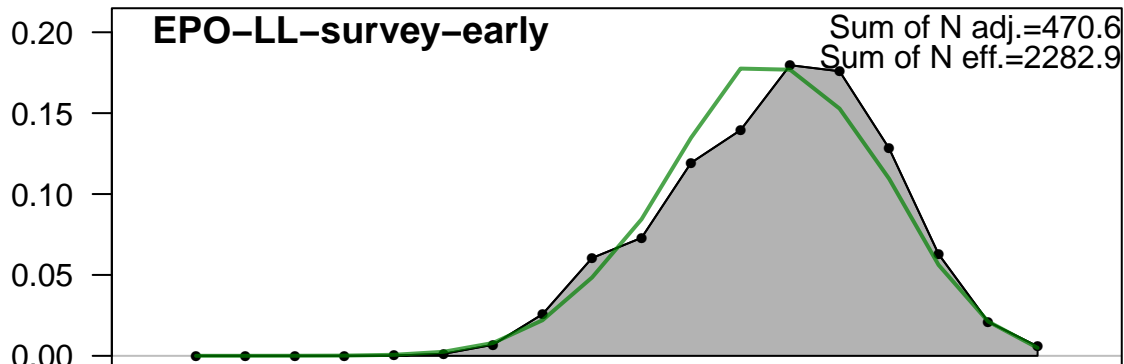




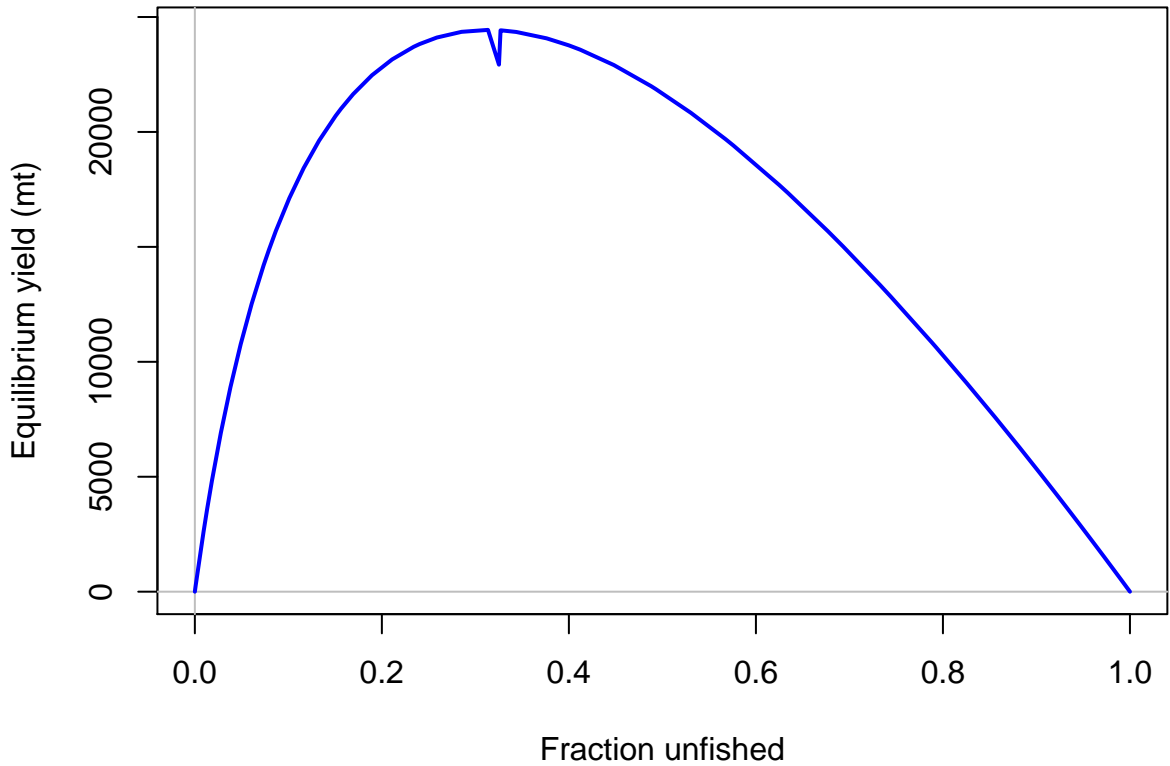
EPO-LL-survey-late (whole catch)

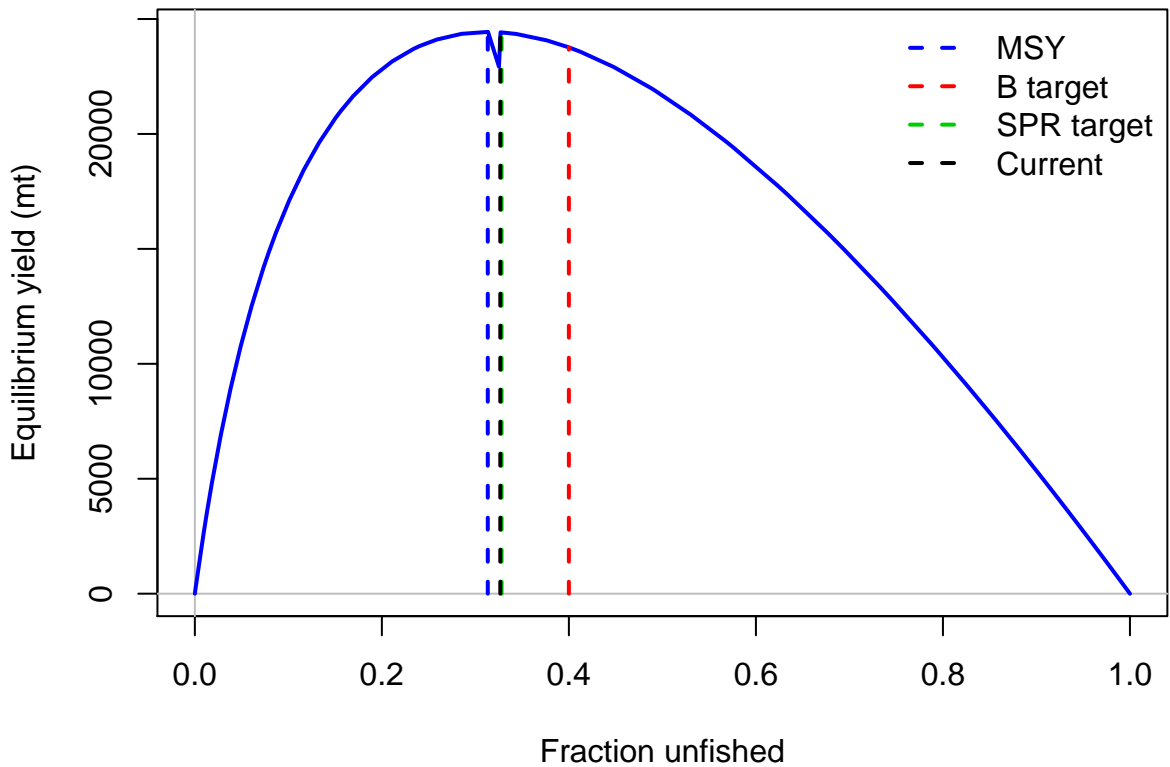


Proportion

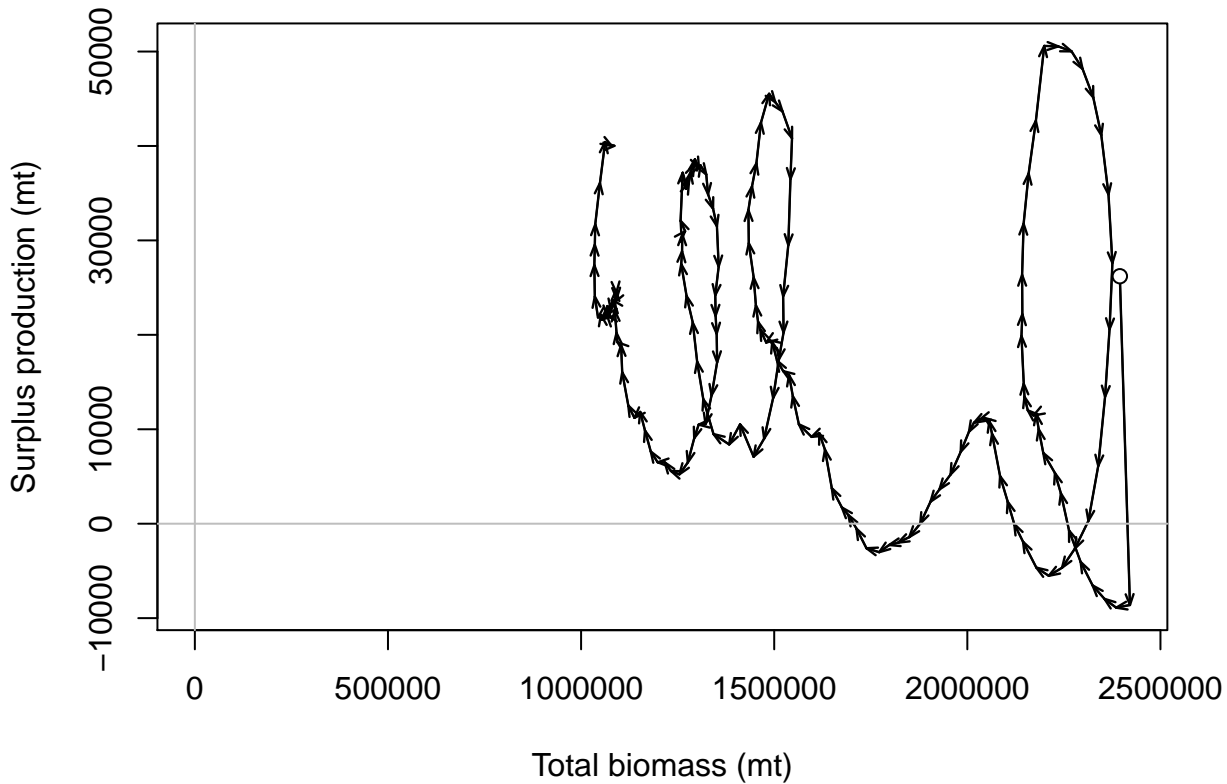


Length (cm)

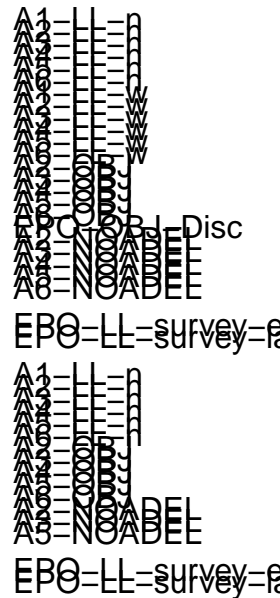
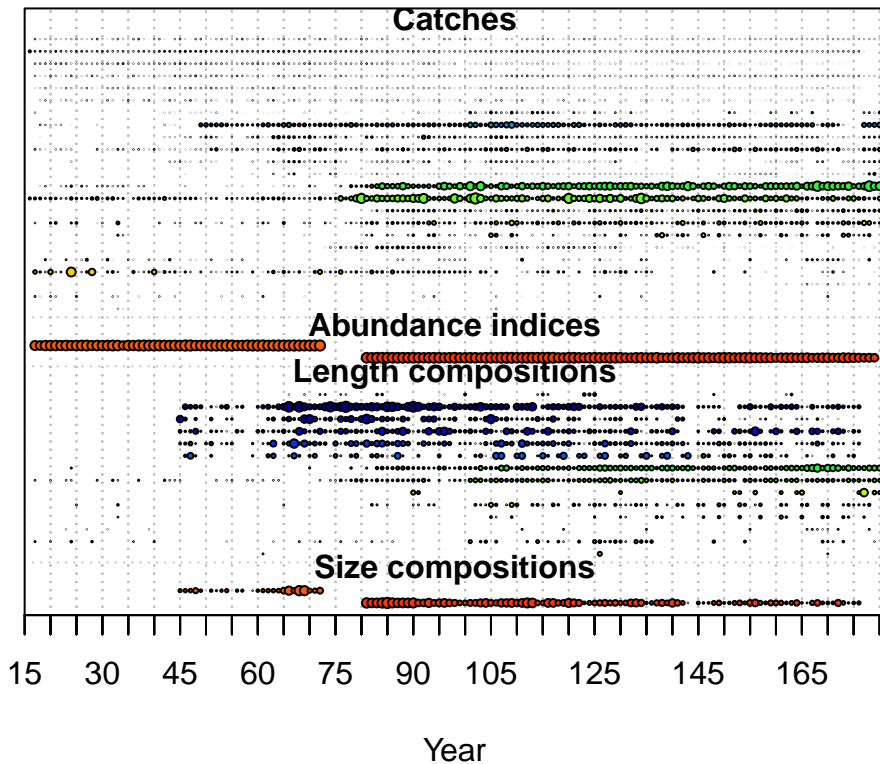




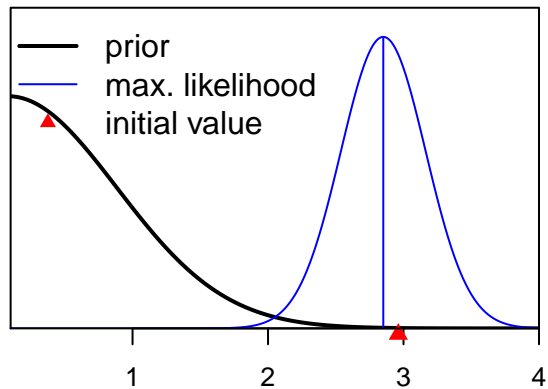




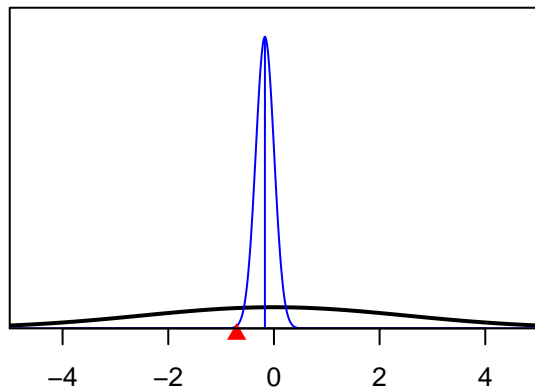




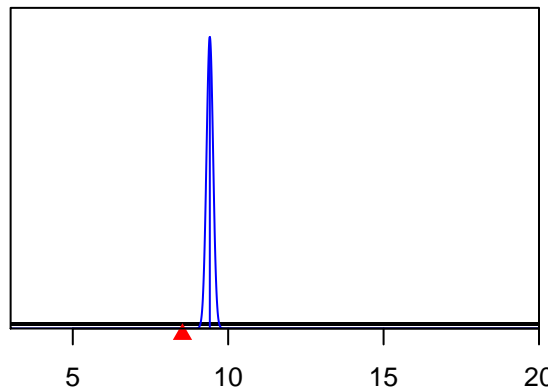
SD\_young\_Fem\_GP\_1



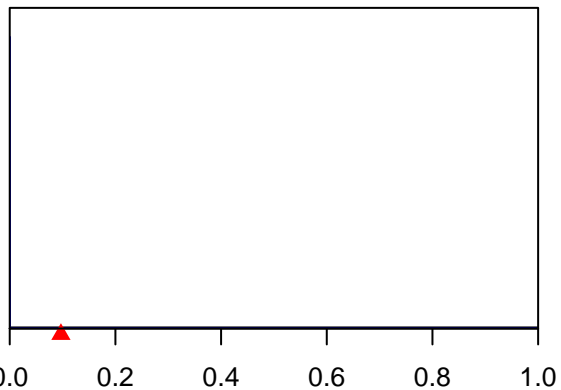
SR\_regime\_BLK1add\_16



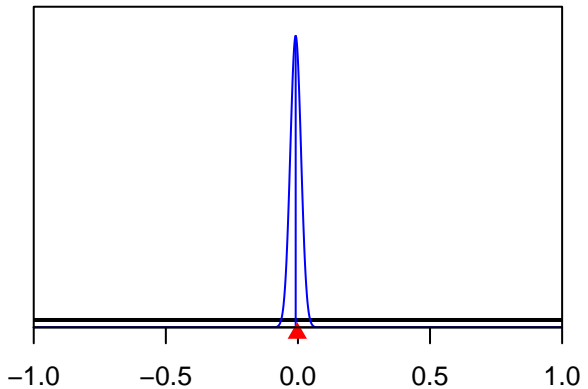
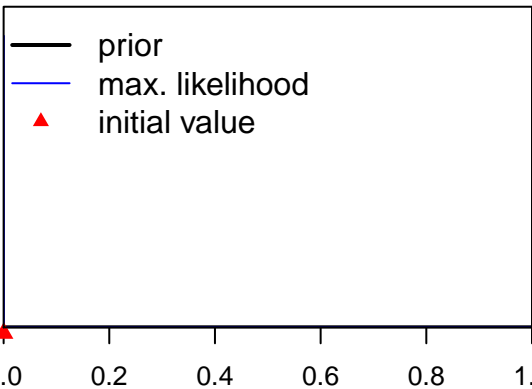
SR\_LN(R0)



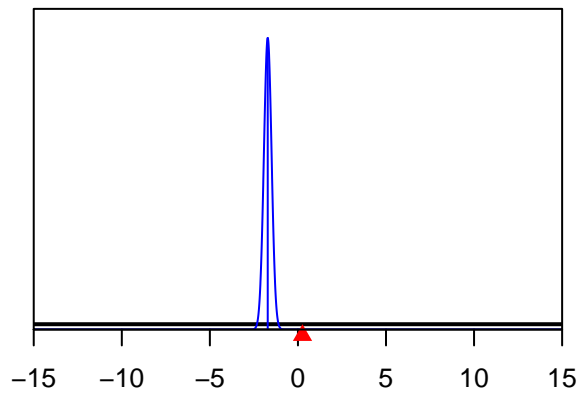
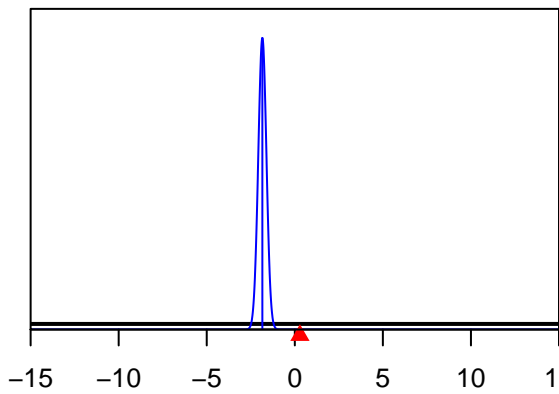
InitF\_seas\_1flt\_2A2-LL-n



Parameter value

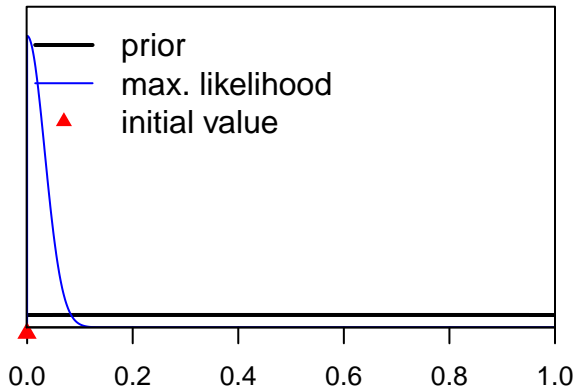
**InitF\_seas\_1\_flt\_14A3-OBJ****Q\_extraSD\_EPO-LL-survey-early(24)**

Density

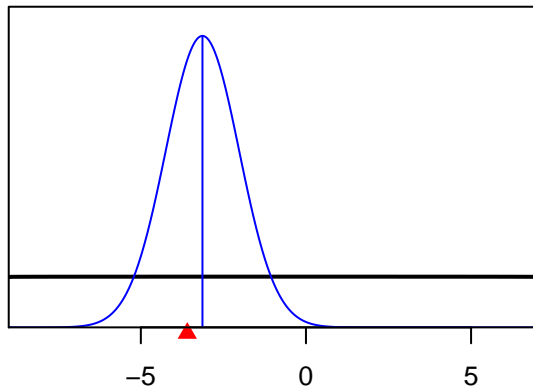
**LnQ\_base\_EPO-LL-survey-early(24)****LnQ\_base\_EPO-LL-survey-late(25)**

Parameter value

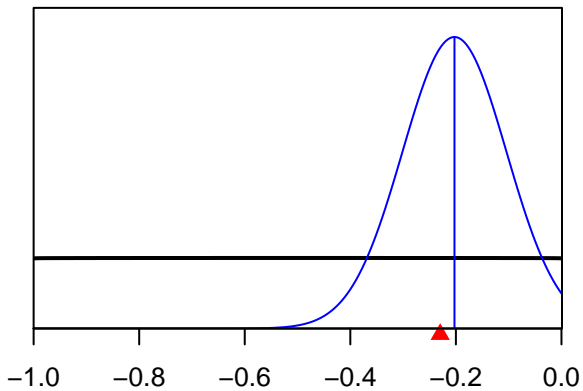
SizeSpline\_GradLo\_A1-LL-n(1)



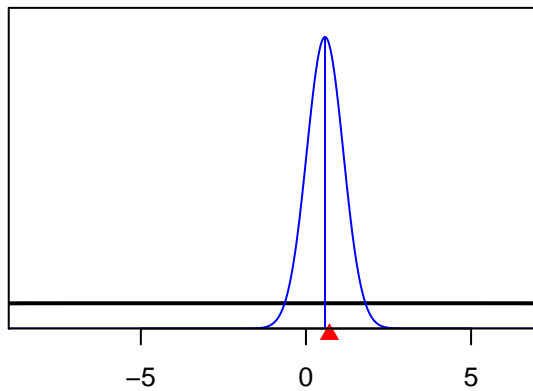
SizeSpline\_Val\_2\_A1-LL-n(1)



SizeSpline\_GradHi\_A1-LL-n(1)

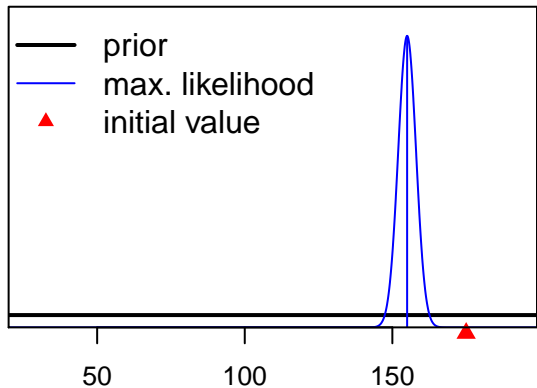


SizeSpline\_Val\_4\_A1-LL-n(1)

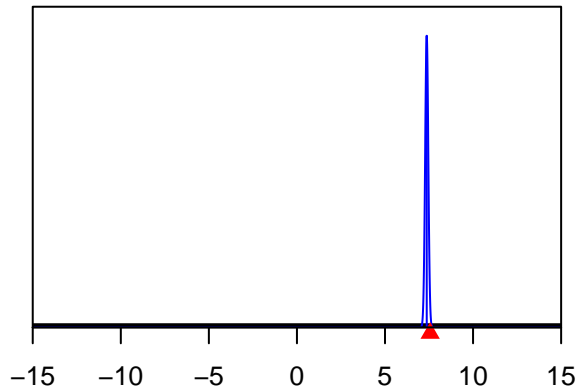


Parameter value

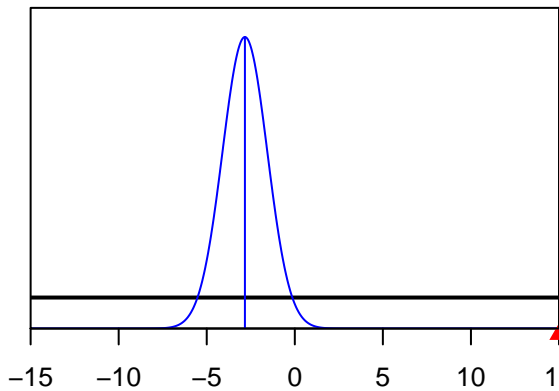
Size\_DbIN\_peak\_A2-LL-n(2)



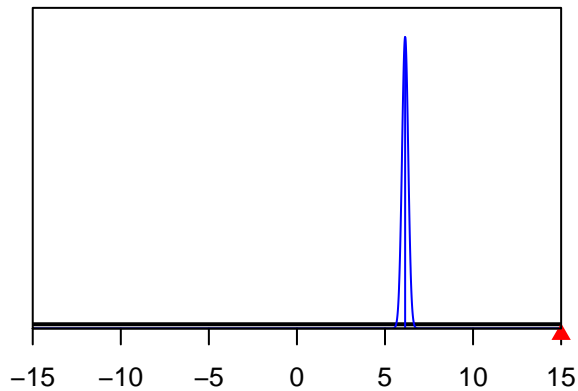
Size\_DbIN\_ascend\_se\_A2-LL-n(2)



Size\_DbIN\_top\_logit\_A2-LL-n(2)

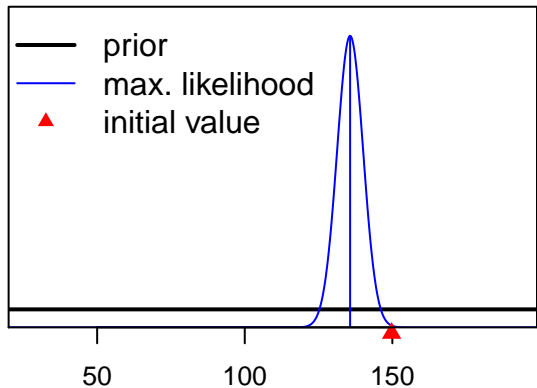


Size\_DbIN\_descend\_se\_A2-LL-n(2)

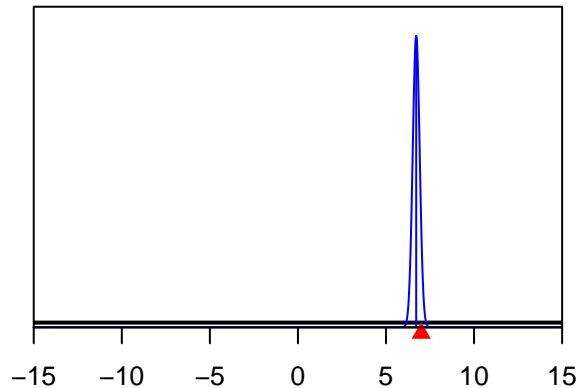


Parameter value

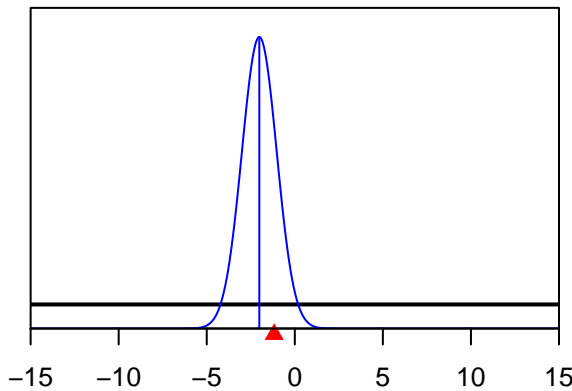
Size\_DbIN\_peak\_A3-LL-n(3)



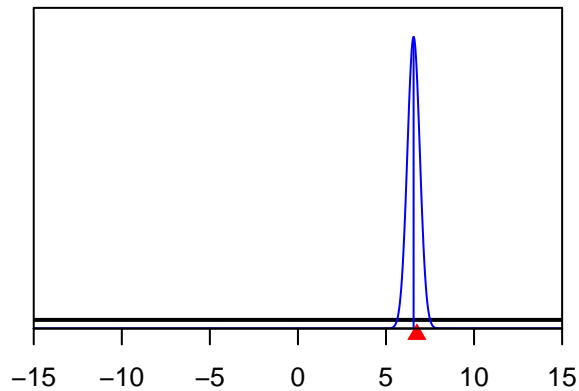
Size\_DbIN\_ascend\_se\_A3-LL-n(3)



Size\_DbIN\_top\_logit\_A3-LL-n(3)



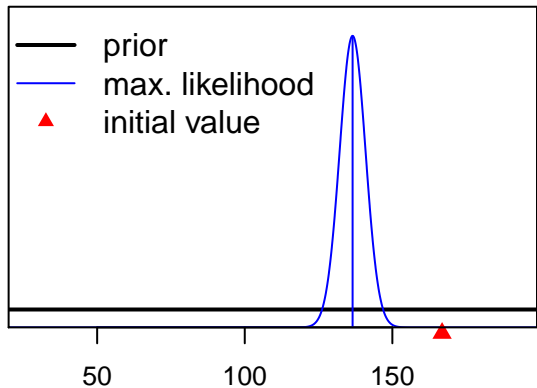
Size\_DbIN\_descend\_se\_A3-LL-n(3)



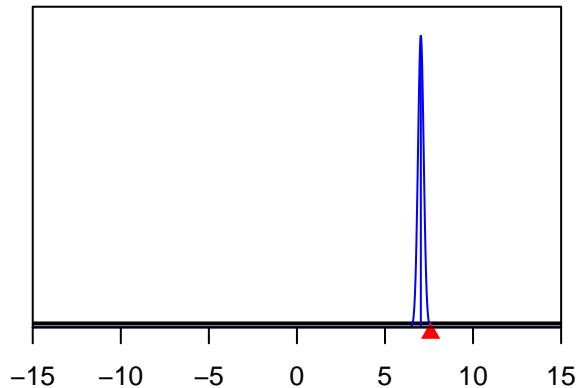
Parameter value



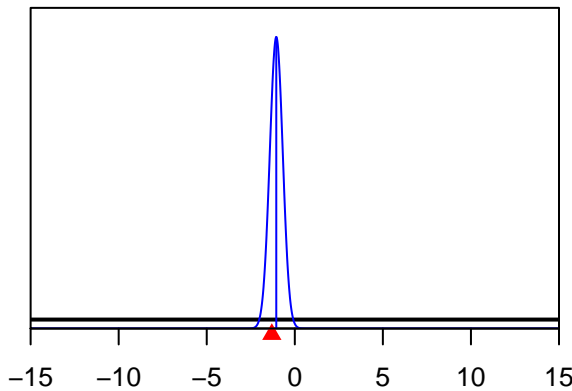
Size\_DbIN\_peak\_A4-LL-n(4)



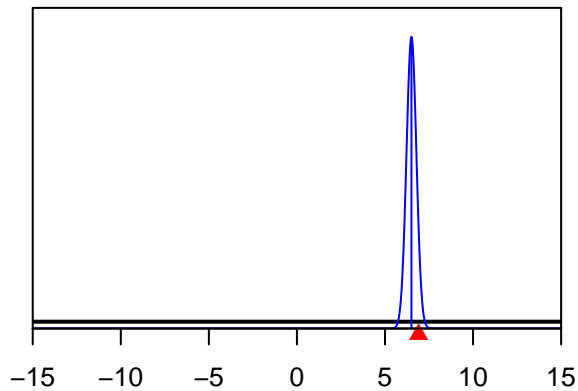
Size\_DbIN\_ascend\_se\_A4-LL-n(4)



Size\_DbIN\_top\_logit\_A4-LL-n(4)



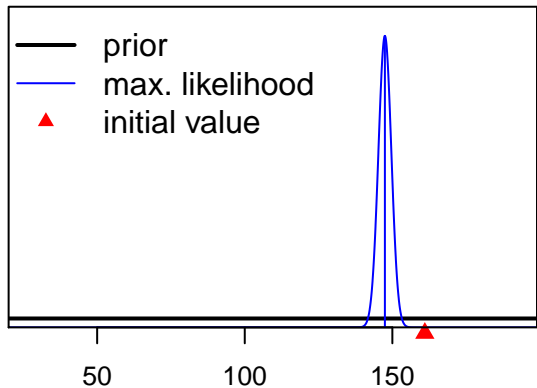
Size\_DbIN\_descend\_se\_A4-LL-n(4)



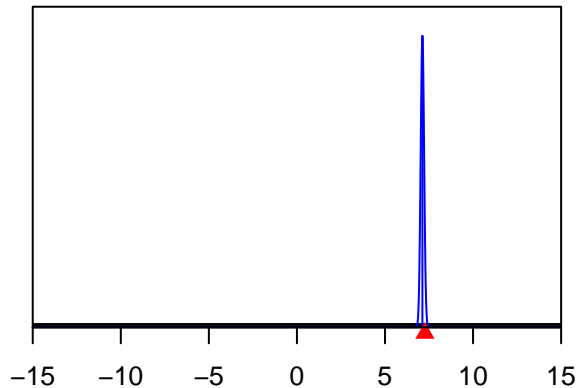
Parameter value

Density

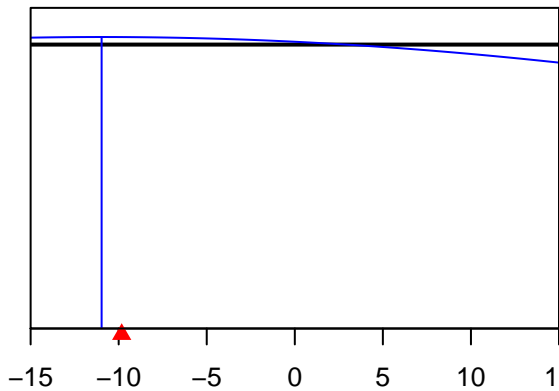
Size\_DbIN\_peak\_A5-LL-n(5)



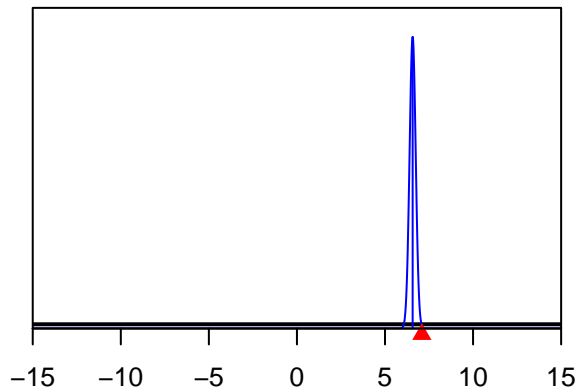
Size\_DbIN\_ascend\_se\_A5-LL-n(5)



Size\_DbIN\_top\_logit\_A5-LL-n(5)

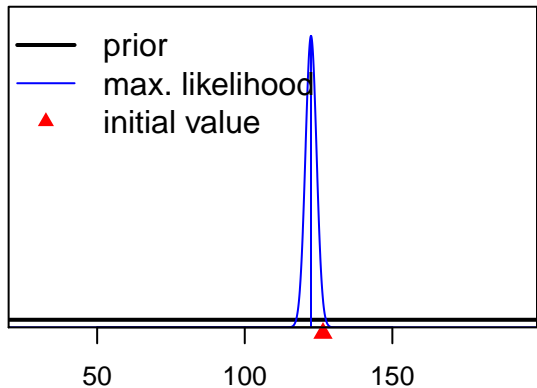


Size\_DbIN\_descend\_se\_A5-LL-n(5)

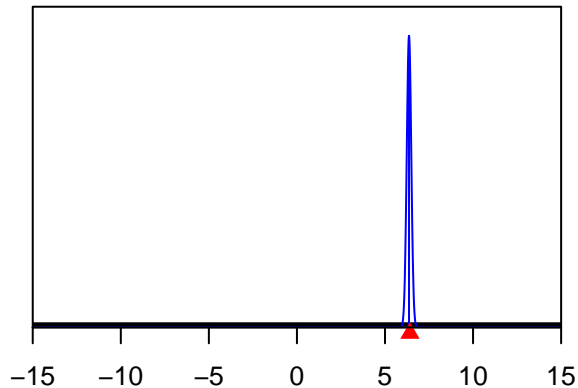


Parameter value

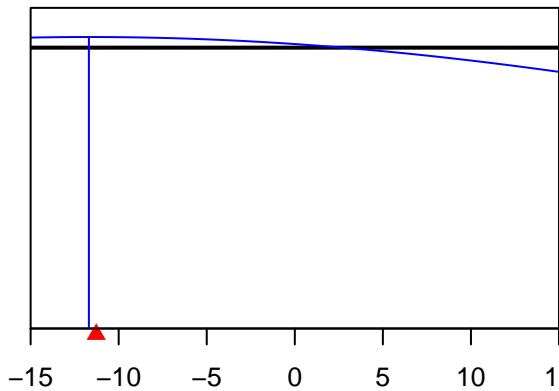
Size\_DbIN\_peak\_A6-LL-n(6)



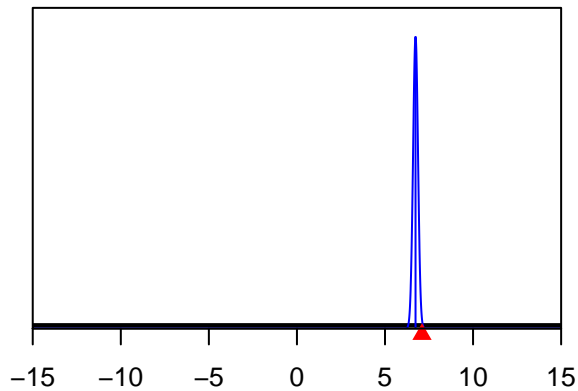
Size\_DbIN\_ascend\_se\_A6-LL-n(6)



Size\_DbIN\_top\_logit\_A6-LL-n(6)

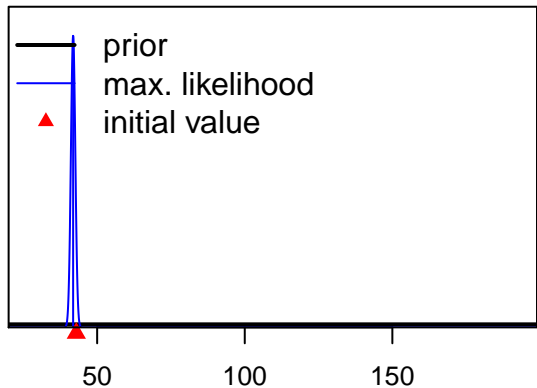


Size\_DbIN\_descend\_se\_A6-LL-n(6)

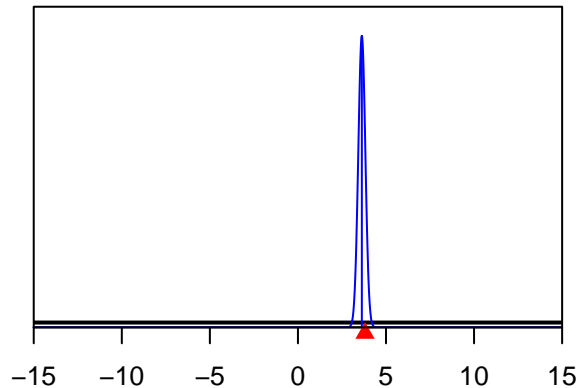


Parameter value

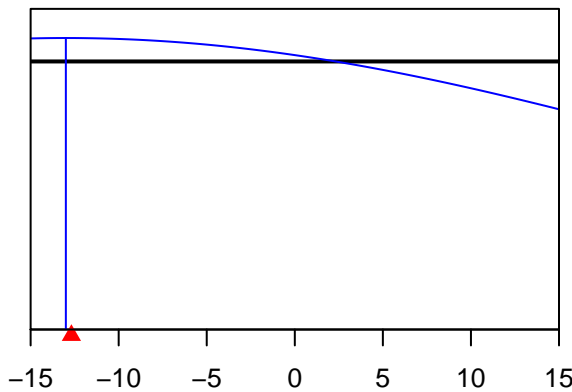
Size\_DbIN\_peak\_A2-Obj(13)



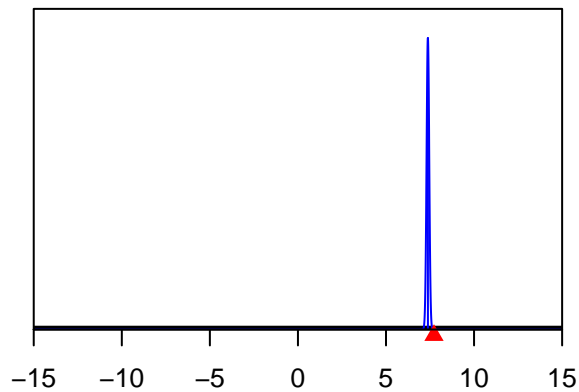
Size\_DbIN\_ascend\_se\_A2-Obj(13)



Size\_DbIN\_top\_logit\_A2-Obj(13)

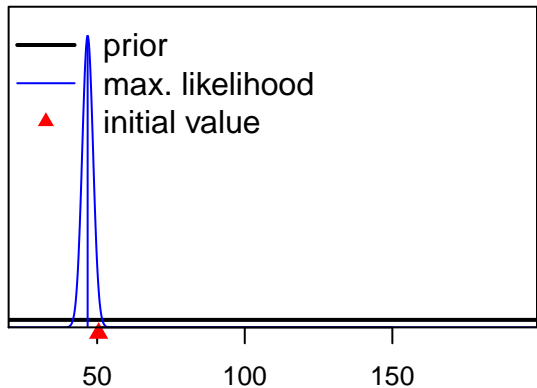


Size\_DbIN\_descend\_se\_A2-Obj(13)

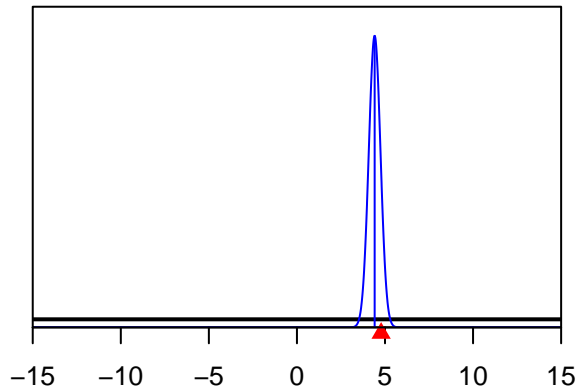


Parameter value

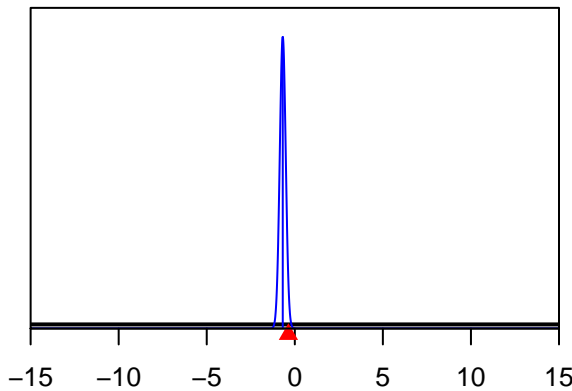
Size\_DbIN\_peak\_A3-OBJ(14)



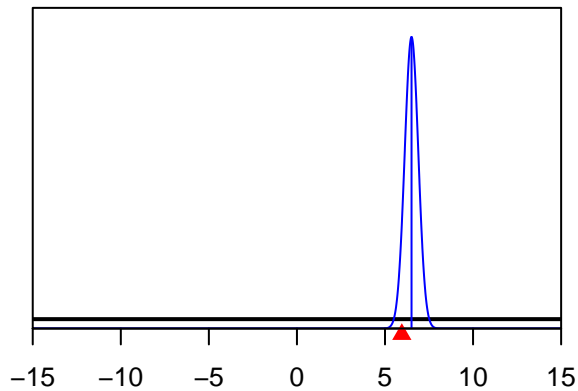
Size\_DbIN\_ascend\_se\_A3-OBJ(14)



Size\_DbIN\_top\_logit\_A3-OBJ(14)

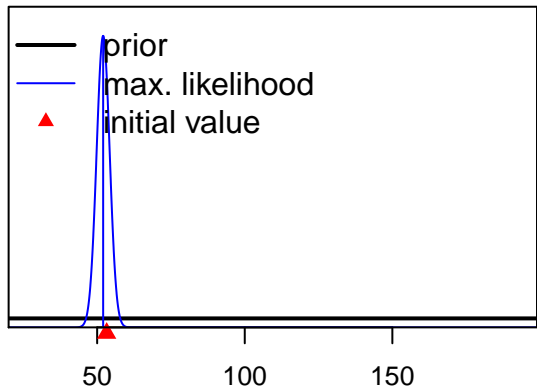


Size\_DbIN\_descend\_se\_A3-OBJ(14)

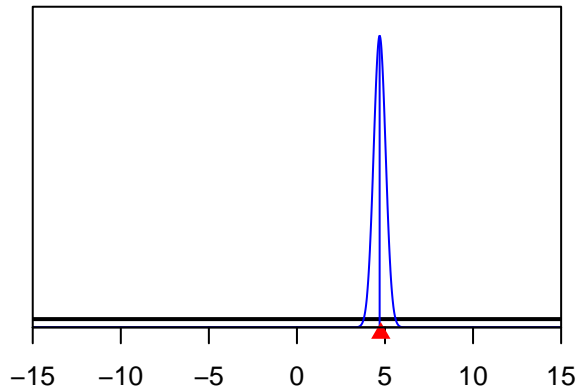


Parameter value

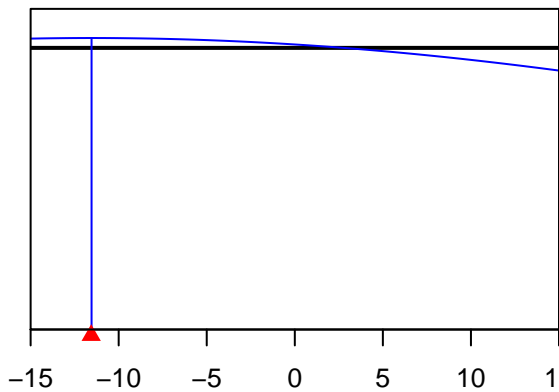
Size\_DbIN\_peak\_A4-Obj(15)



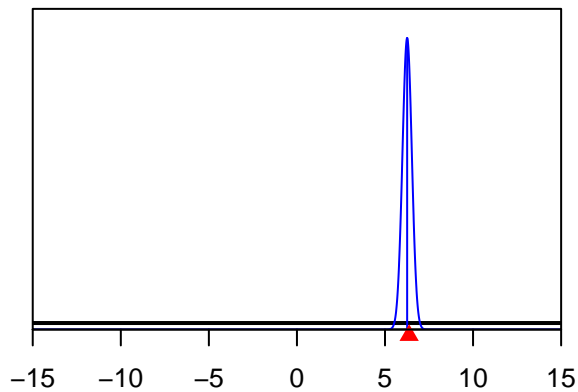
Size\_DbIN\_ascend\_se\_A4-Obj(15)



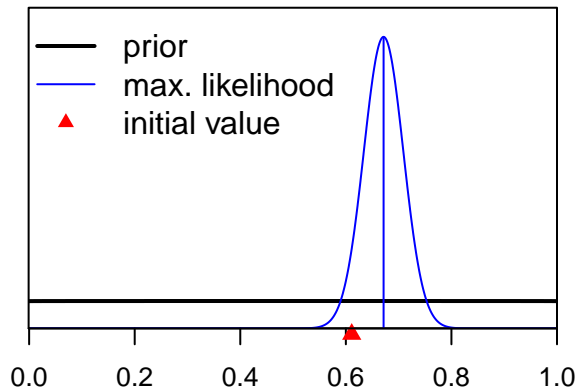
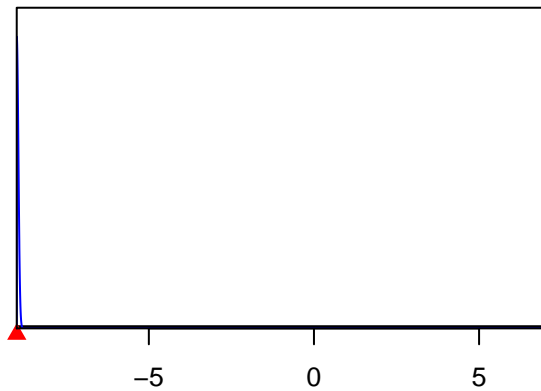
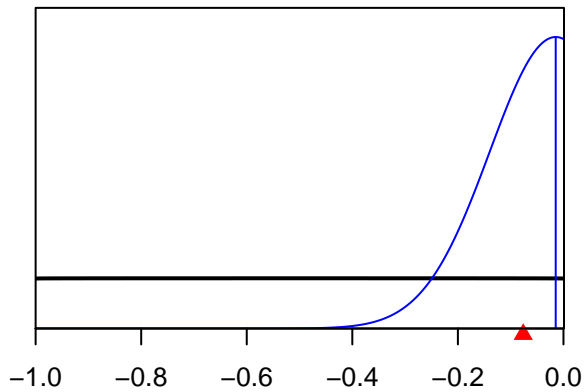
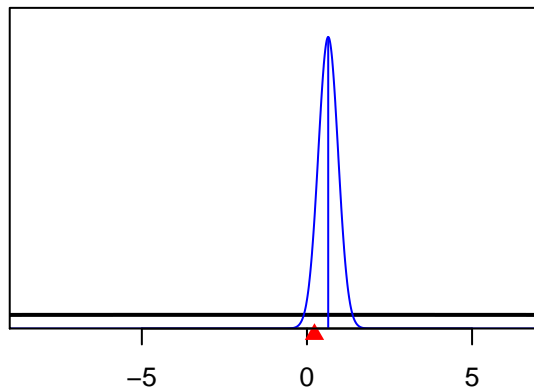
Size\_DbIN\_top\_logit\_A4-Obj(15)



Size\_DbIN\_descend\_se\_A4-Obj(15)

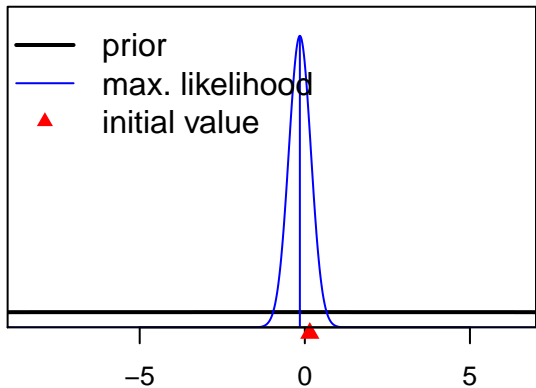


Parameter value

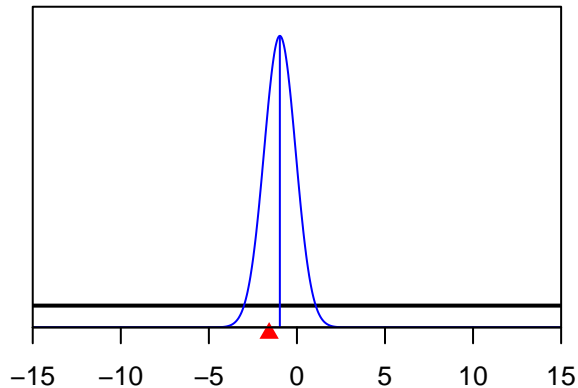
**SizeSpline\_GradLo\_A5-Obj(16)****SizeSpline\_Val\_1\_A5-Obj(16)****SizeSpline\_GradHi\_A5-Obj(16)****SizeSpline\_Val\_2\_A5-Obj(16)**

Parameter value

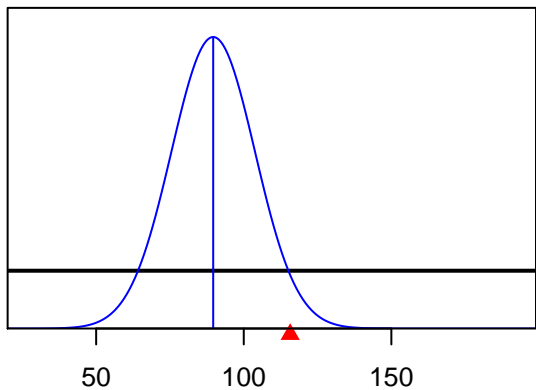
SizeSpline\_Val\_4\_A5-OBJ(16)



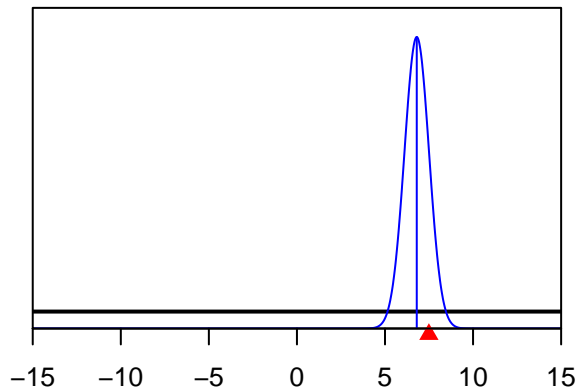
Size\_DbIN\_top\_logit\_A6-OBJ(17)



Size\_DbIN\_peak\_A6-OBJ(17)

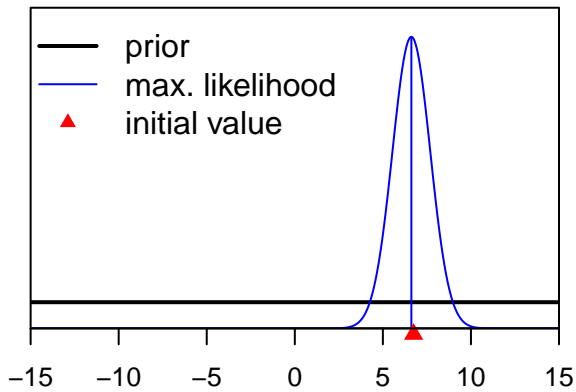
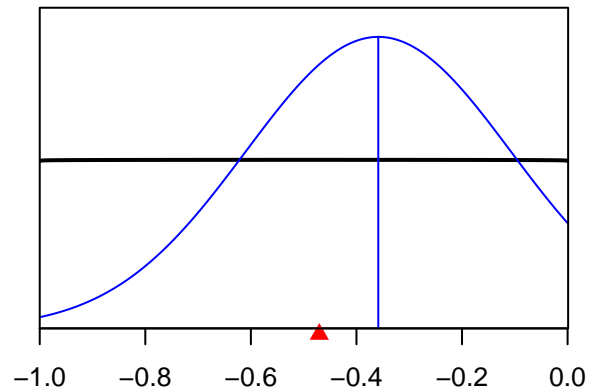
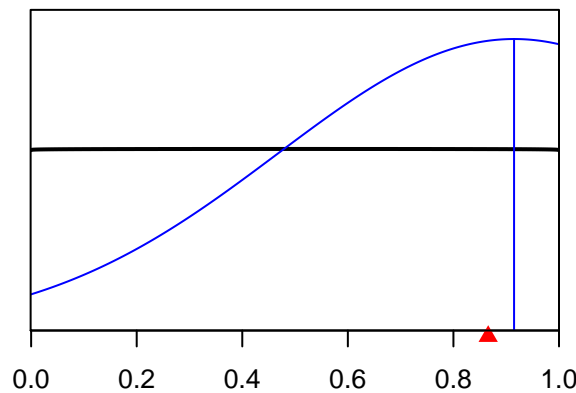
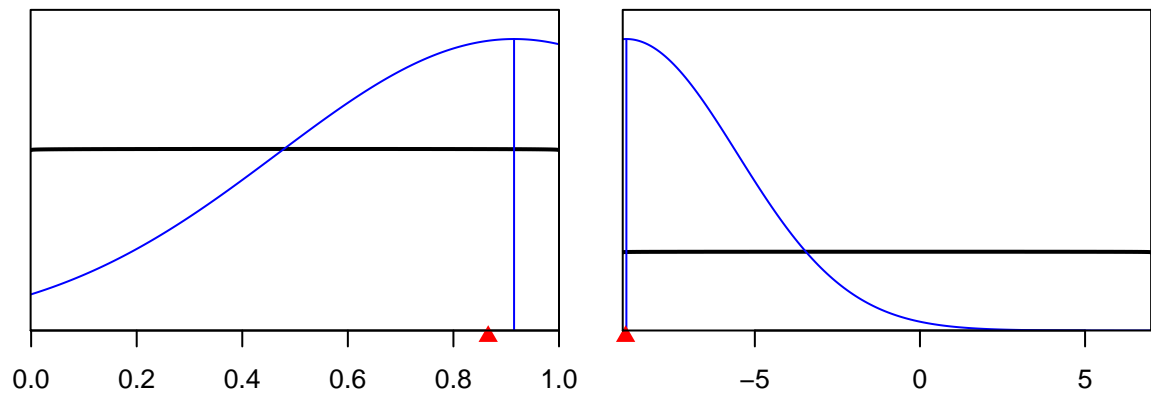


Size\_DbIN\_ascend\_se\_A6-OBJ(17)



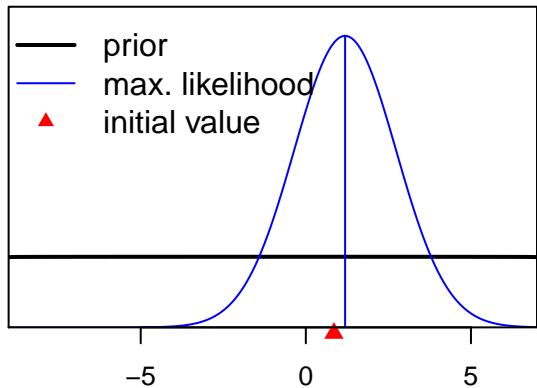
Parameter value



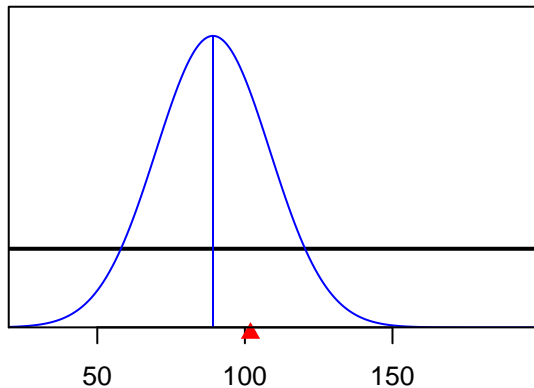
**Size\_DblN\_descend\_se\_A6-Obj(17)****SizeSpline\_GradHi\_A2-NOADEL(19)****SizeSpline\_GradLo\_A2-NOADEL(19)****SizeSpline\_Val\_1\_A2-NOADEL(19)**

Parameter value

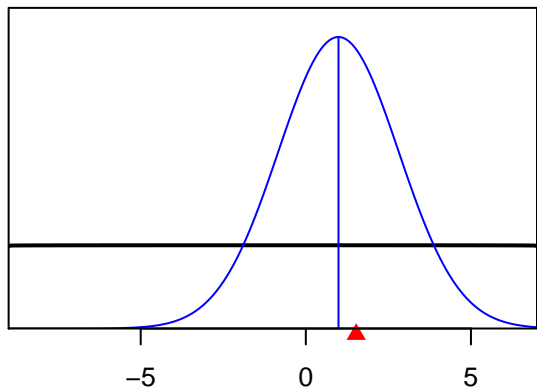
SizeSpline\_Val\_2\_A2-NOADEL(19)



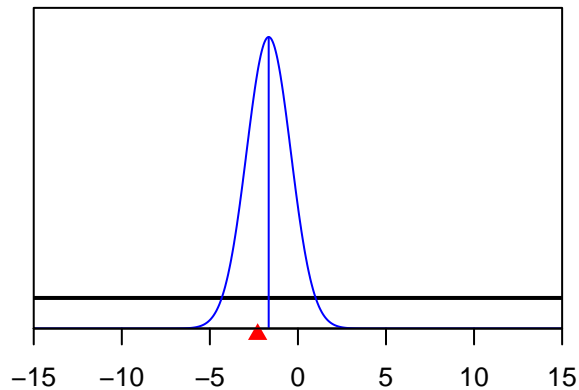
Size\_DbIN\_peak\_A3-NOADEL(20)



SizeSpline\_Val\_4\_A2-NOADEL(19)



Size\_DbIN\_top\_logit\_A3-NOADEL(20)

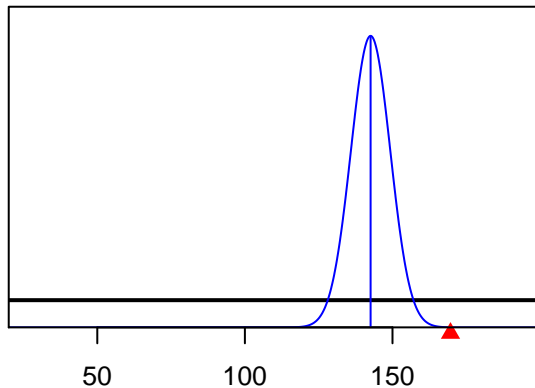
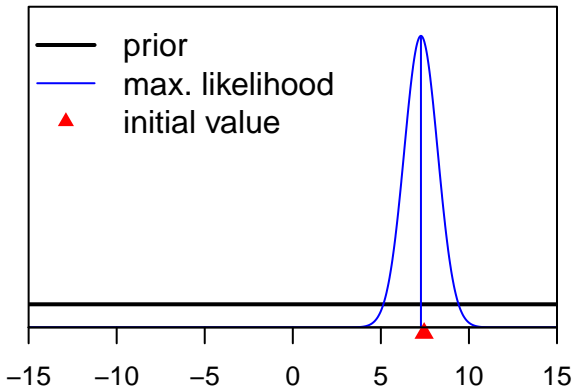


Parameter value

Density

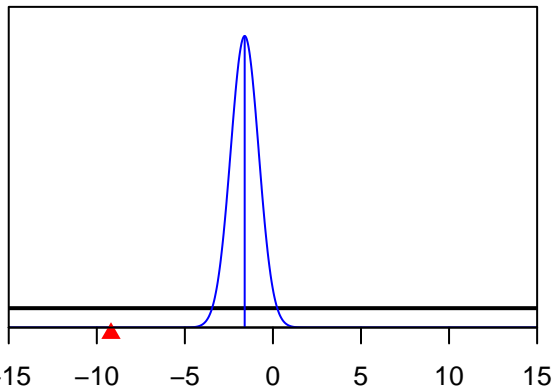
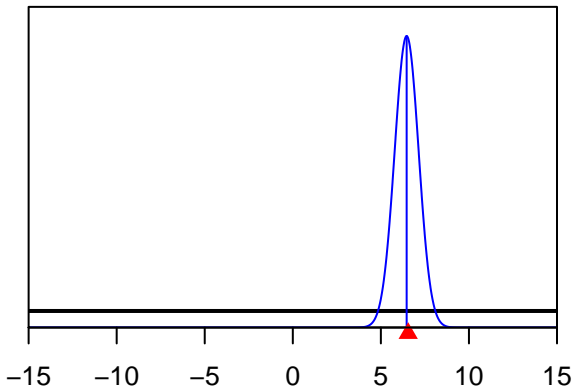
Size\_DbIN\_ascend\_se\_A3-NOADEL(20)

Size\_DbIN\_peak\_EPO-LL-survey-early(24)



Size\_DbIN\_descend\_se\_A3-NOADEL(20)

Size\_DbIN\_top\_logit\_EPO-LL-survey-early(24)

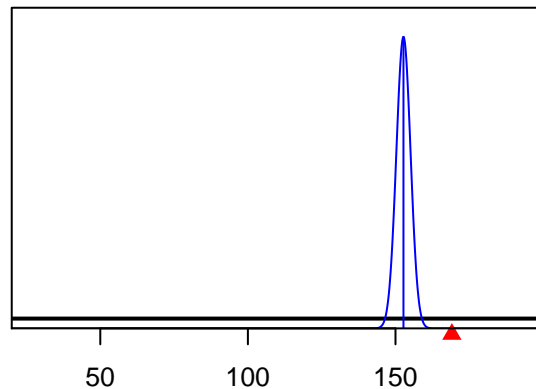
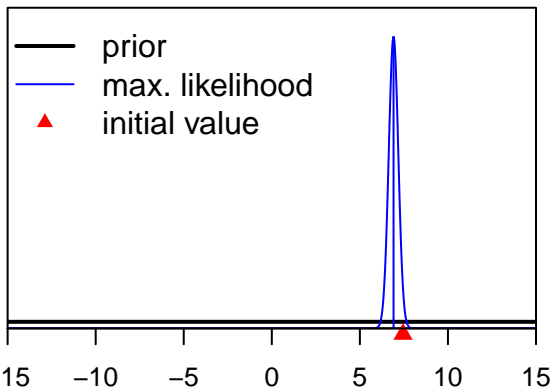


Parameter value

ize\_DbIN\_ascend\_se\_EPO-LL-survey-early(2)

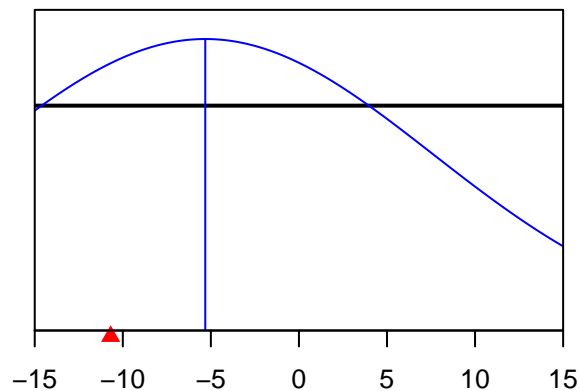
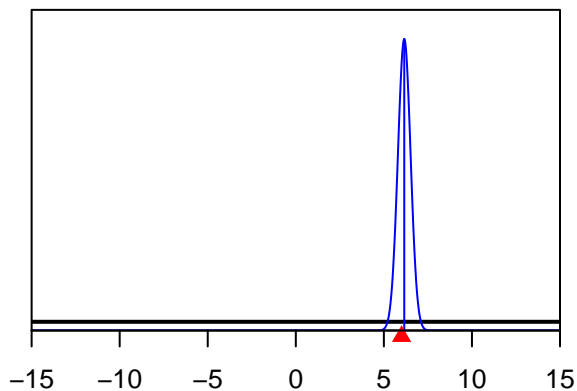
Size\_DbIN\_peak\_EPO-LL-survey-late(25)

Density



ze\_DbIN\_descend\_se\_EPO-LL-survey-early(2)

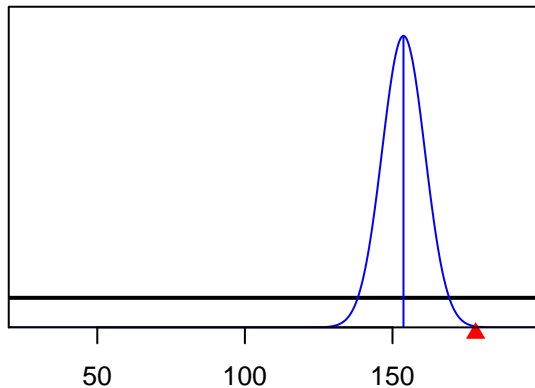
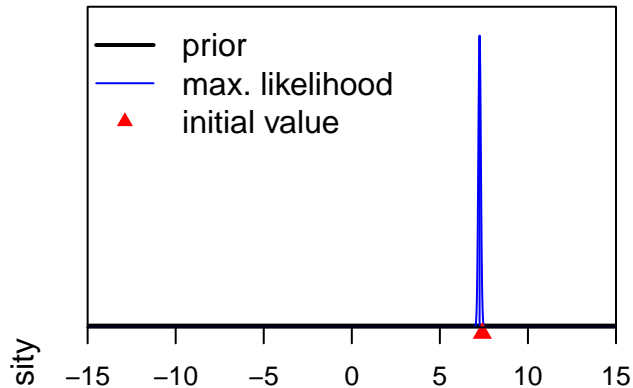
Size\_DbIN\_top\_logit\_EPO-LL-survey-late(25)



Parameter value

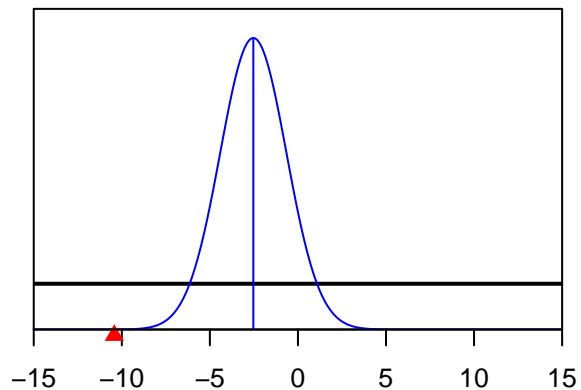
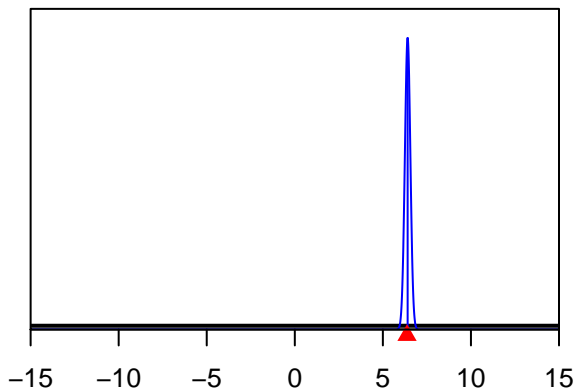
size\_DblN\_ascend\_se\_EPO-LL-survey-late(25

Size\_DblN\_peak\_A2-LL-n(2)\_BLK2repl\_17



size\_DblN\_descend\_se\_EPO-LL-survey-late(25

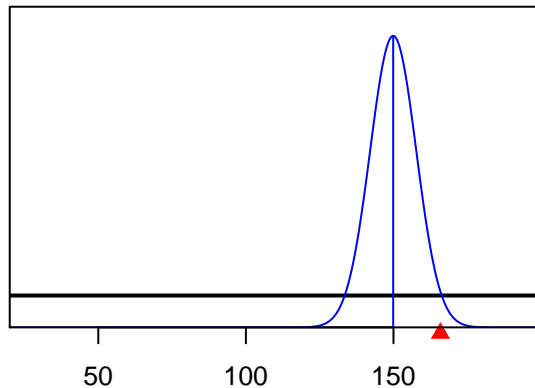
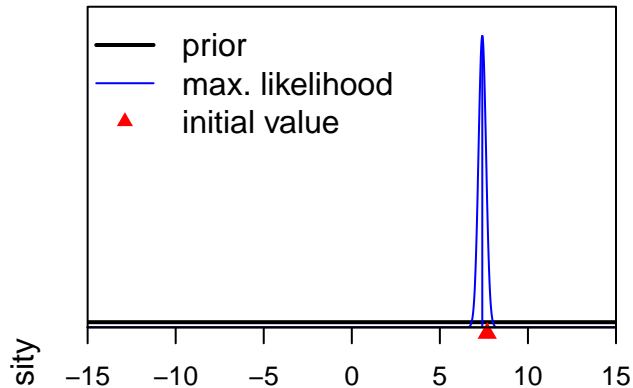
Size\_DblN\_top\_logit\_A2-LL-n(2)\_BLK2repl\_17



Parameter value

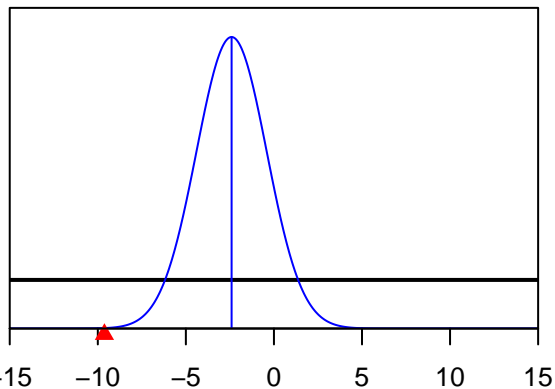
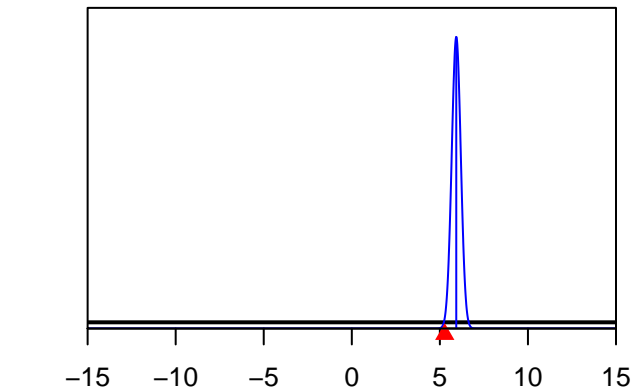
ize\_DbIN\_ascend\_se\_A2-LL-n(2)\_BLK2repl\_1

Size\_DbIN\_peak\_A3-LL-n(3)\_BLK2repl\_17



ize\_DbIN\_descend\_se\_A2-LL-n(2)\_BLK2repl\_1

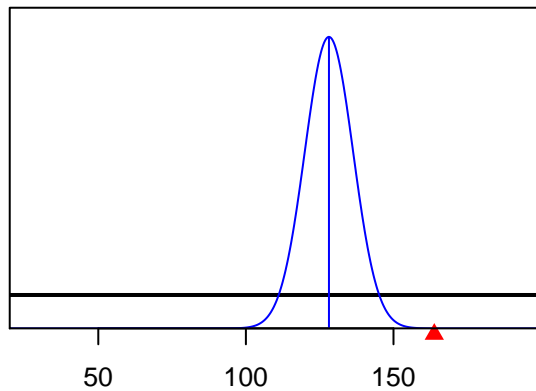
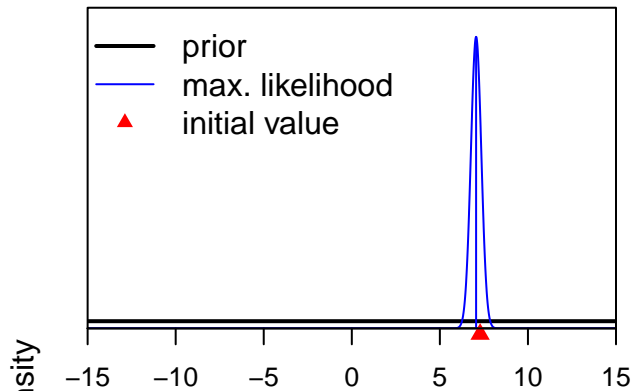
Size\_DbIN\_top\_logit\_A3-LL-n(3)\_BLK2repl\_17



Parameter value

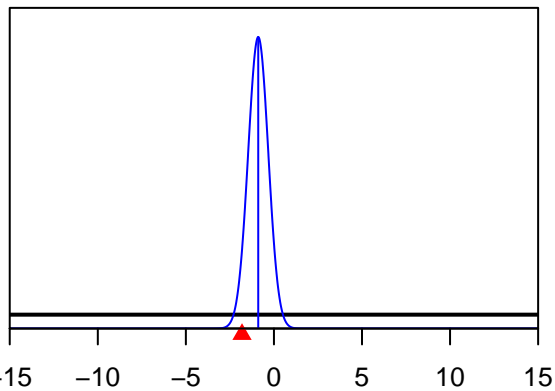
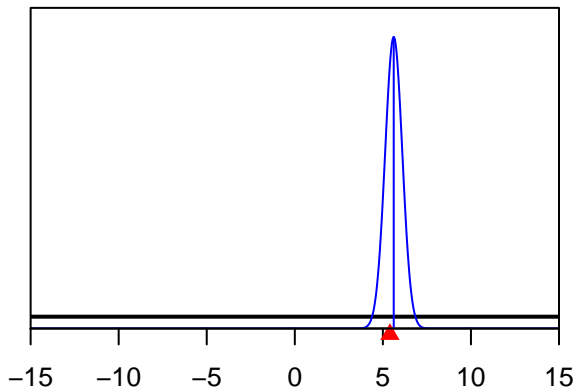
ize\_DbIN\_ascend\_se\_A3-LL-n(3)\_BLK2repl\_1

Size\_DbIN\_peak\_A4-LL-n(4)\_BLK2repl\_17



ize\_DbIN\_descend\_se\_A3-LL-n(3)\_BLK2repl\_1

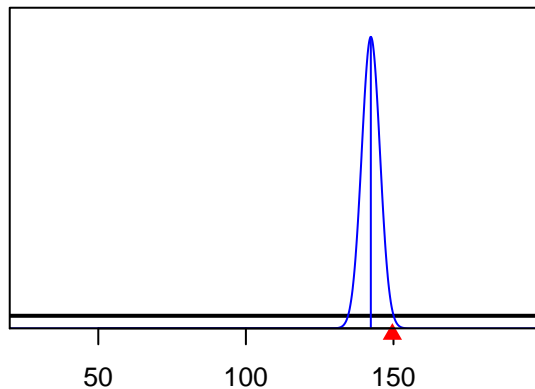
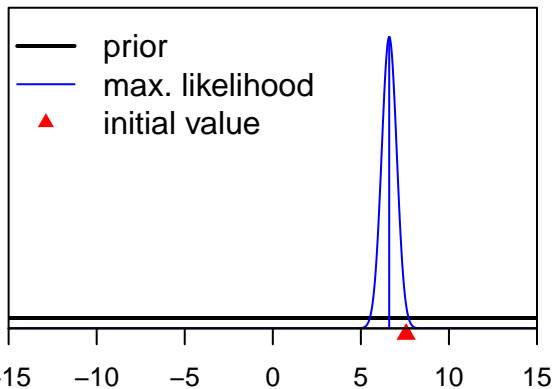
Size\_DbIN\_top\_logit\_A4-LL-n(4)\_BLK2repl\_17



Parameter value

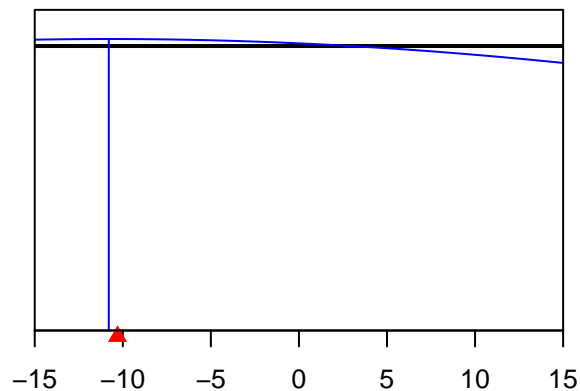
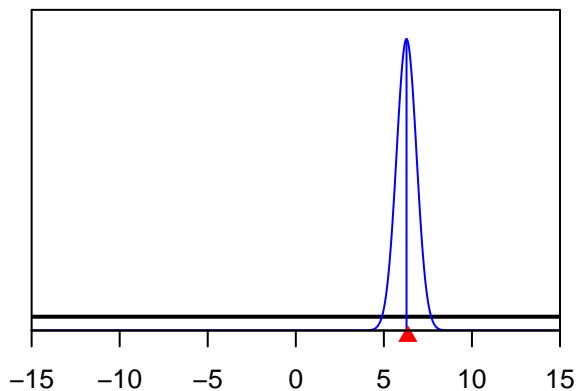
ize\_DbIN\_ascend\_se\_A4-LL-n(4)\_BLK2repl\_1

Size\_DbIN\_peak\_A5-LL-n(5)\_BLK2repl\_17



ize\_DbIN\_descend\_se\_A4-LL-n(4)\_BLK2repl\_1

Size\_DbIN\_top\_logit\_A5-LL-n(5)\_BLK2repl\_17

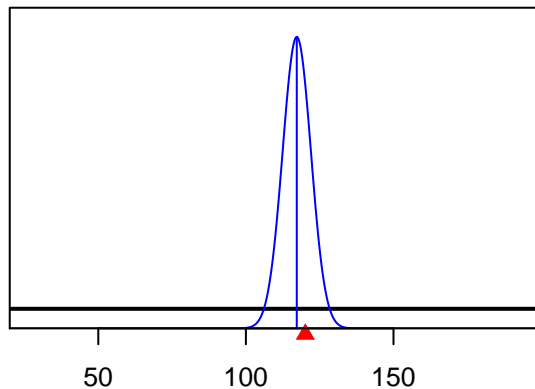
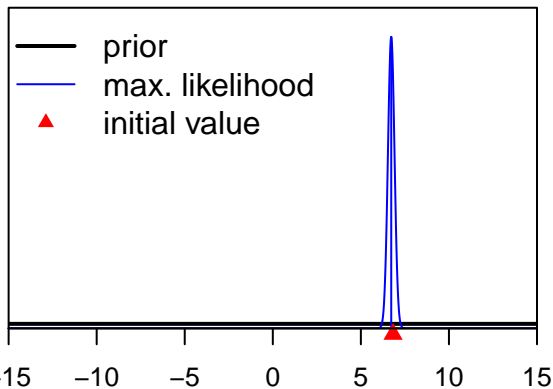


Parameter value



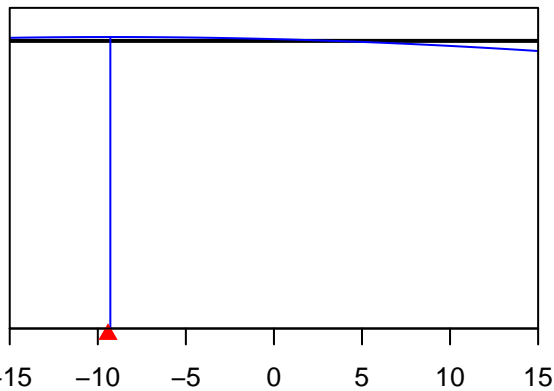
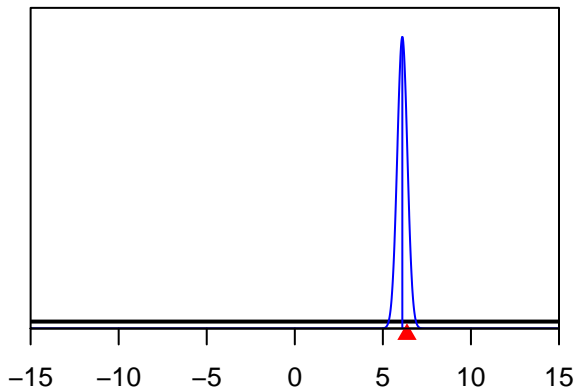
ize\_DbIN\_ascend\_se\_A5-LL-n(5)\_BLK2repl\_1

Size\_DbIN\_peak\_A6-LL-n(6)\_BLK2repl\_17



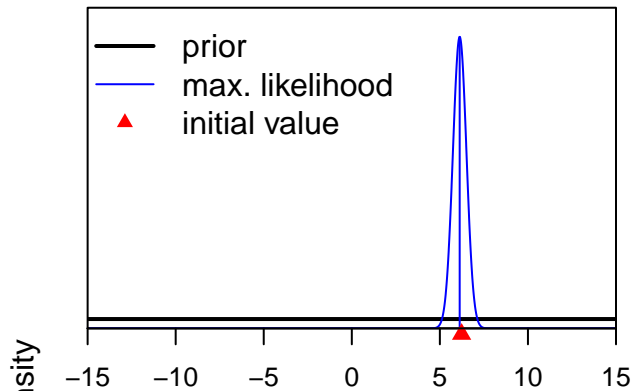
ize\_DbIN\_descend\_se\_A5-LL-n(5)\_BLK2repl\_1

Size\_DbIN\_top\_logit\_A6-LL-n(6)\_BLK2repl\_17



Parameter value

ize\_DbIN\_ascend\_se\_A6-LL-n(6)\_BLK2repl\_1



ize\_DbIN\_descend\_se\_A6-LL-n(6)\_BLK2repl\_1

