

Plots created using the 'r4ss' package in R

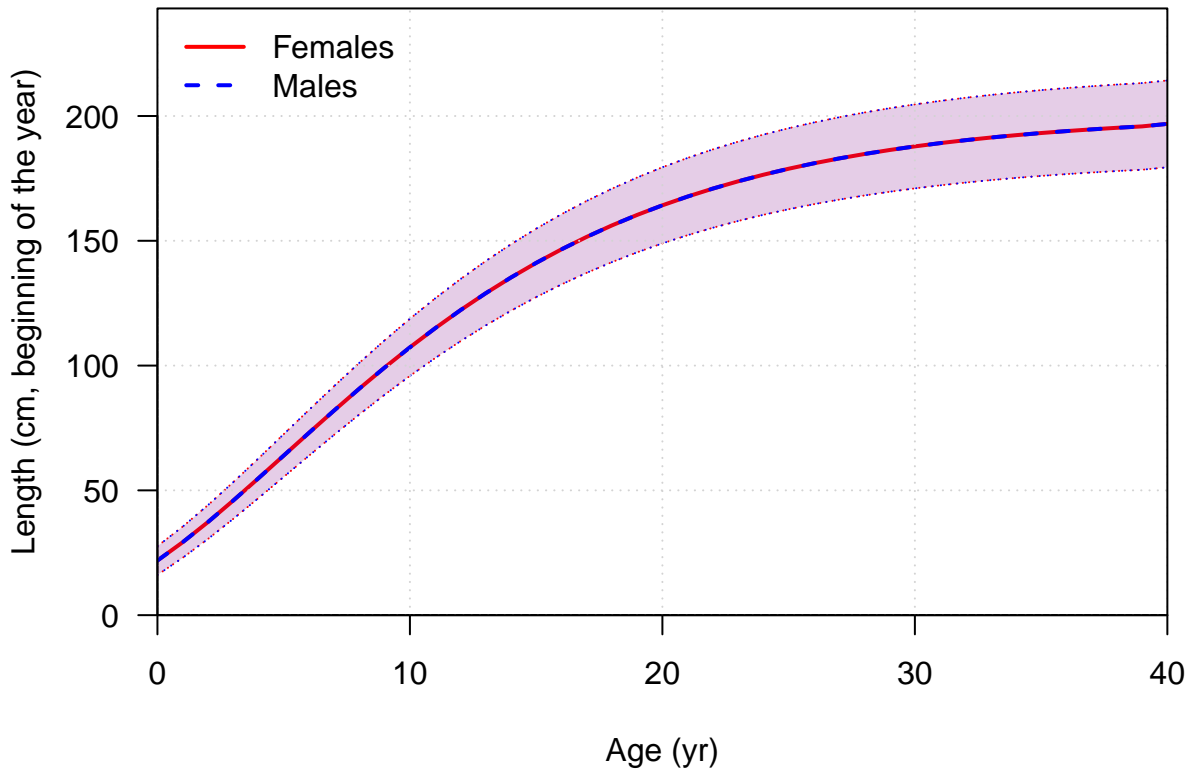
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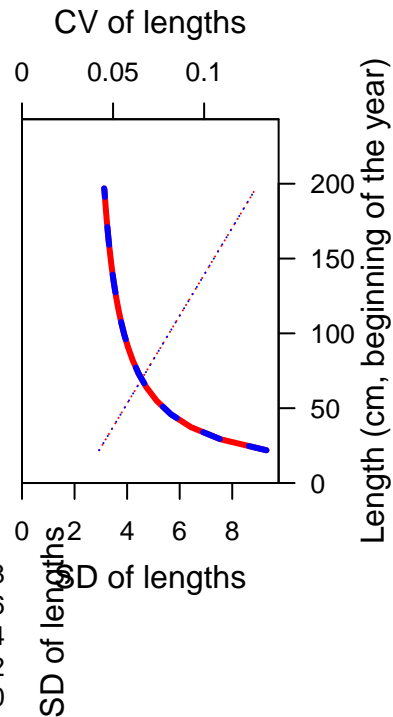
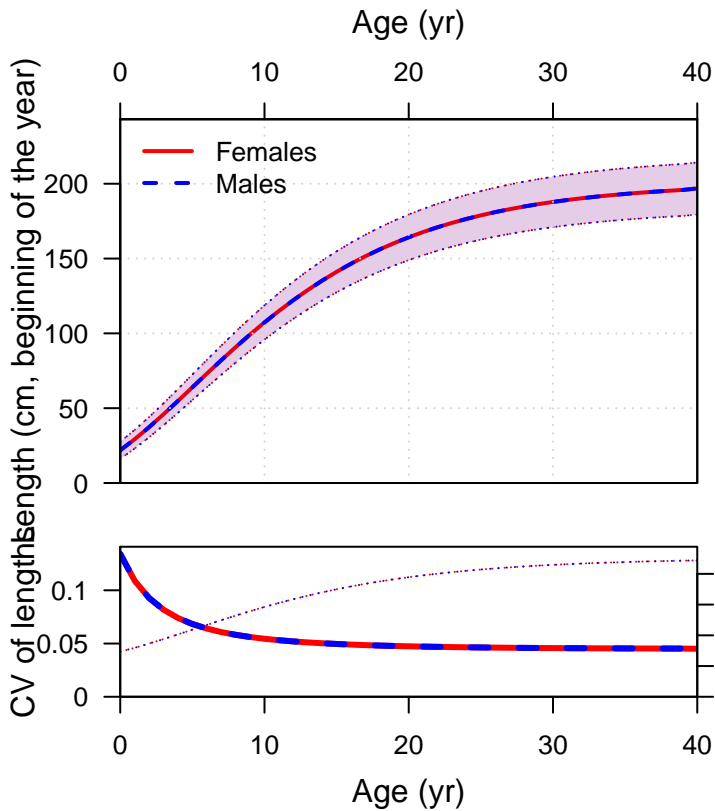
StartTime: Sat May 30 16:11:53 2020

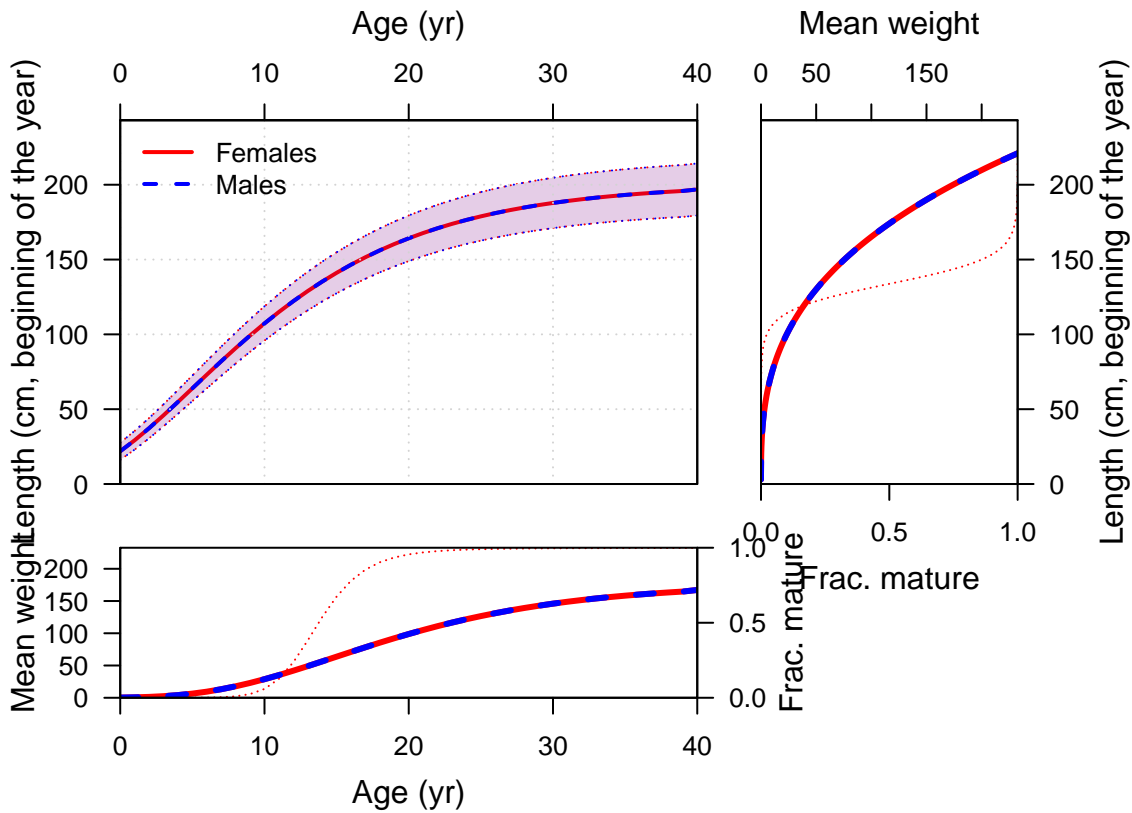
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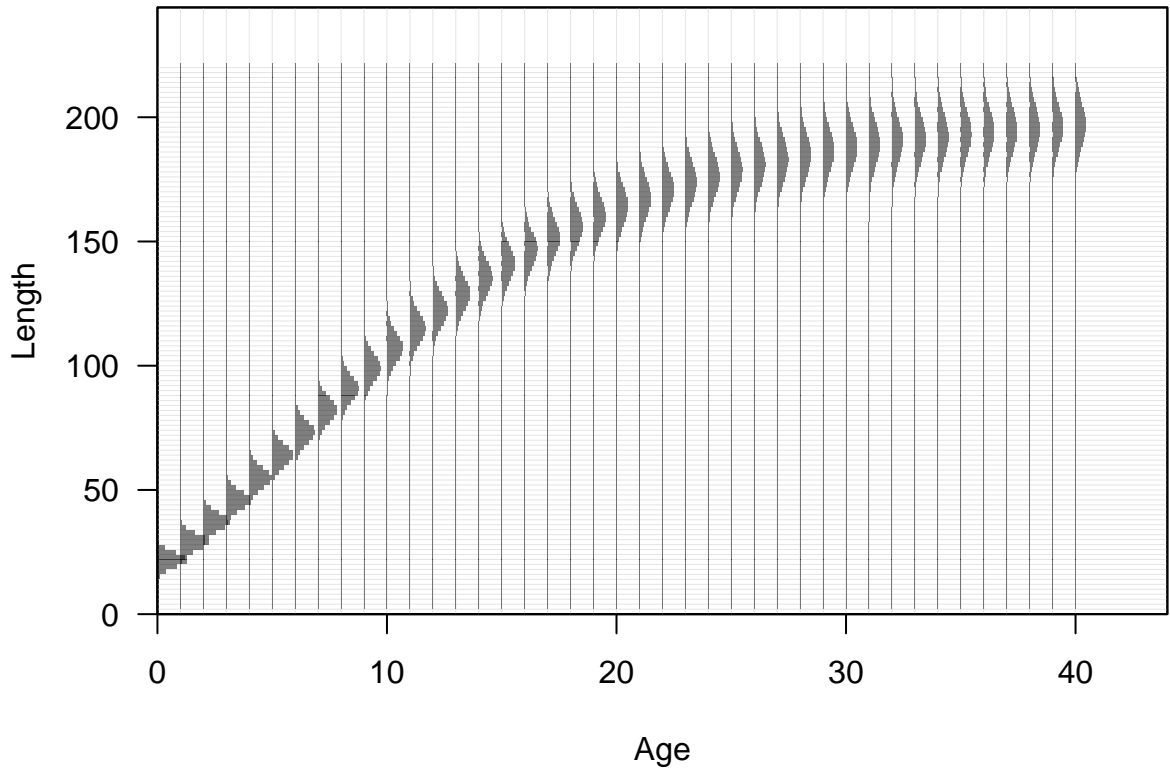
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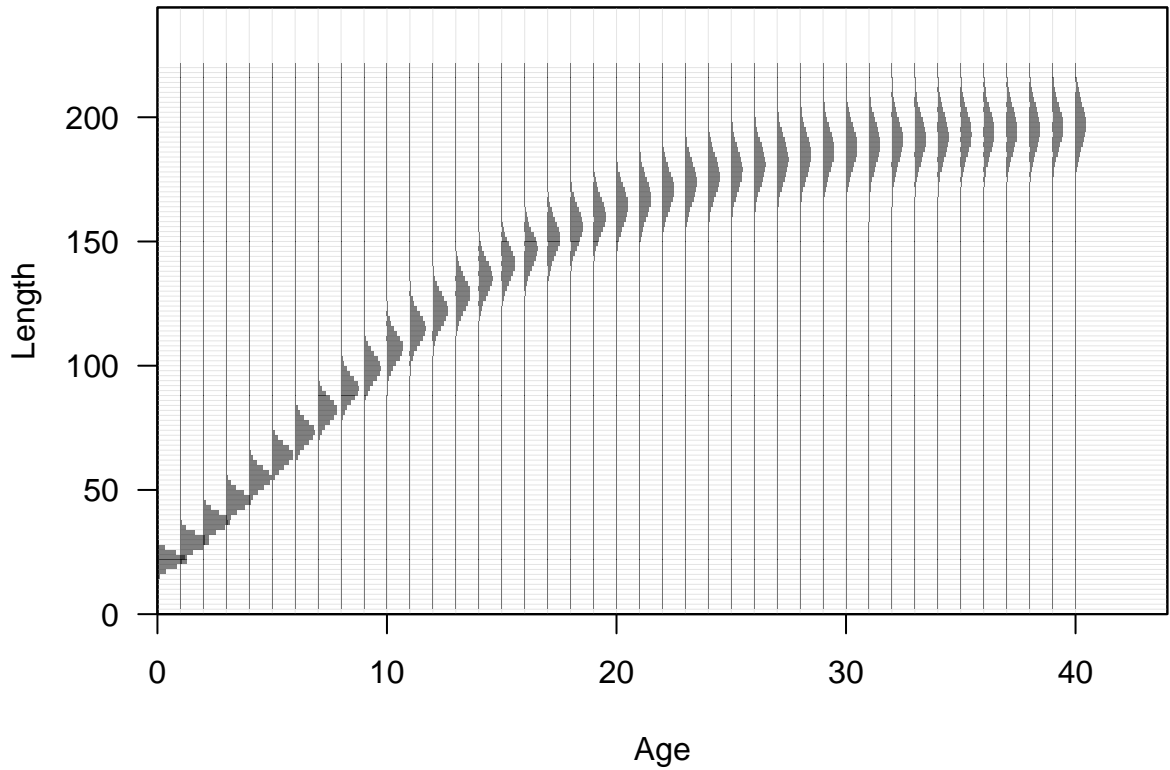
Ending year expected growth (with 95% intervals)

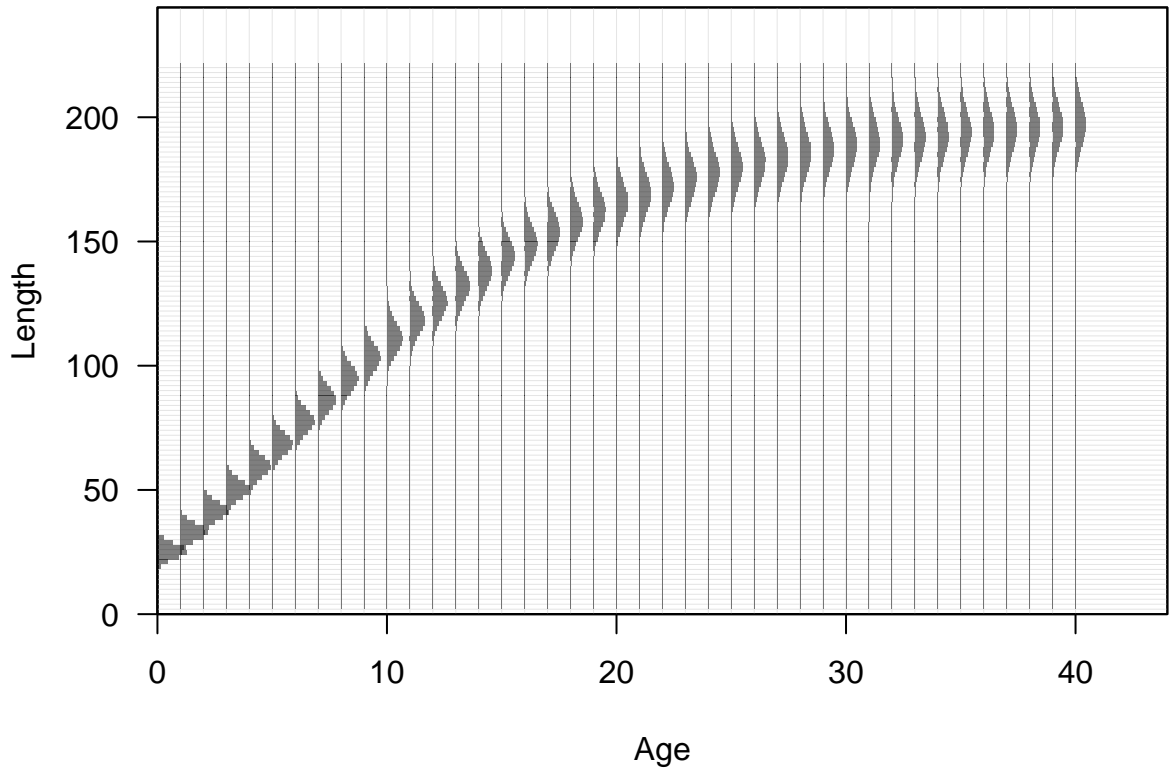


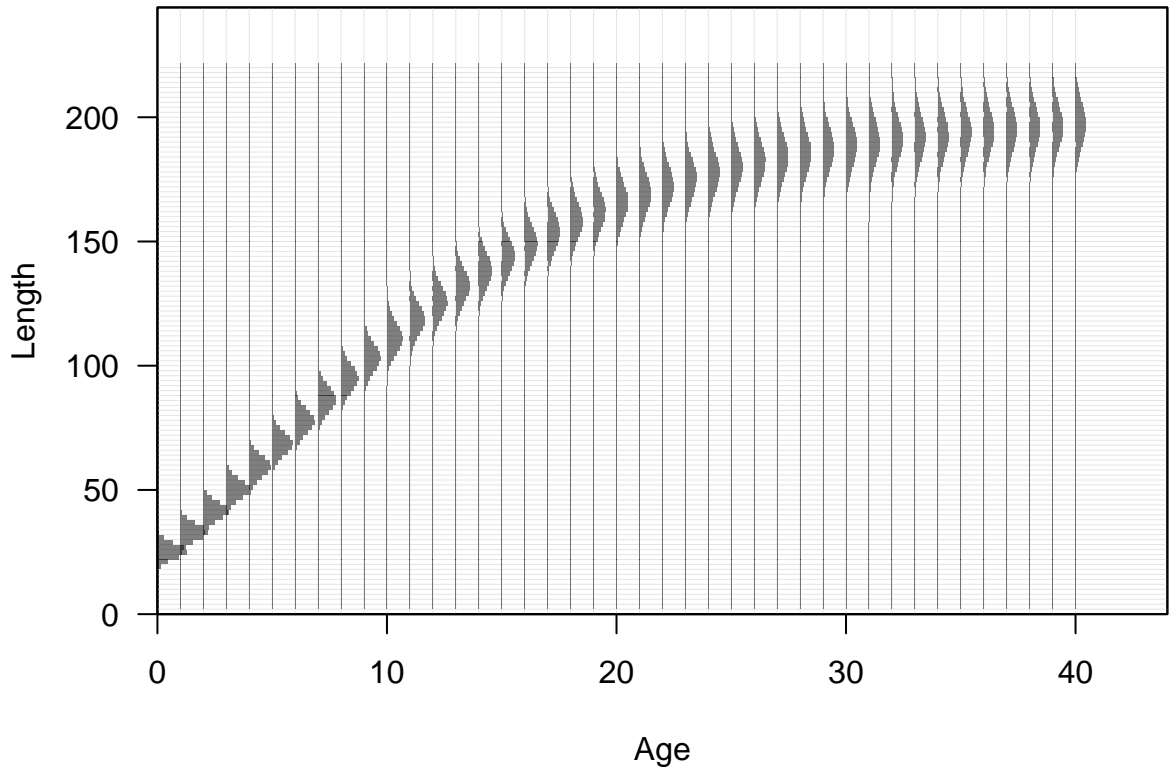


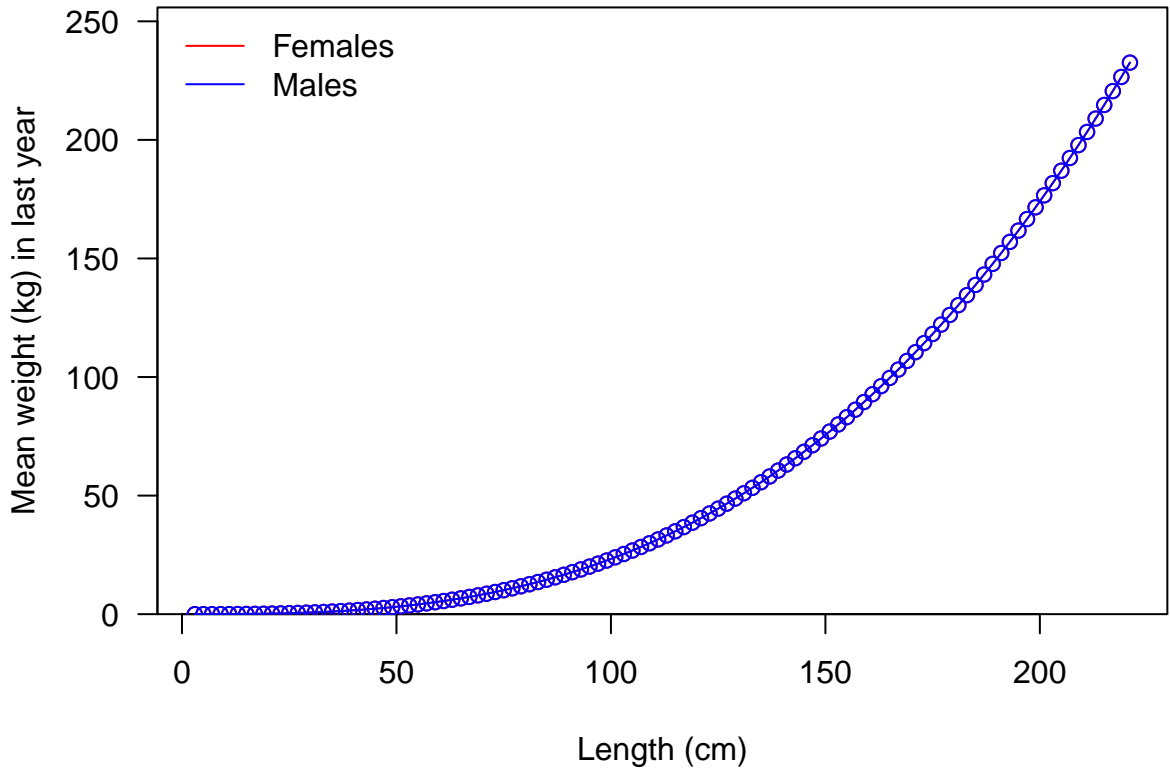


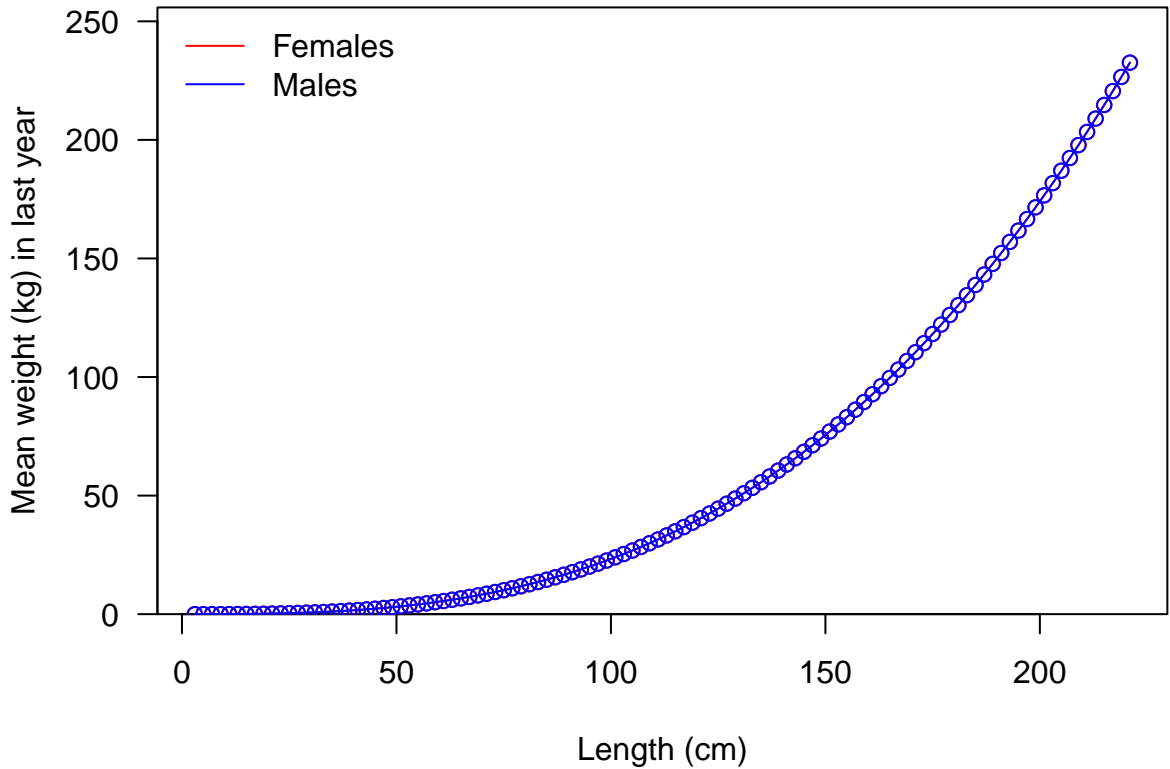


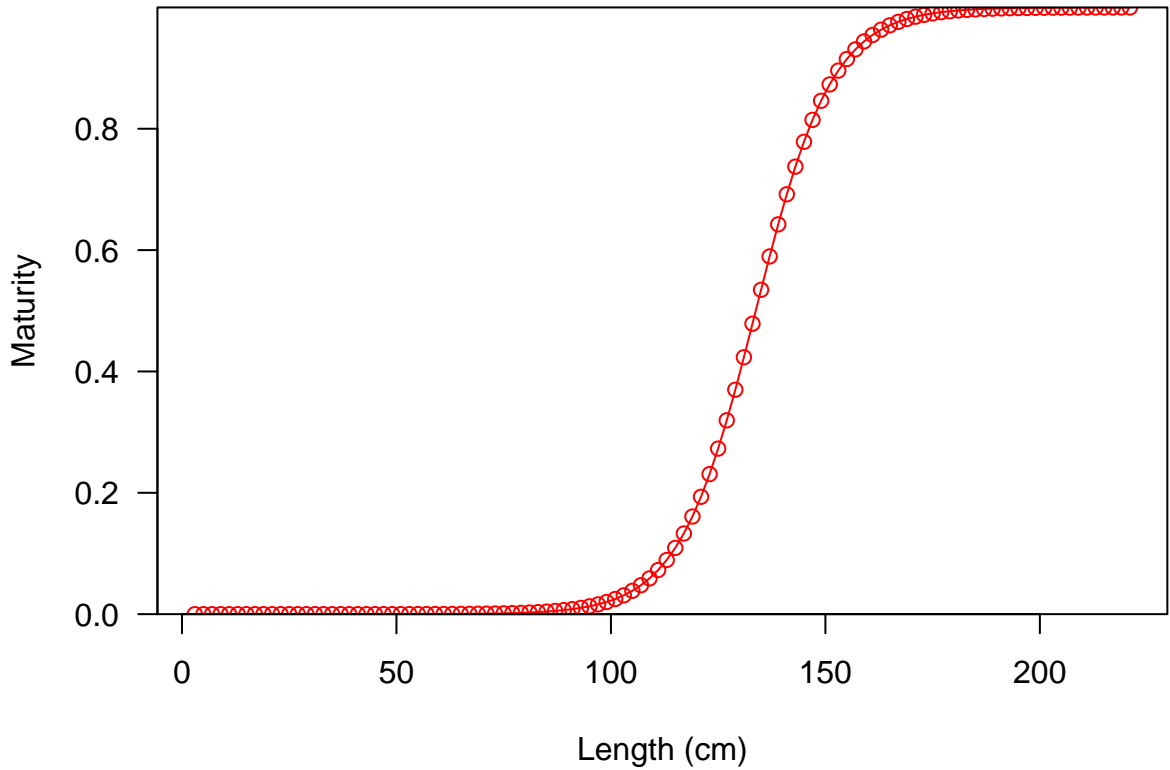


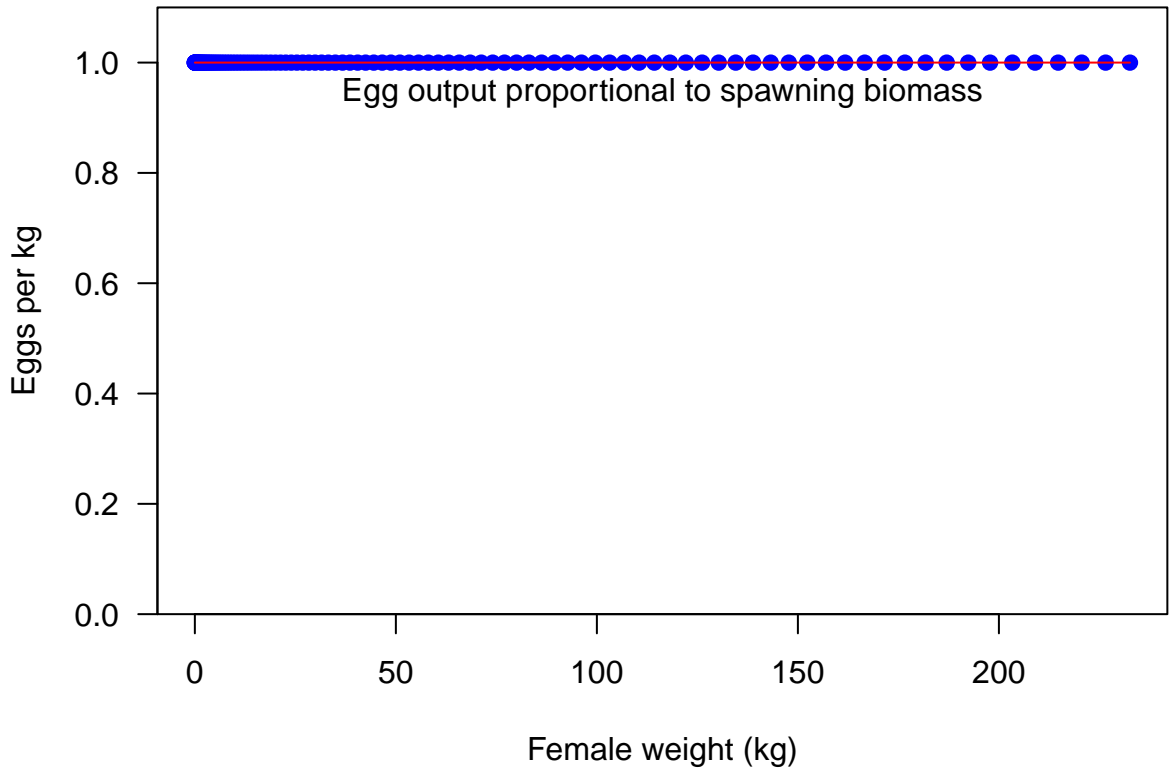


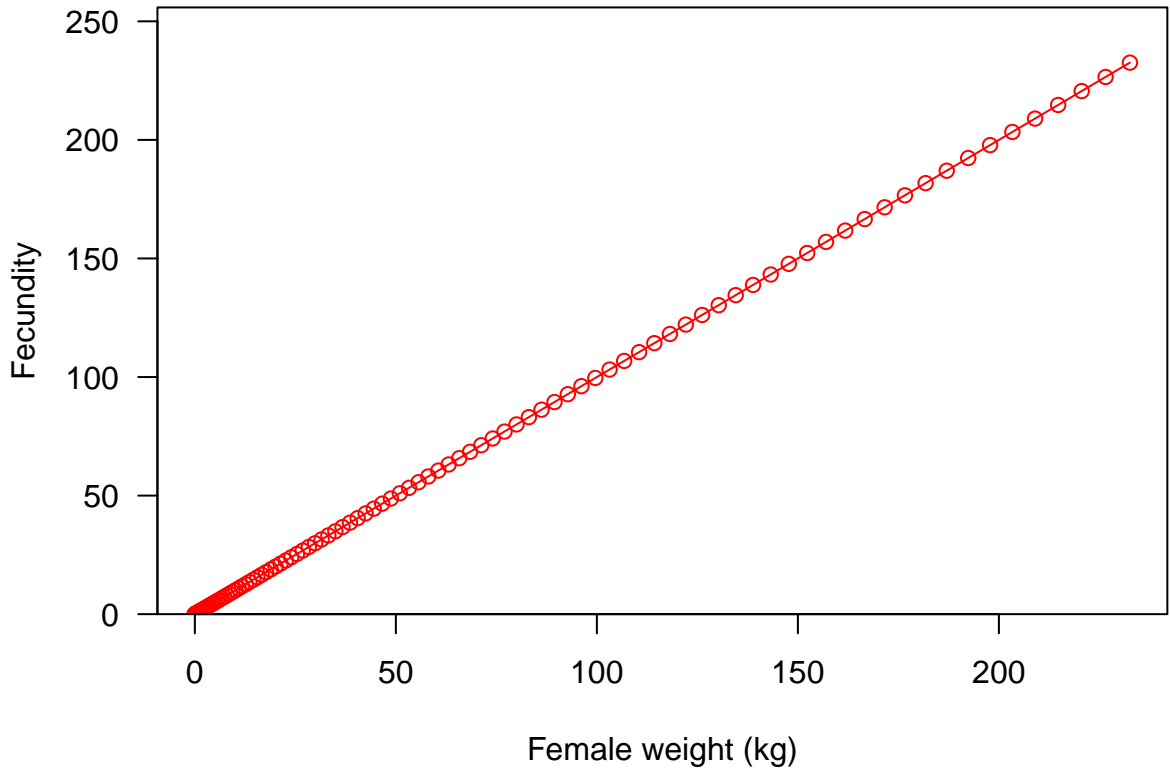


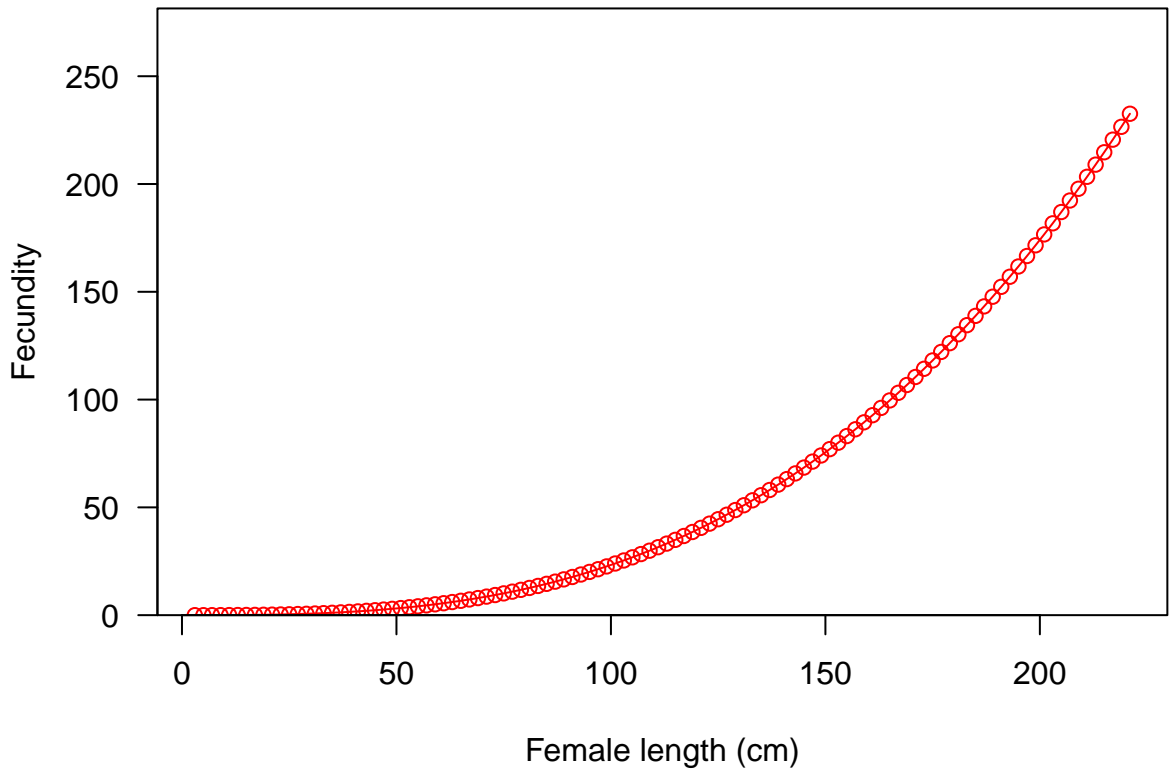


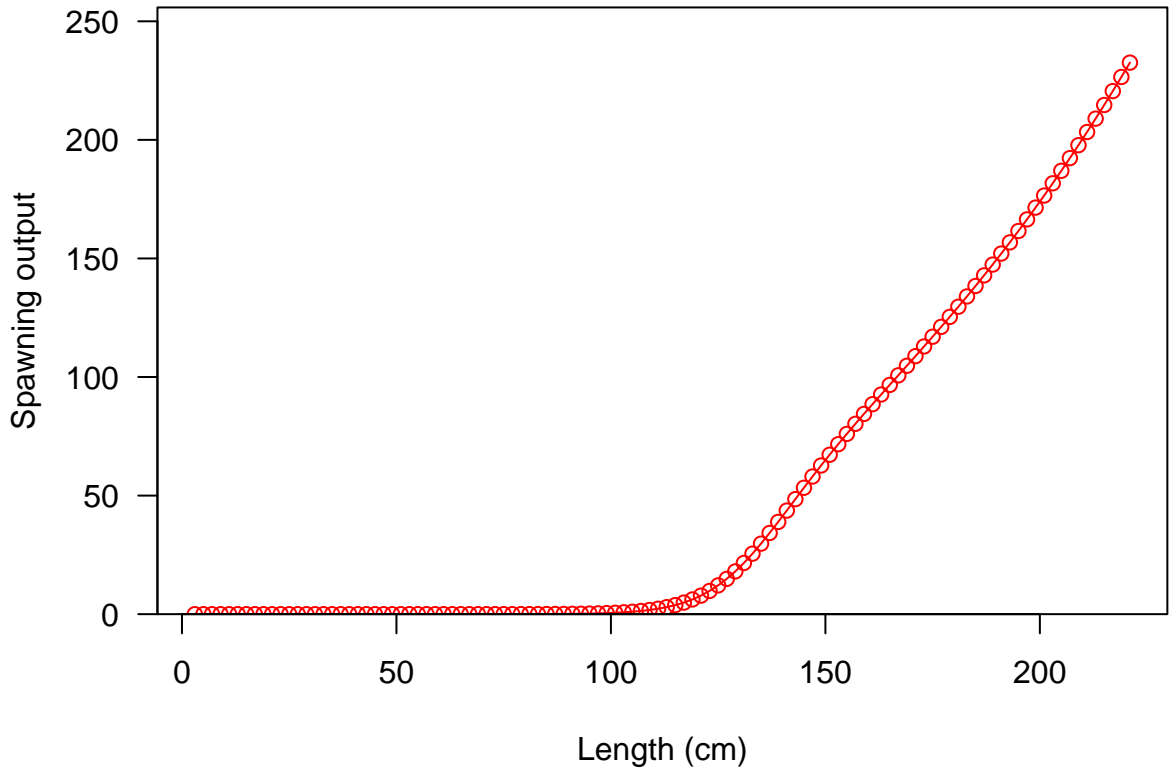


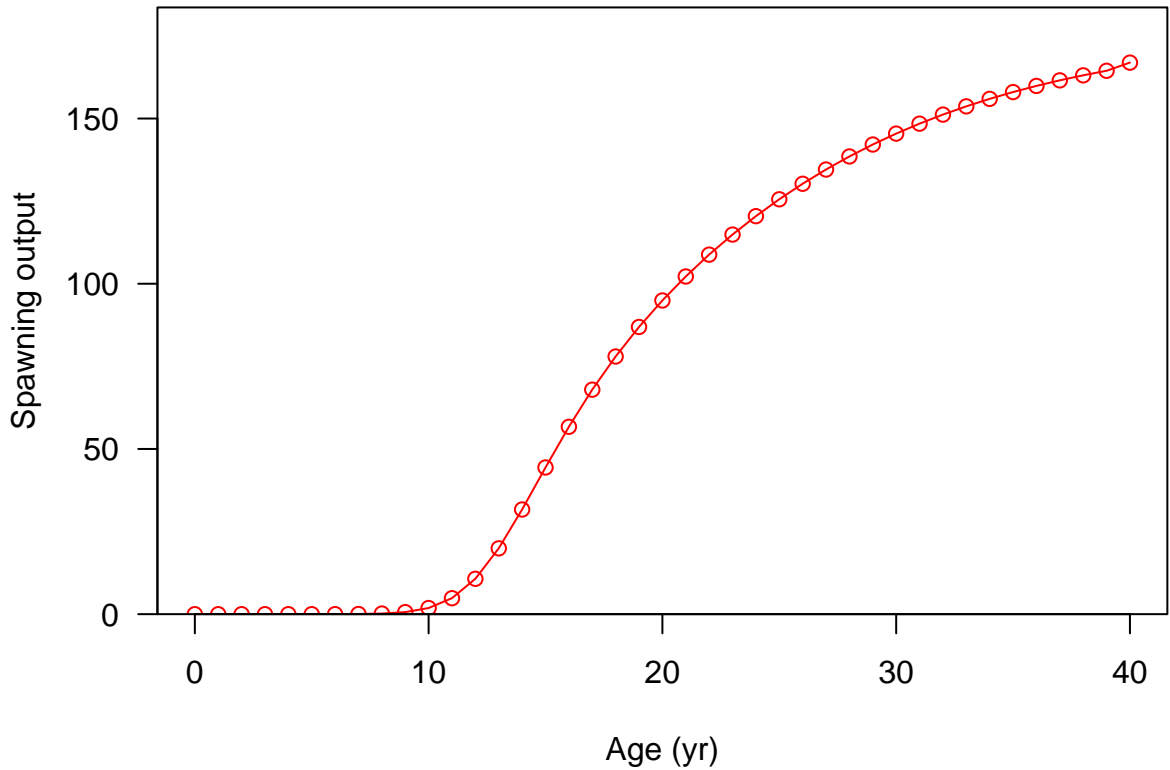




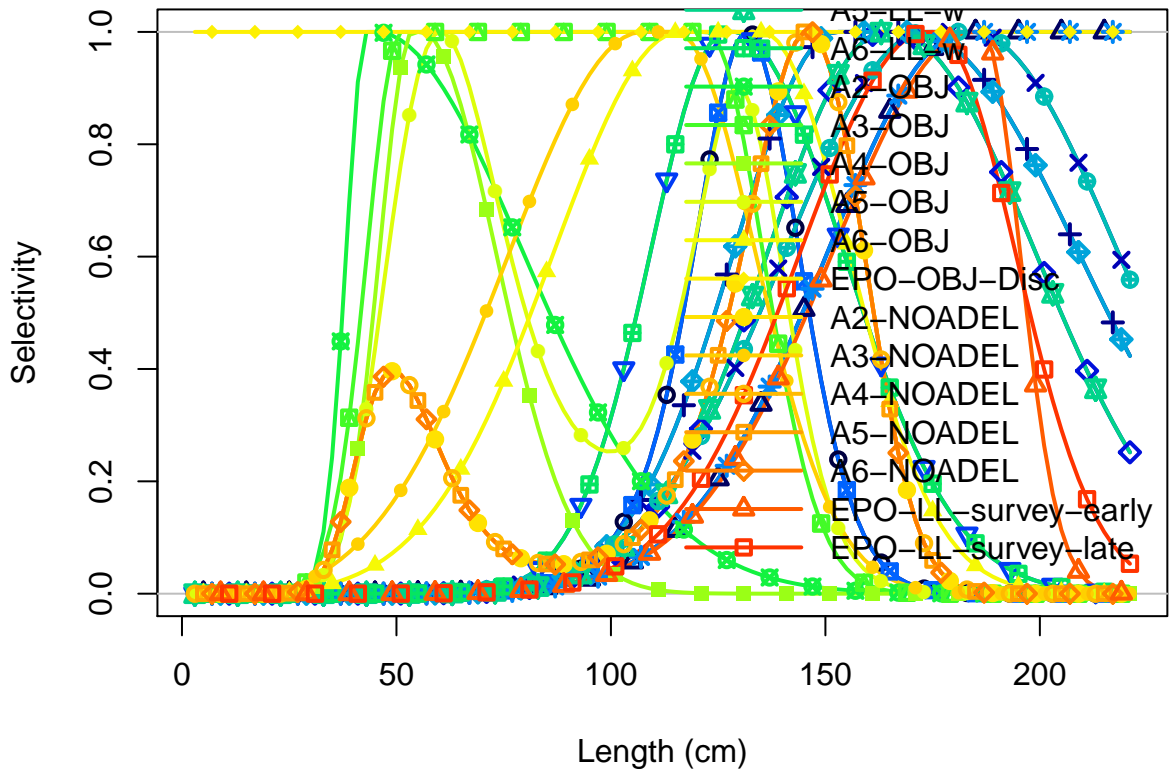




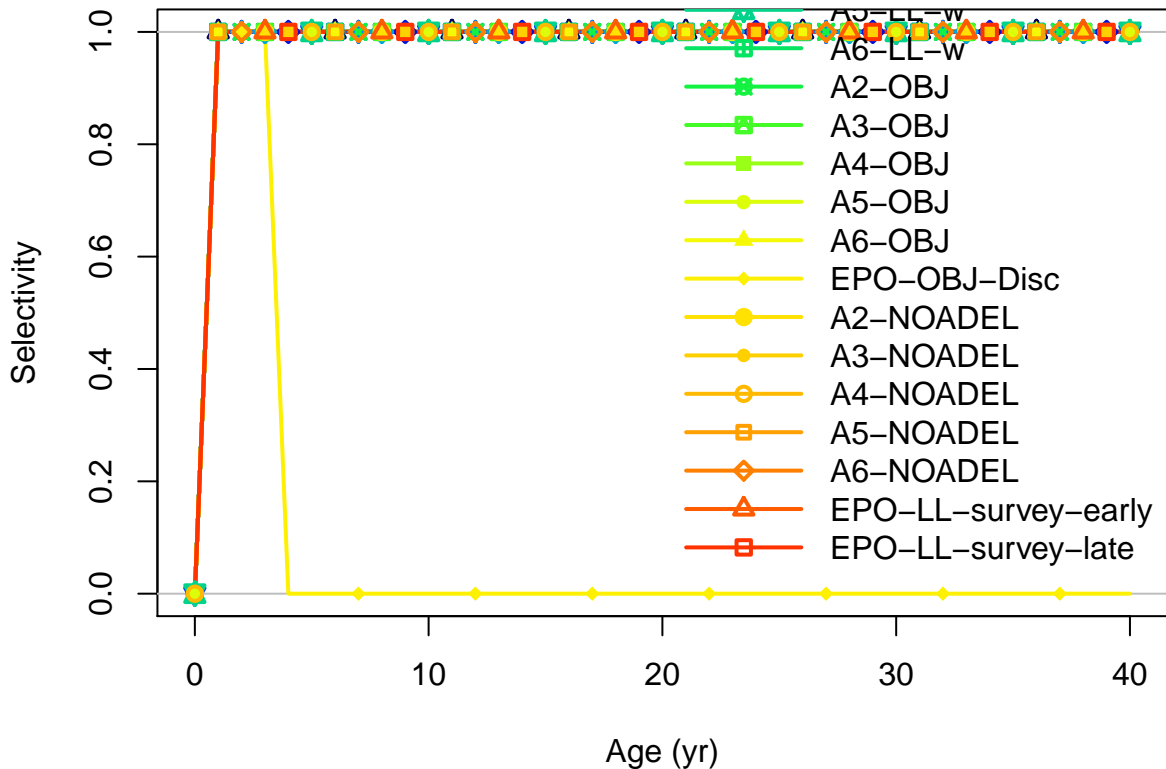




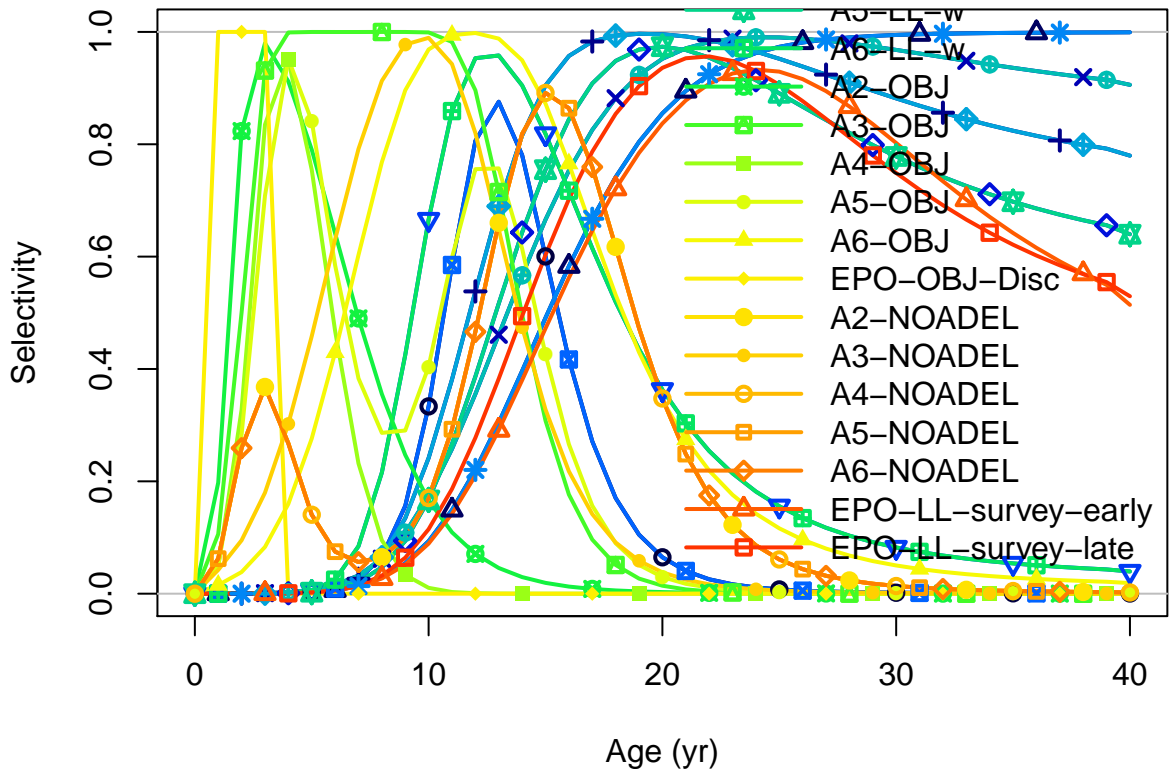
Length-based selectivity by fleet in 180



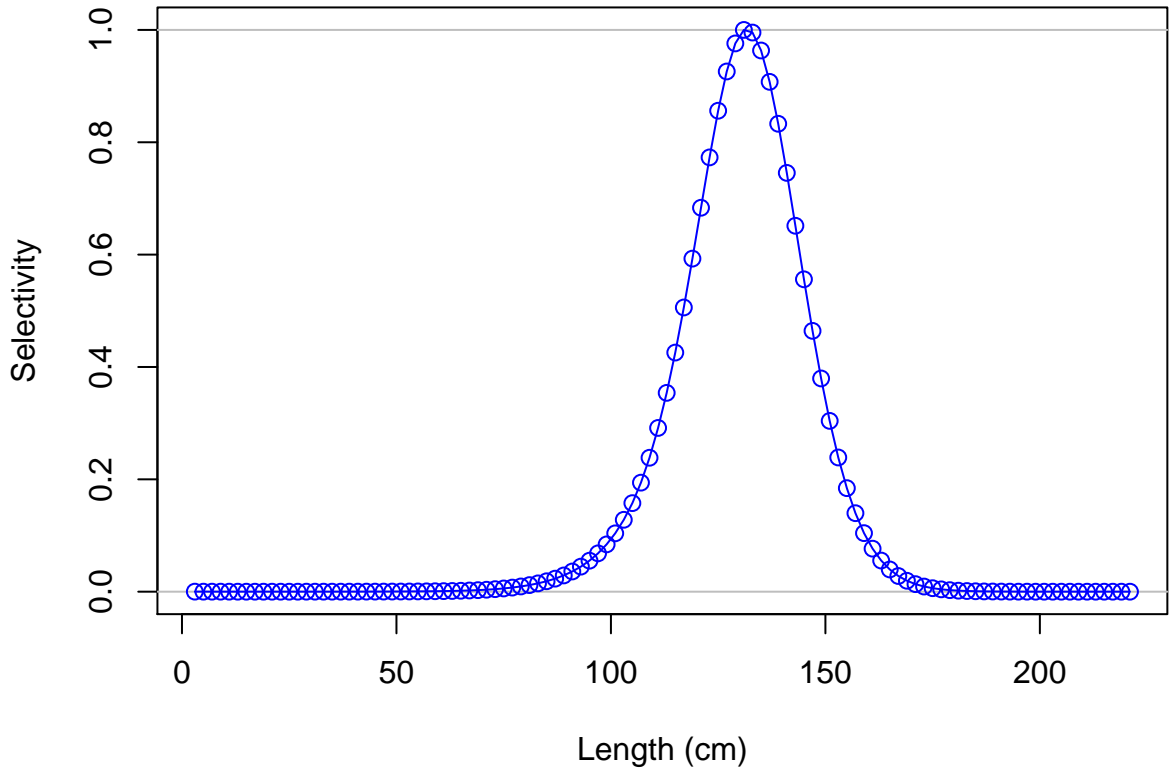
Age-based selectivity by fleet in 180



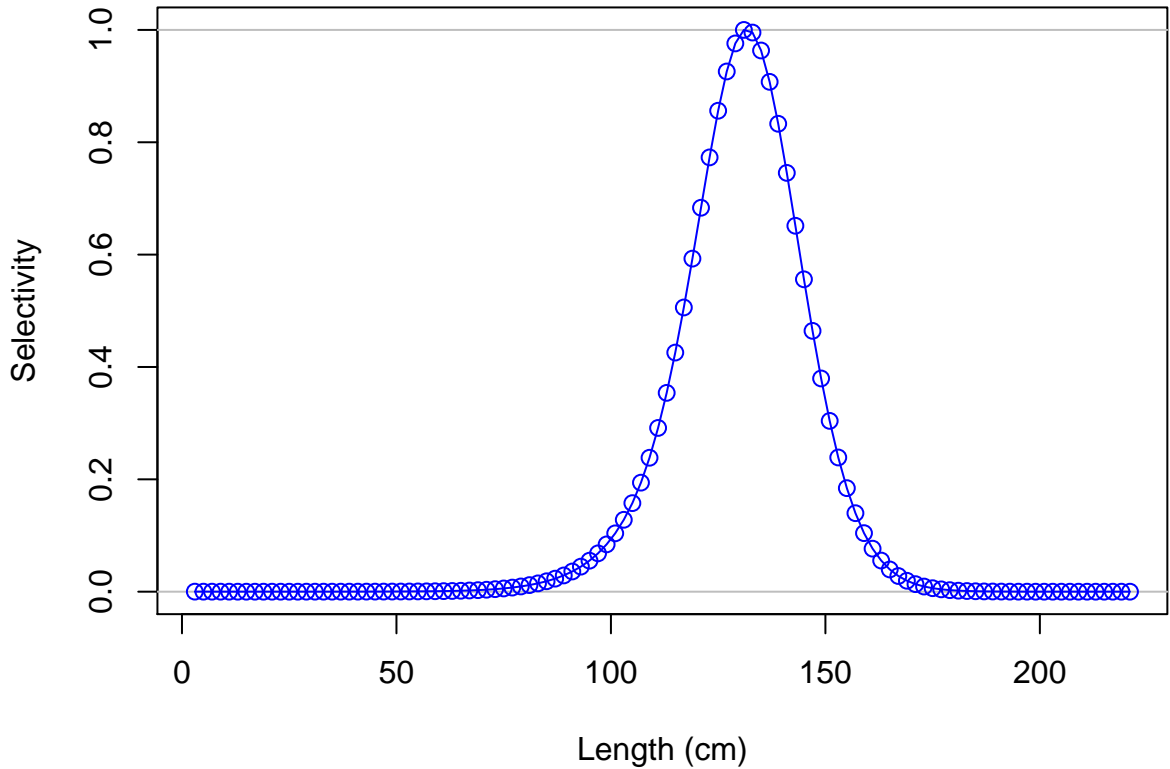
Derived age-based from length-based selectivity by fleet in 180



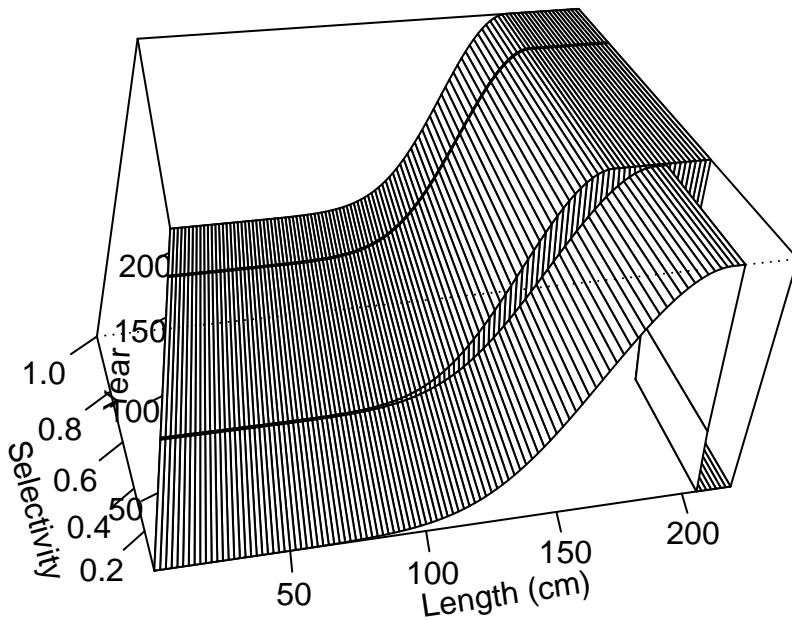
Female ending year selectivity for A1-LL-n



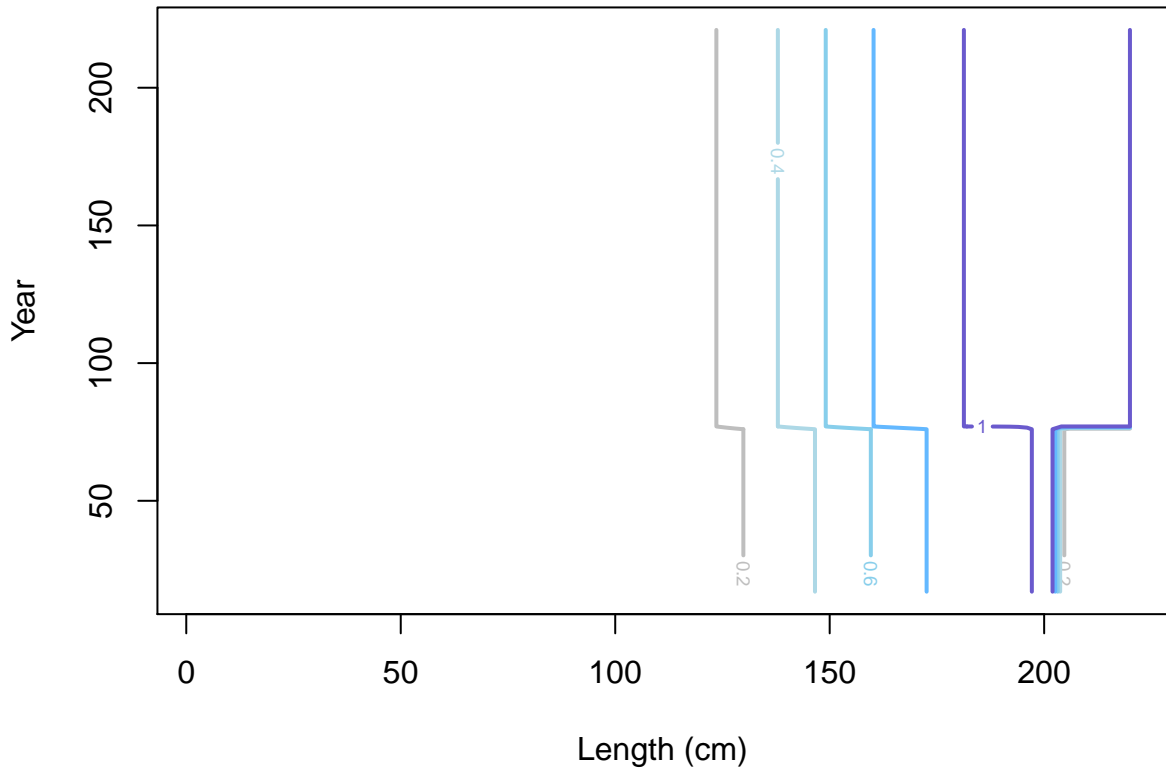
Male ending year selectivity for A1-LL-n



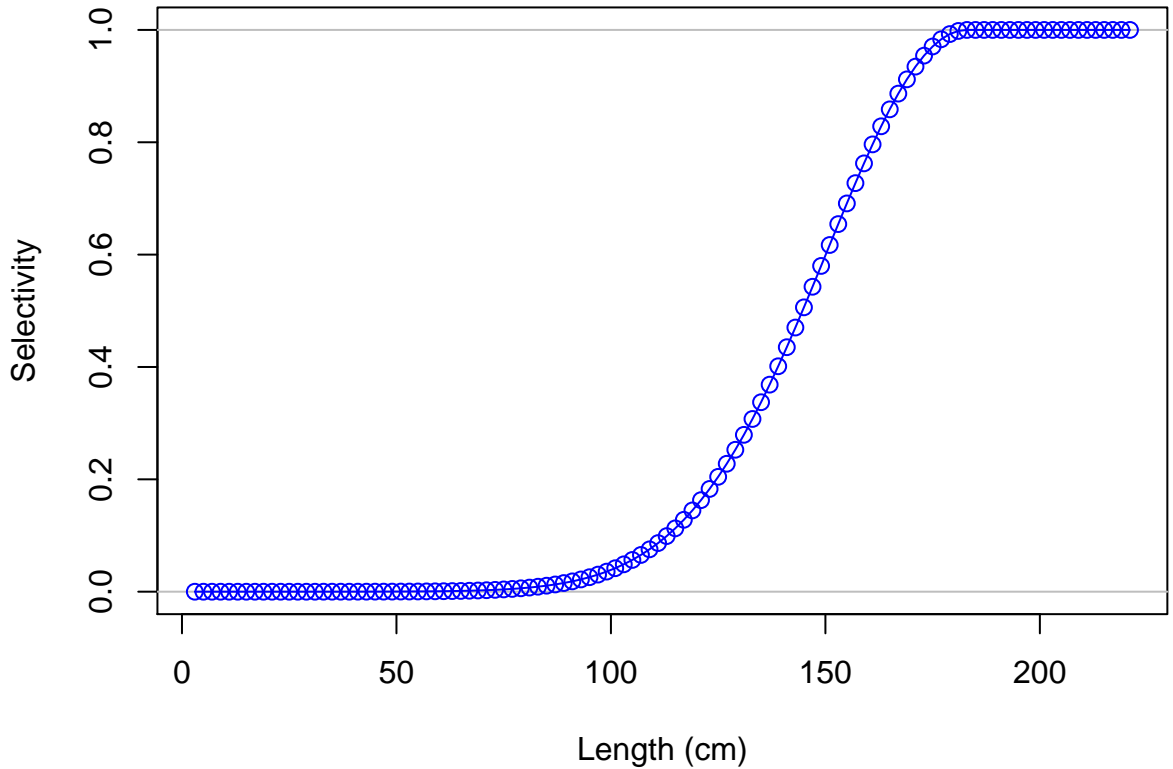
Female time-varying selectivity for A2-LL-n



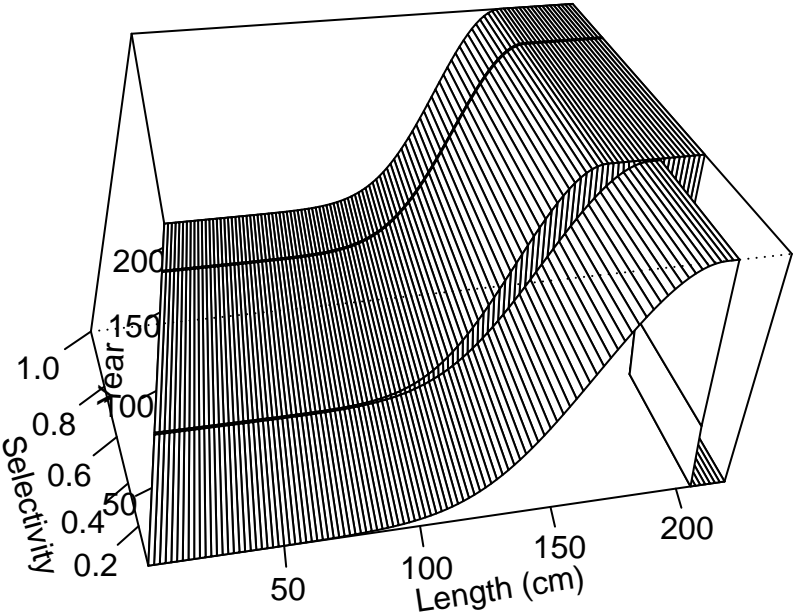
Female time-varying selectivity for A2-LL-n



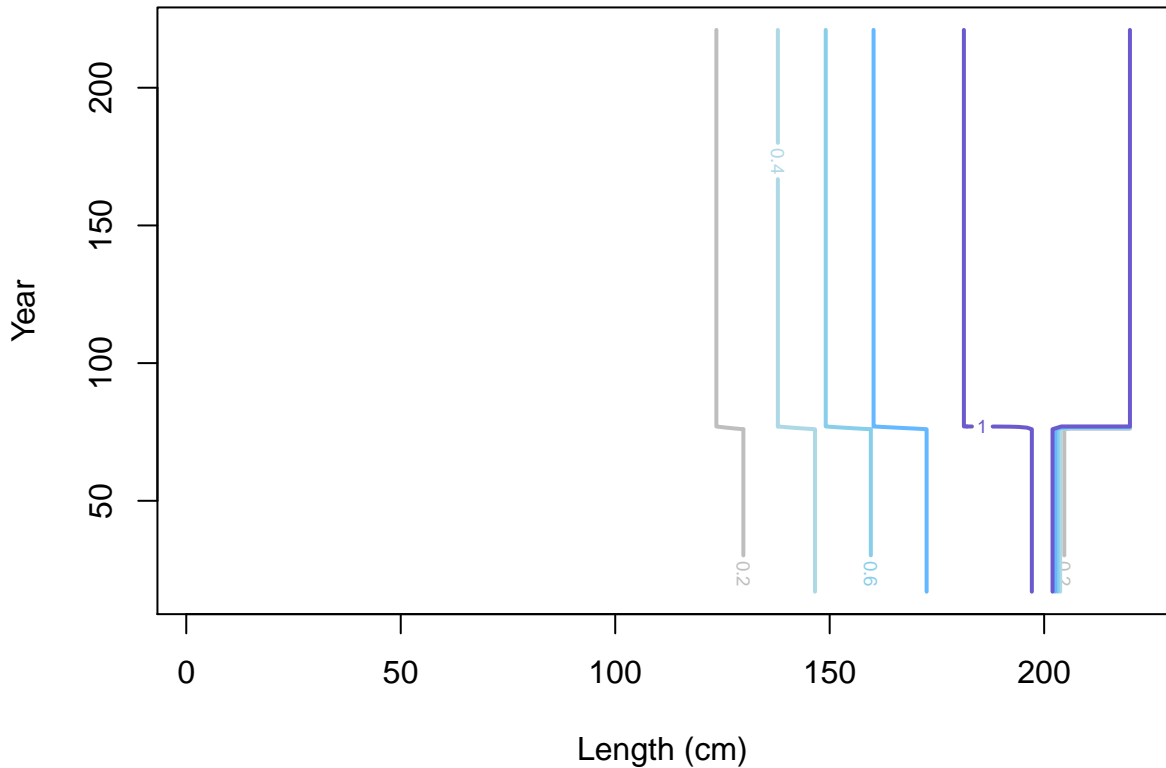
Female ending year selectivity for A2-LL-n



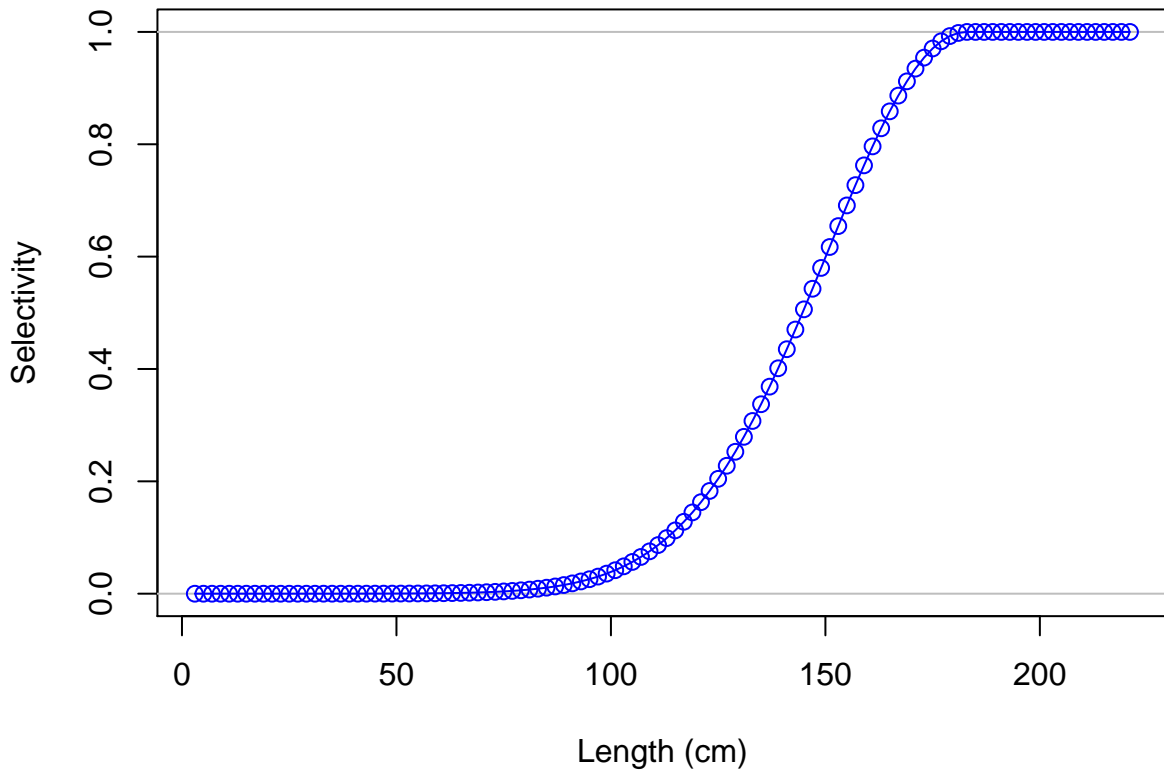
Male time-varying selectivity for A2-LL-n



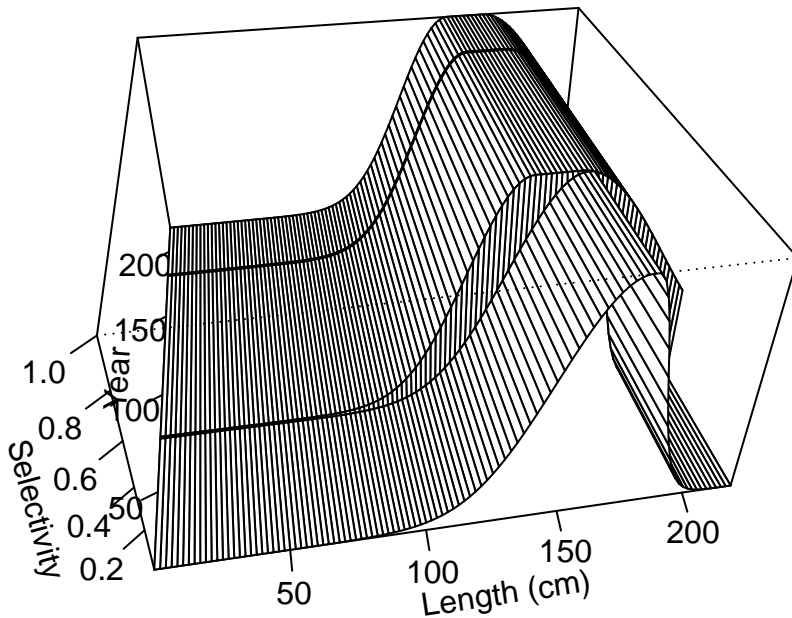
Male time-varying selectivity for A2-LL-n



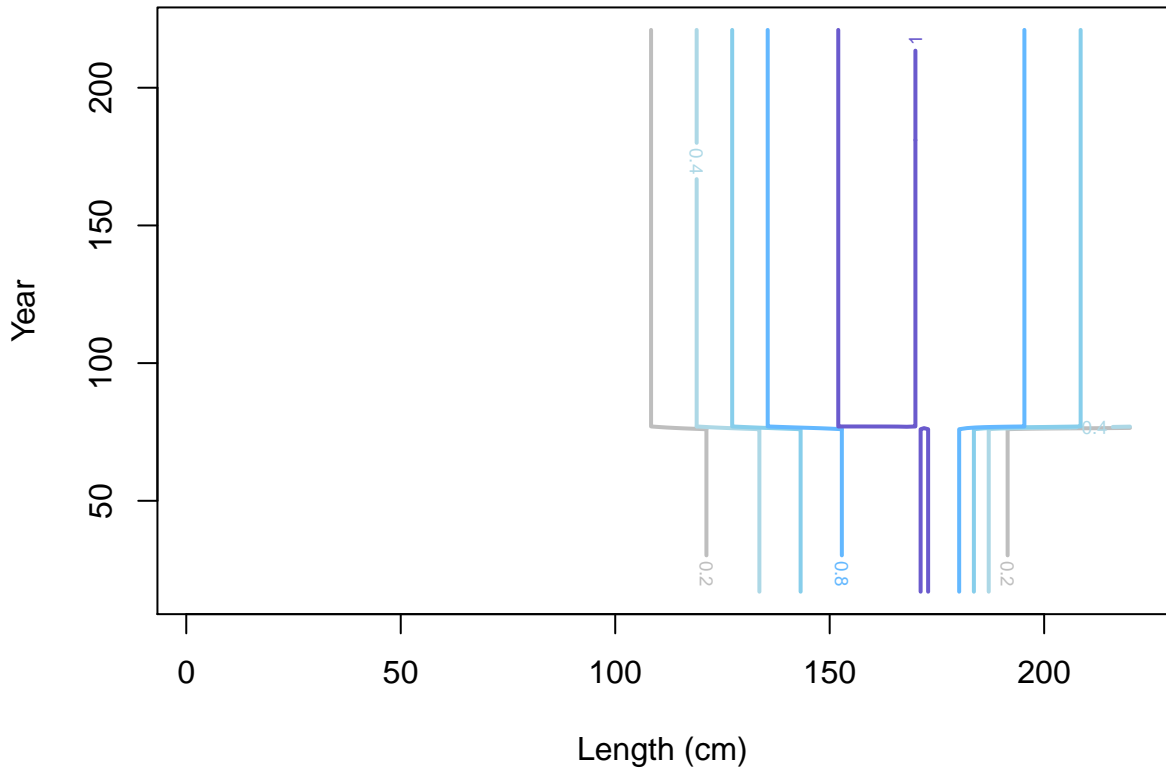
Male ending year selectivity for A2-LL-n



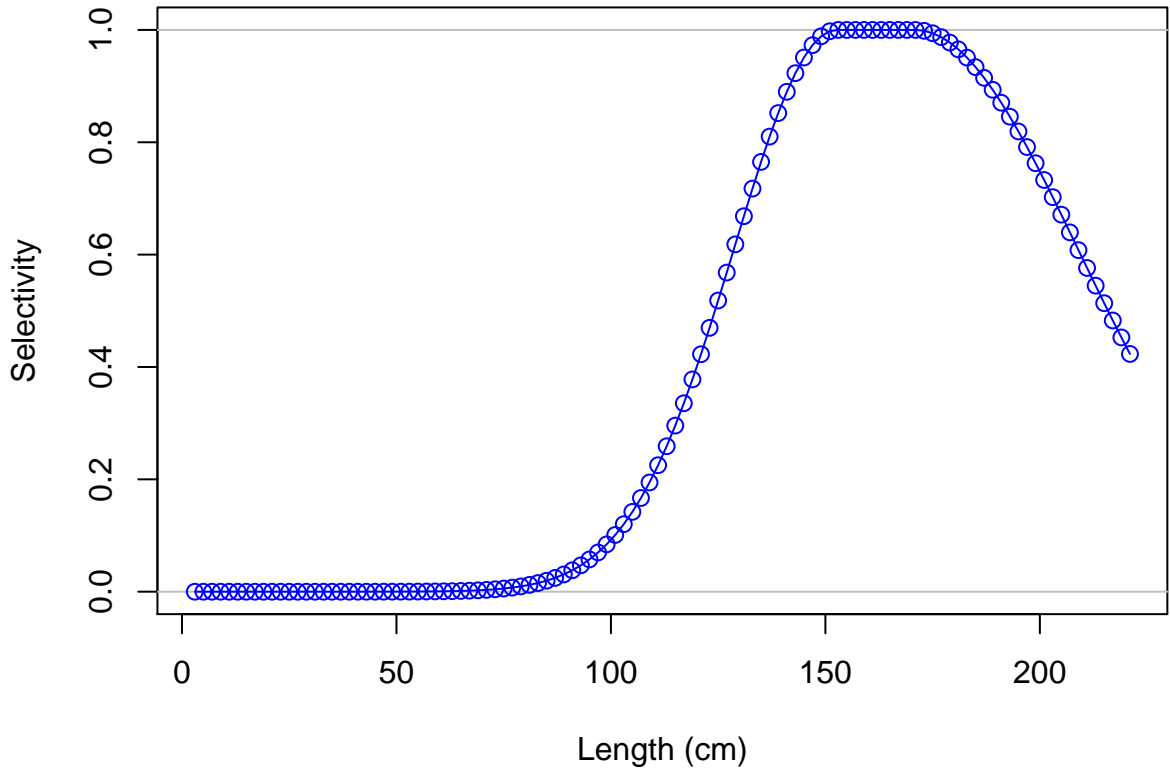
Female time-varying selectivity for A3-LL-n



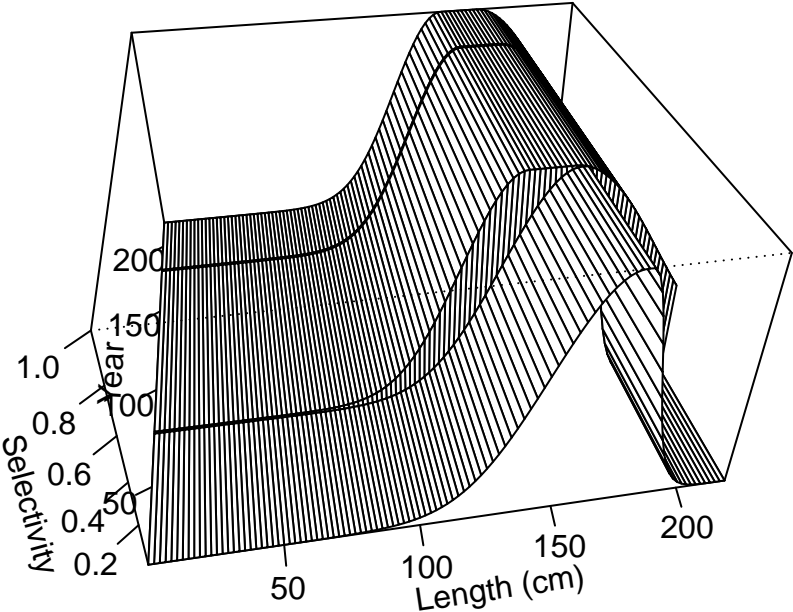
Female time-varying selectivity for A3-LL-n



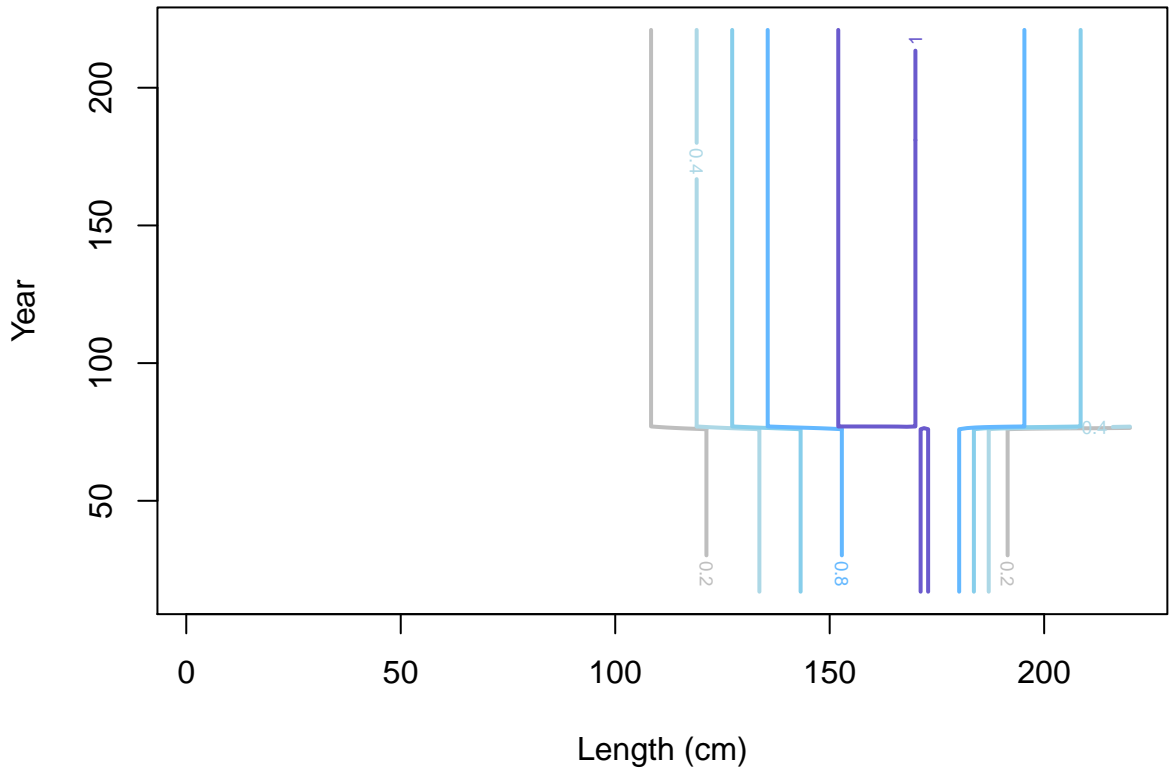
Female ending year selectivity for A3-LL-n



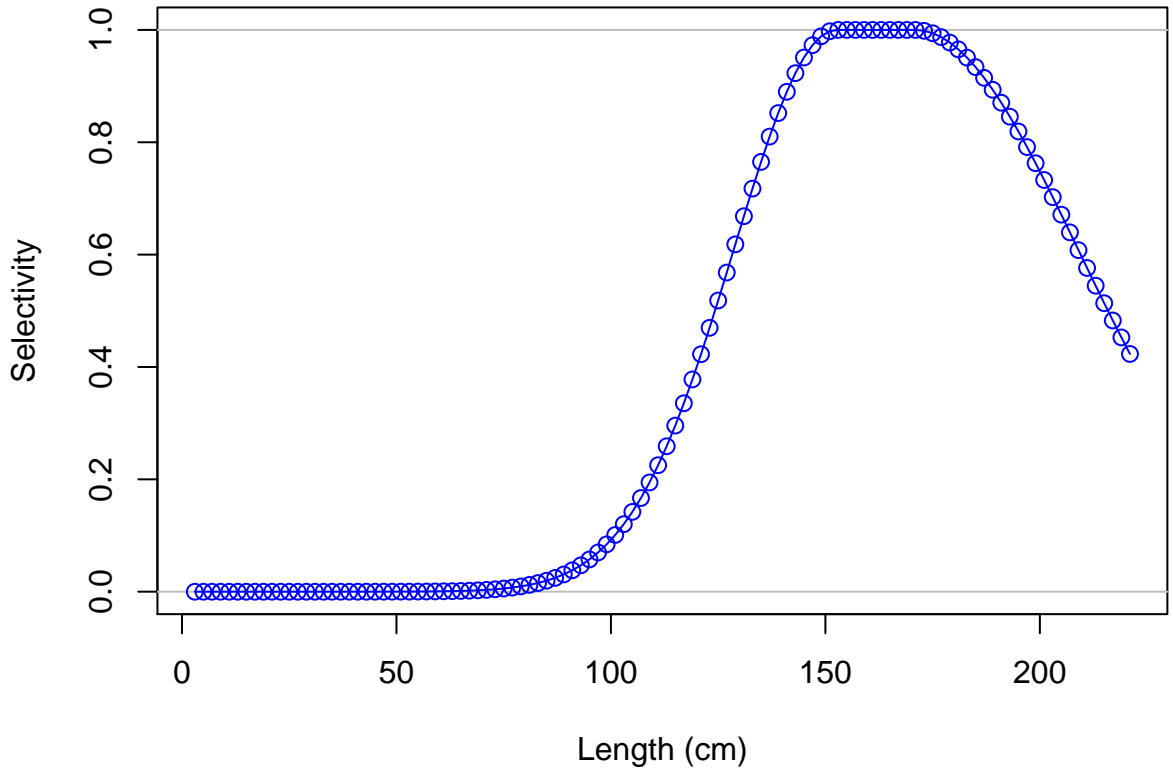
Male time-varying selectivity for A3-LL-n



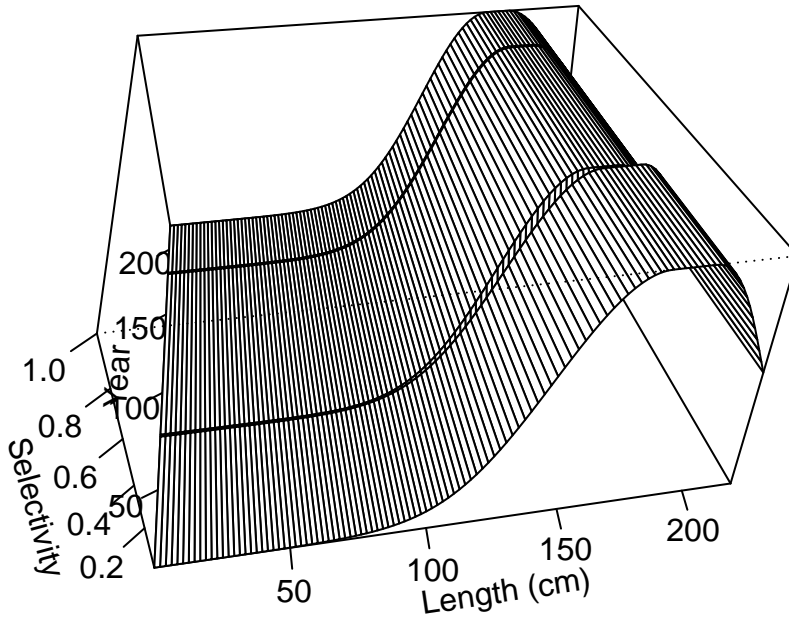
Male time-varying selectivity for A3-LL-n



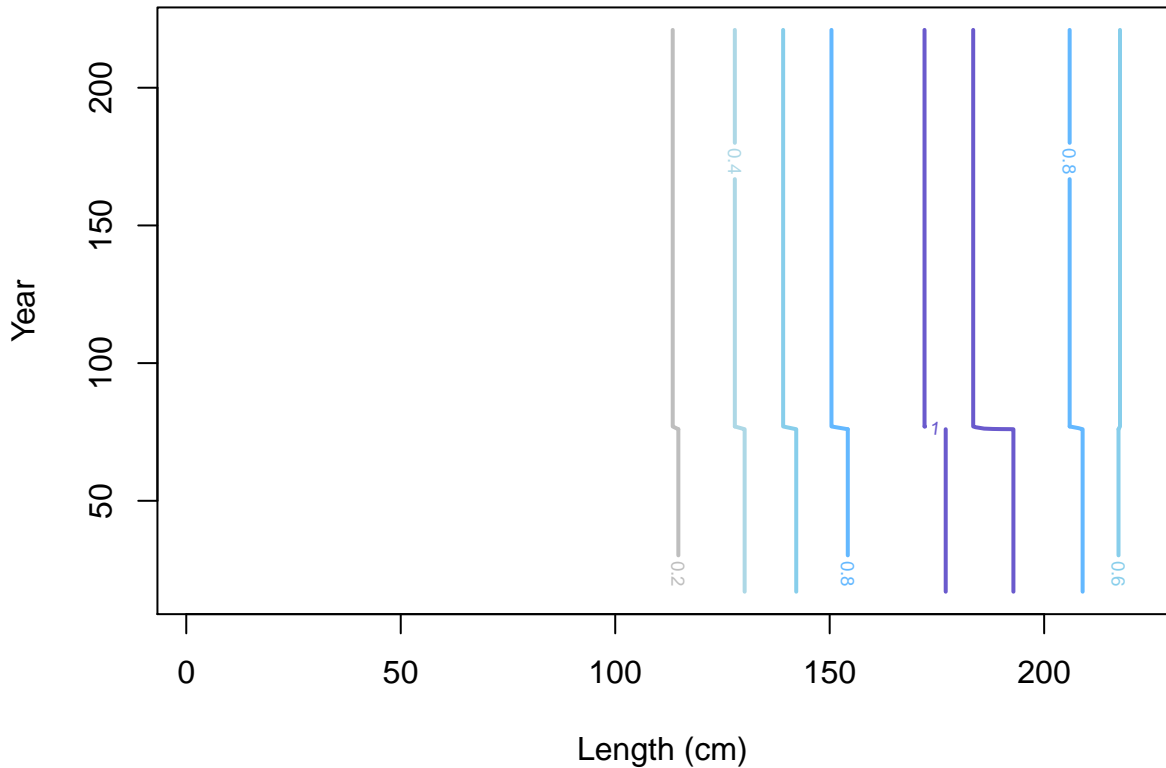
Male ending year selectivity for A3-LL-n



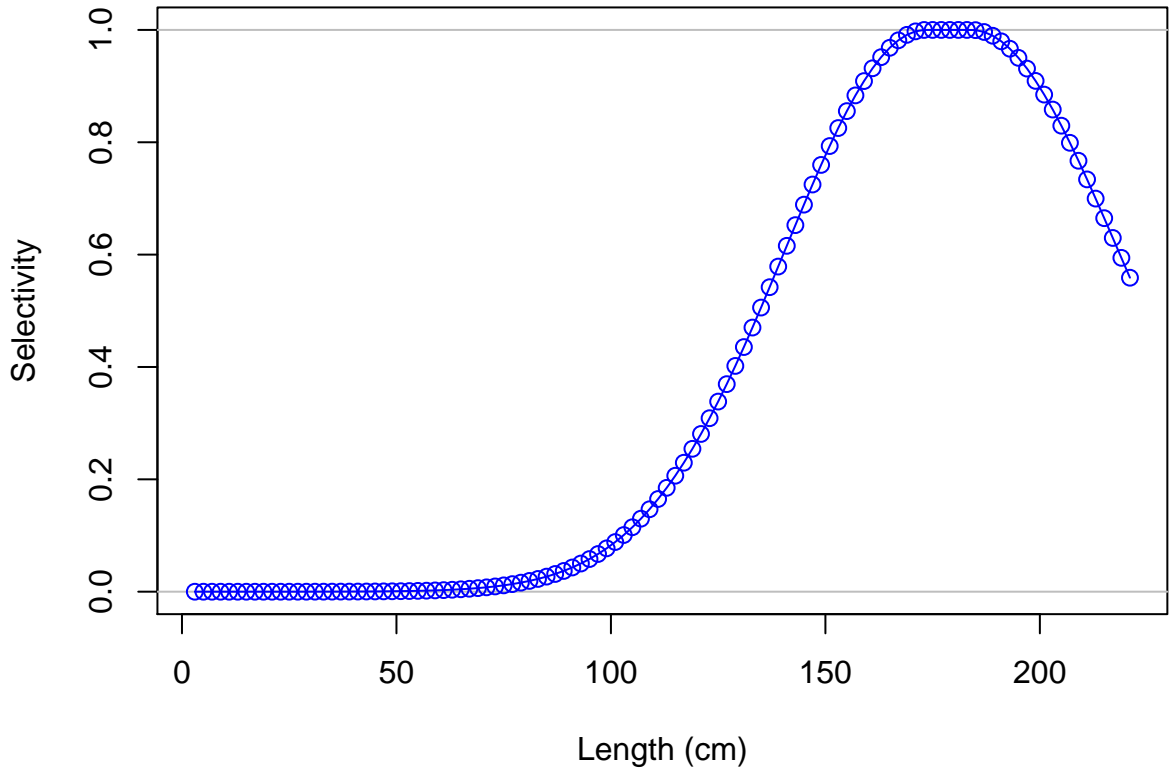
Female time-varying selectivity for A4-LL-n



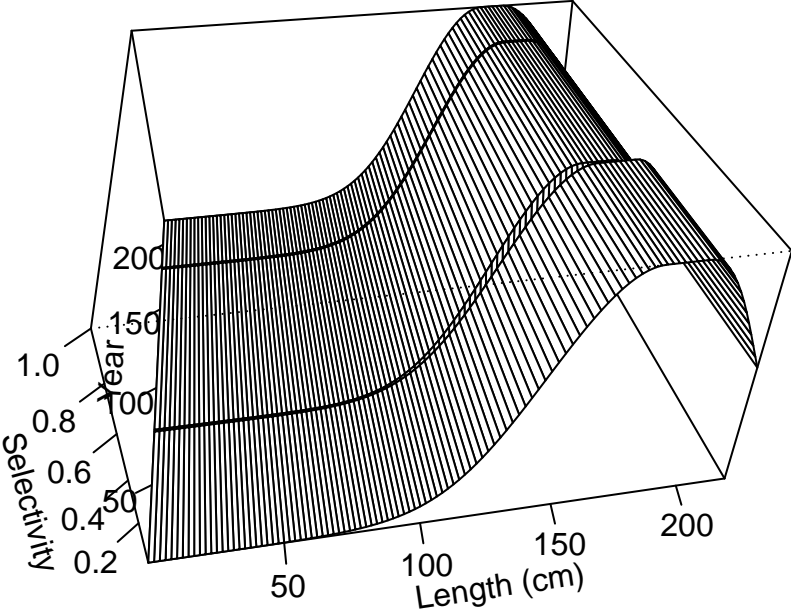
Female time-varying selectivity for A4-LL-n



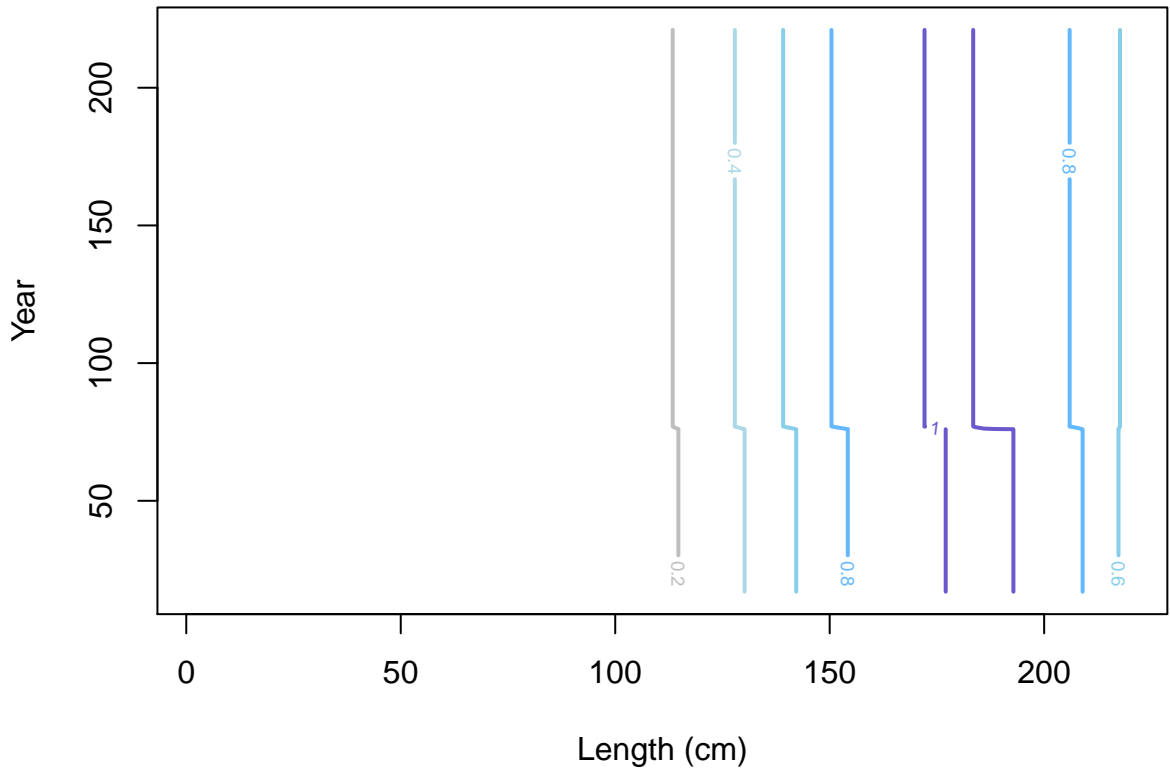
Female ending year selectivity for A4-LL-n



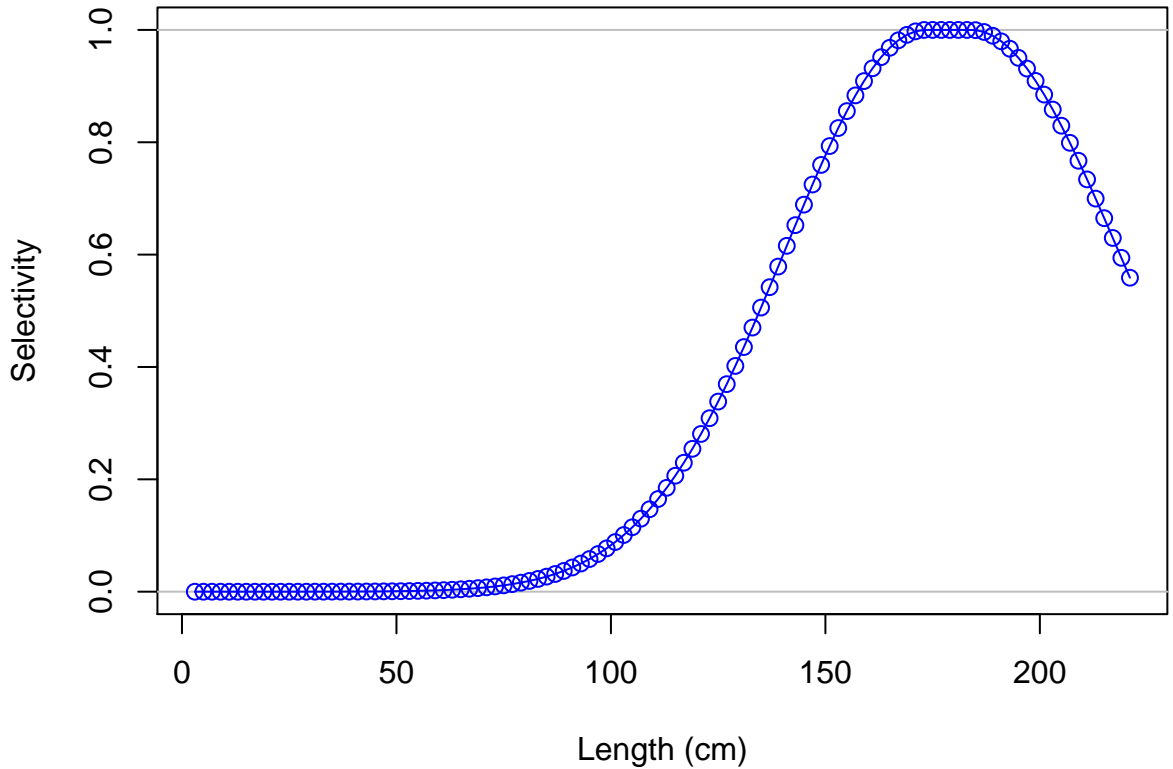
Male time-varying selectivity for A4-LL-n



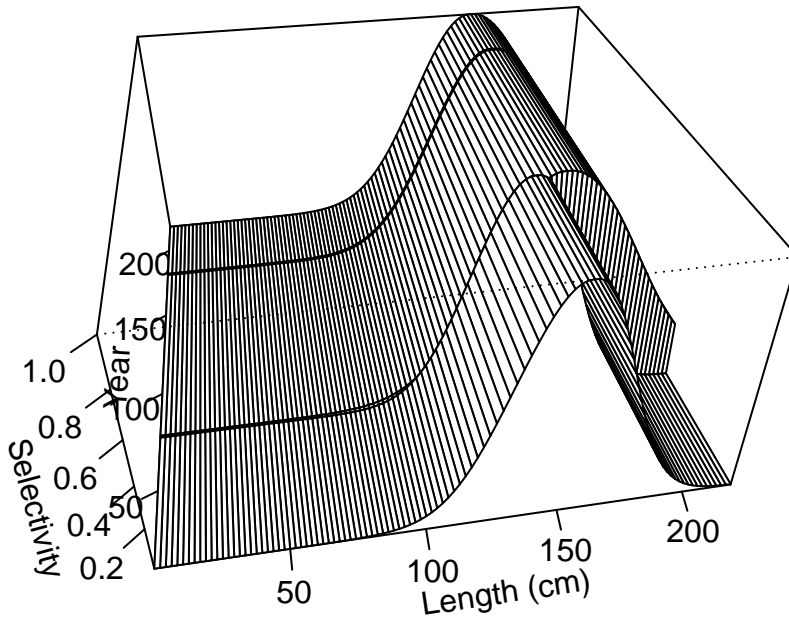
Male time-varying selectivity for A4-LL-n



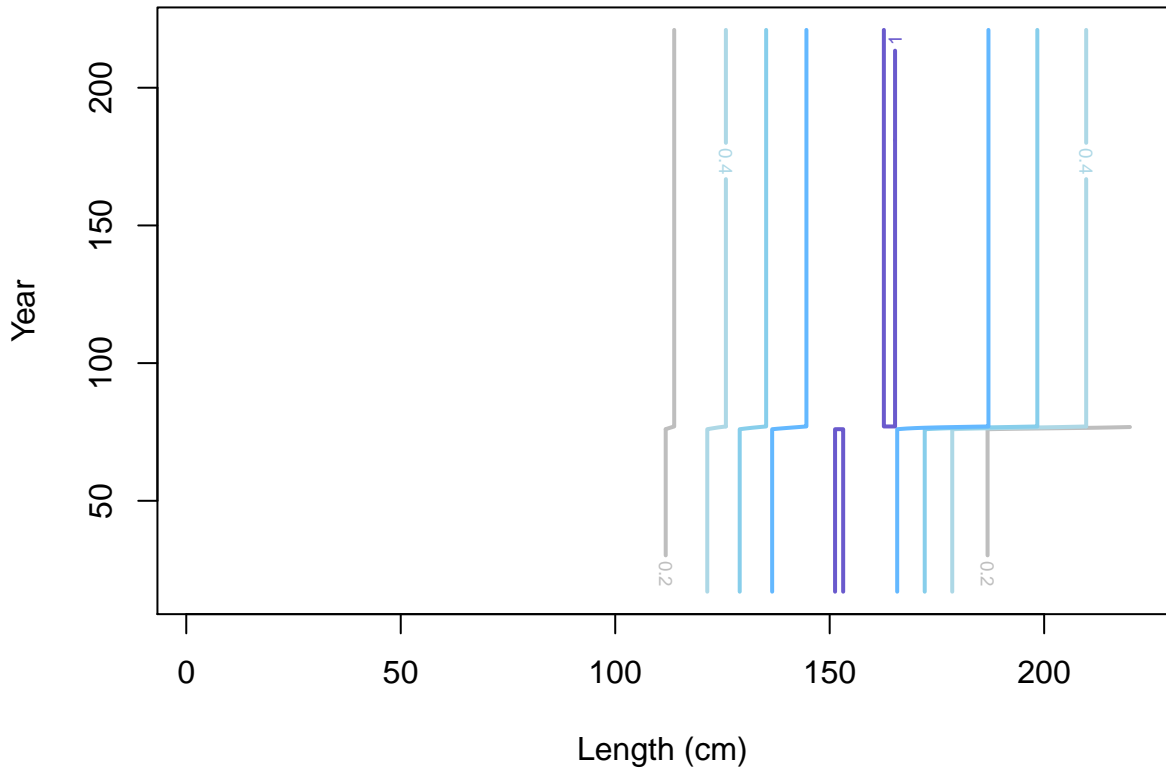
Male ending year selectivity for A4-LL-n



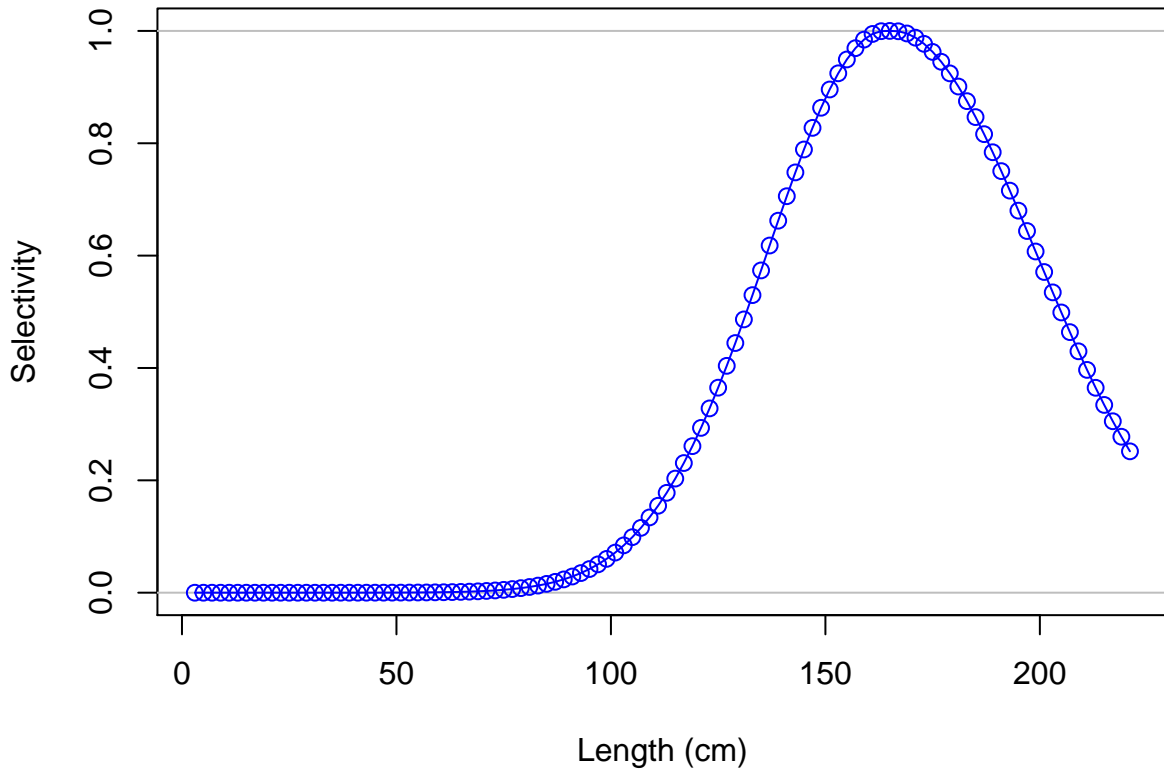
Female time-varying selectivity for A5-LL-n



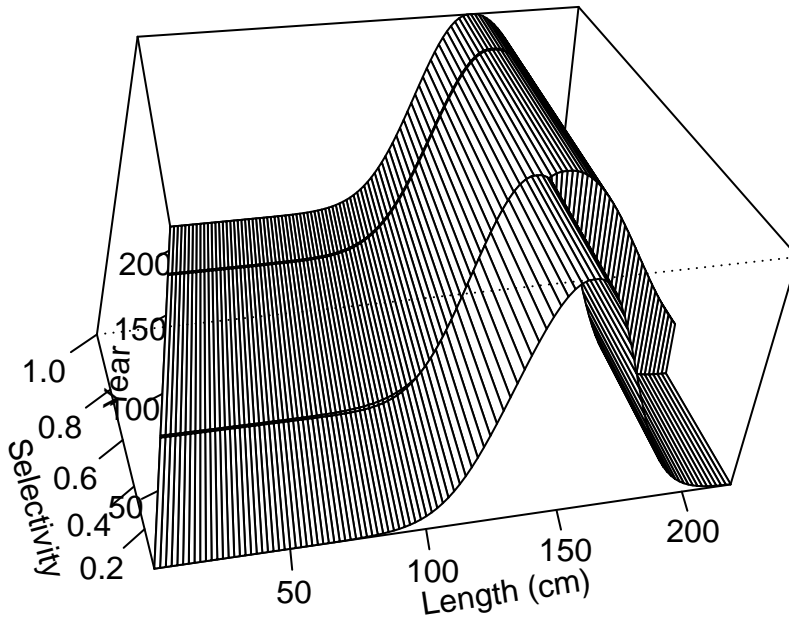
Female time-varying selectivity for A5-LL-n



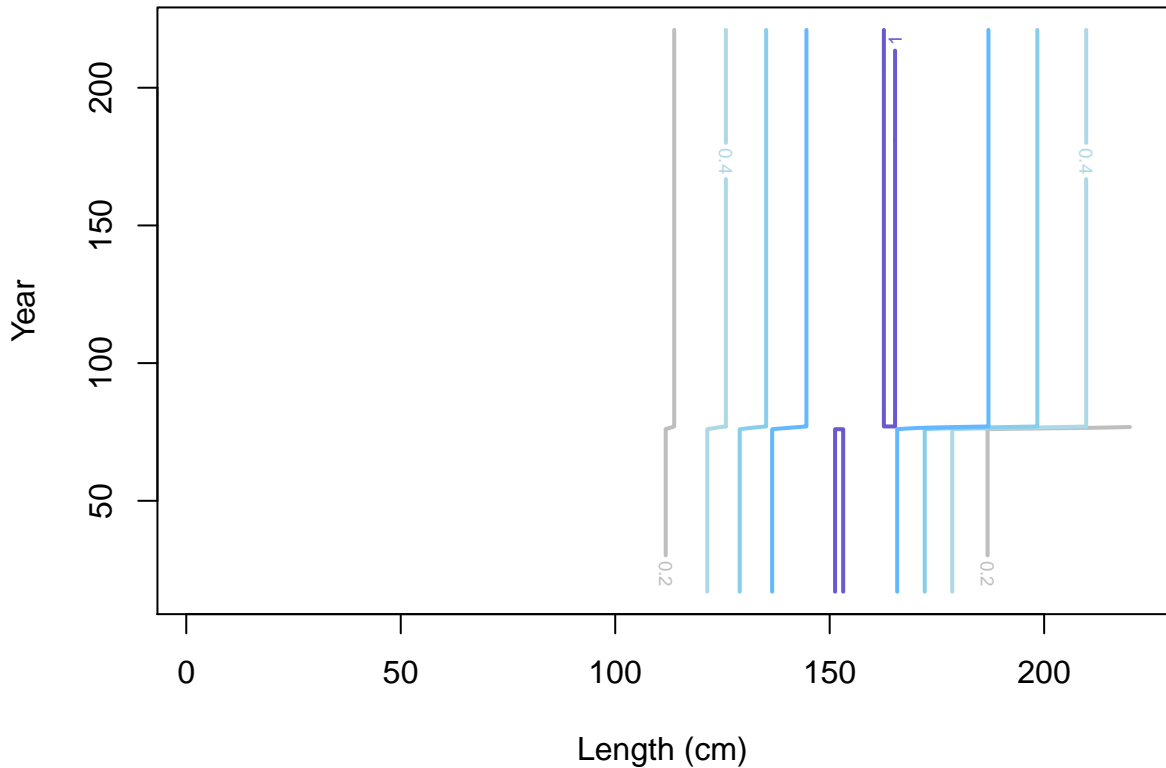
Female ending year selectivity for A5-LL-n



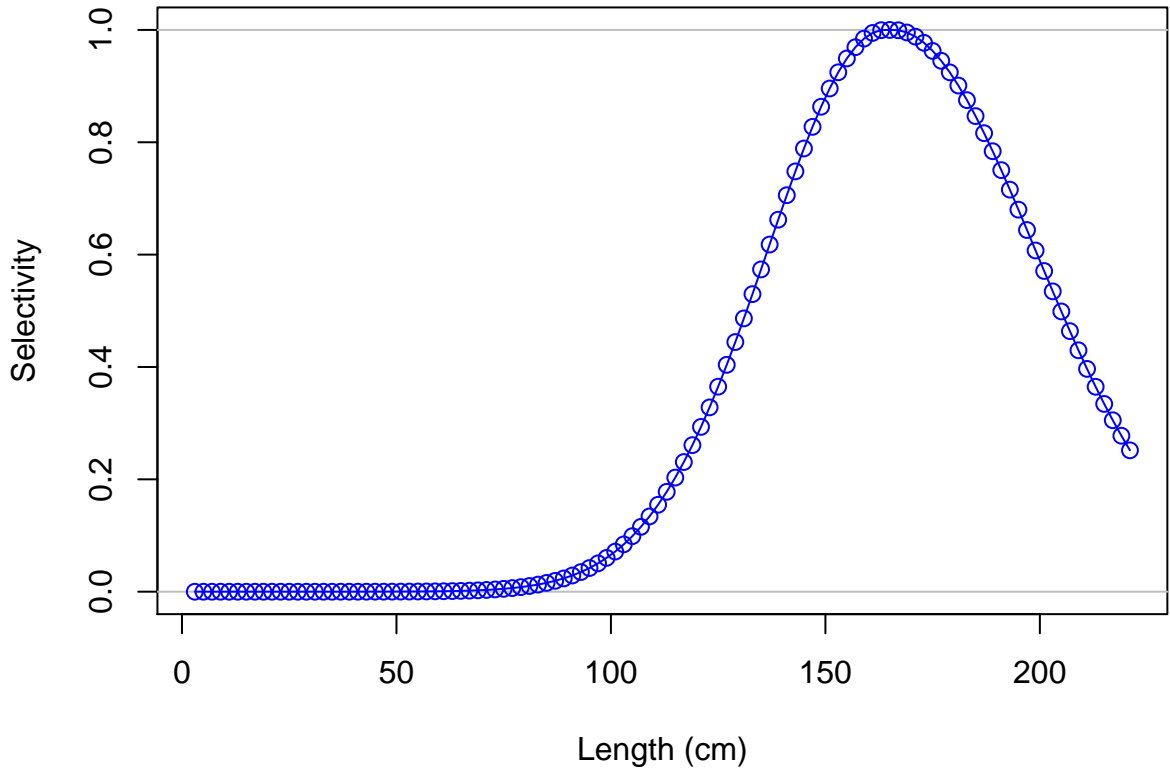
Male time-varying selectivity for A5-LL-n



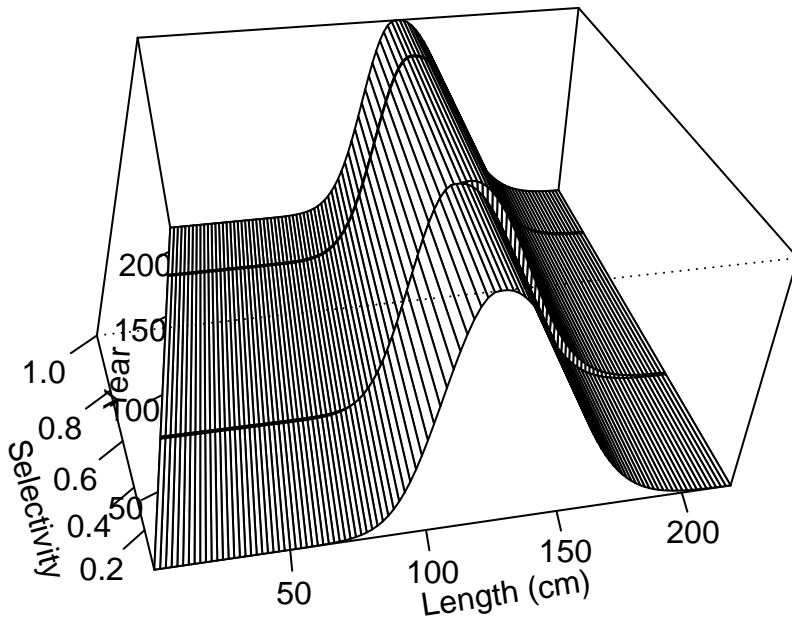
Male time-varying selectivity for A5-LL-n



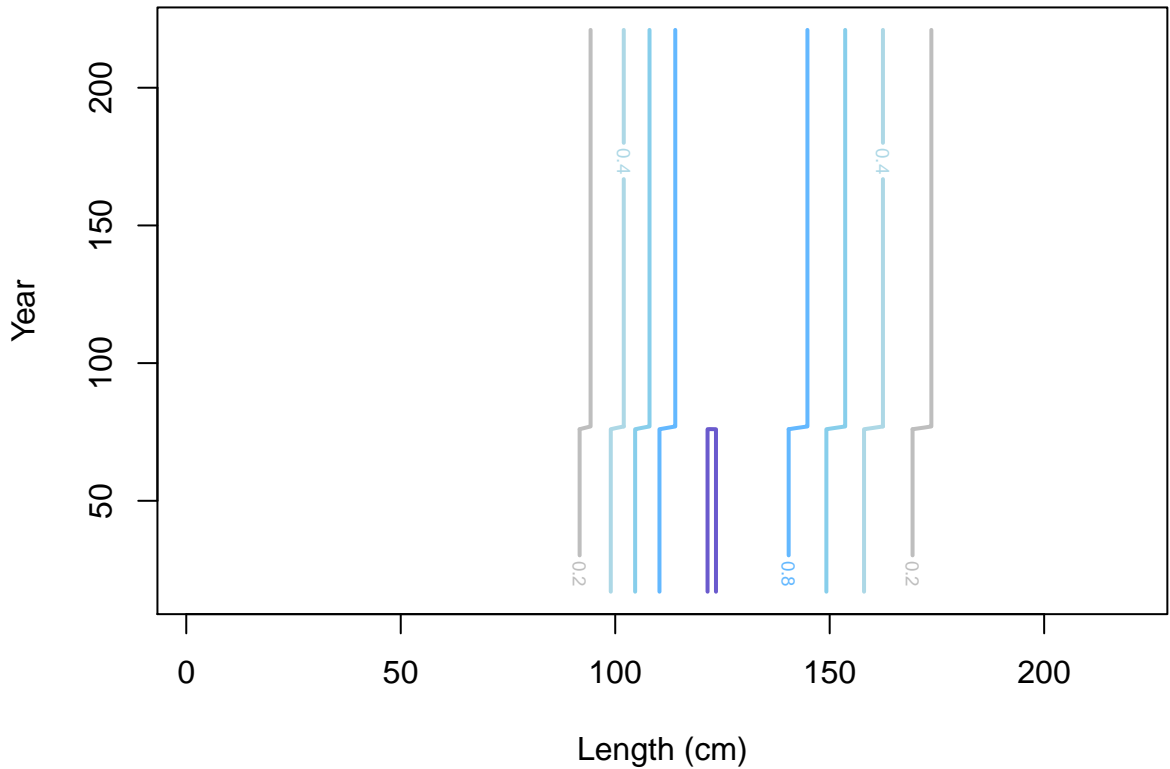
Male ending year selectivity for A5-LL-n



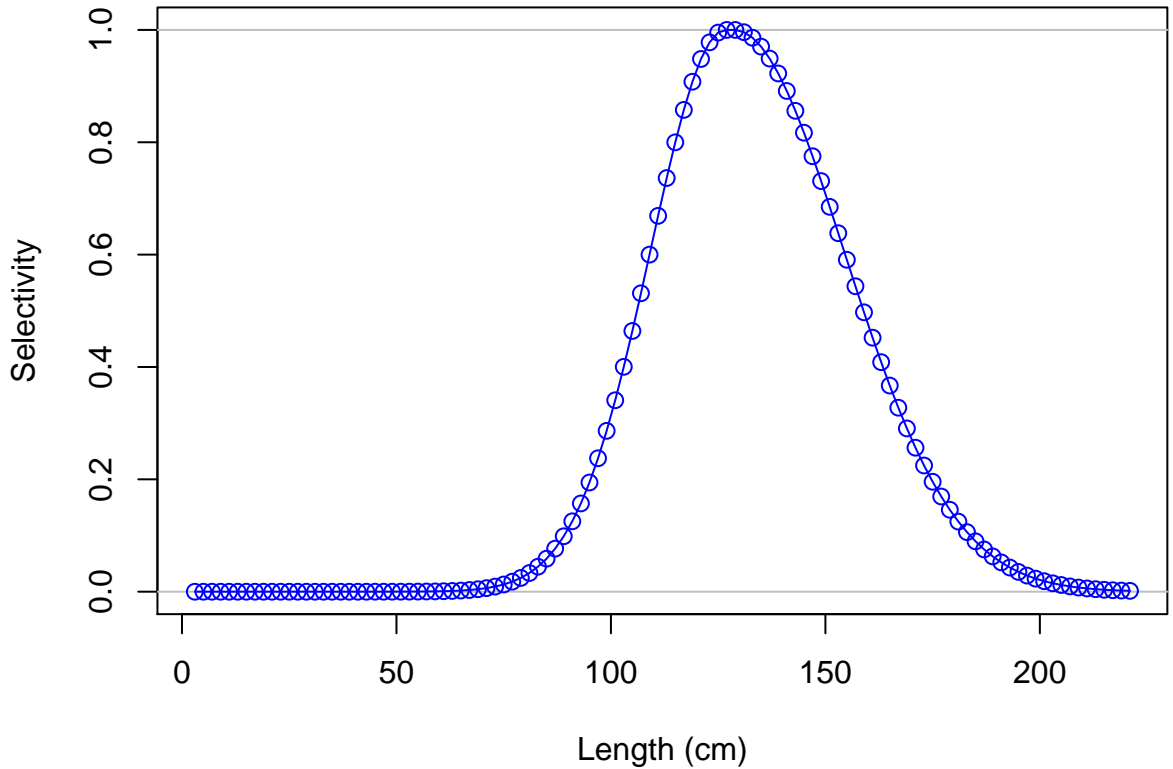
Female time-varying selectivity for A6-LL-n



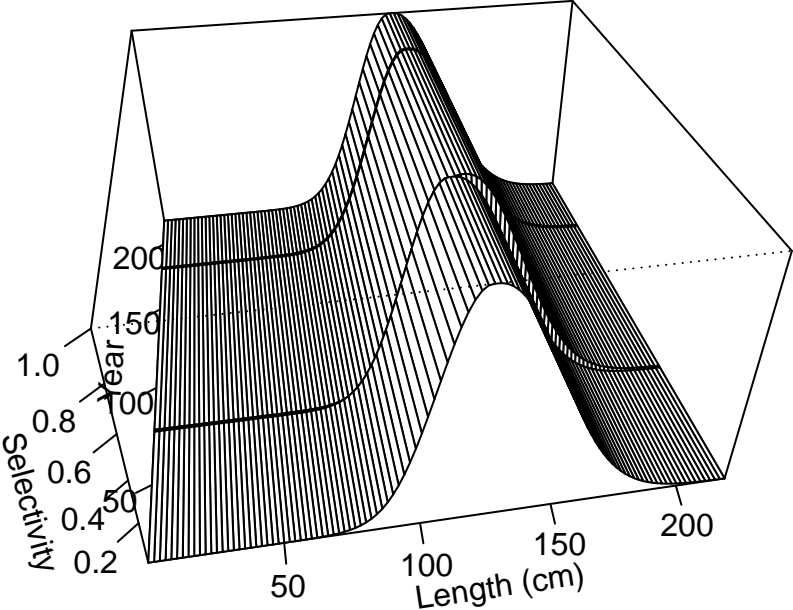
Female time-varying selectivity for A6-LL-n



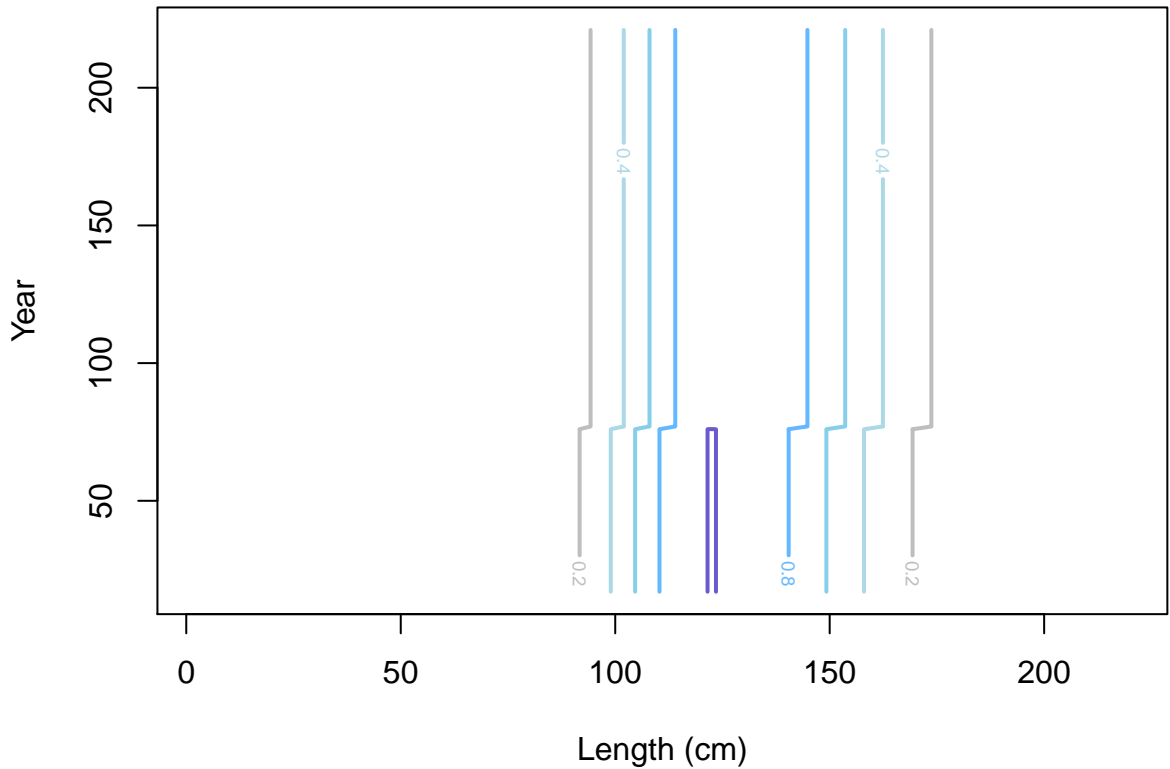
Female ending year selectivity for A6-LL-n



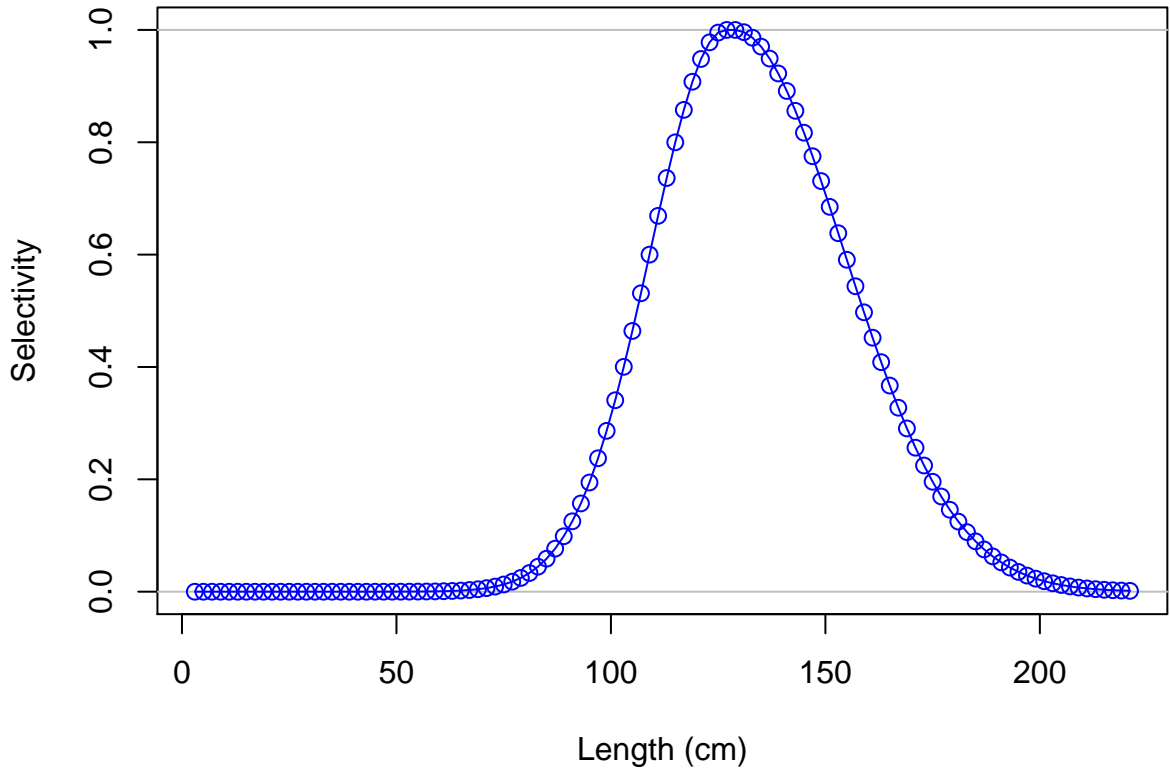
Male time-varying selectivity for A6-LL-n



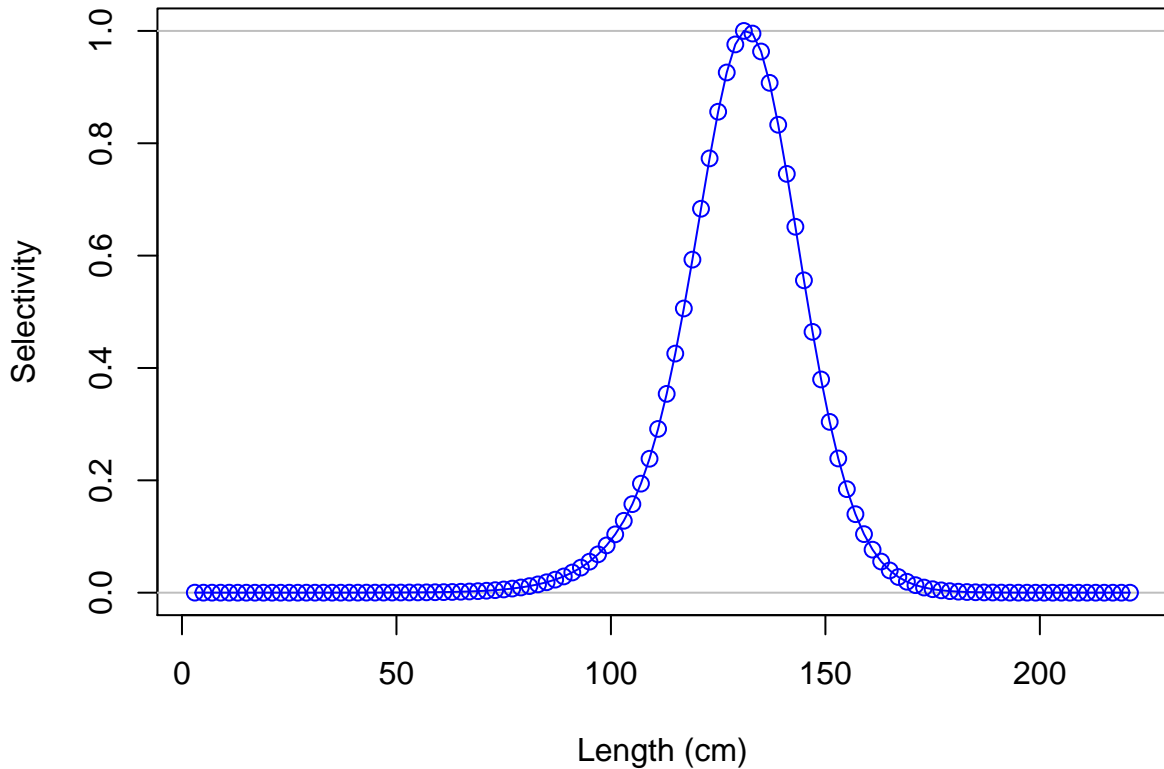
Male time-varying selectivity for A6-LL-n



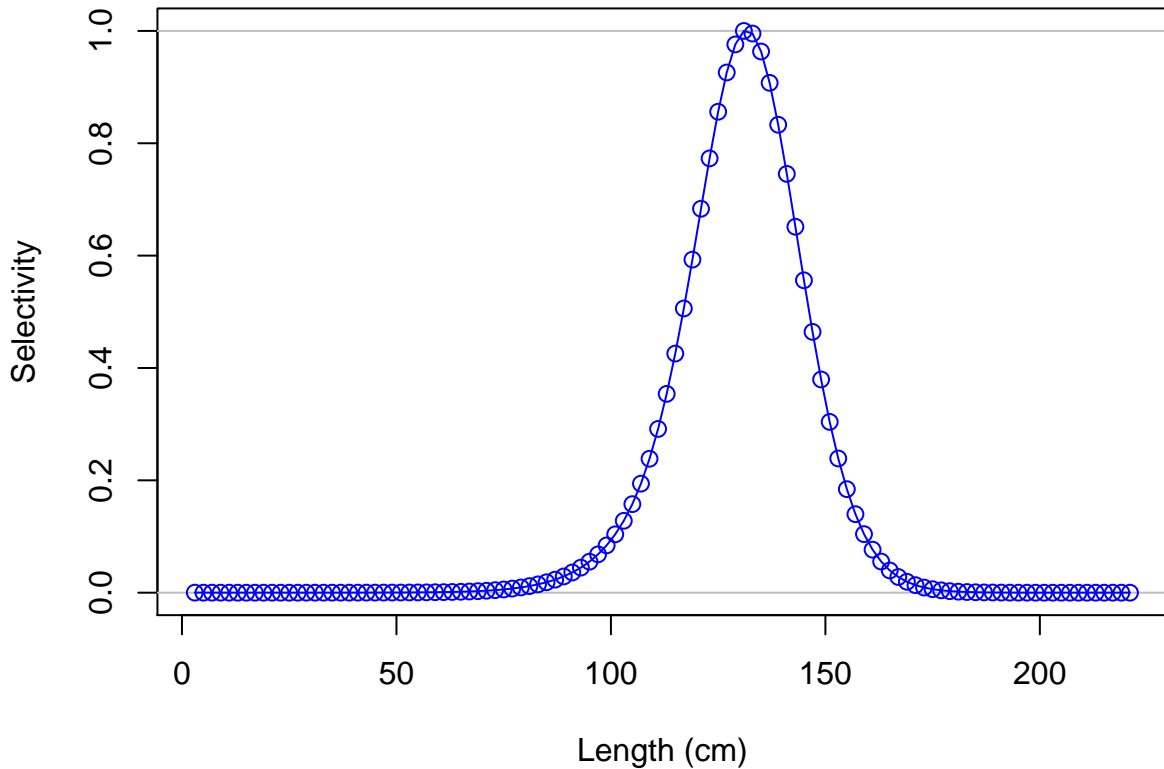
Male ending year selectivity for A6-LL-n



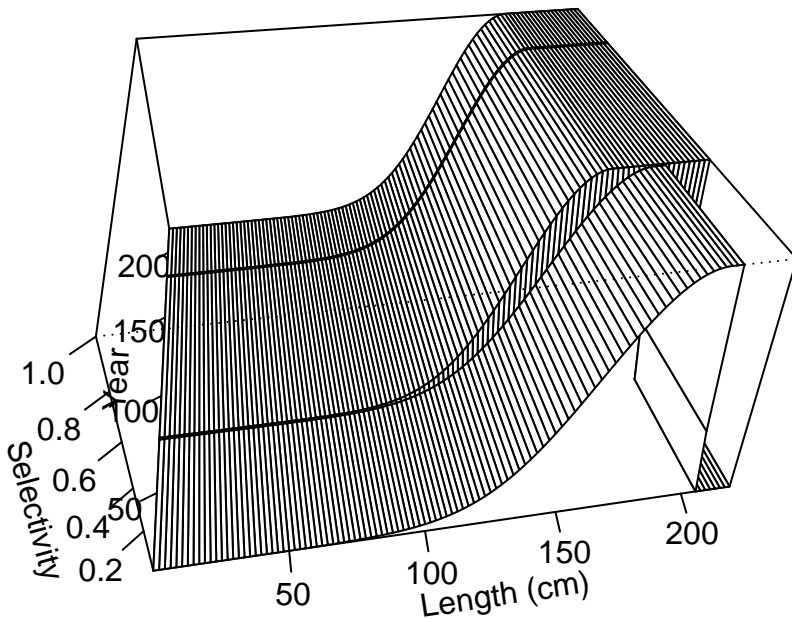
Female ending year selectivity for A1-LL-w



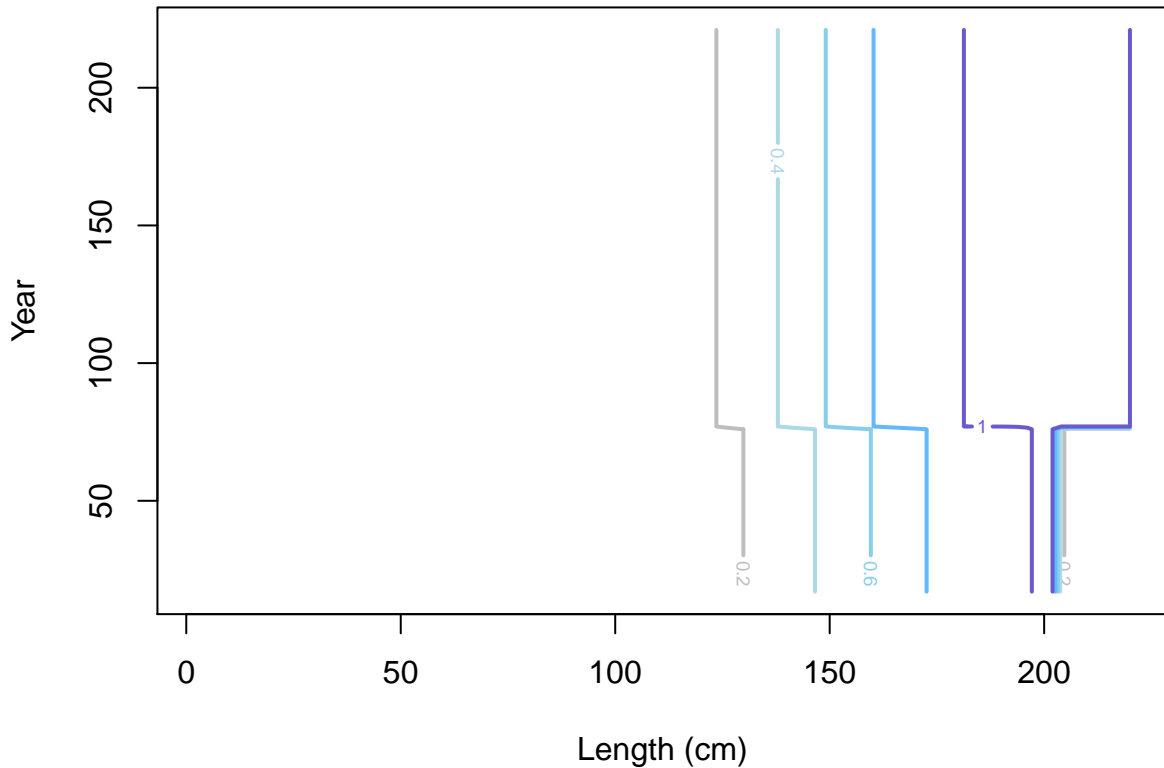
Male ending year selectivity for A1-LL-w



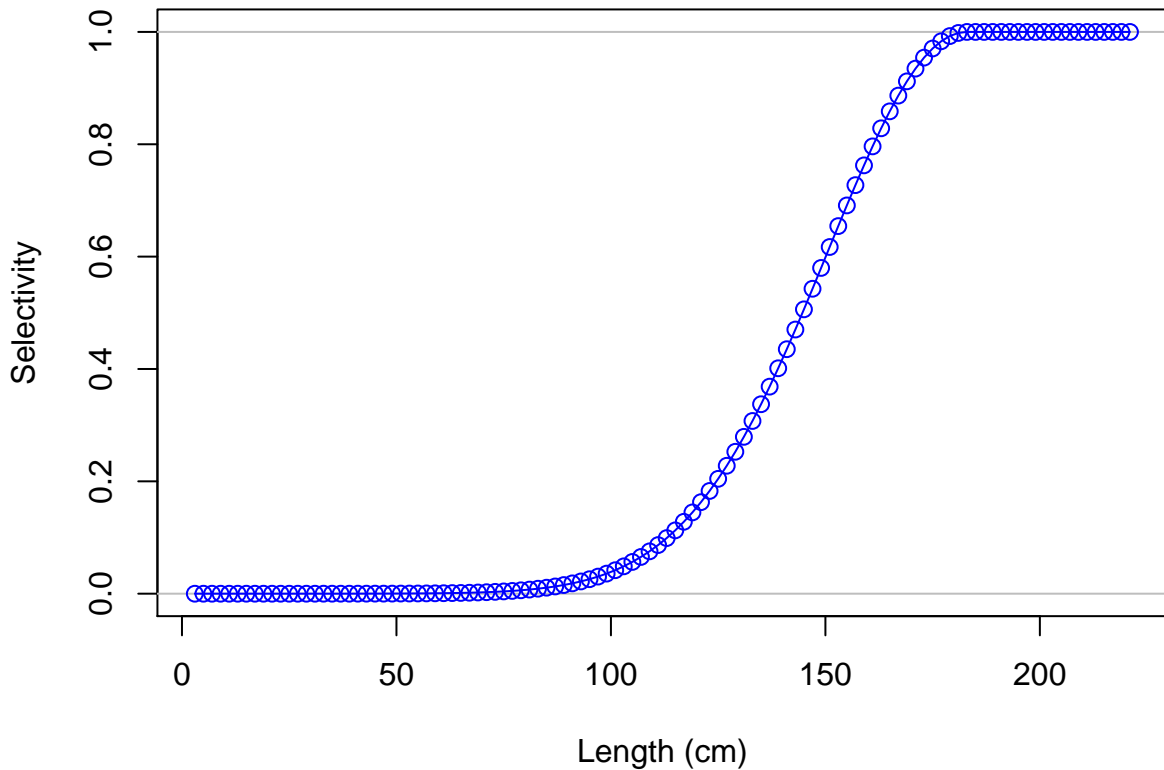
Female time-varying selectivity for A2-LL-w



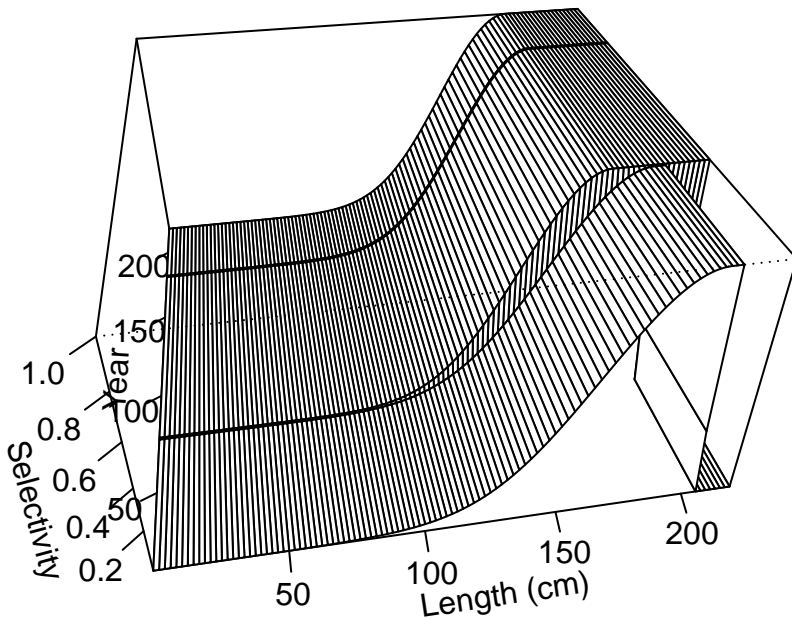
Female time-varying selectivity for A2-LL-w



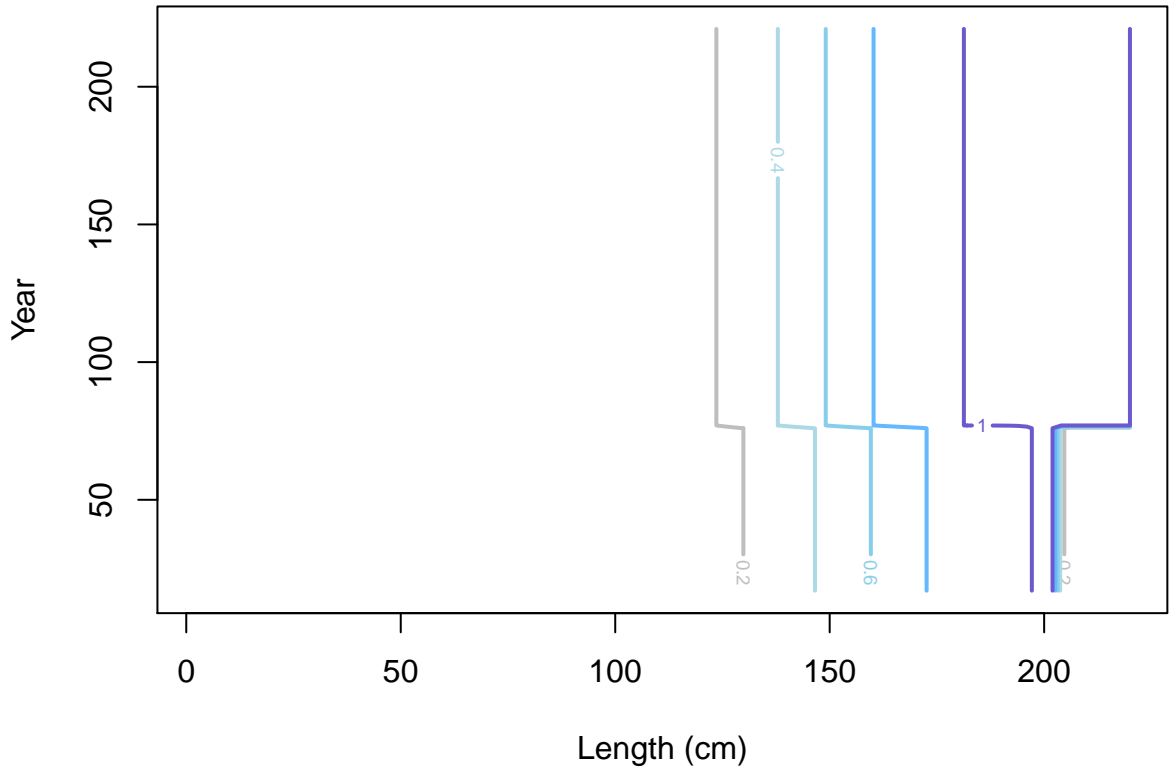
Female ending year selectivity for A2-LL-w



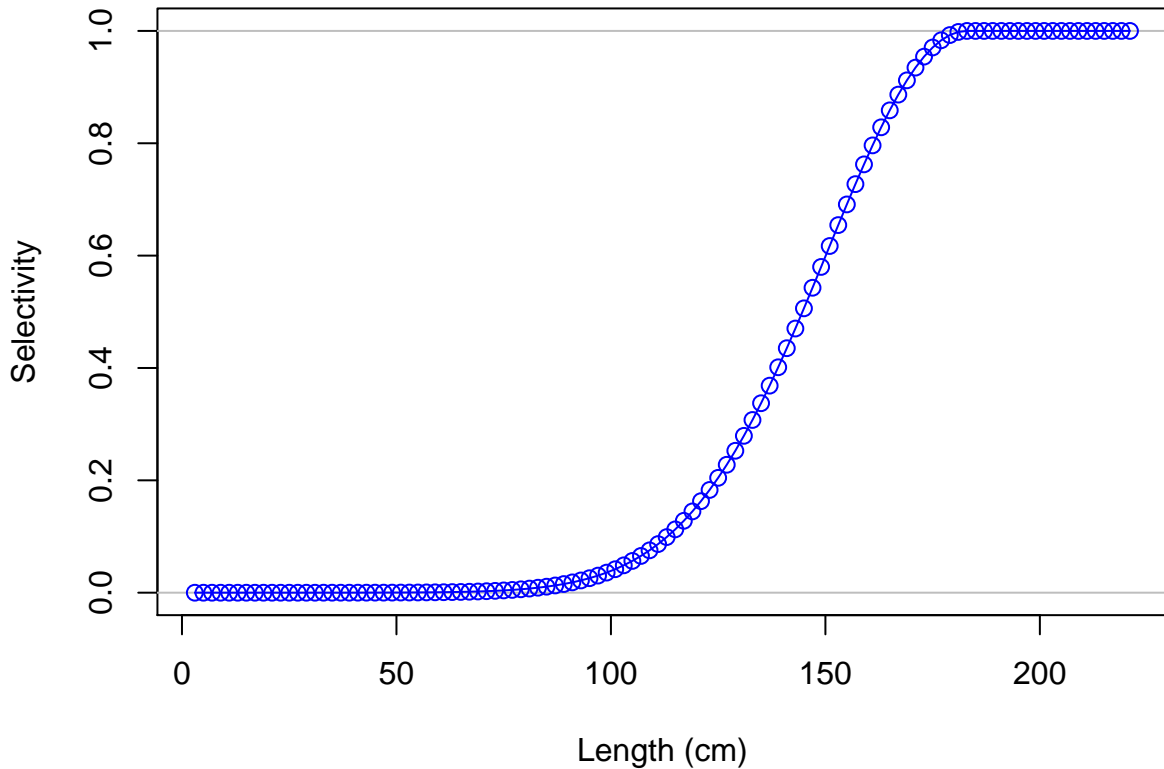
Male time-varying selectivity for A2-LL-w



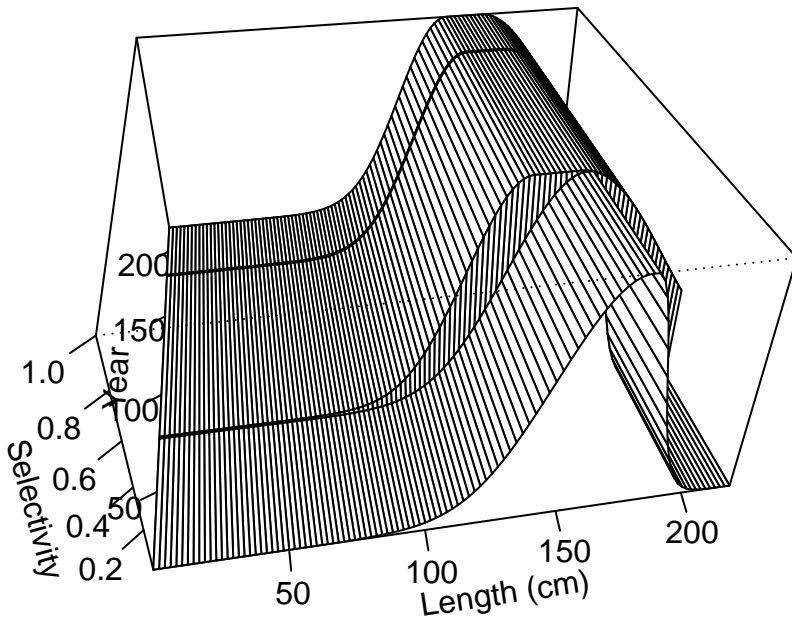
Male time-varying selectivity for A2-LL-w



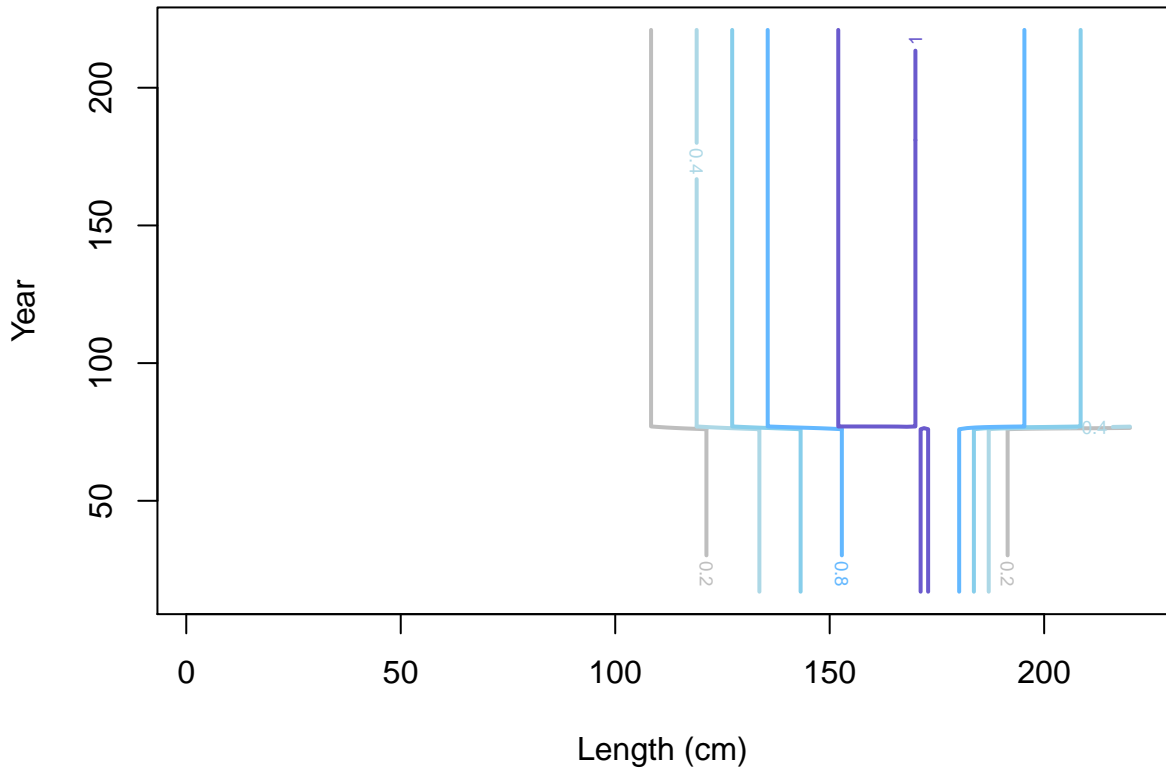
Male ending year selectivity for A2-LL-w



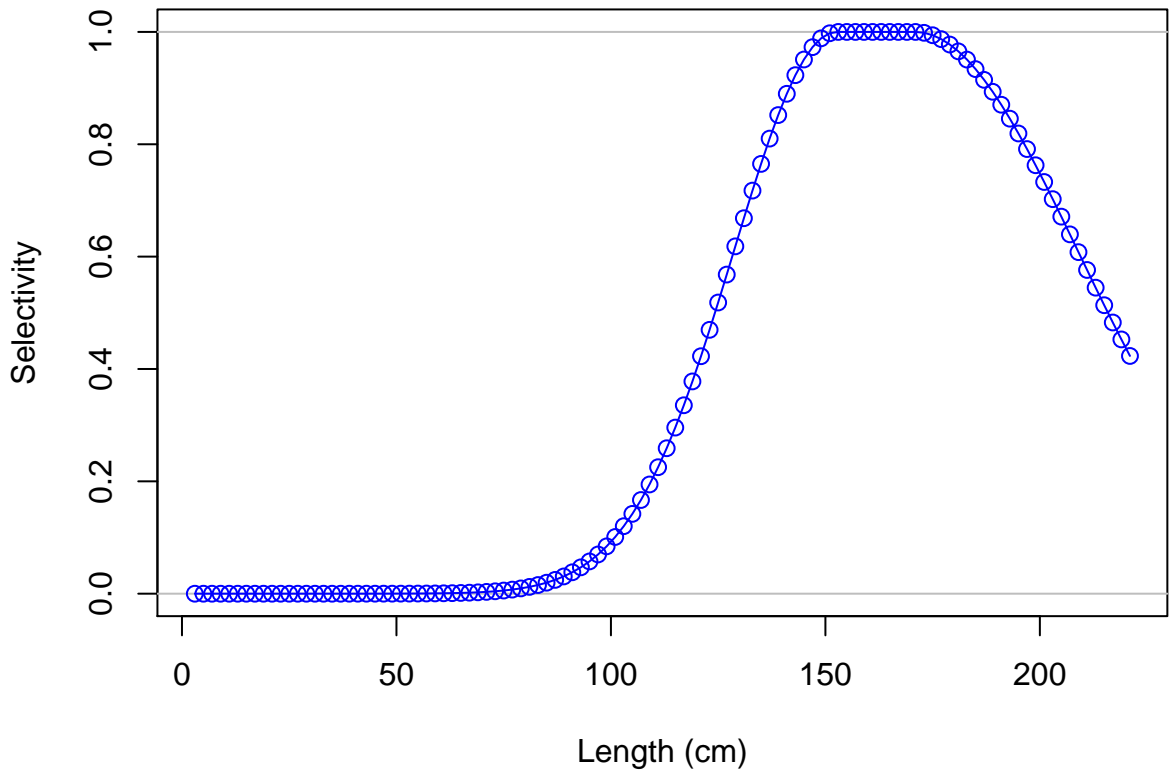
Female time-varying selectivity for A3-LL-w



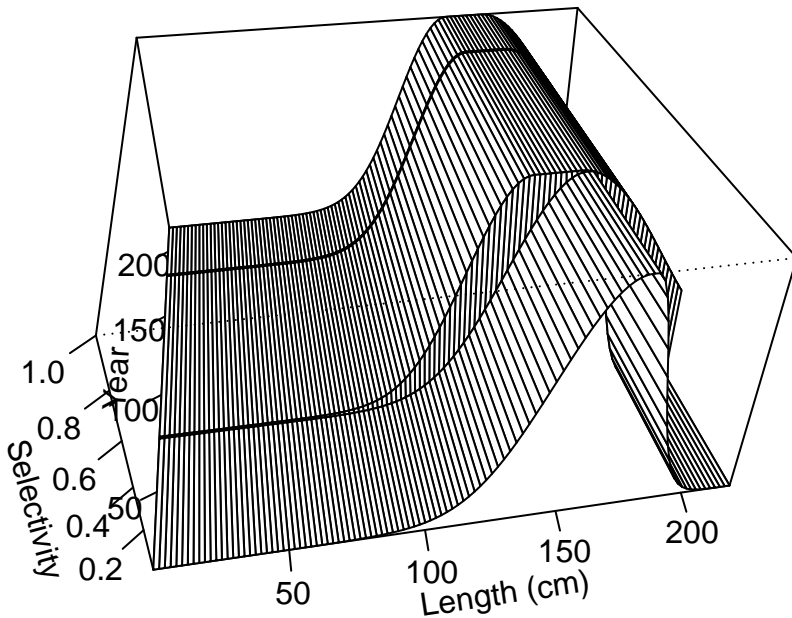
Female time-varying selectivity for A3-LL-w



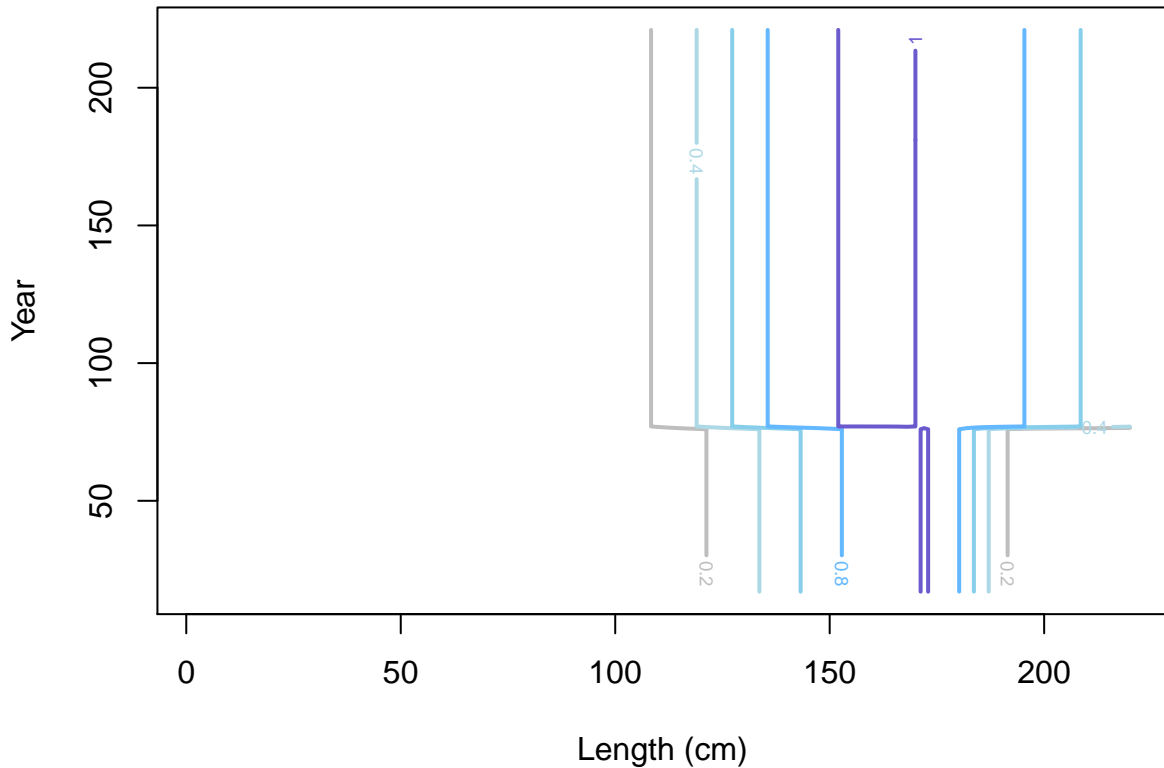
Female ending year selectivity for A3-LL-w



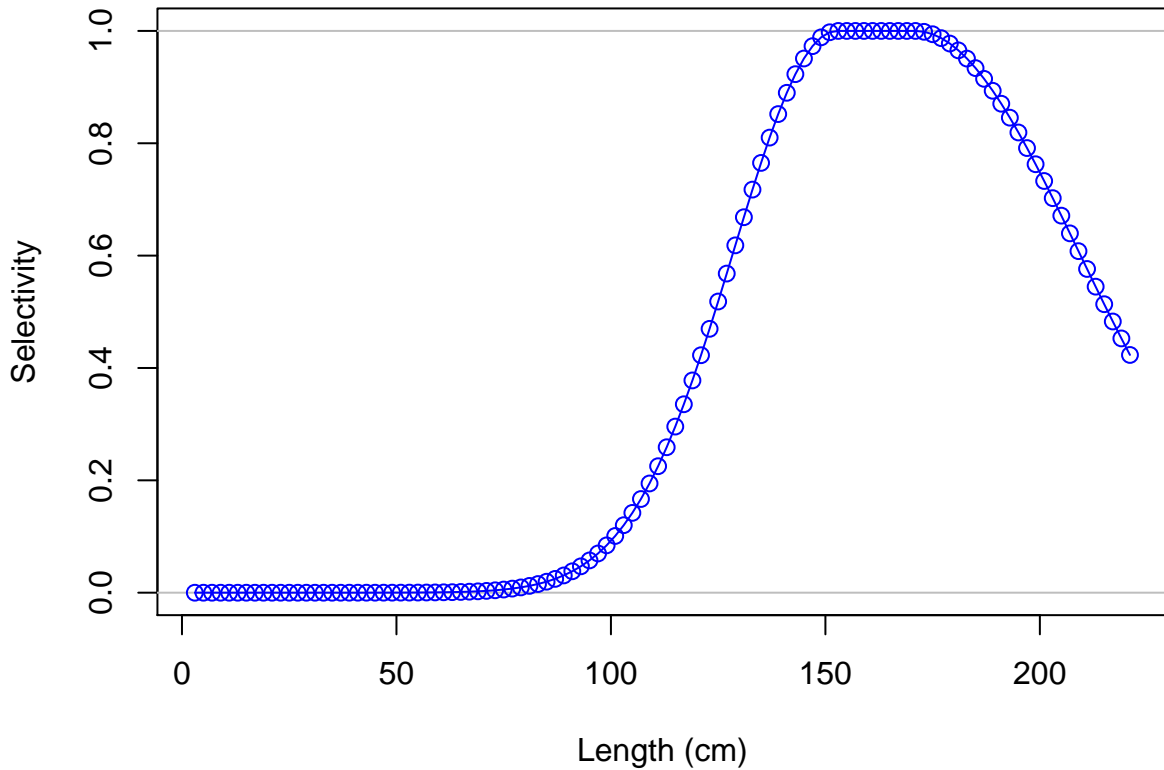
Male time-varying selectivity for A3-LL-w



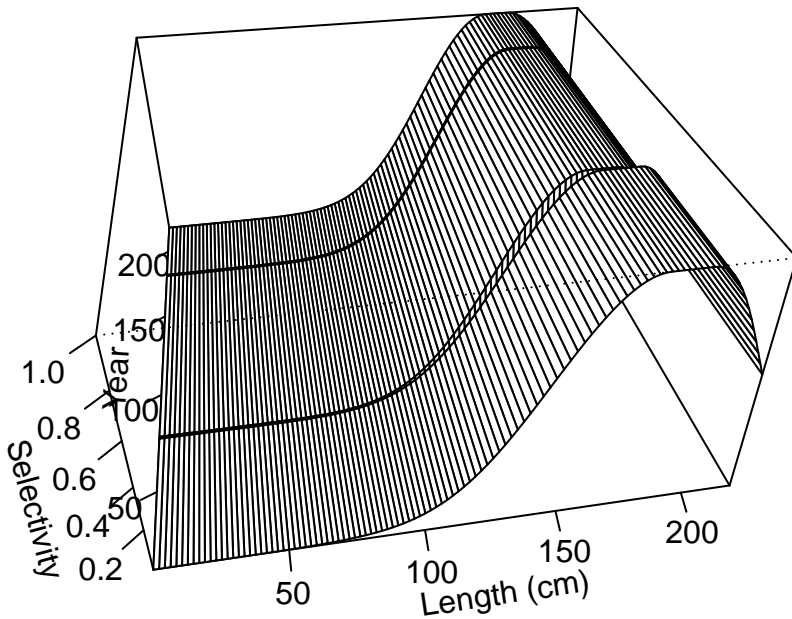
Male time-varying selectivity for A3-LL-w



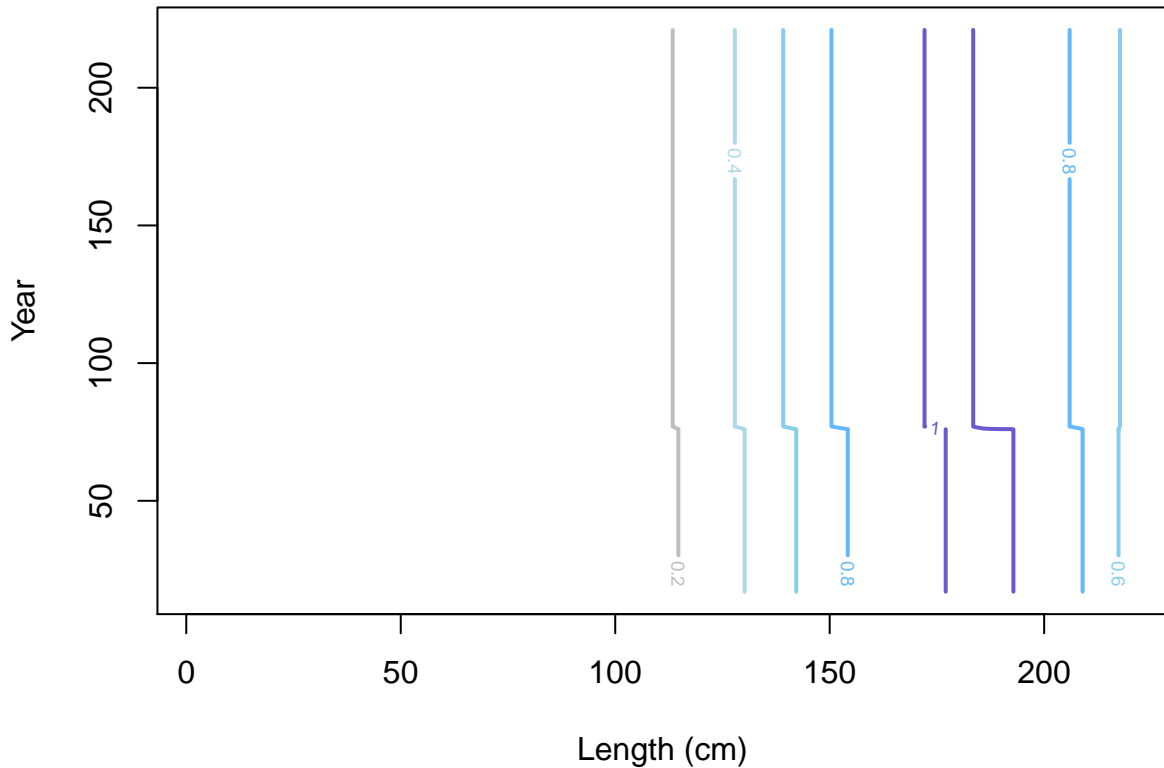
Male ending year selectivity for A3-LL-w



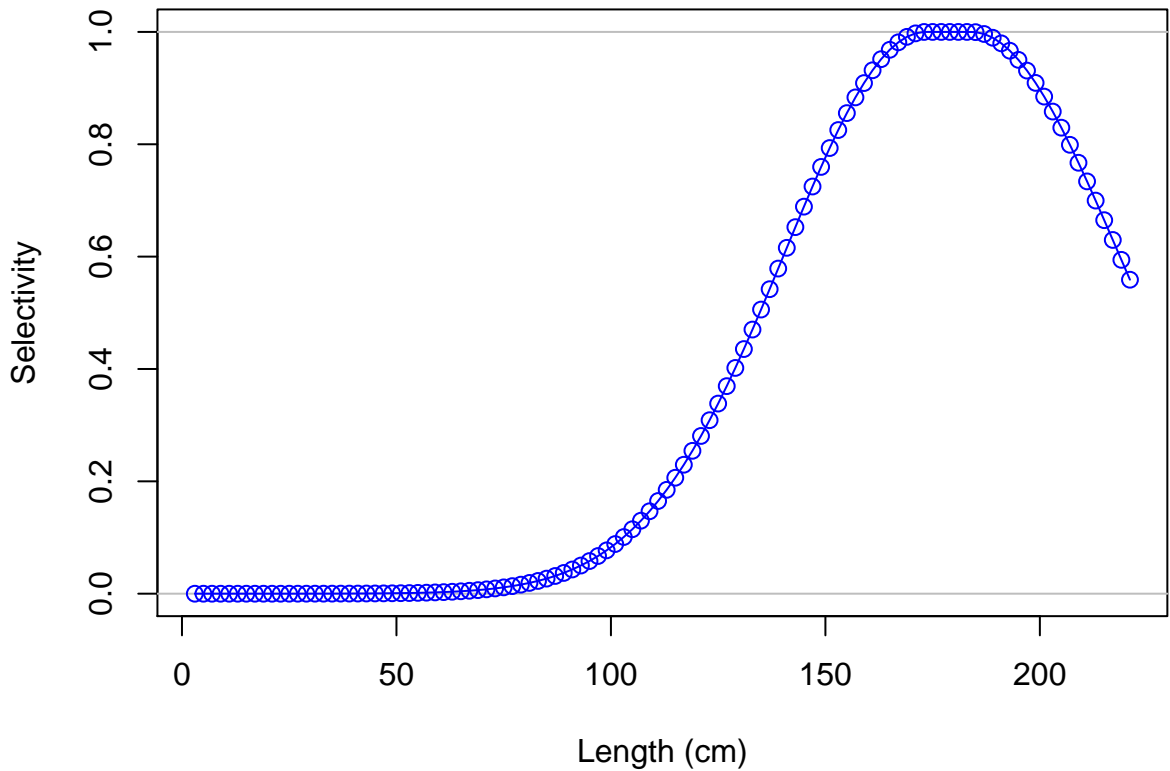
Female time-varying selectivity for A4-LL-w



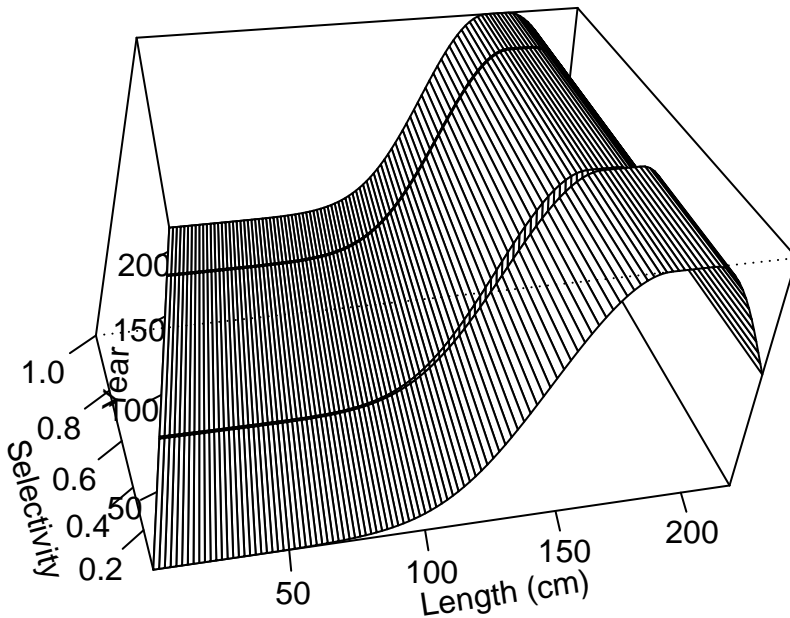
Female time-varying selectivity for A4-LL-w



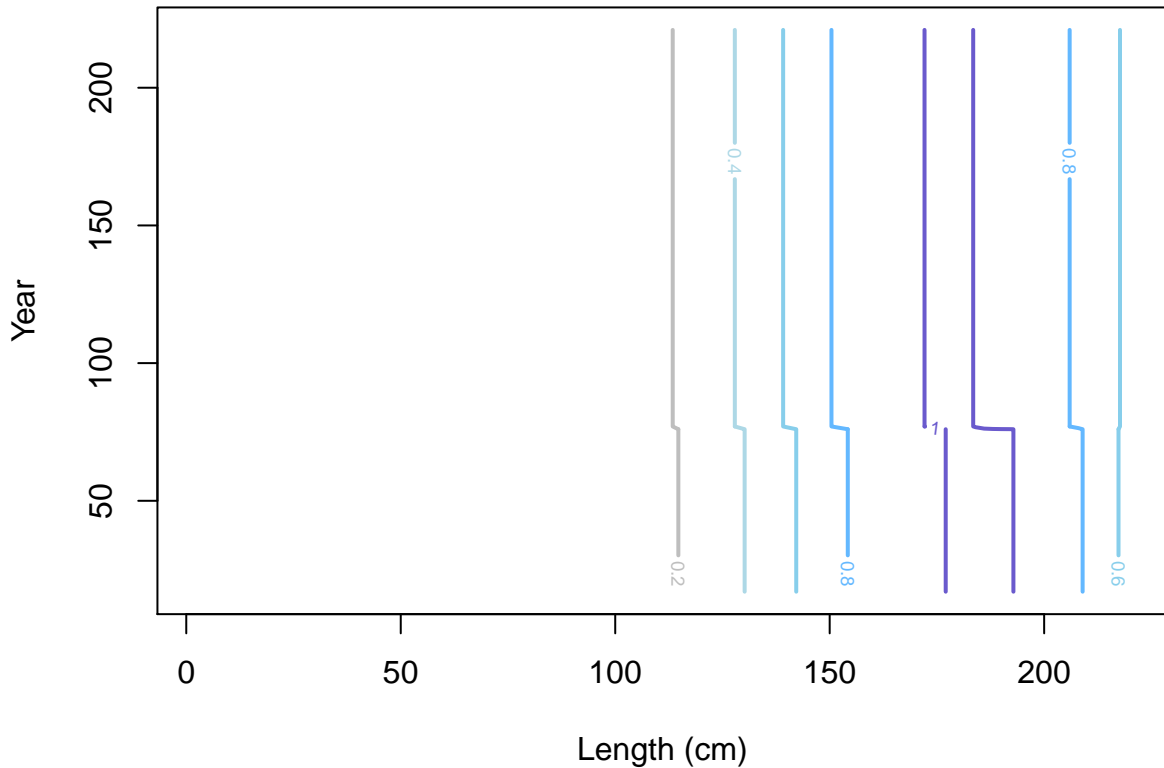
Female ending year selectivity for A4-LL-w



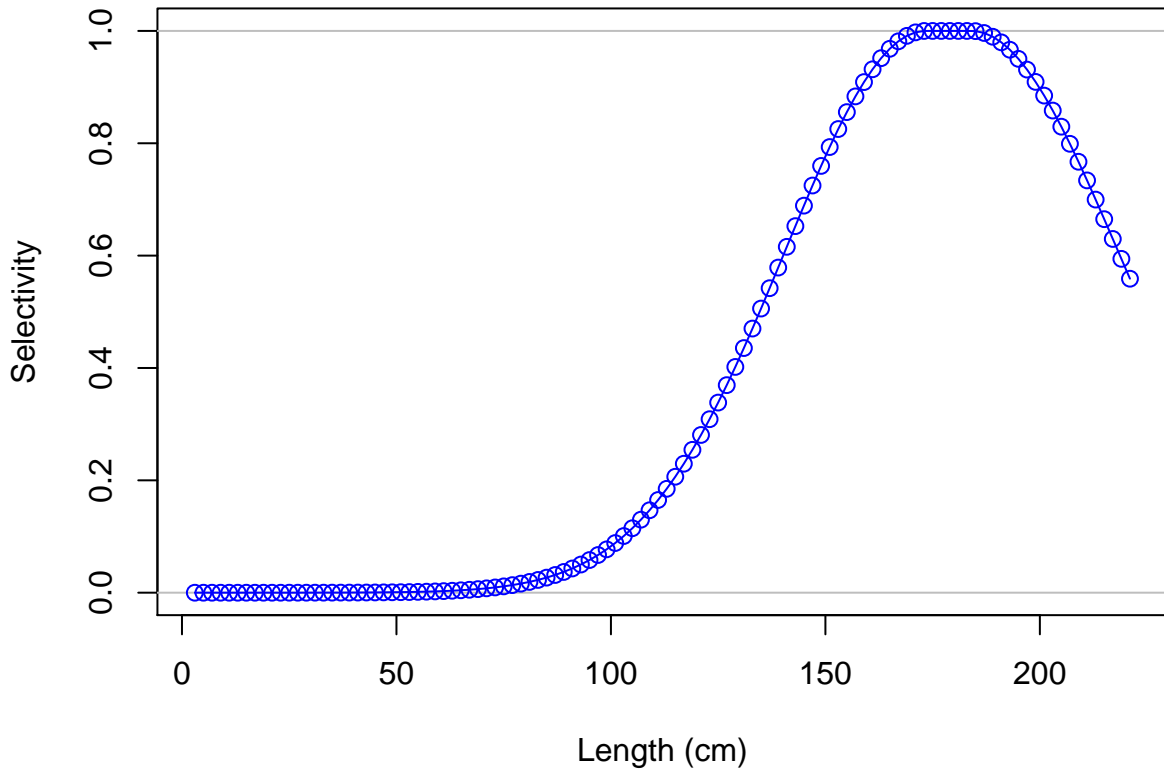
Male time-varying selectivity for A4-LL-w



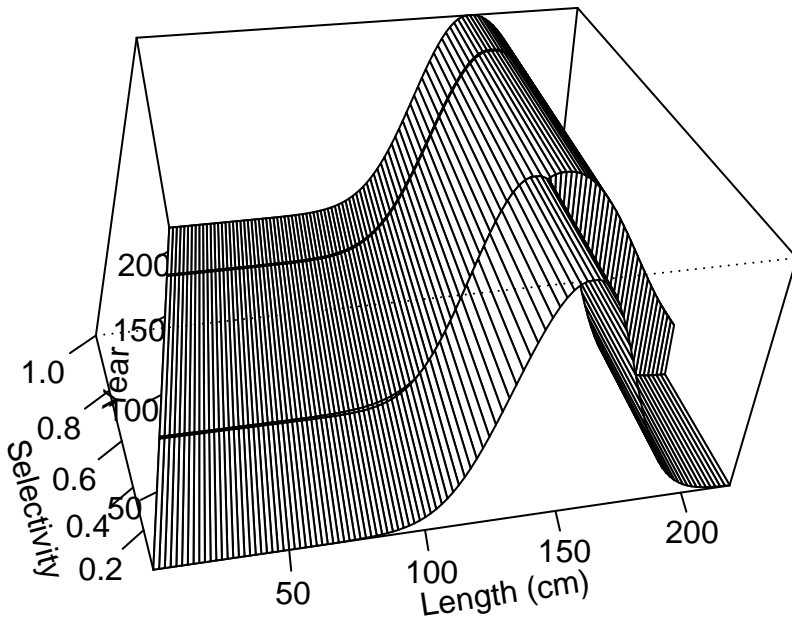
Male time-varying selectivity for A4-LL-w



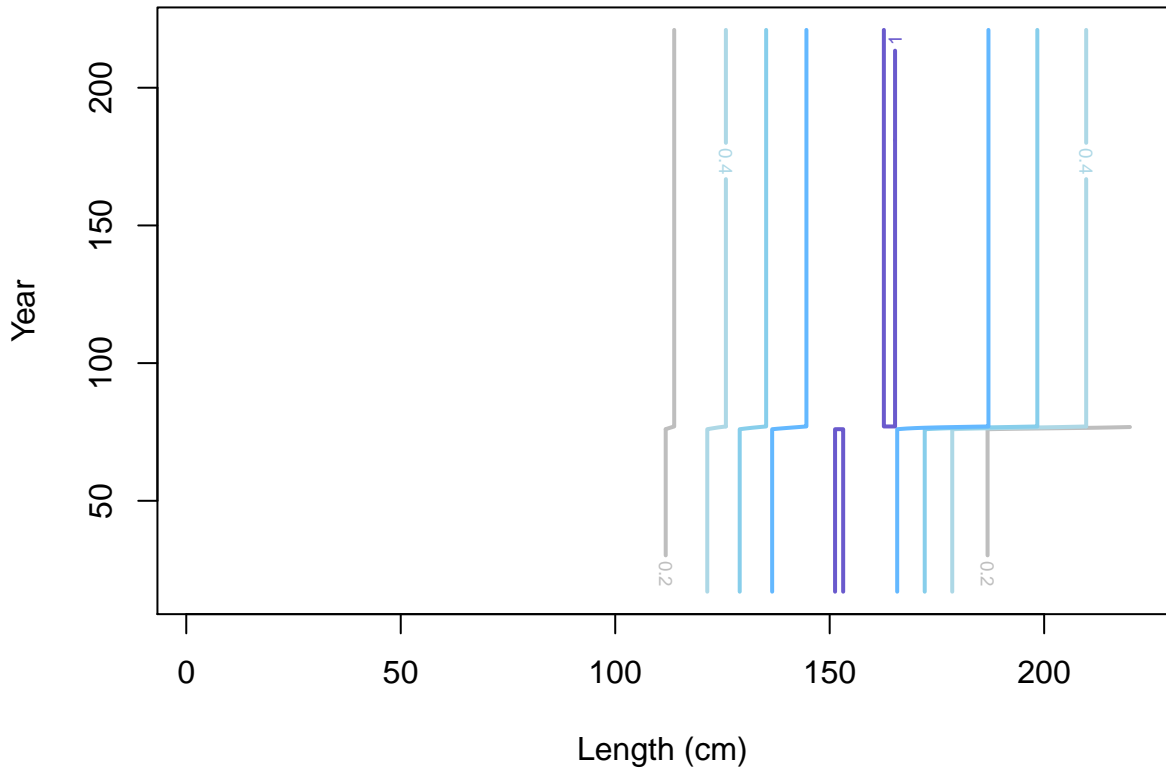
Male ending year selectivity for A4-LL-w



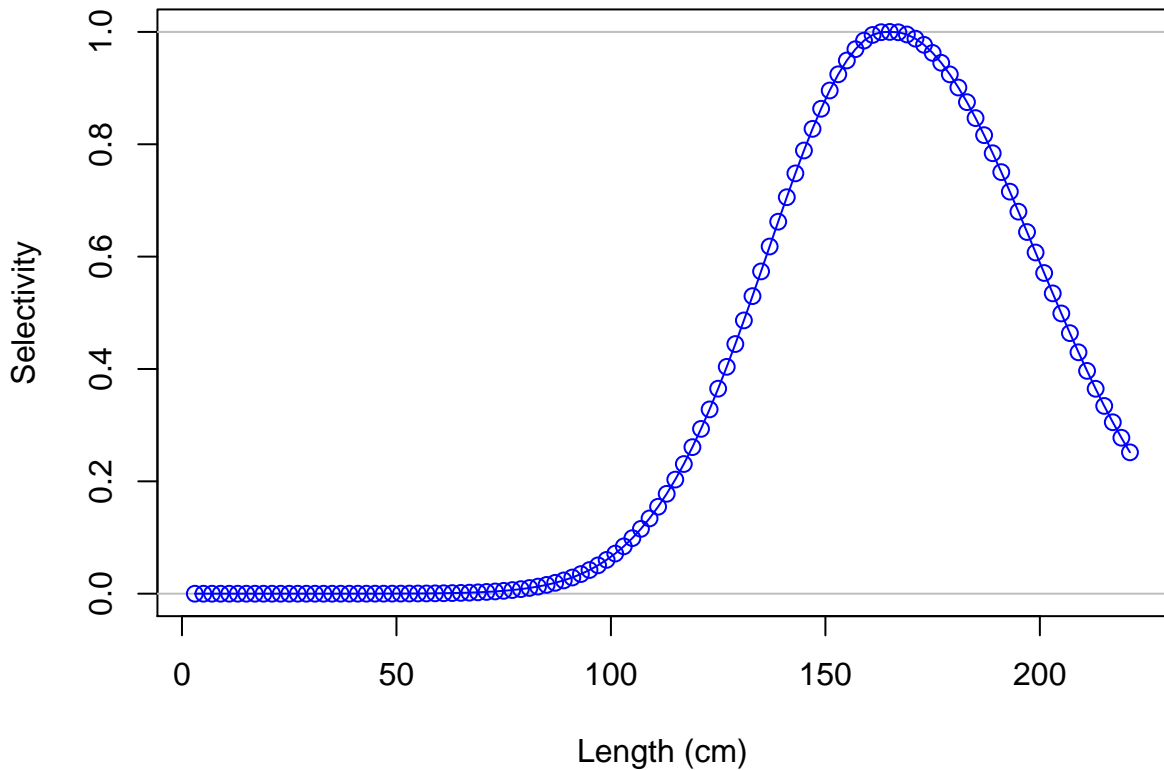
Female time-varying selectivity for A5-LL-w



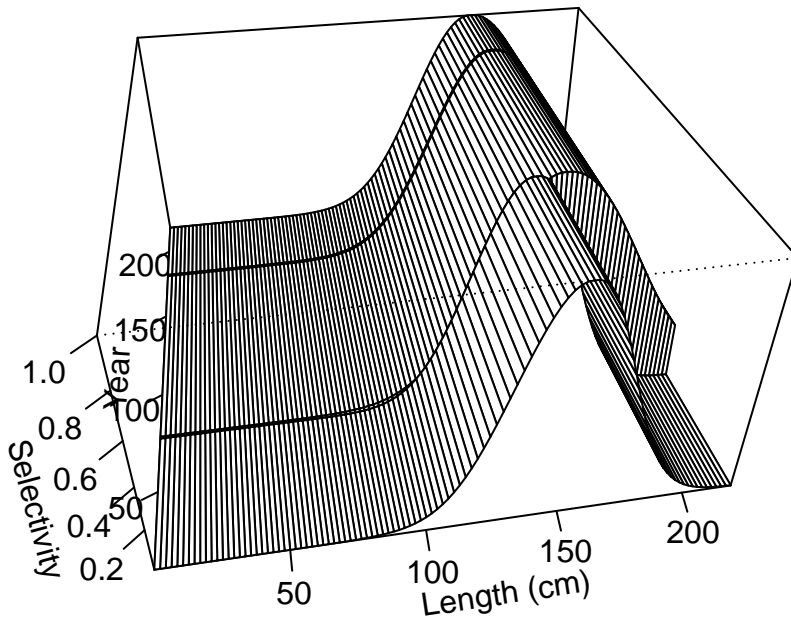
Female time-varying selectivity for A5-LL-w



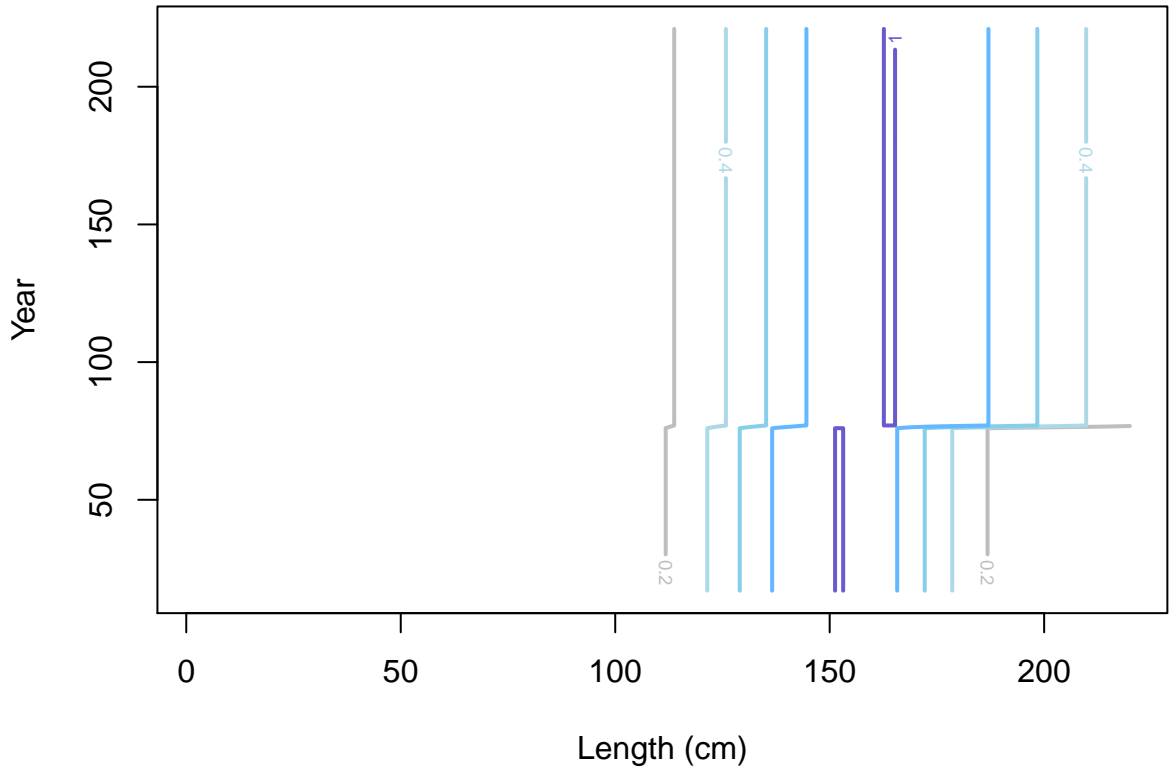
Female ending year selectivity for A5-LL-w



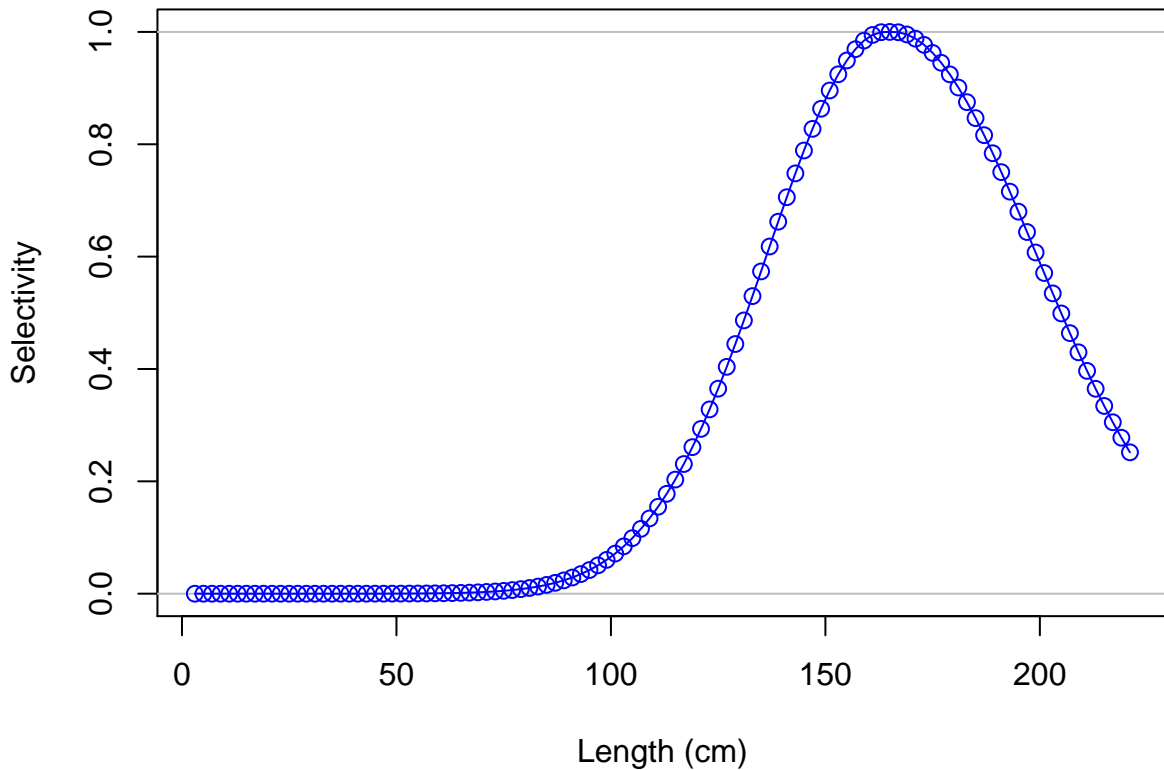
Male time-varying selectivity for A5-LL-w



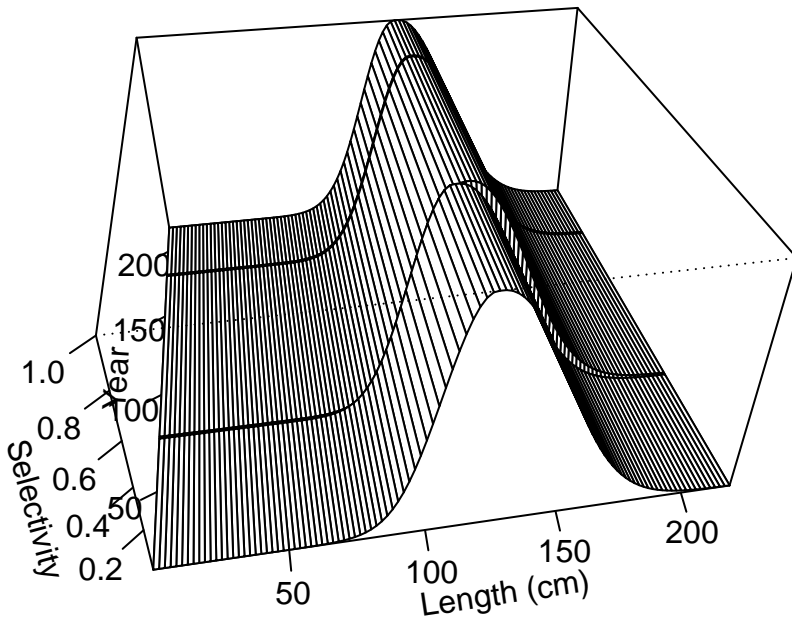
Male time-varying selectivity for A5-LL-w



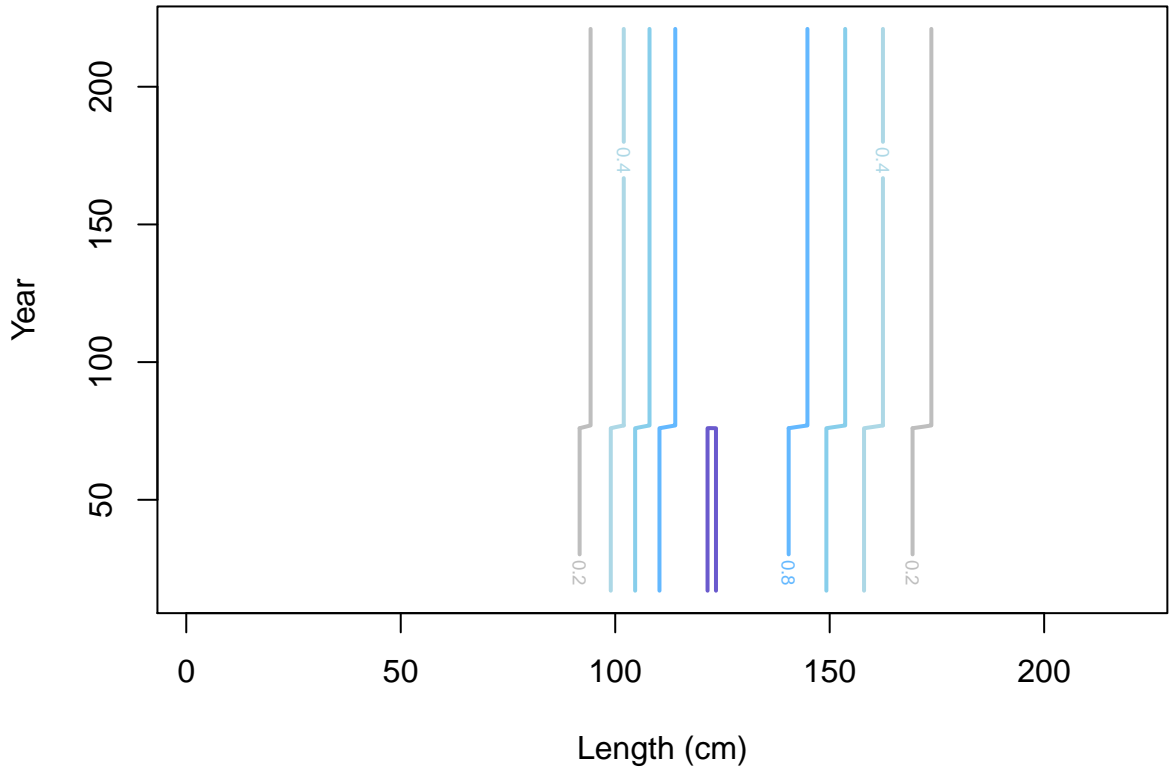
Male ending year selectivity for A5-LL-w



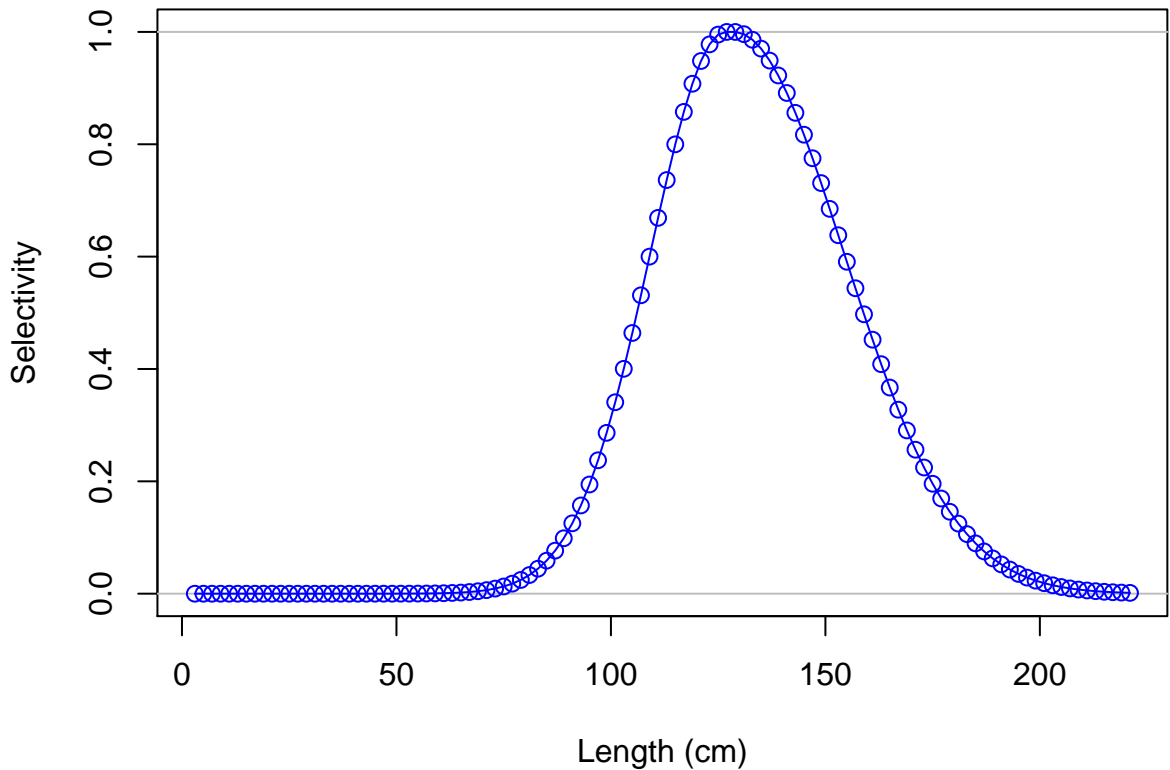
Female time-varying selectivity for A6-LL-w



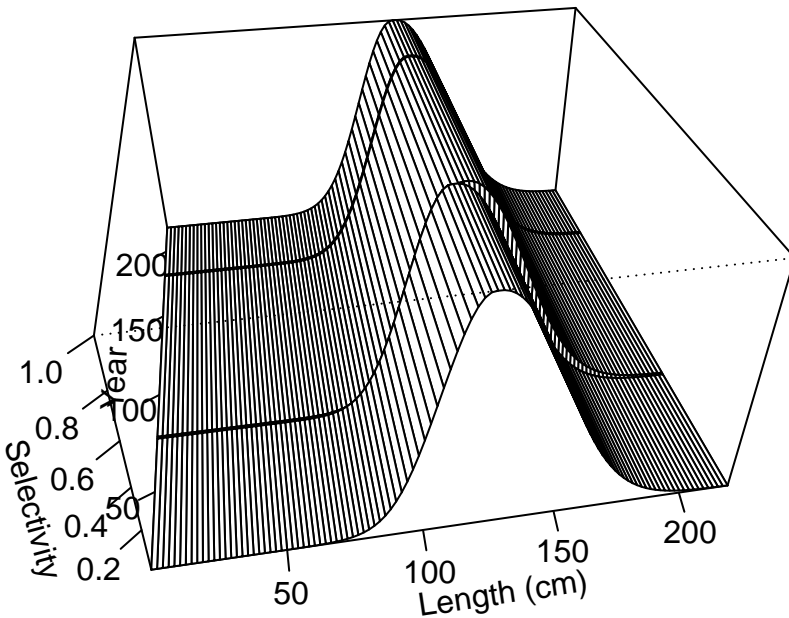
Female time-varying selectivity for A6-LL-w



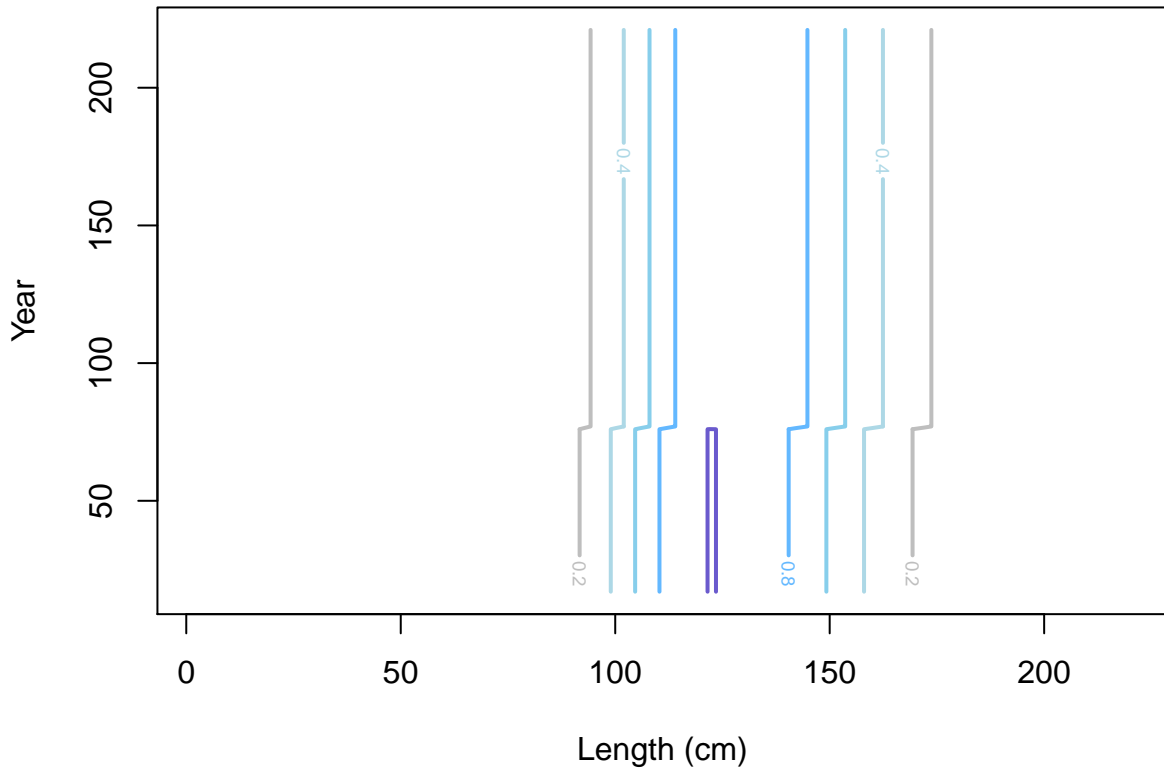
Female ending year selectivity for A6-LL-w



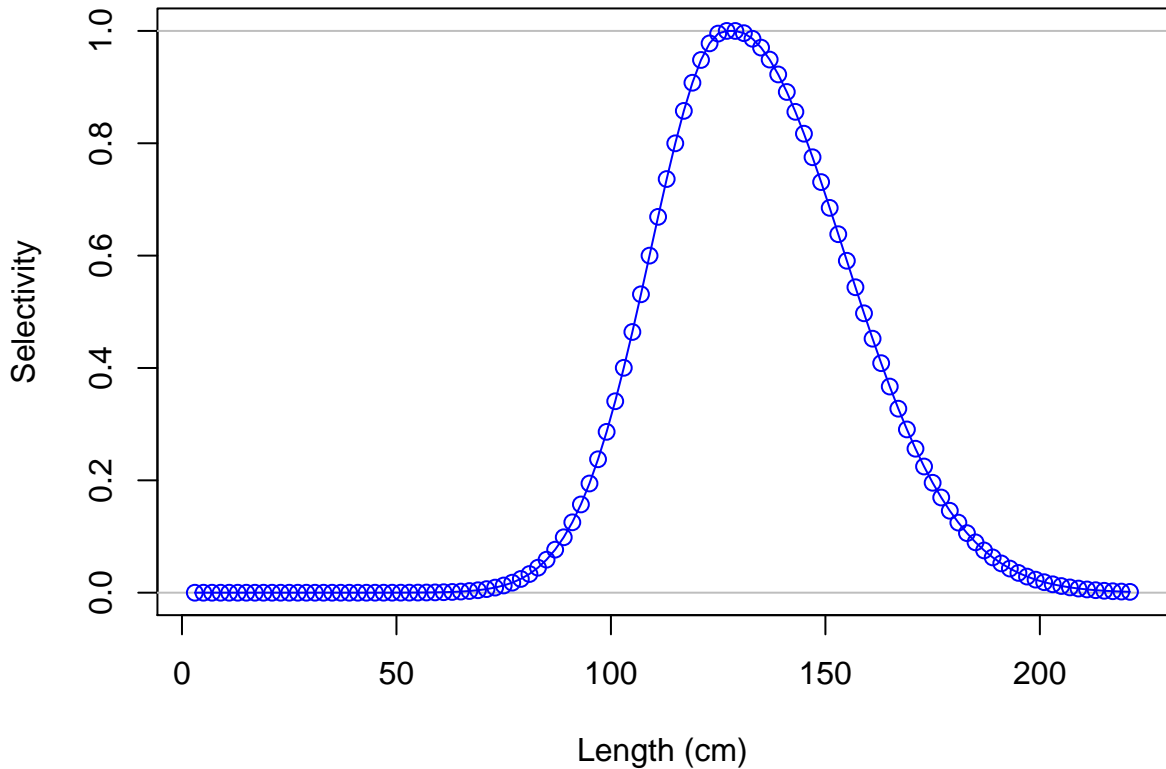
Male time-varying selectivity for A6-LL-w



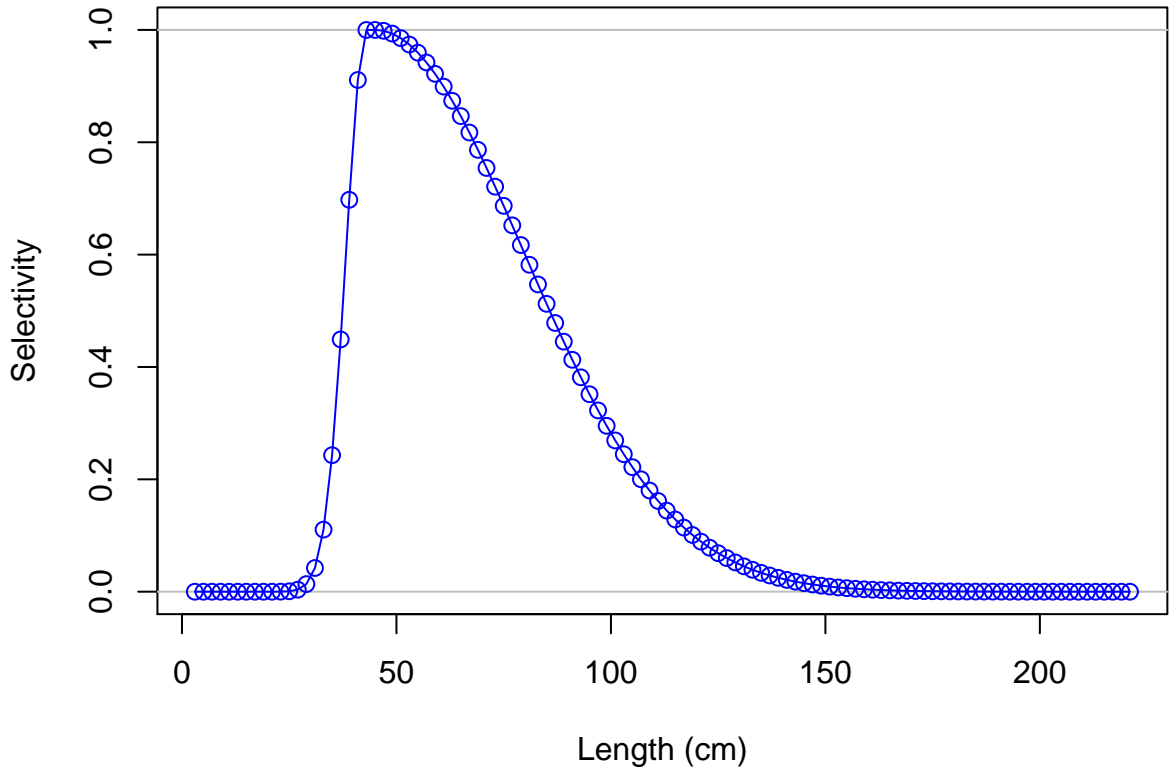
Male time-varying selectivity for A6-LL-w



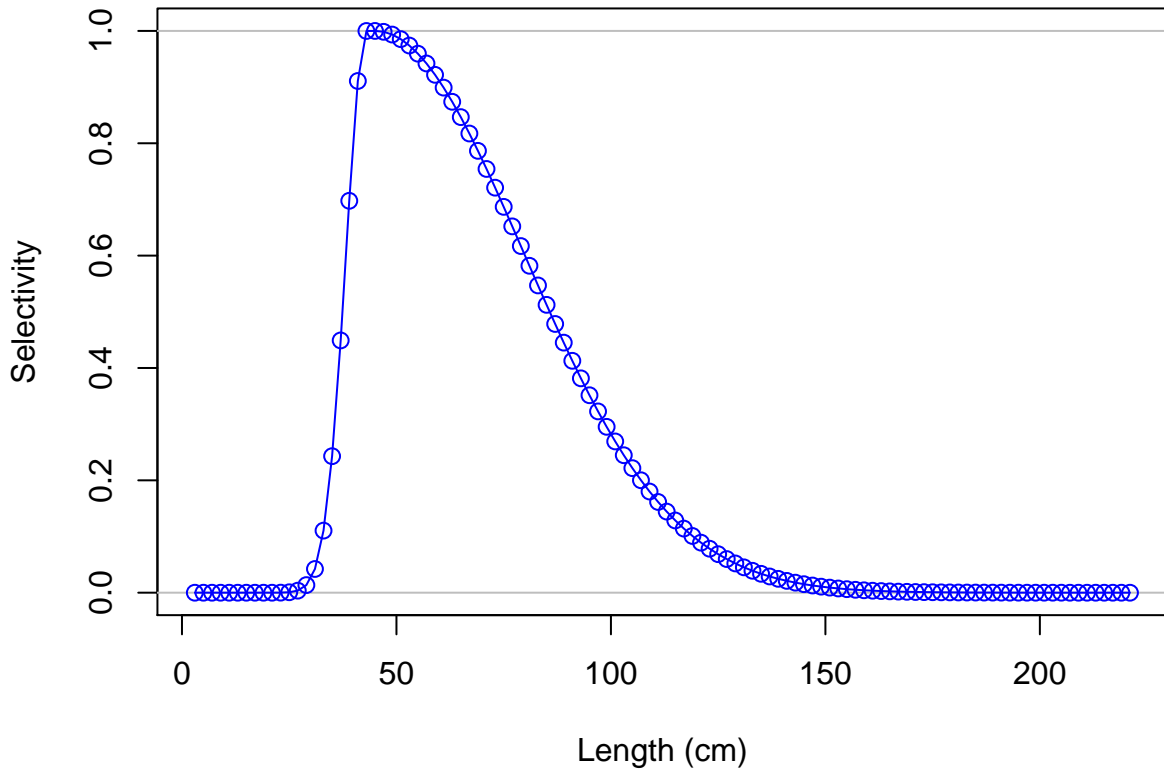
Male ending year selectivity for A6-LL-w



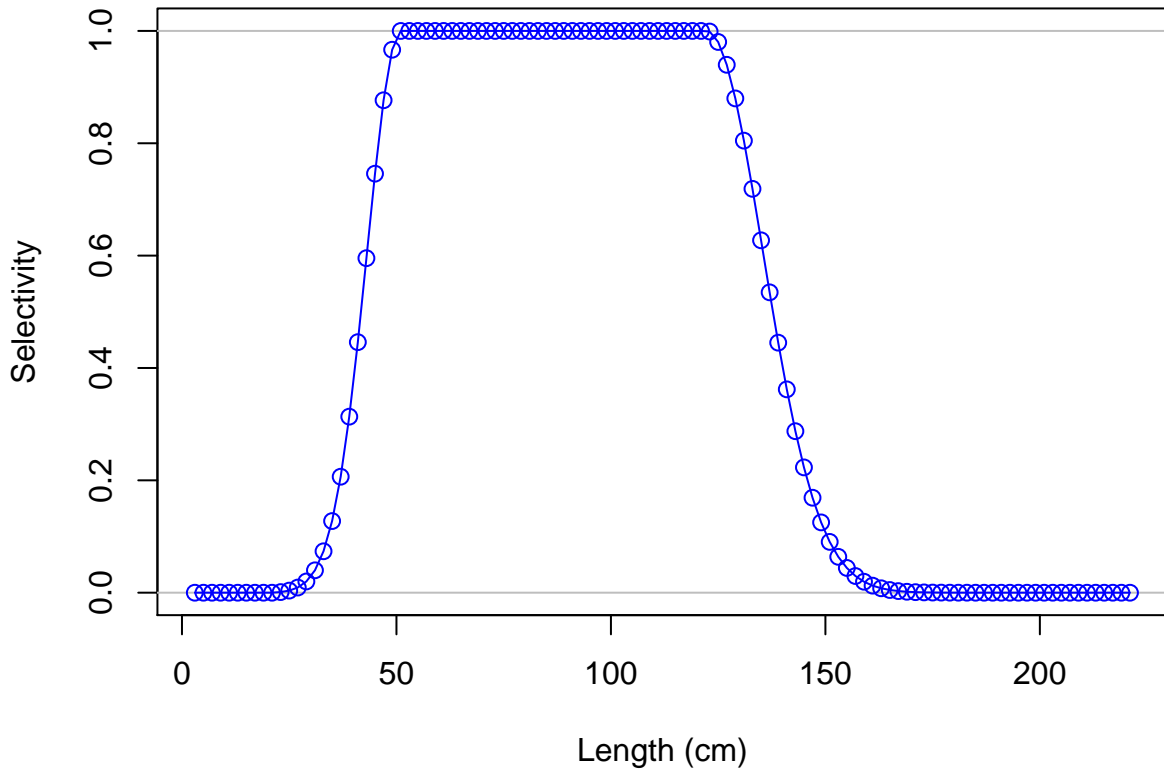
Female ending year selectivity for A2-OBJ



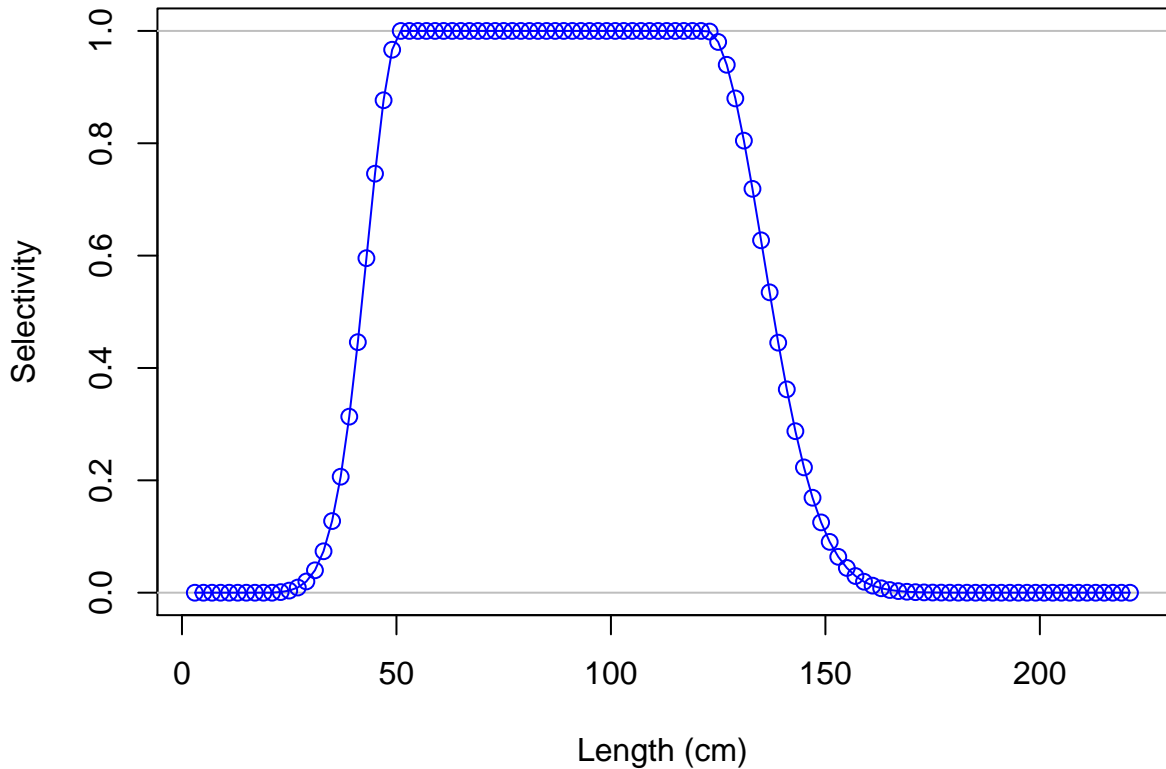
Male ending year selectivity for A2-OBJ



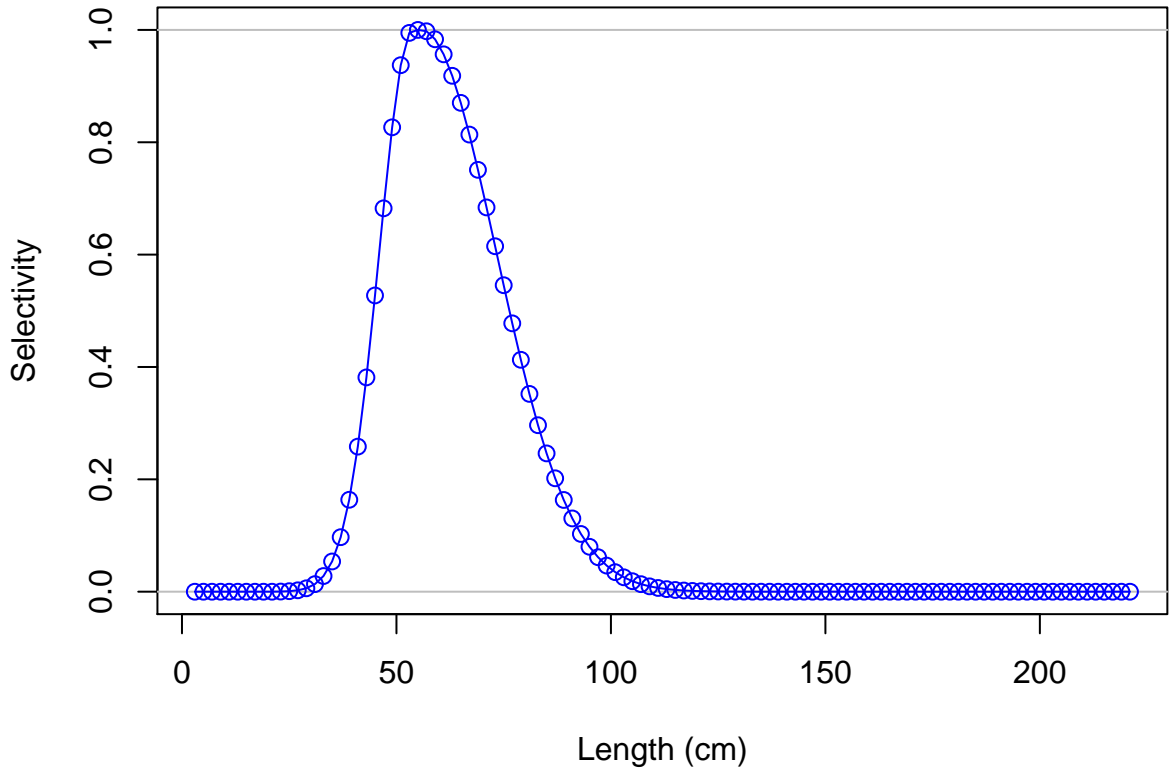
Female ending year selectivity for A3-OBJ



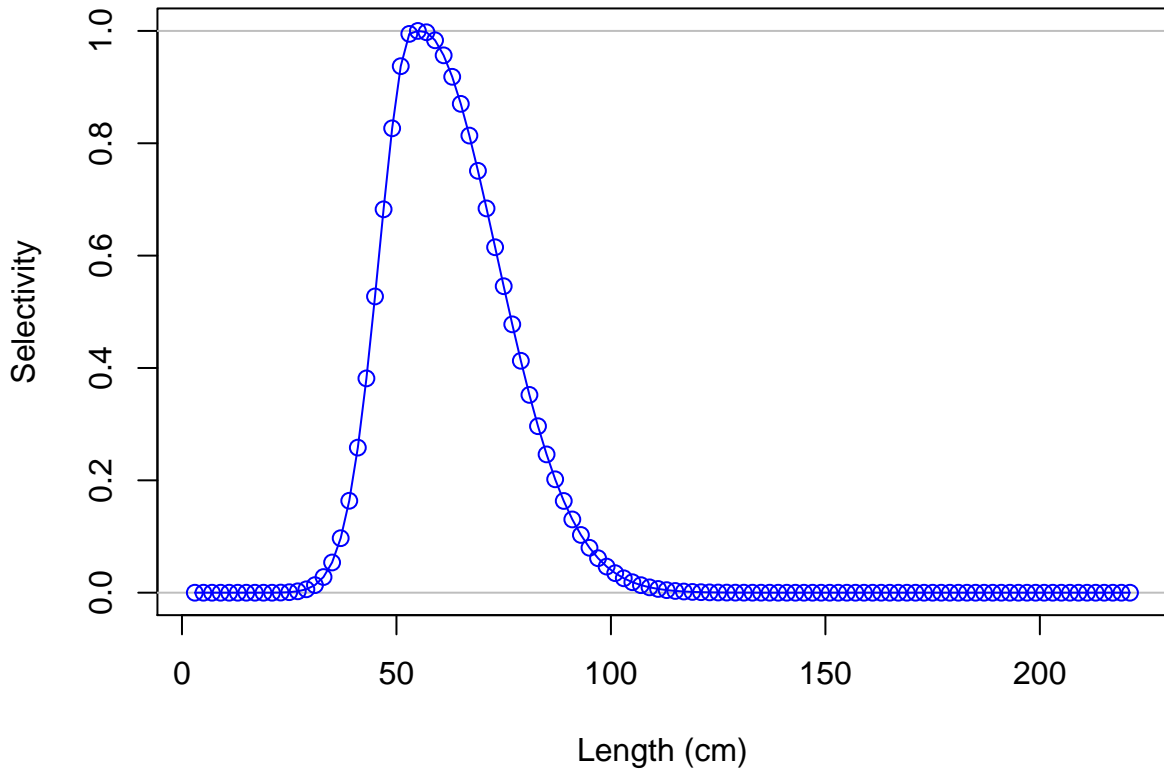
Male ending year selectivity for A3-OBJ



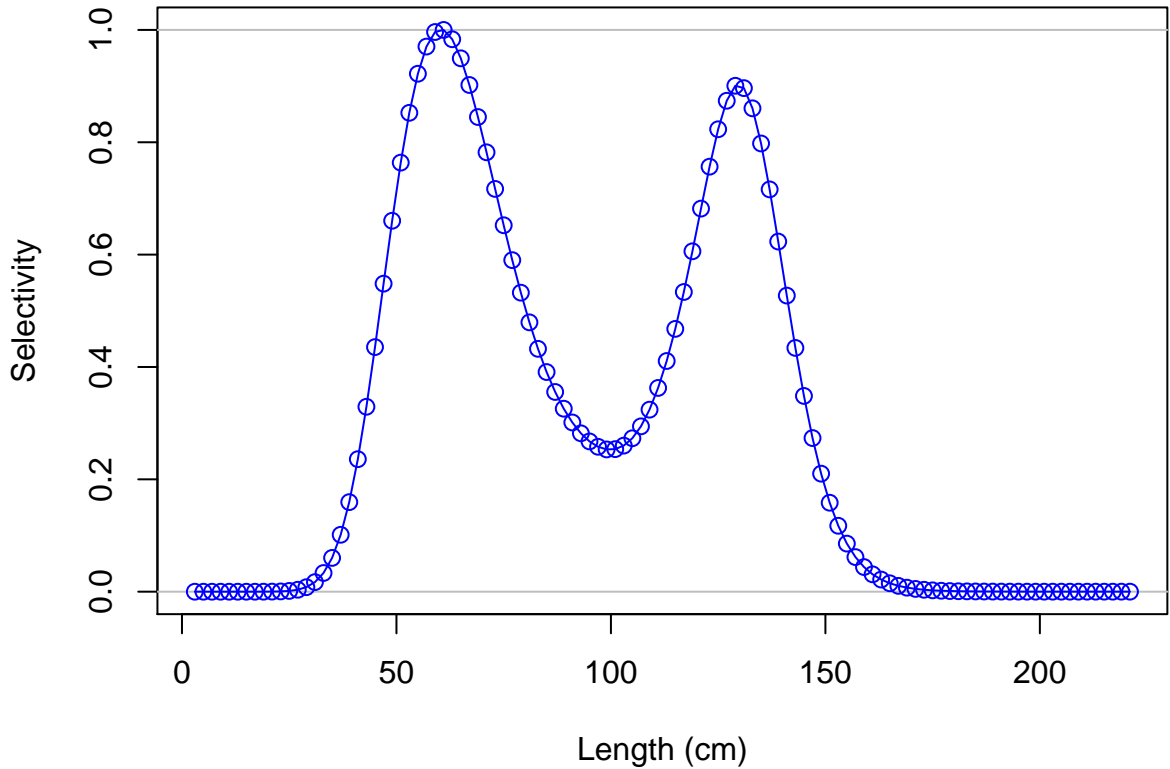
Female ending year selectivity for A4-OBJ



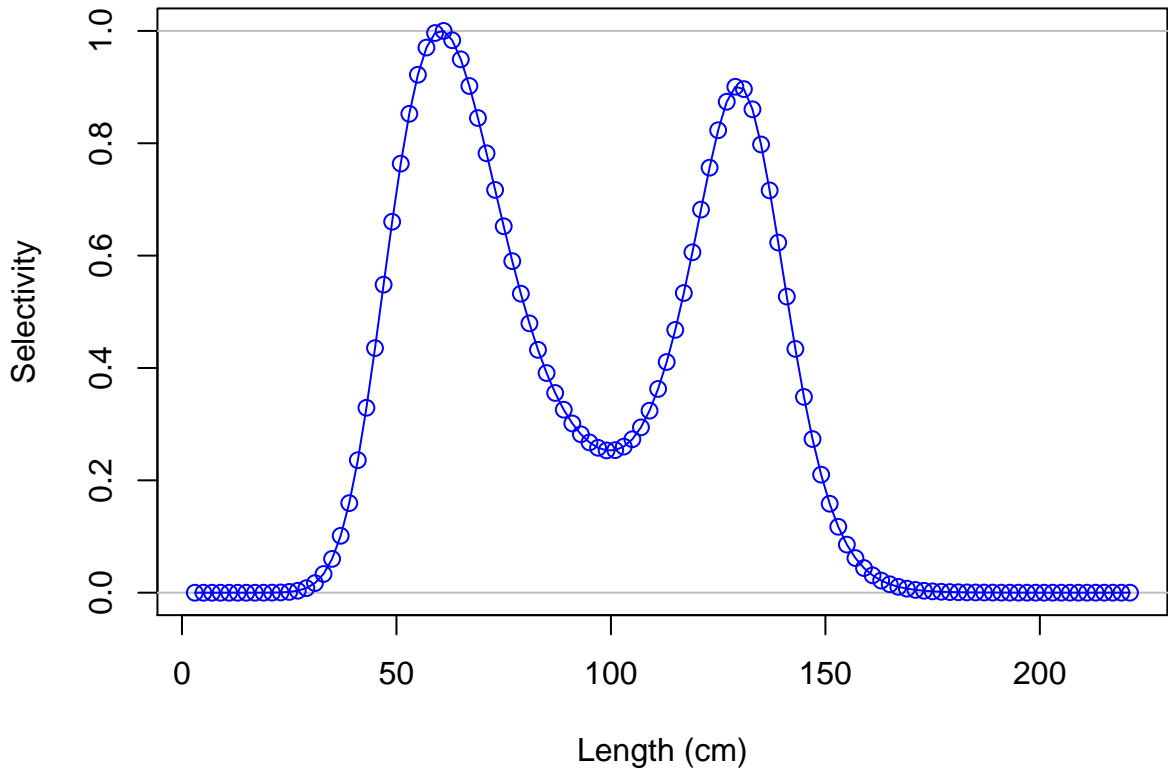
Male ending year selectivity for A4-OBJ



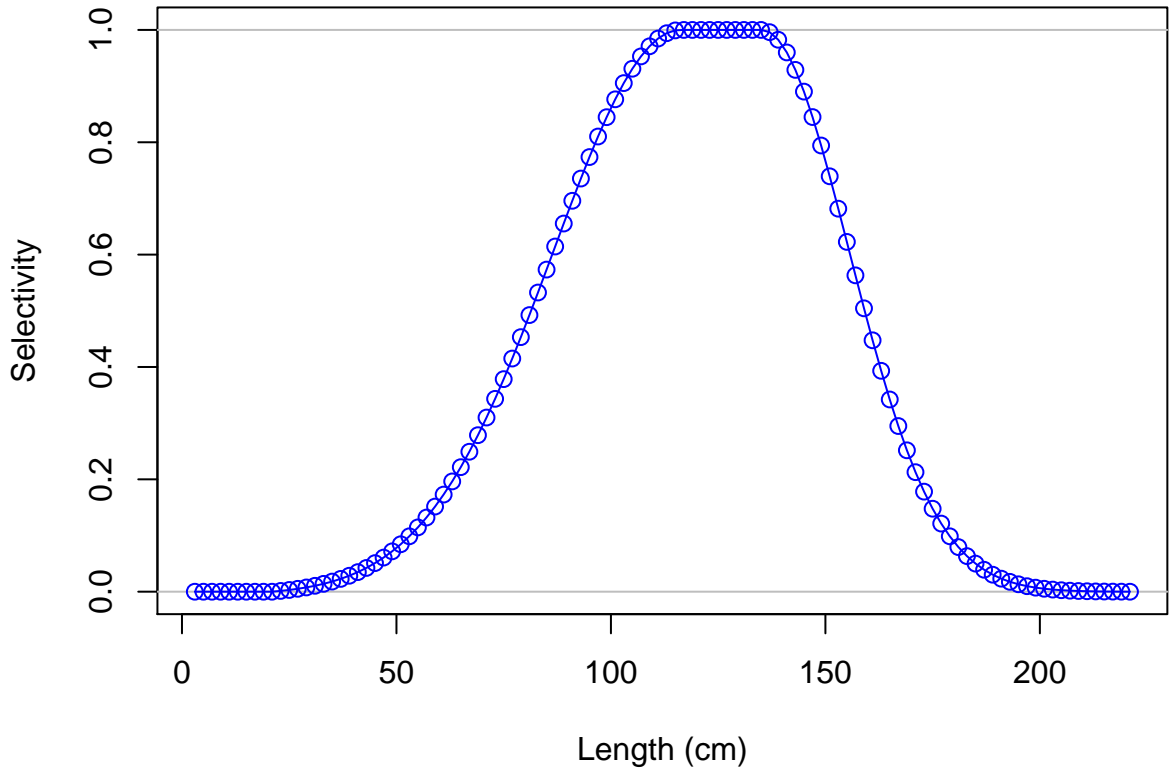
Female ending year selectivity for A5-OBJ



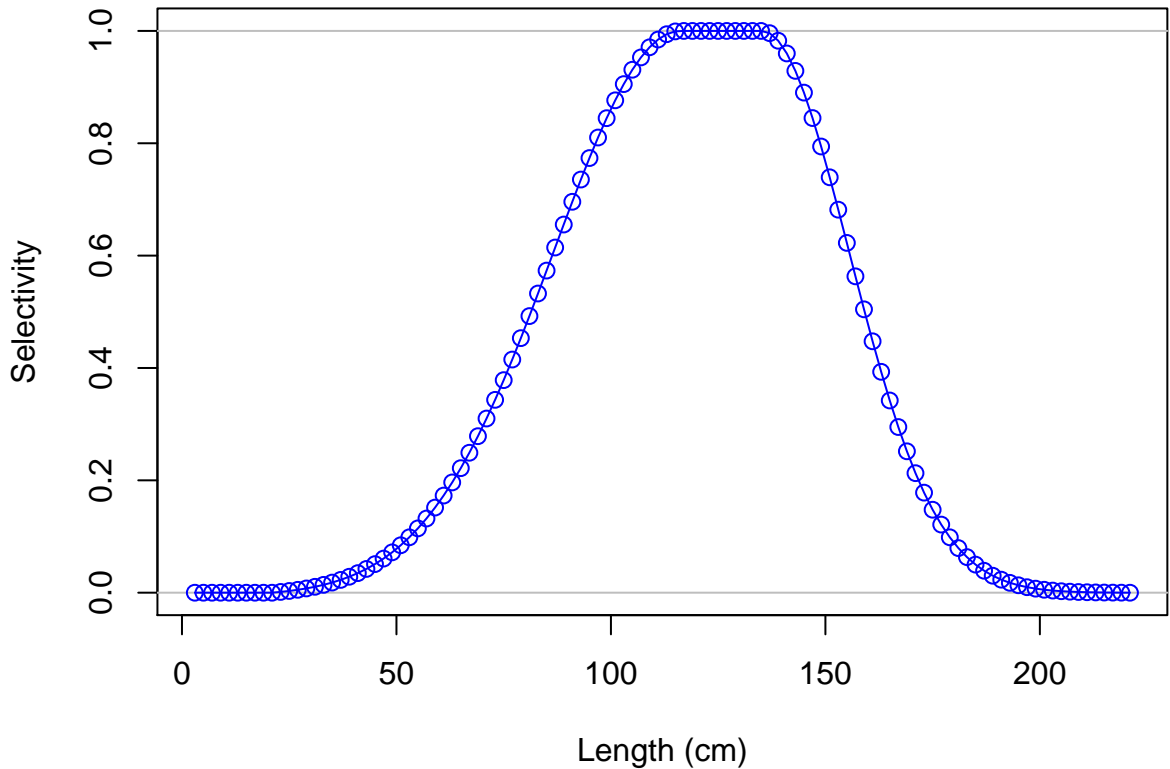
Male ending year selectivity for A5-OBJ



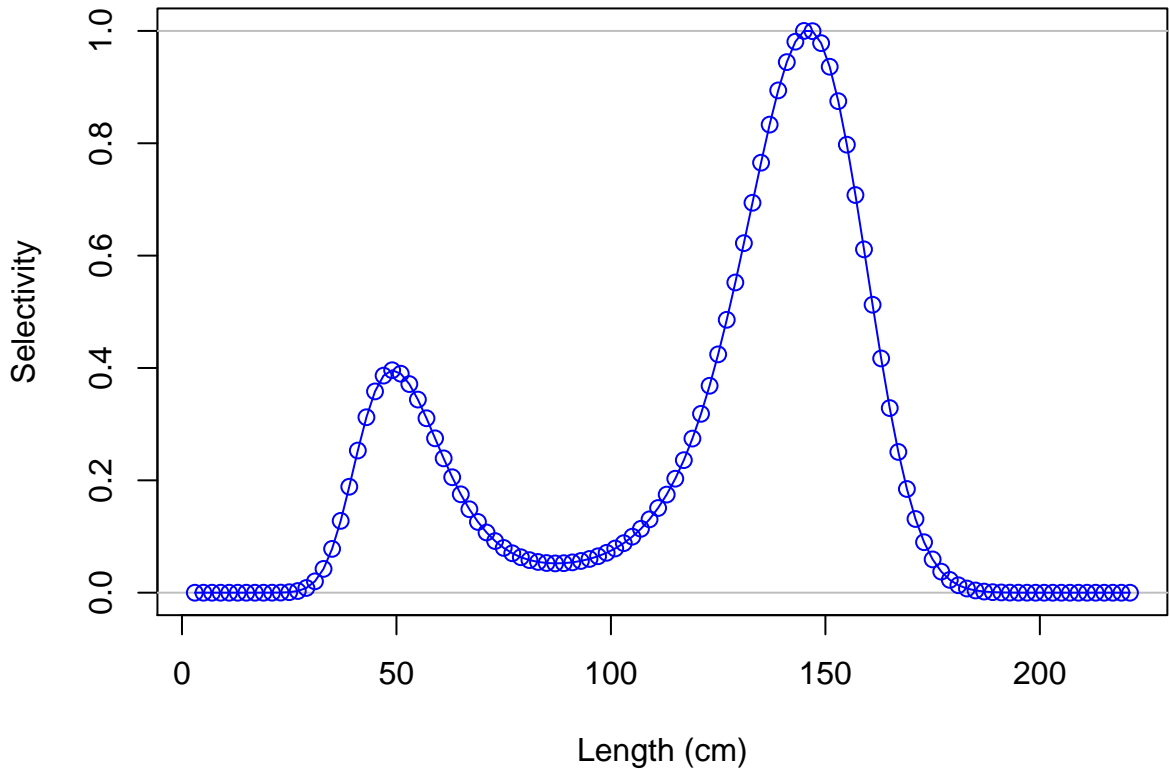
Female ending year selectivity for A6-OBJ



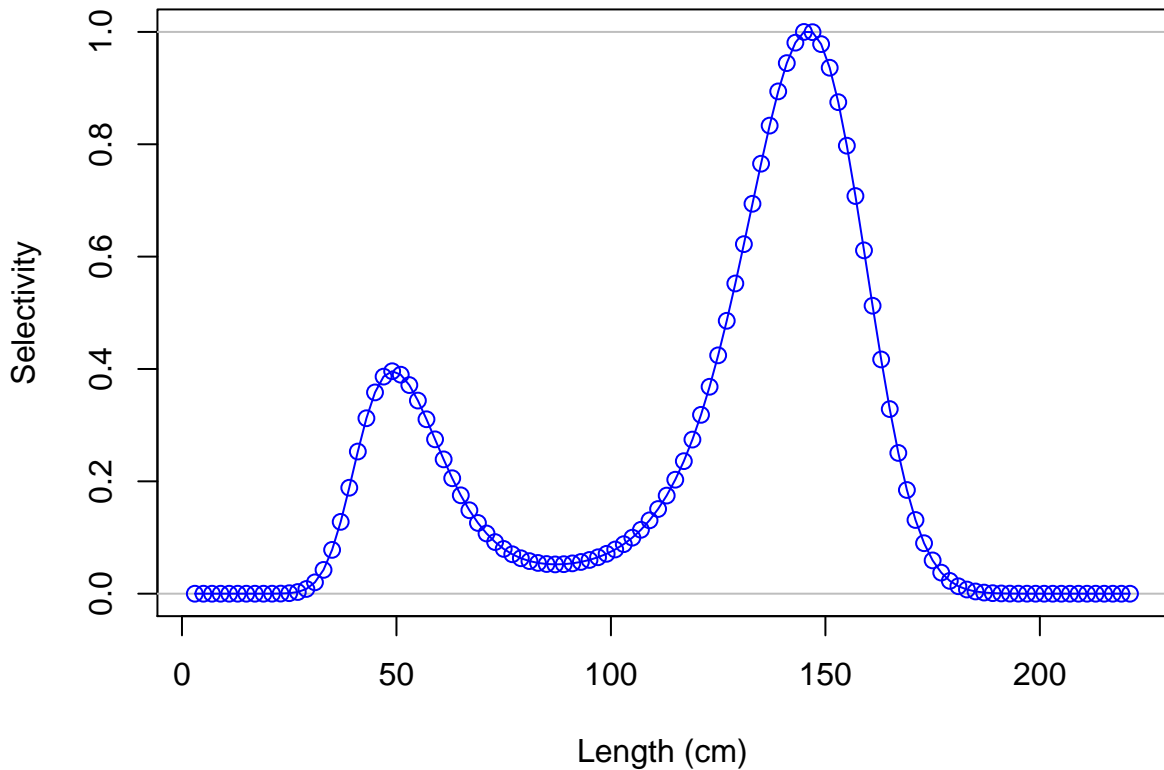
Male ending year selectivity for A6-OBJ



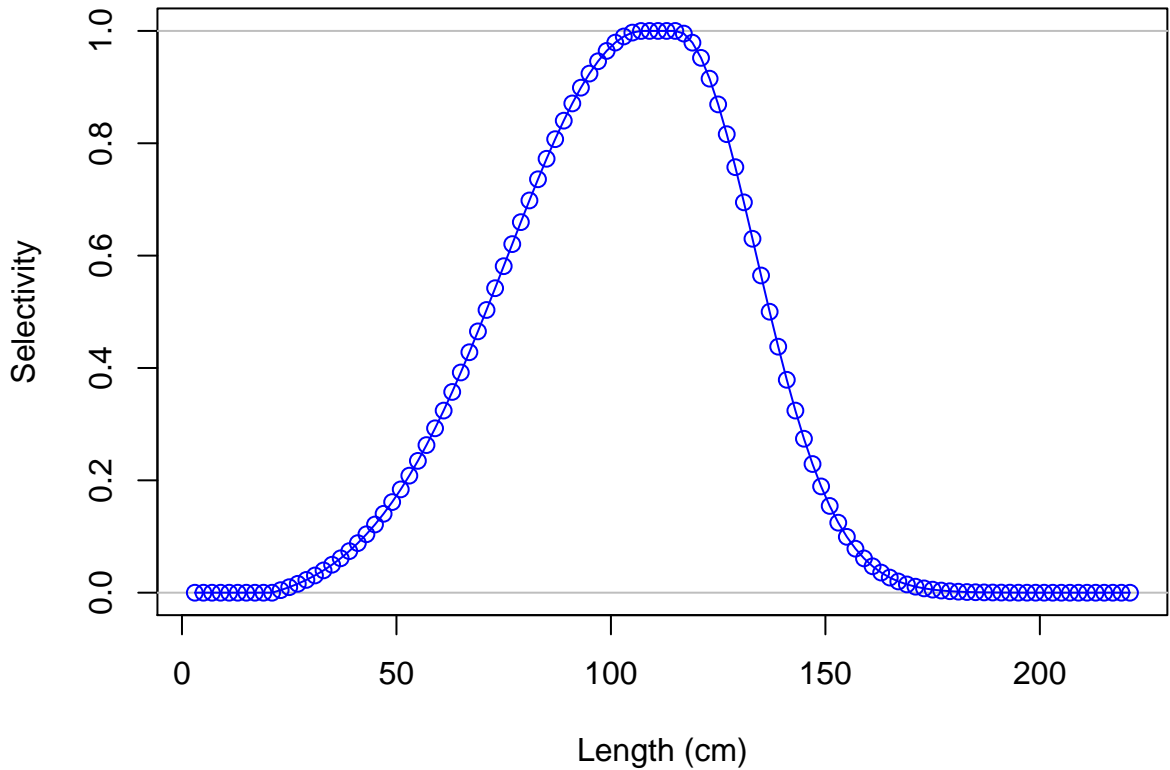
Female ending year selectivity for A2-NOADEL



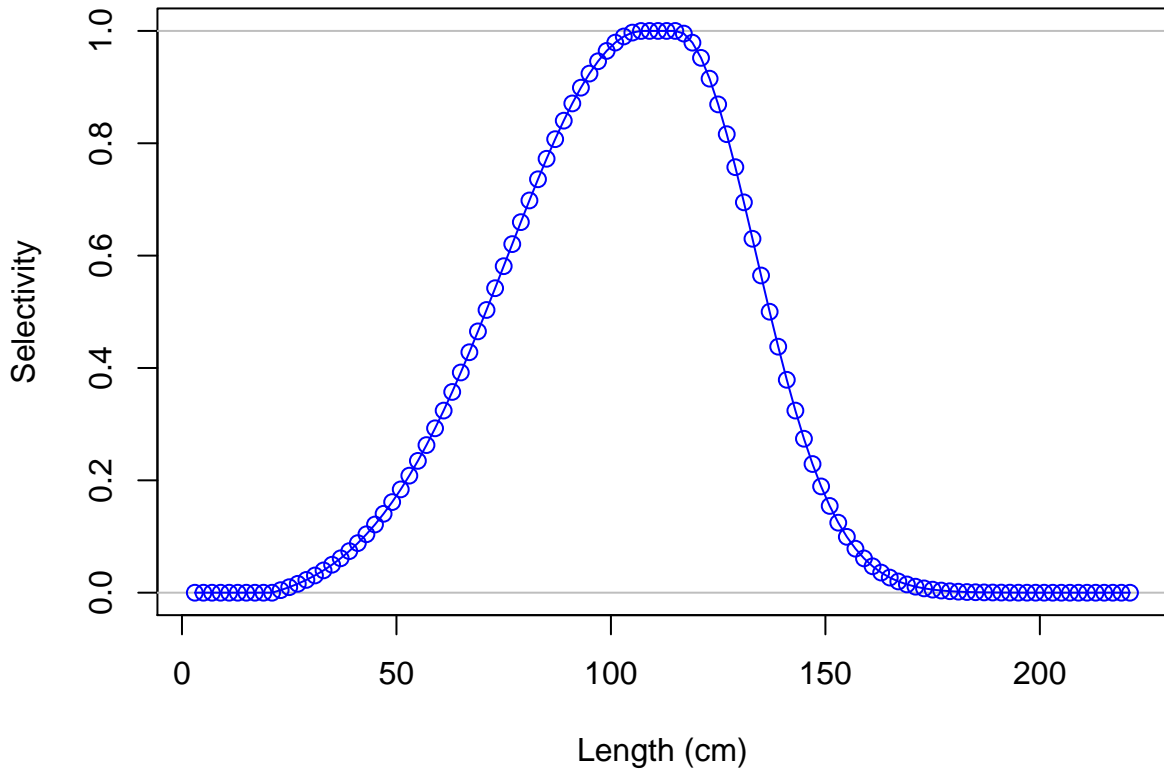
Male ending year selectivity for A2-NOADEL



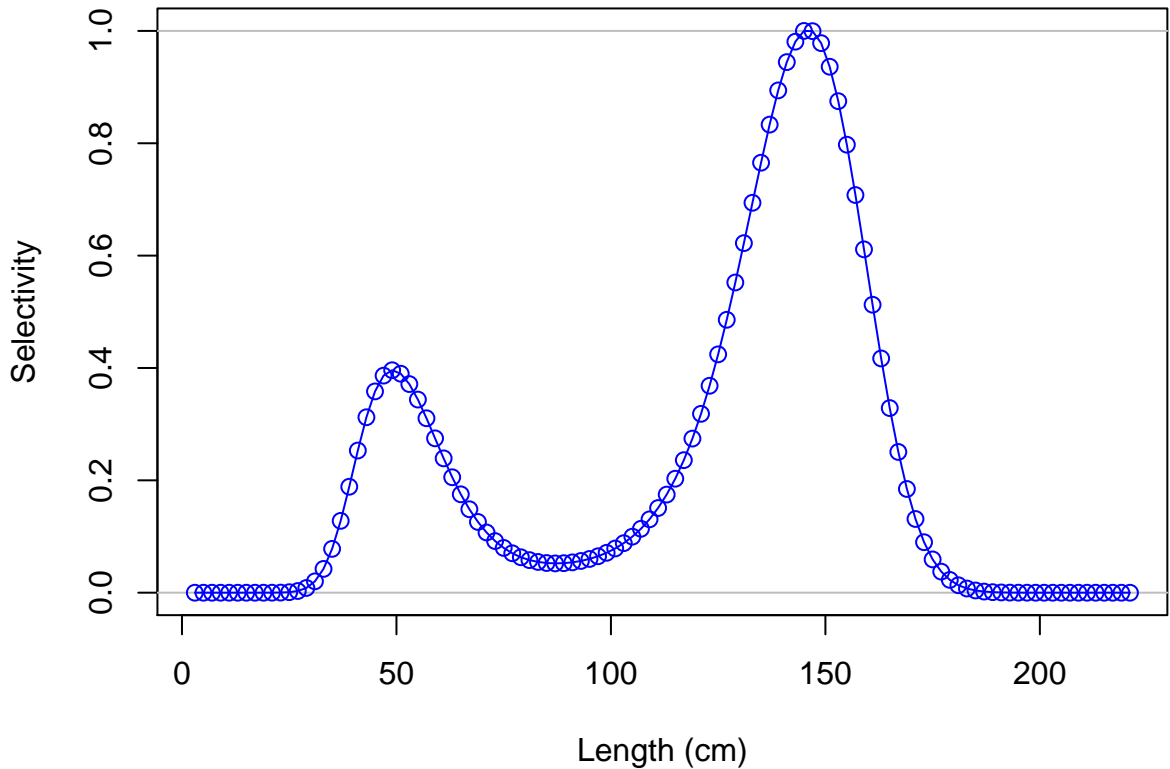
Female ending year selectivity for A3-NOADEL



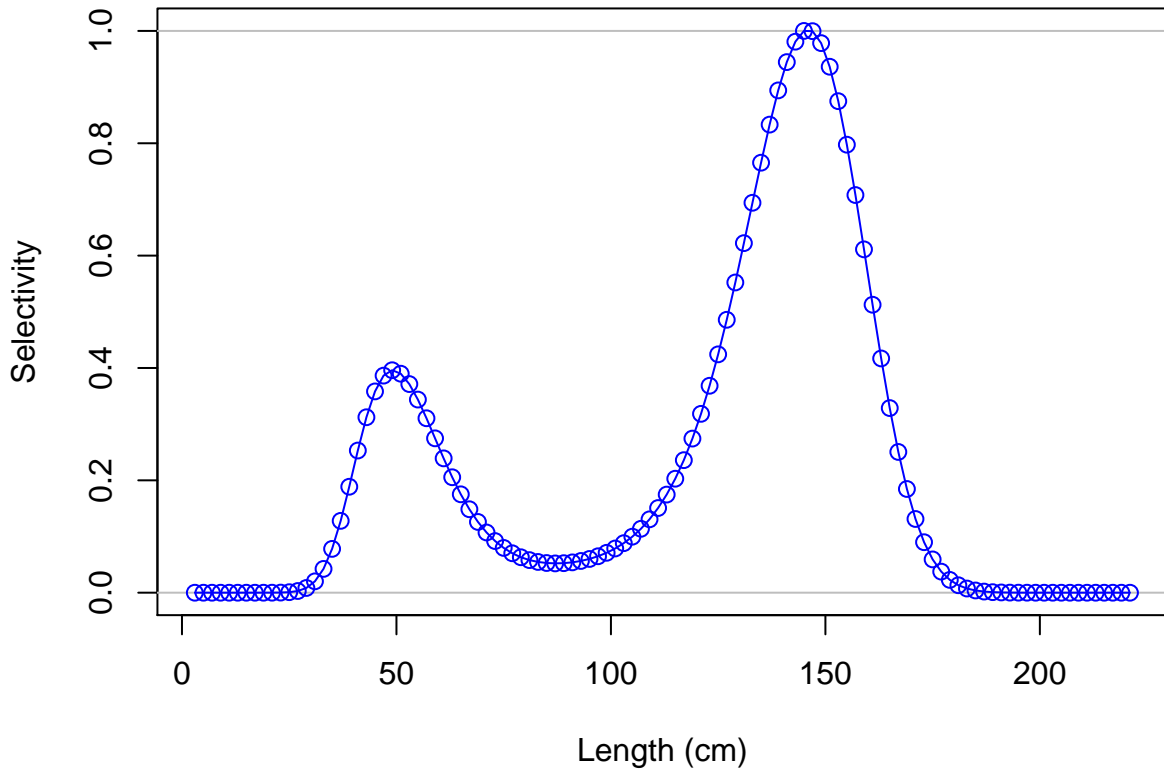
Male ending year selectivity for A3-NOADEL



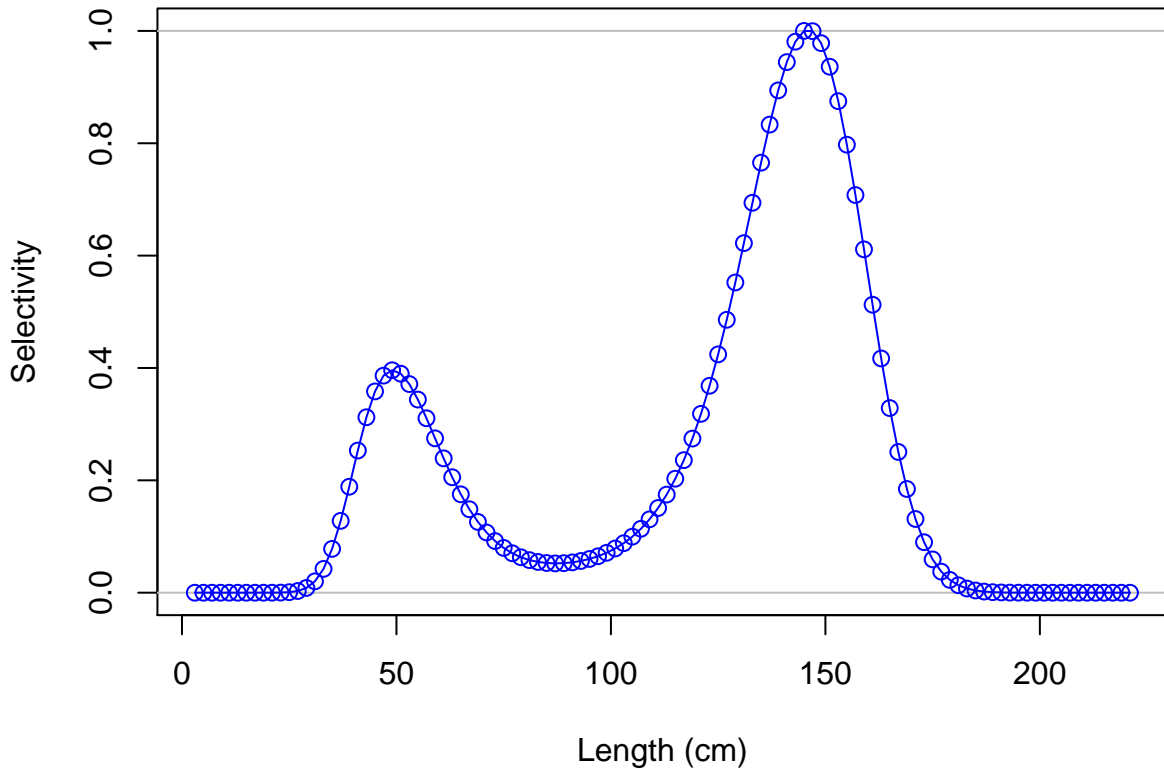
Female ending year selectivity for A4-NOADEL



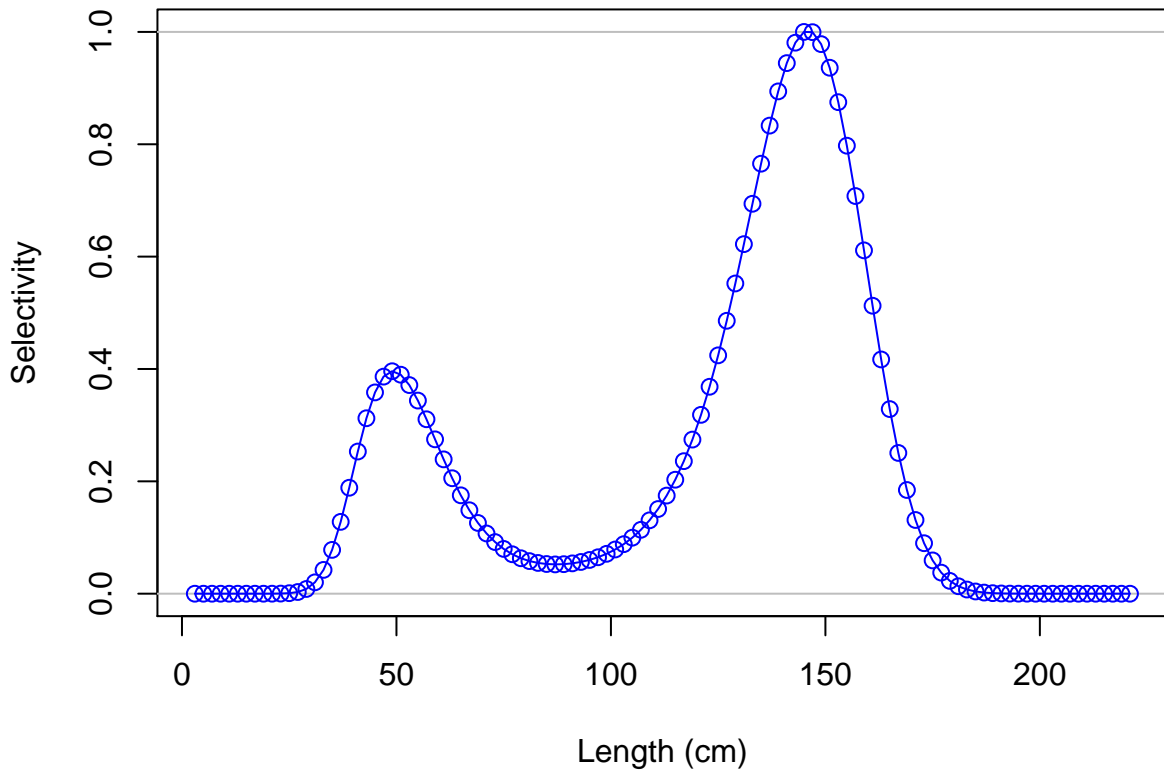
Male ending year selectivity for A4-NOADEL



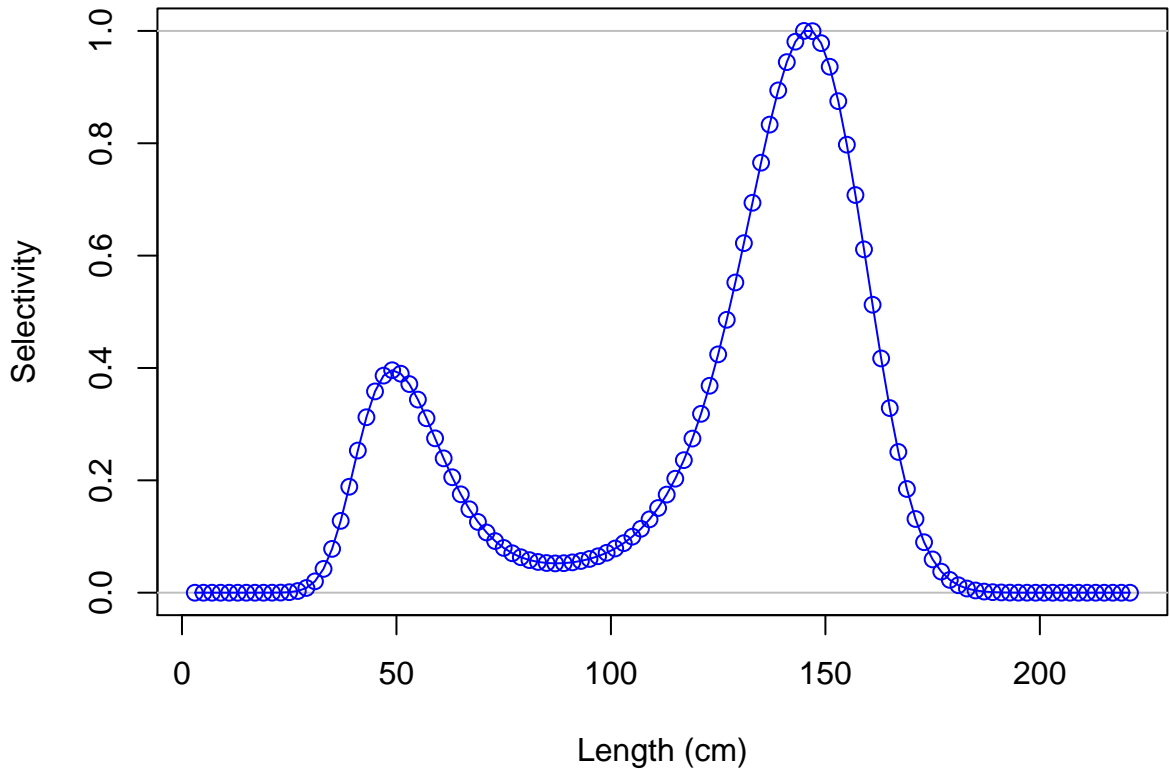
Female ending year selectivity for A5-NOADEL



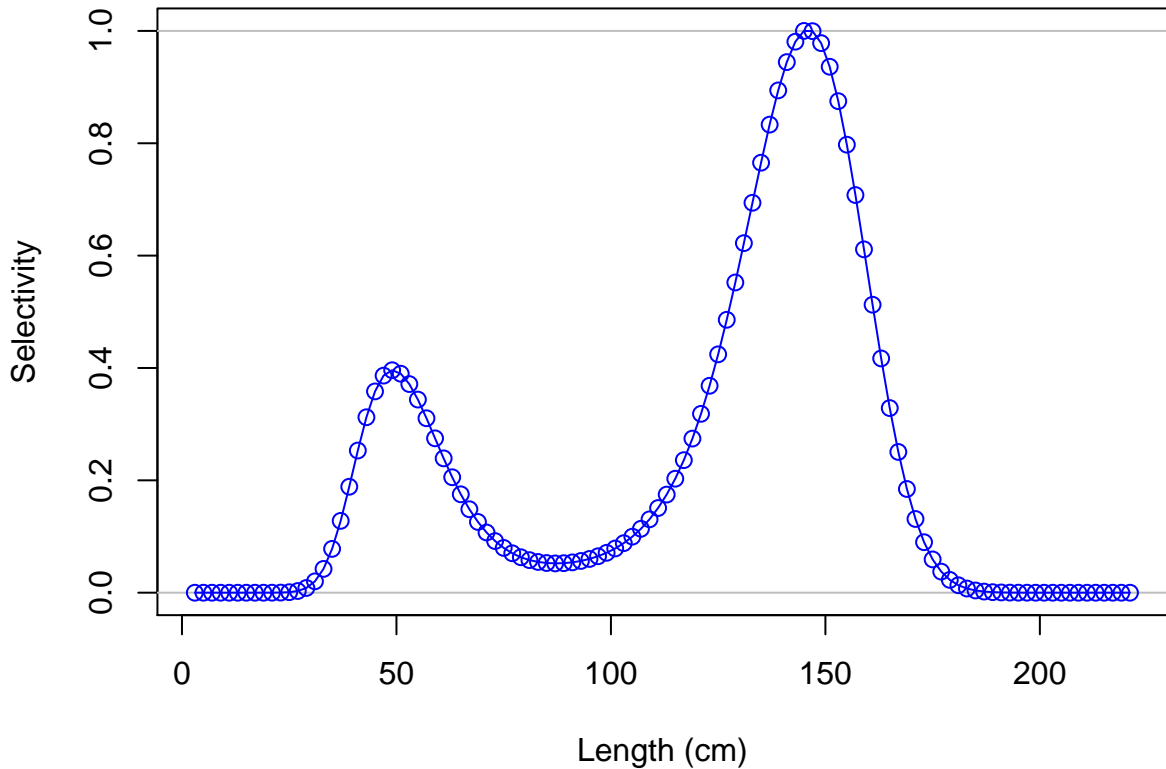
Male ending year selectivity for A5-NOADEL



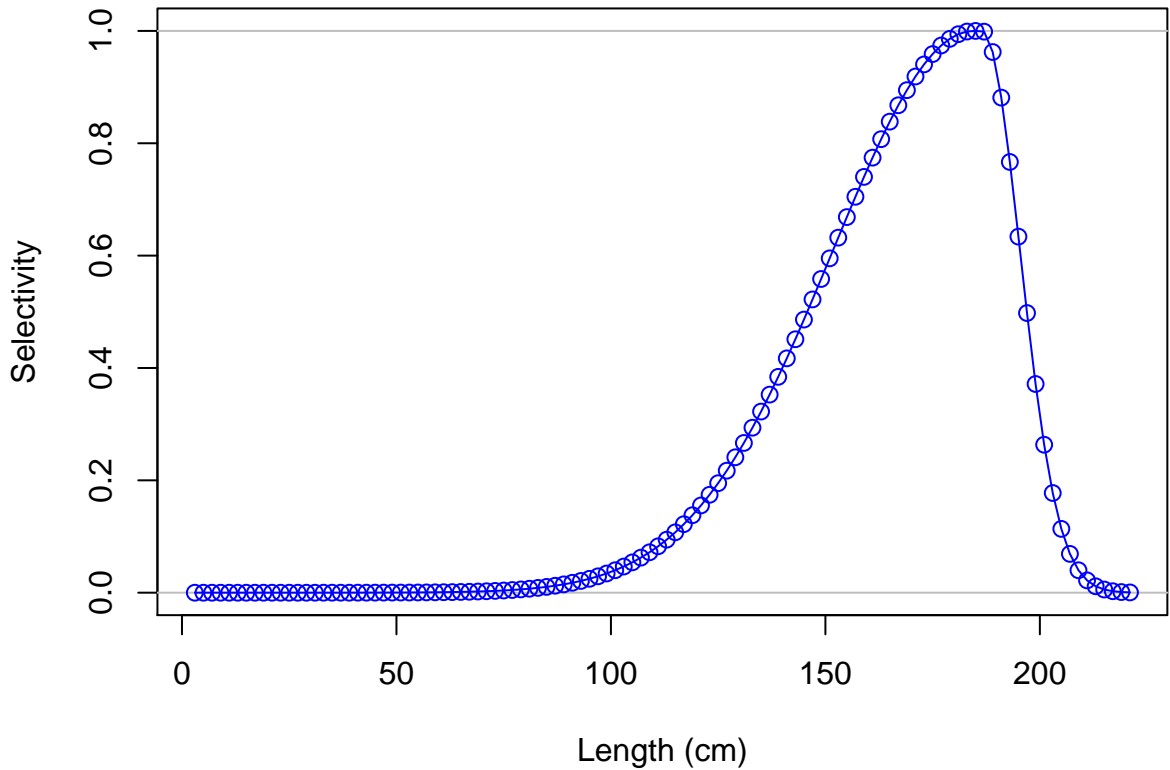
Female ending year selectivity for A6-NOADEL



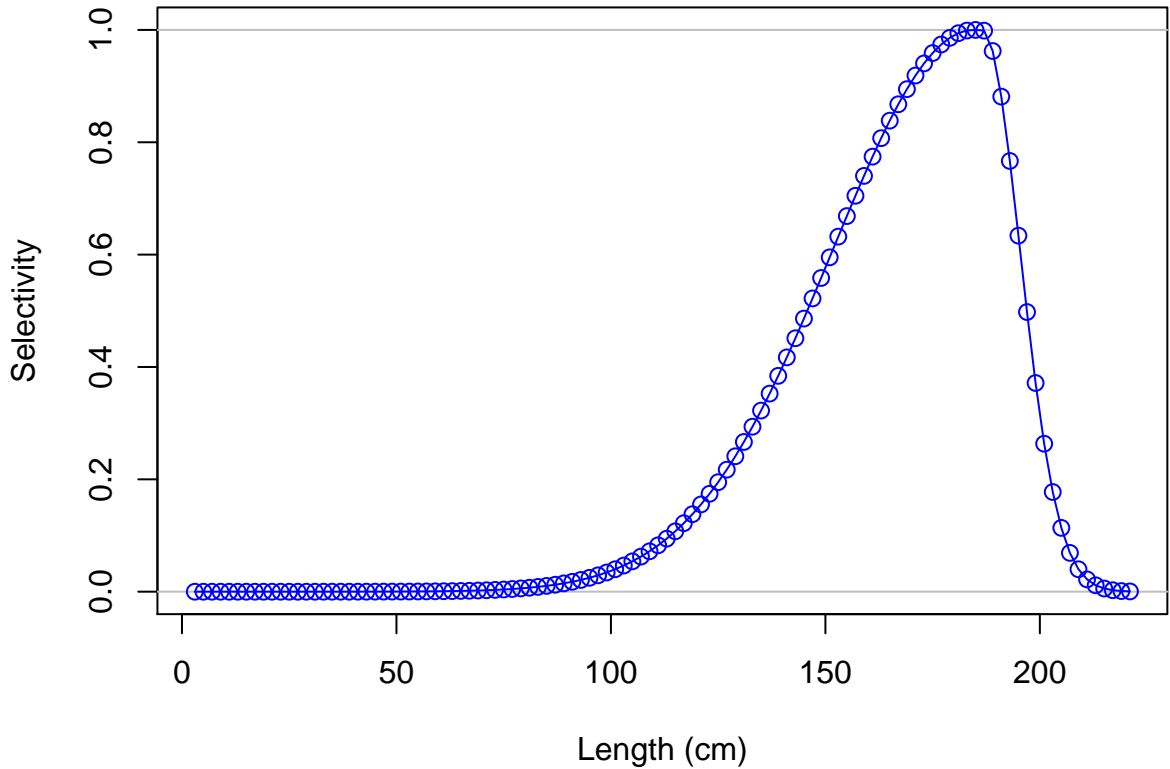
Male ending year selectivity for A6-NOADEL



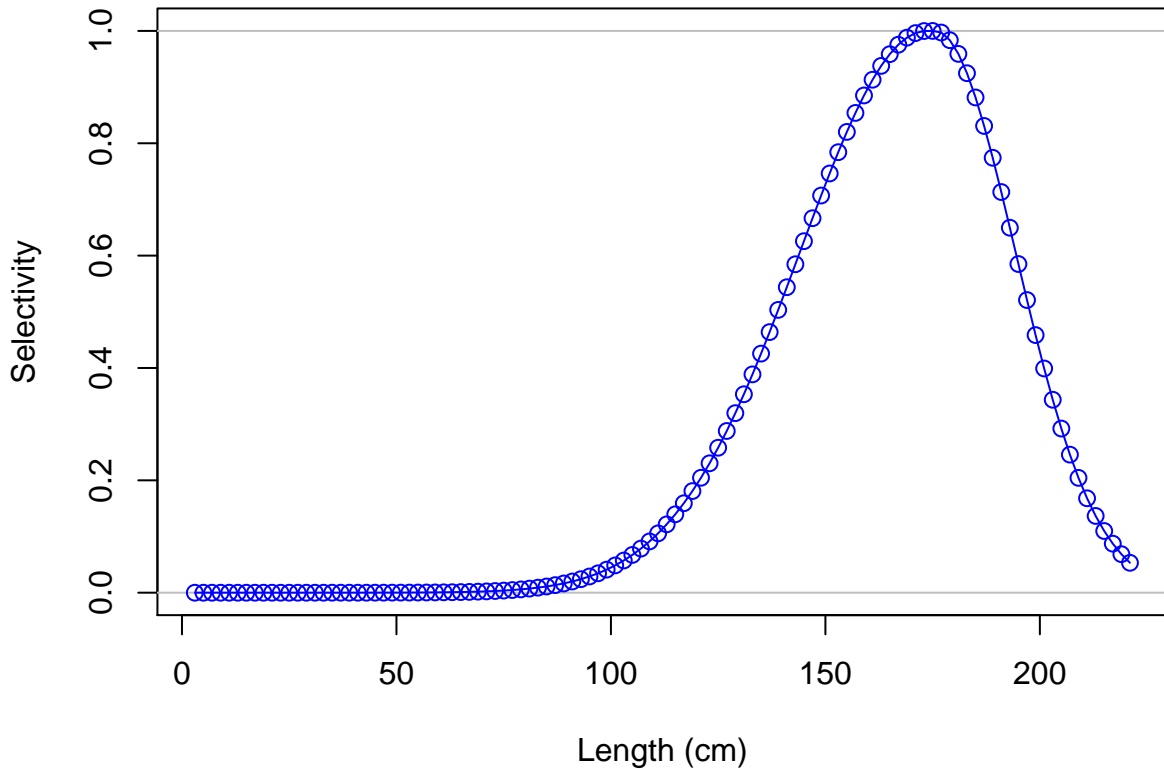
Female ending year selectivity for EPO-LL-survey-early



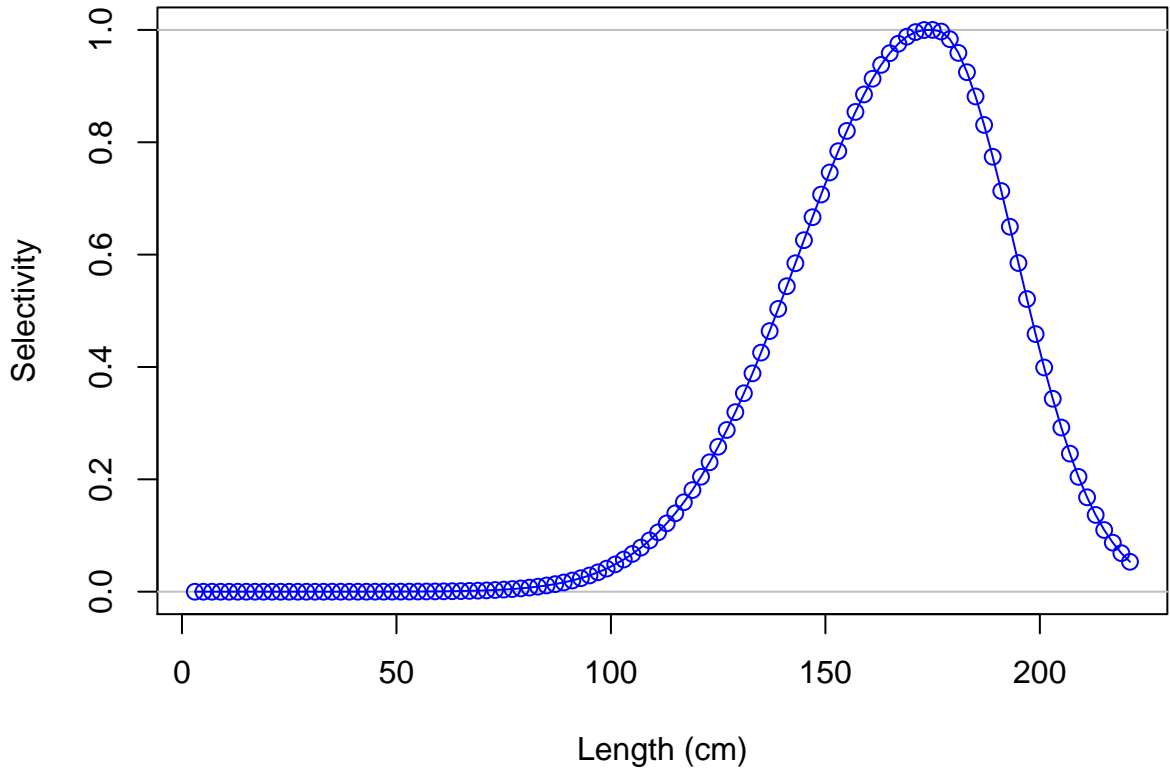
Male ending year selectivity for EPO-LL-survey-early



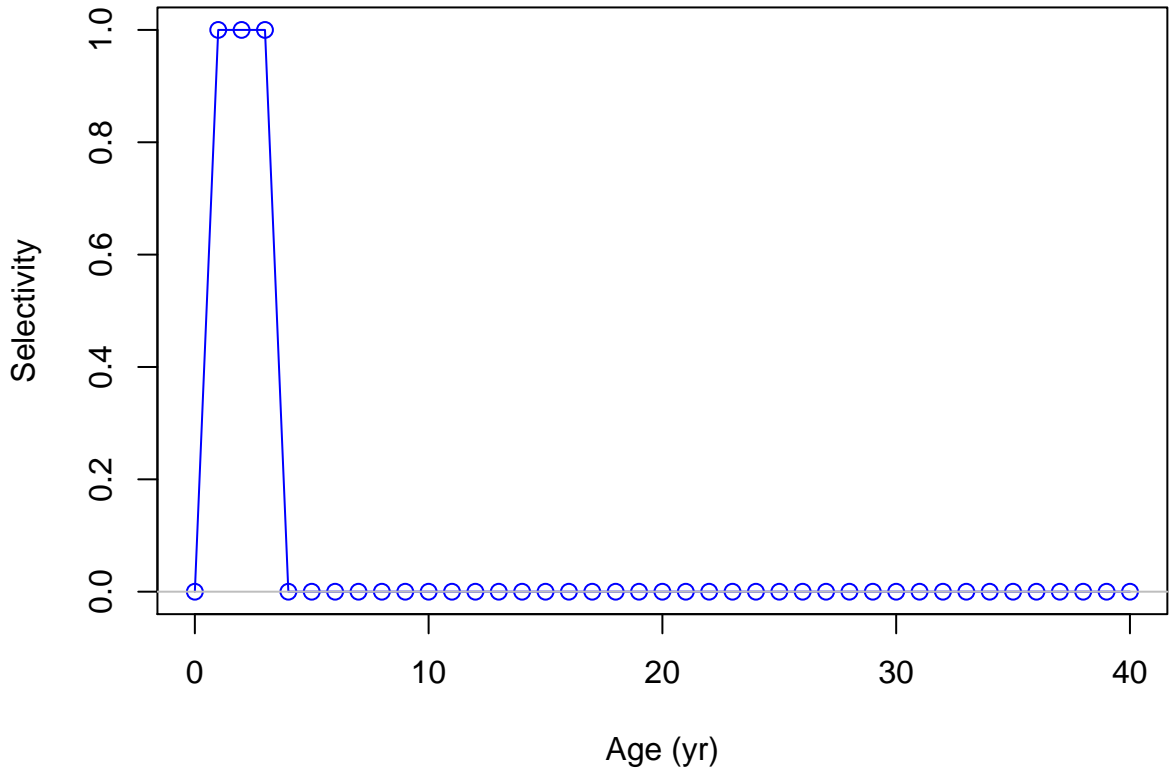
Female ending year selectivity for EPO-LL-survey-late



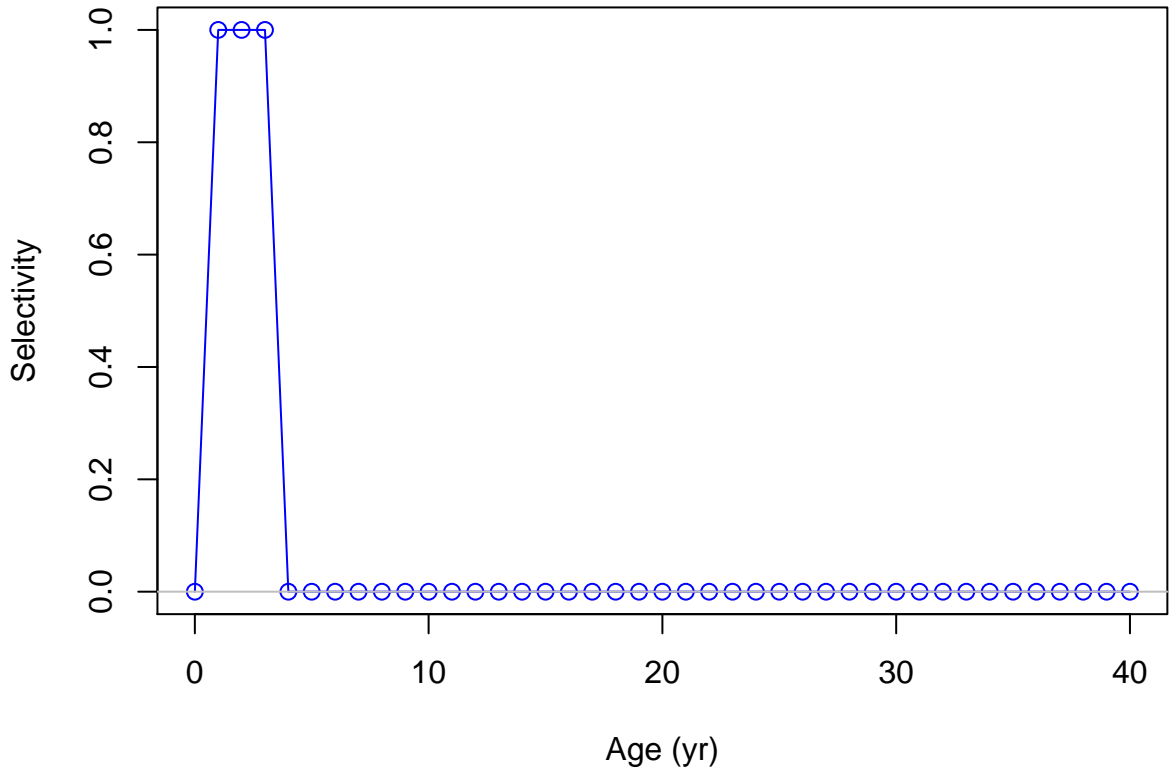
Male ending year selectivity for EPO-LL-survey-late



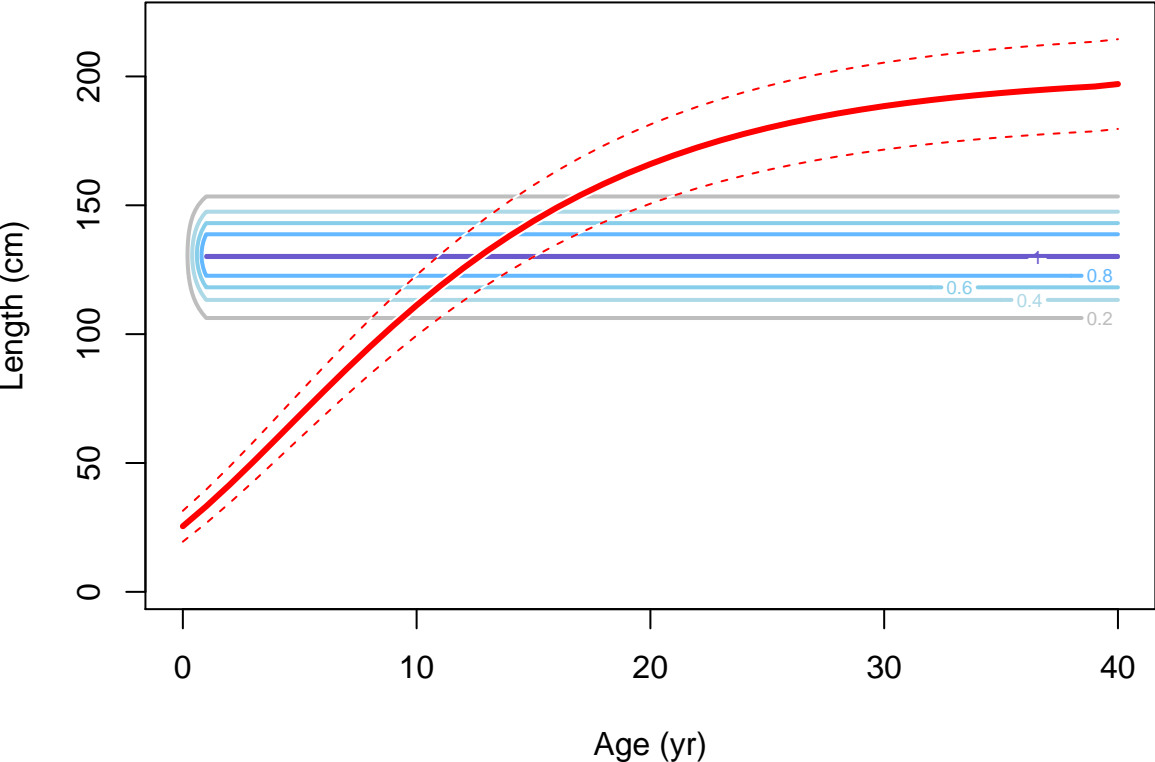
Female ending year selectivity for EPO-OBJ-Disc



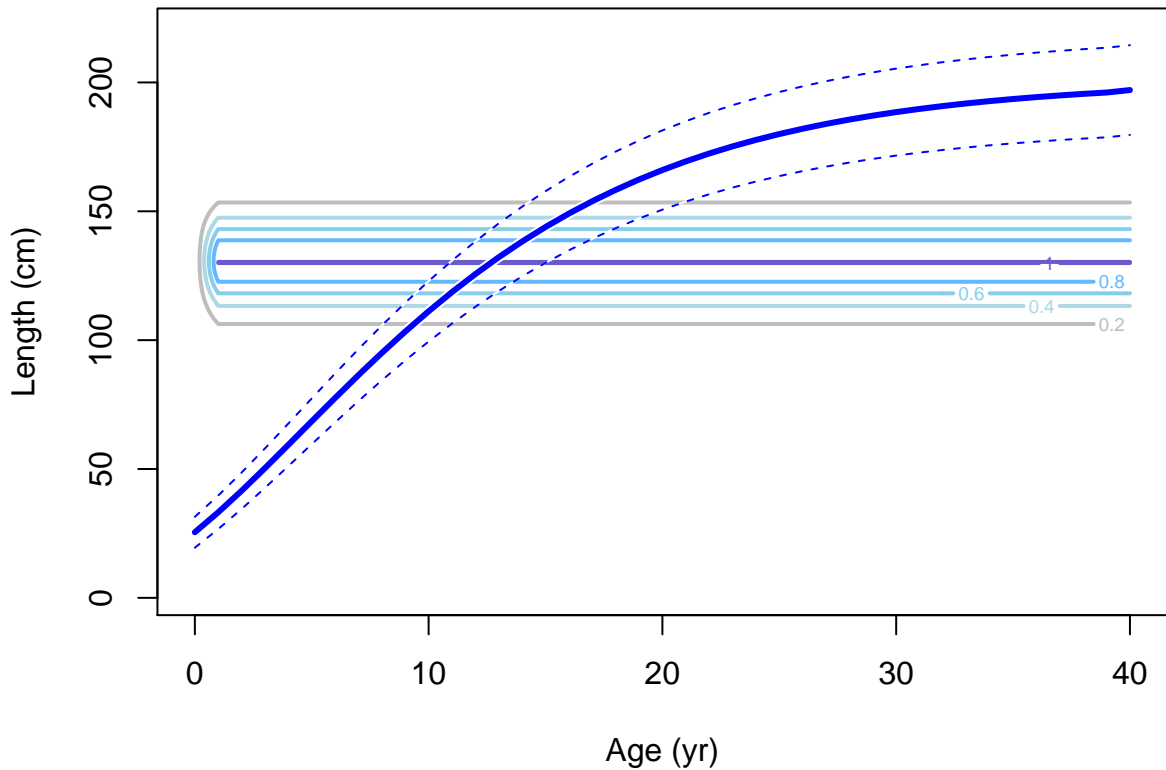
Male ending year selectivity for EPO-OBJ-Disc



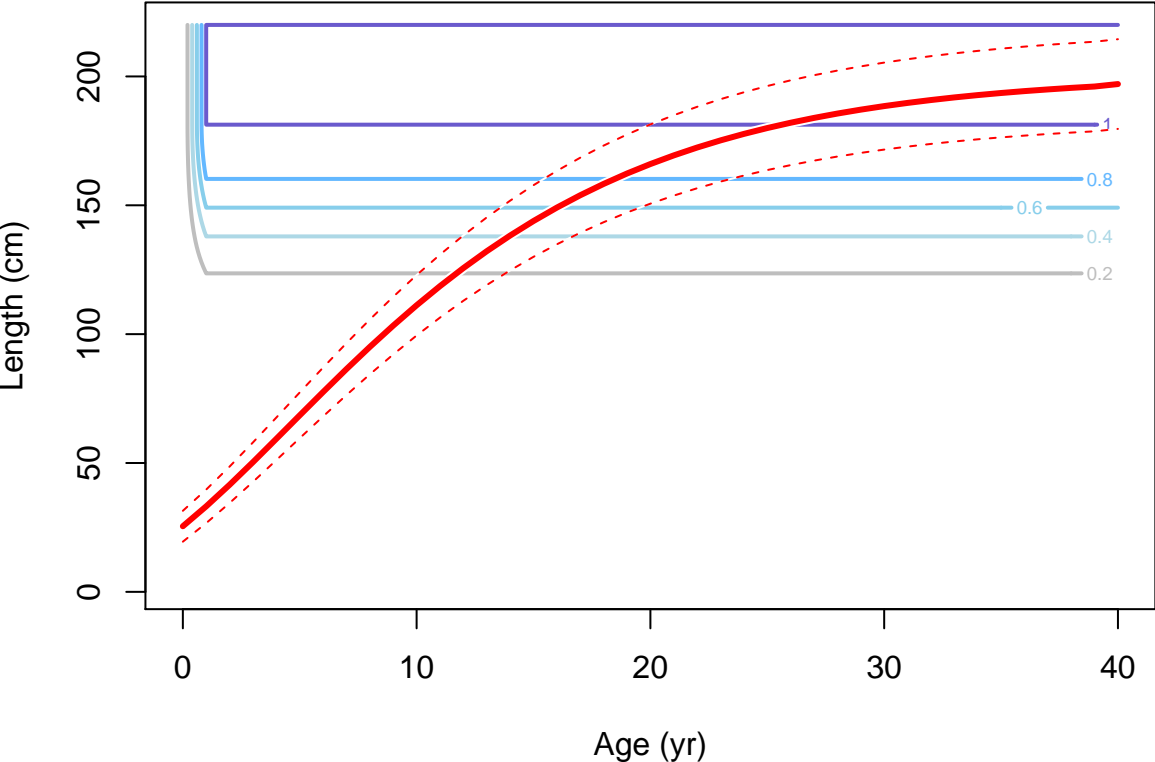
Female ending year selectivity and growth for A1-LL-n



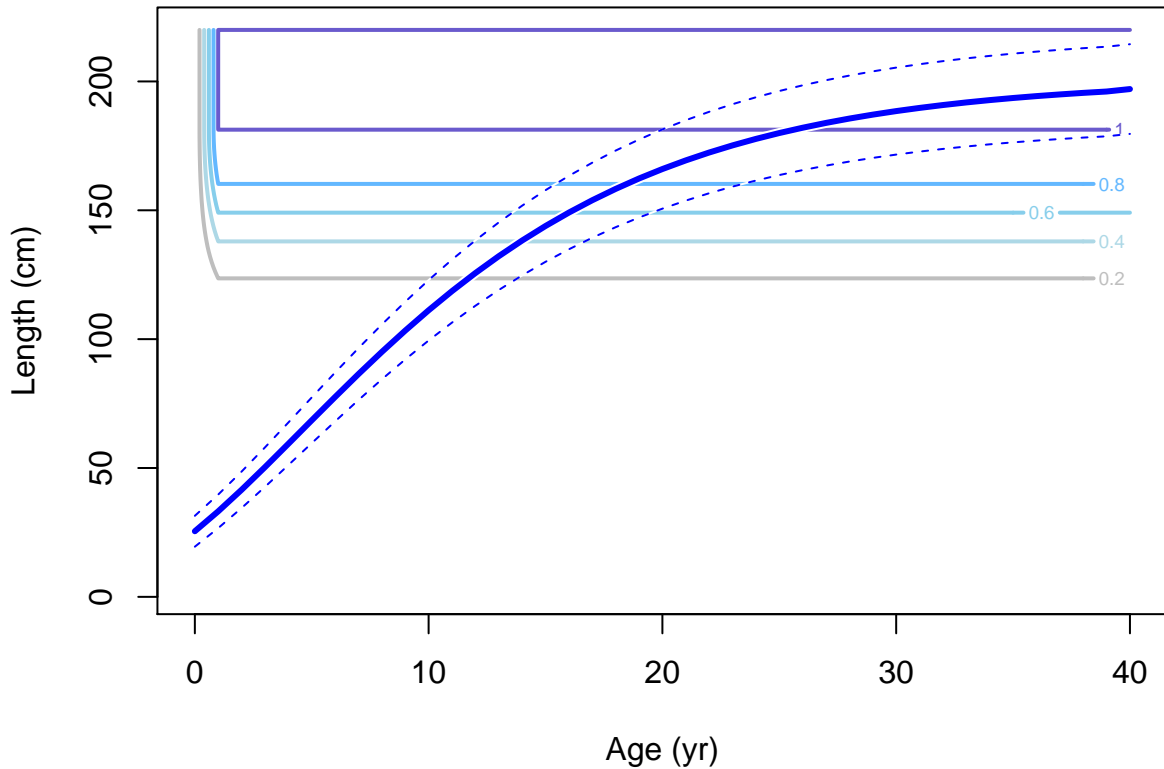
Male ending year selectivity and growth for A1-LL-n



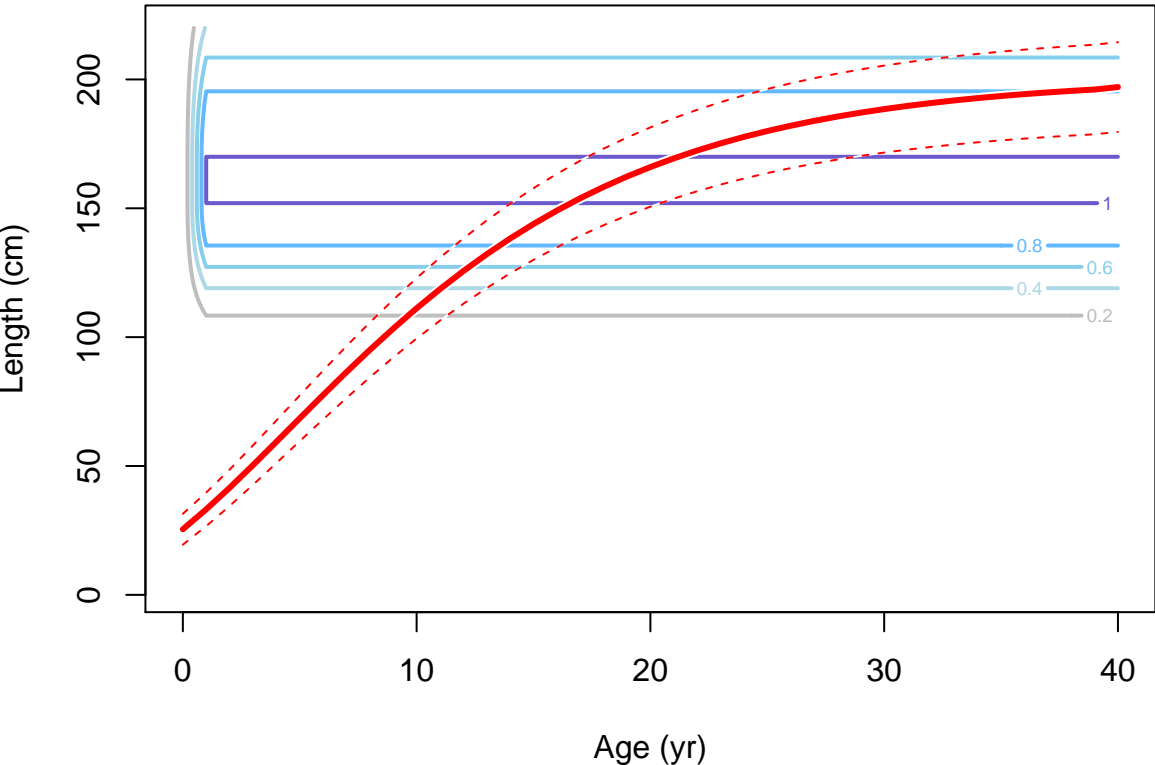
Female ending year selectivity and growth for A2-LL-n



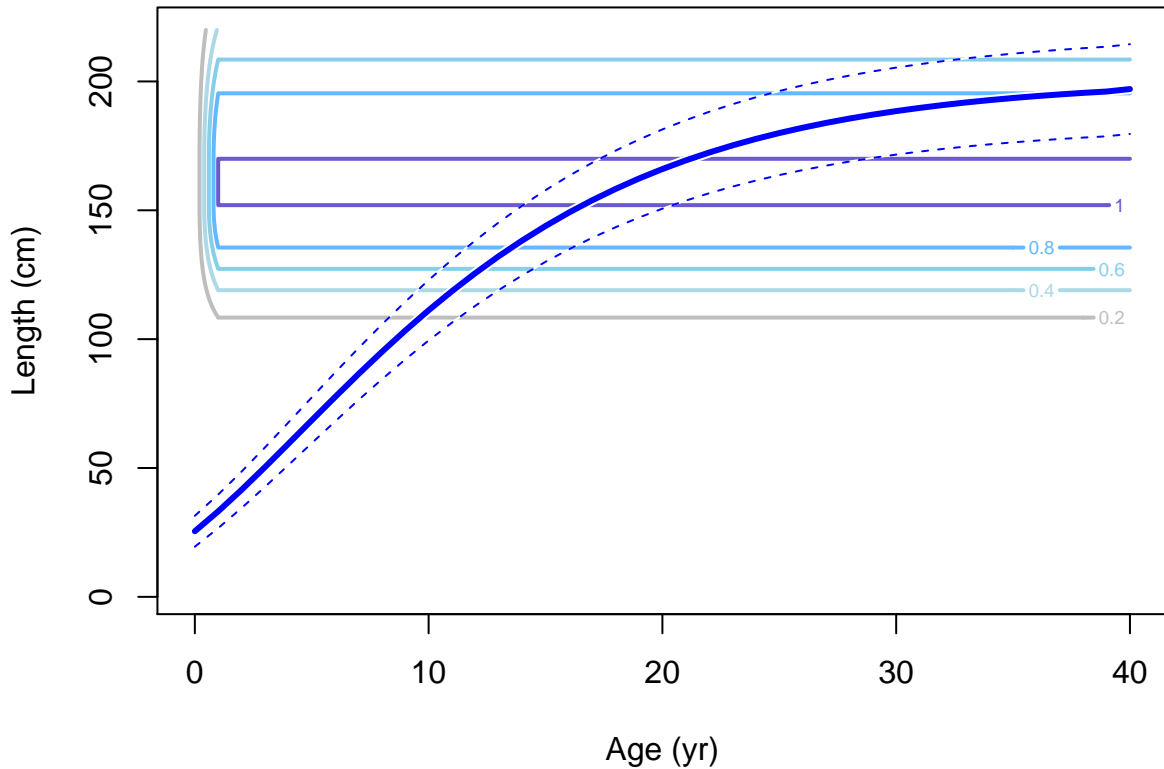
Male ending year selectivity and growth for A2-LL-n



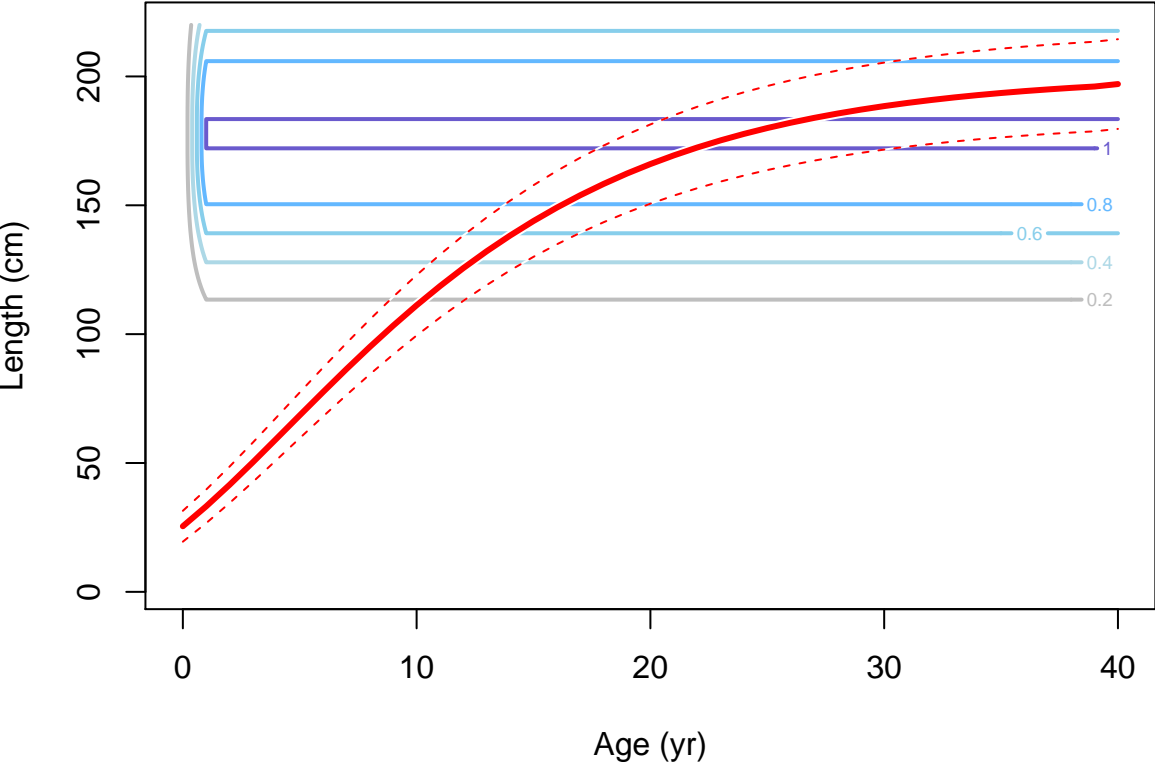
Female ending year selectivity and growth for A3-LL-n



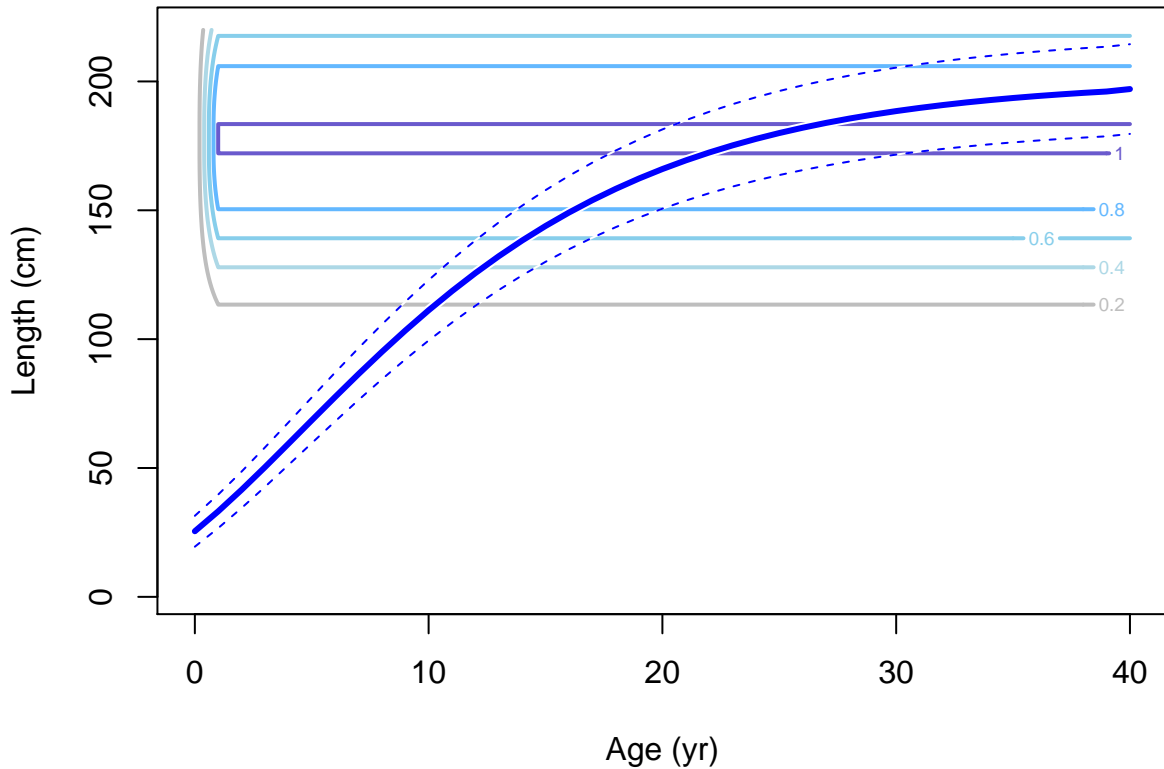
Male ending year selectivity and growth for A3-LL-n



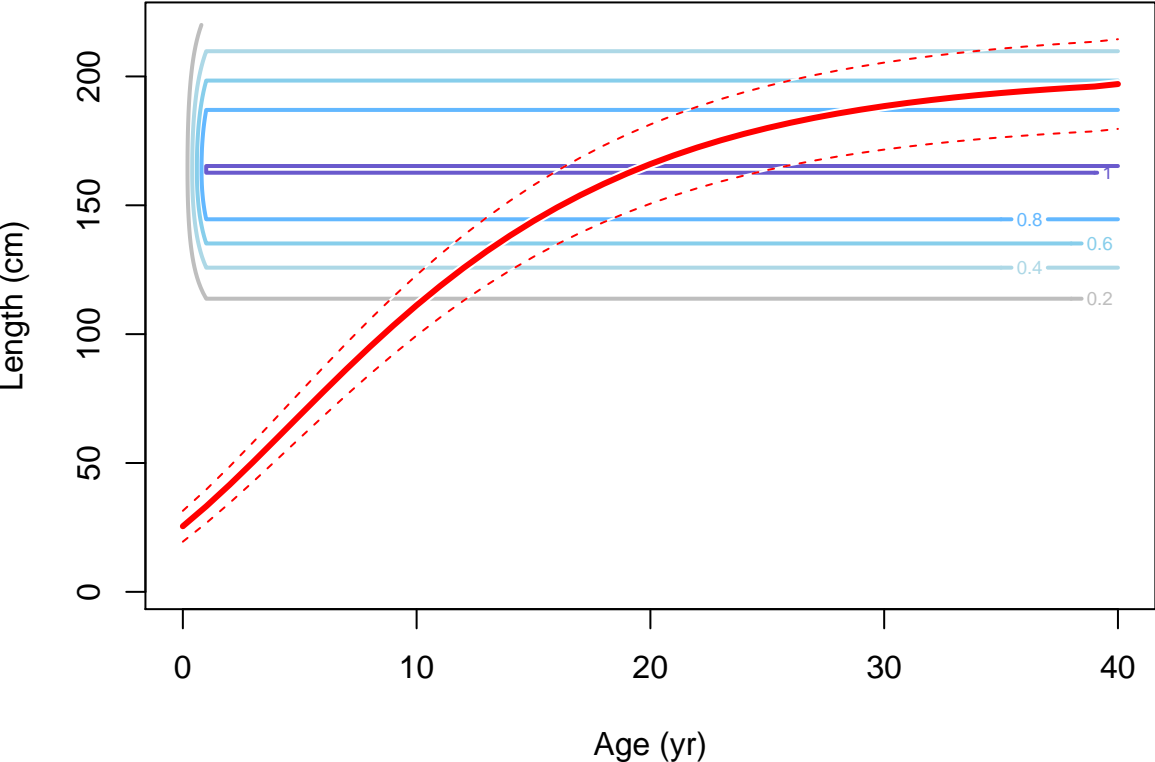
Female ending year selectivity and growth for A4-LL-n



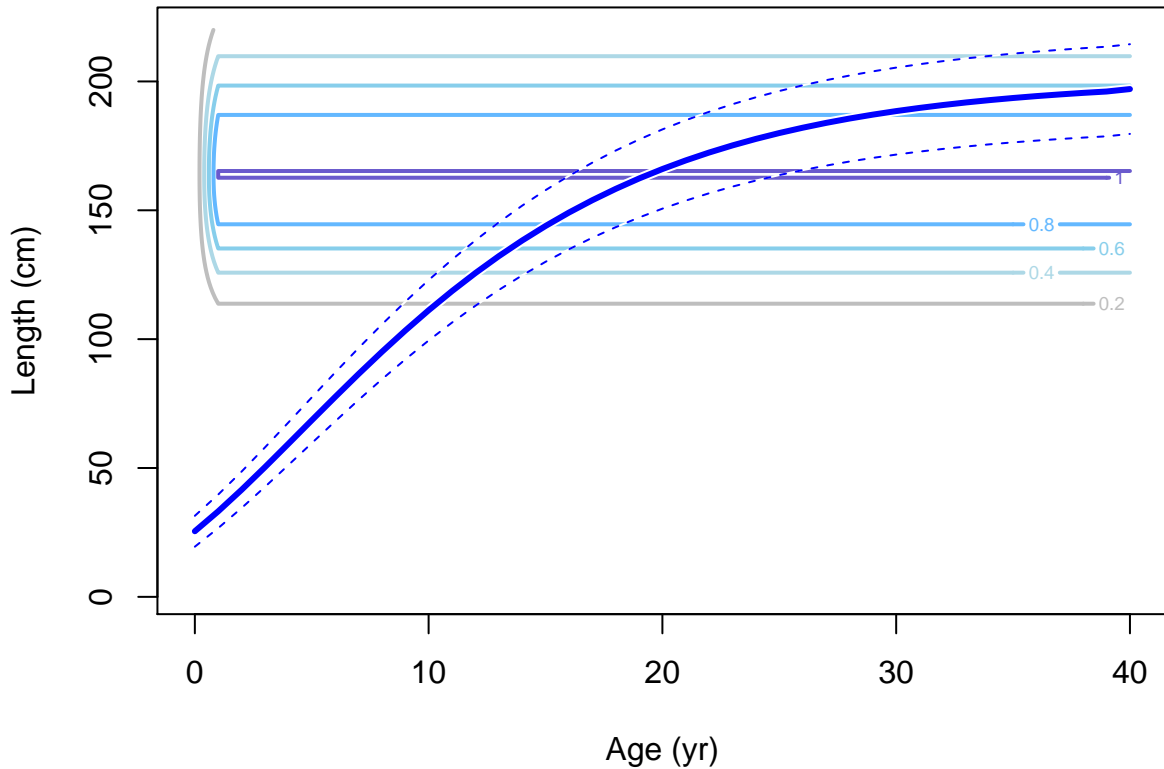
Male ending year selectivity and growth for A4-LL-n



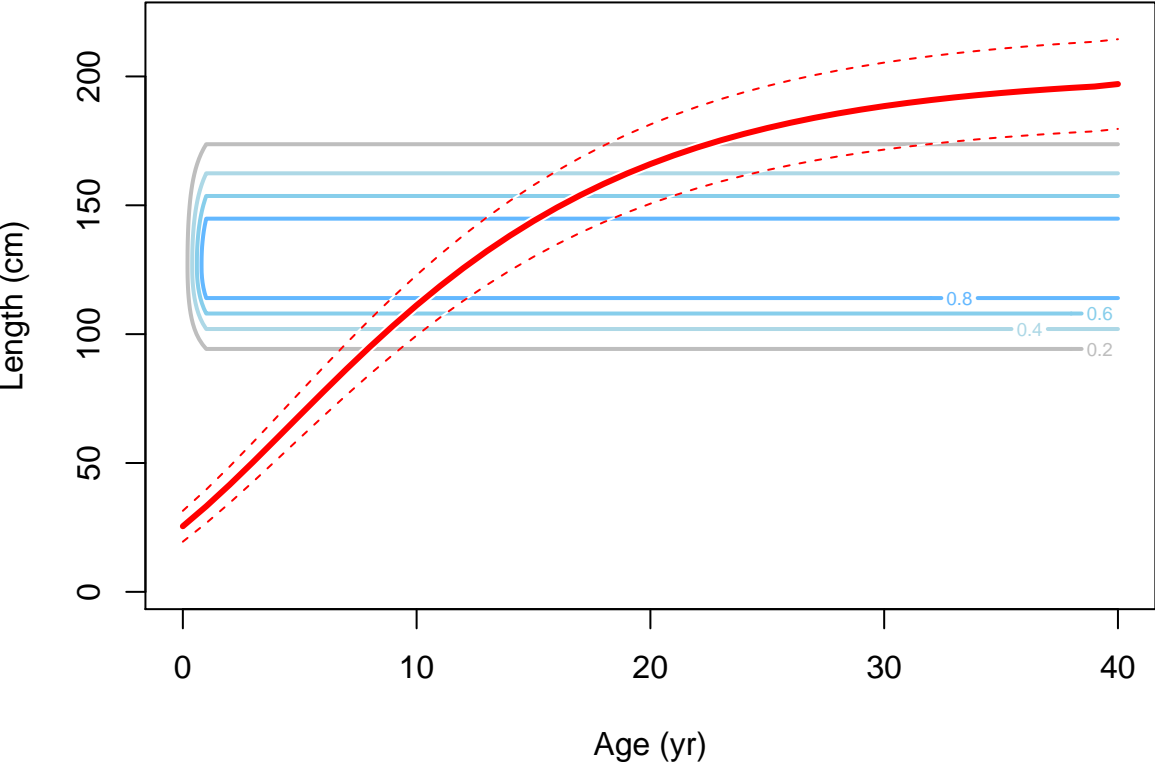
Female ending year selectivity and growth for A5-LL-n



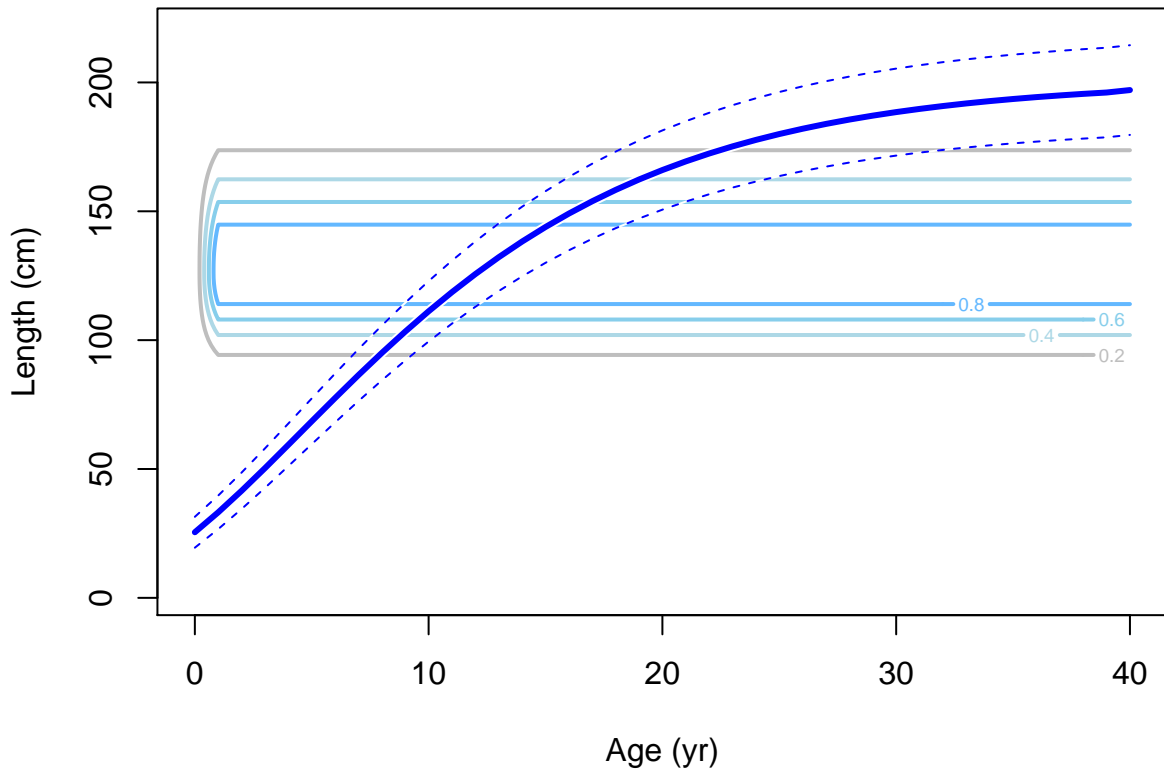
Male ending year selectivity and growth for A5-LL-n



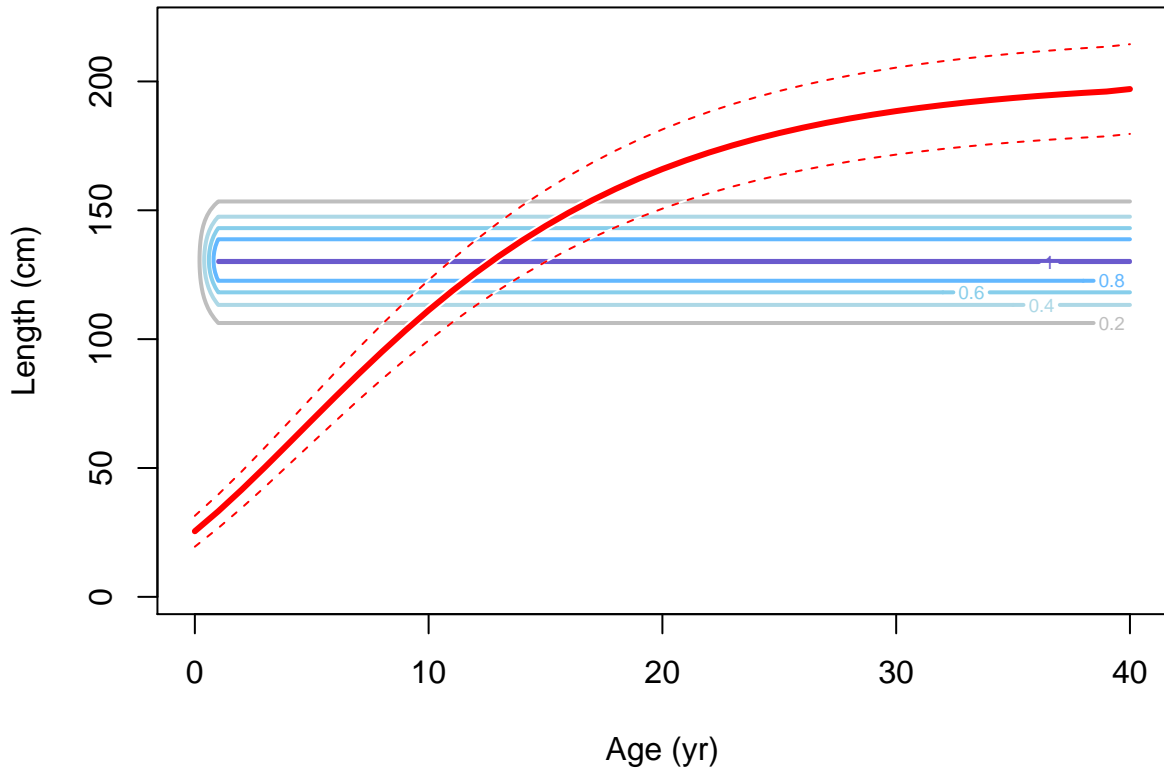
Female ending year selectivity and growth for A6-LL-n



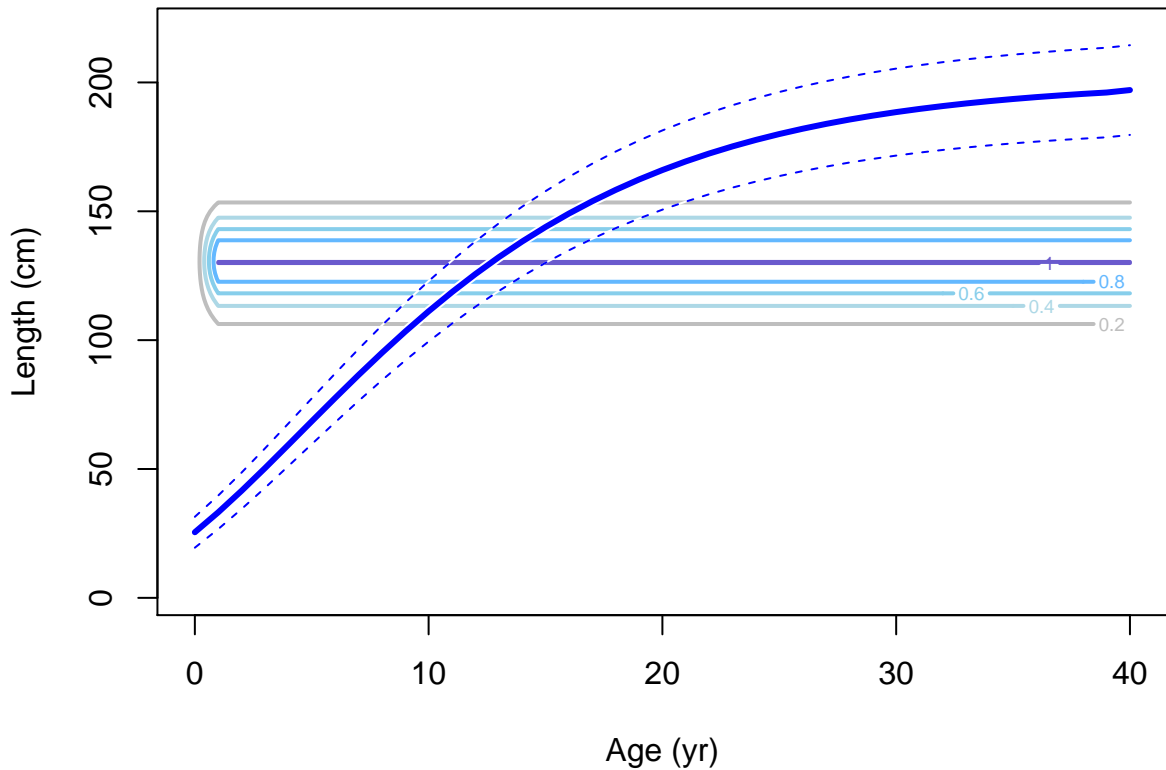
Male ending year selectivity and growth for A6-LL-n



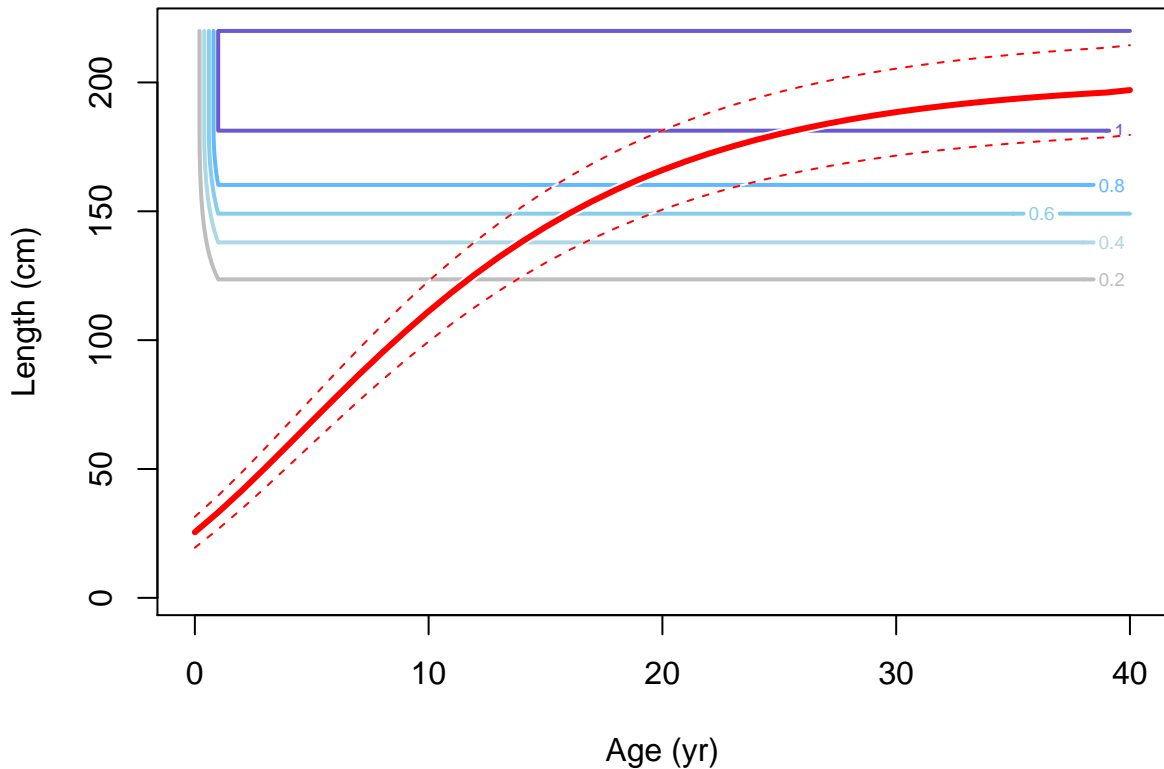
Female ending year selectivity and growth for A1-LL-w



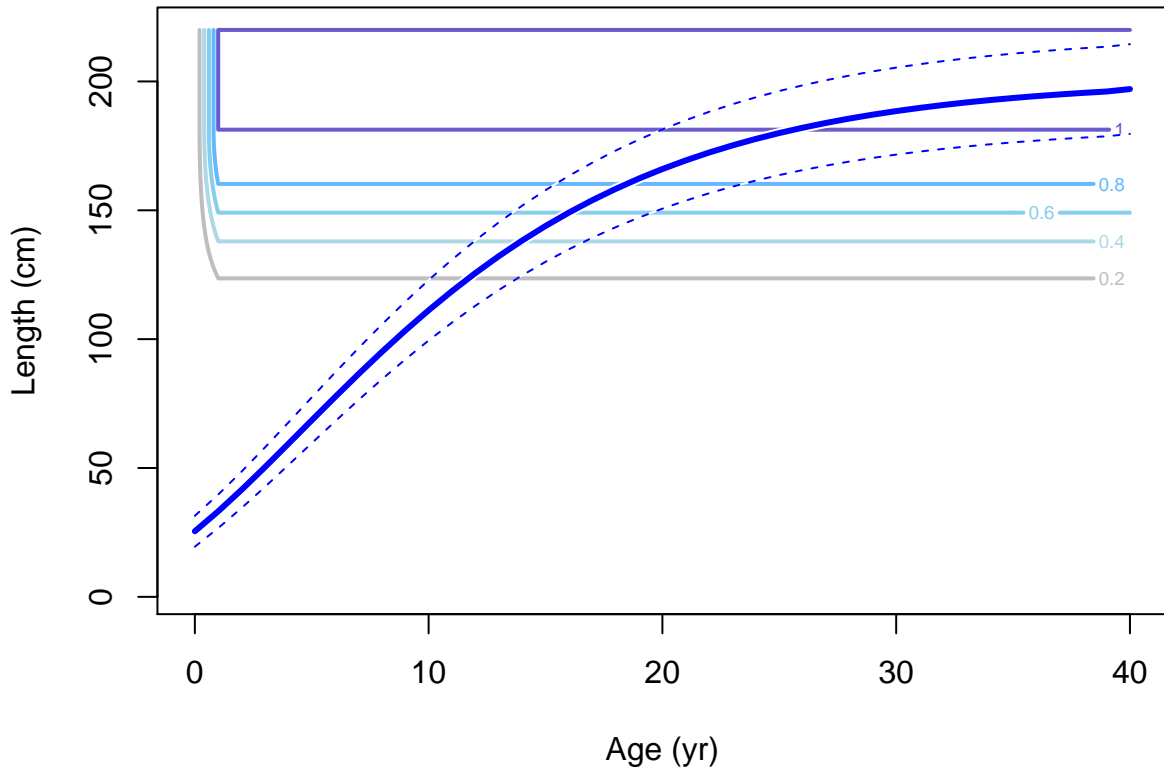
Male ending year selectivity and growth for A1-LL-w



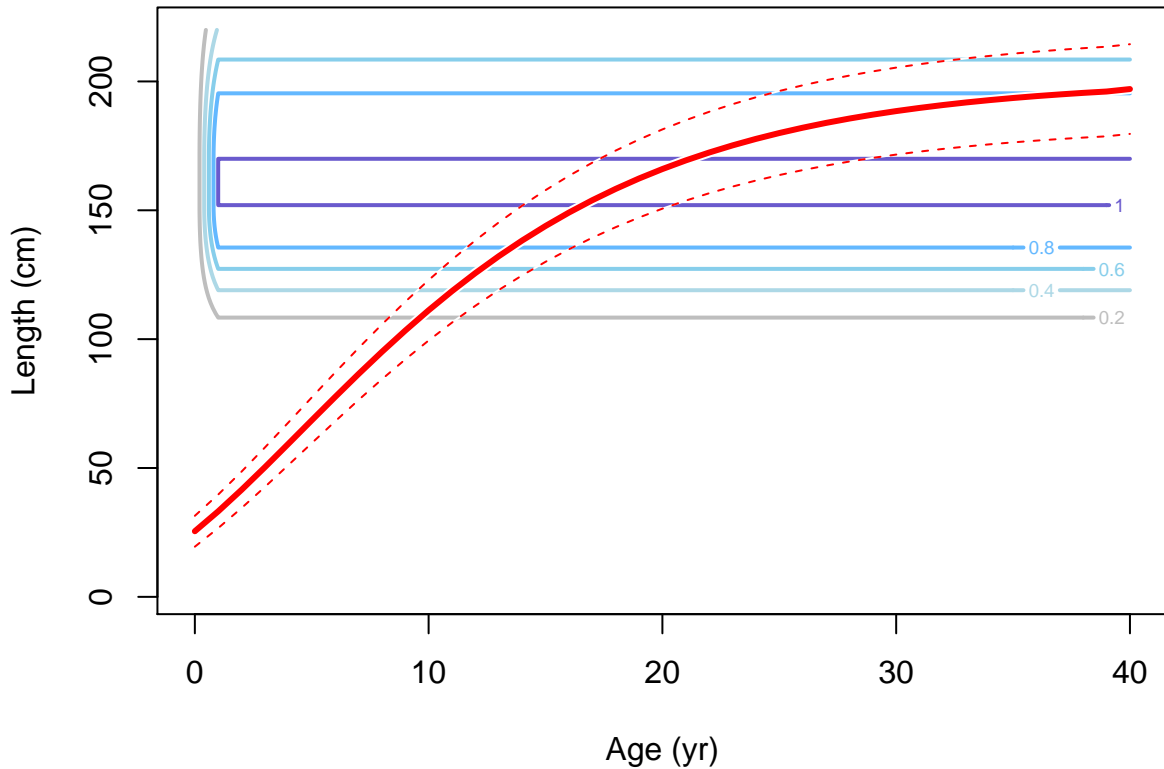
Female ending year selectivity and growth for A2-LL-w



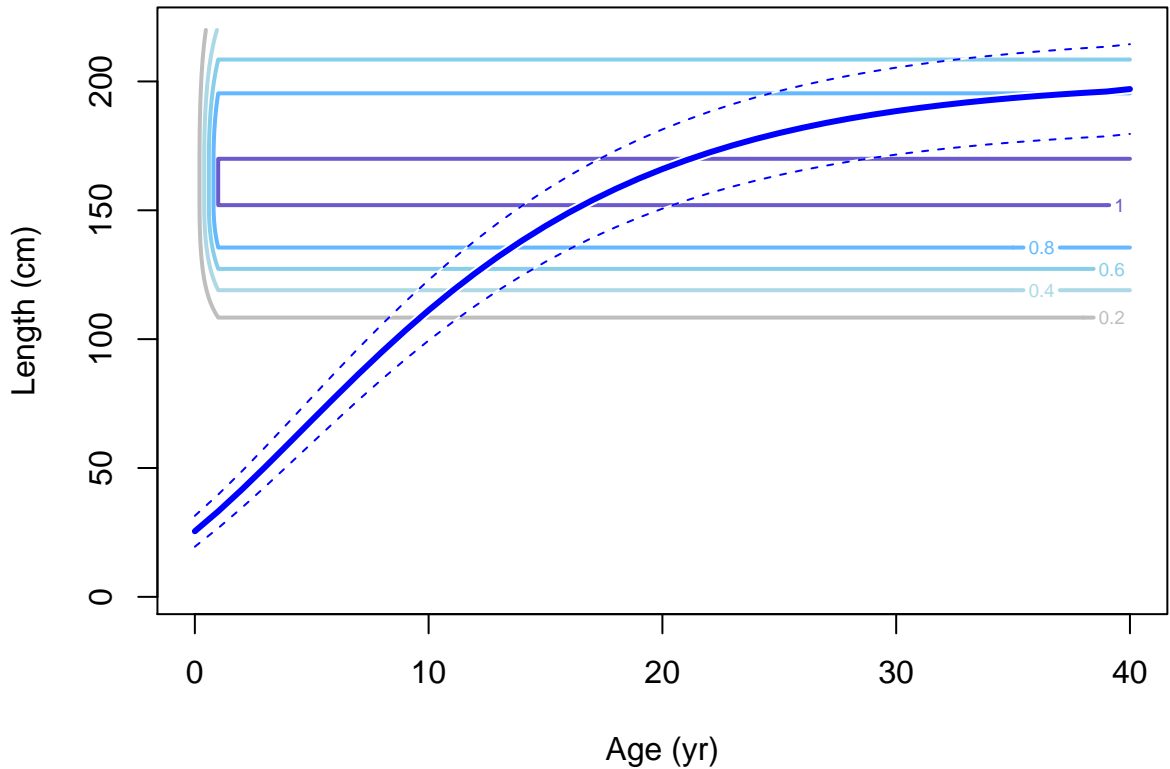
Male ending year selectivity and growth for A2-LL-w



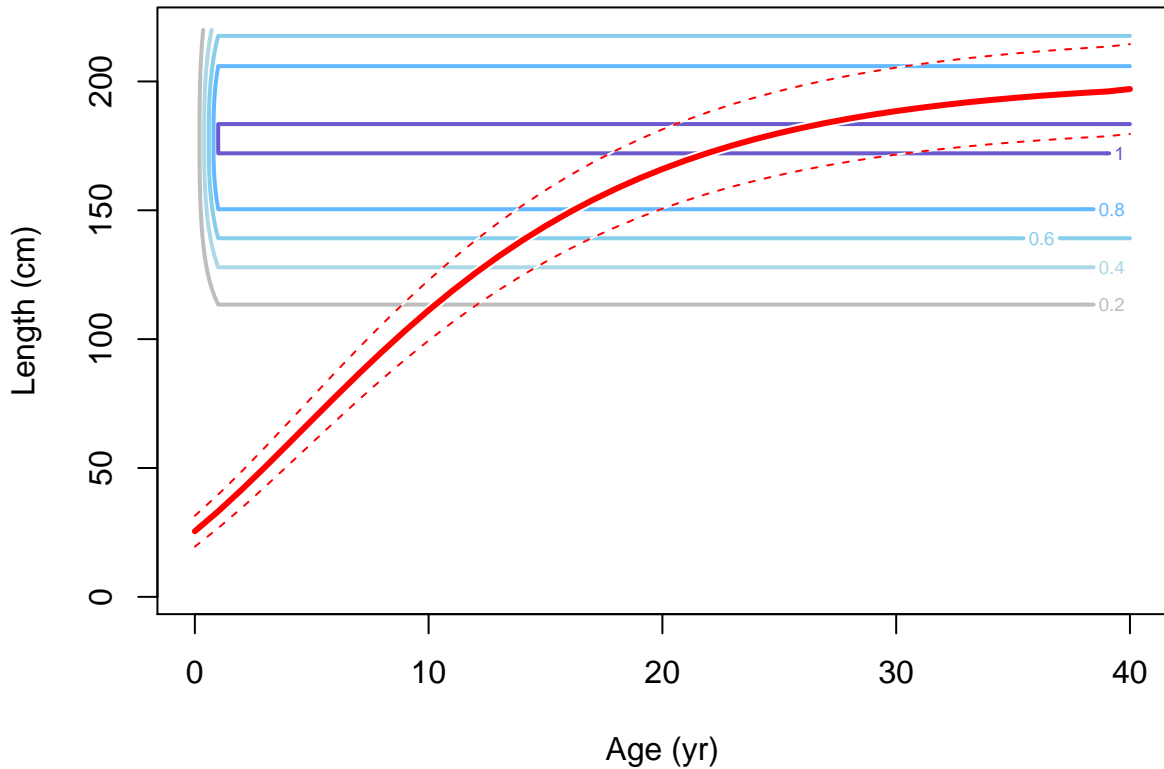
Female ending year selectivity and growth for A3-LL-w



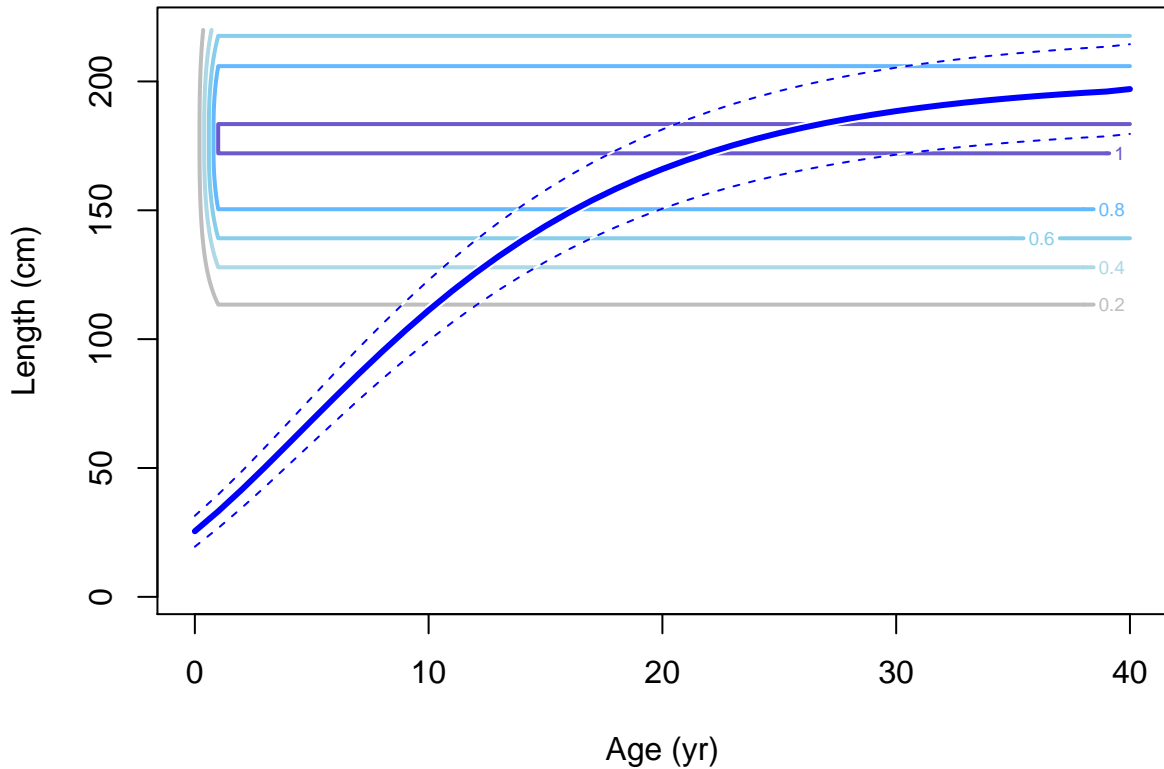
Male ending year selectivity and growth for A3-LL-w



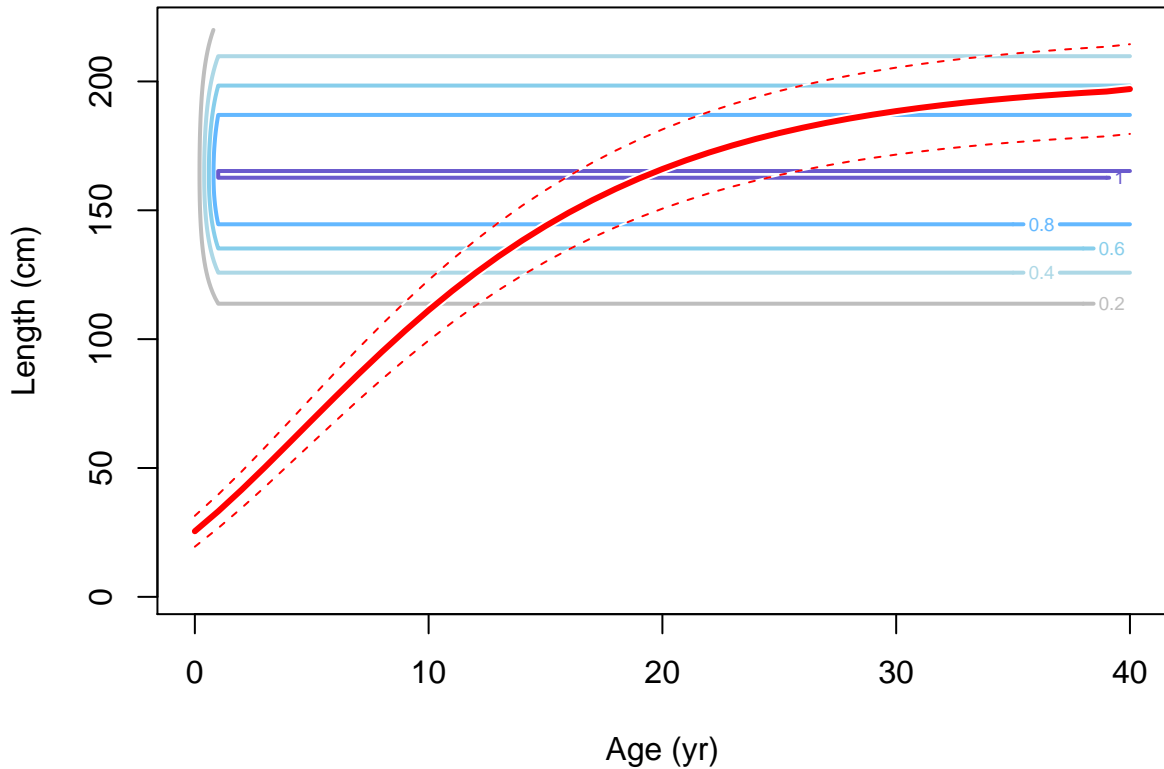
Female ending year selectivity and growth for A4-LL-w



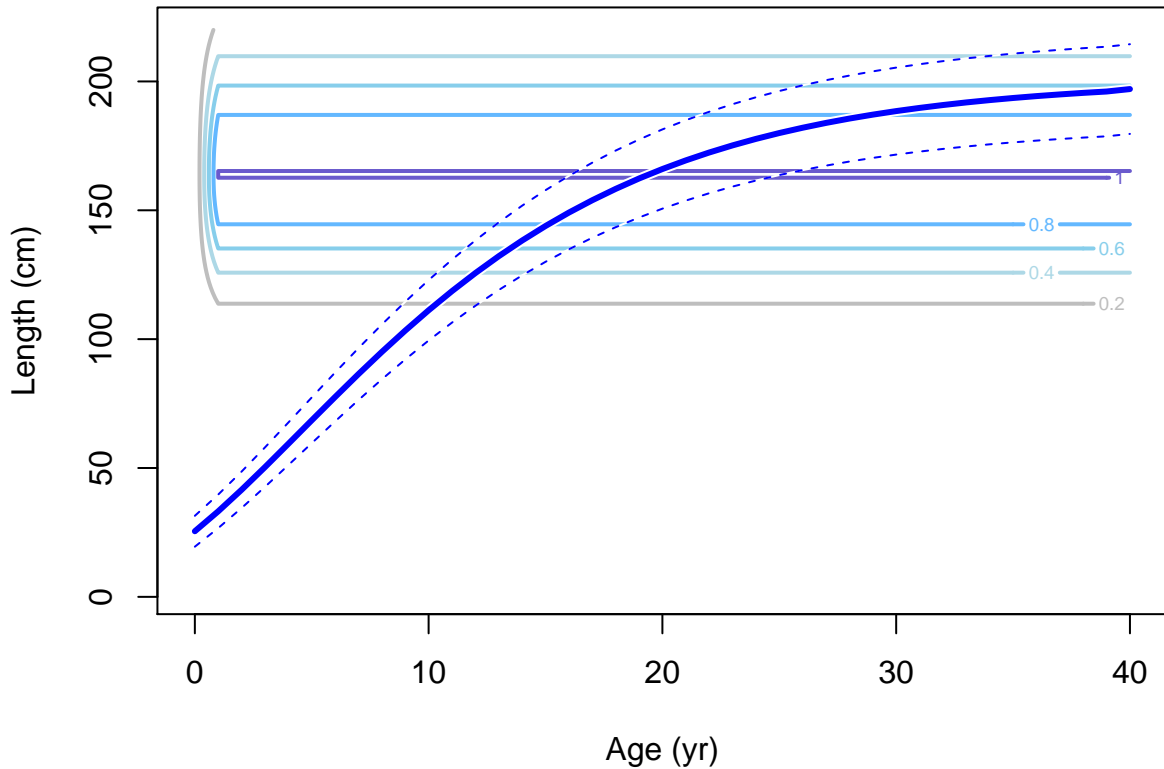
Male ending year selectivity and growth for A4-LL-w



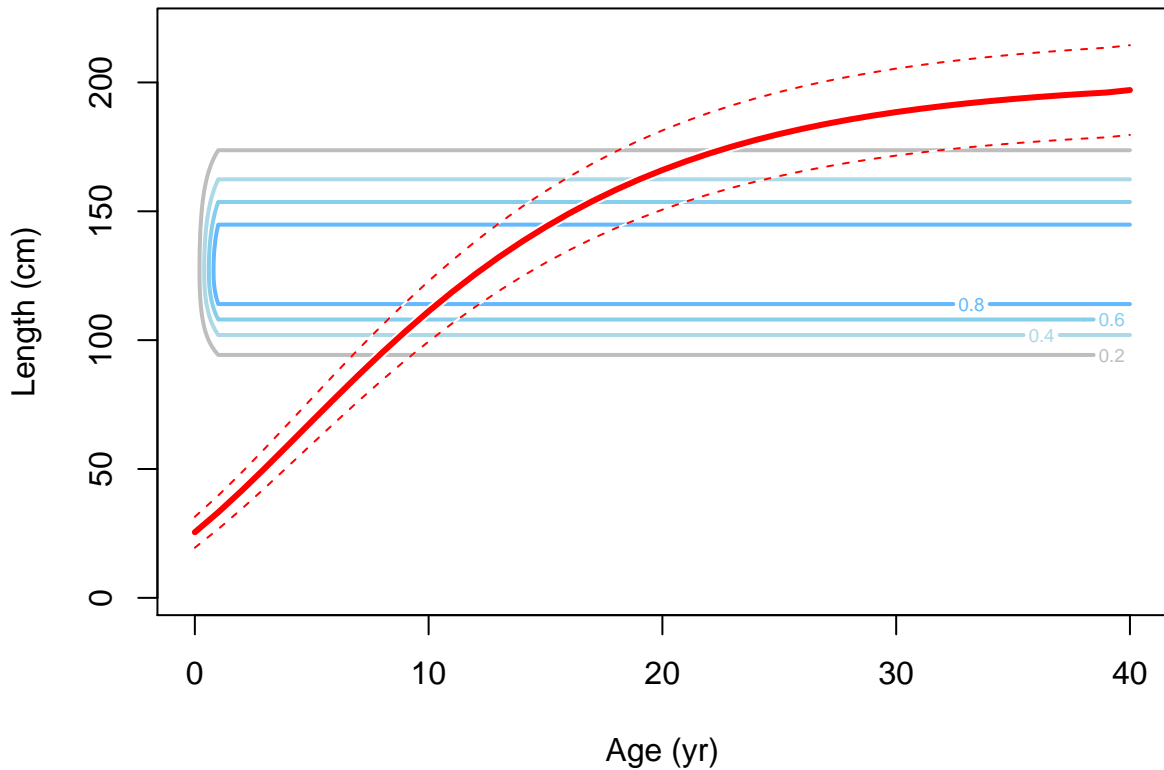
Female ending year selectivity and growth for A5-LL-w



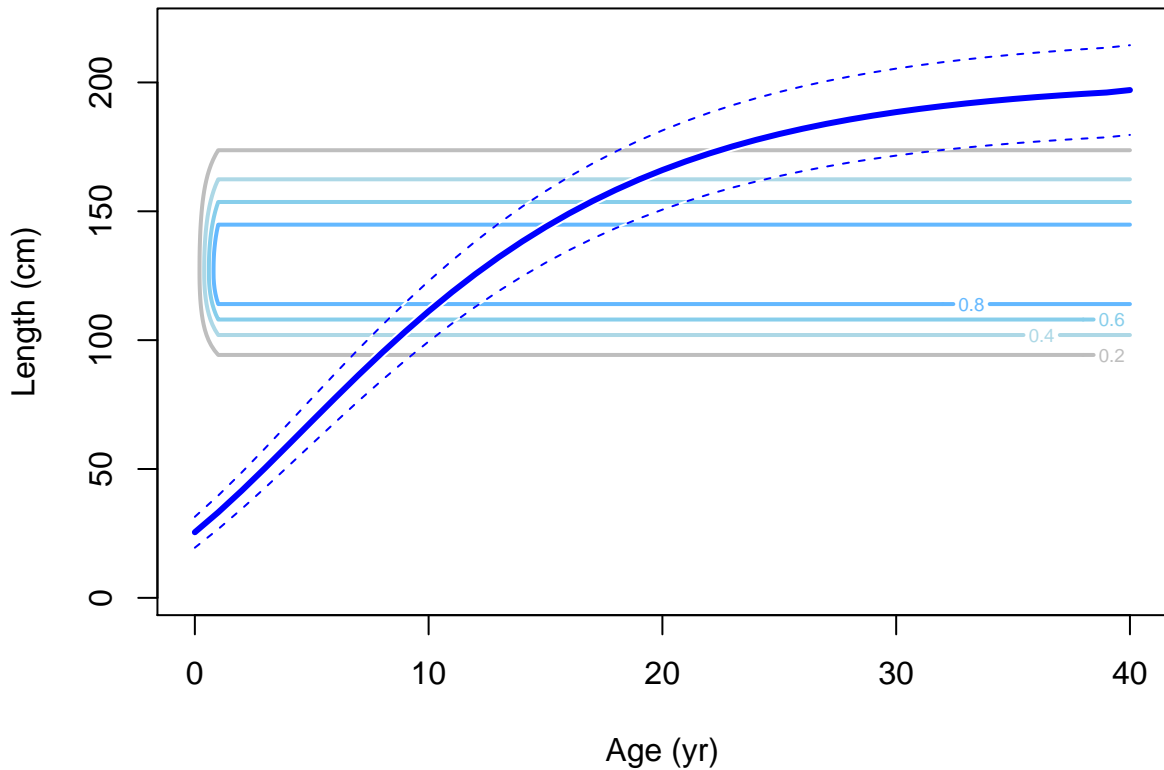
Male ending year selectivity and growth for A5-LL-w



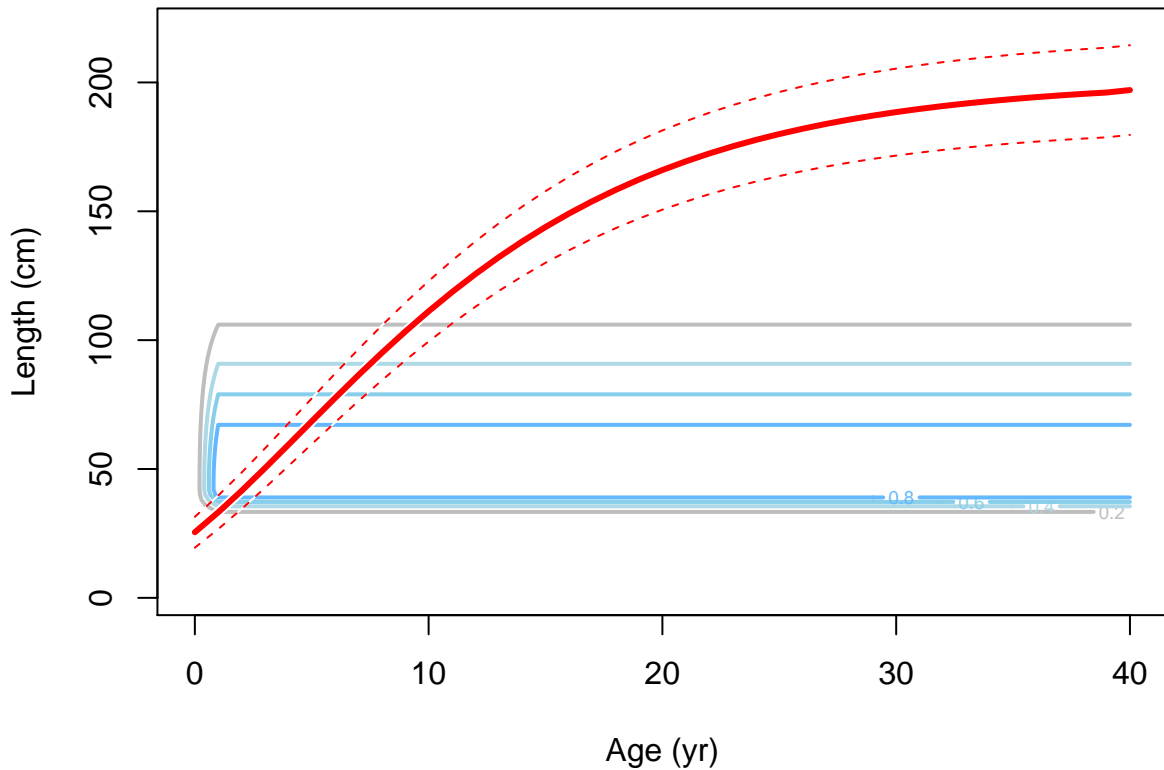
Female ending year selectivity and growth for A6-LL-w



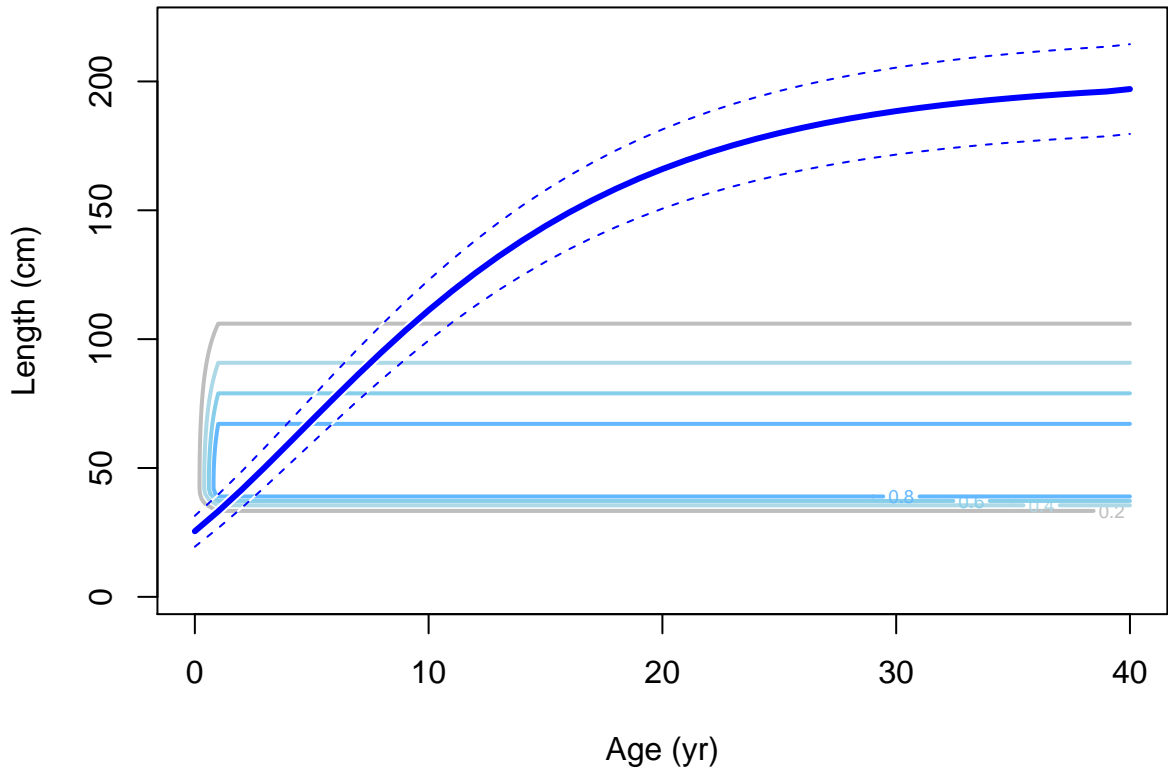
Male ending year selectivity and growth for A6-LL-w



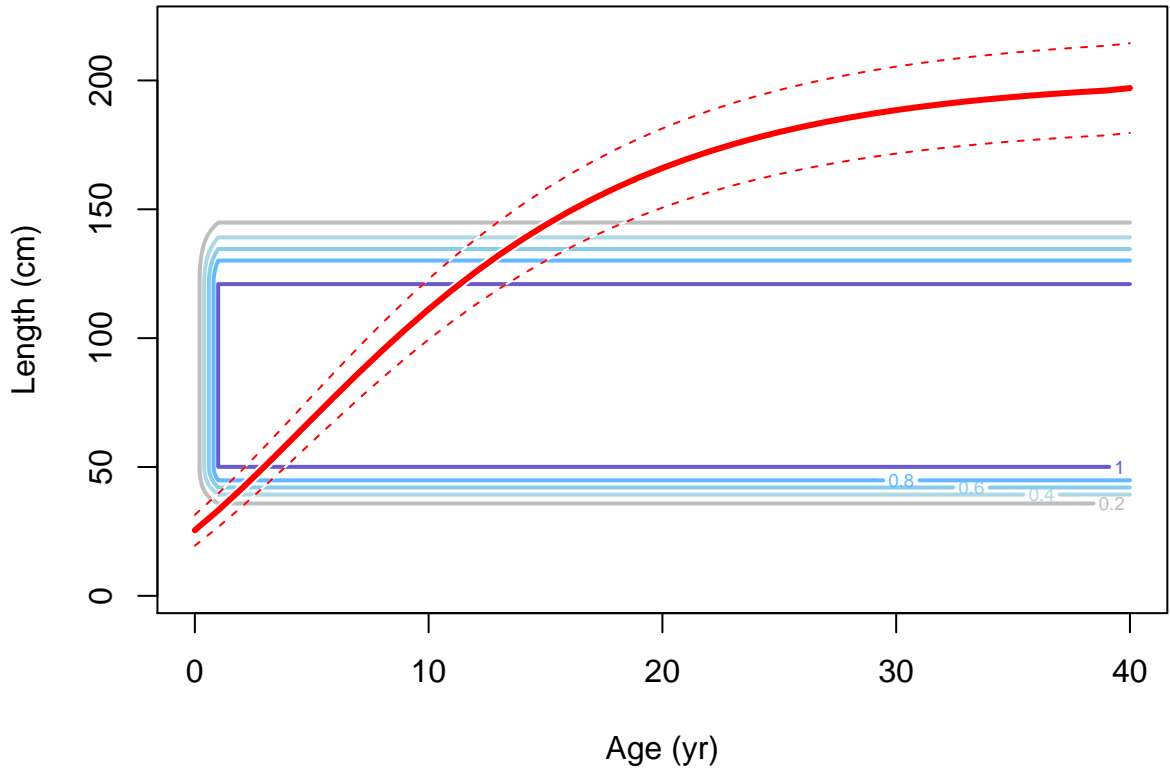
Female ending year selectivity and growth for A2-OBJ



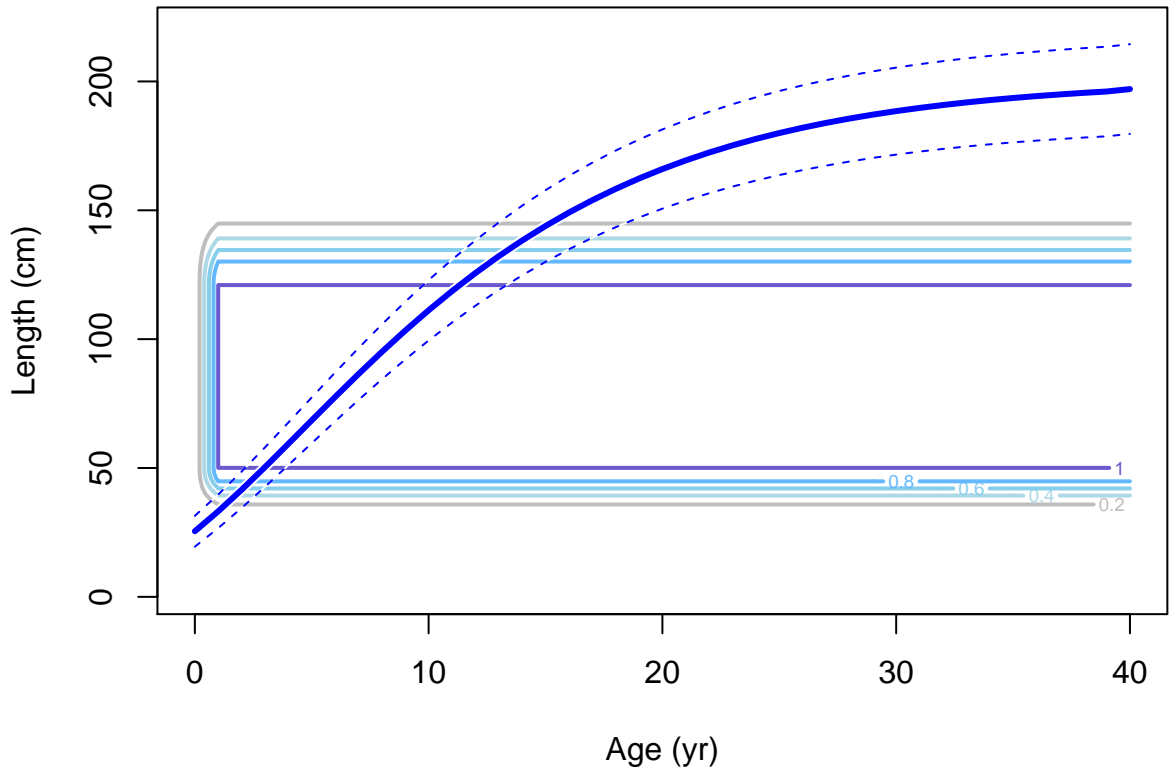
Male ending year selectivity and growth for A2-OBJ



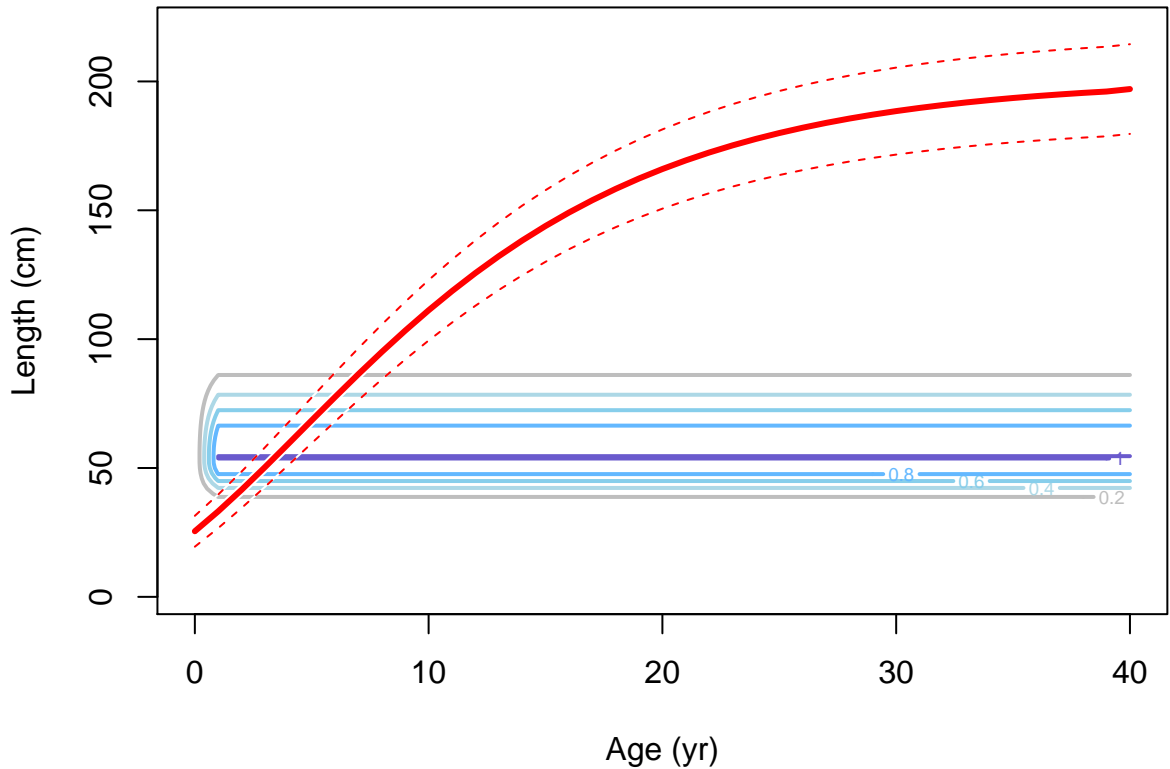
Female ending year selectivity and growth for A3-OBJ



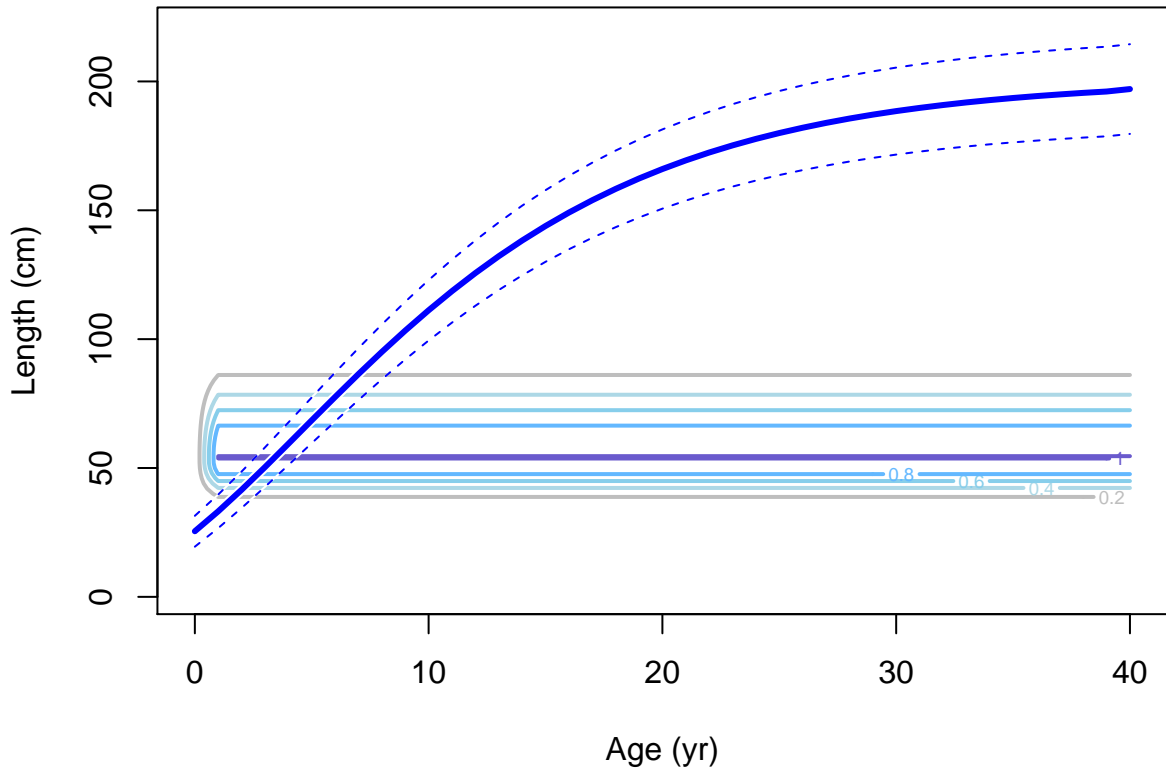
Male ending year selectivity and growth for A3-OBJ



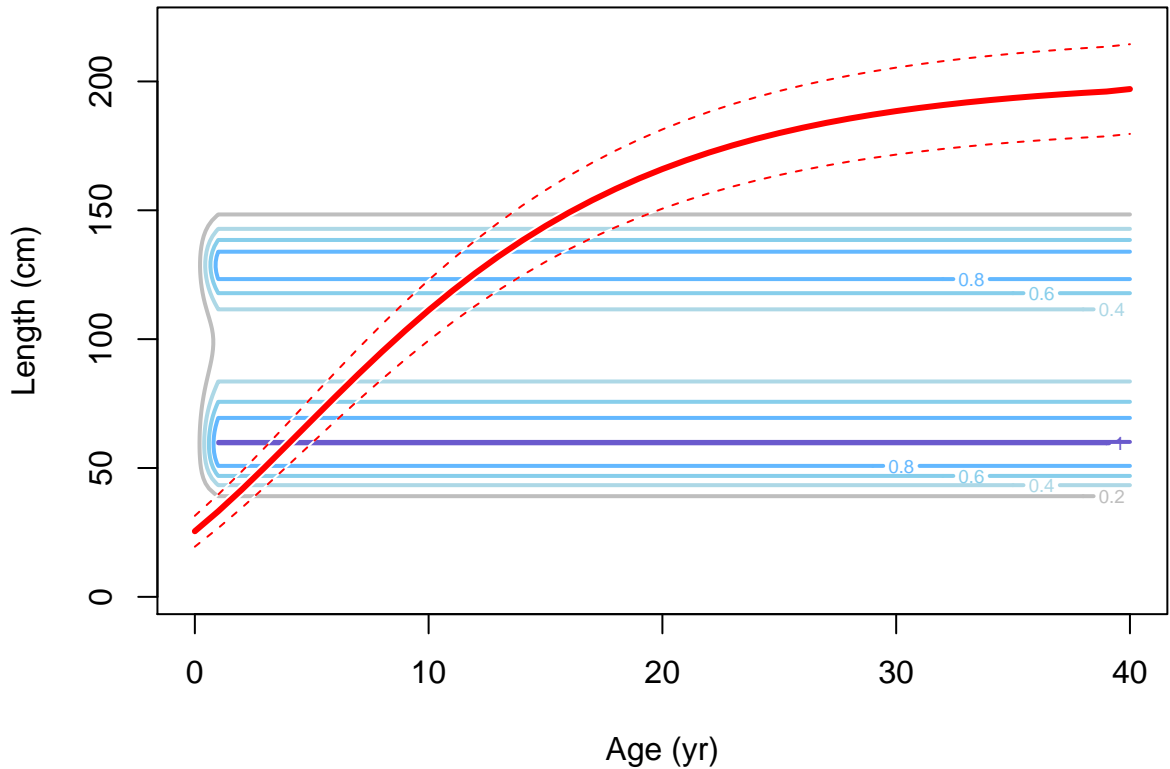
Female ending year selectivity and growth for A4-OBJ



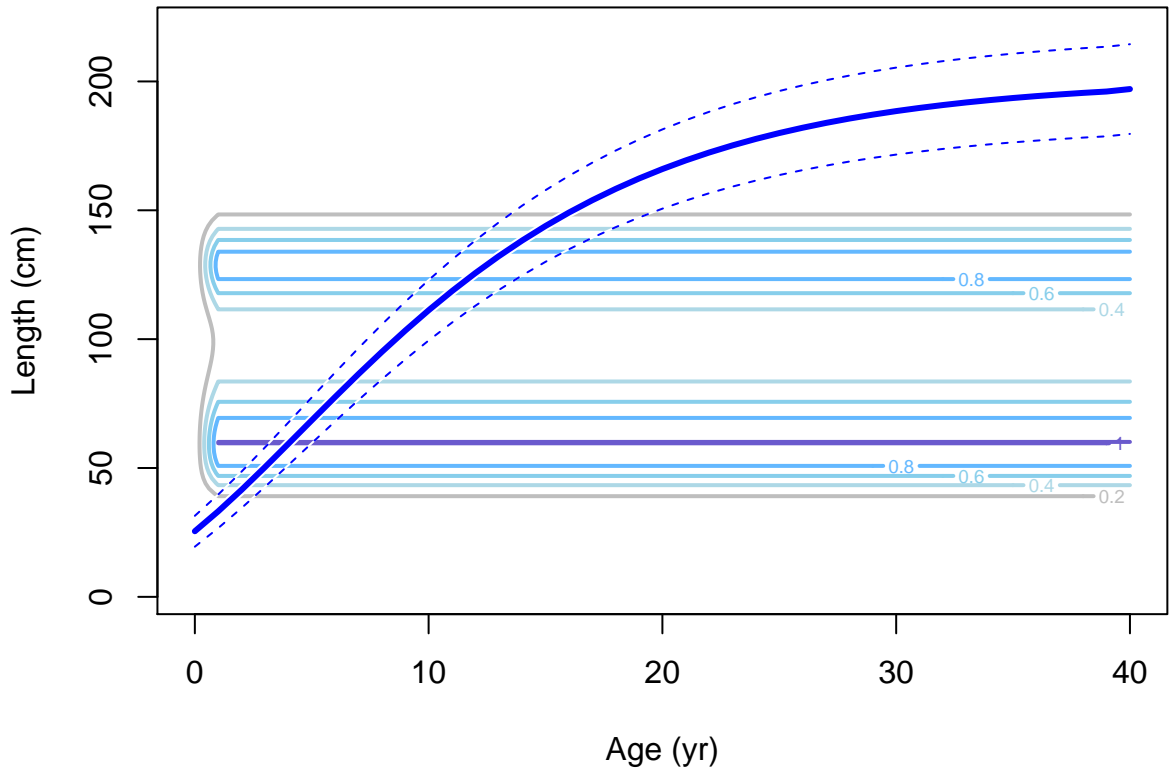
Male ending year selectivity and growth for A4-OBJ



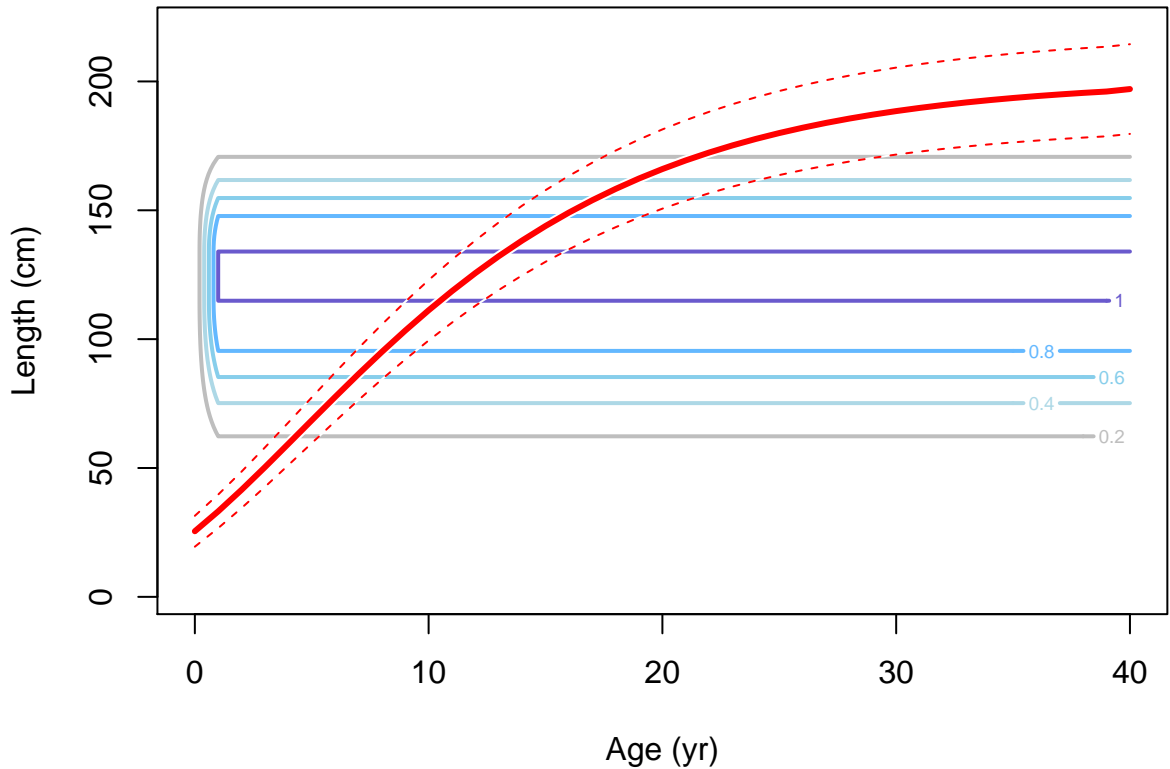
Female ending year selectivity and growth for A5-OBJ



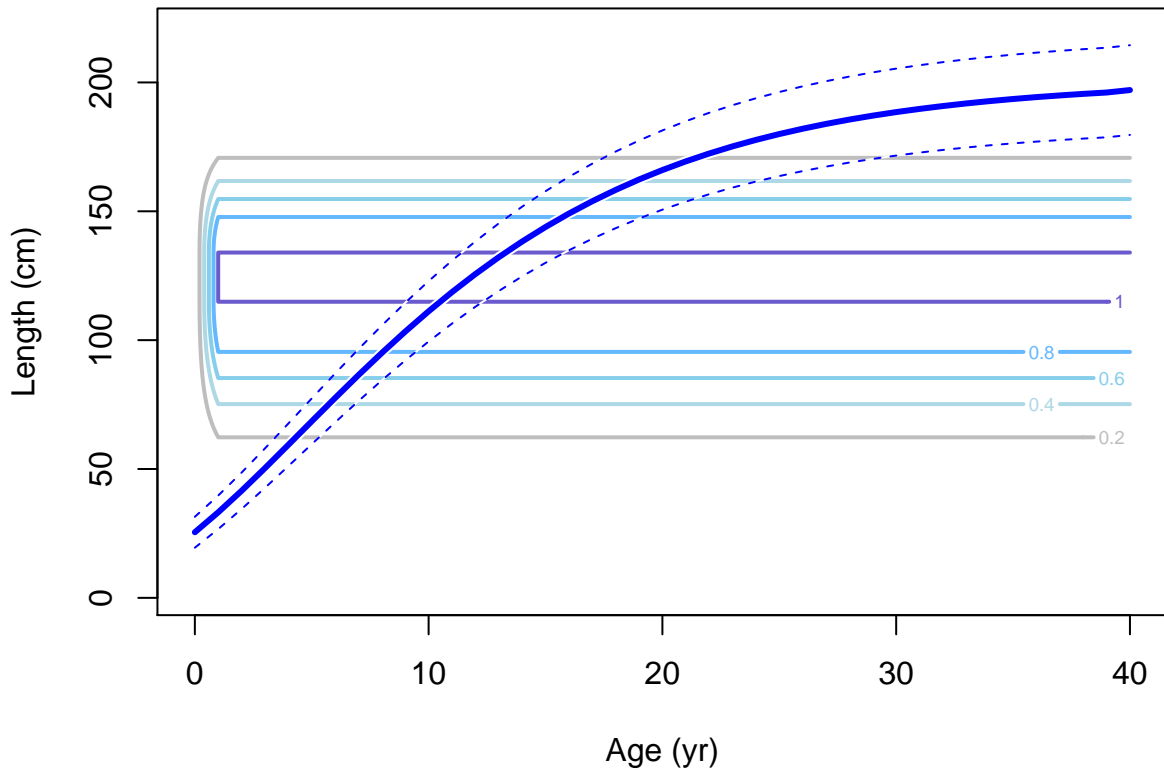
Male ending year selectivity and growth for A5-OBJ



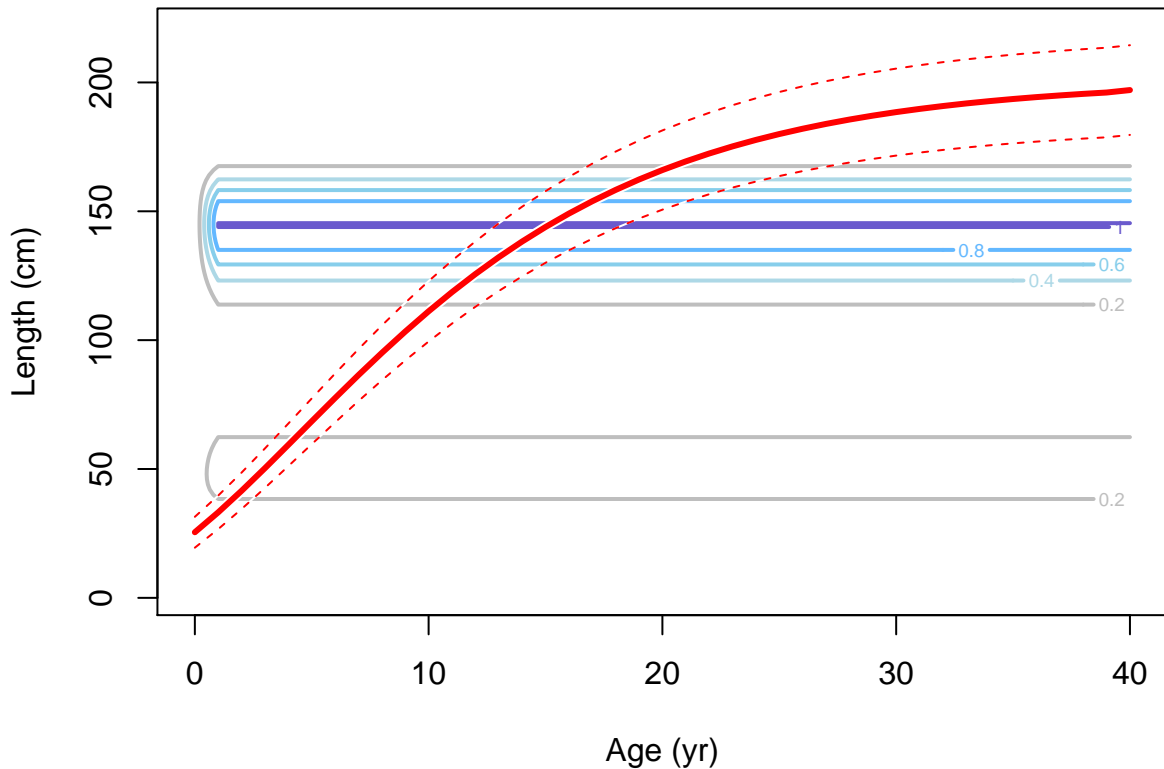
Female ending year selectivity and growth for A6-OBJ



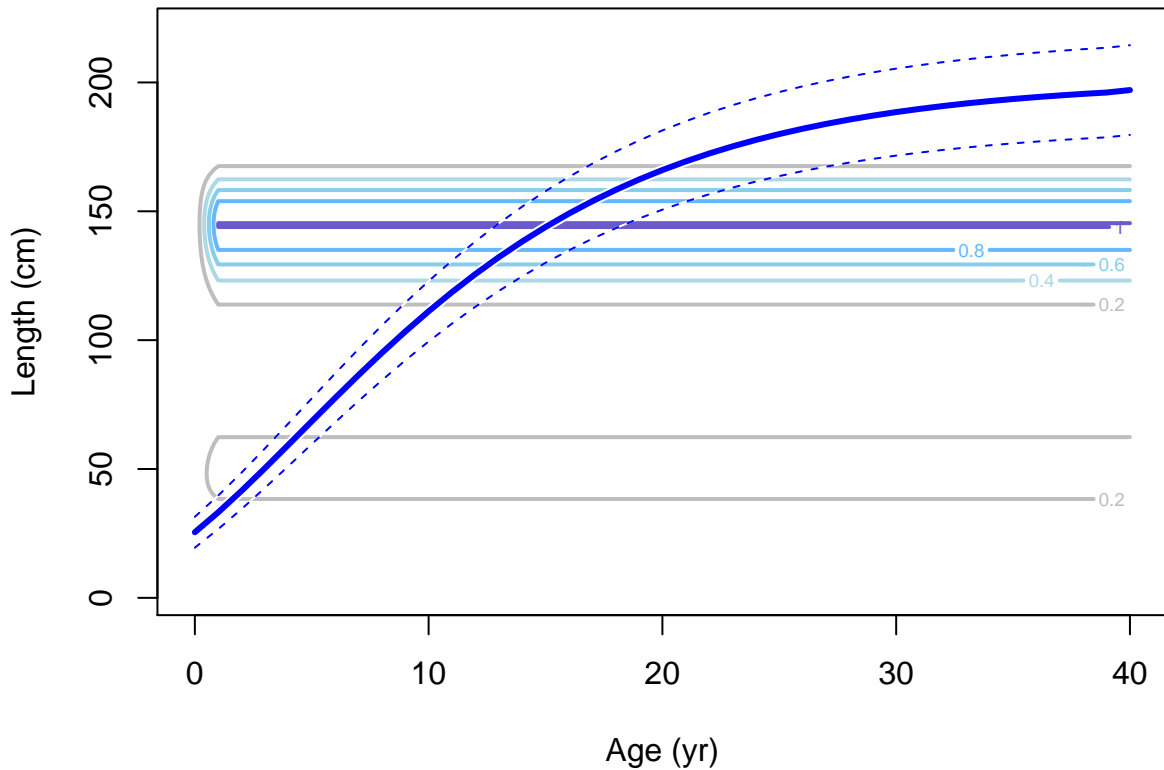
Male ending year selectivity and growth for A6-OBJ



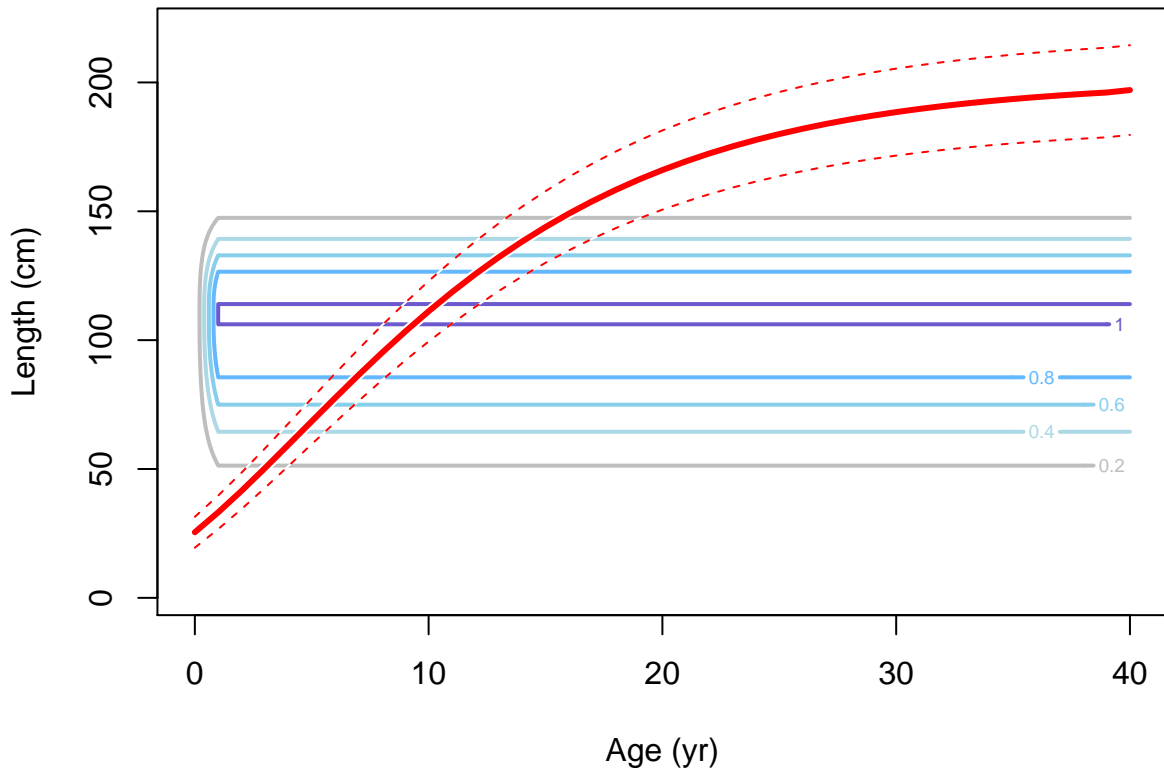
Female ending year selectivity and growth for A2-NOADEL



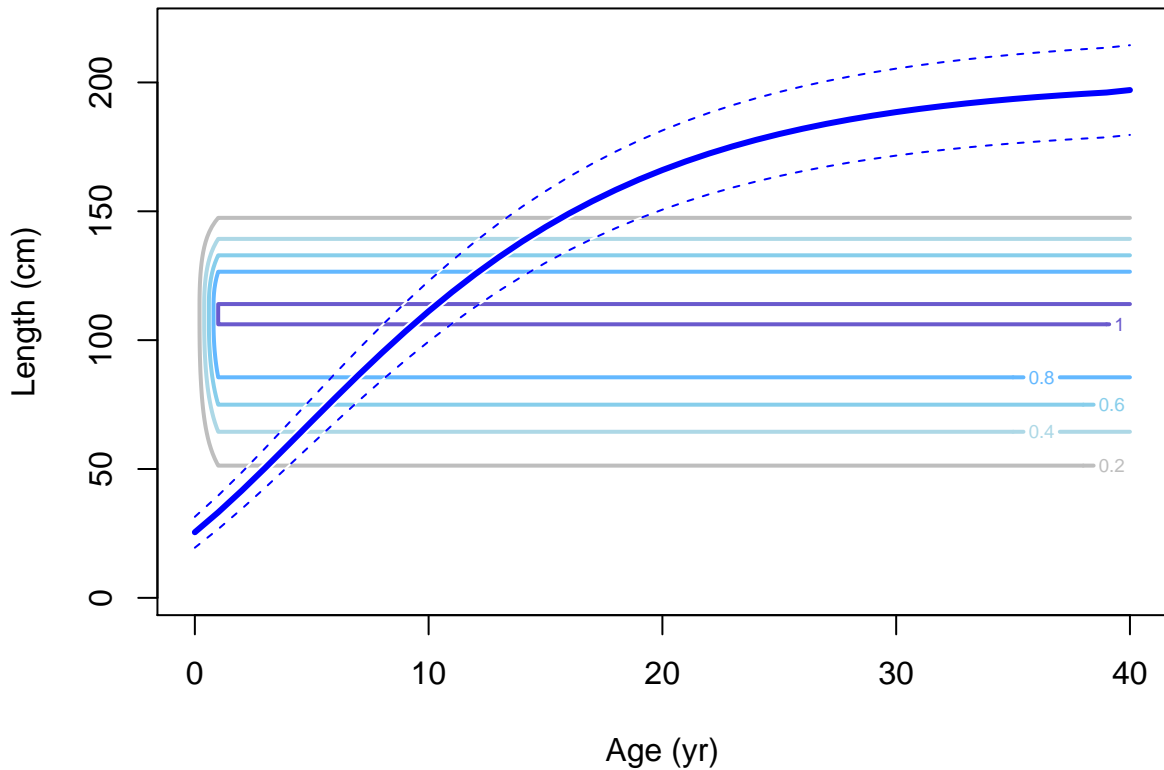
Male ending year selectivity and growth for A2-NOADEL



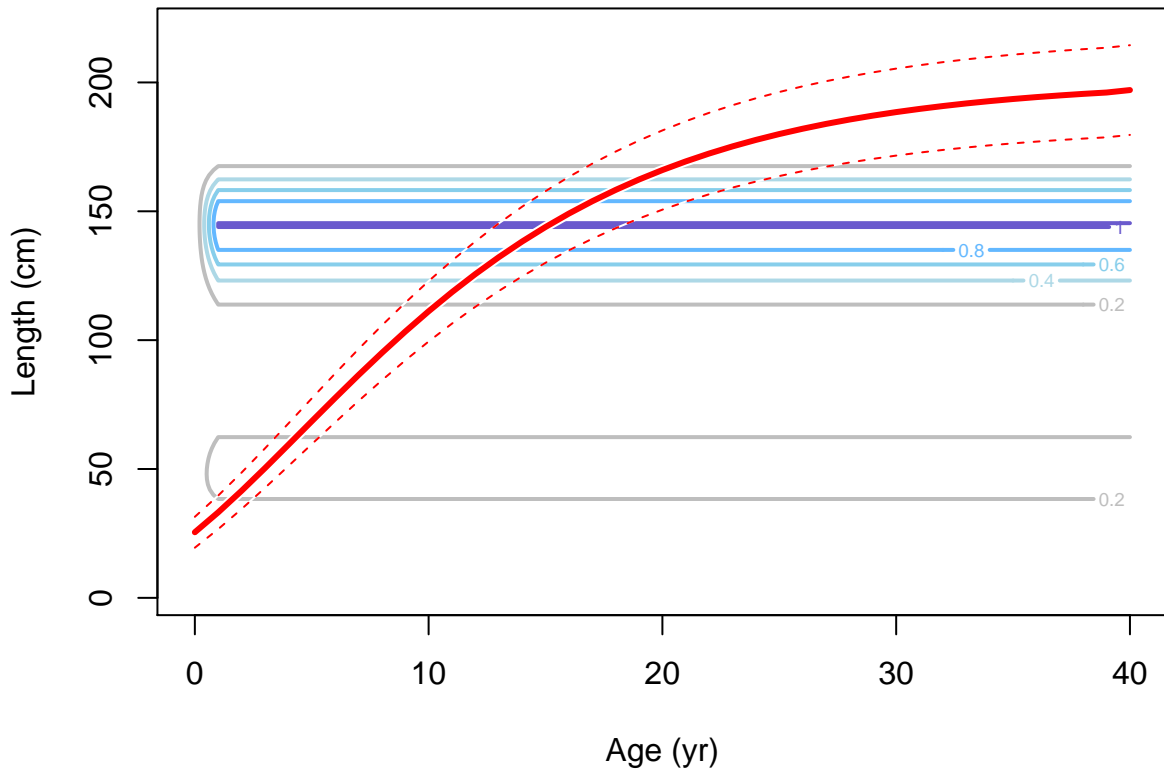
Female ending year selectivity and growth for A3-NOADEL



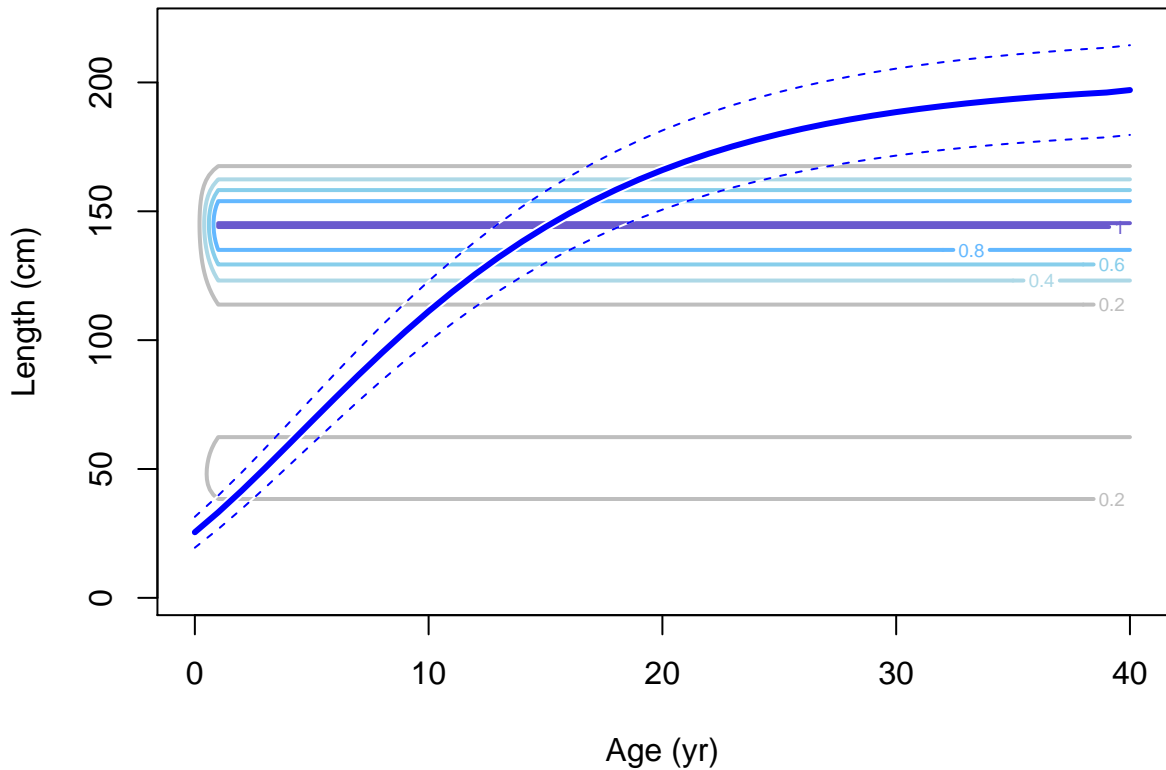
Male ending year selectivity and growth for A3-NOADEL



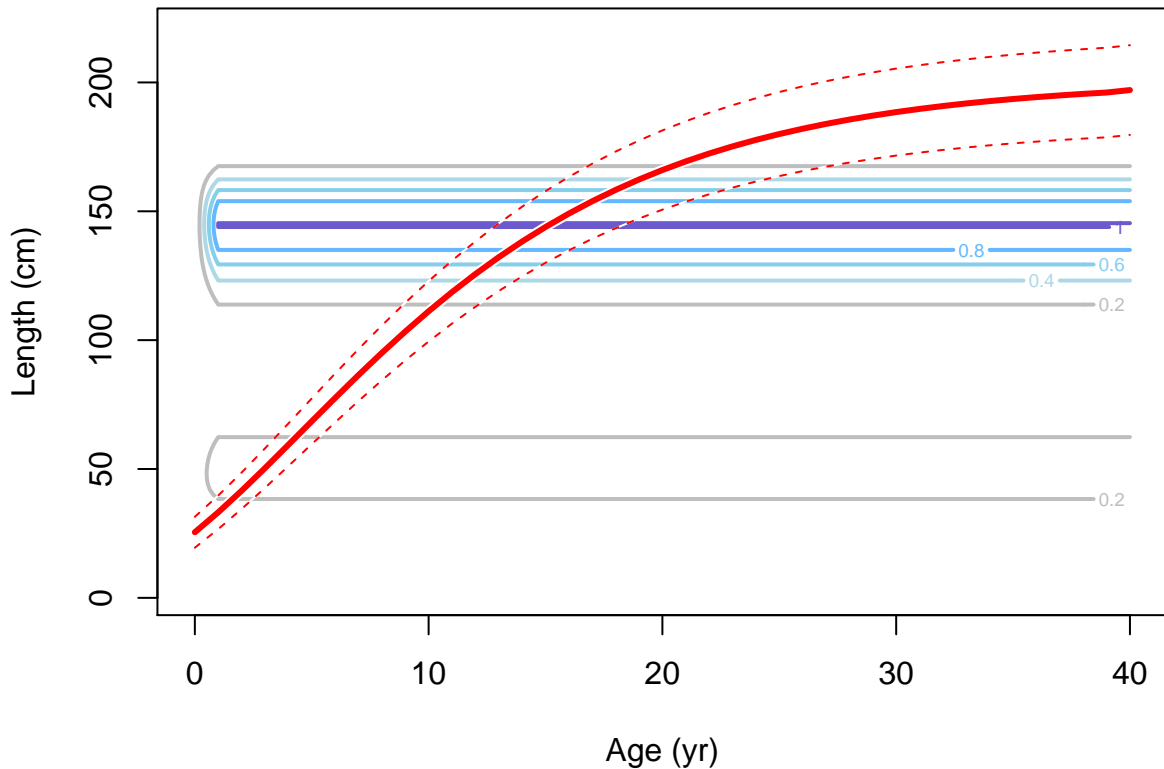
Female ending year selectivity and growth for A4-NOADEL



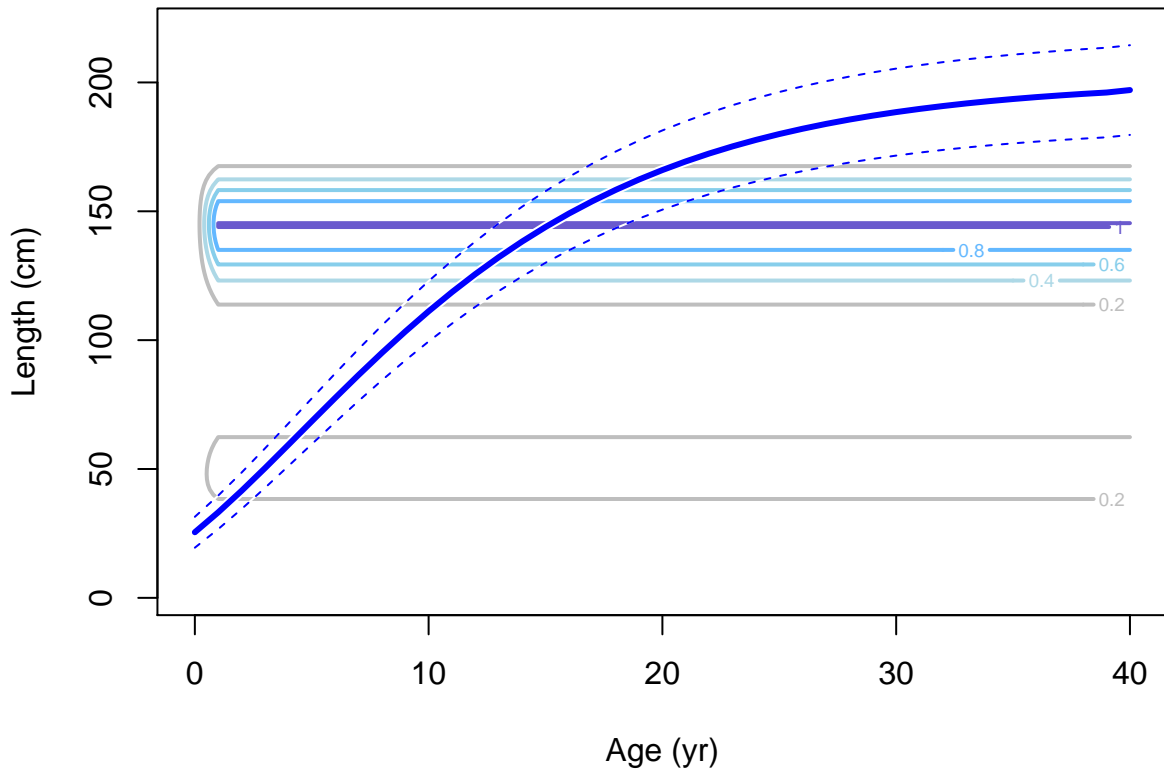
Male ending year selectivity and growth for A4-NOADEL



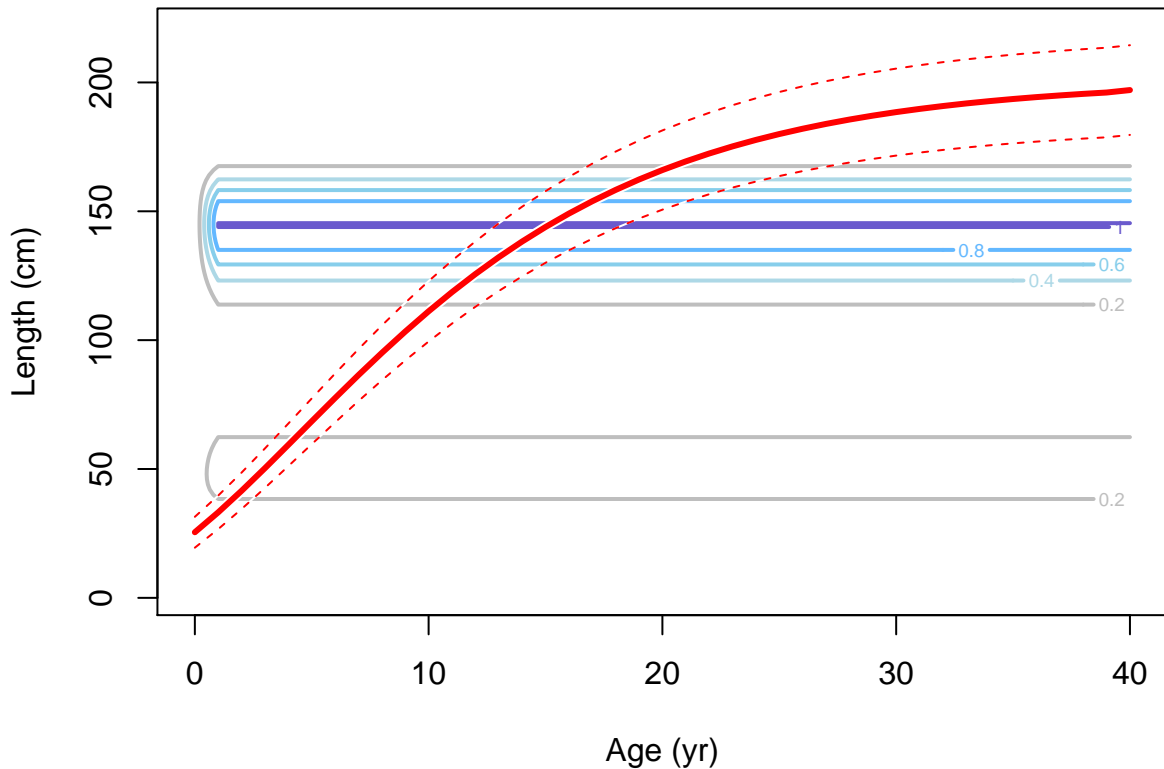
Female ending year selectivity and growth for A5-NOADEL



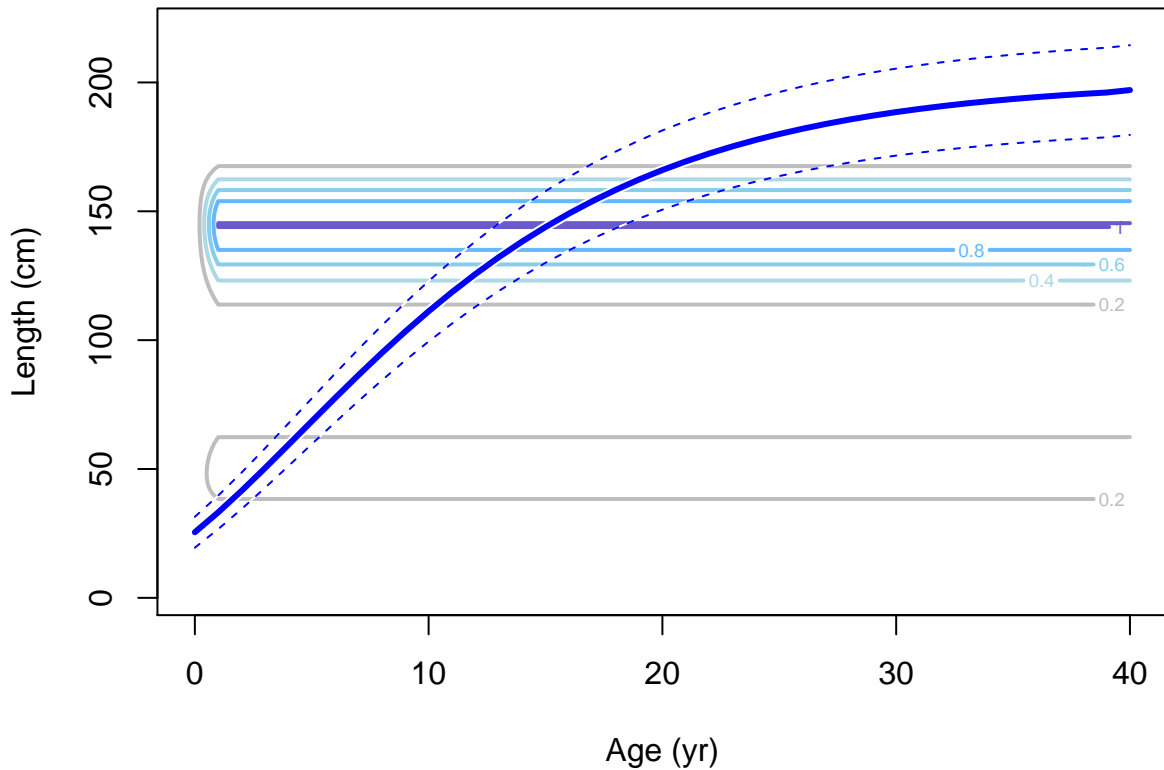
Male ending year selectivity and growth for A5-NOADEL



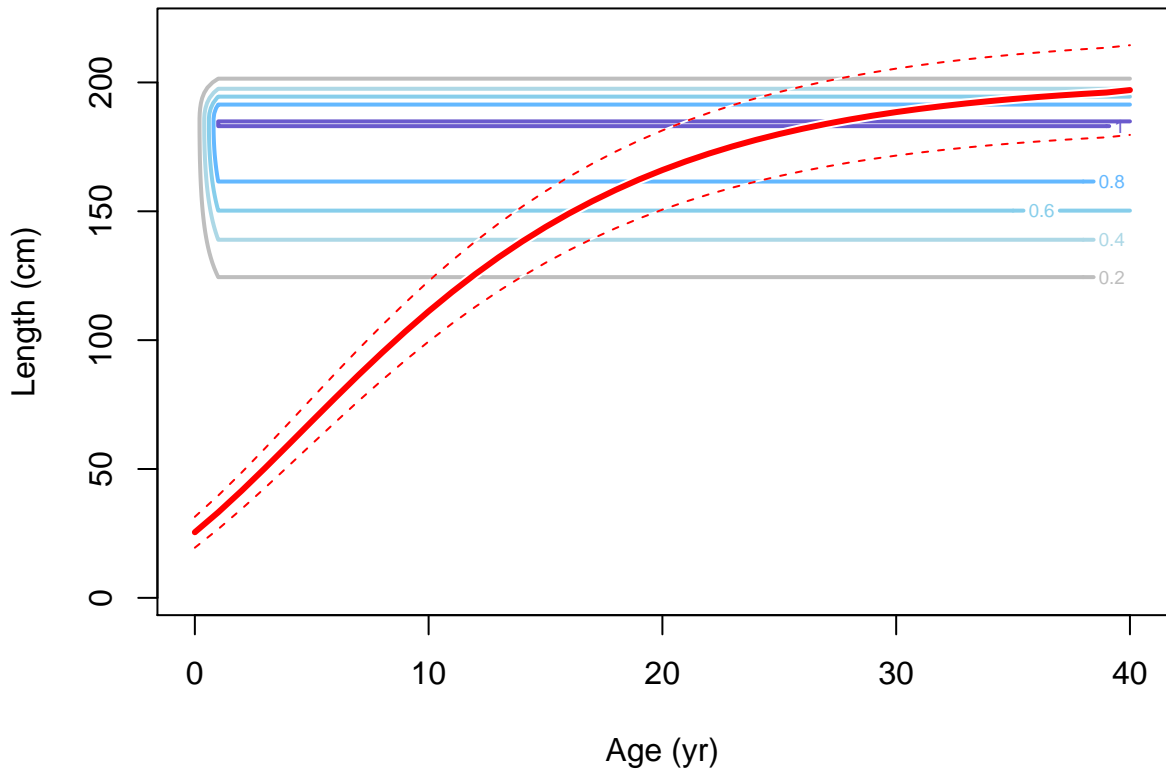
Female ending year selectivity and growth for A6-NOADEL



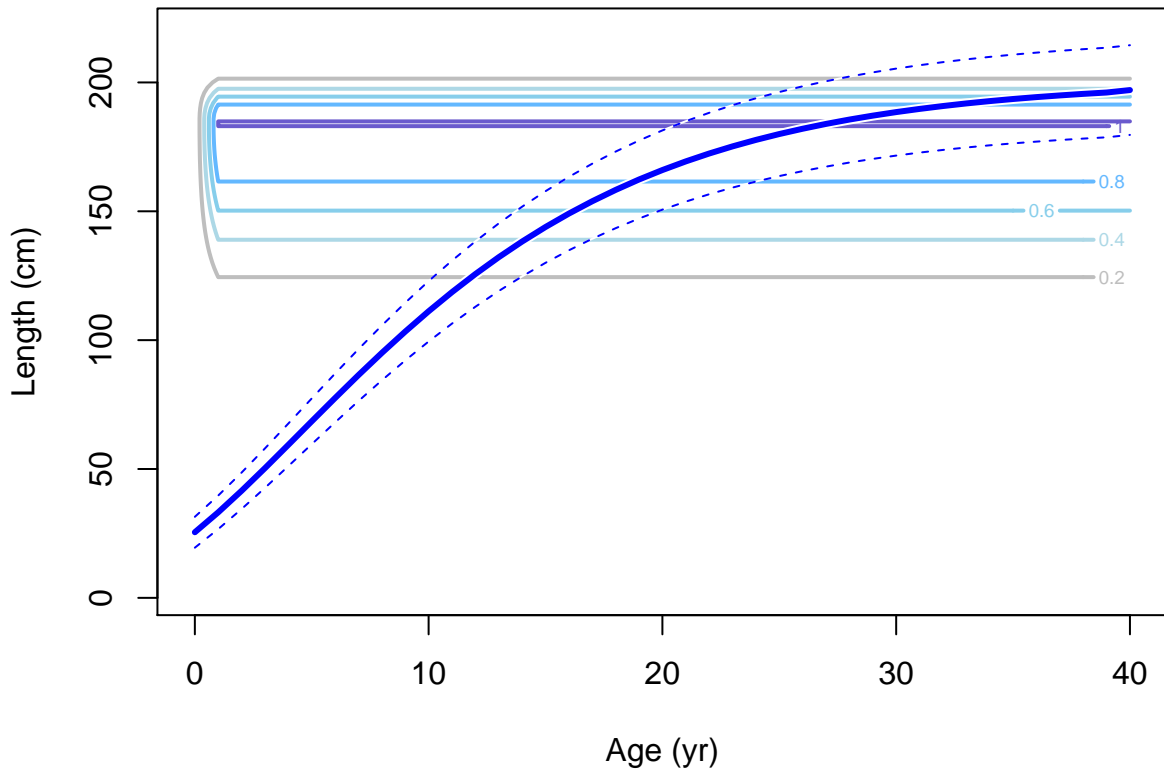
Male ending year selectivity and growth for A6-NOADEL



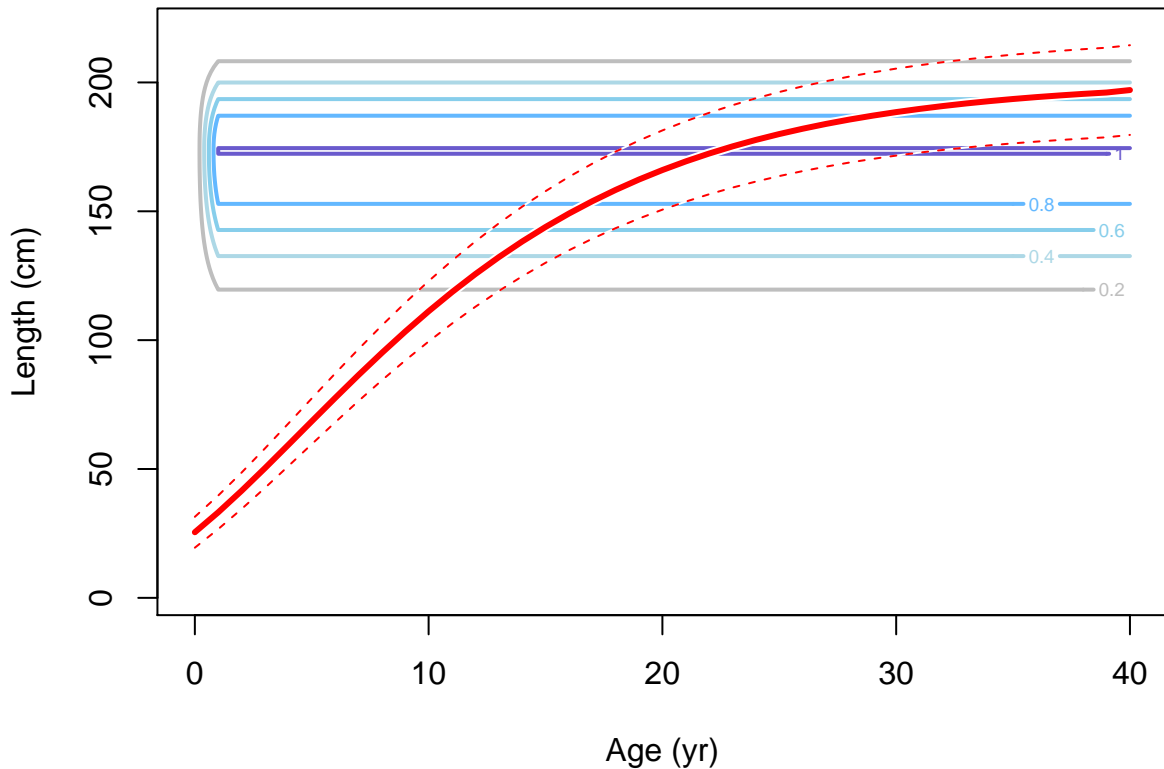
Female ending year selectivity and growth for EPO-LL-survey-early



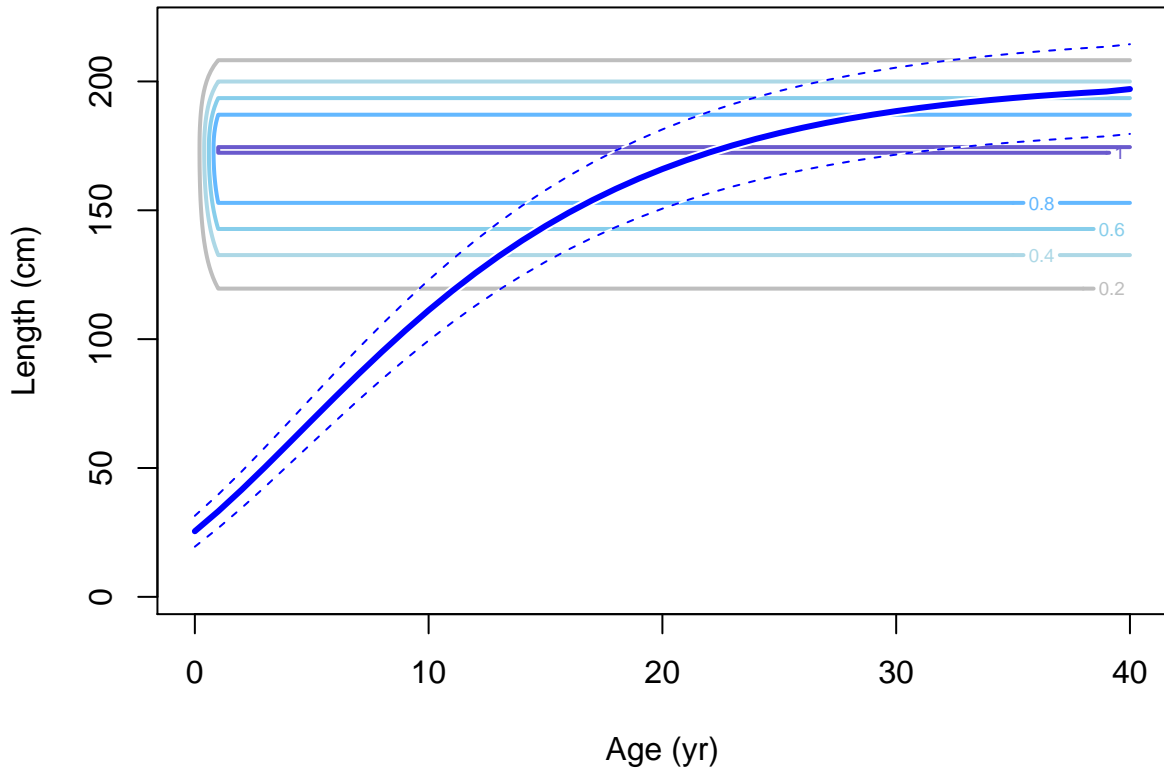
Male ending year selectivity and growth for EPO-LL-survey-early



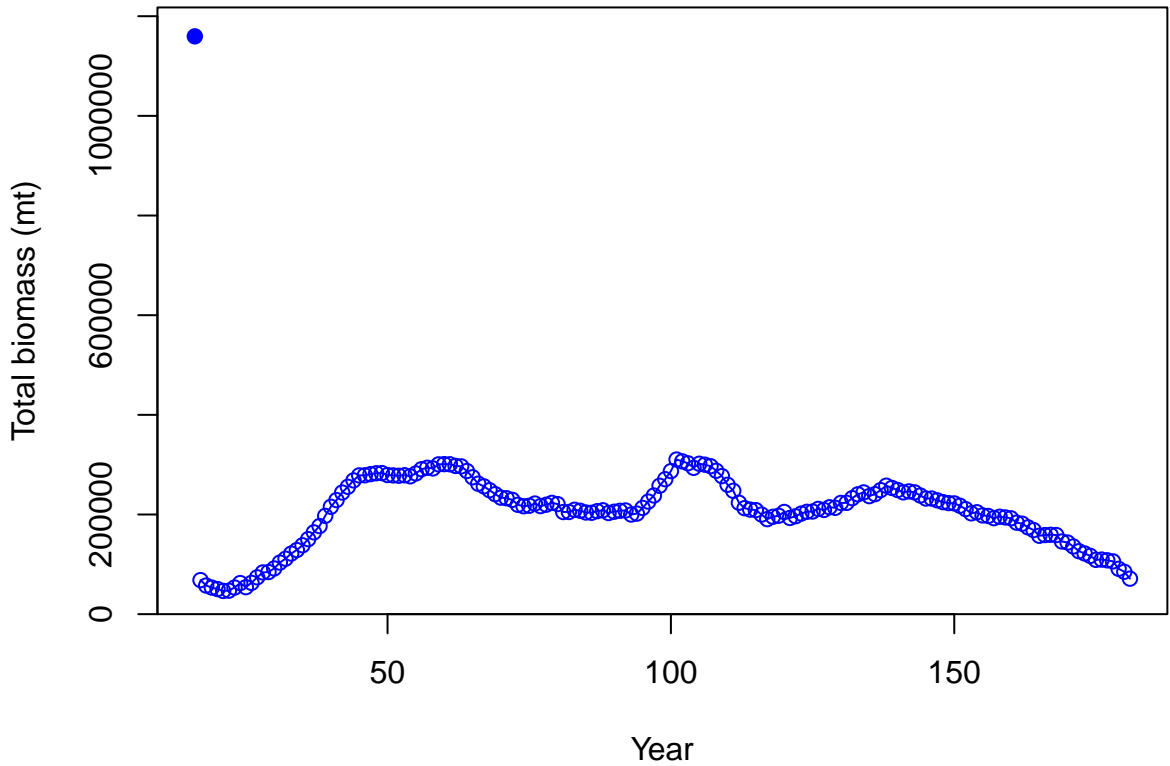
Female ending year selectivity and growth for EPO-LL-survey-late



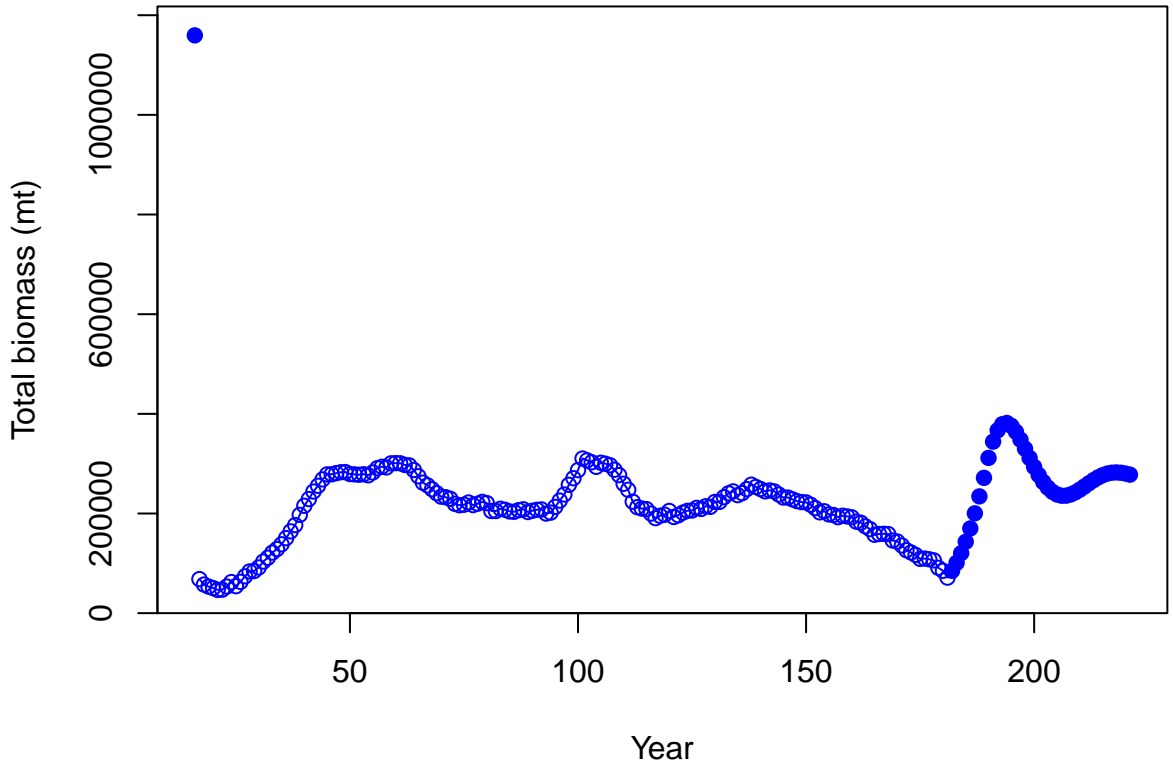
Male ending year selectivity and growth for EPO-LL-survey-late



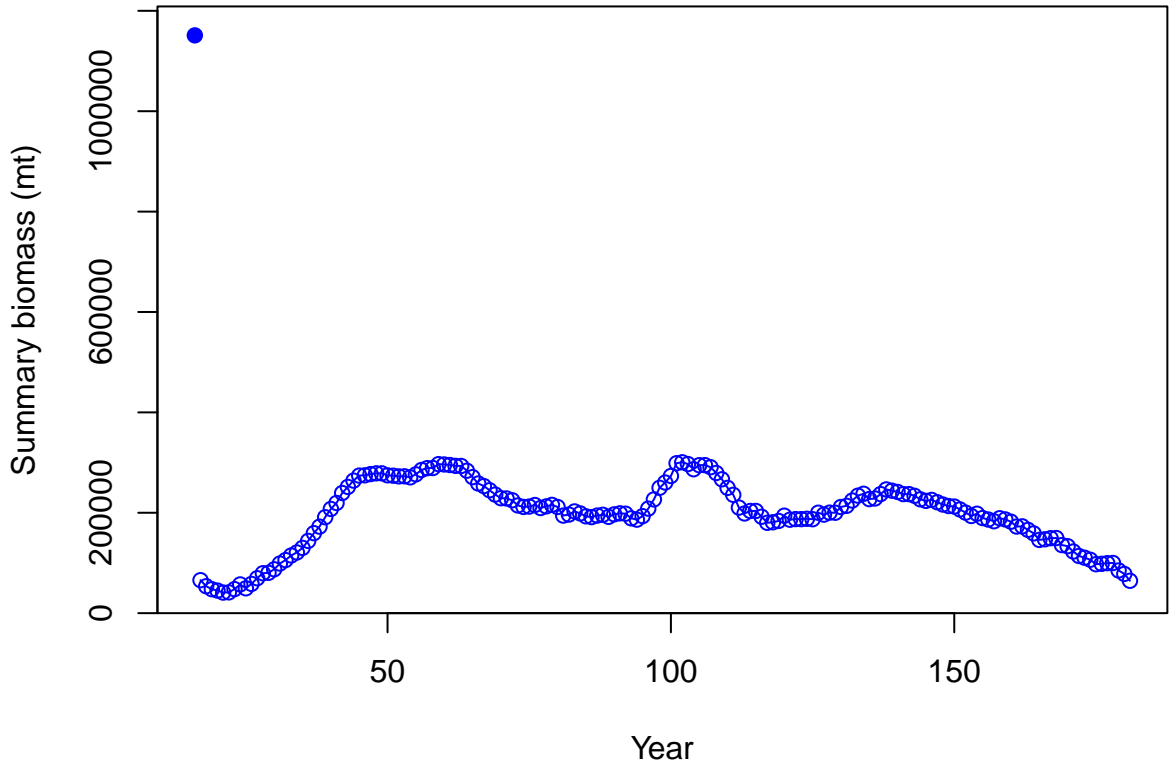
Total biomass (mt)



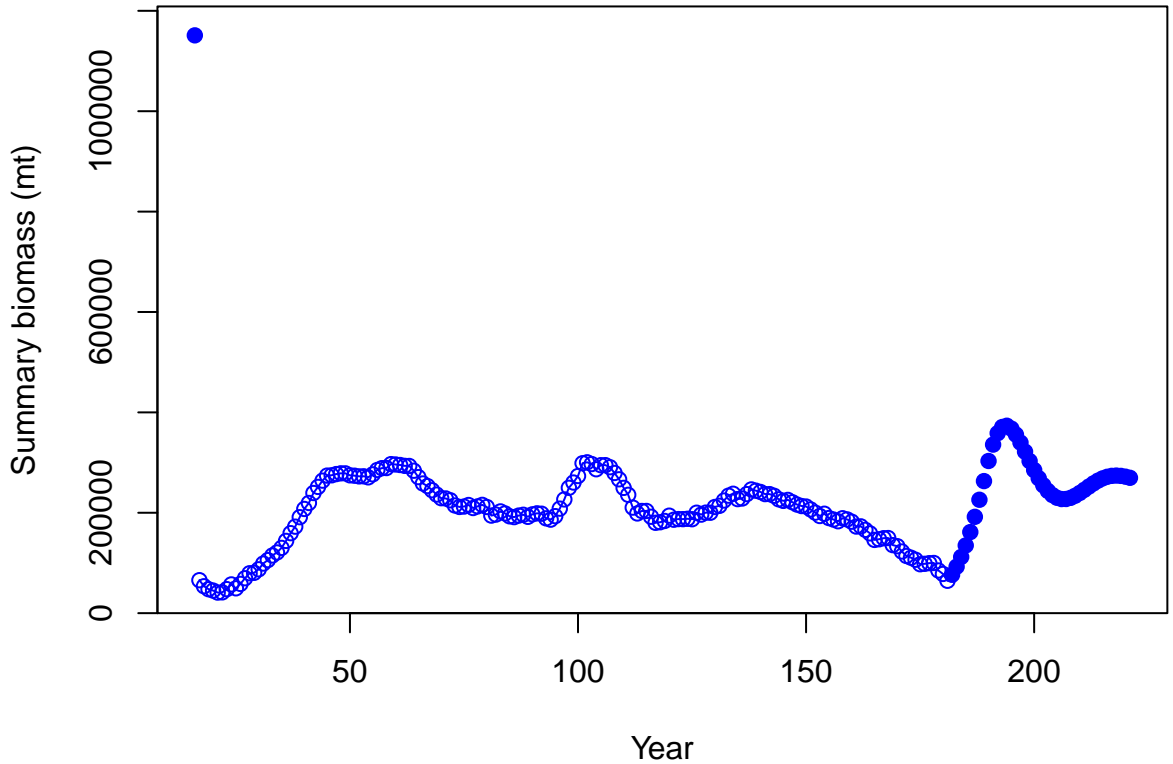
Total biomass (mt) with forecast



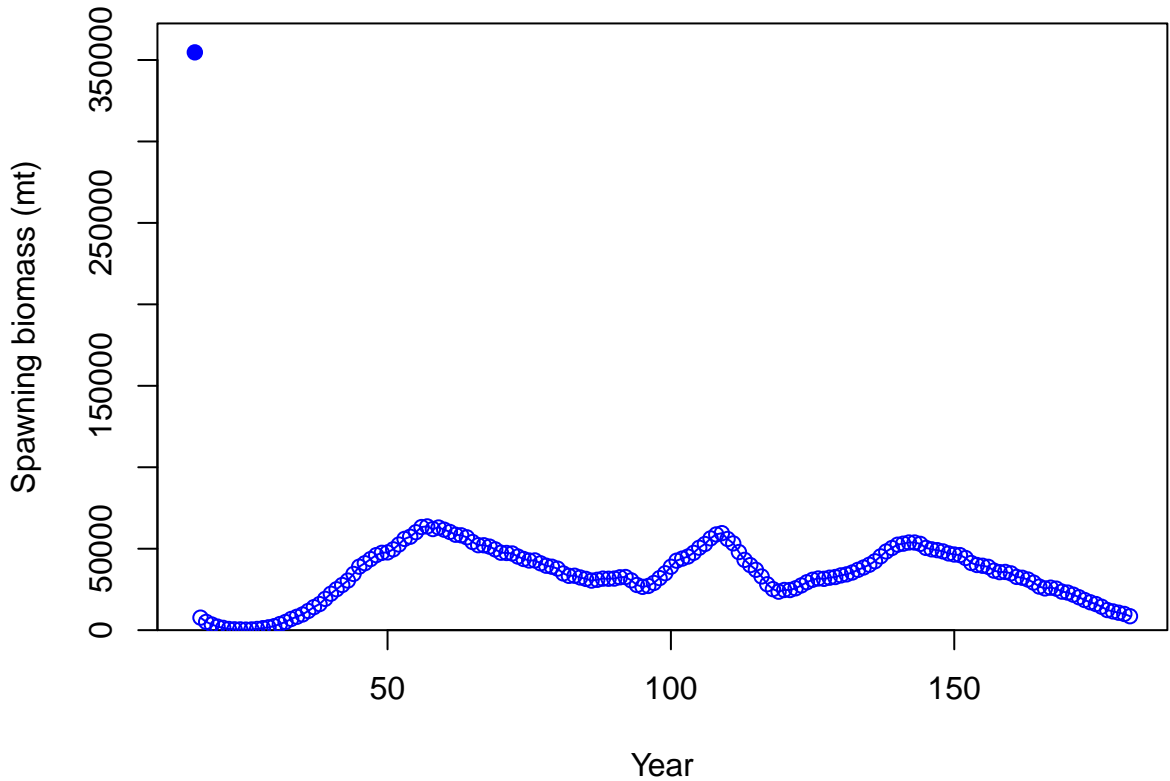
Summary biomass (mt)



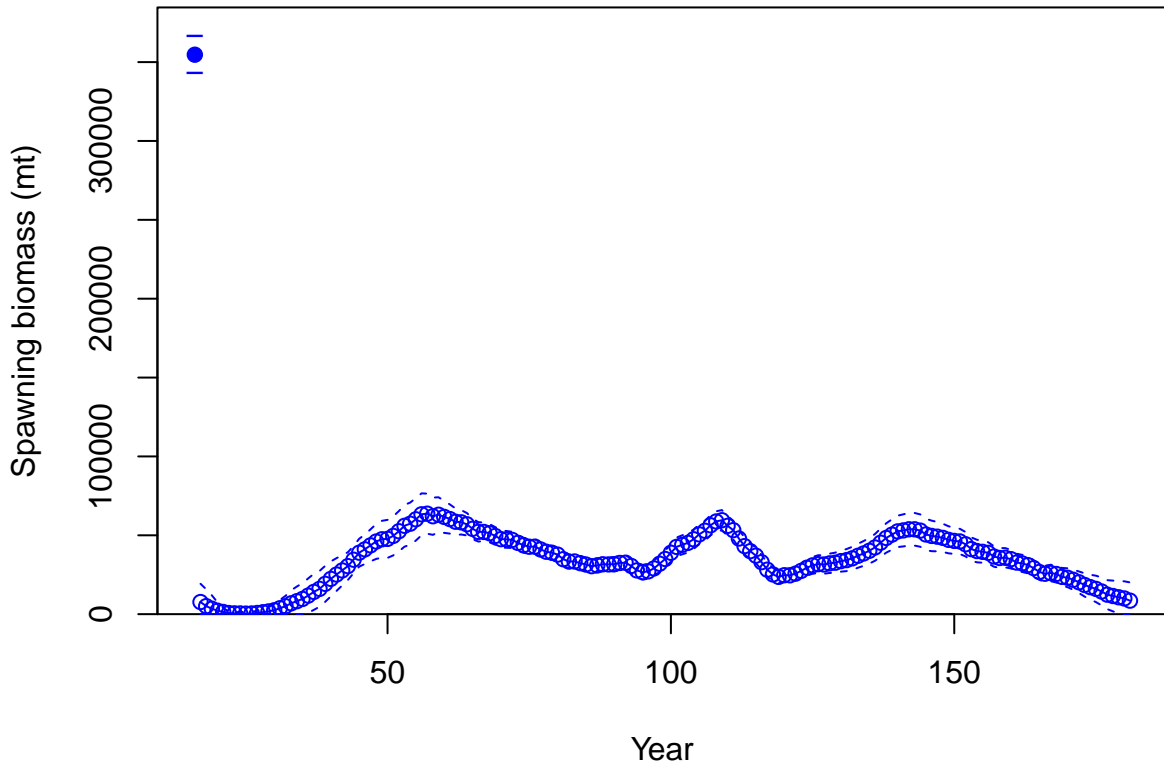
Summary biomass (mt) with forecast



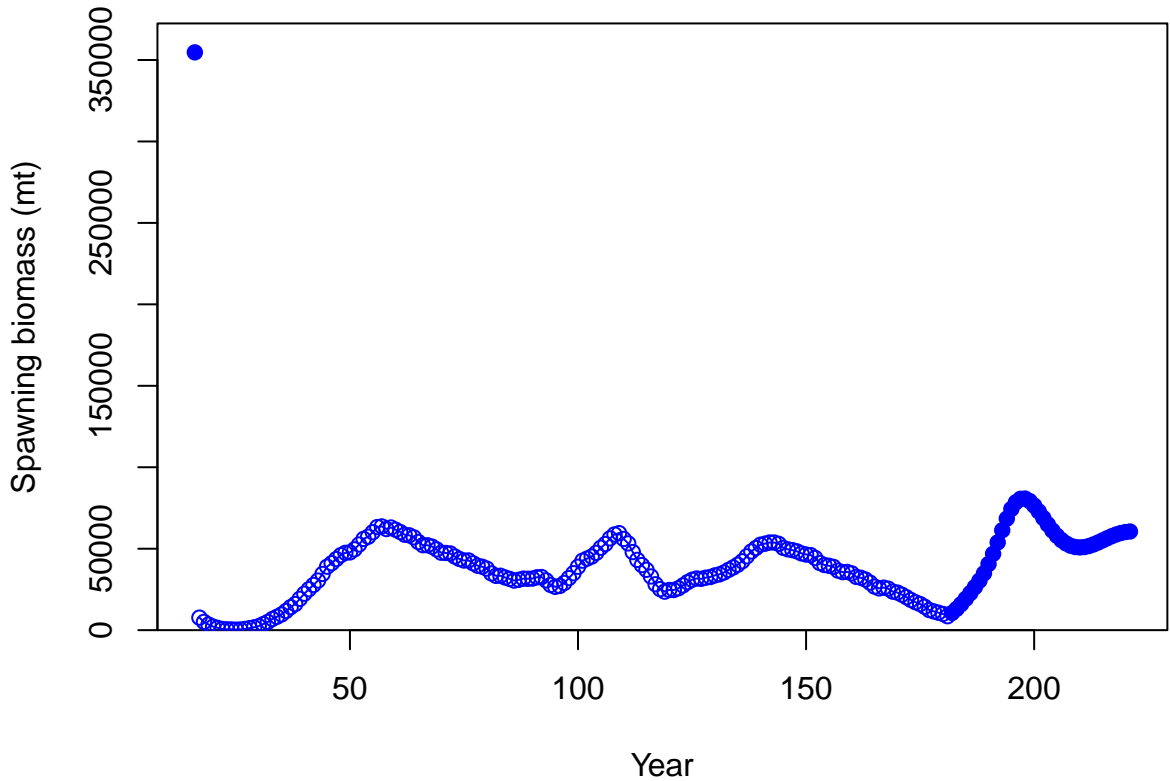
Spawning biomass (mt)



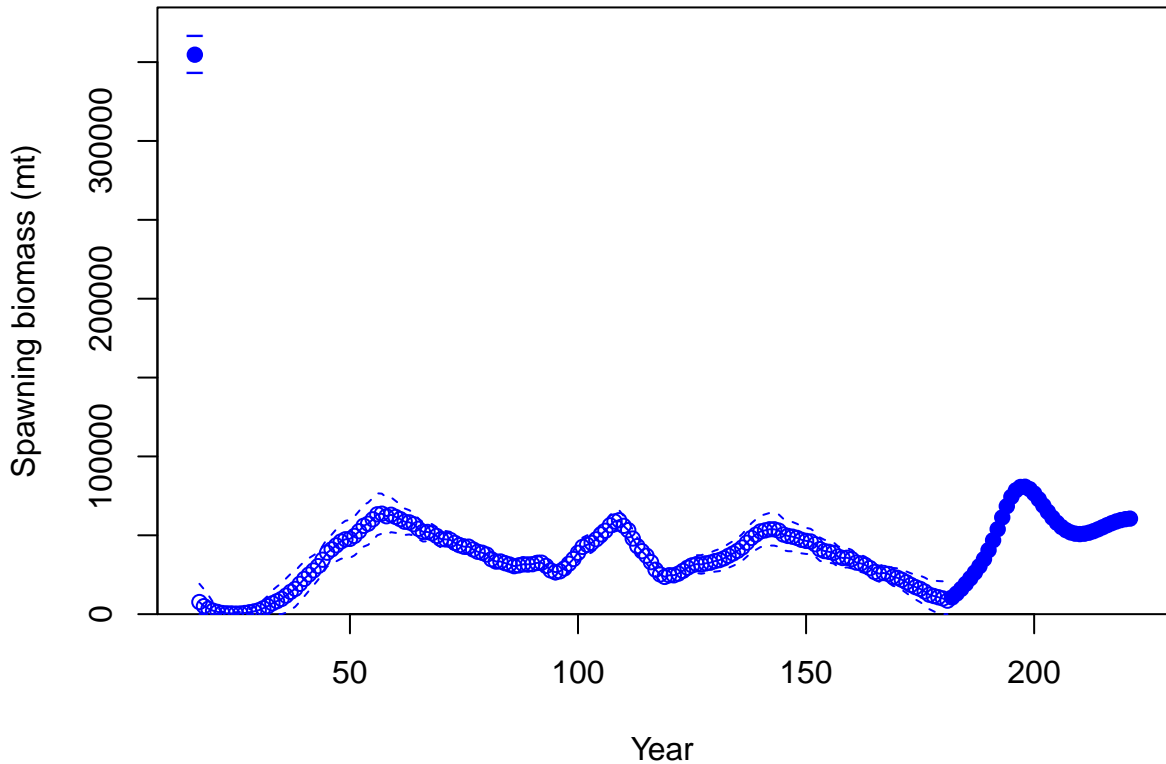
Spawning biomass (mt) with ~95% asymptotic intervals



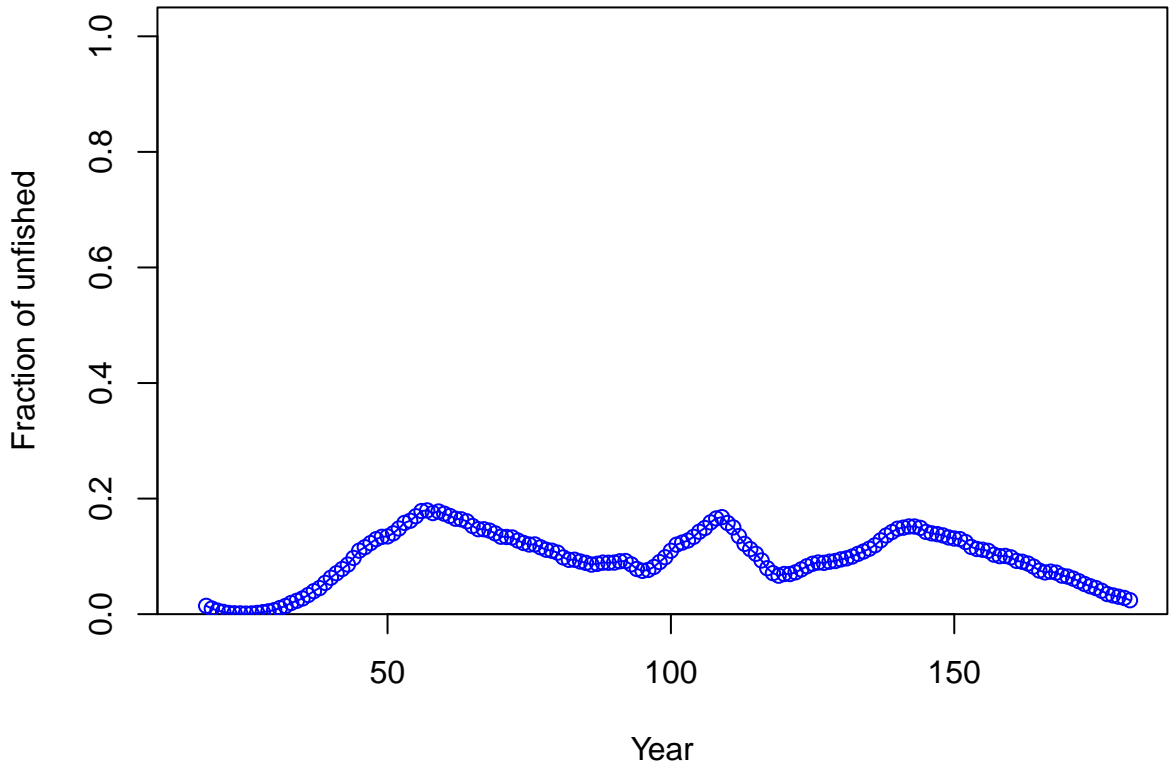
Spawning biomass (mt) with forecast



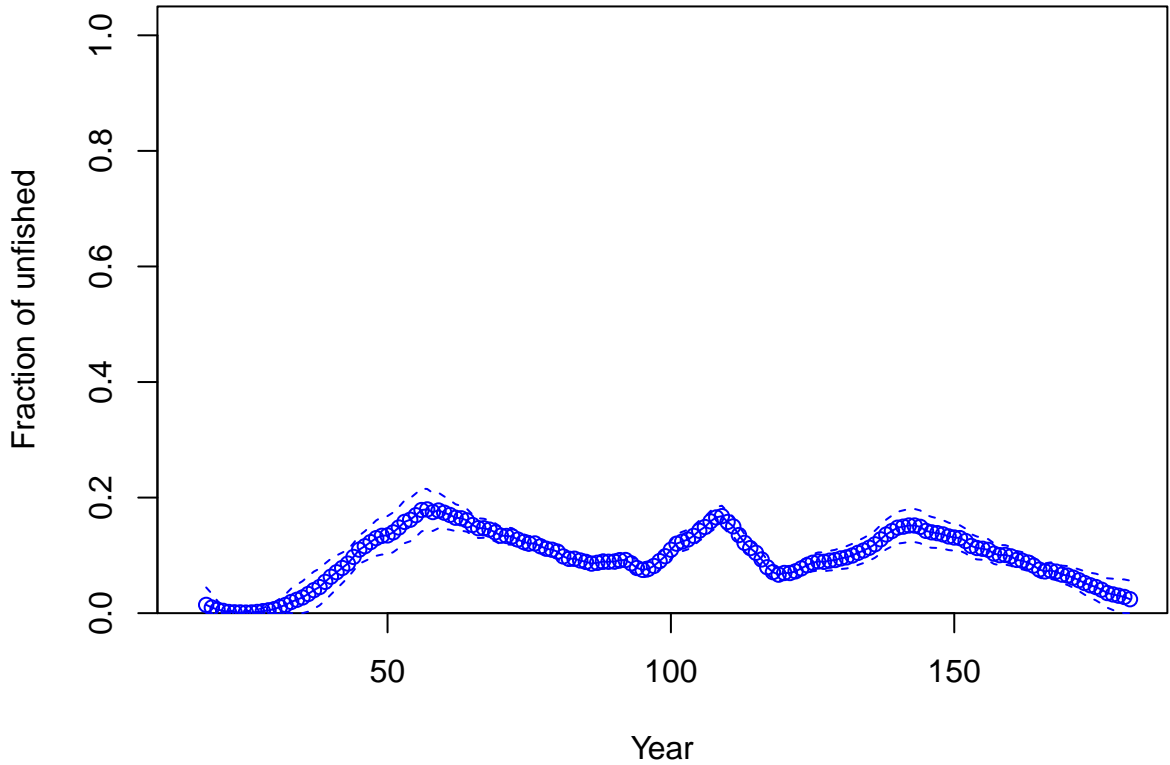
Spawning biomass (mt) with forecast with ~95% asymptotic intervals



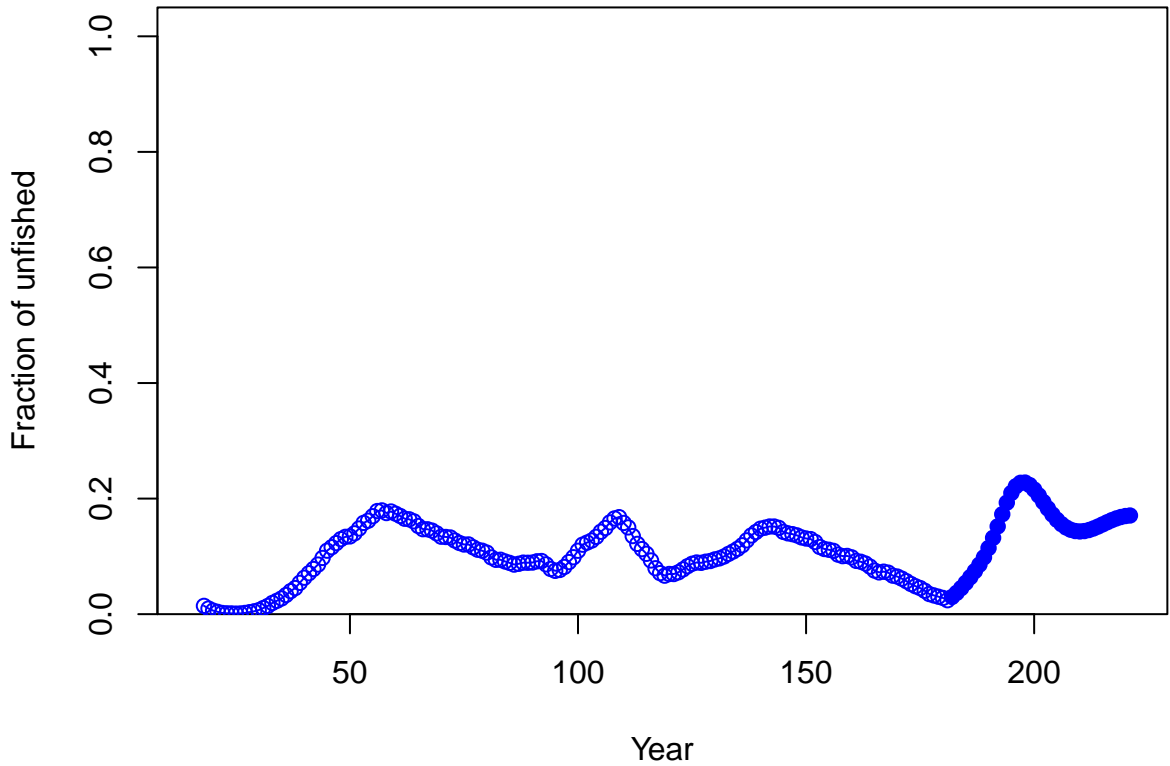
Fraction of unfished



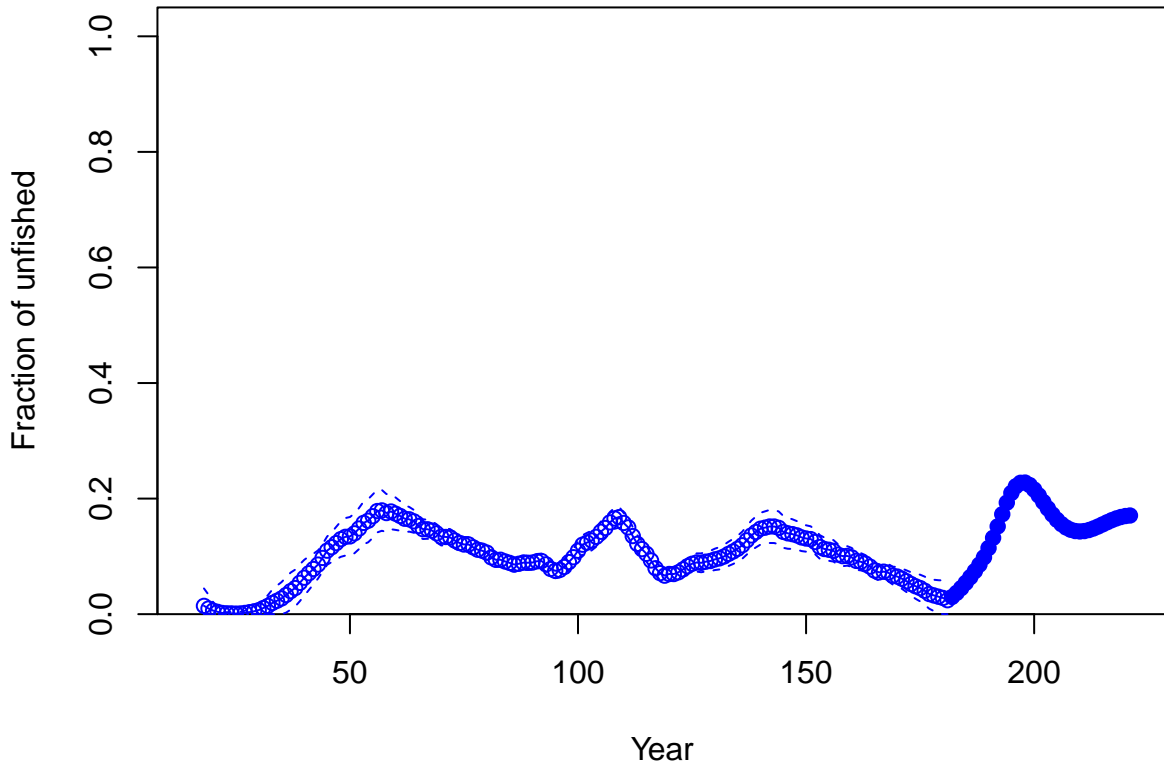
Fraction of unfished with ~95% asymptotic intervals



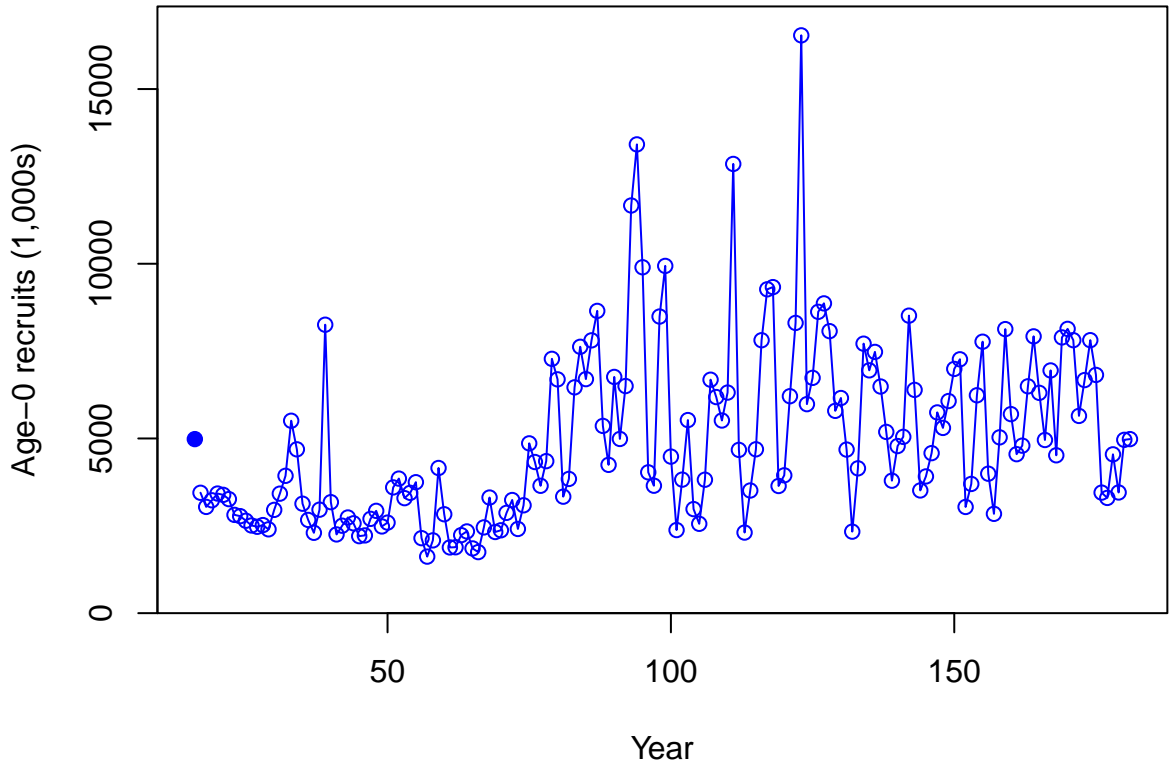
Fraction of unfished with forecast



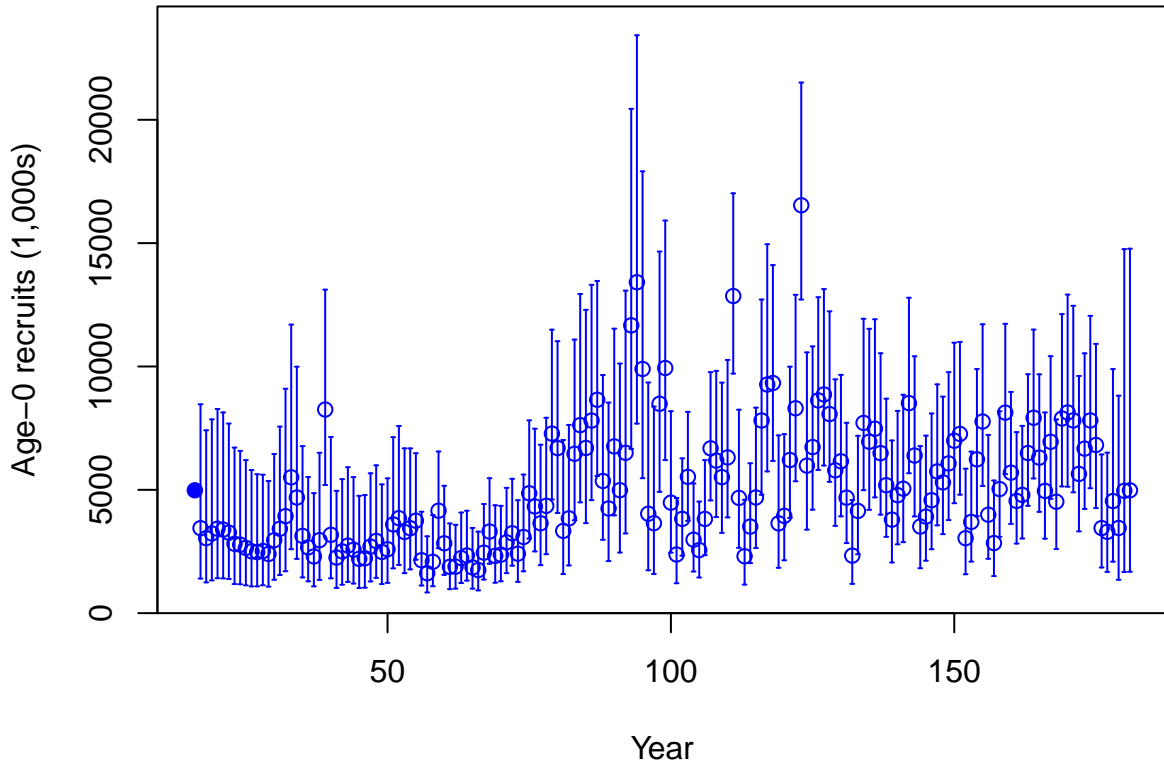
Fraction of unfished with forecast with ~95% asymptotic intervals



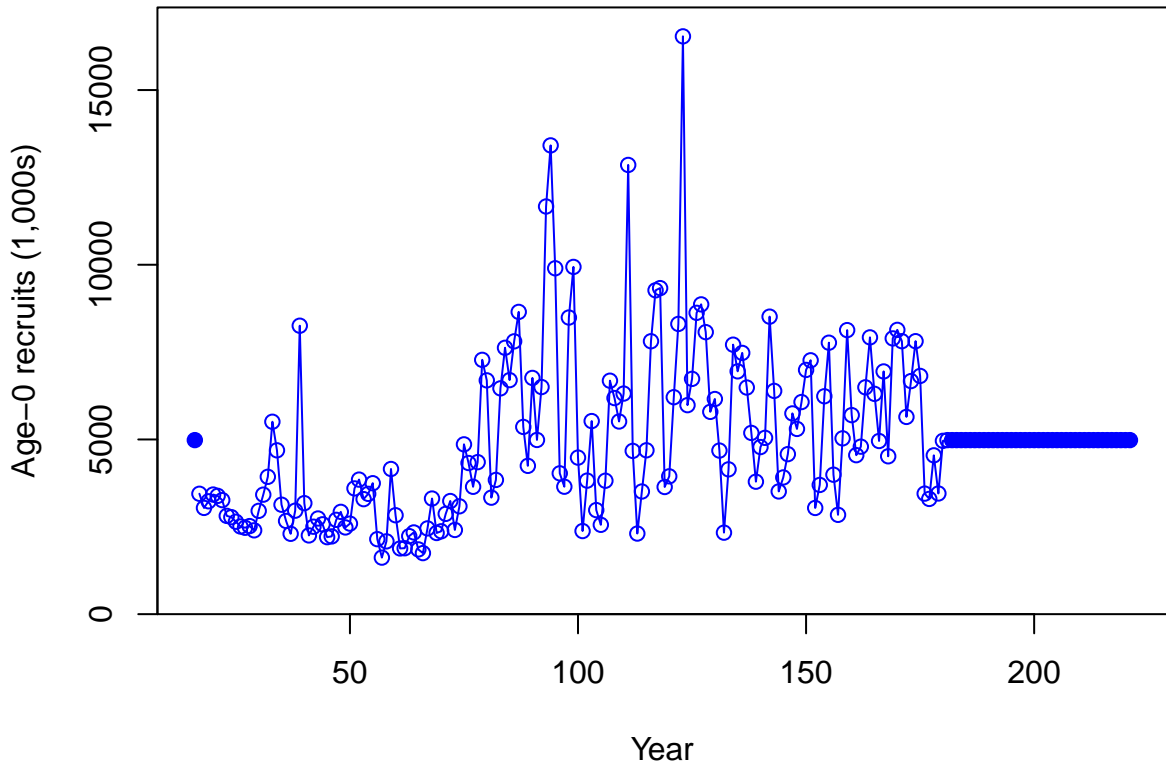
Age-0 recruits (1,000s)



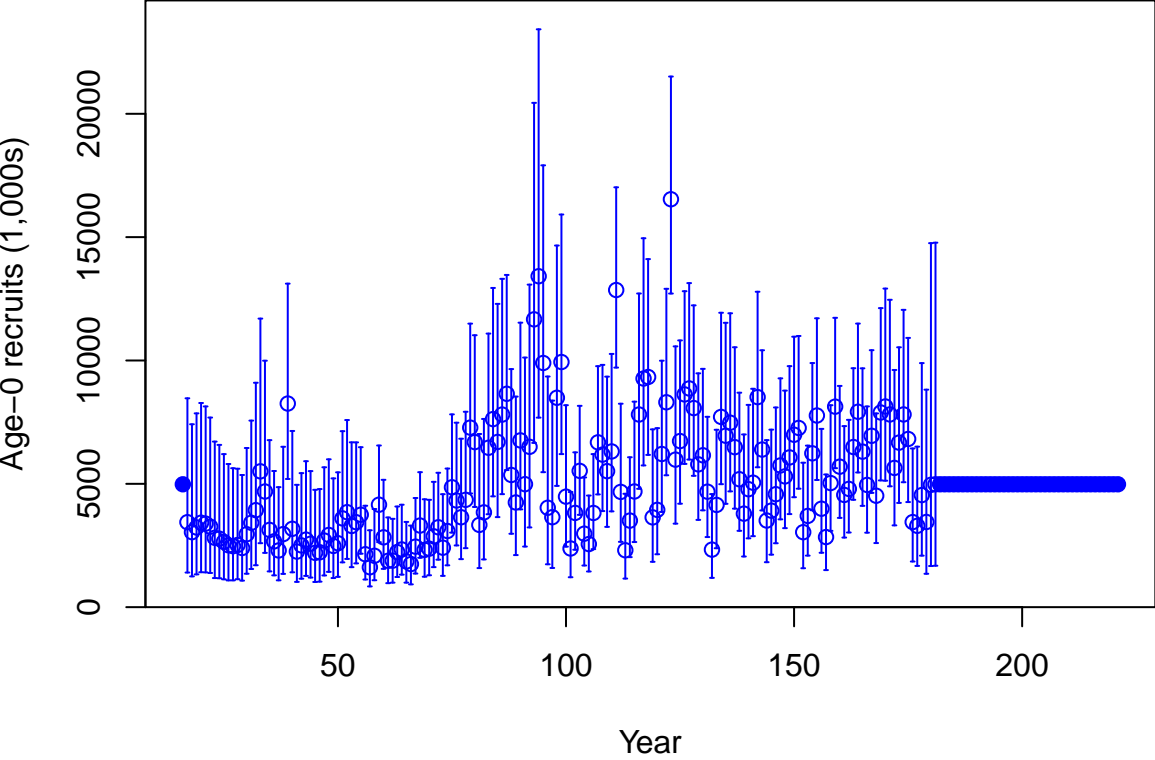
Age-0 recruits (1,000s) with ~95% asymptotic intervals

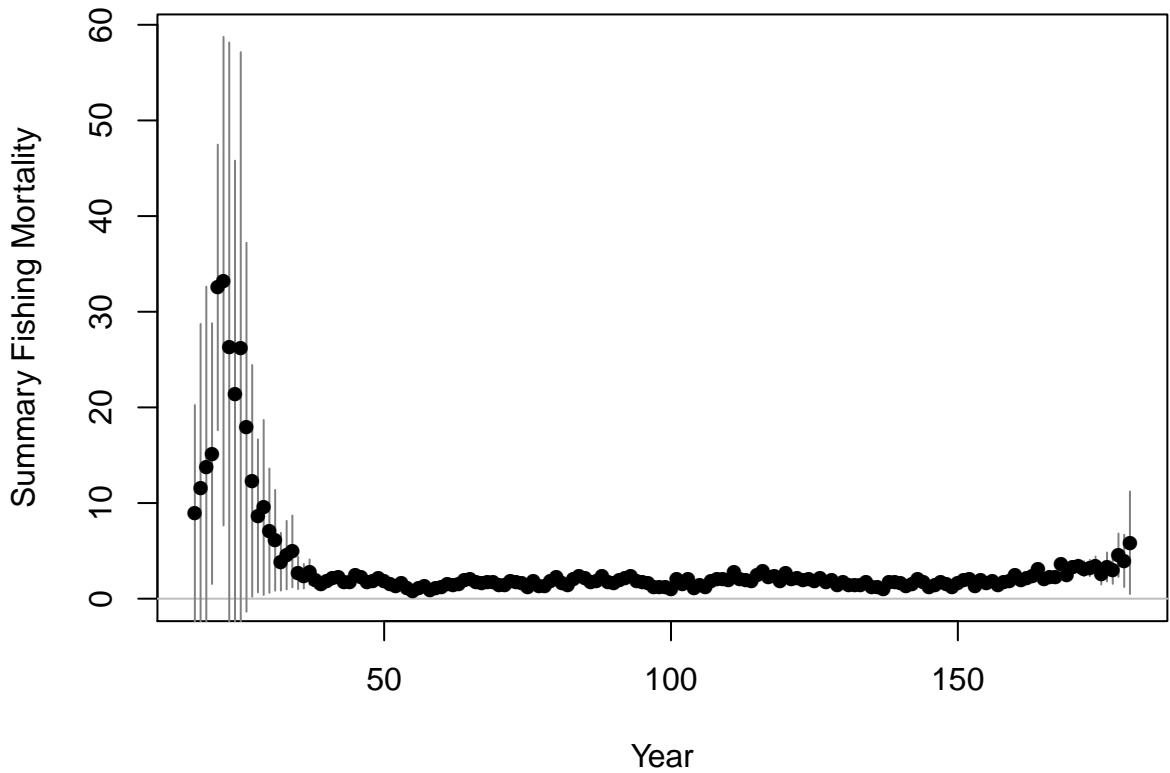


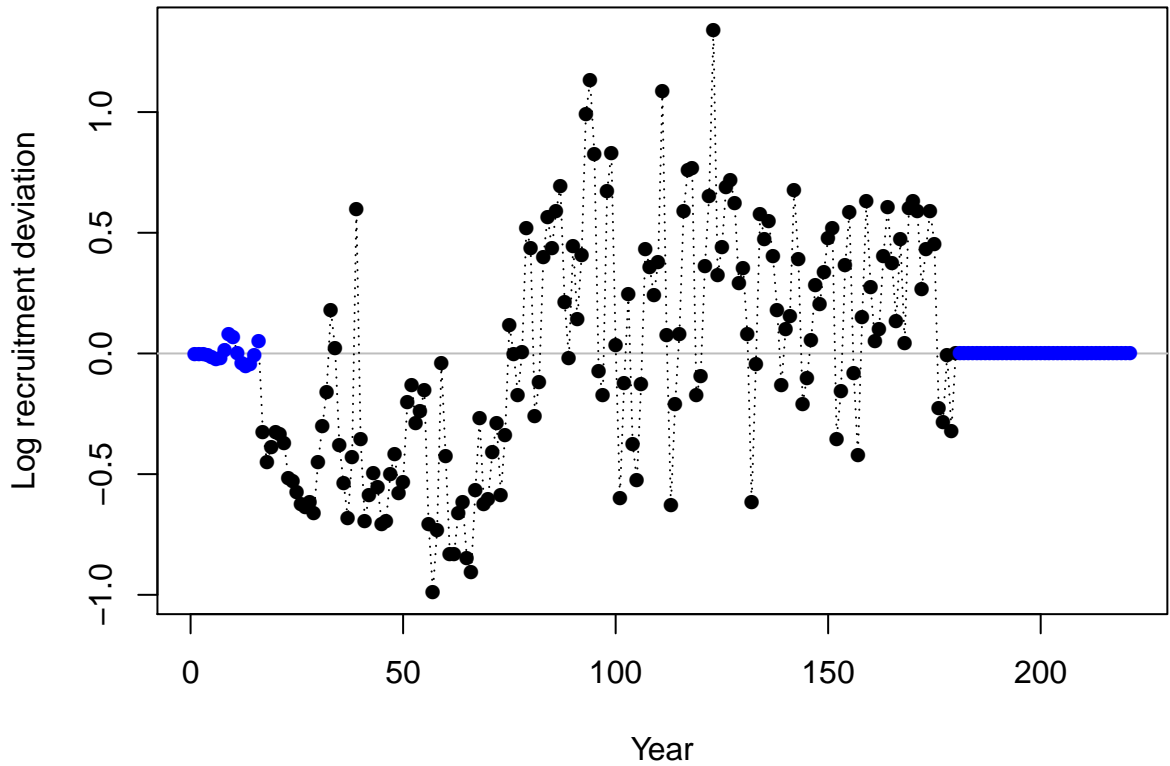
Age-0 recruits (1,000s) with forecast

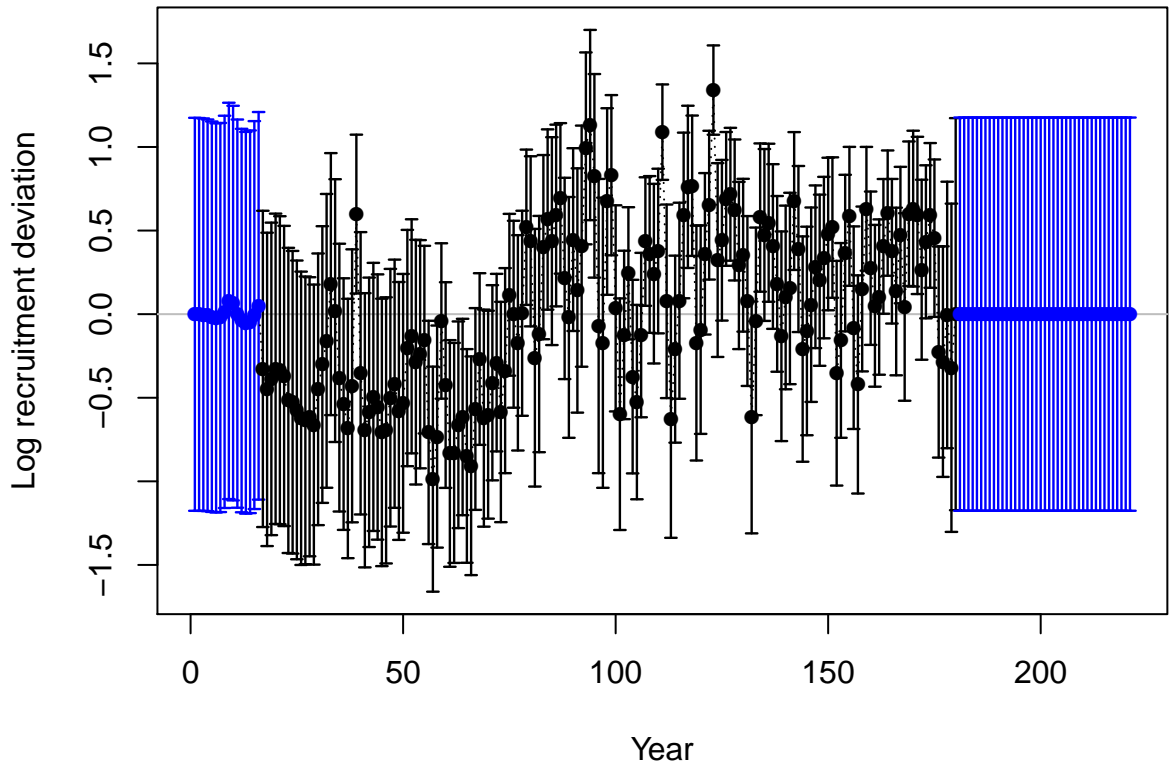


Age-0 recruits (1,000s) with forecast with ~95% asymptotic intervals

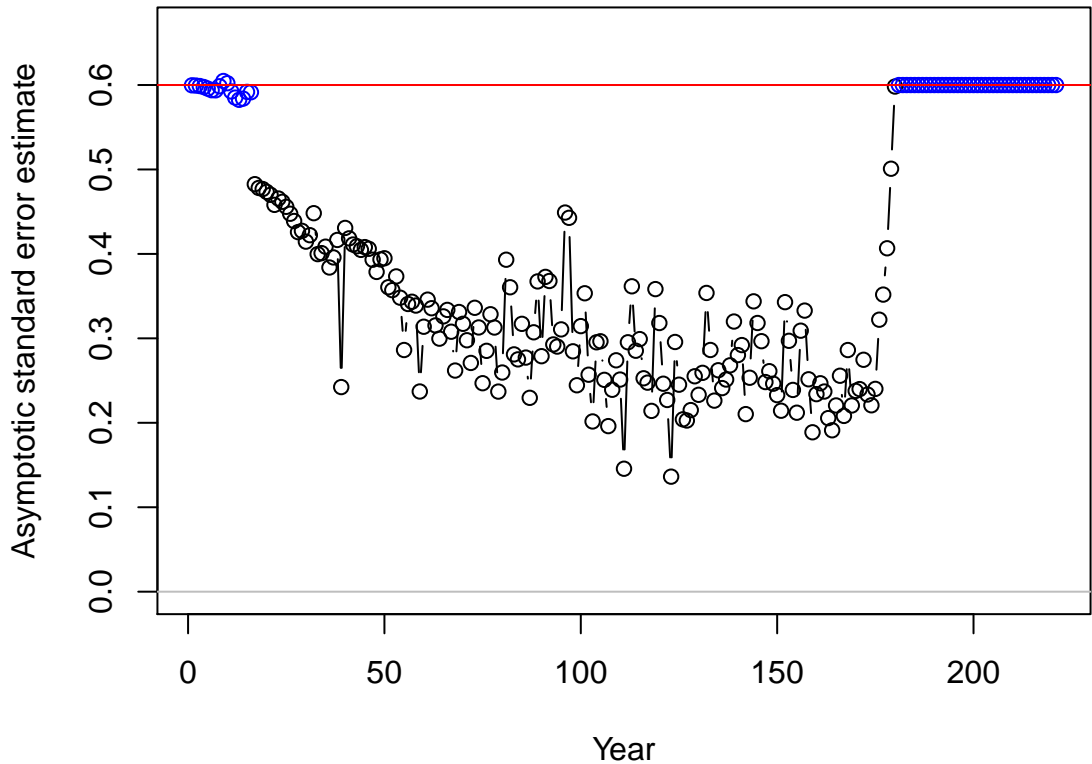


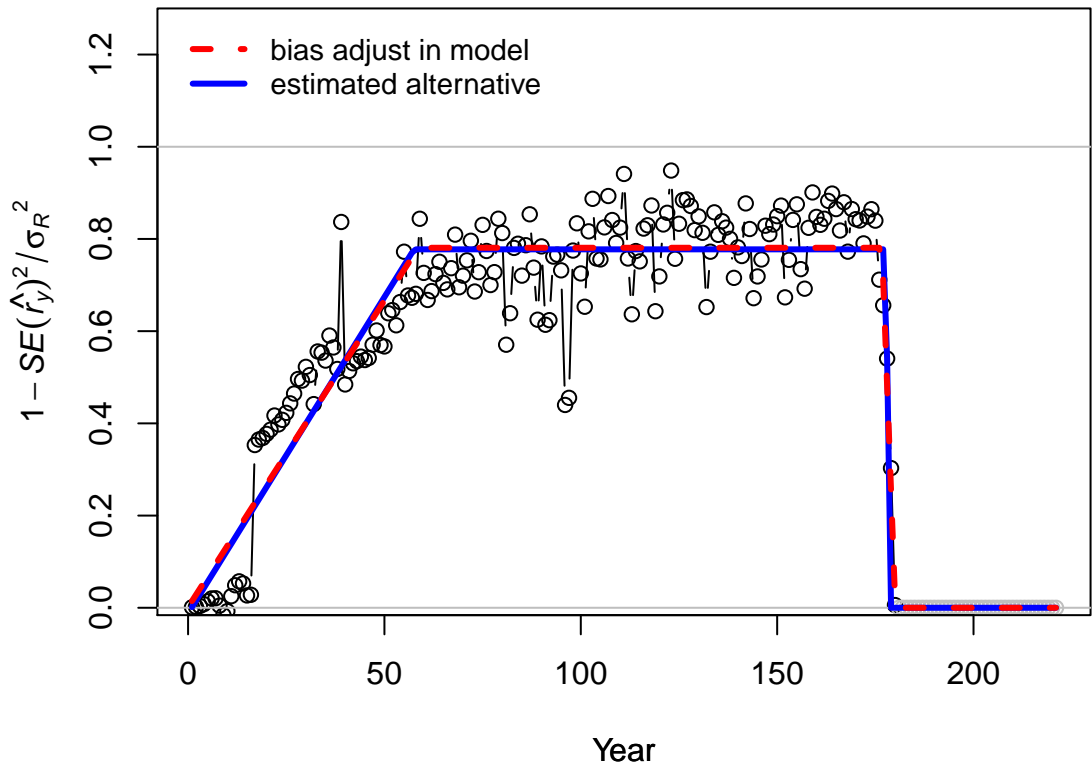


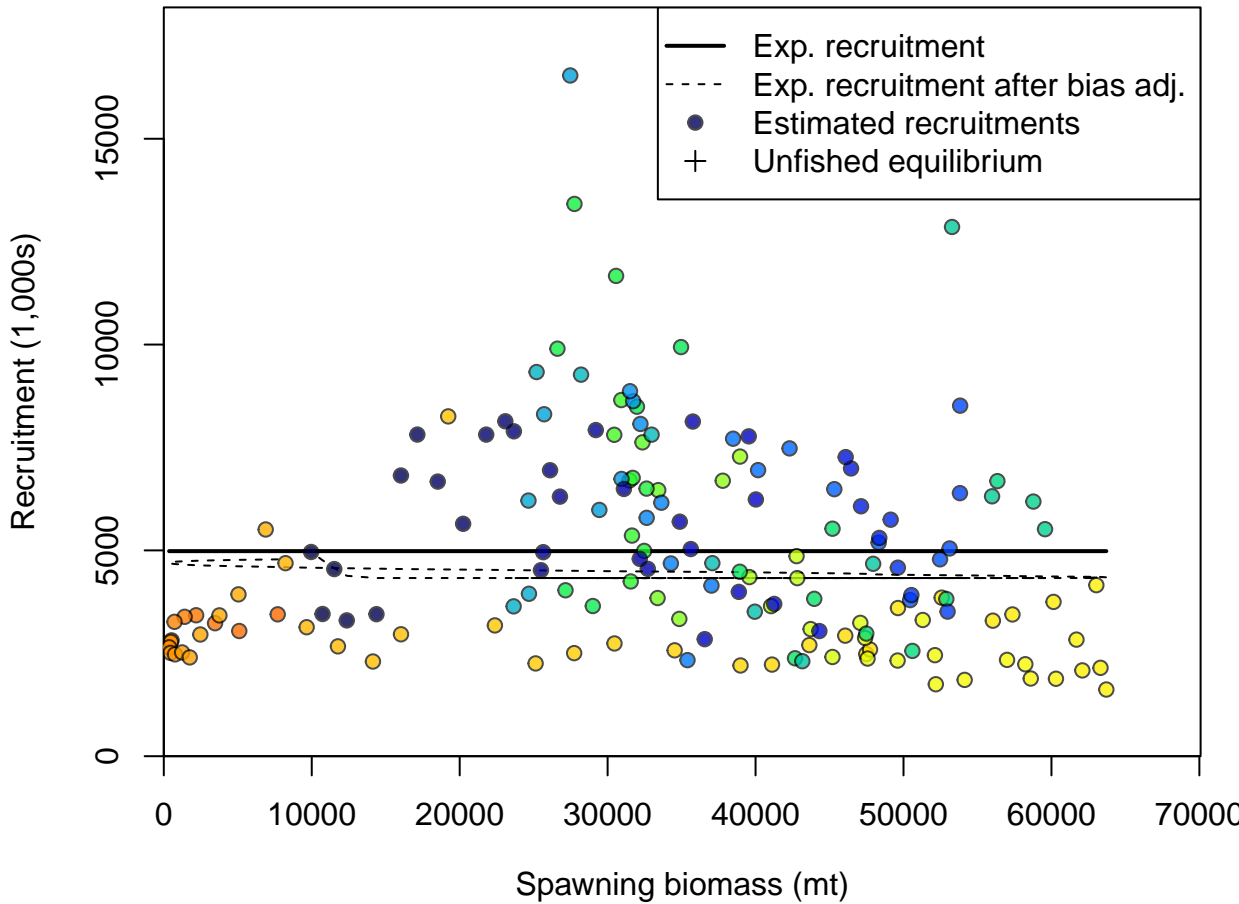


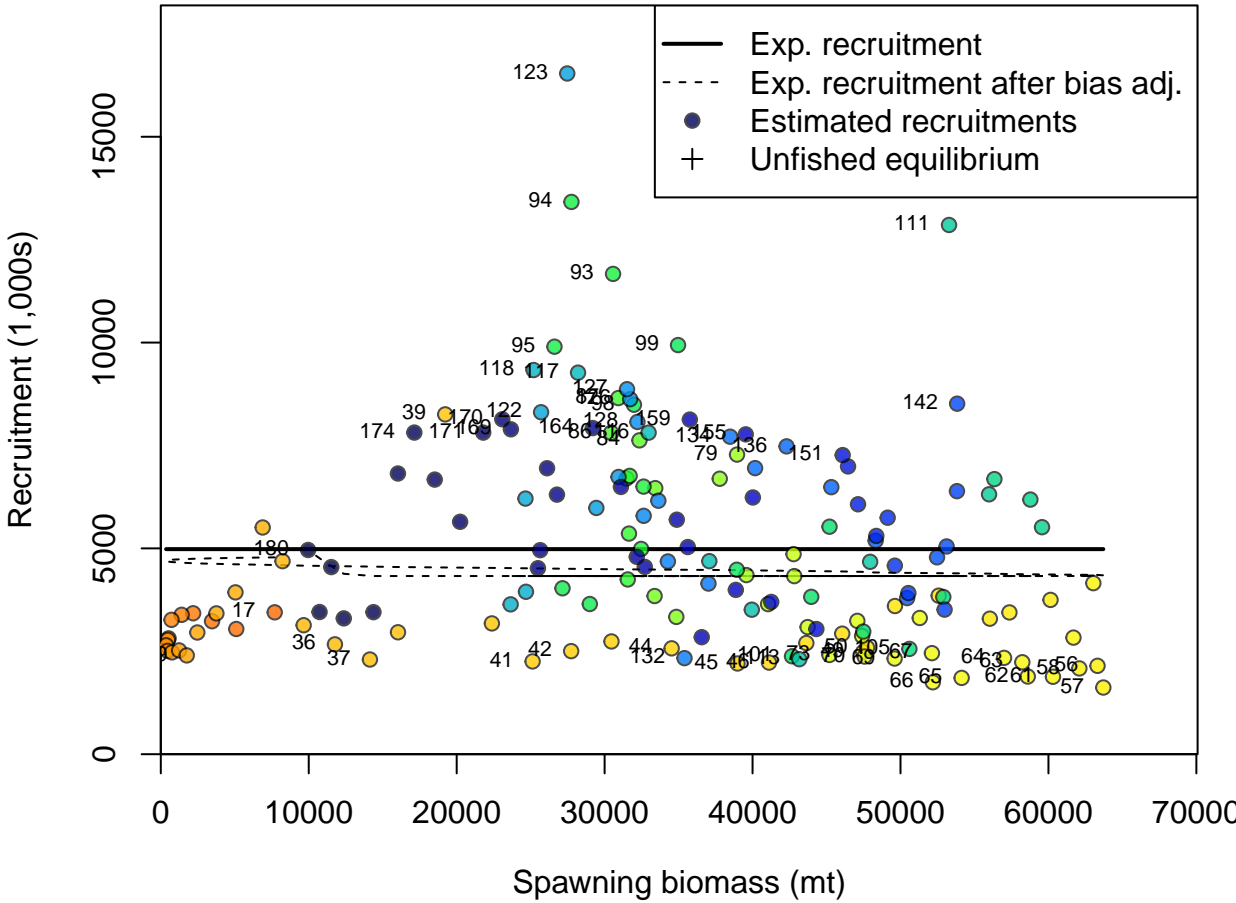


Recruitment deviation variance

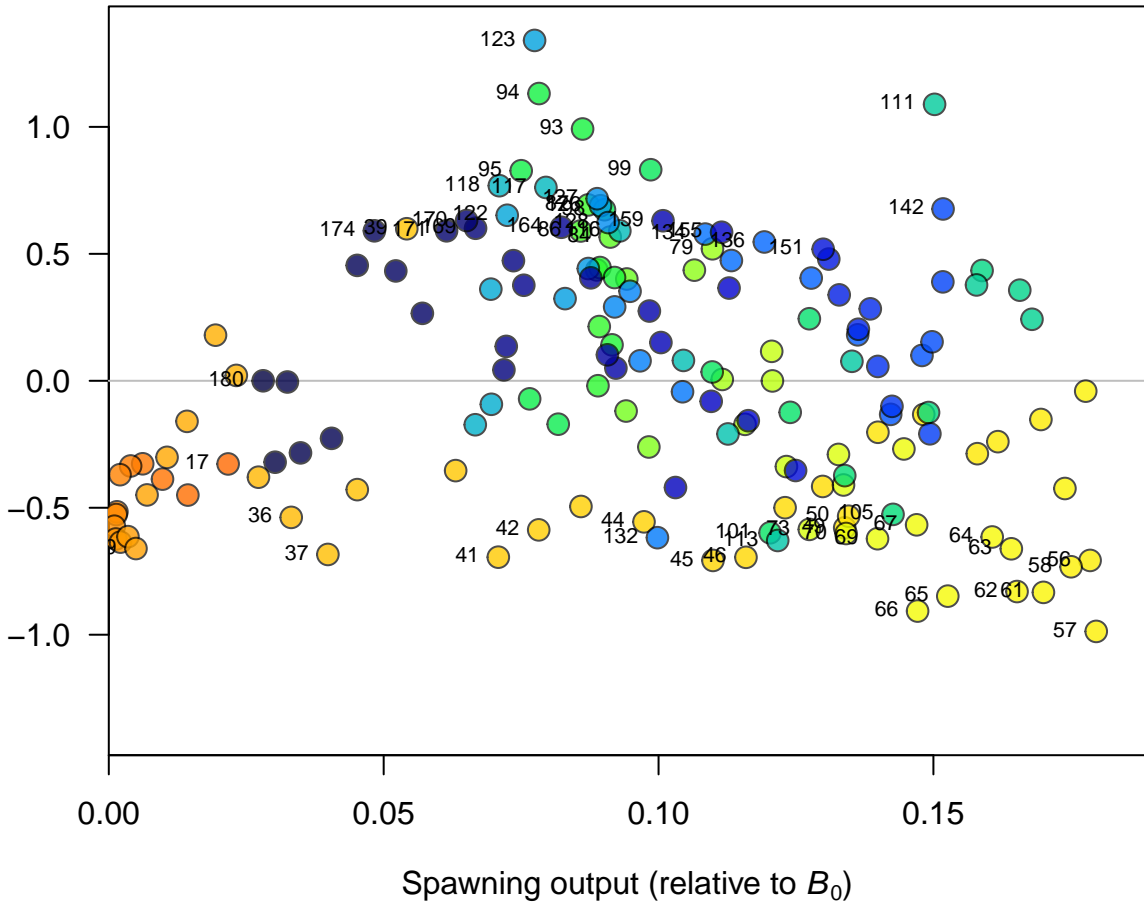


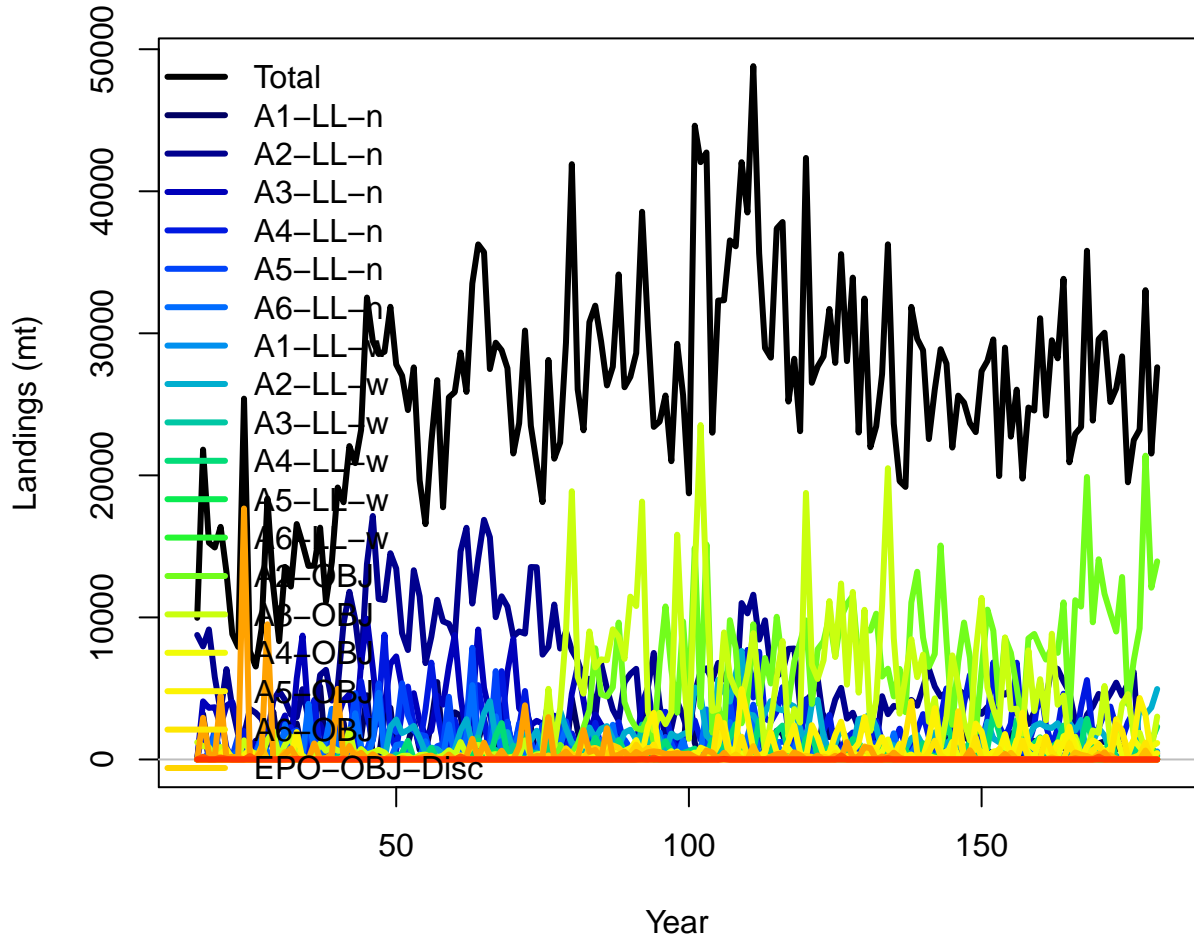


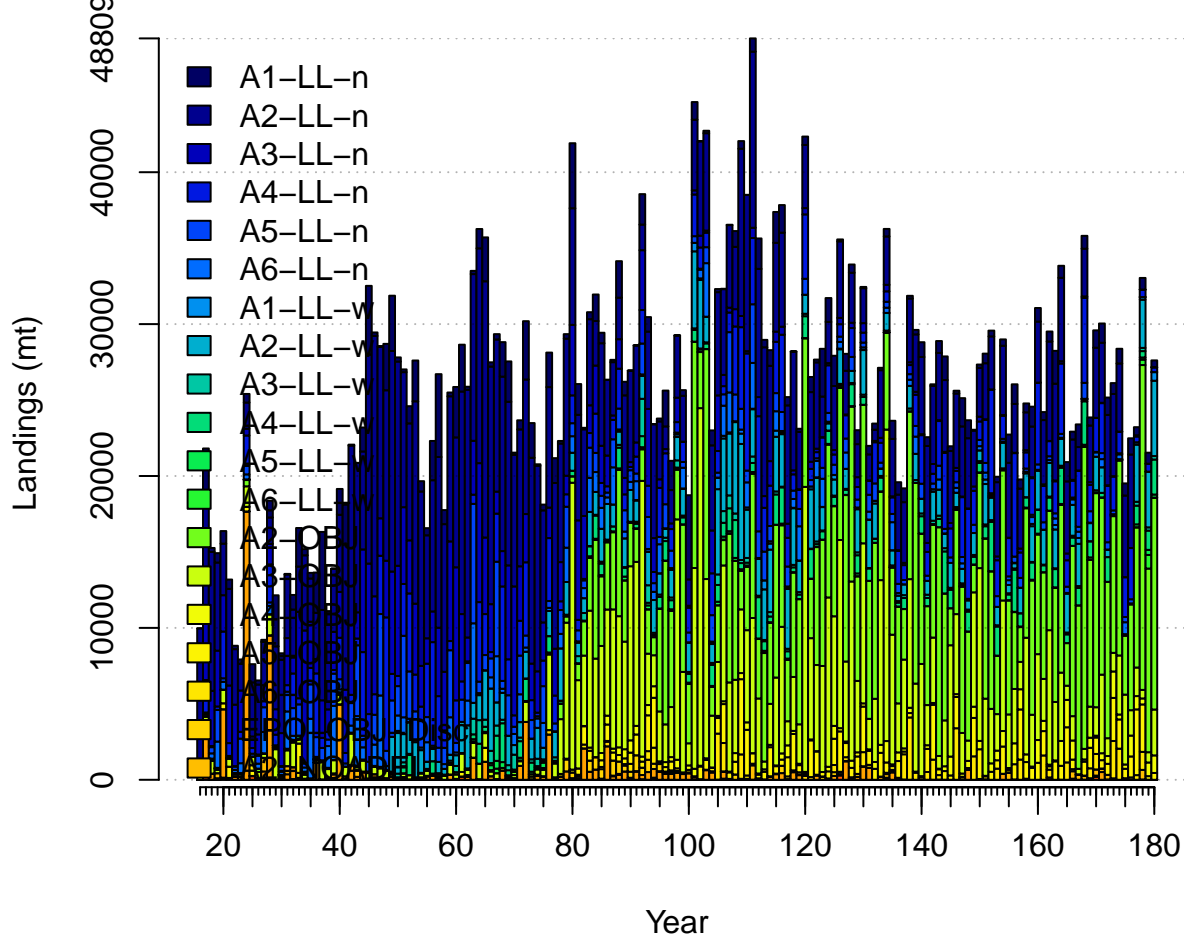




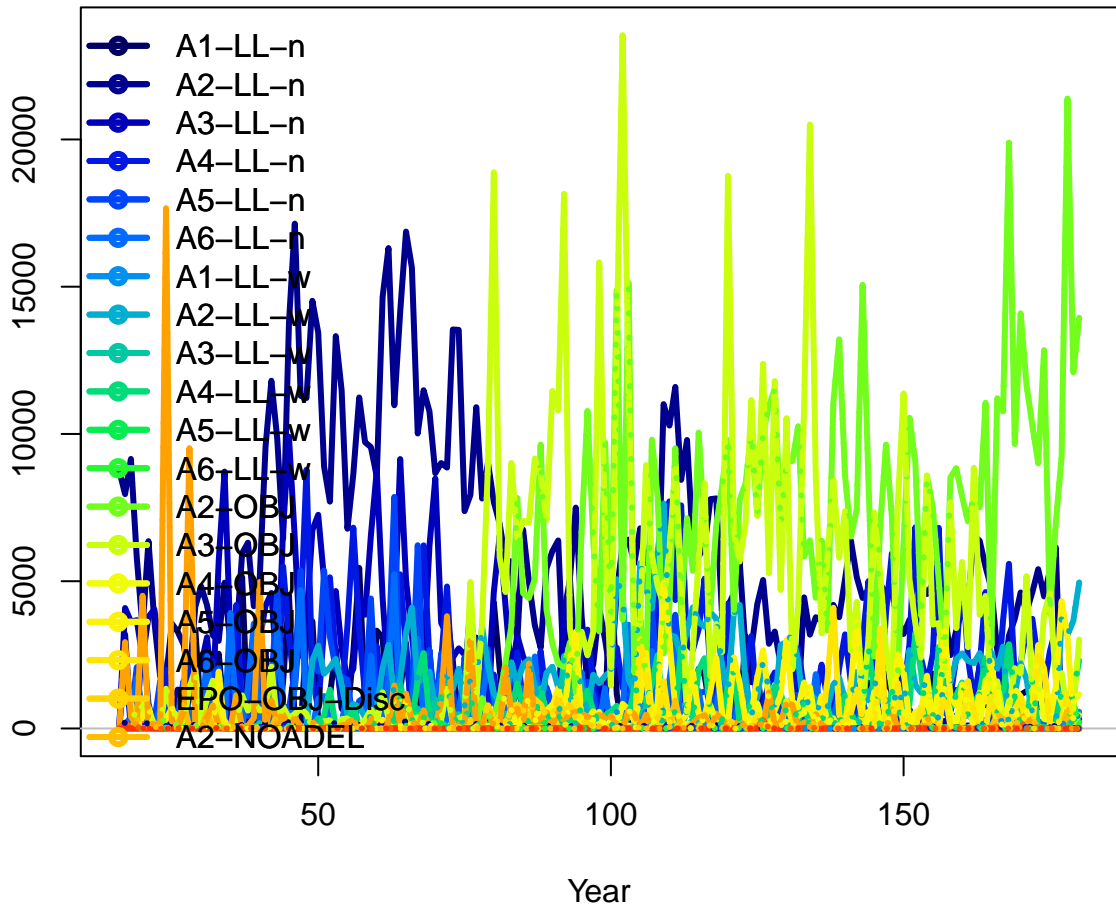
Log recruitment deviation



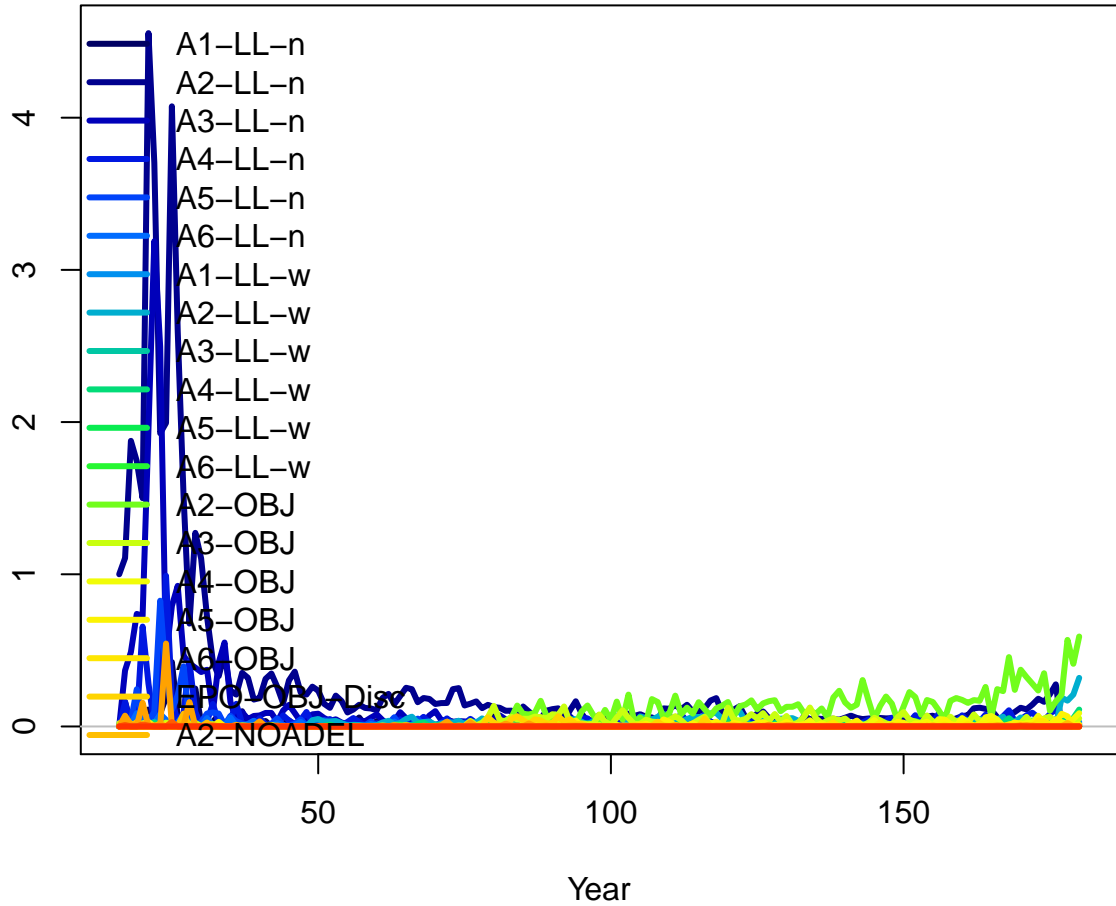




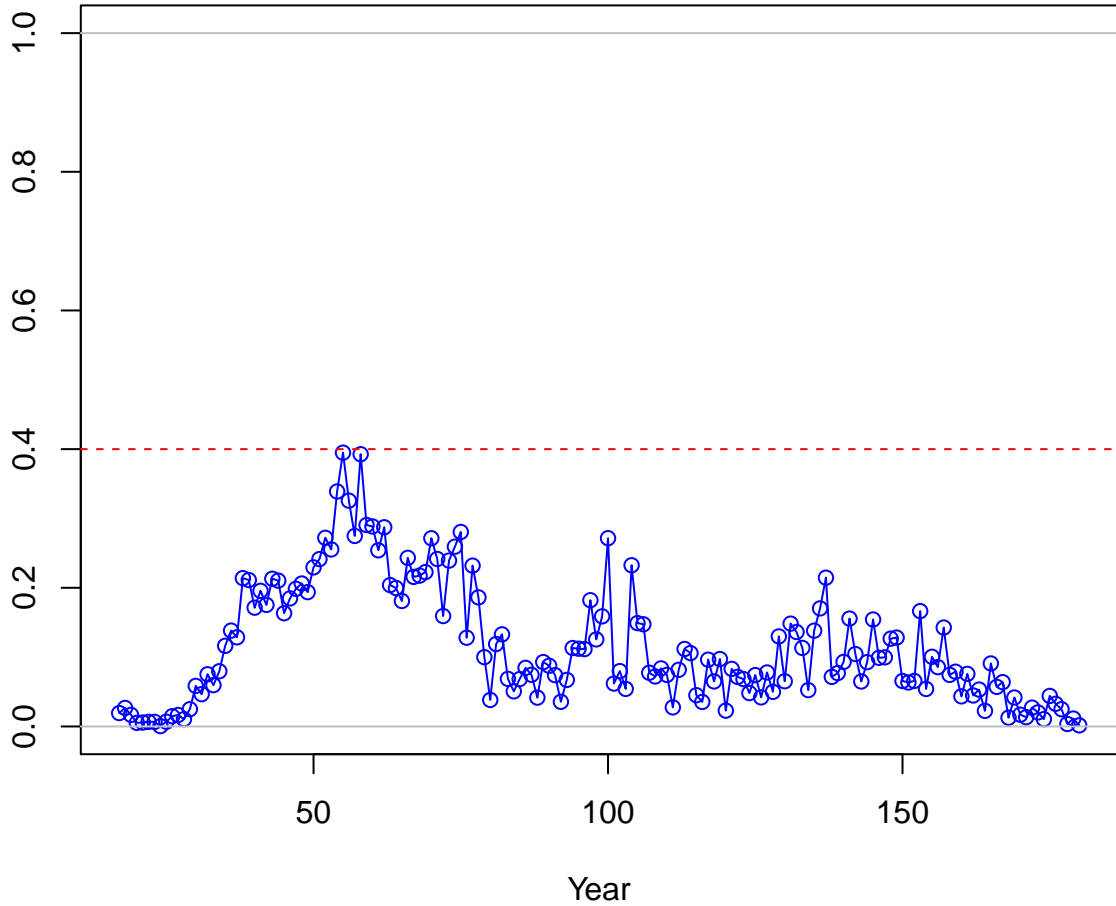
Observed and expected Landings (mt)



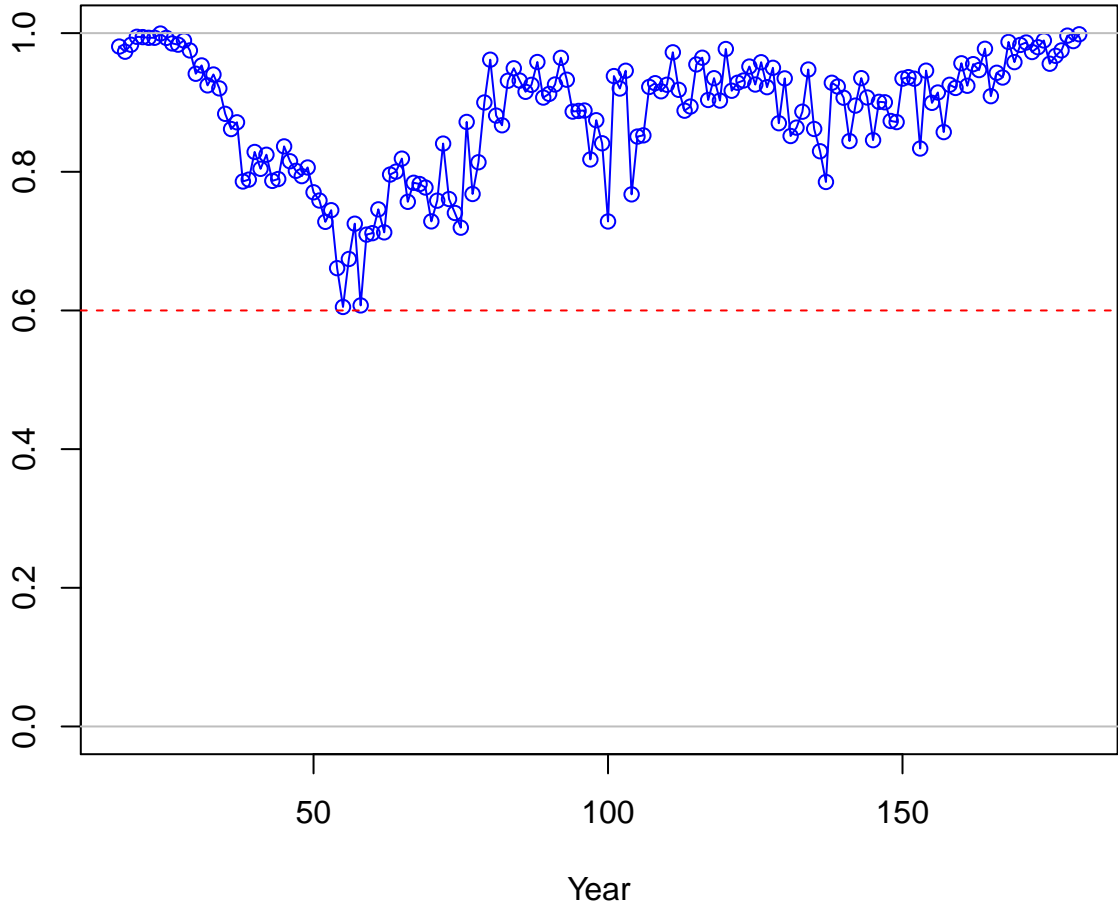
Continuous F

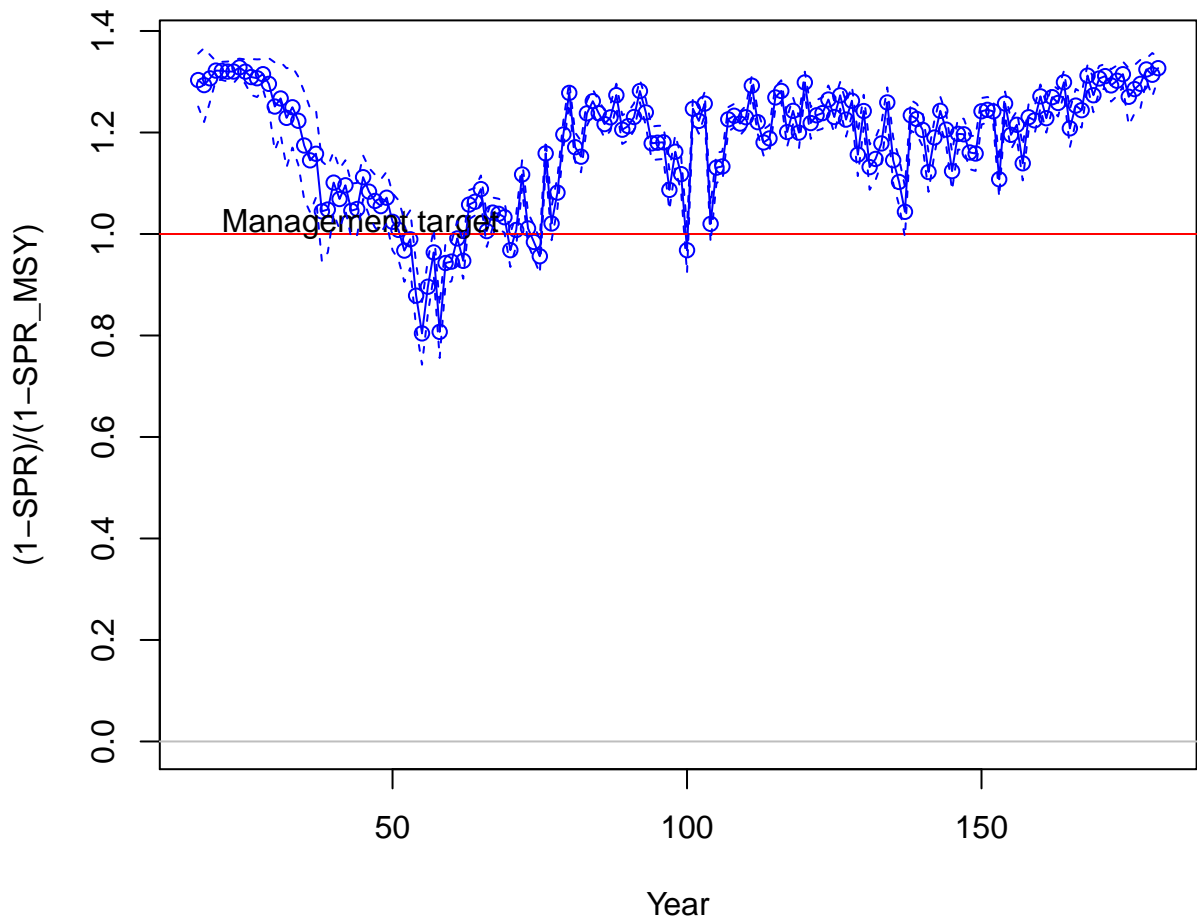


SPR

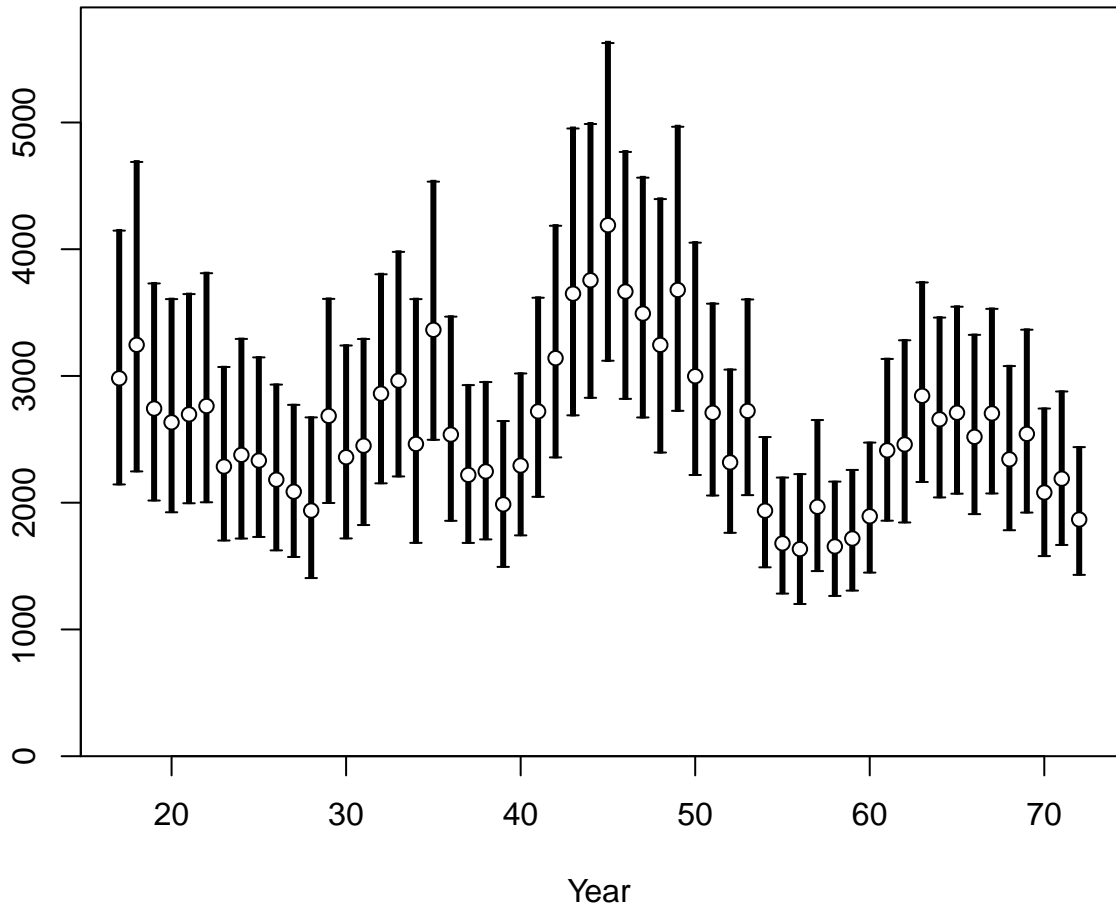


1-SPR

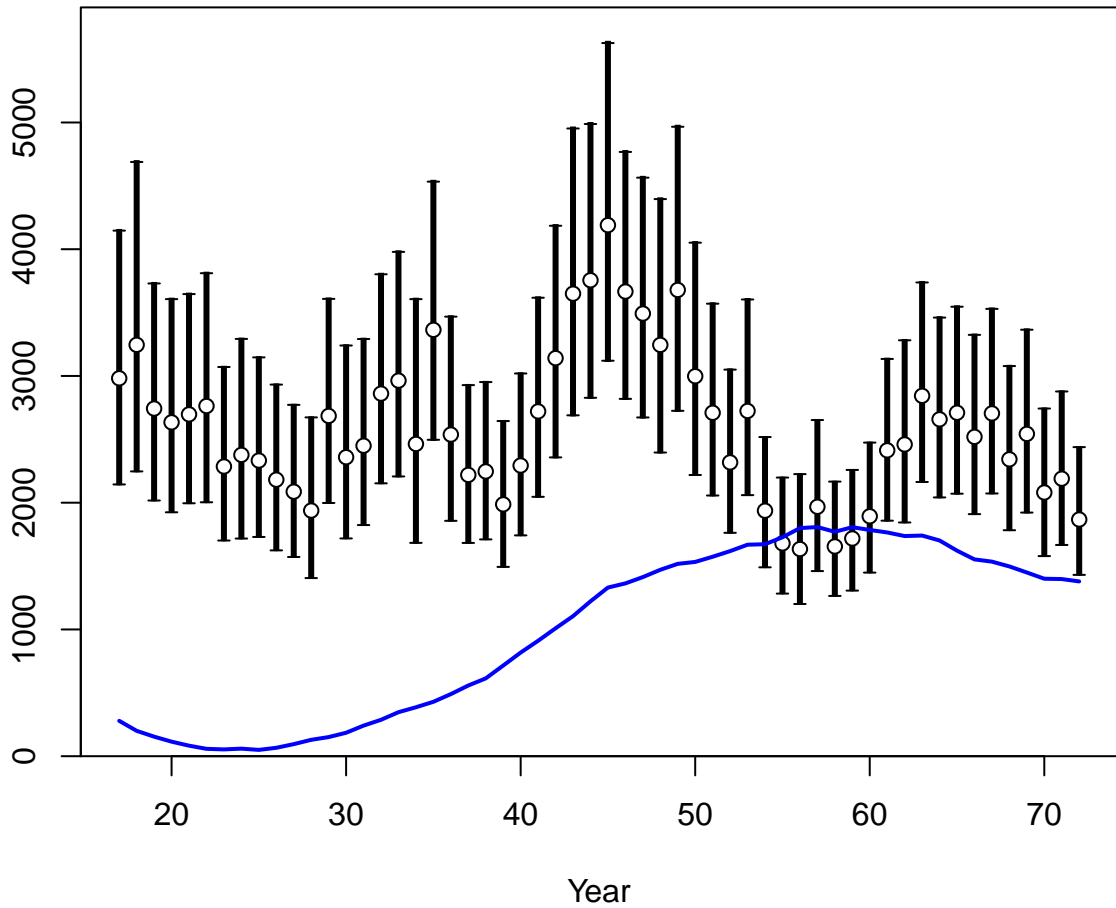




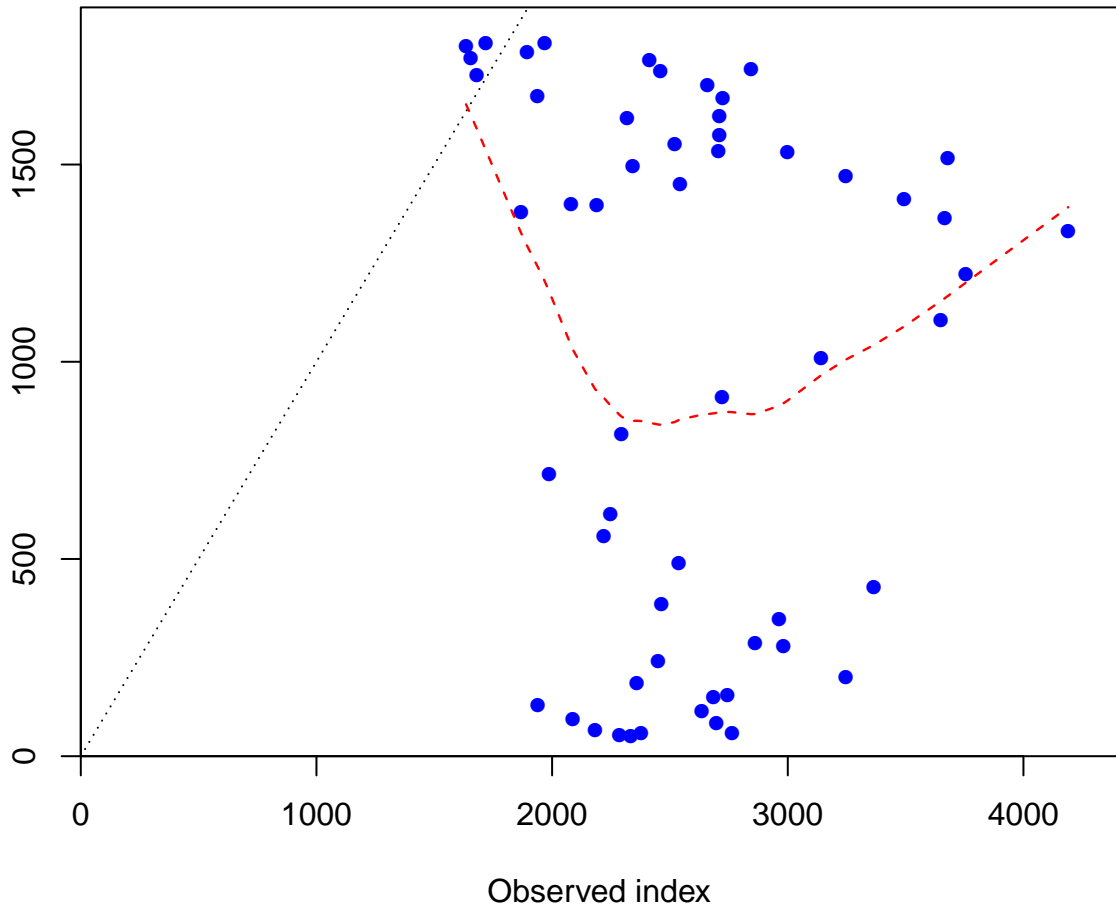
Index



Index



Expected index



Observed index

Log index

8.5

8.0

7.5

20

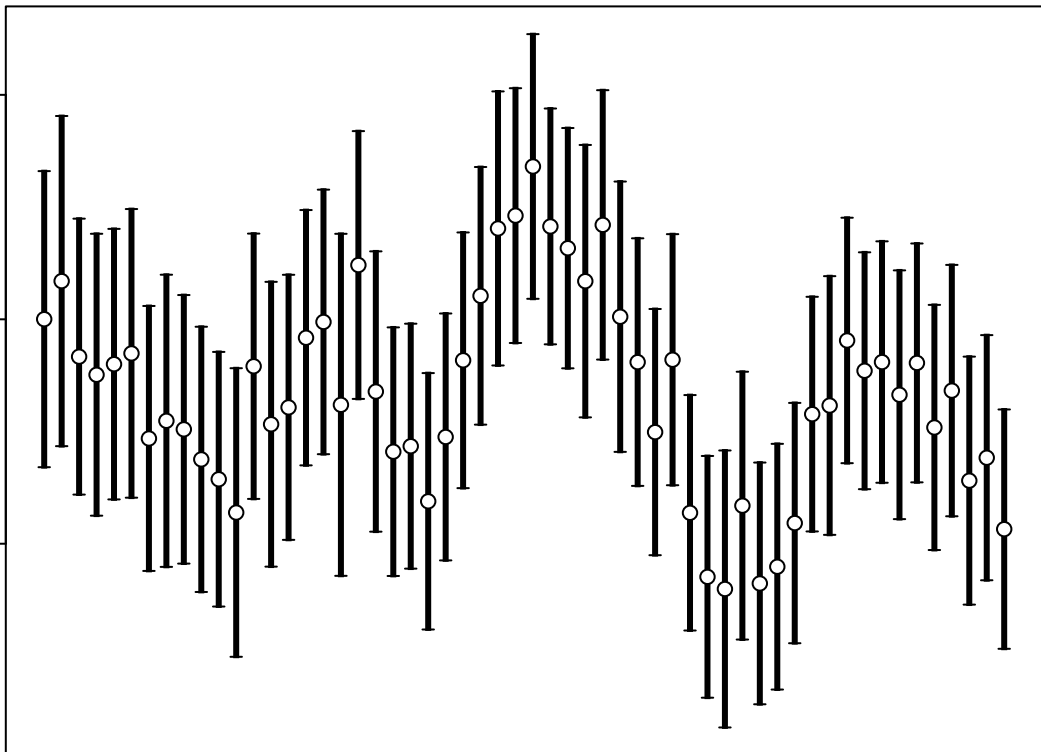
30

40

60

70

Year



Log index

8.5

8.0

7.5

20

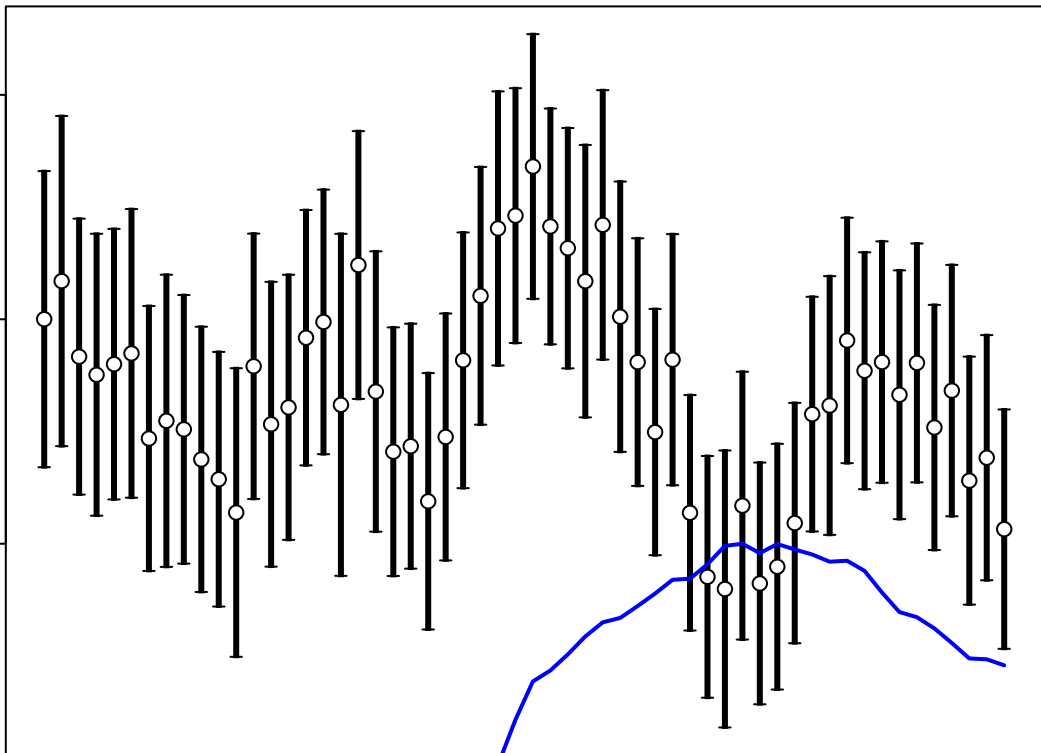
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40

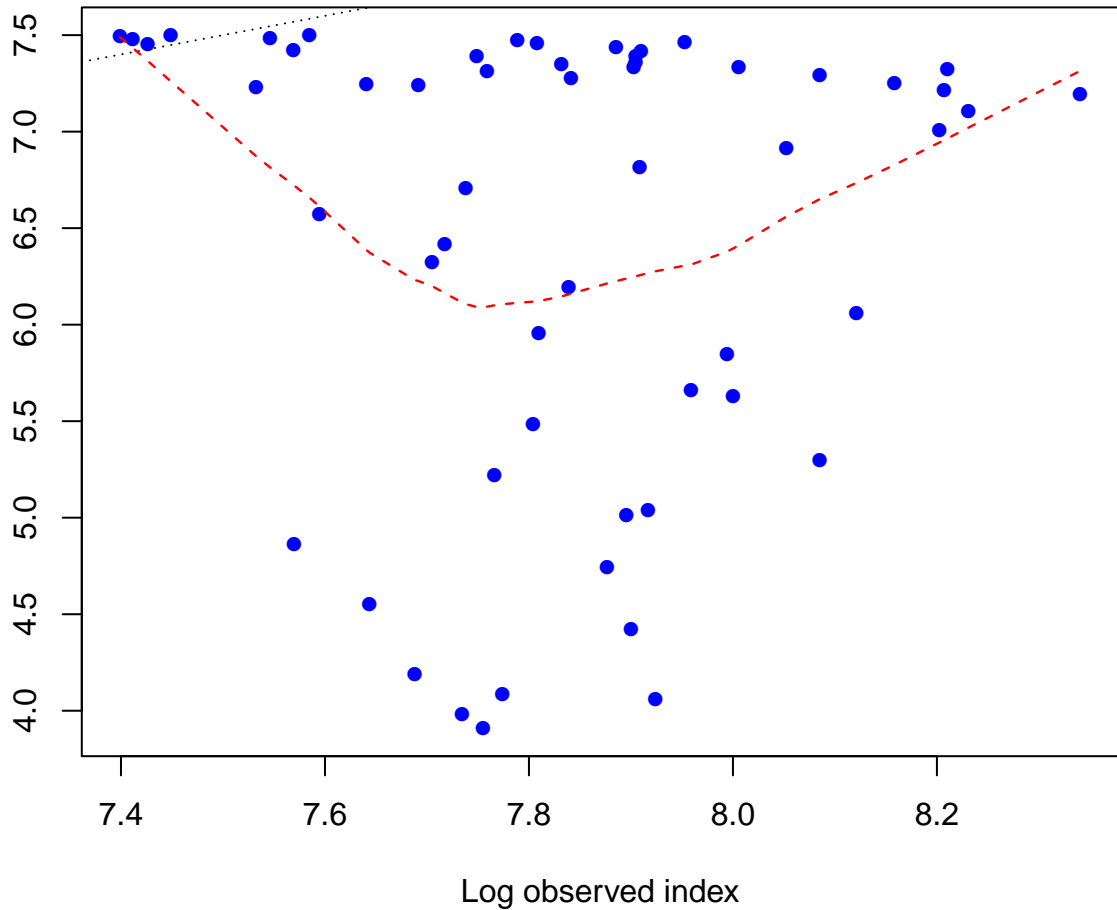
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70

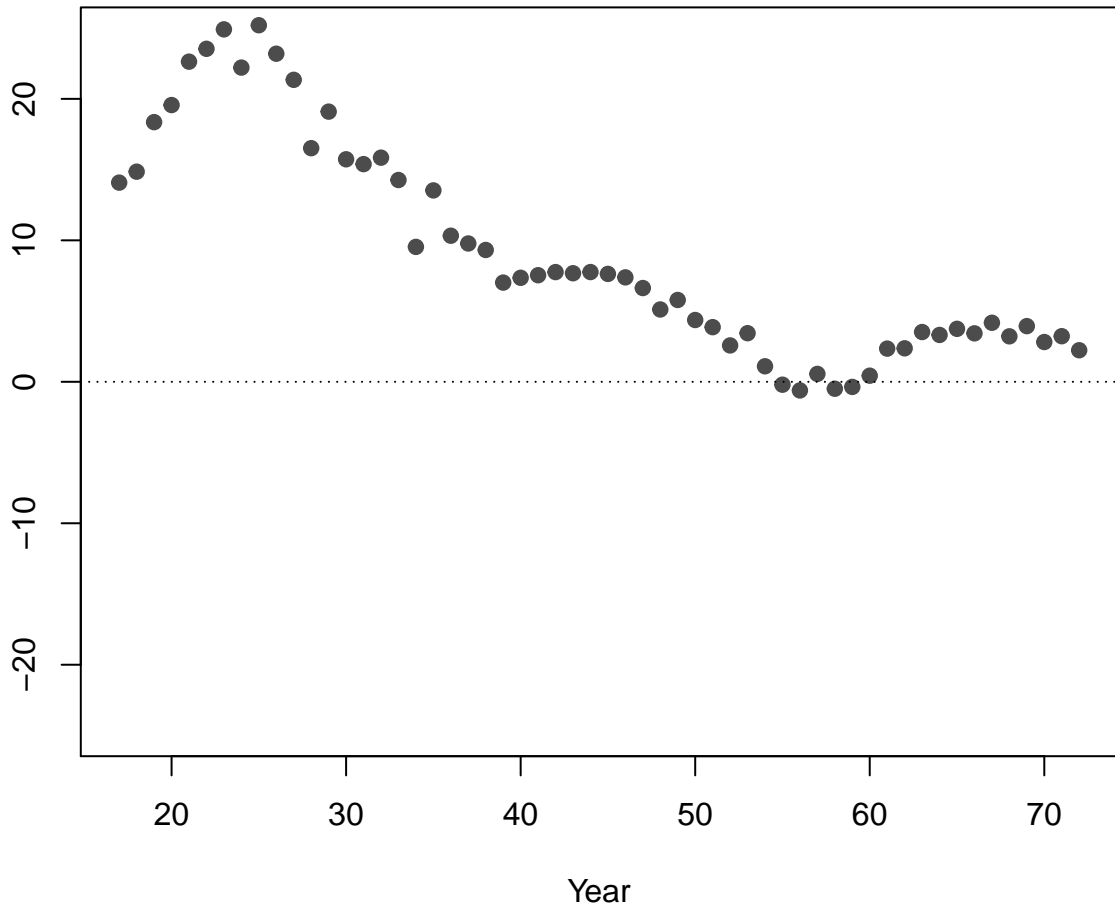
Year



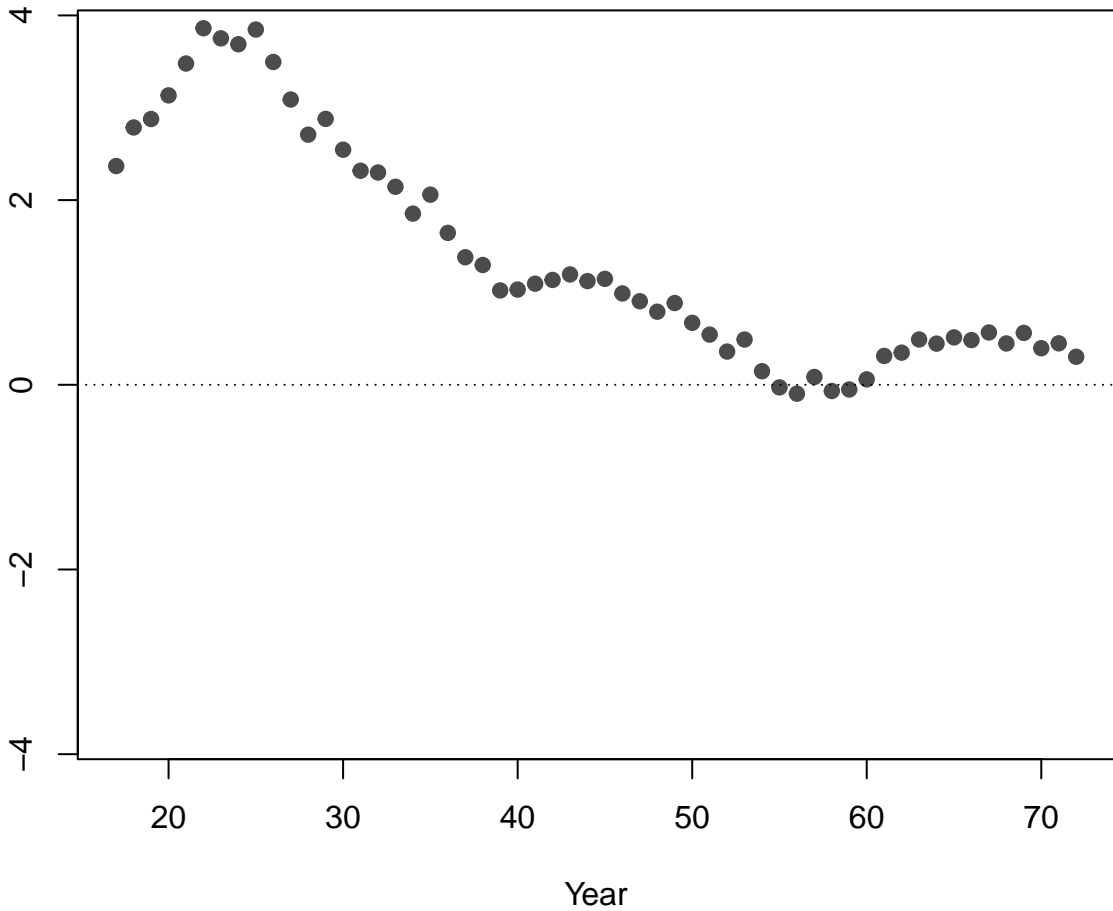
Log expected index

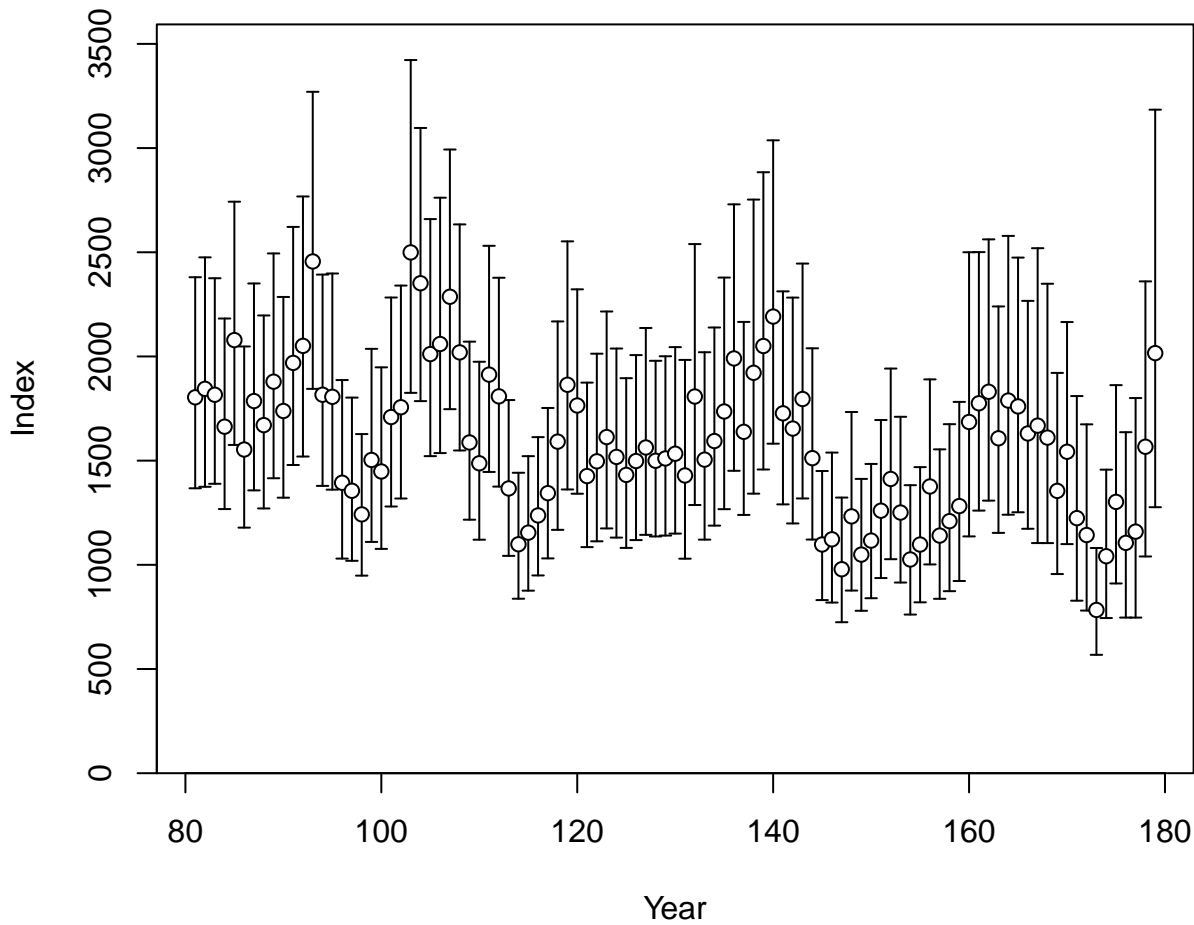


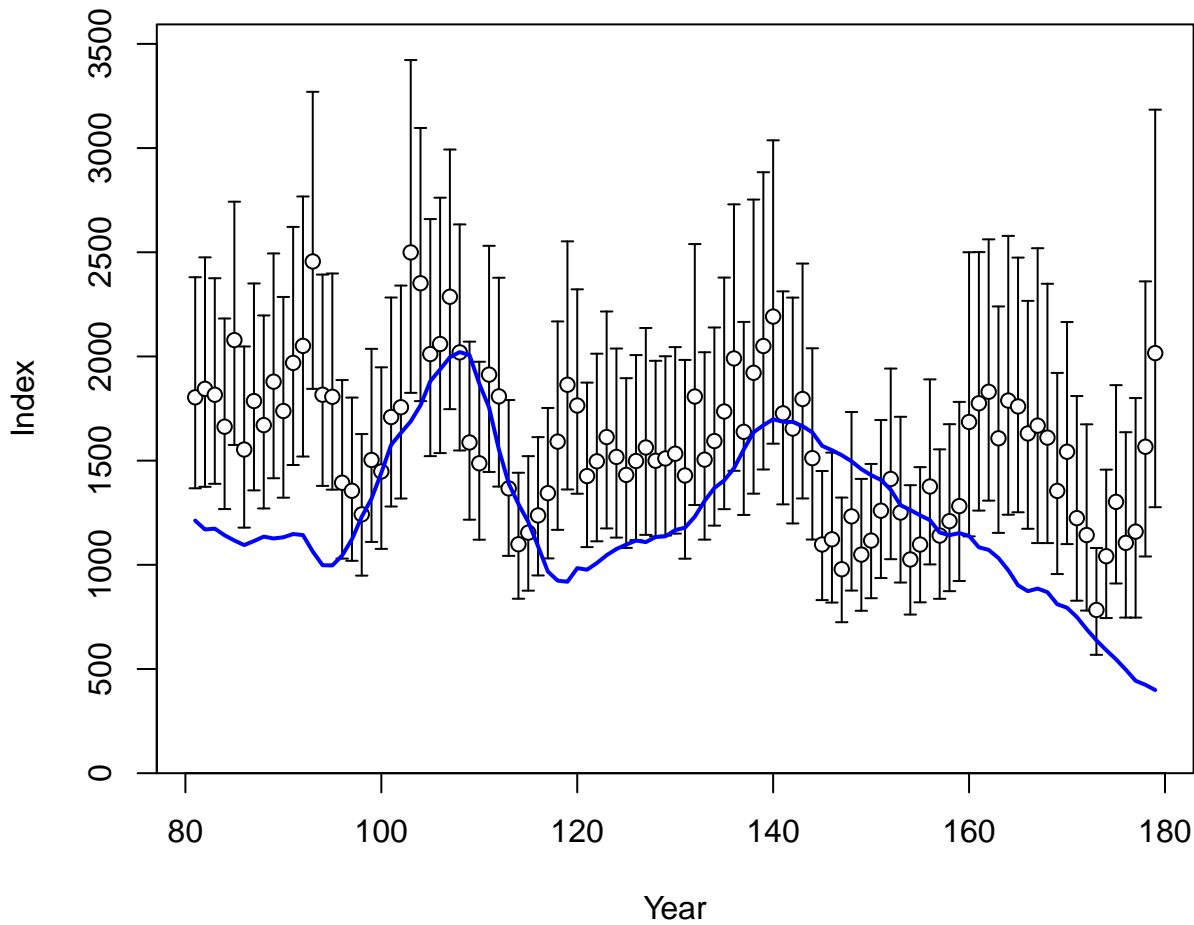
Residual



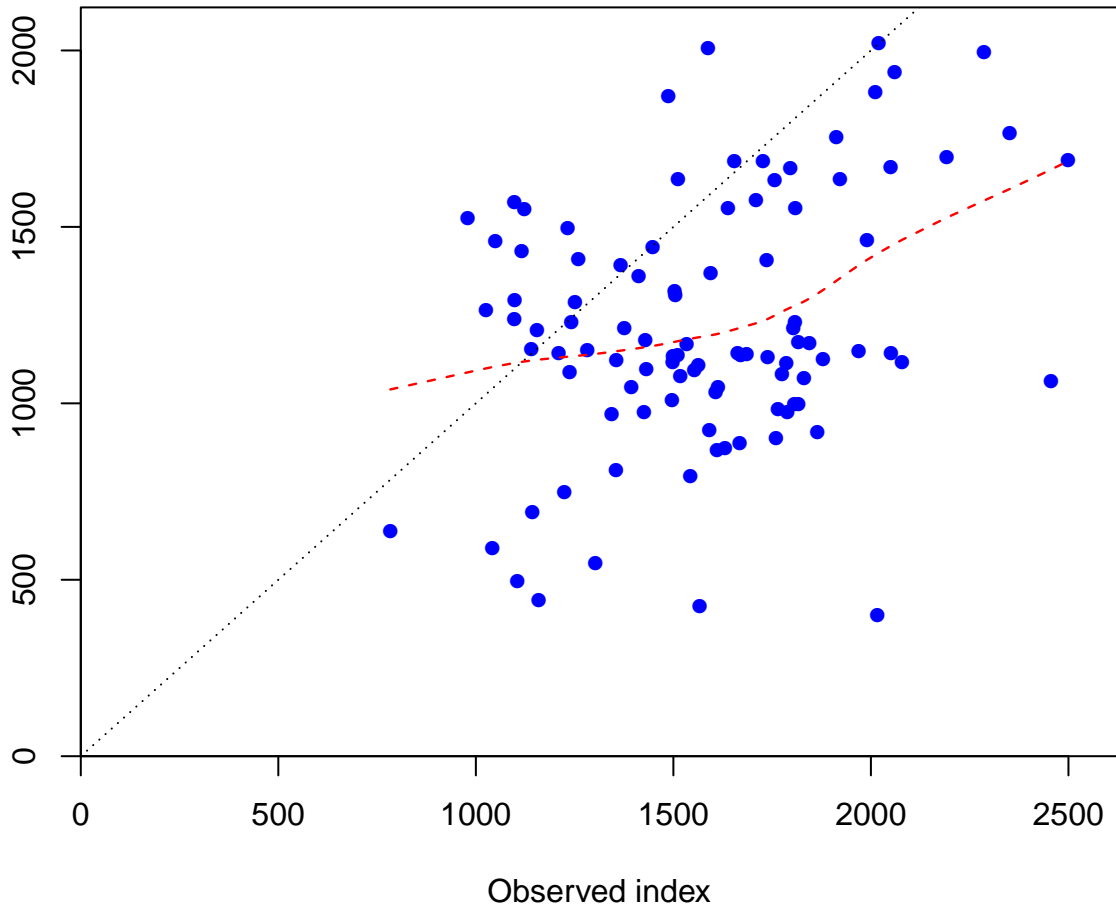
Deviation







Expected index



Log index

8.0
7.5
7.0
6.5

80

100

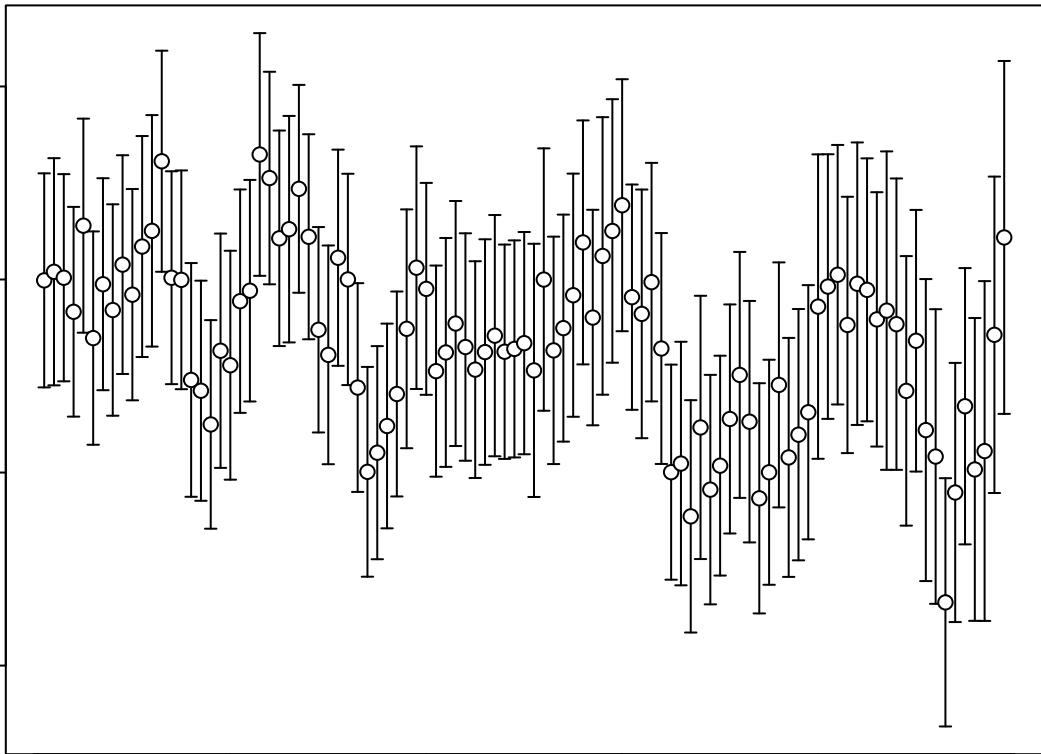
120

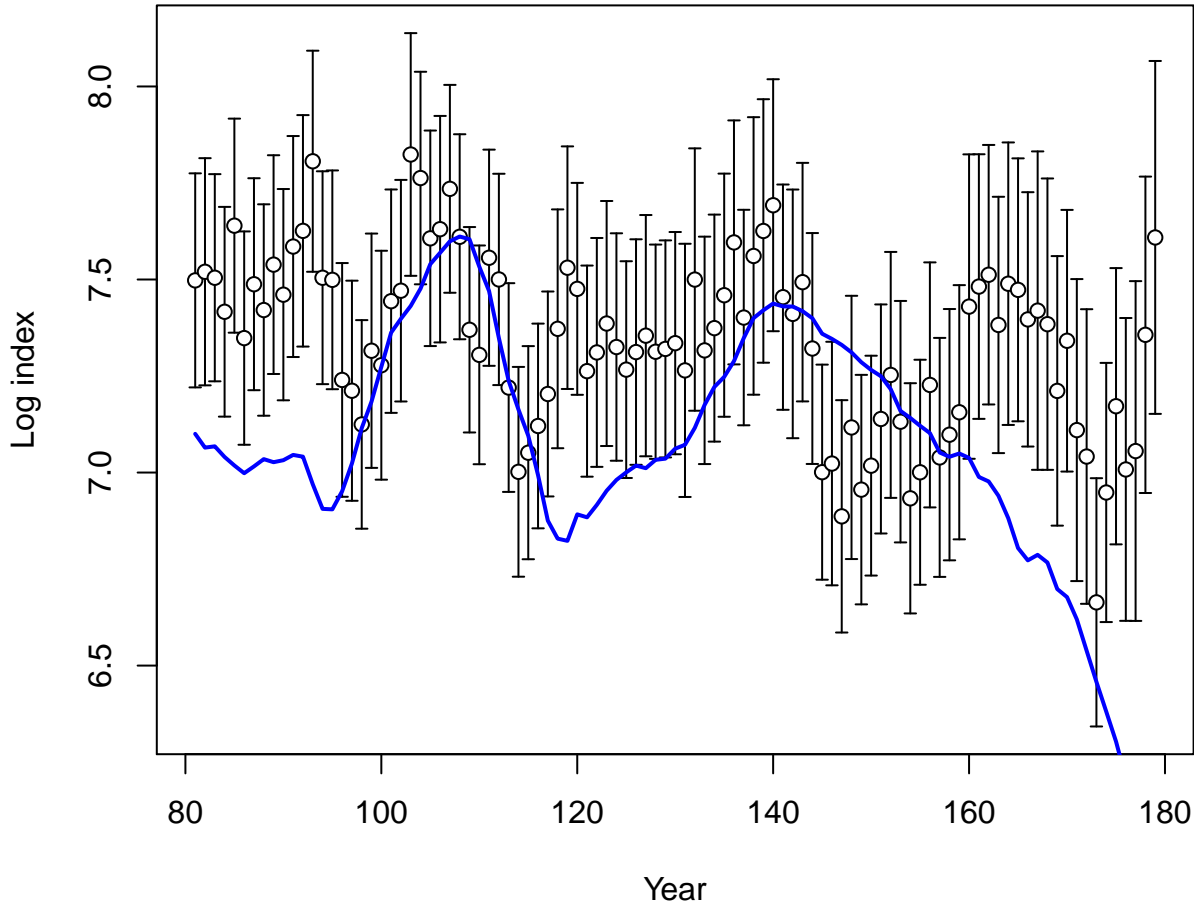
140

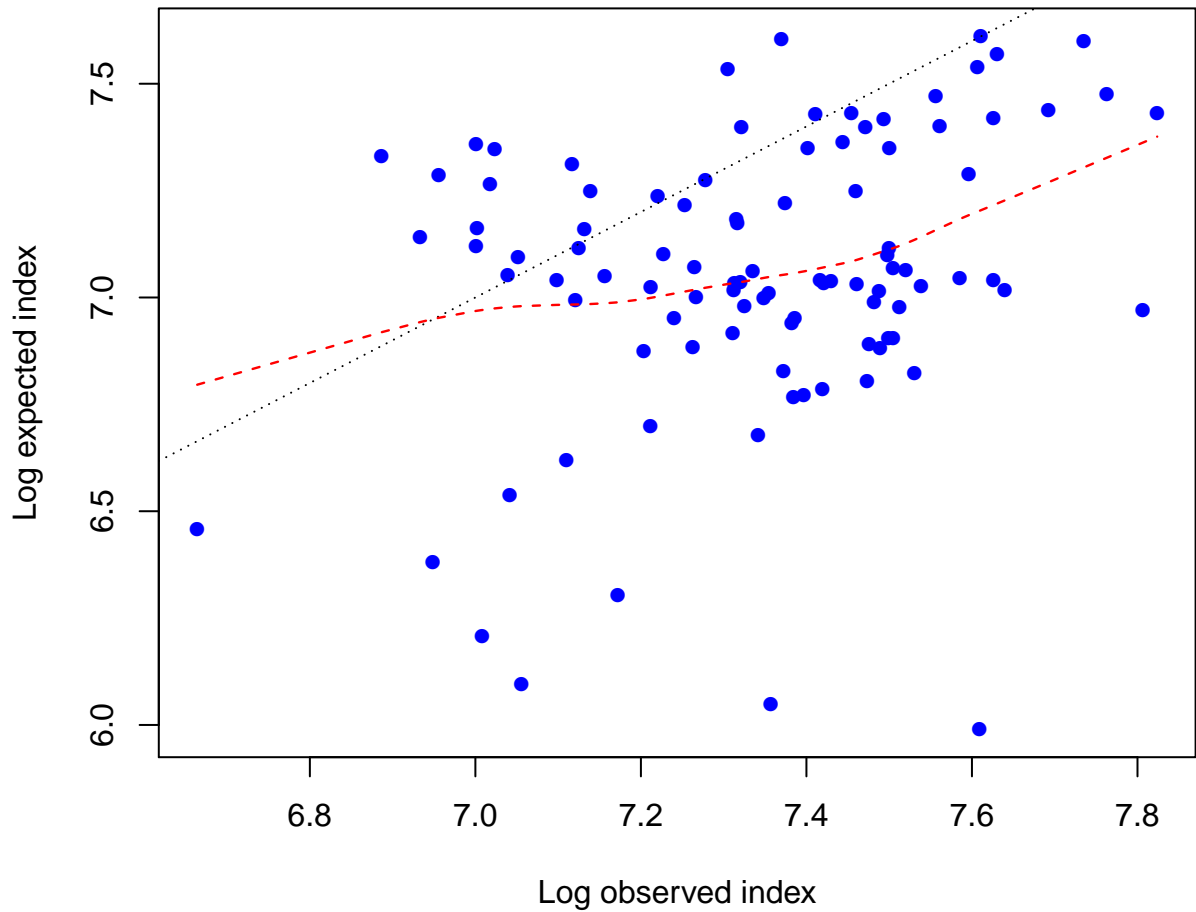
160

180

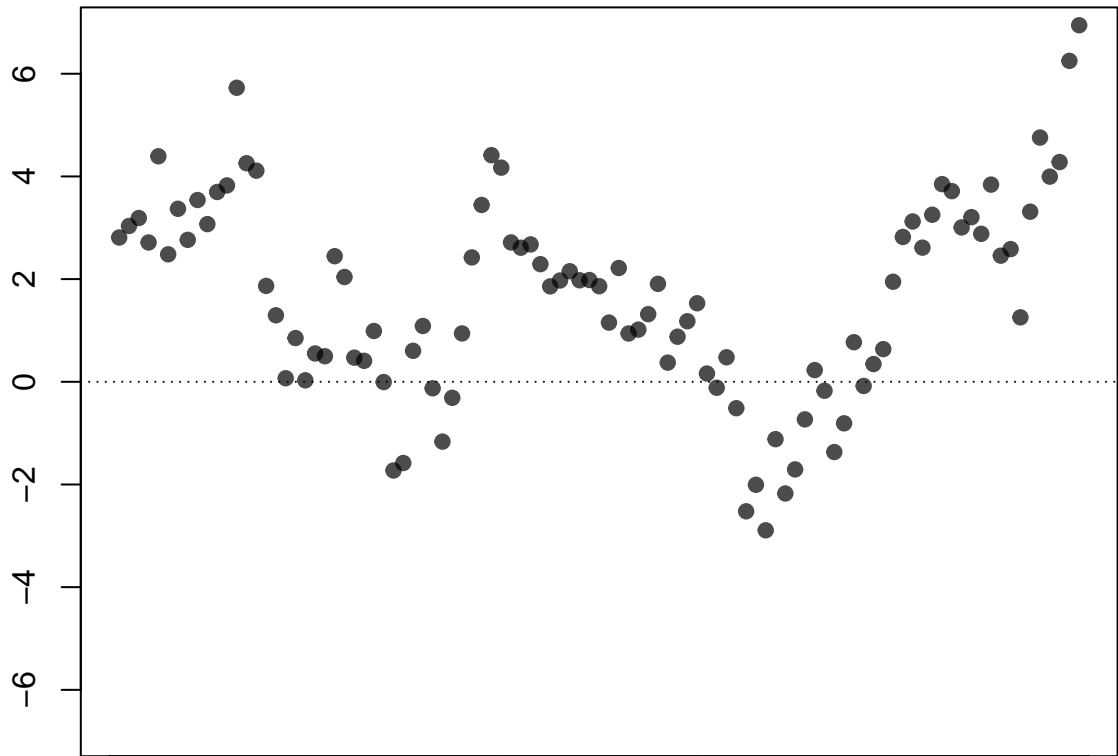
Year



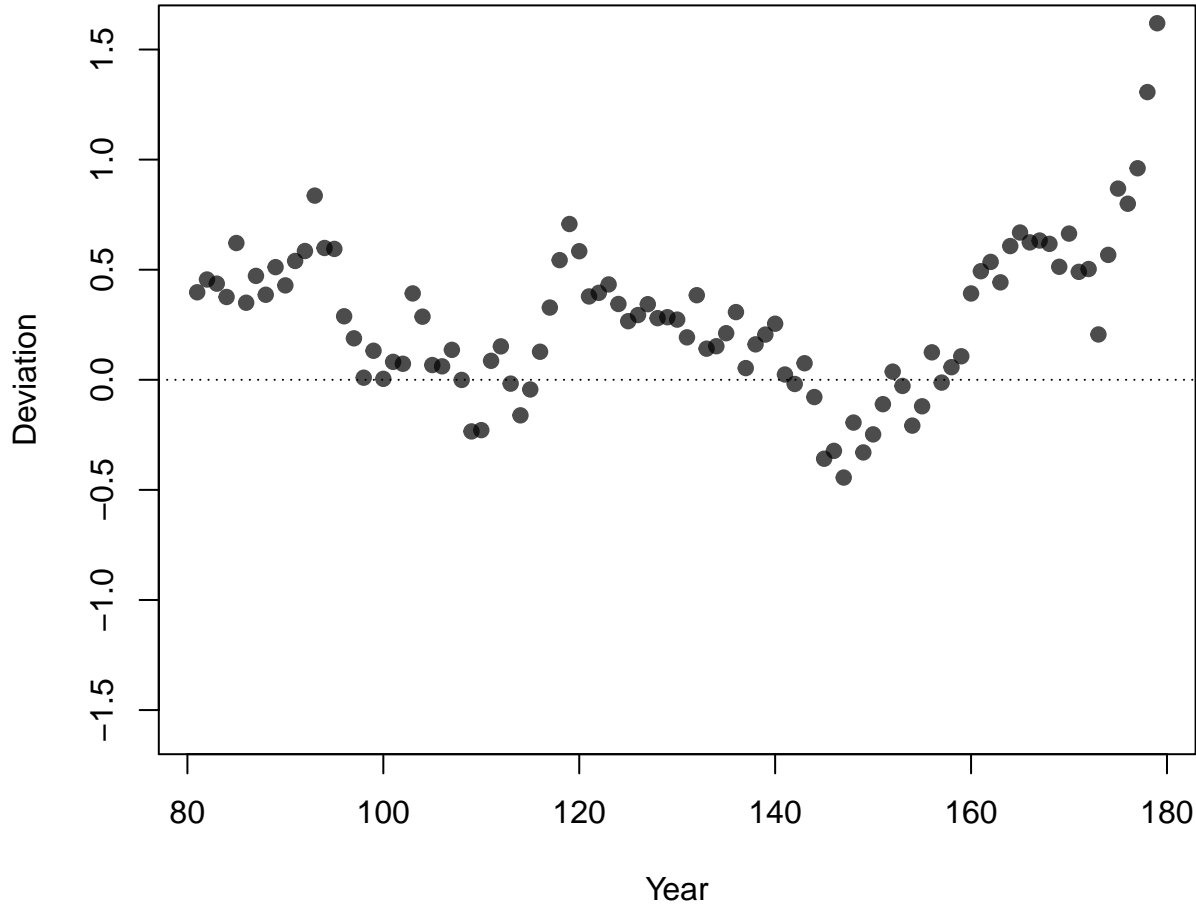




Residual

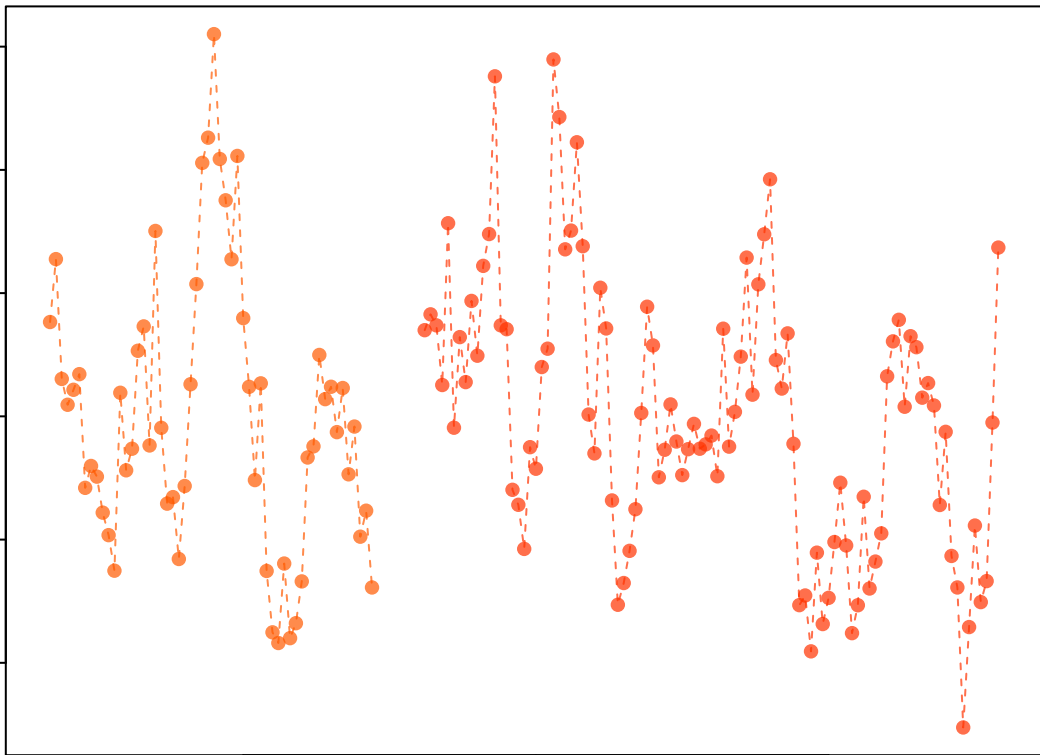


Year



Standardized index

1.6
1.4
1.2
1.0
0.8
0.6



50

100

150

Year

Age

○ 0.1 ○ 5 ○ 10

40

30

20

10

0

16

27

38

49

60

71

82

93

106

120

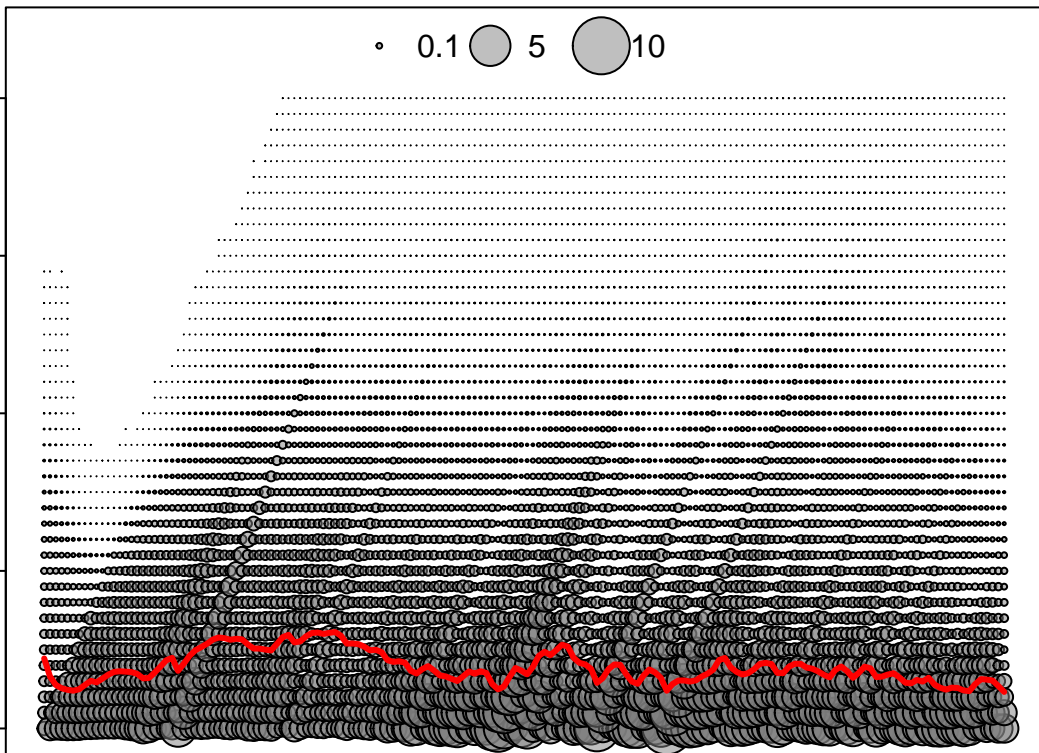
134

148

162

176

Year



Age

○ 0.1 ○ 5 ○ 10

40

30

20

10

0

16

27

38

49

60

71

82

93

106

120

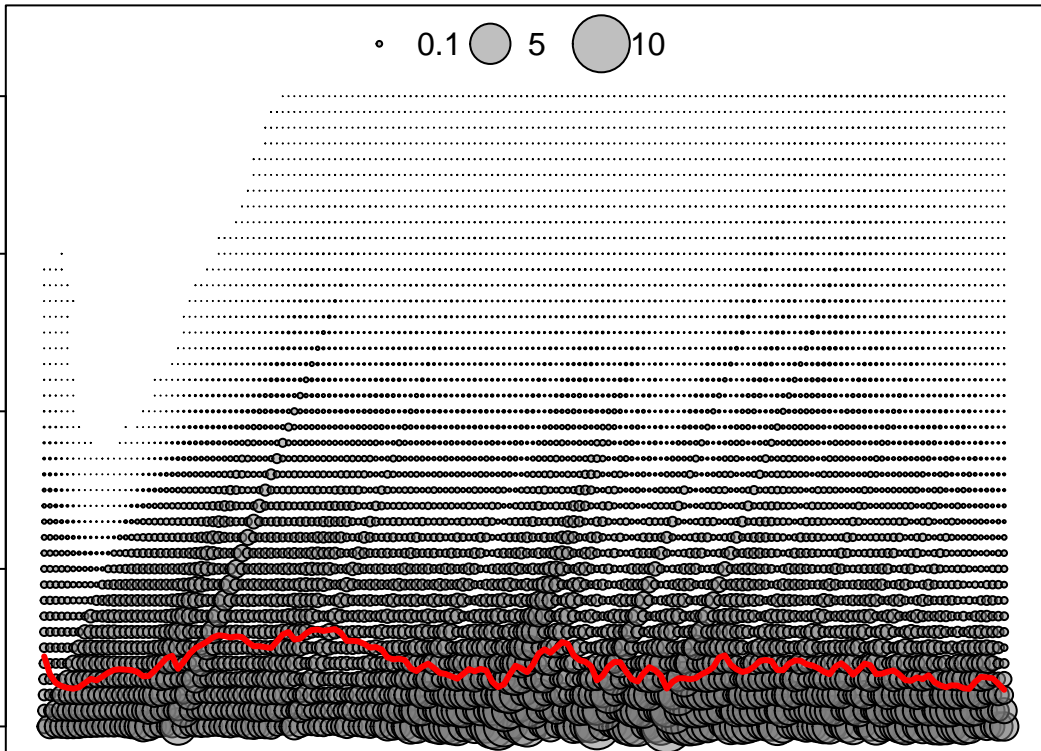
134

148

162

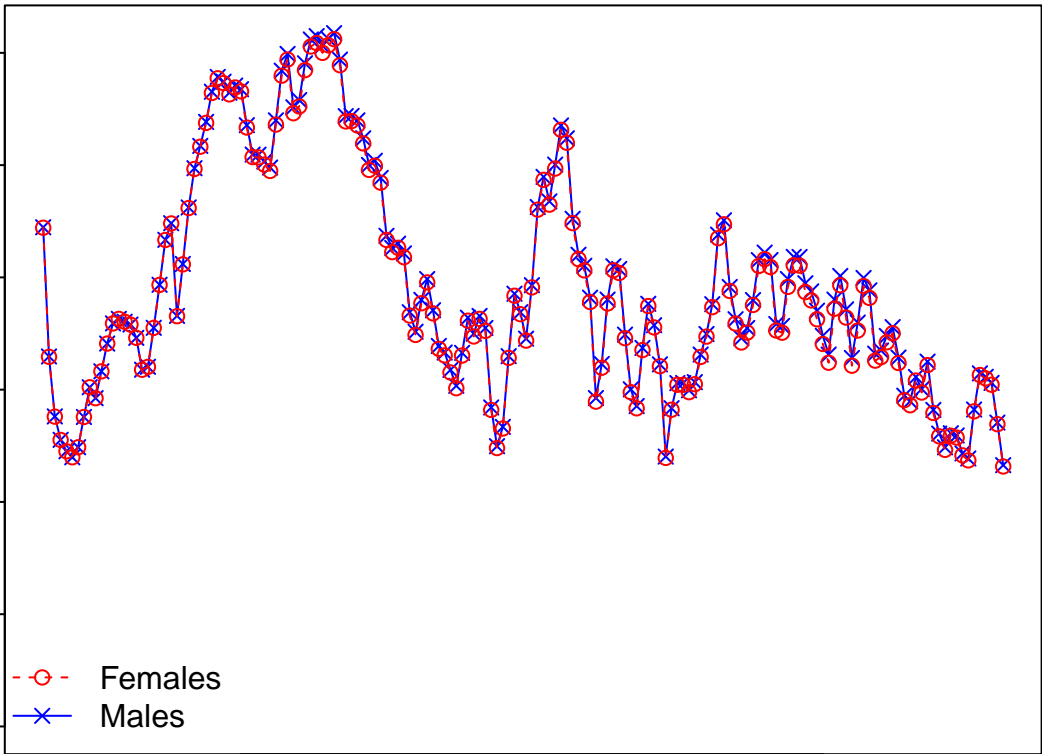
176

Year



Mean age (yr)

6
5
4
3
2
1
0



-o- Females
-x- Males

Year

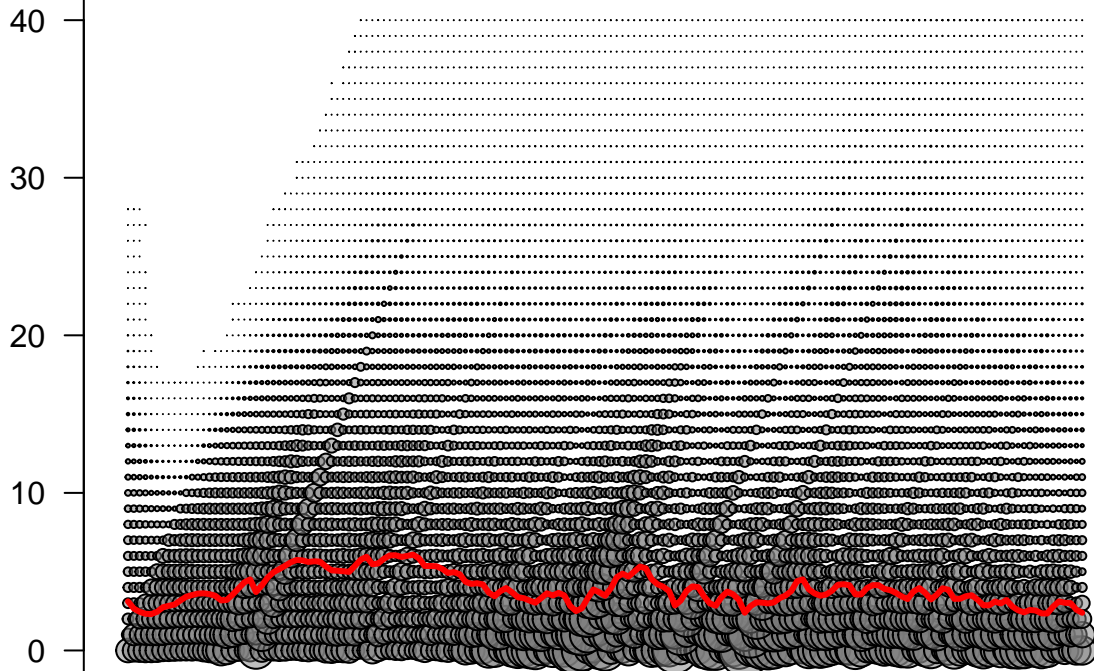
50

100

150

Age

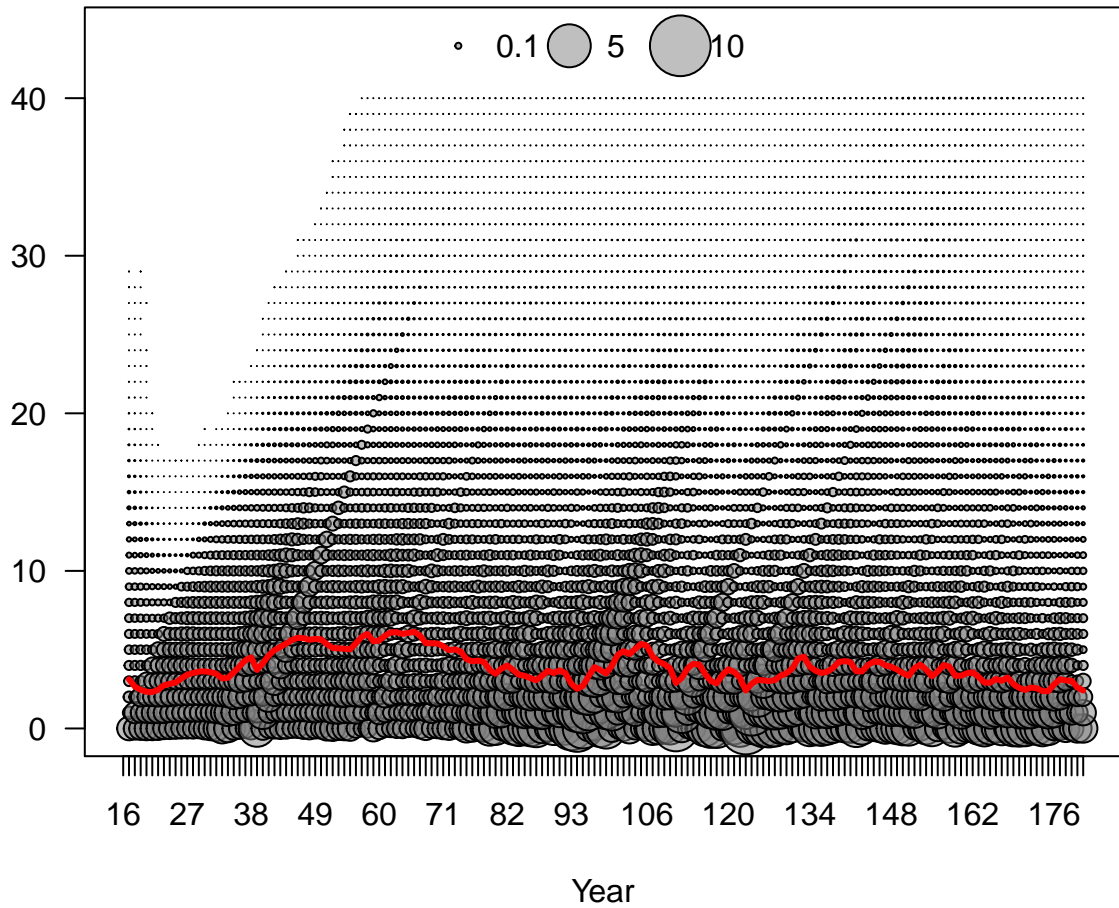
○ 0.1 ○ 5 ○ 10



16 27 38 49 60 71 82 93 106 120 134 148 162 176

Year

Age



Mean age (yr)

6
5
4
3
2
1
0

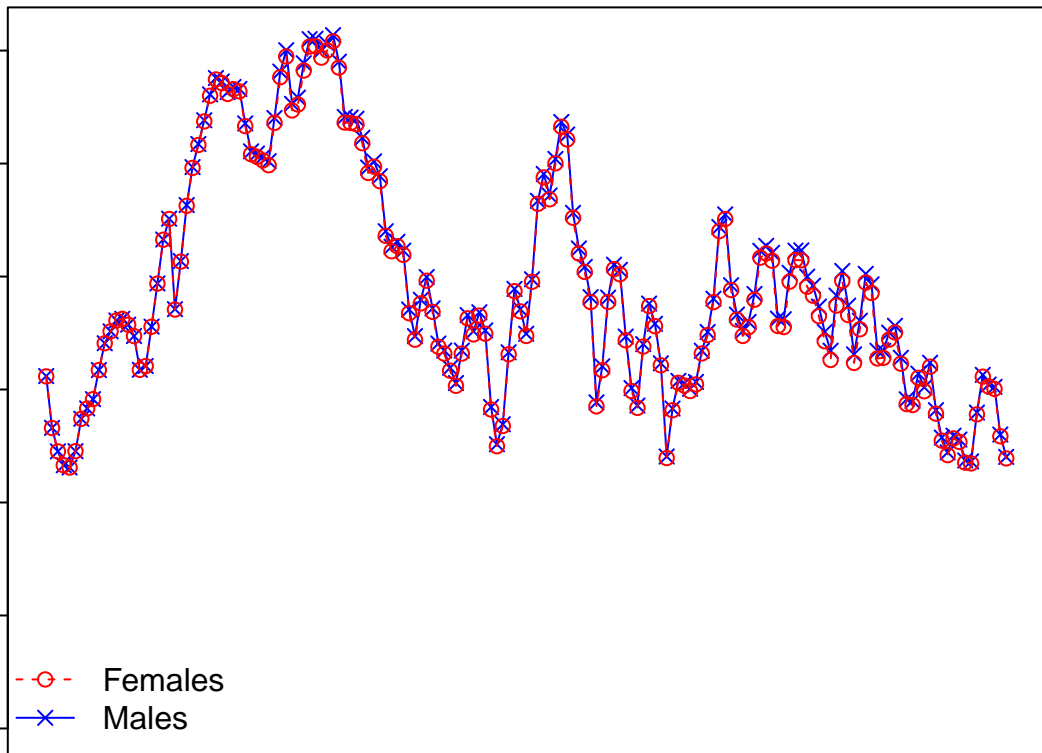
-o- Females
-x- Males

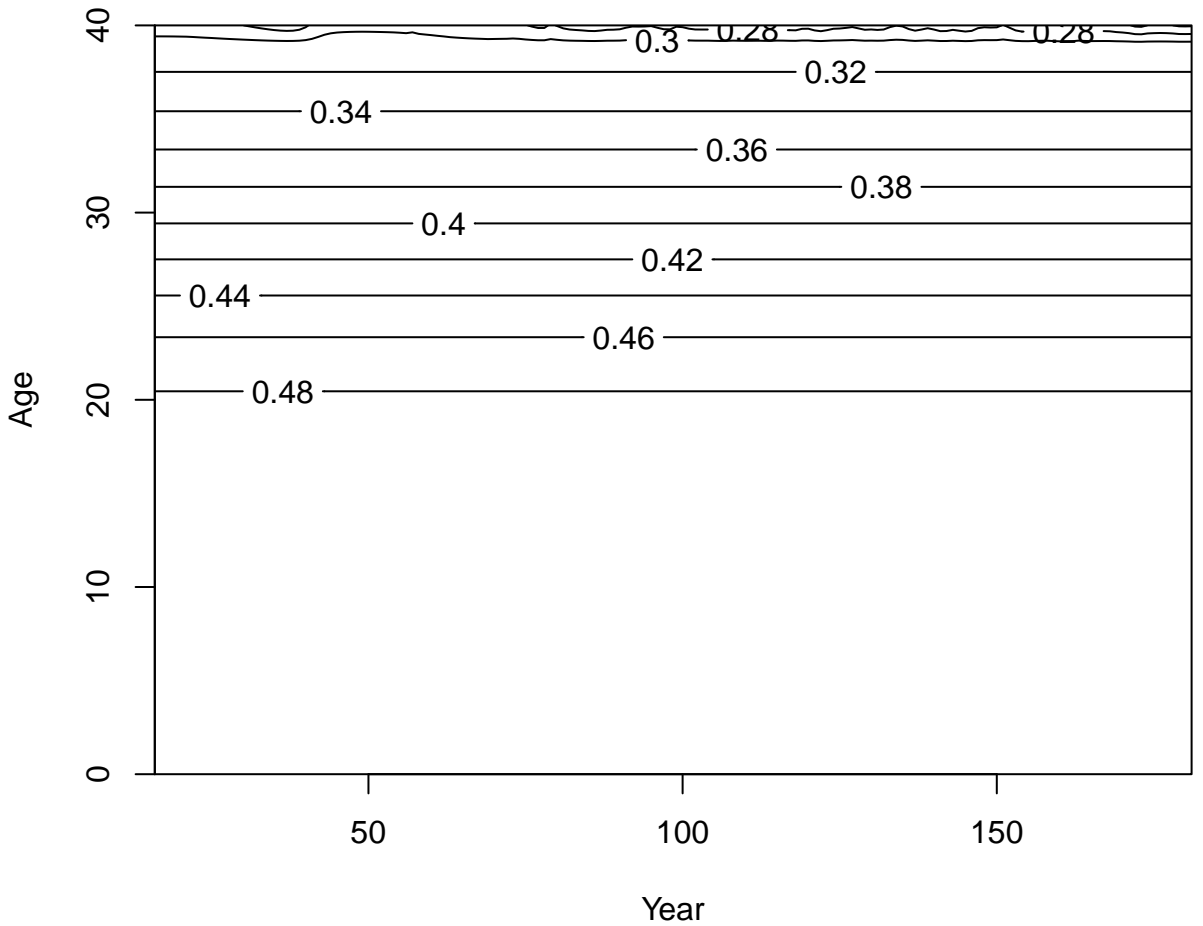
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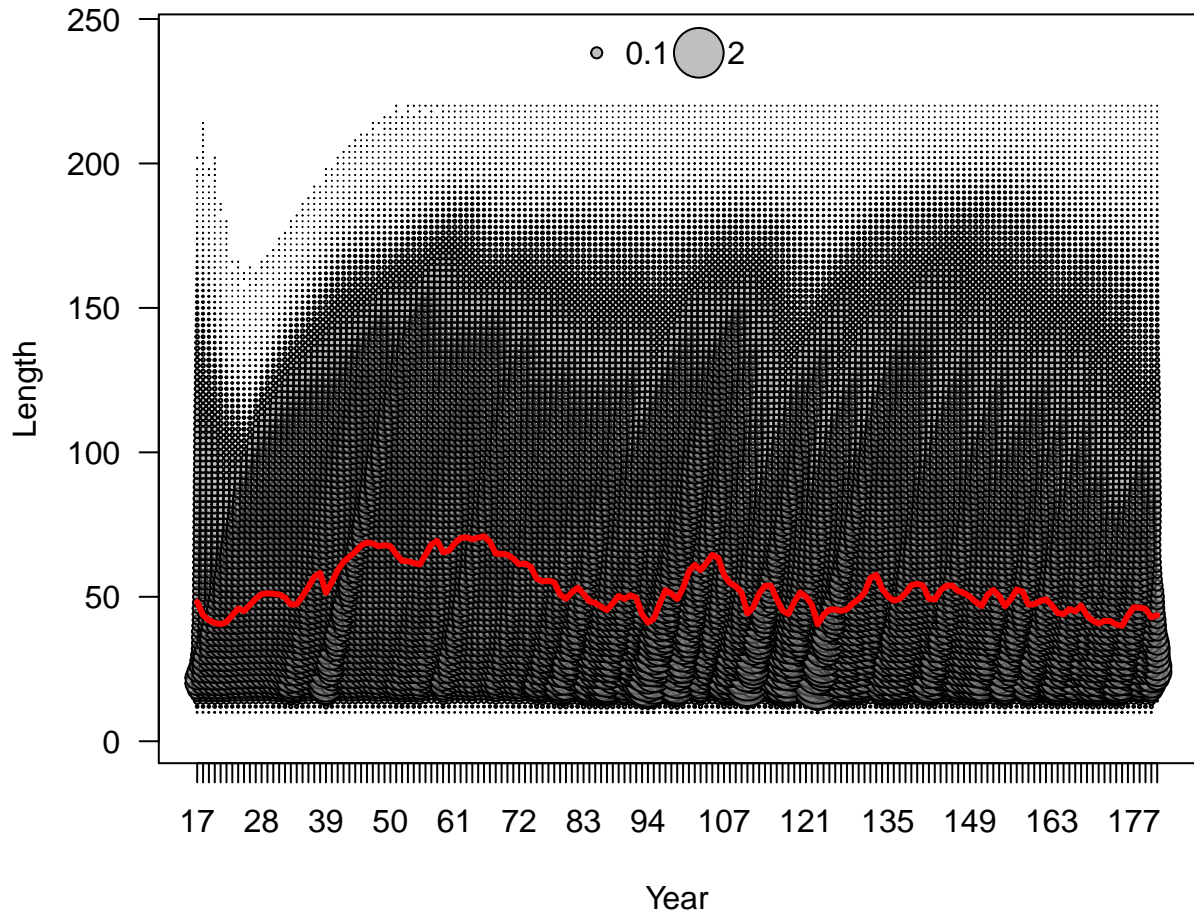
100

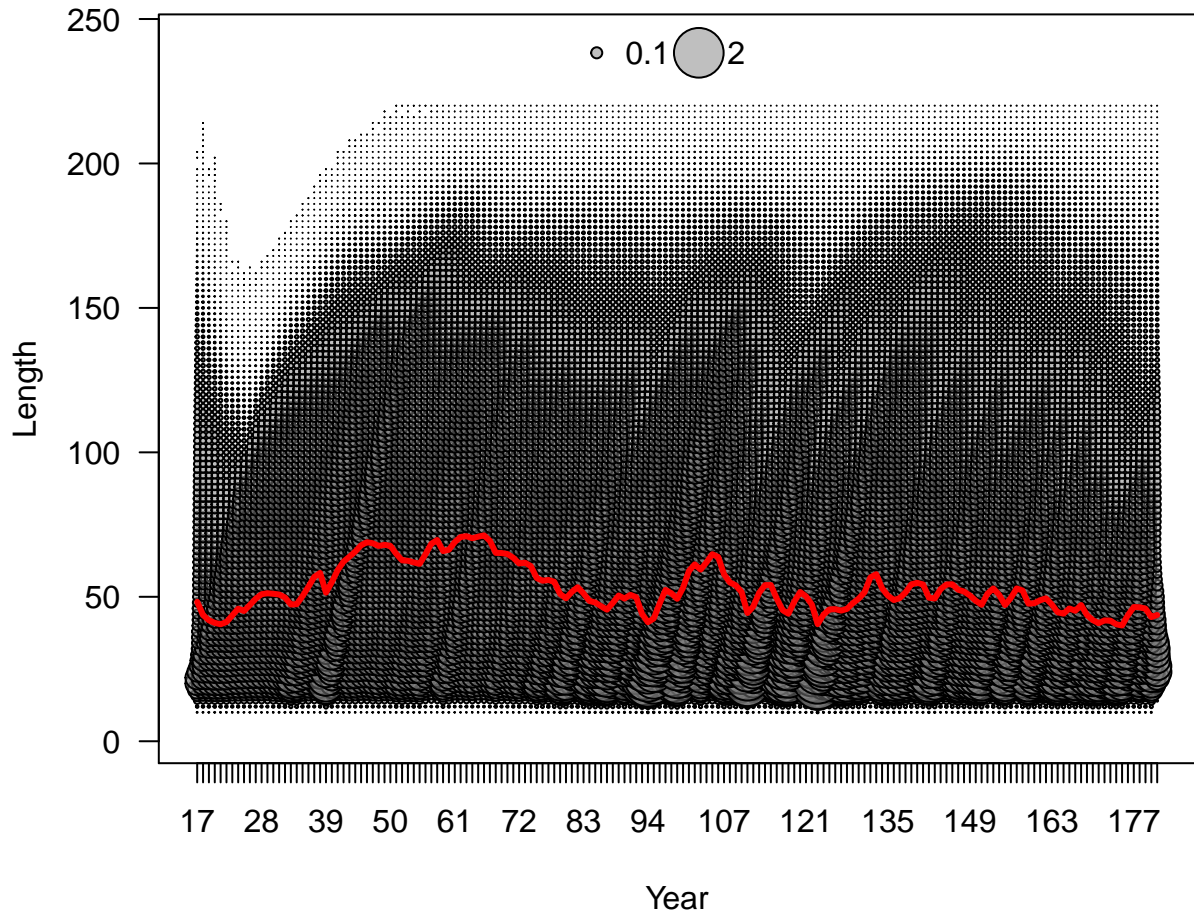
150

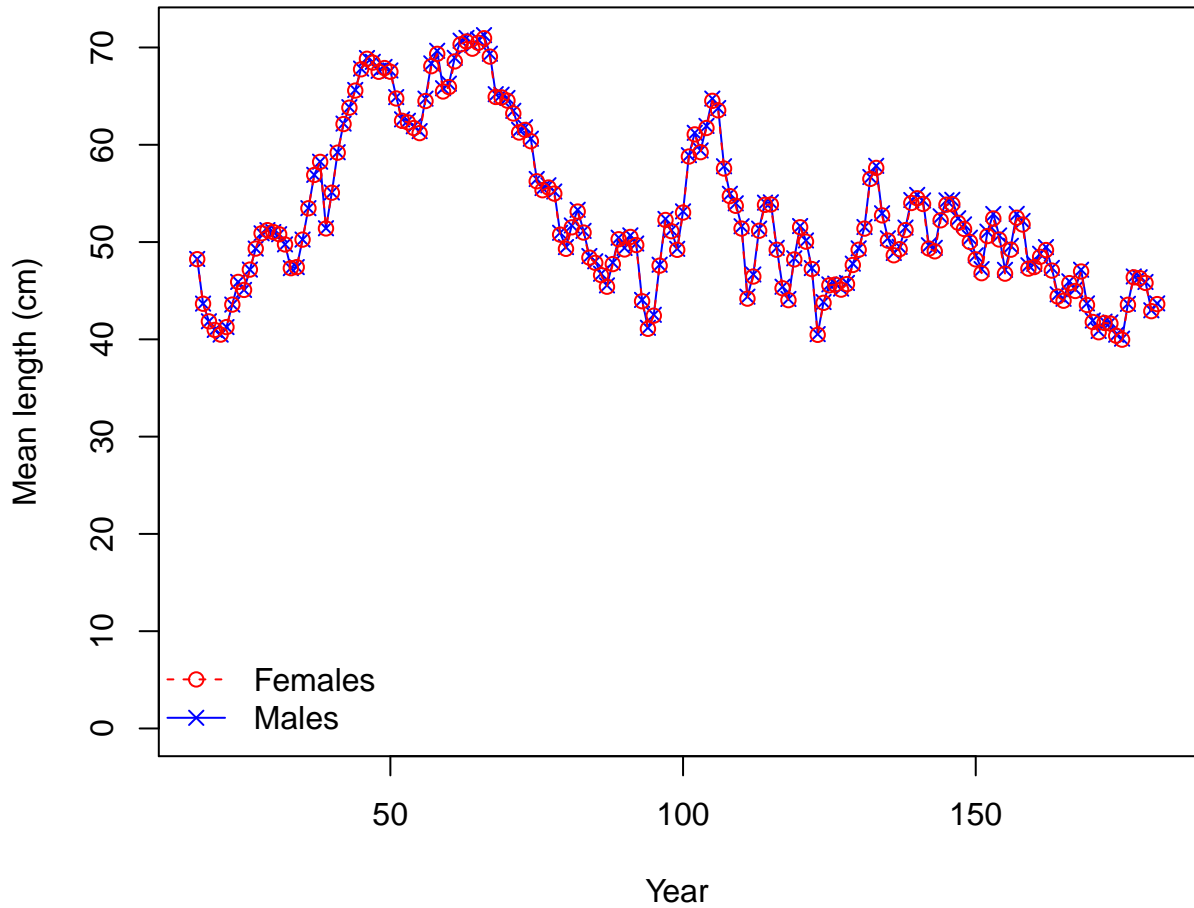
Year

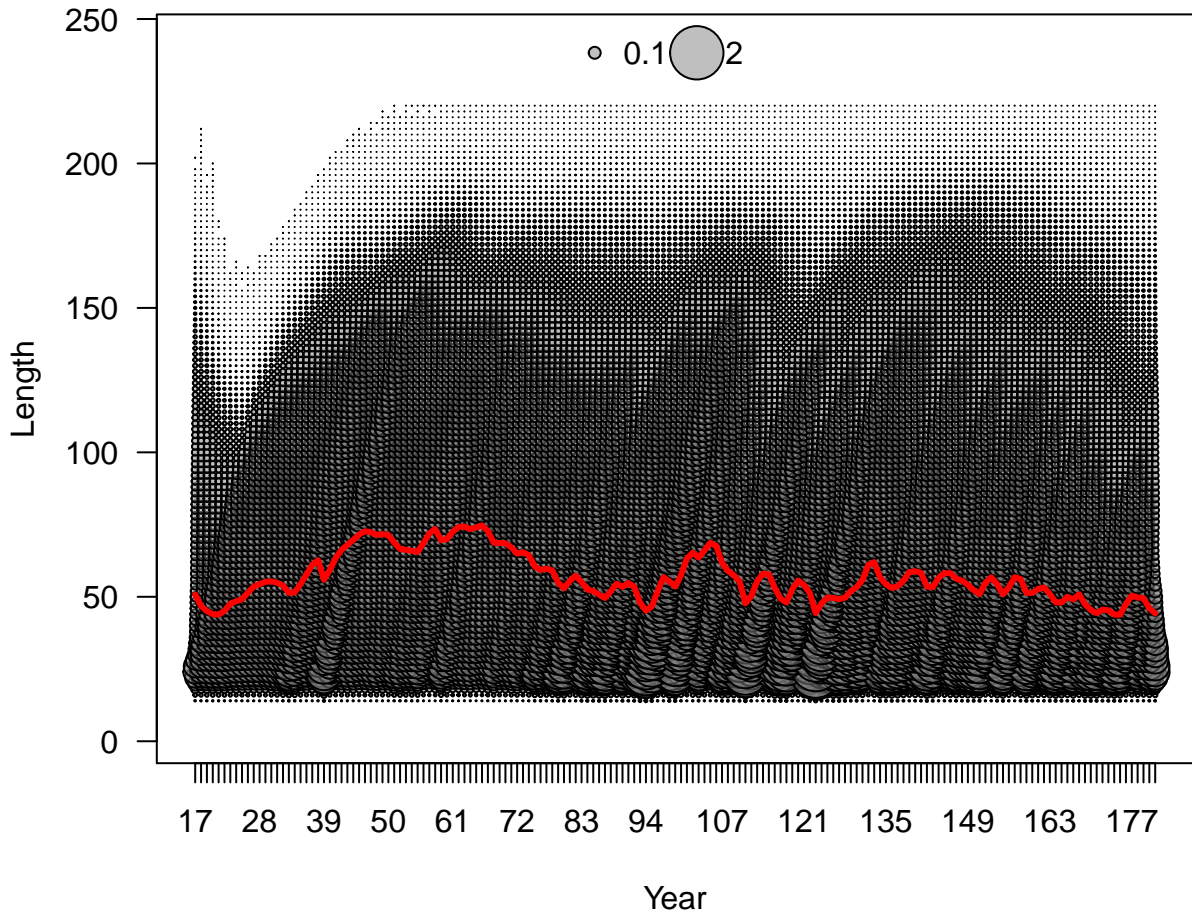


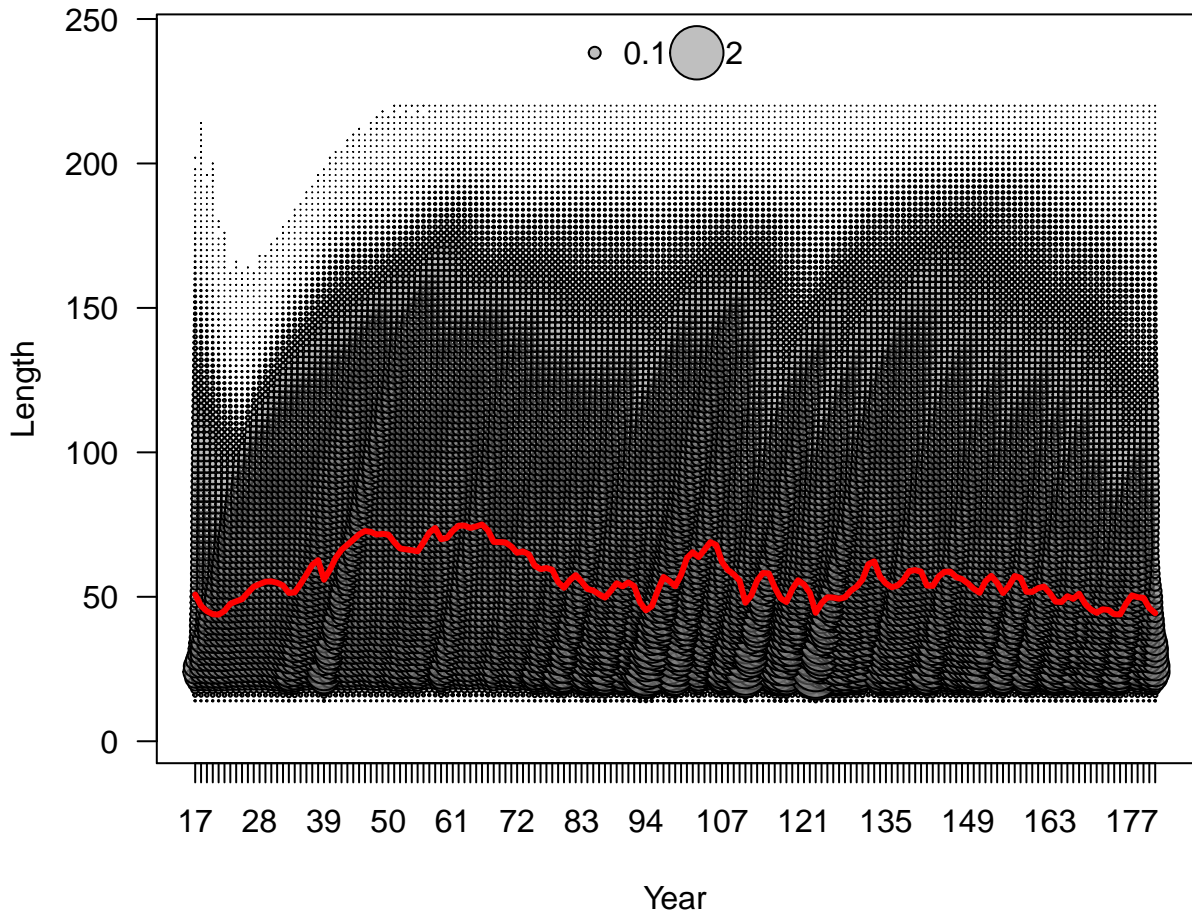


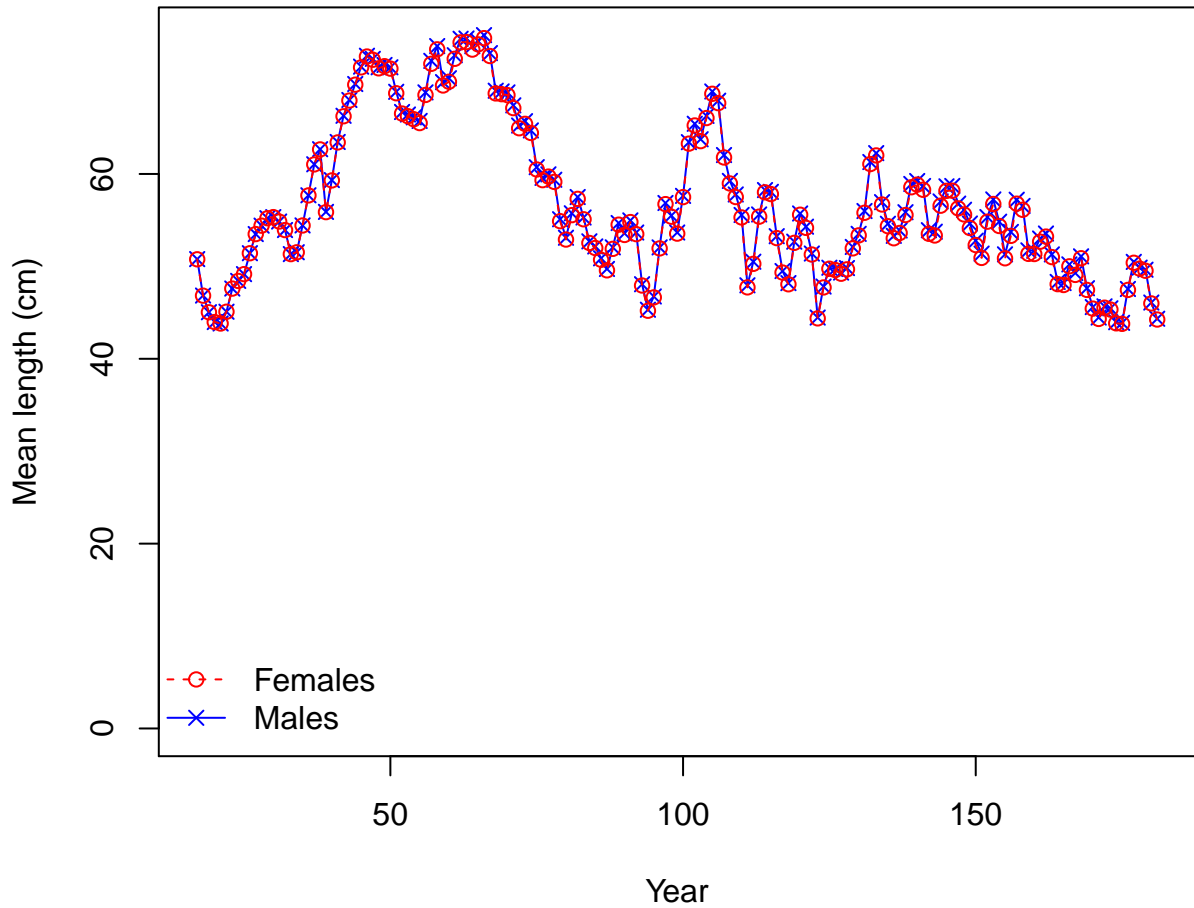




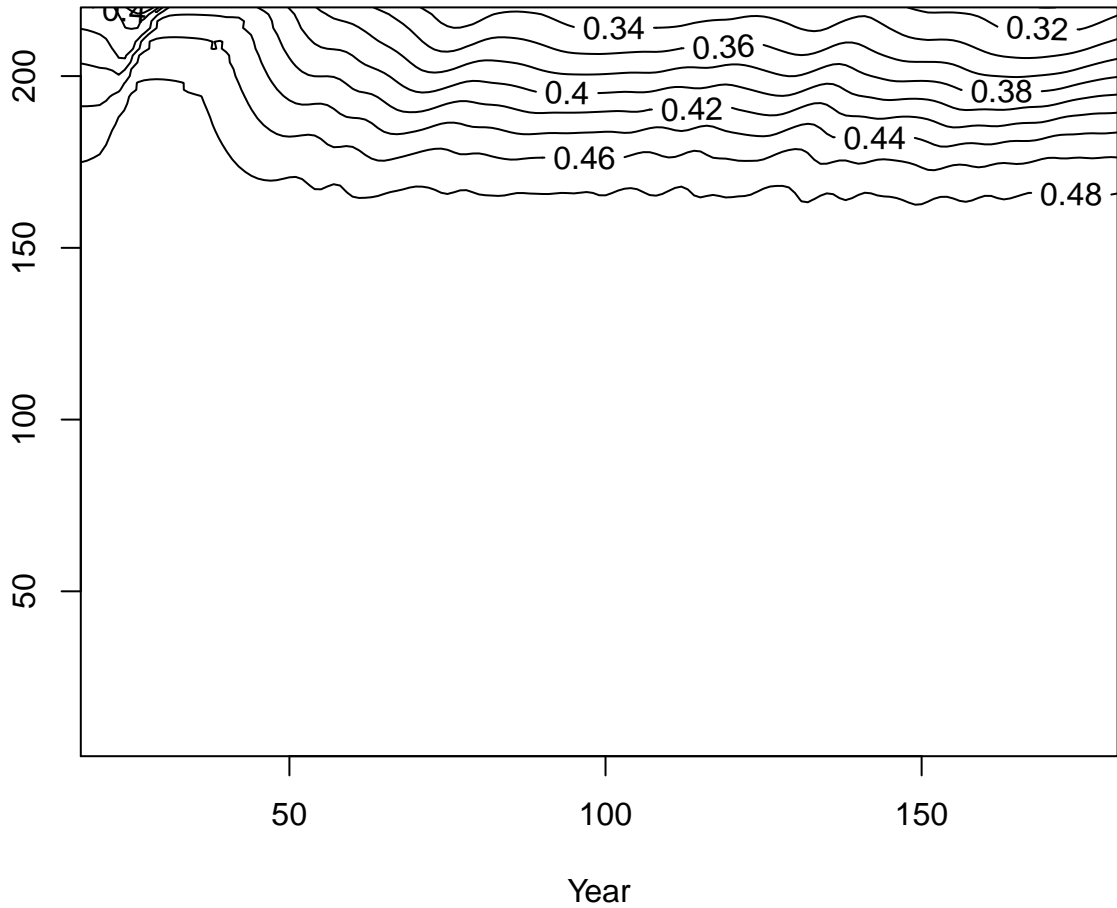


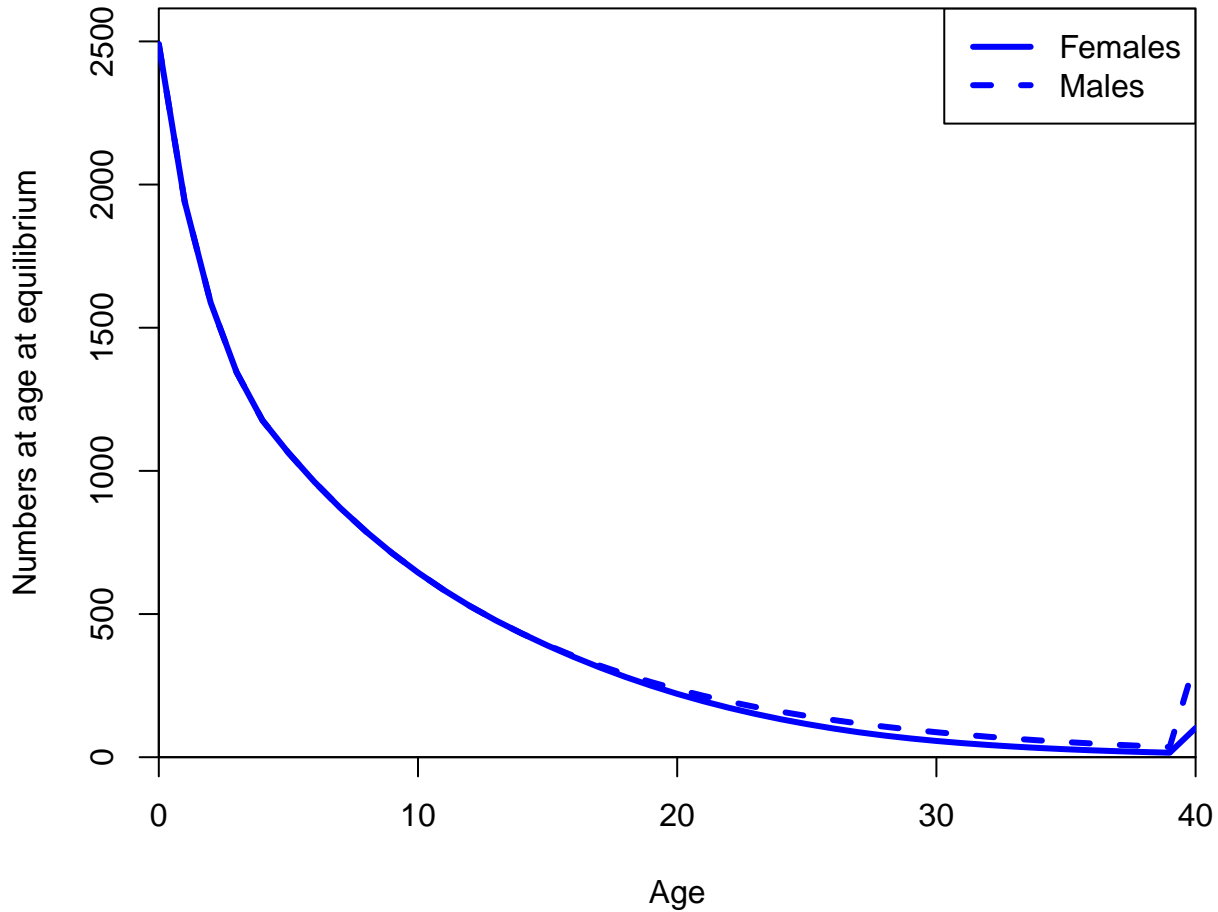


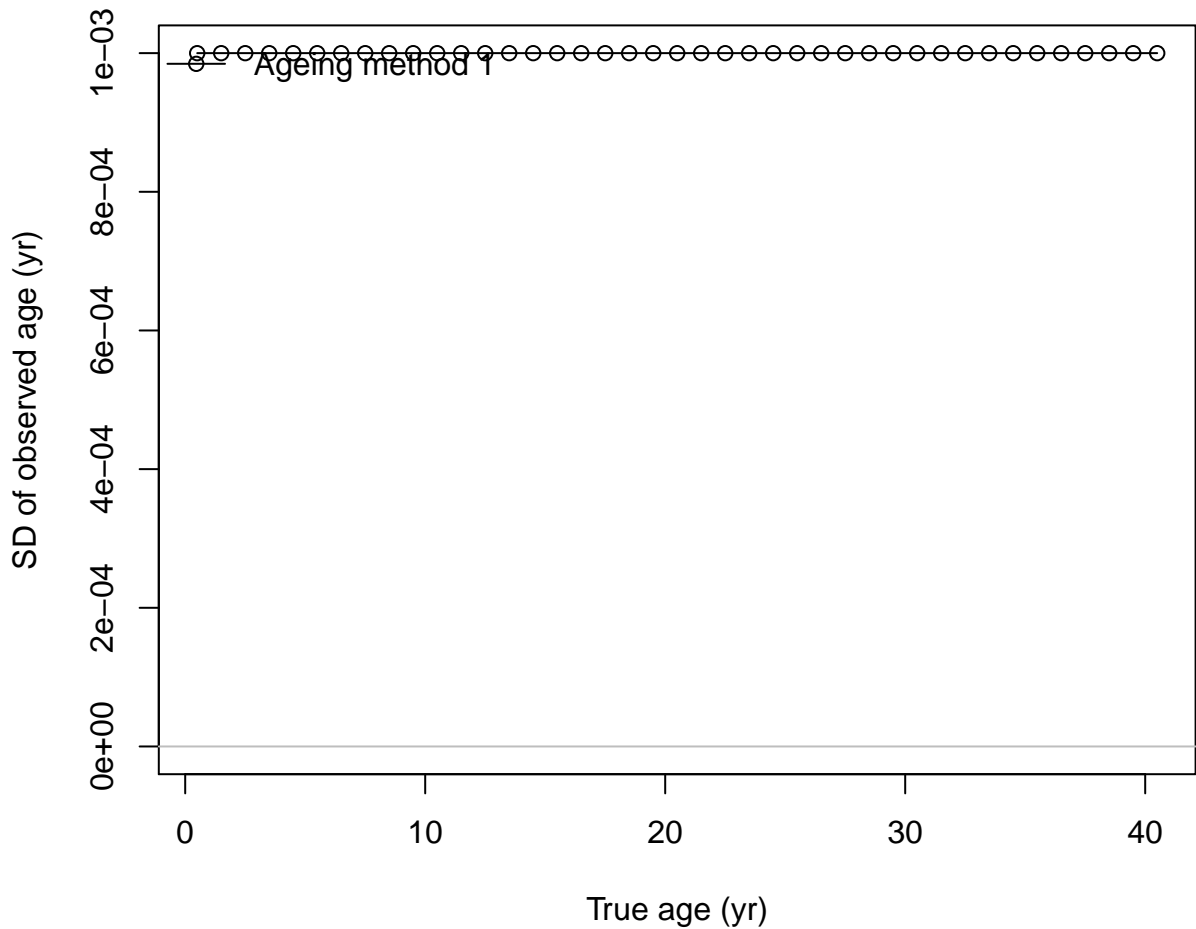




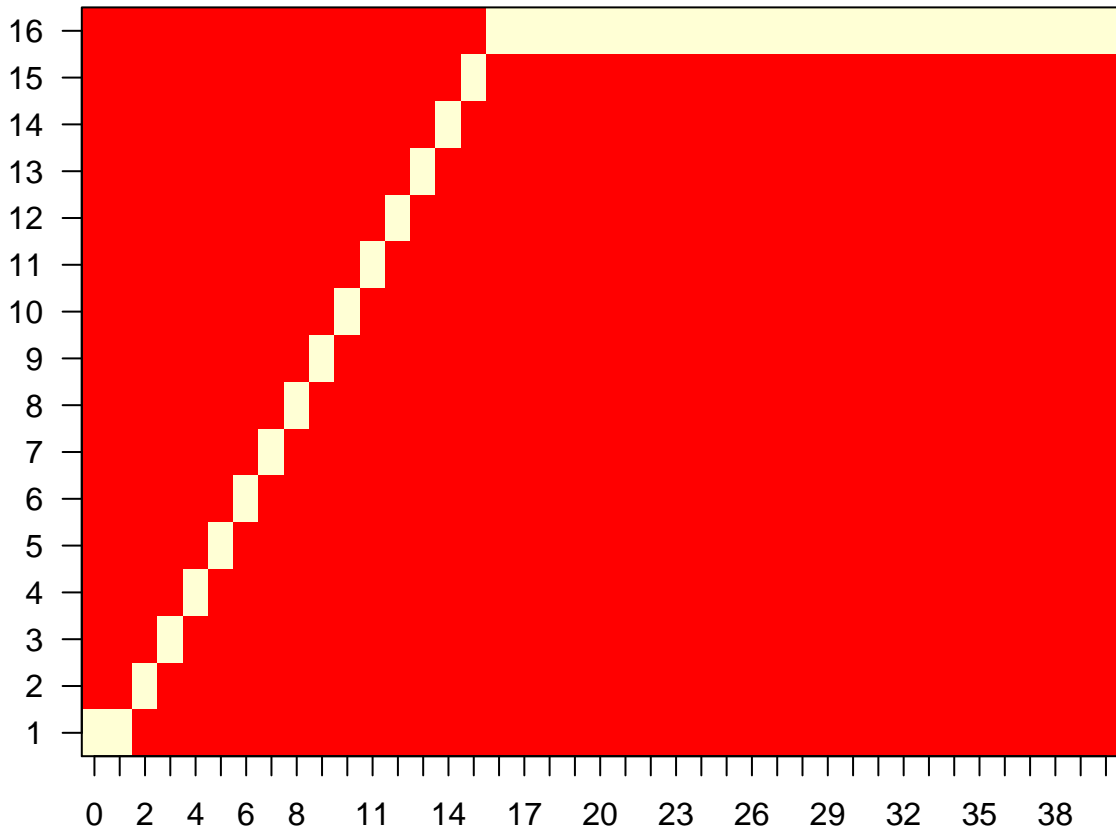
Length





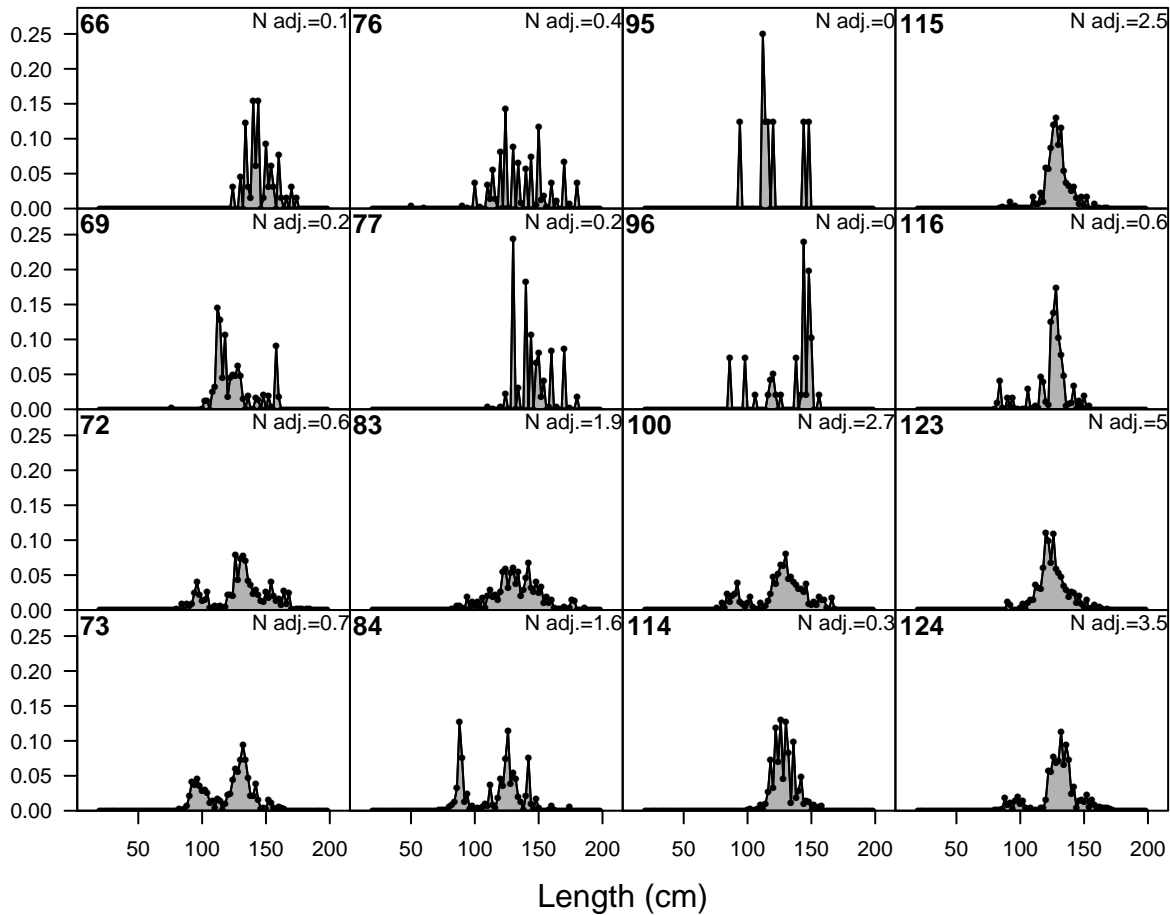


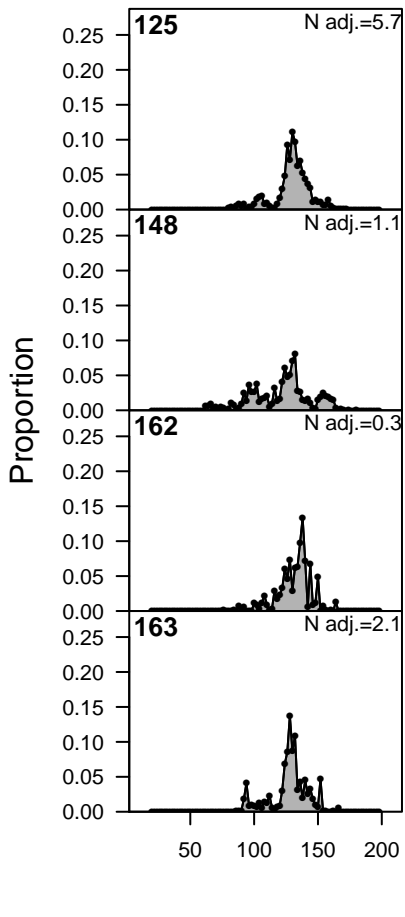
Observed age (yr)



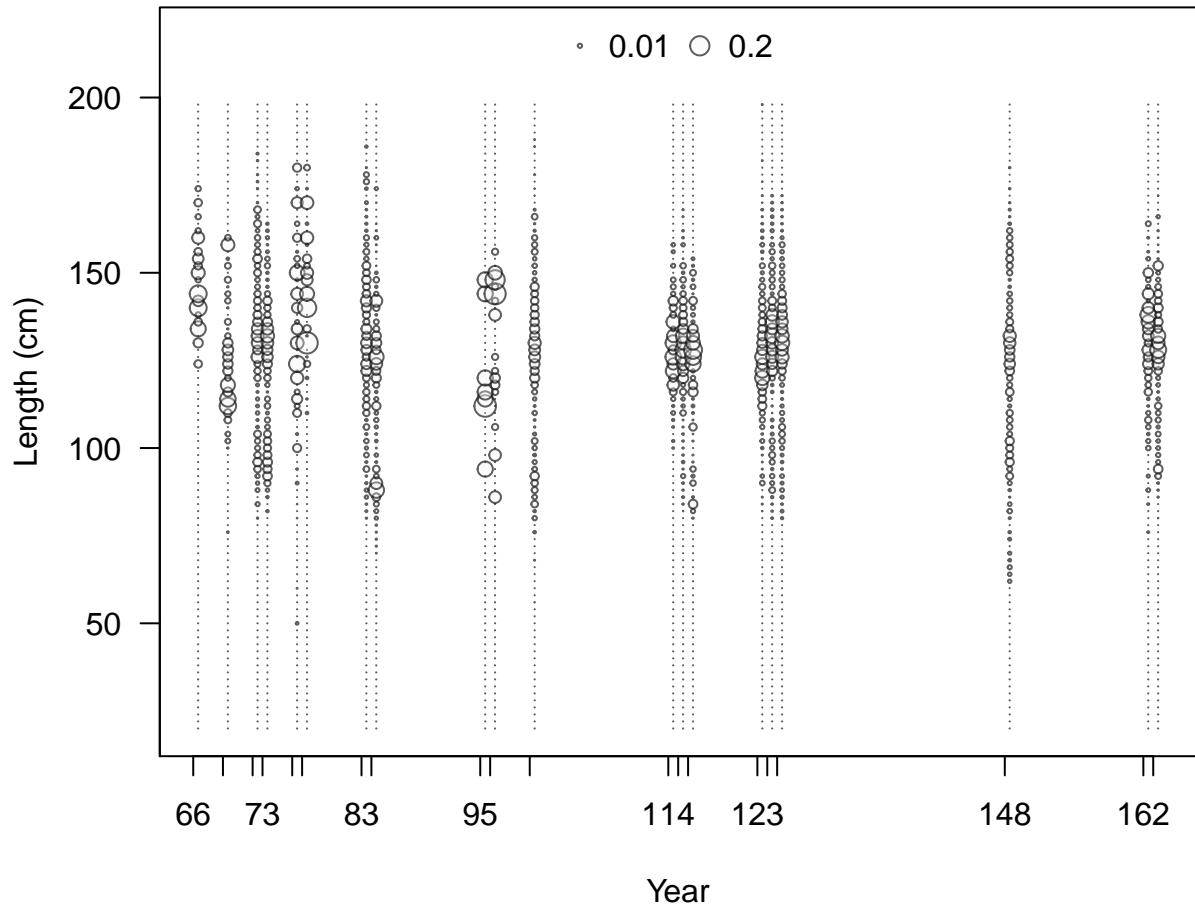
True age (yr)

Proportion

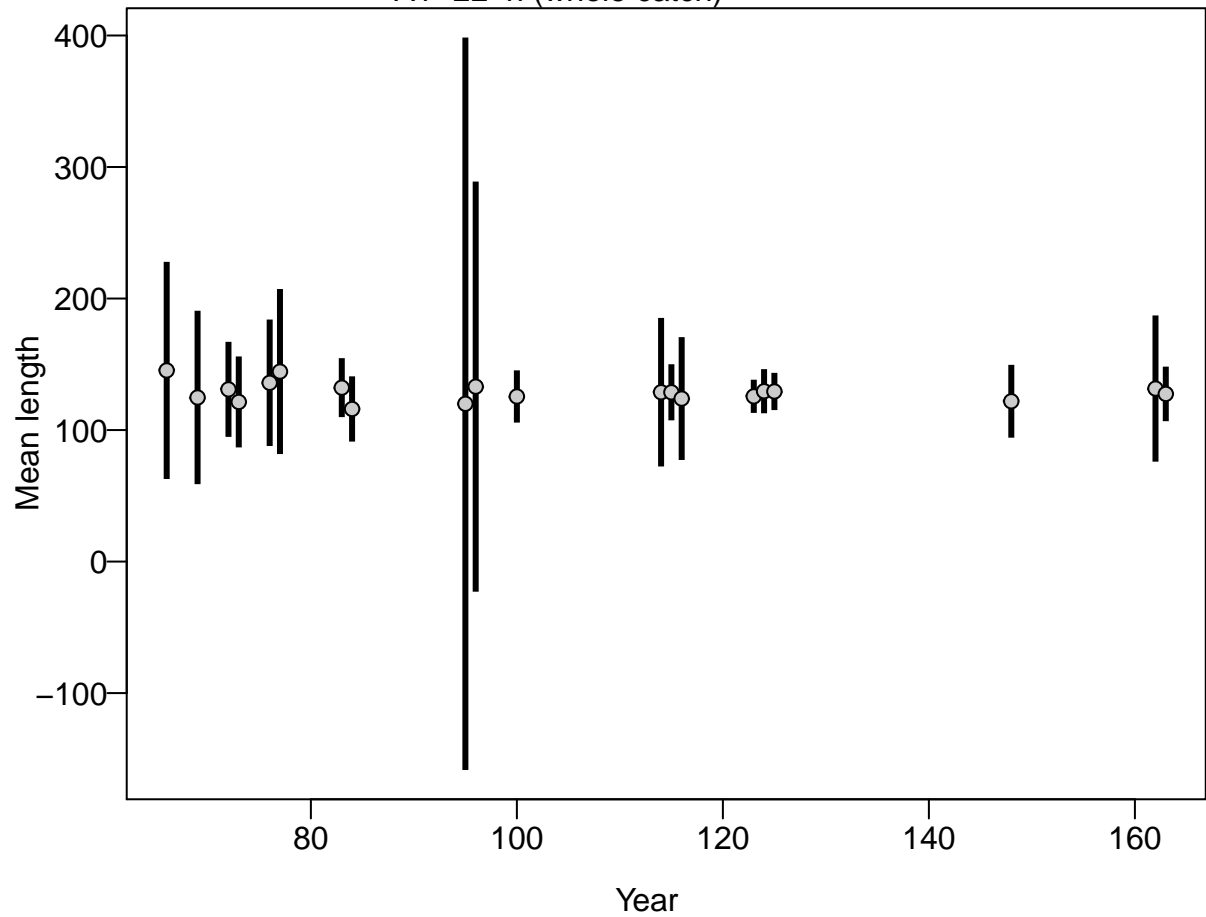




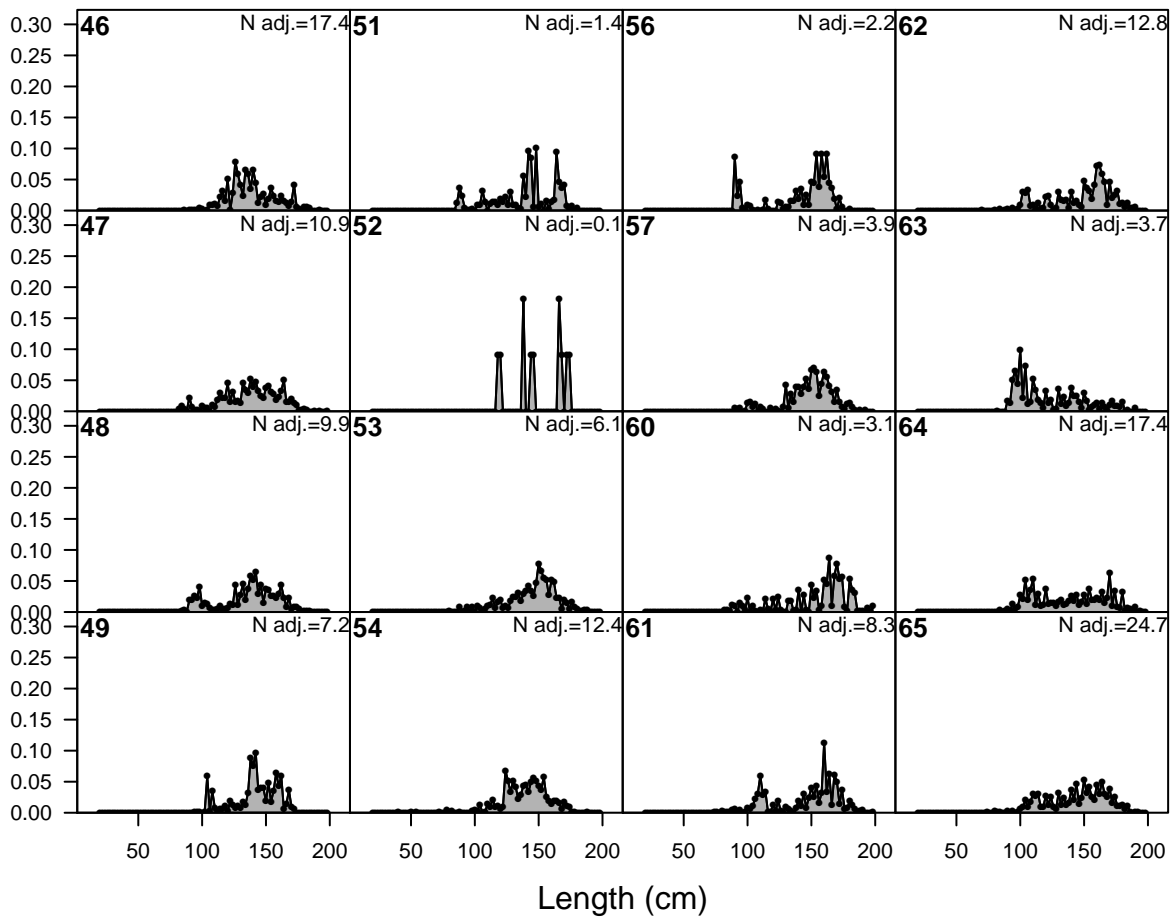
Length (cm)



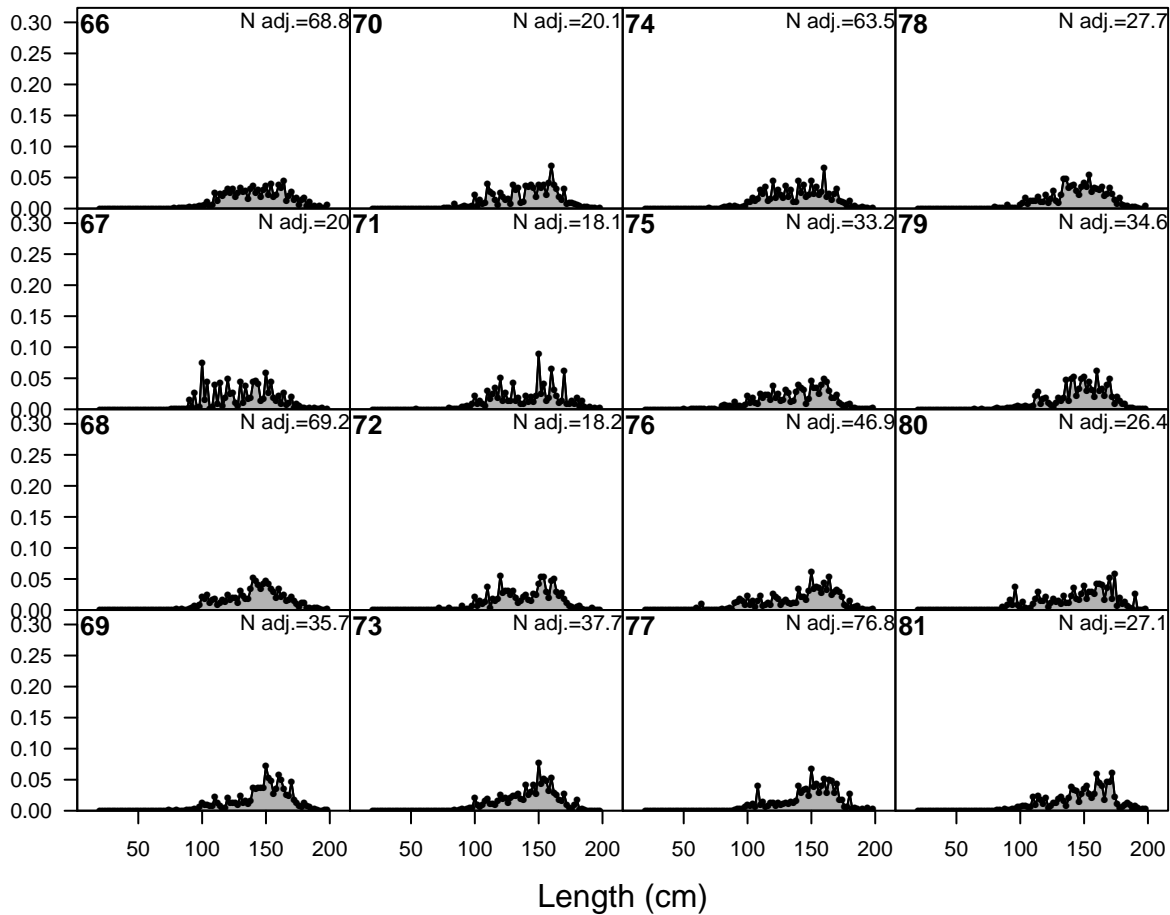
A1-LL-n (whole catch)



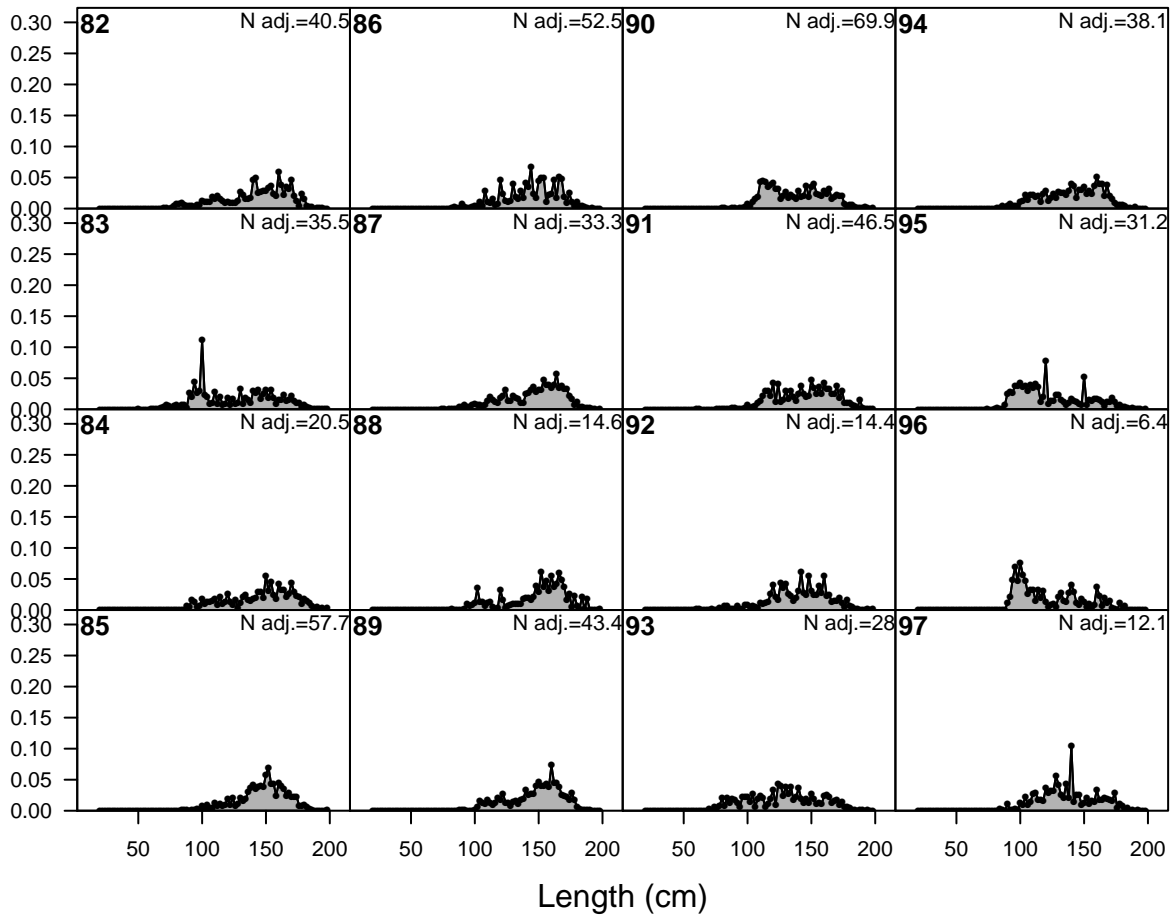
Proportion



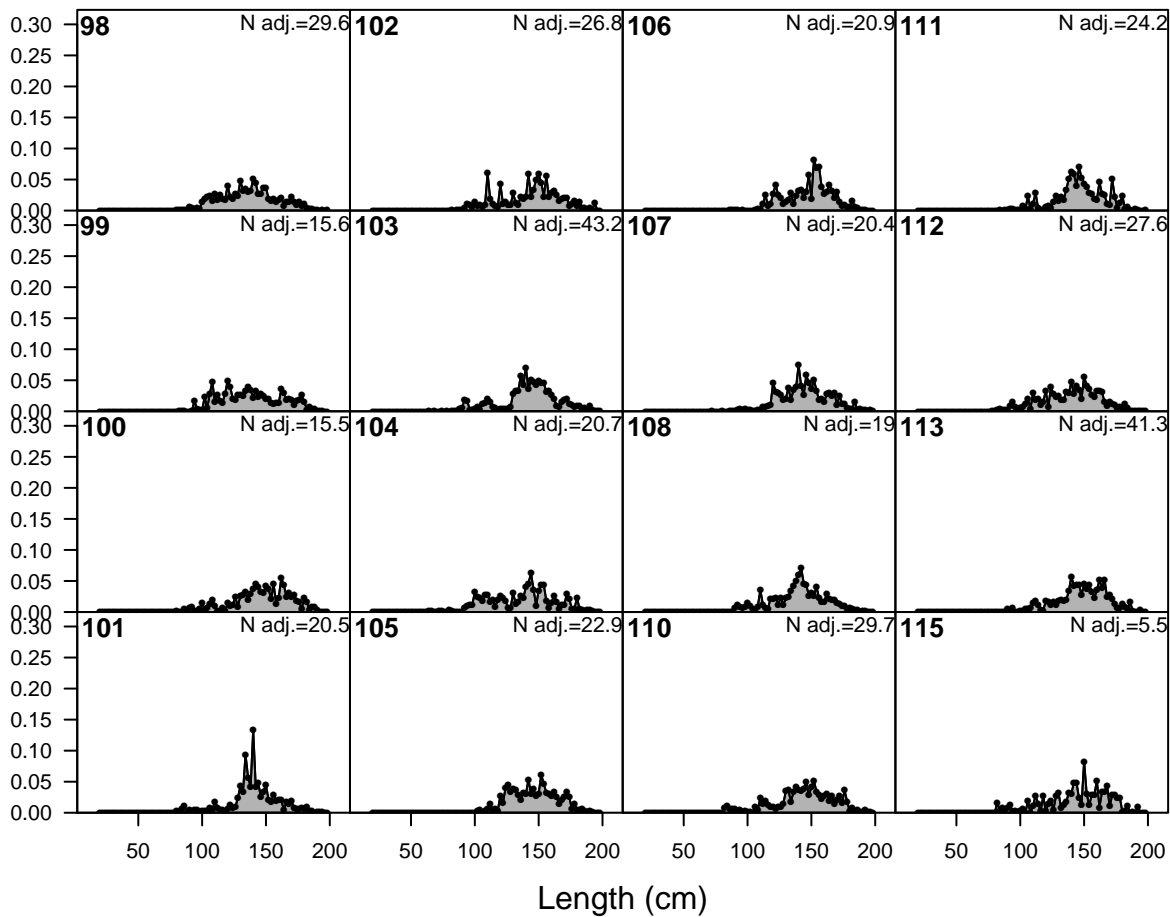
Proportion



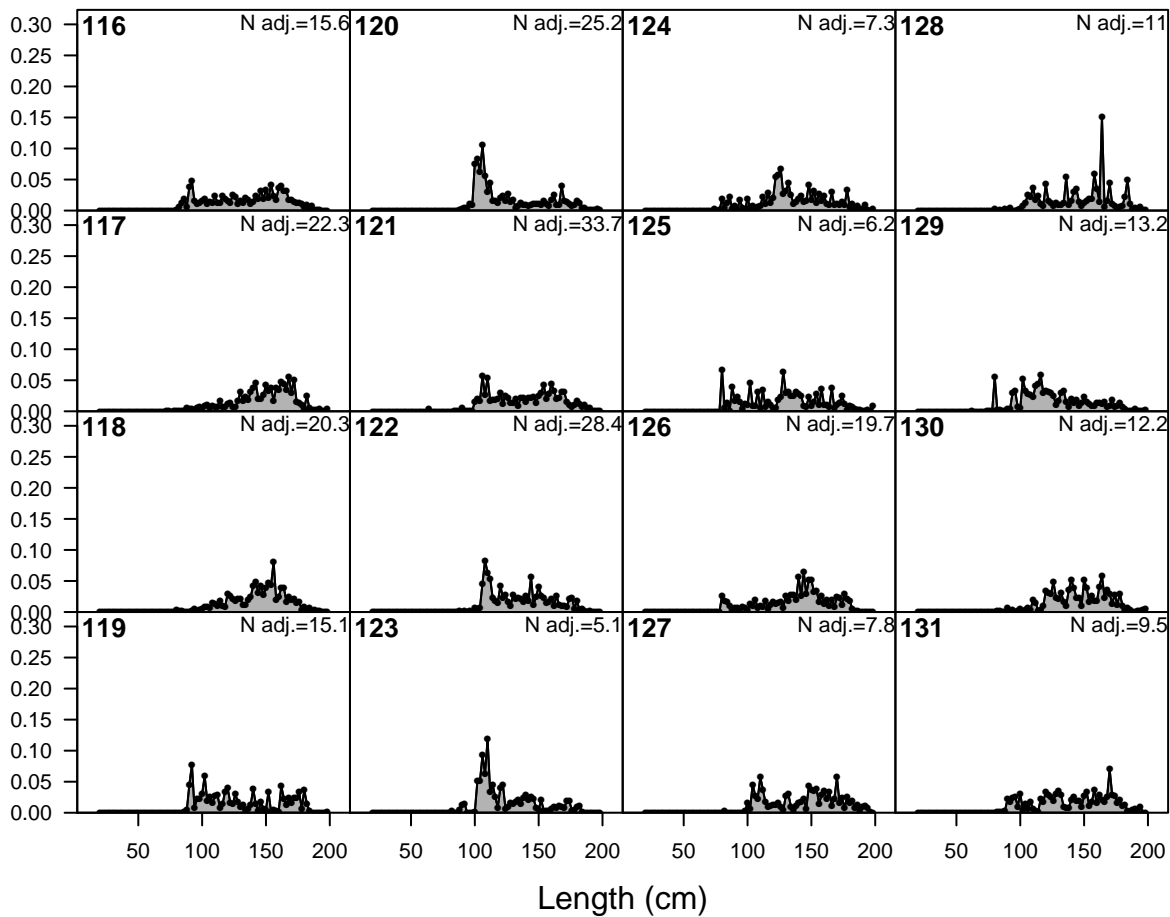
Proportion



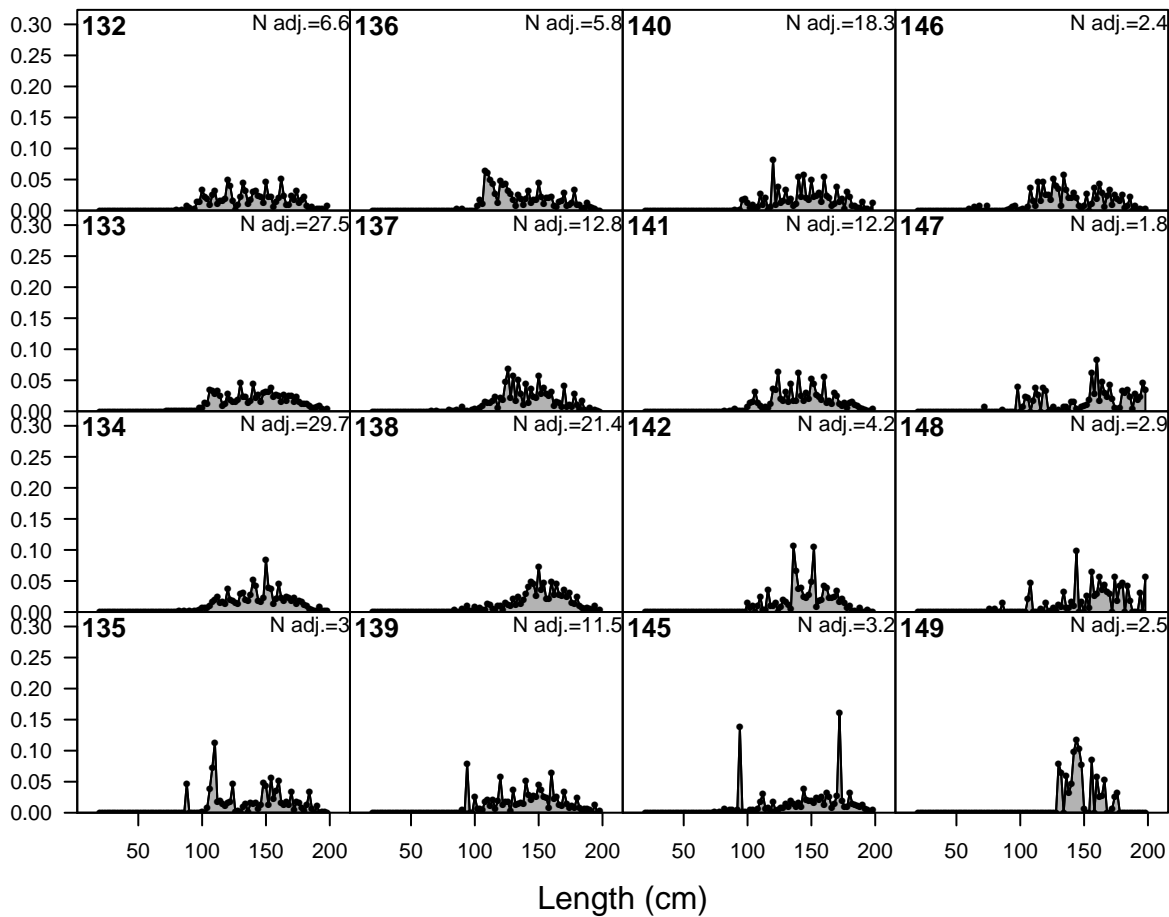
Proportion



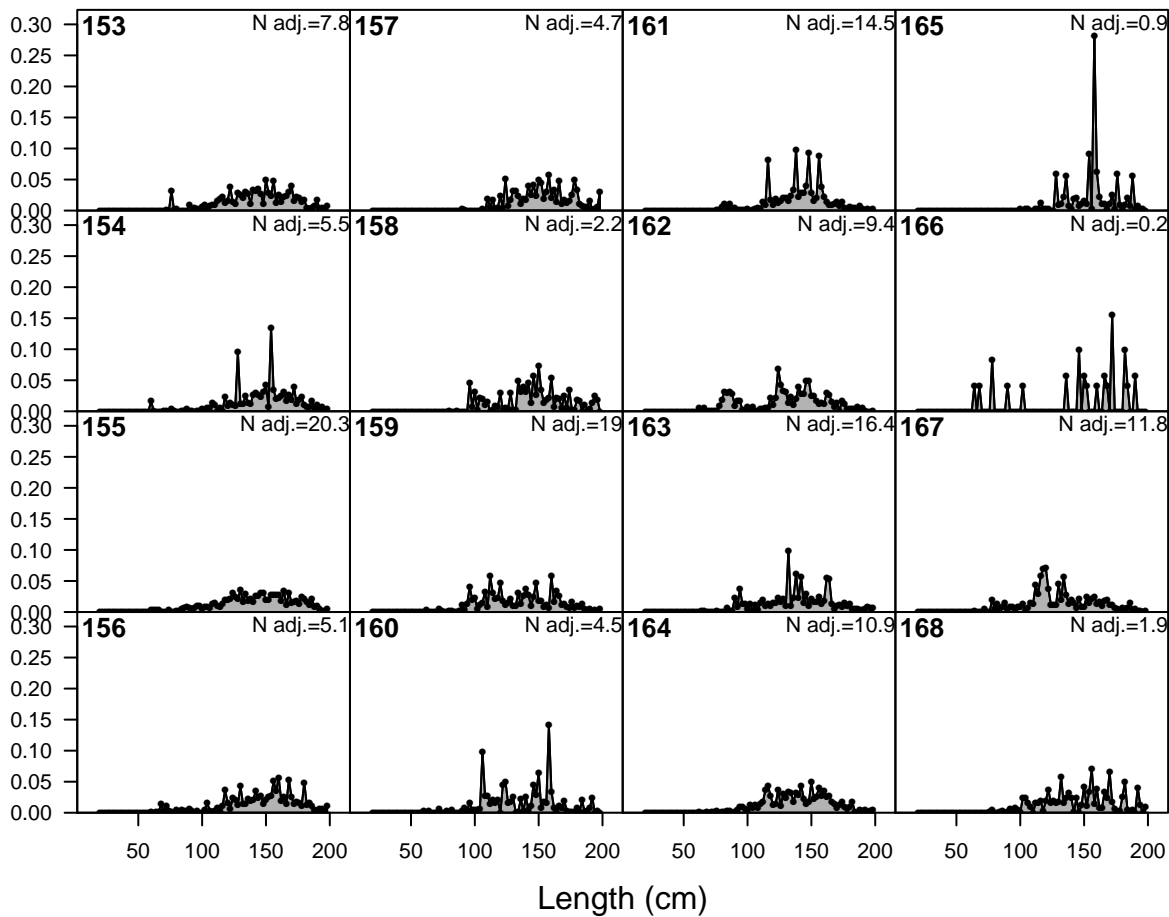
Proportion



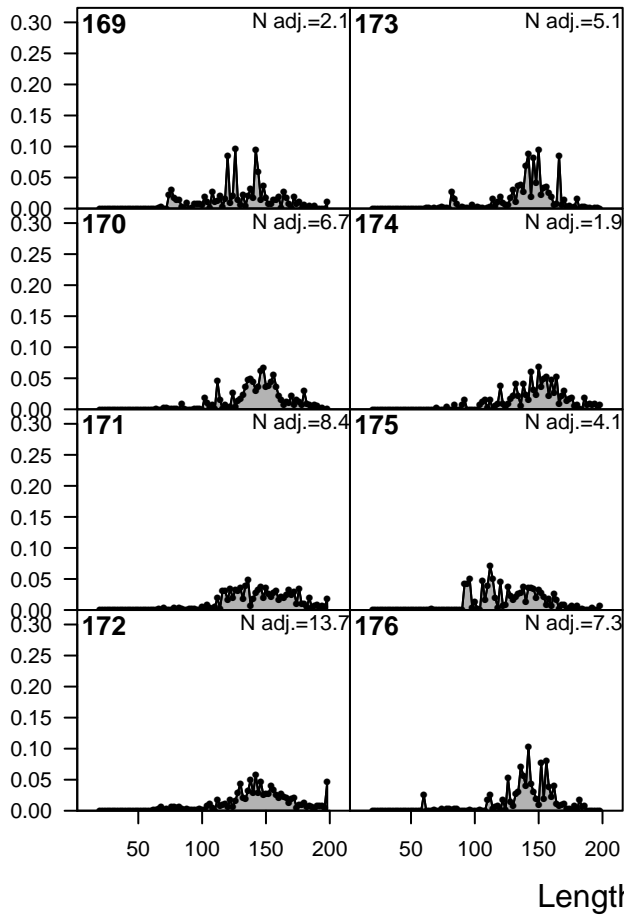
Proportion

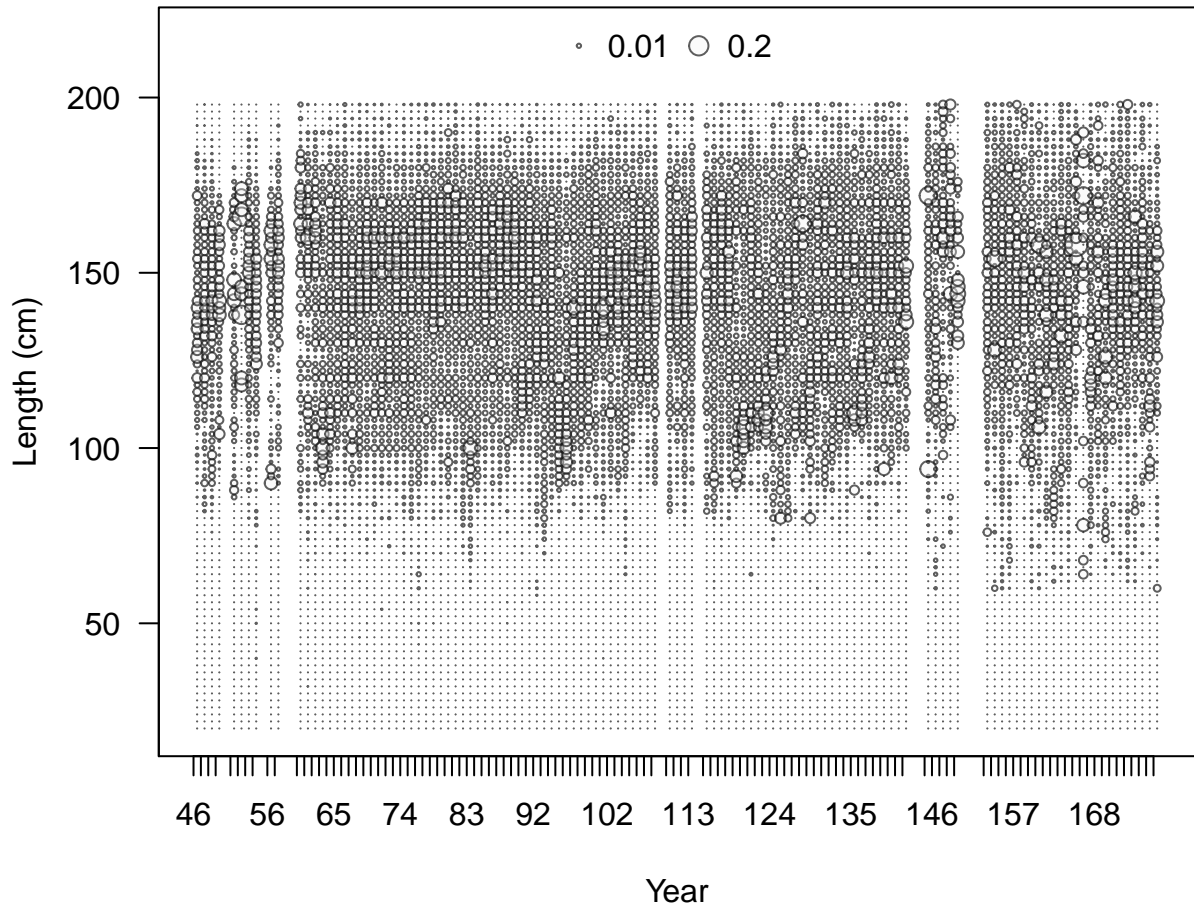


Proportion

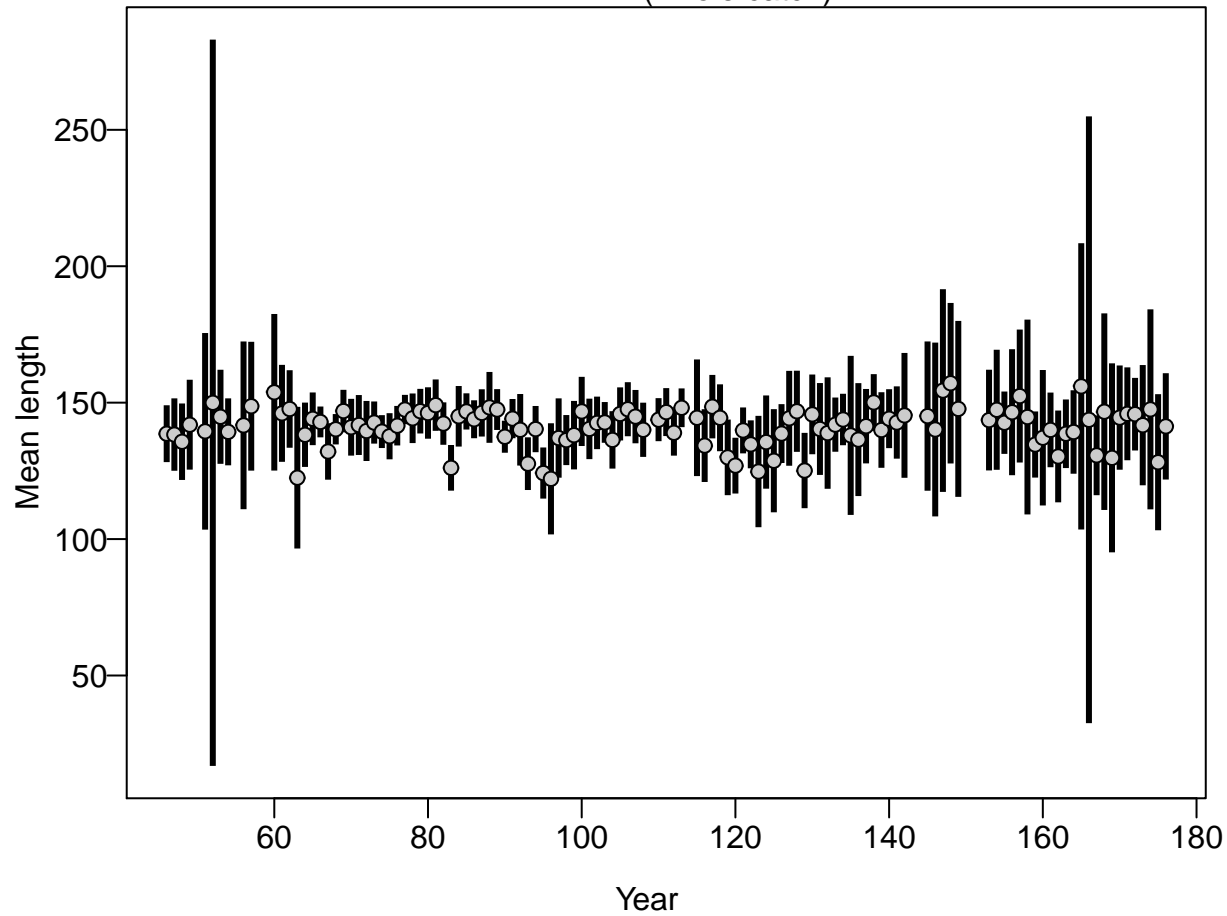


Proportion

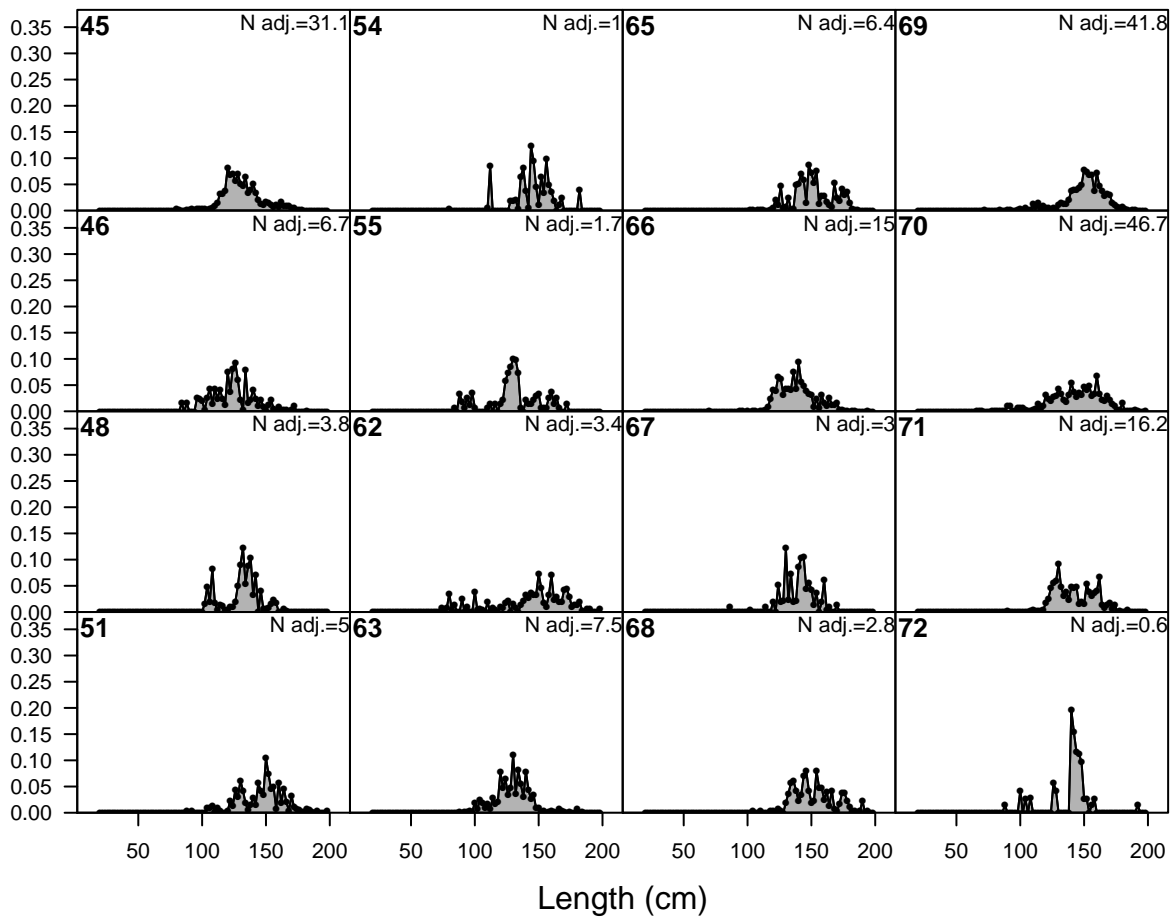




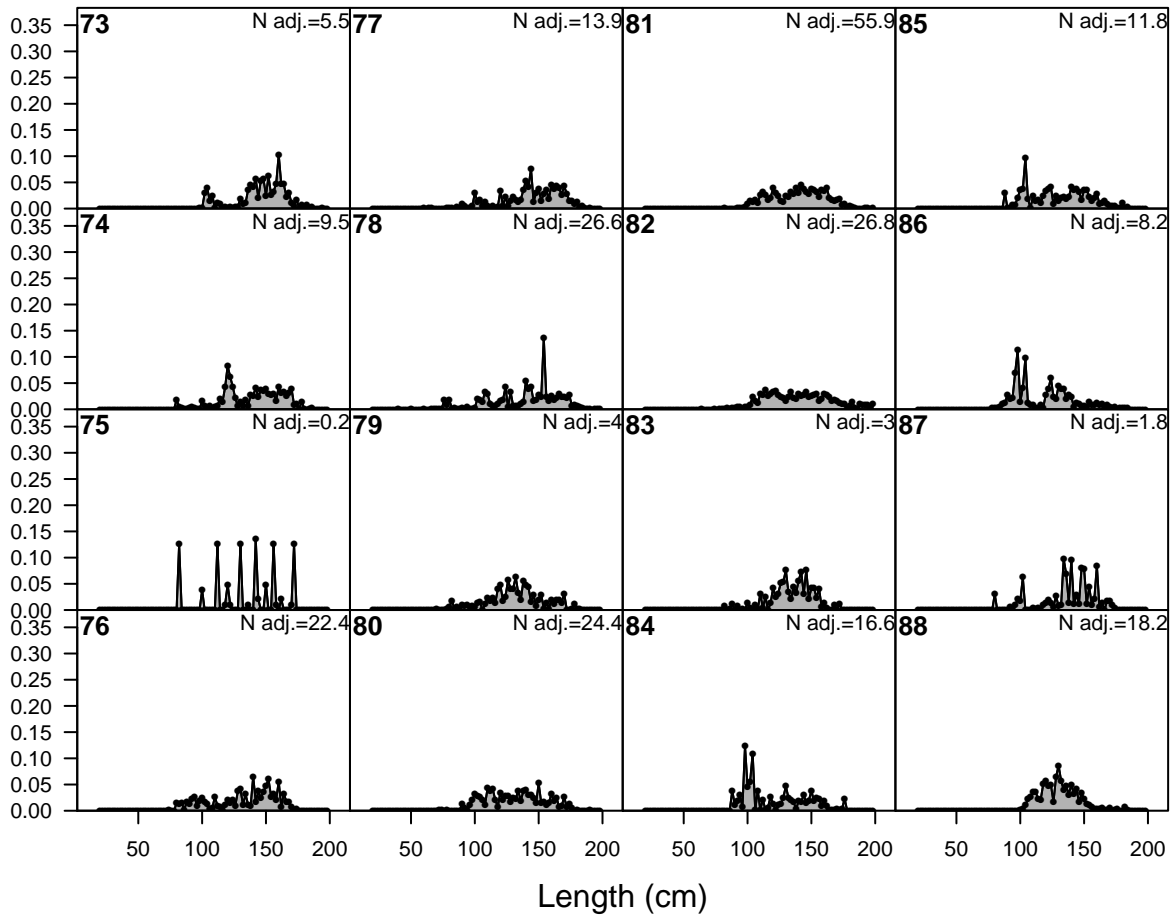
A2-LL-n (whole catch)



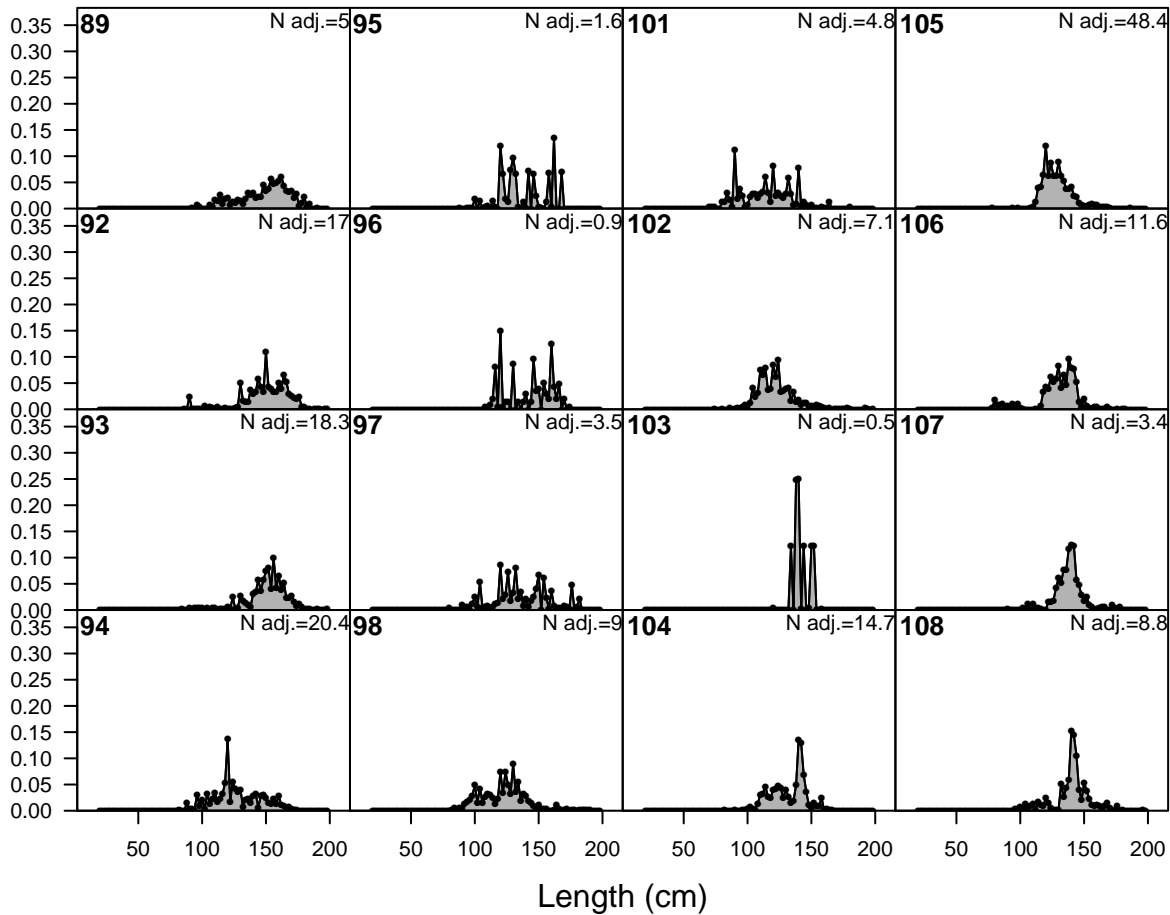
Proportion



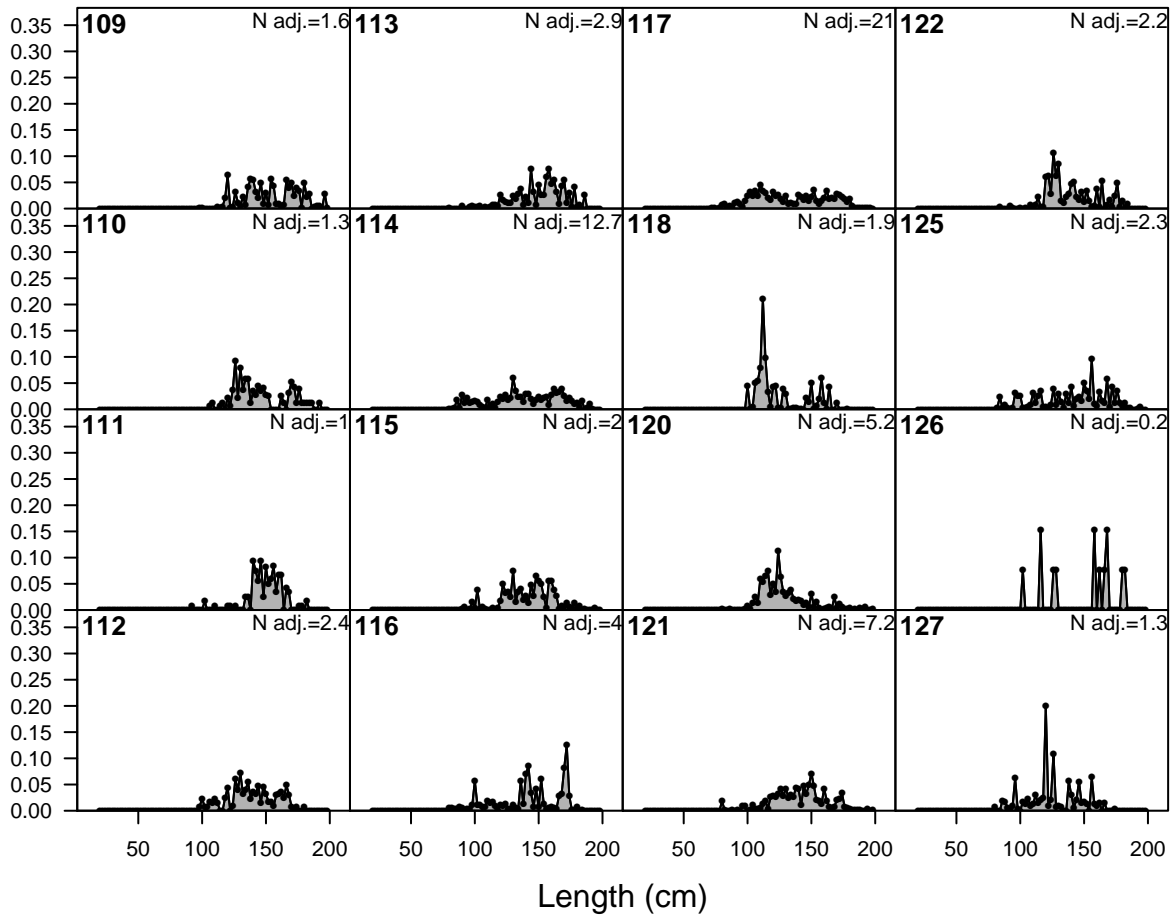
Proportion



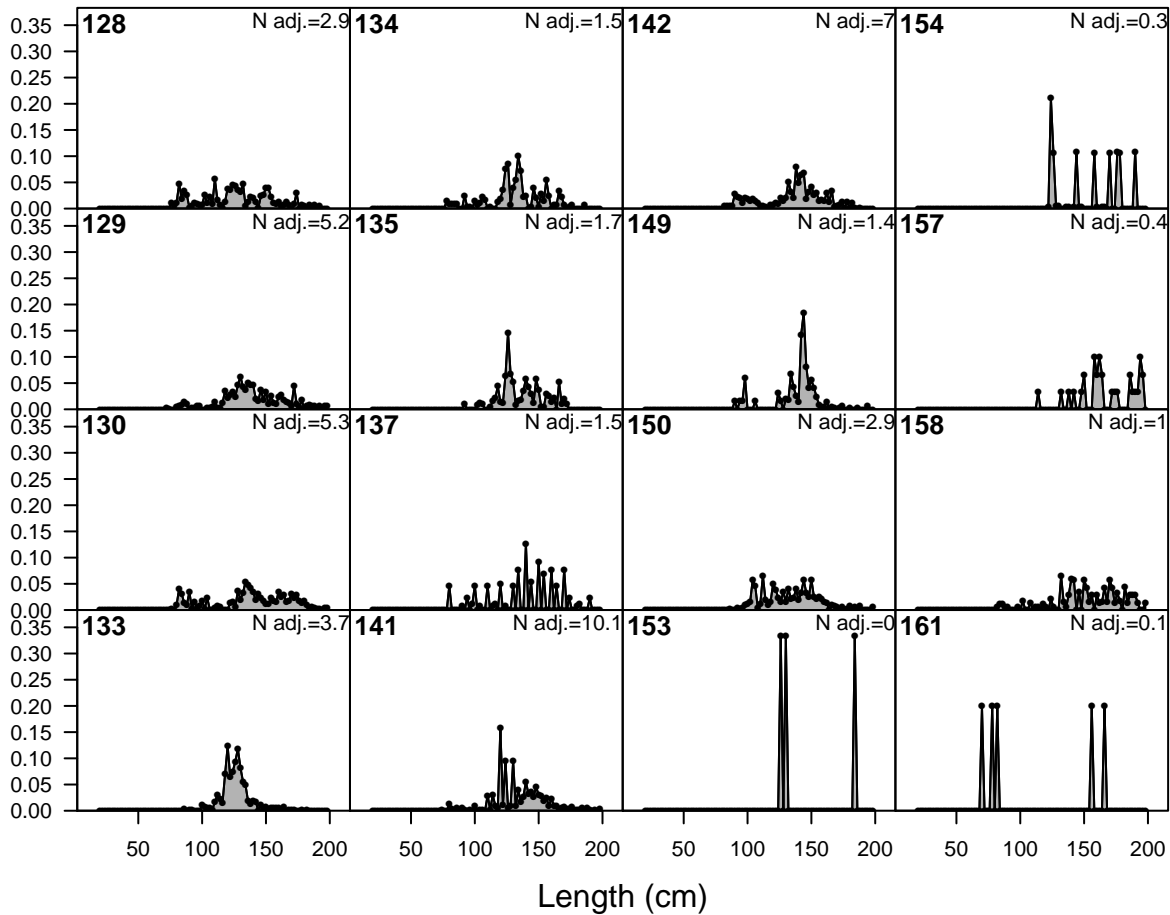
Proportion



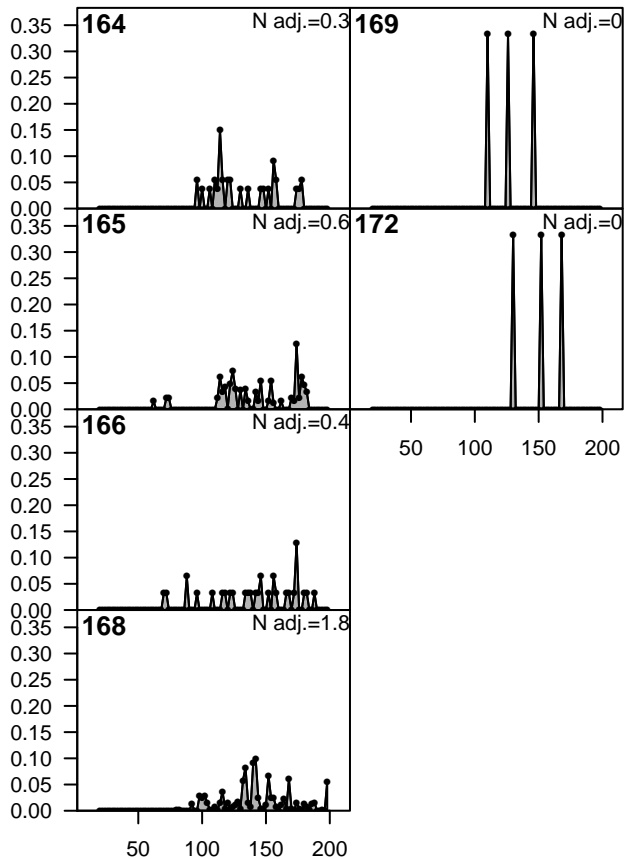
Proportion



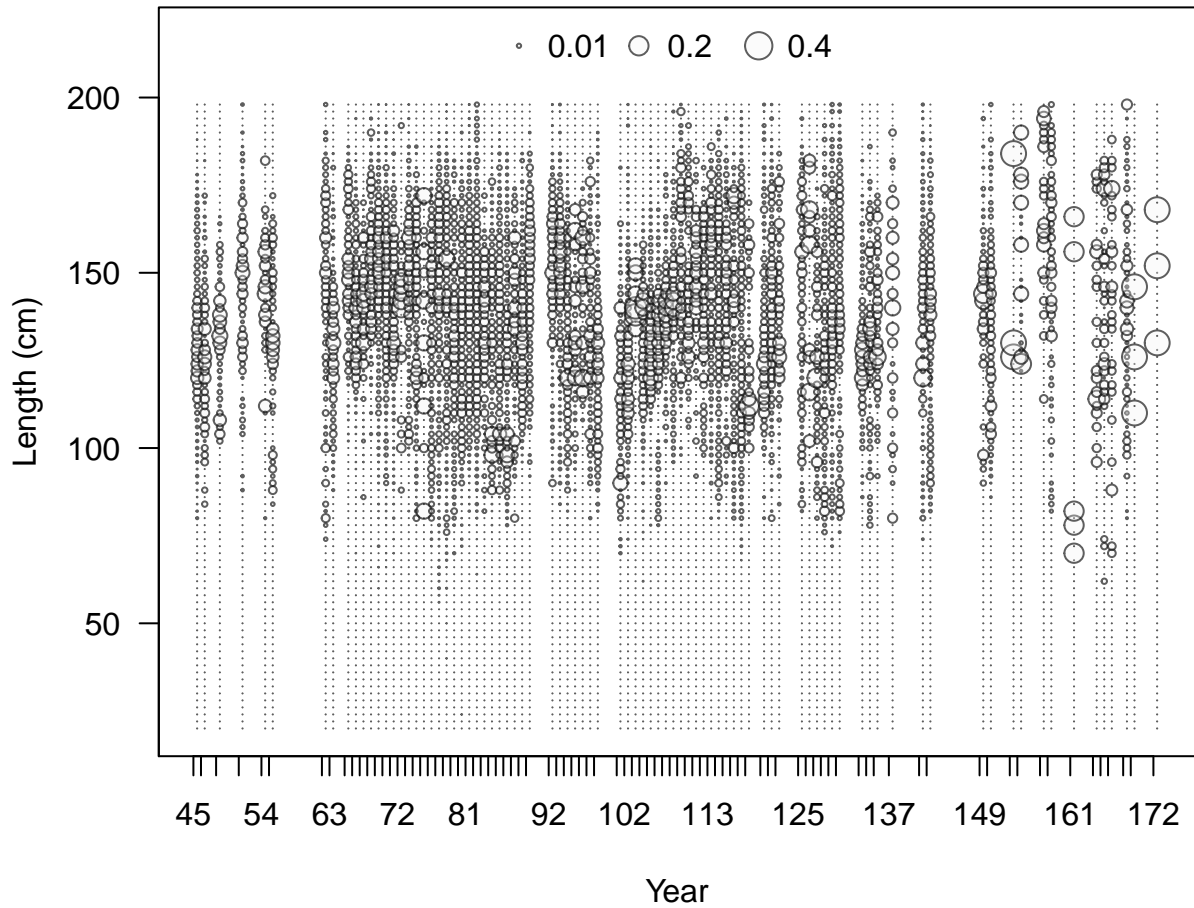
Proportion



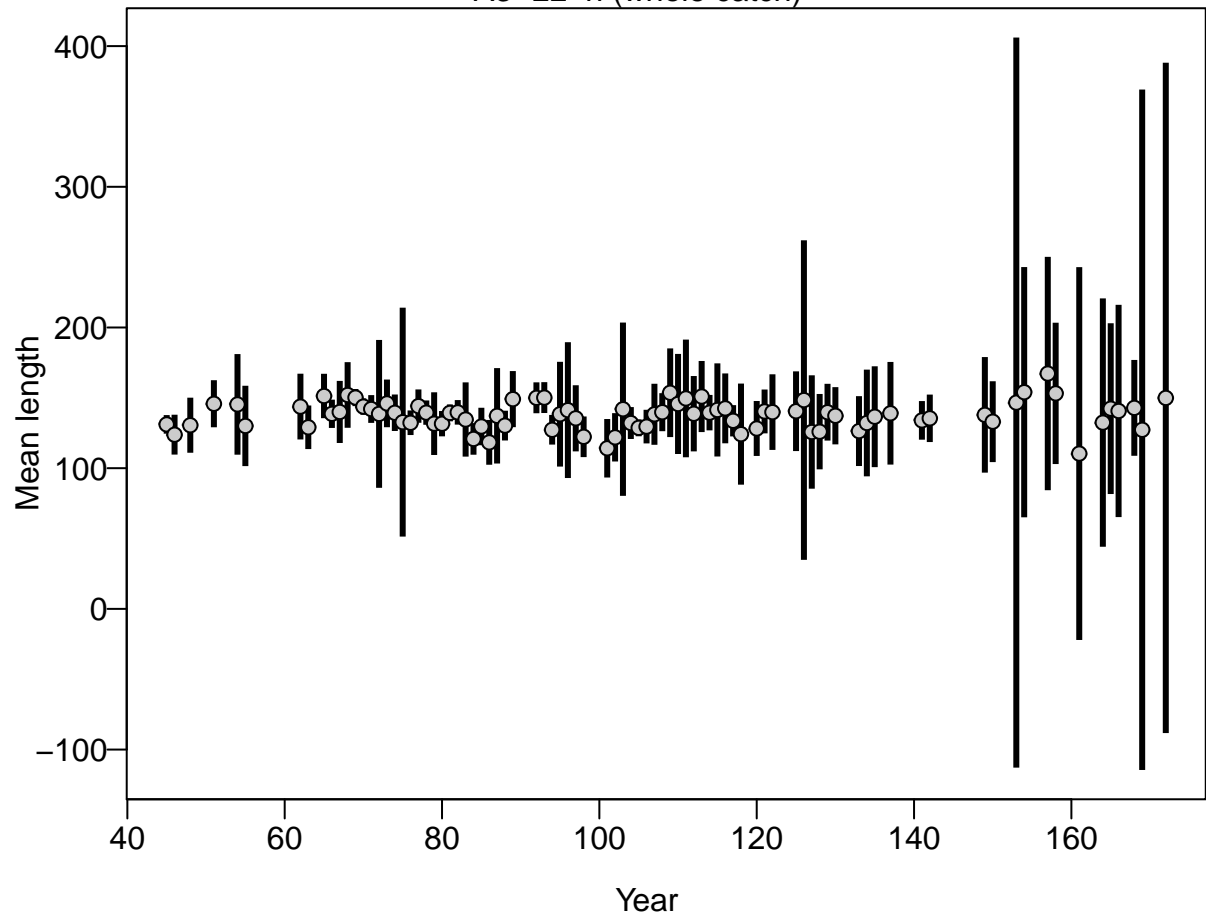
Proportion



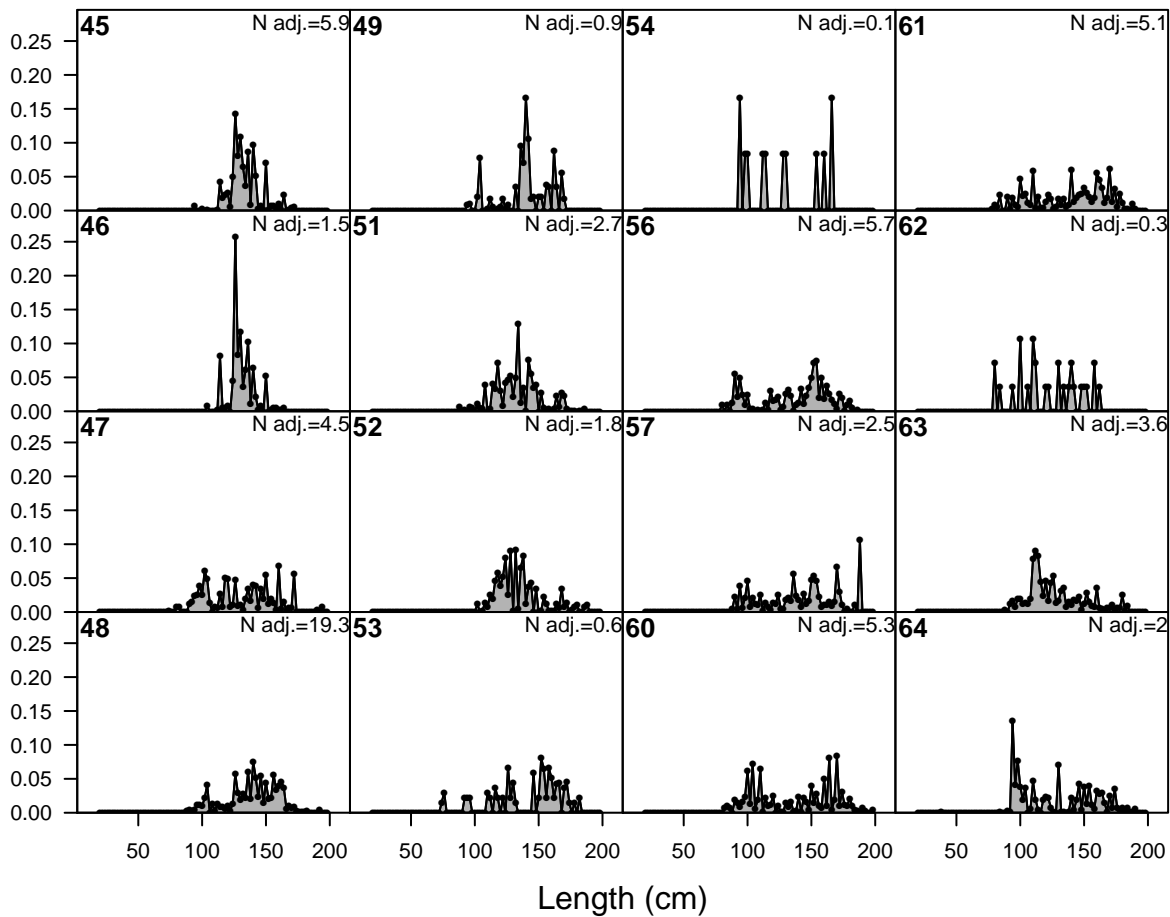
Length (cm)

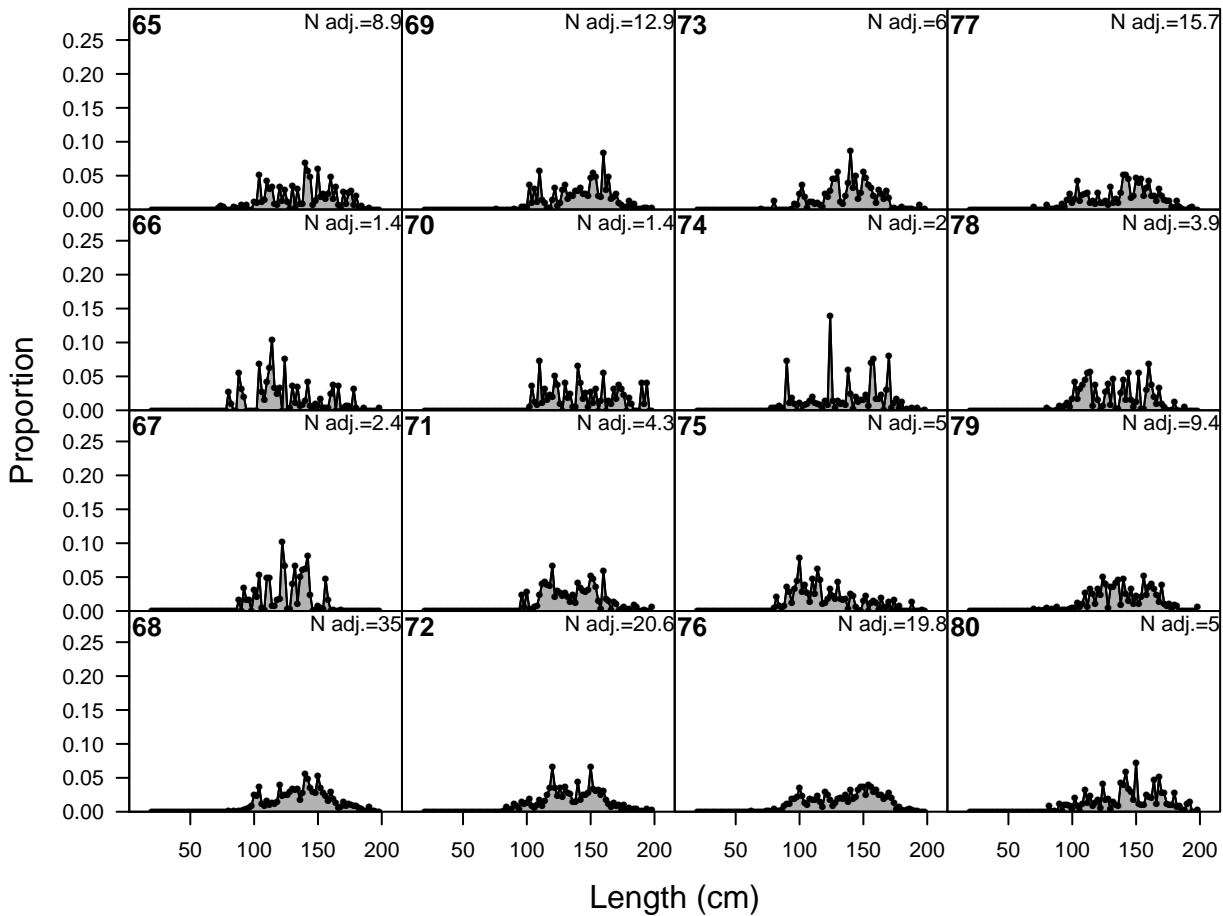


A3-LL-n (whole catch)

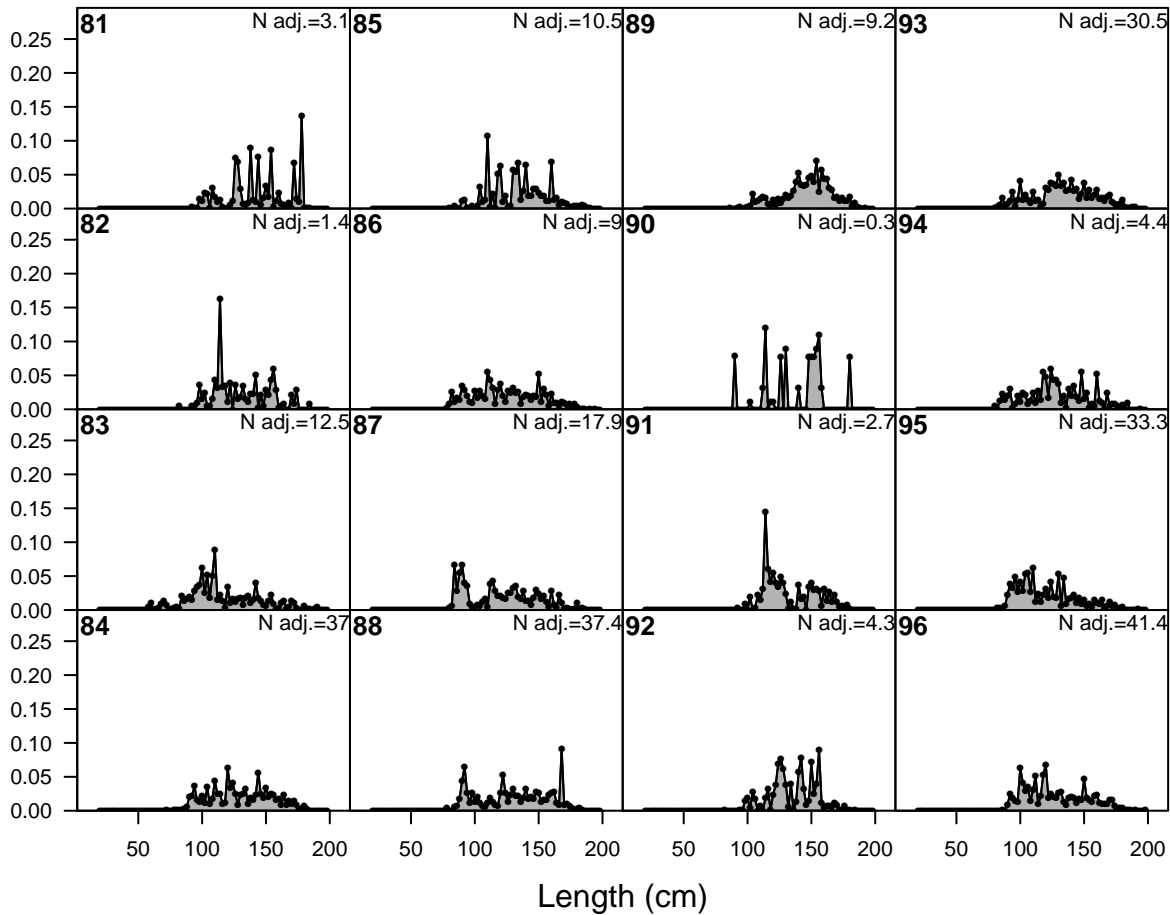


Proportion

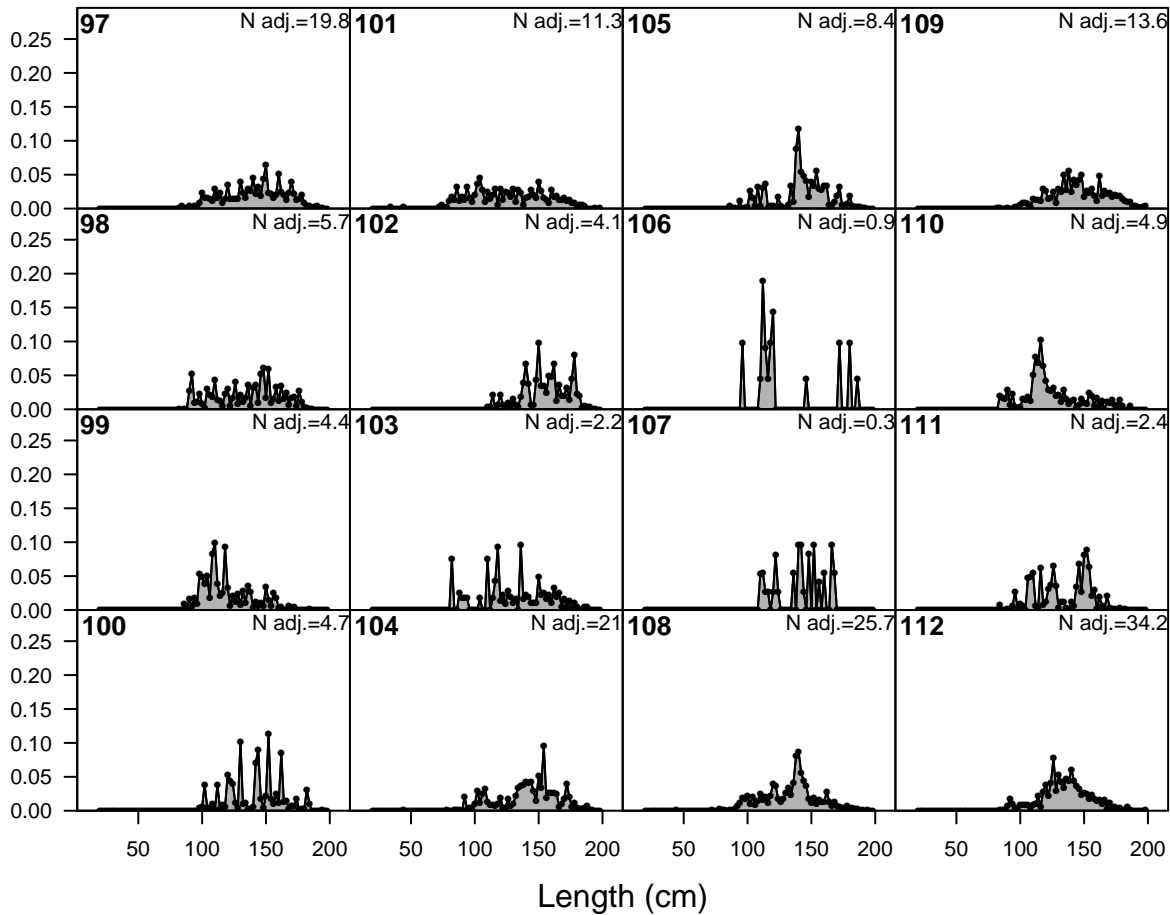




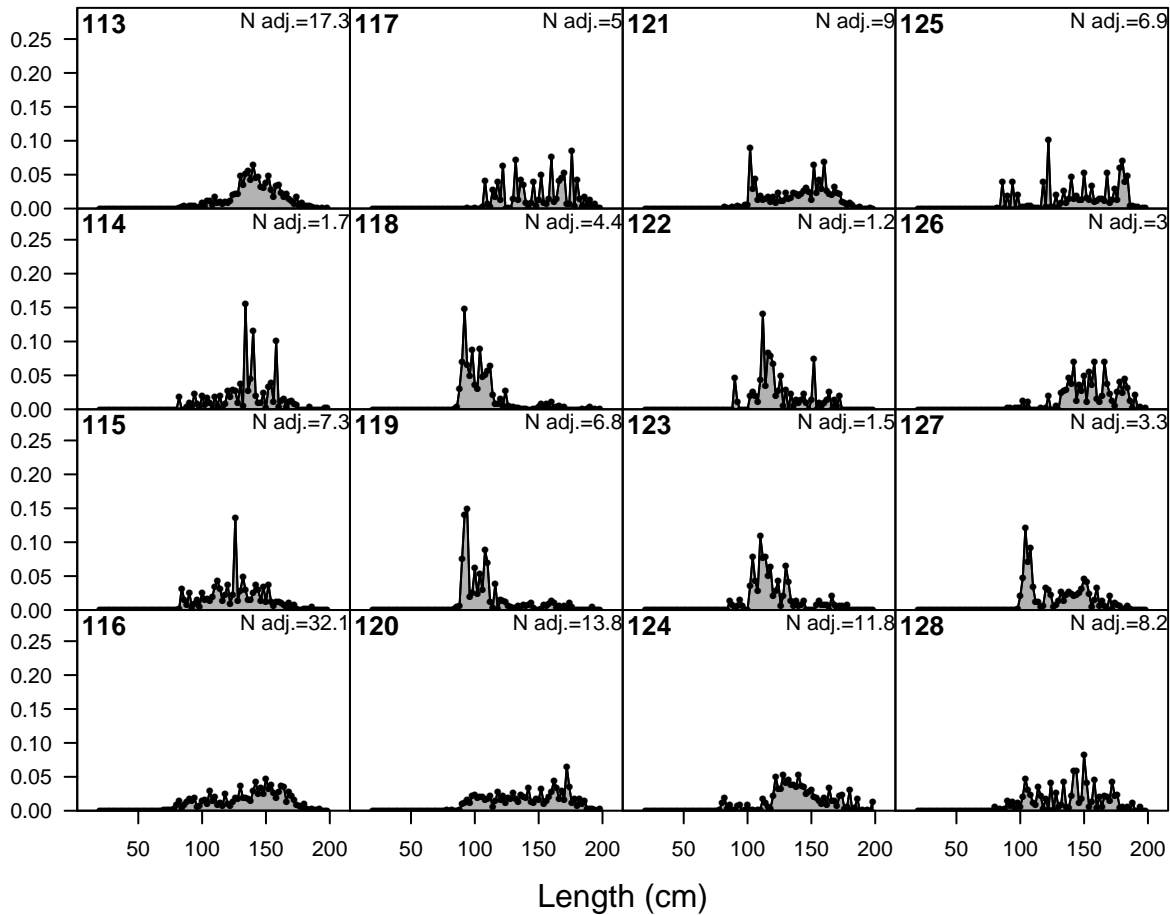
Proportion



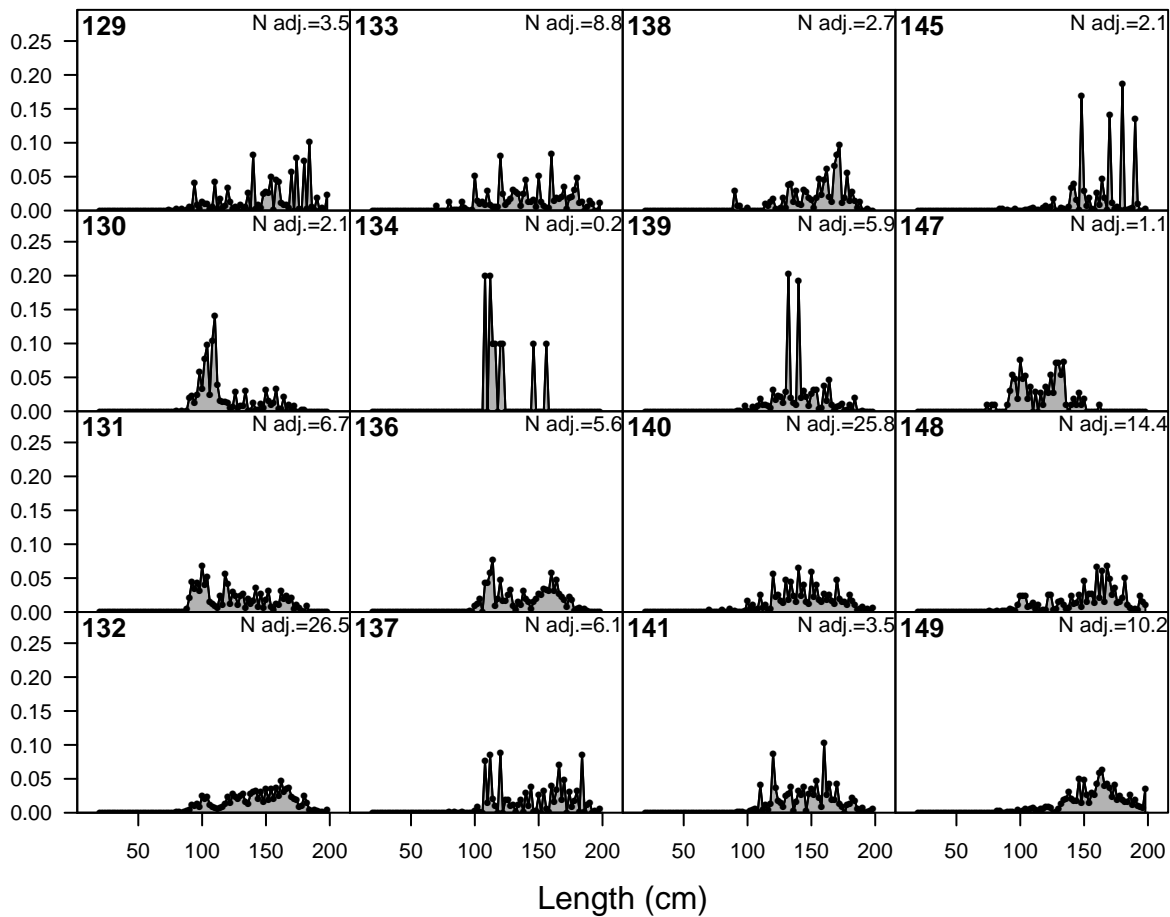
Proportion



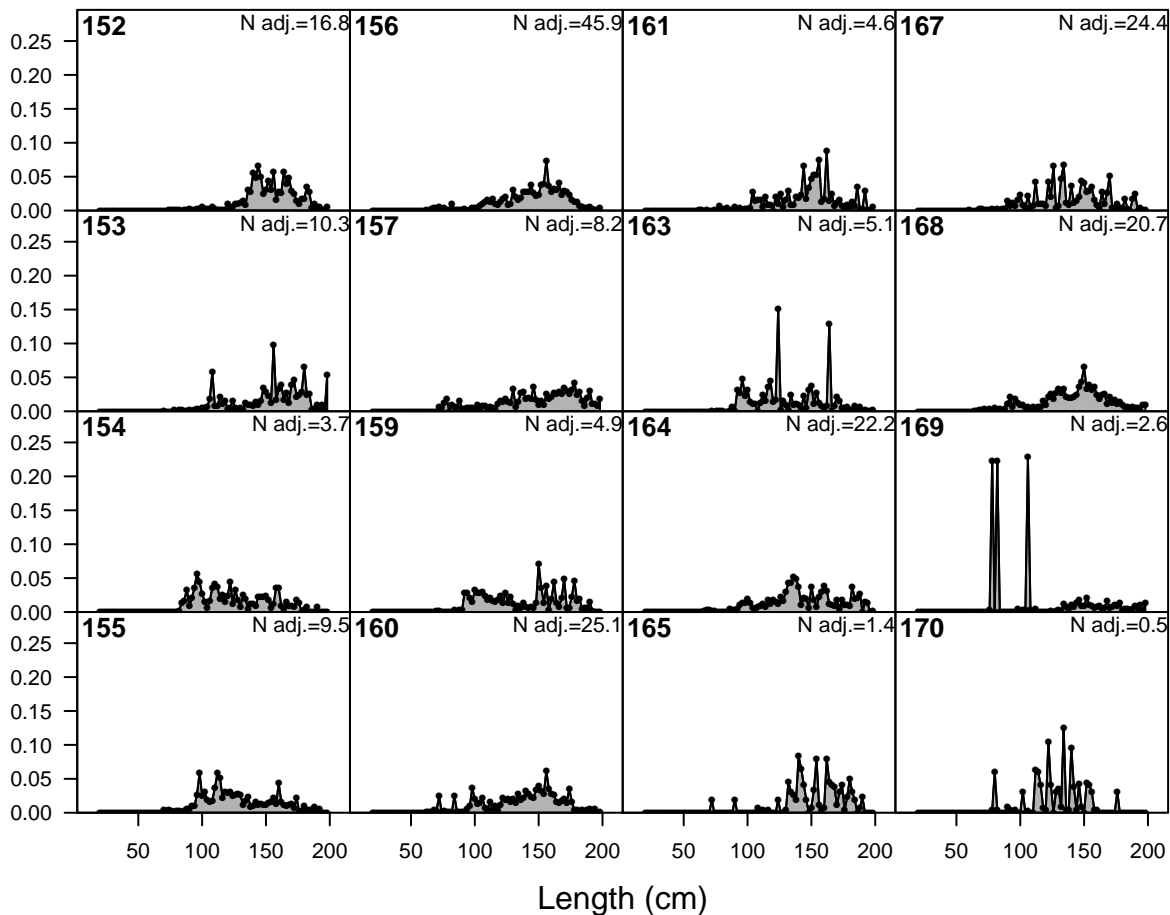
Proportion



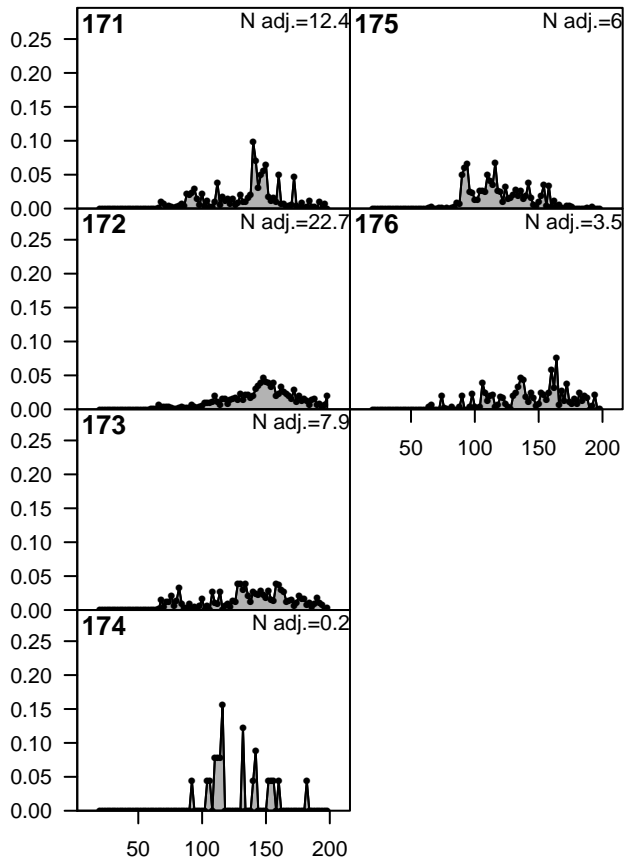
Proportion



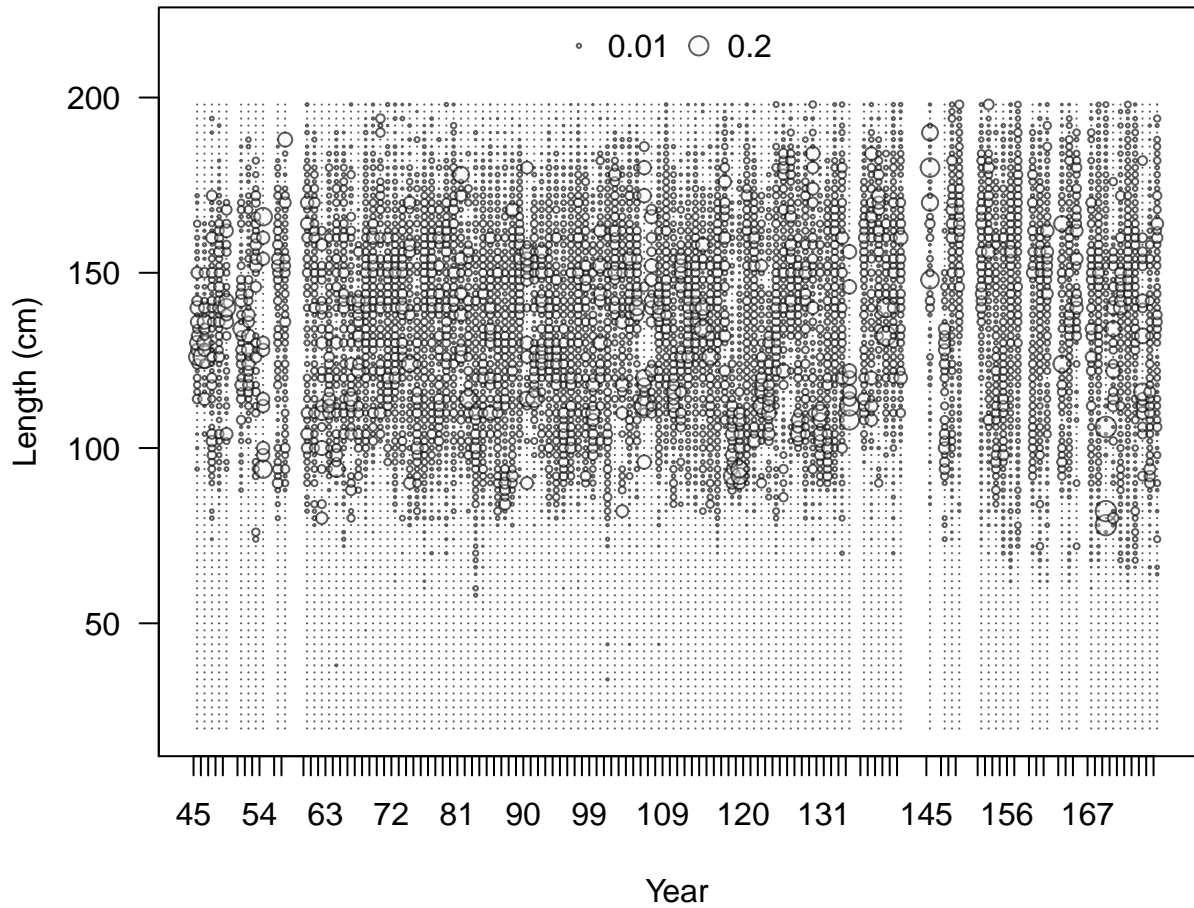
Proportion



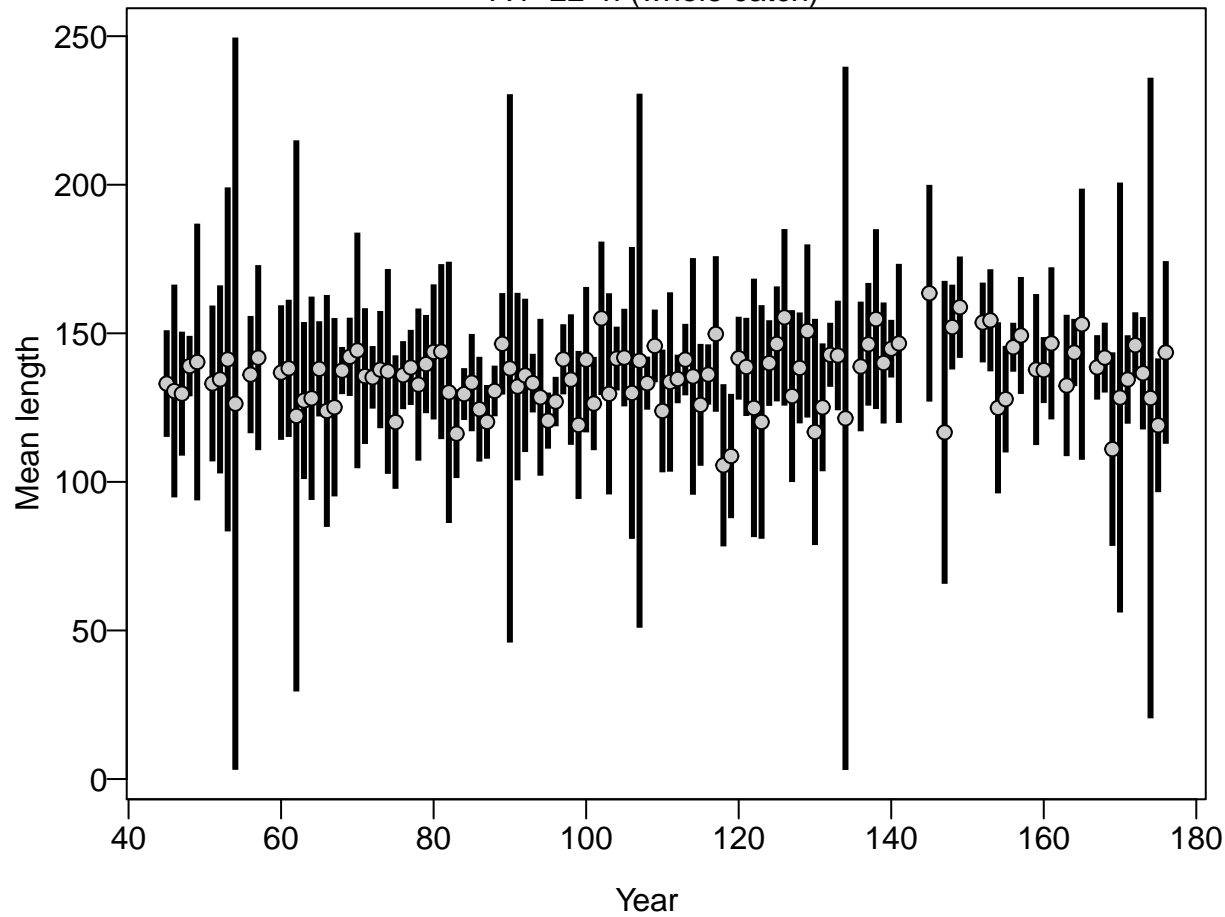
Proportion



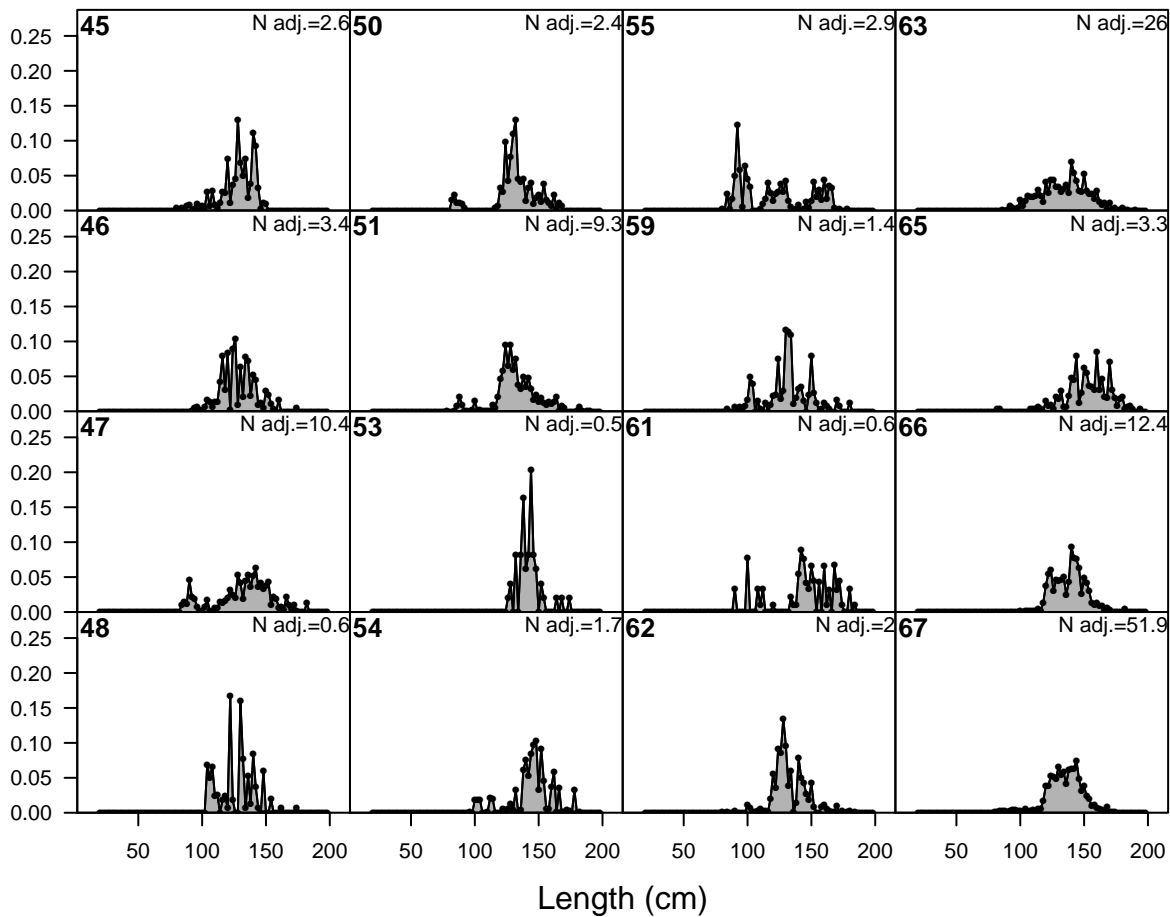
Length (cm)



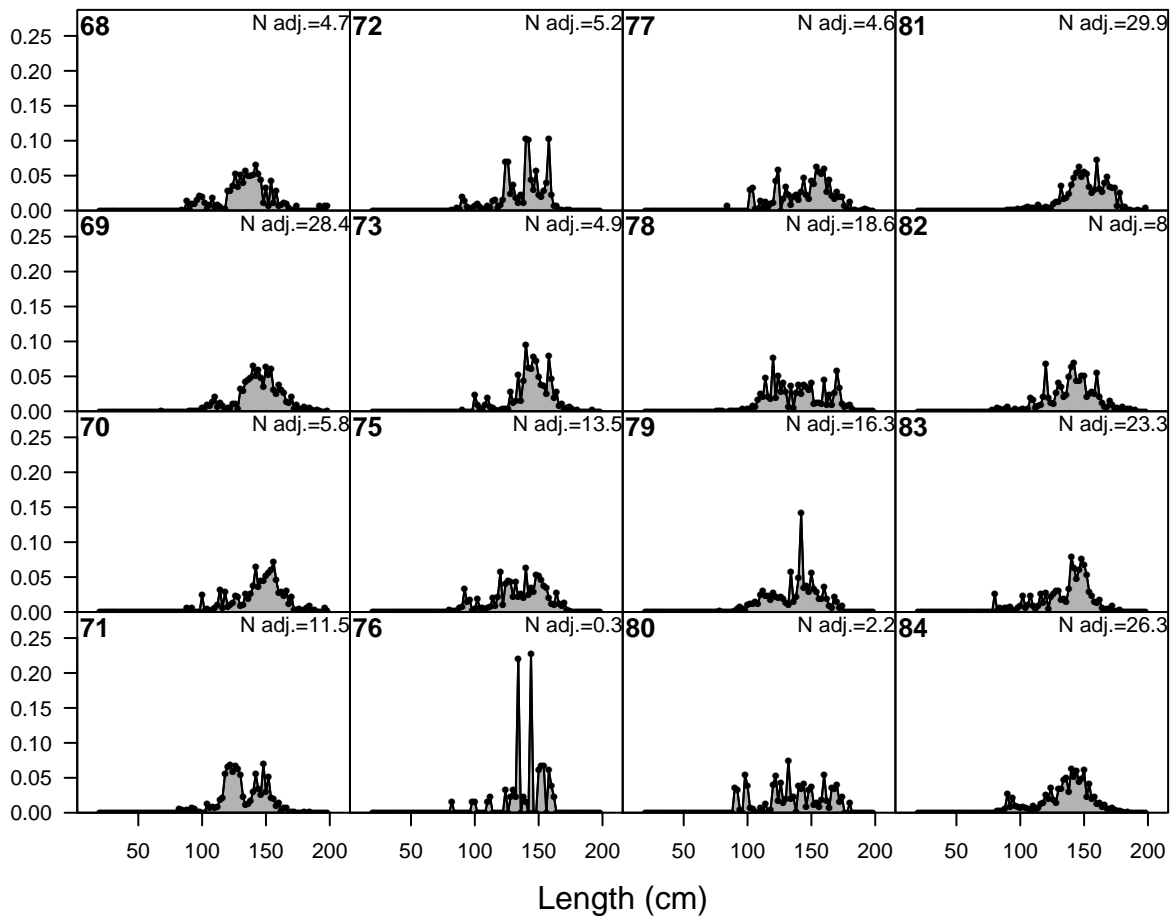
A4-LL-n (whole catch)



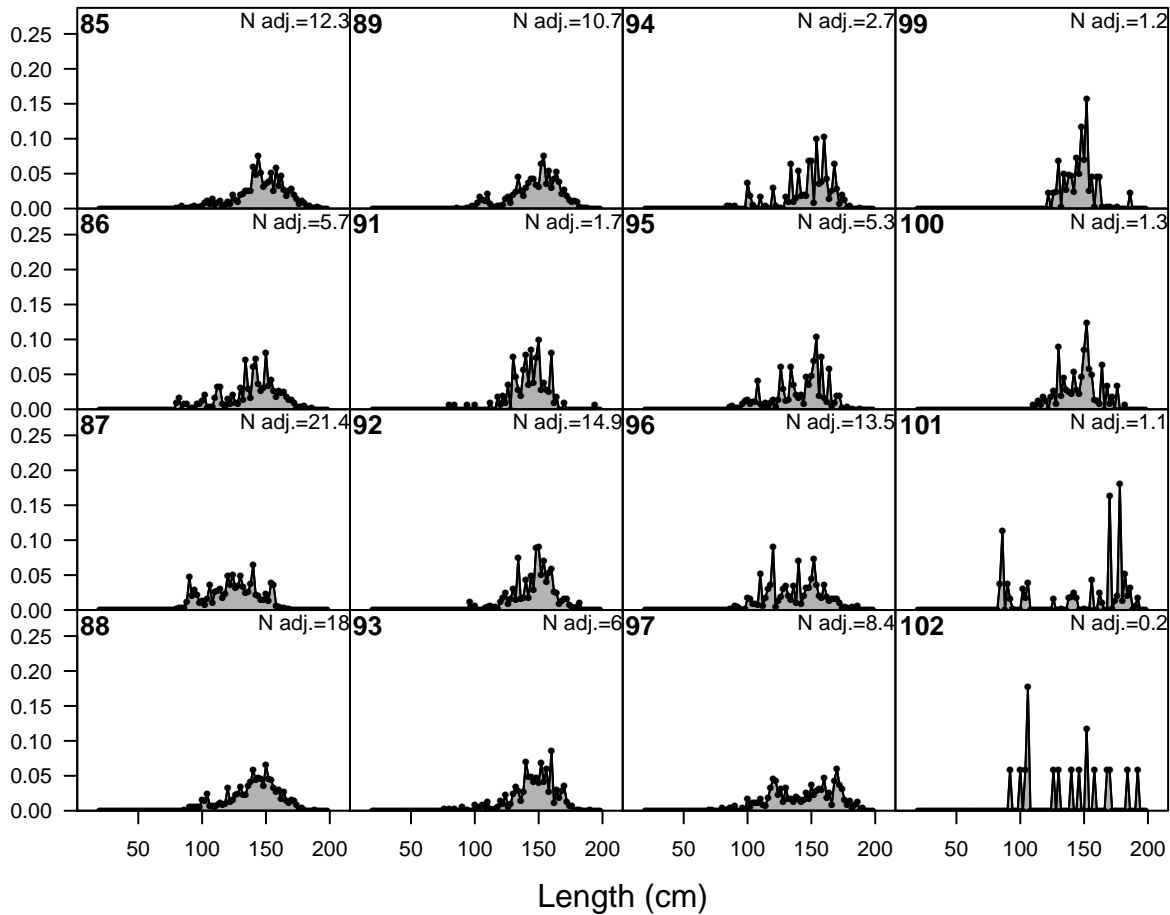
Proportion



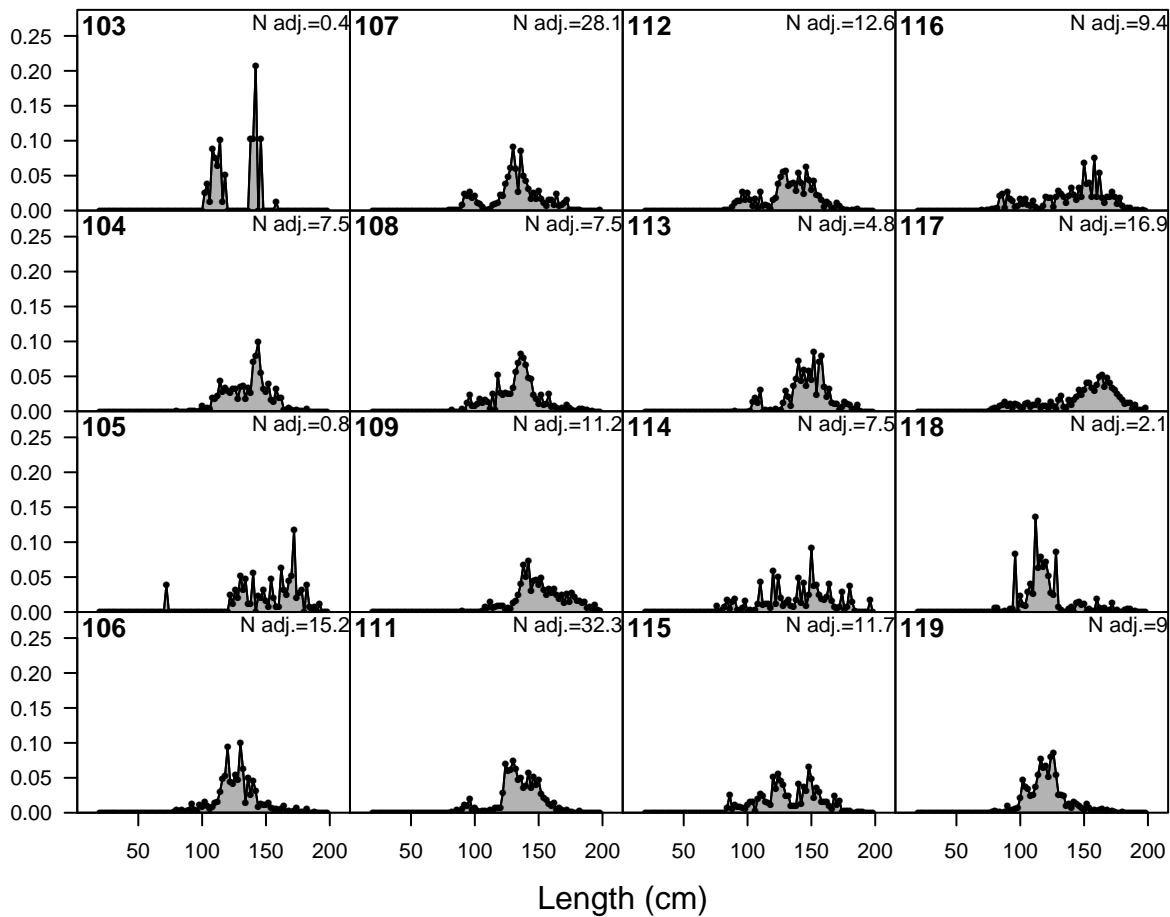
Proportion



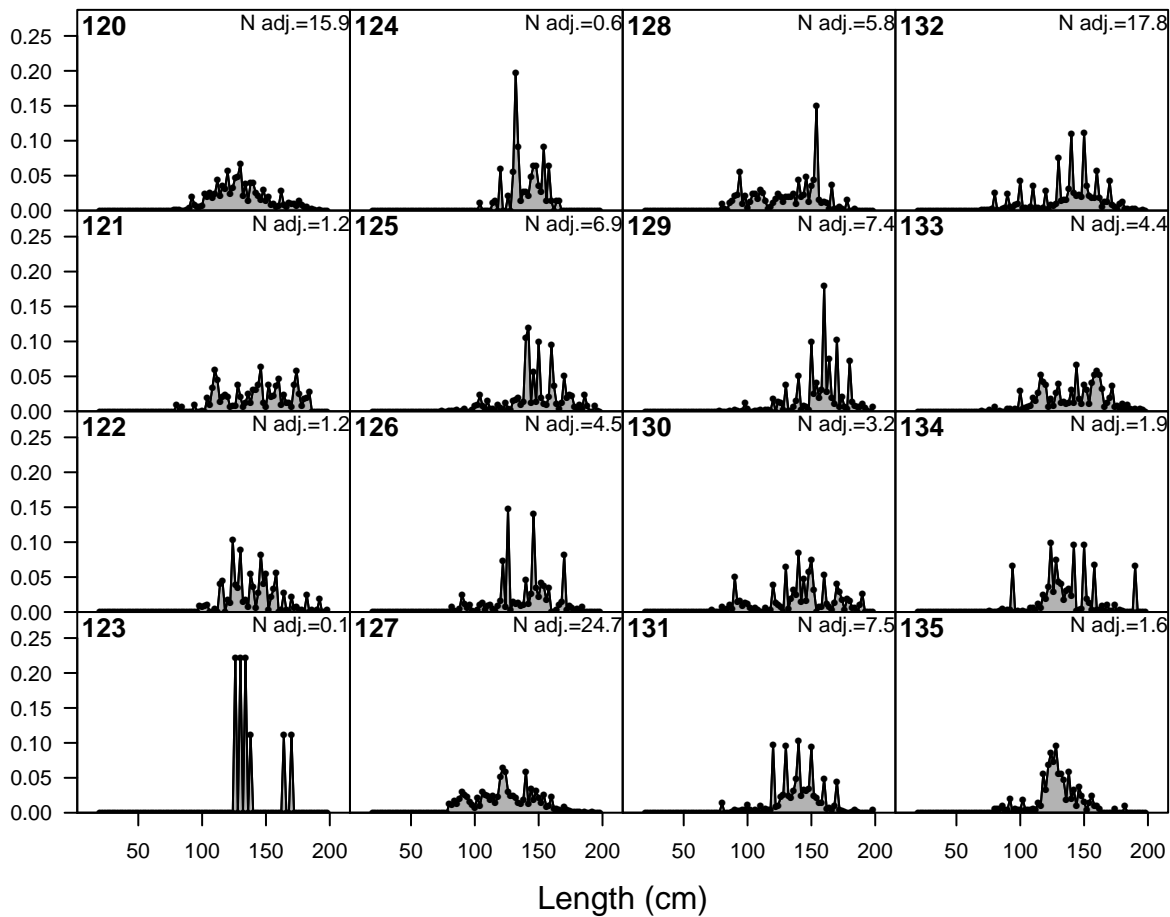
Proportion



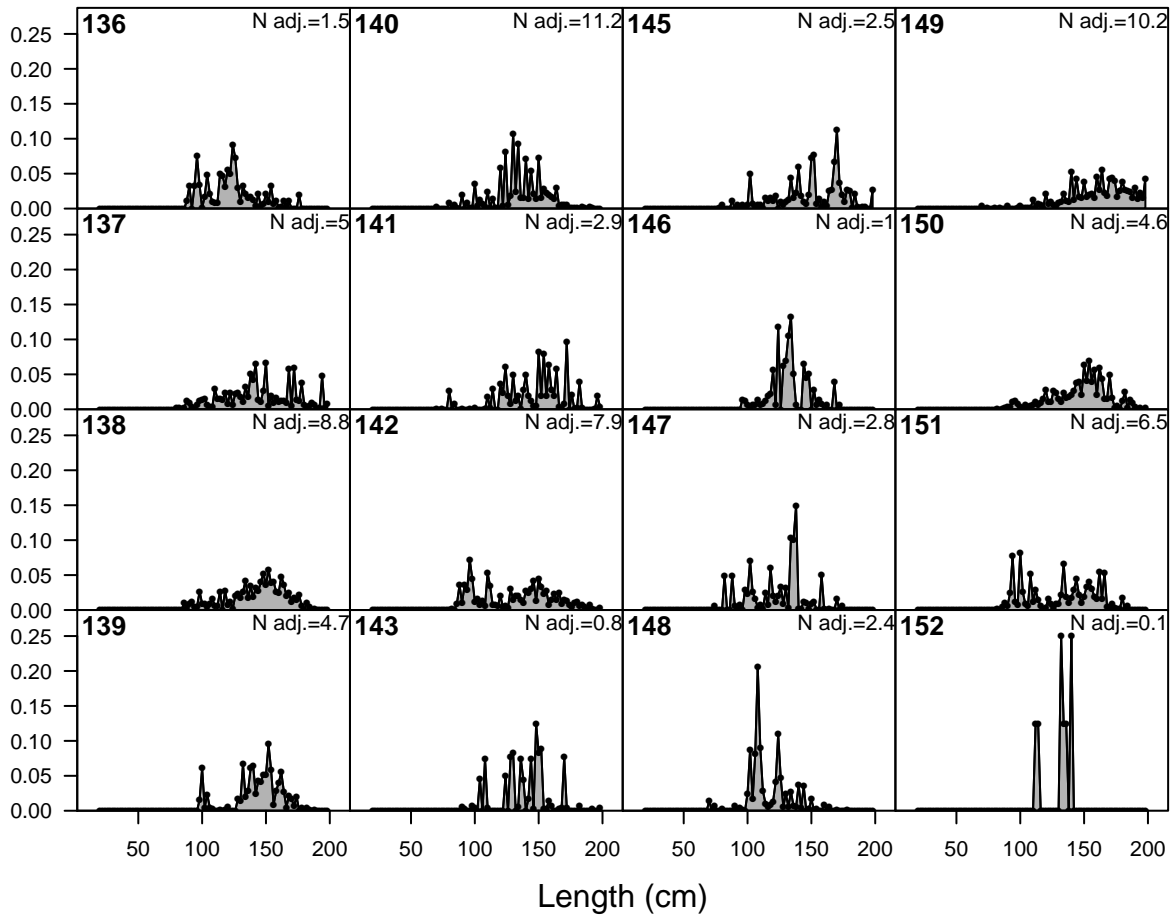
Proportion



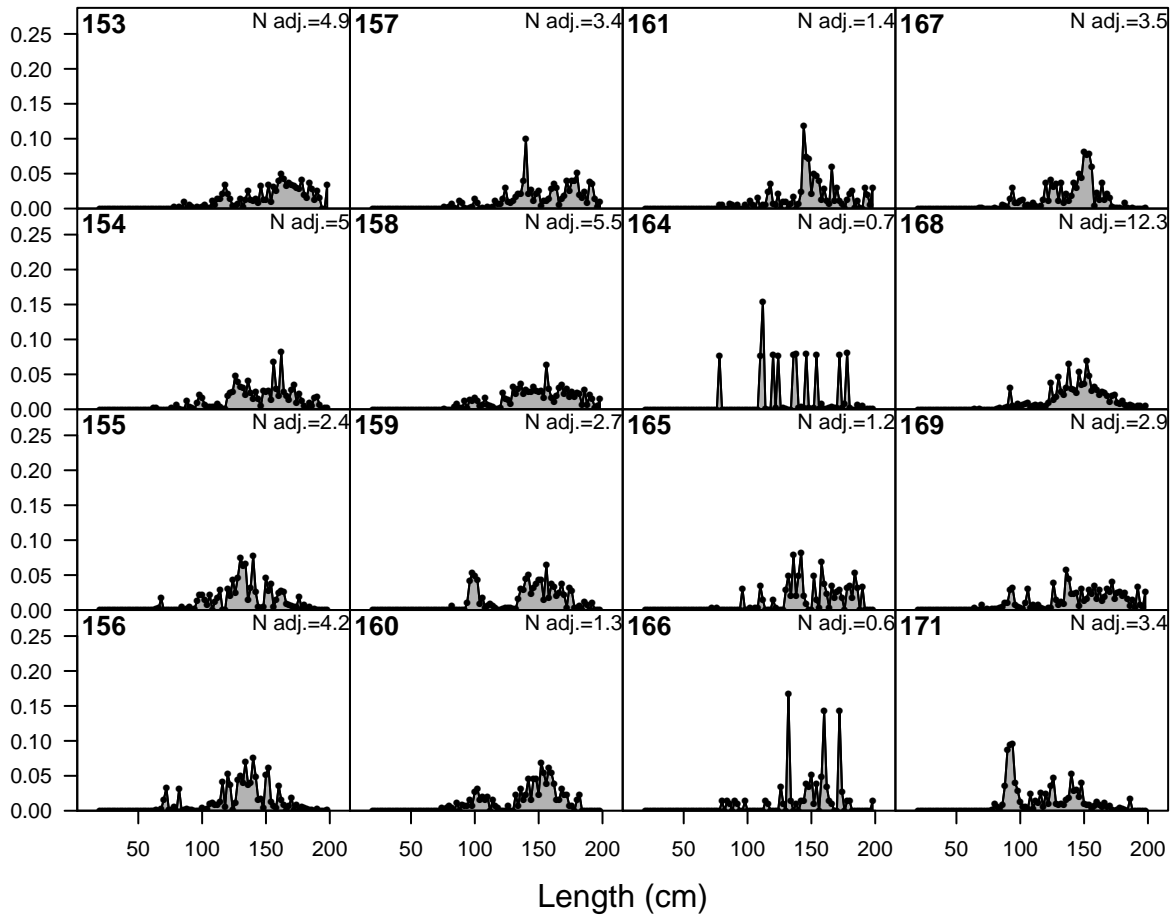
Proportion

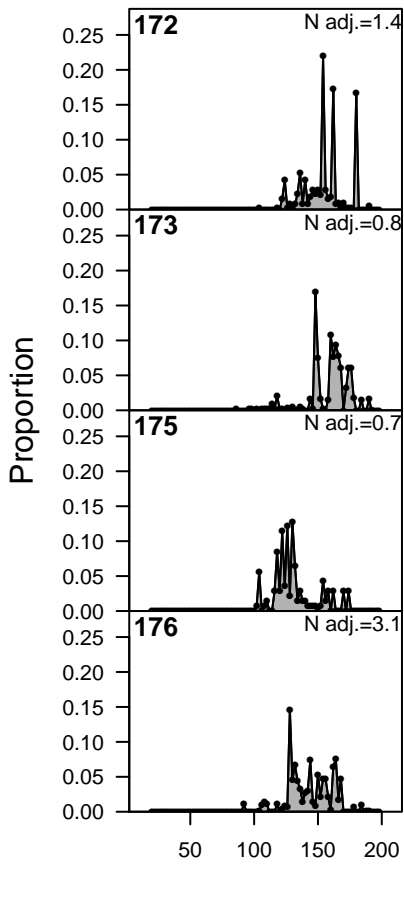


Proportion

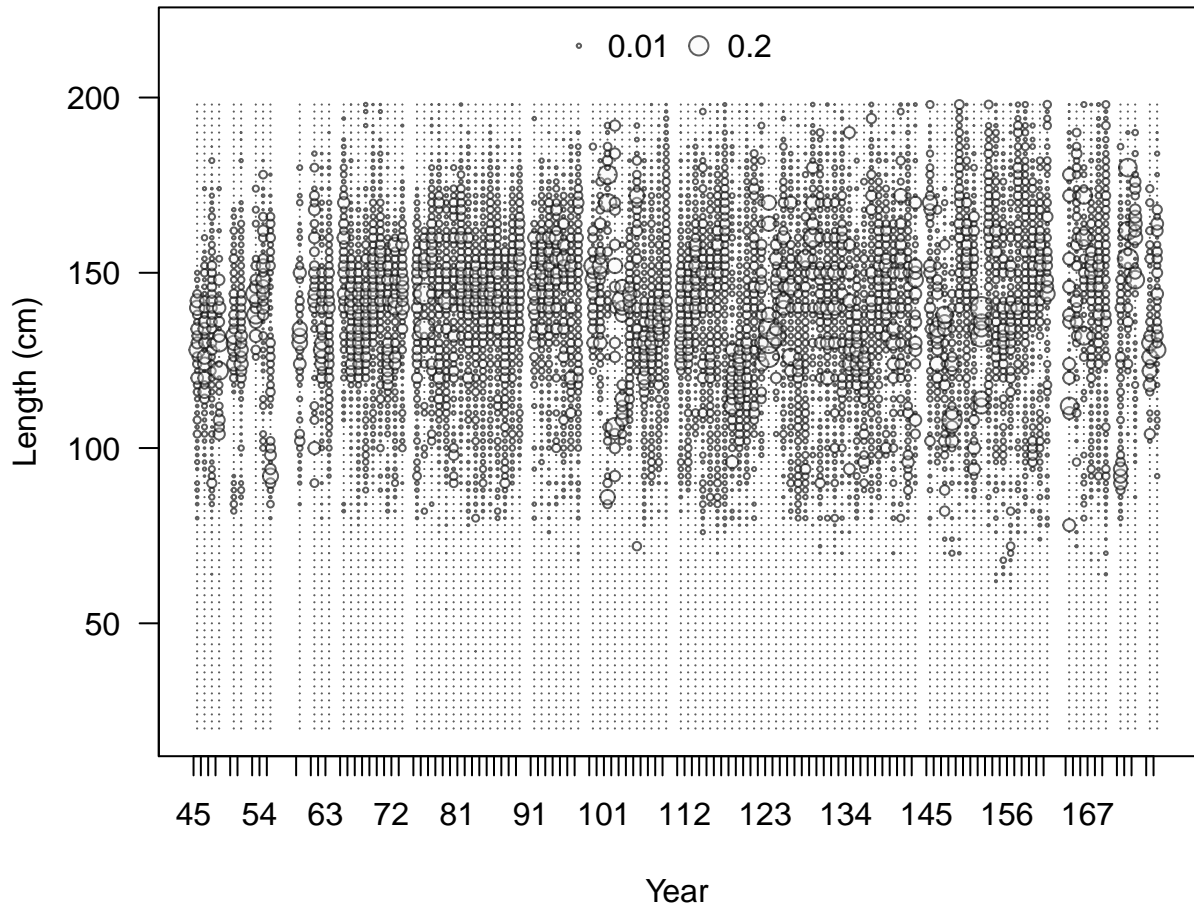


Proportion

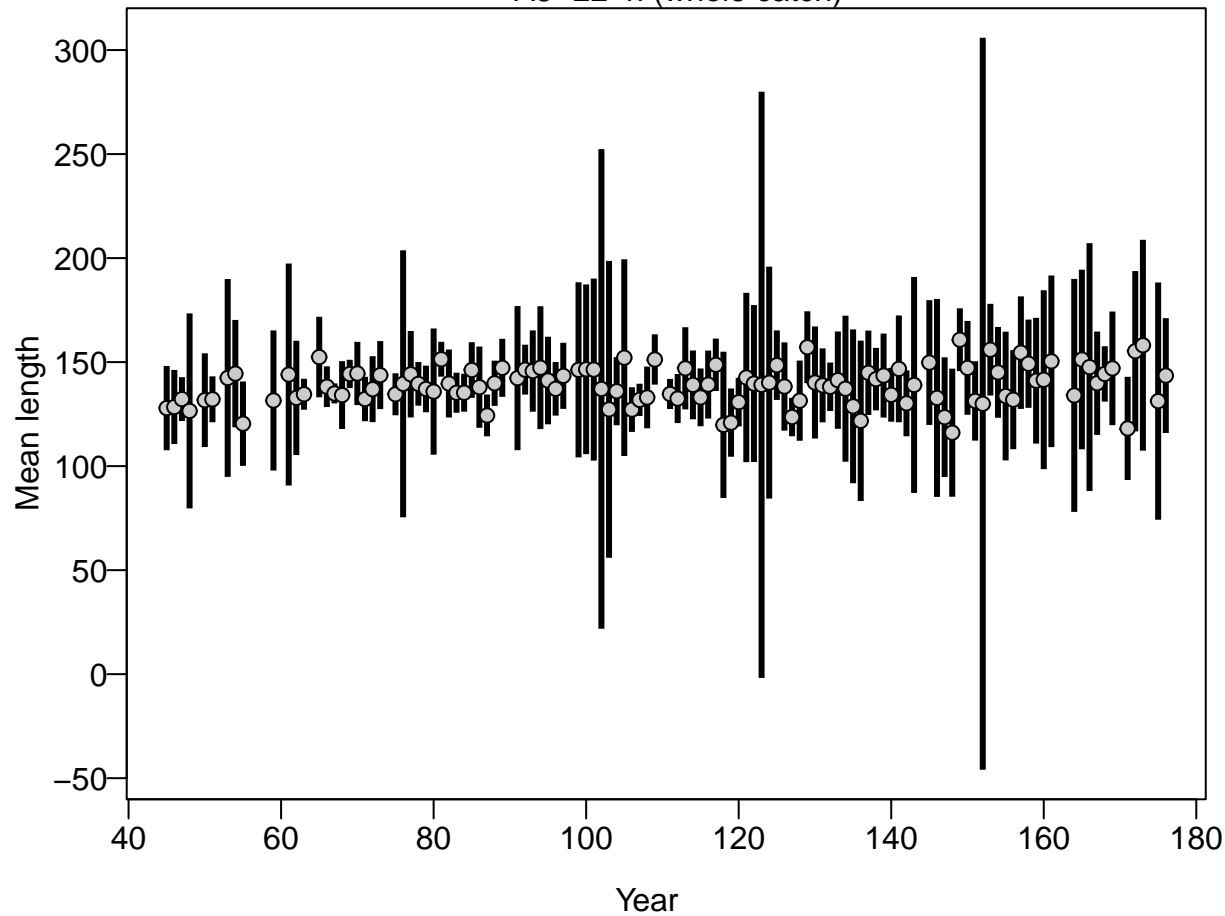


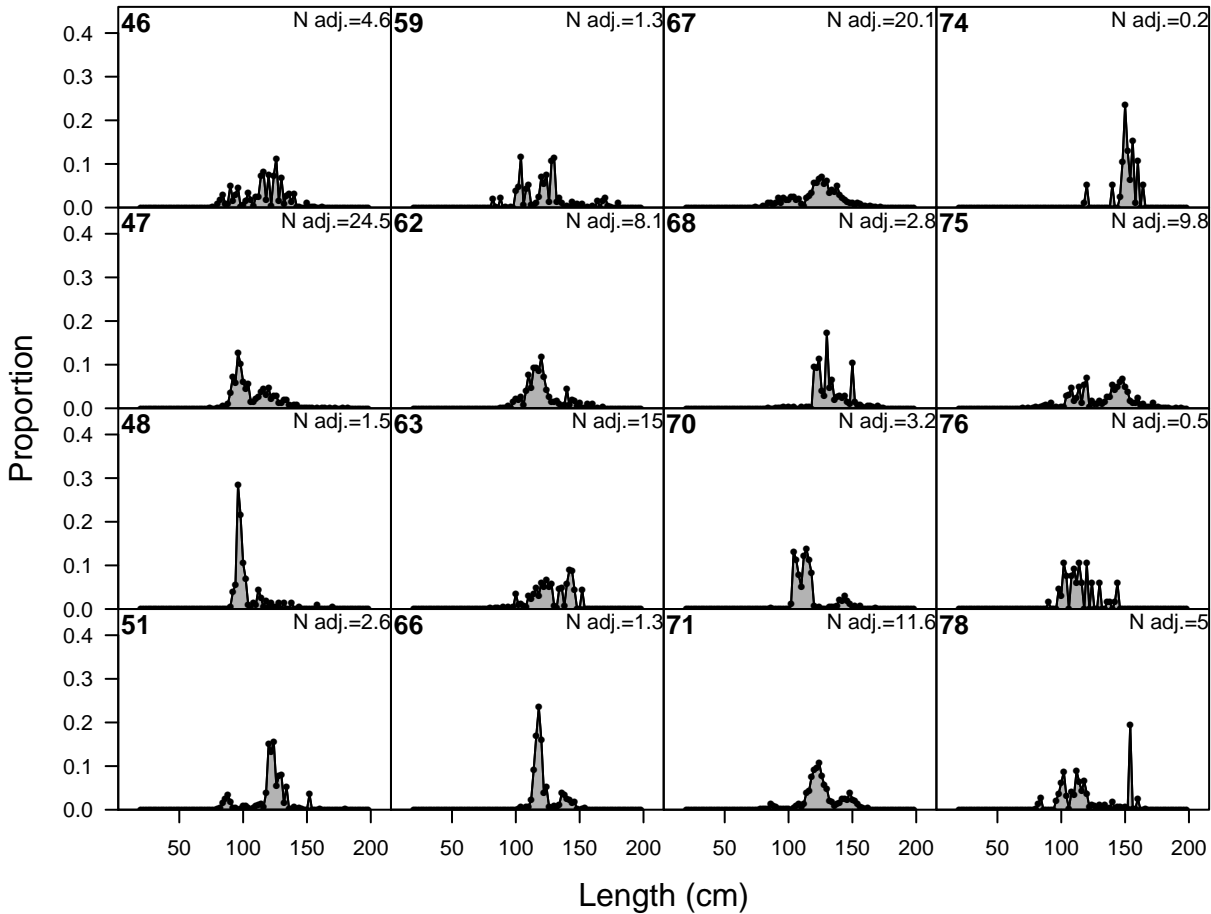


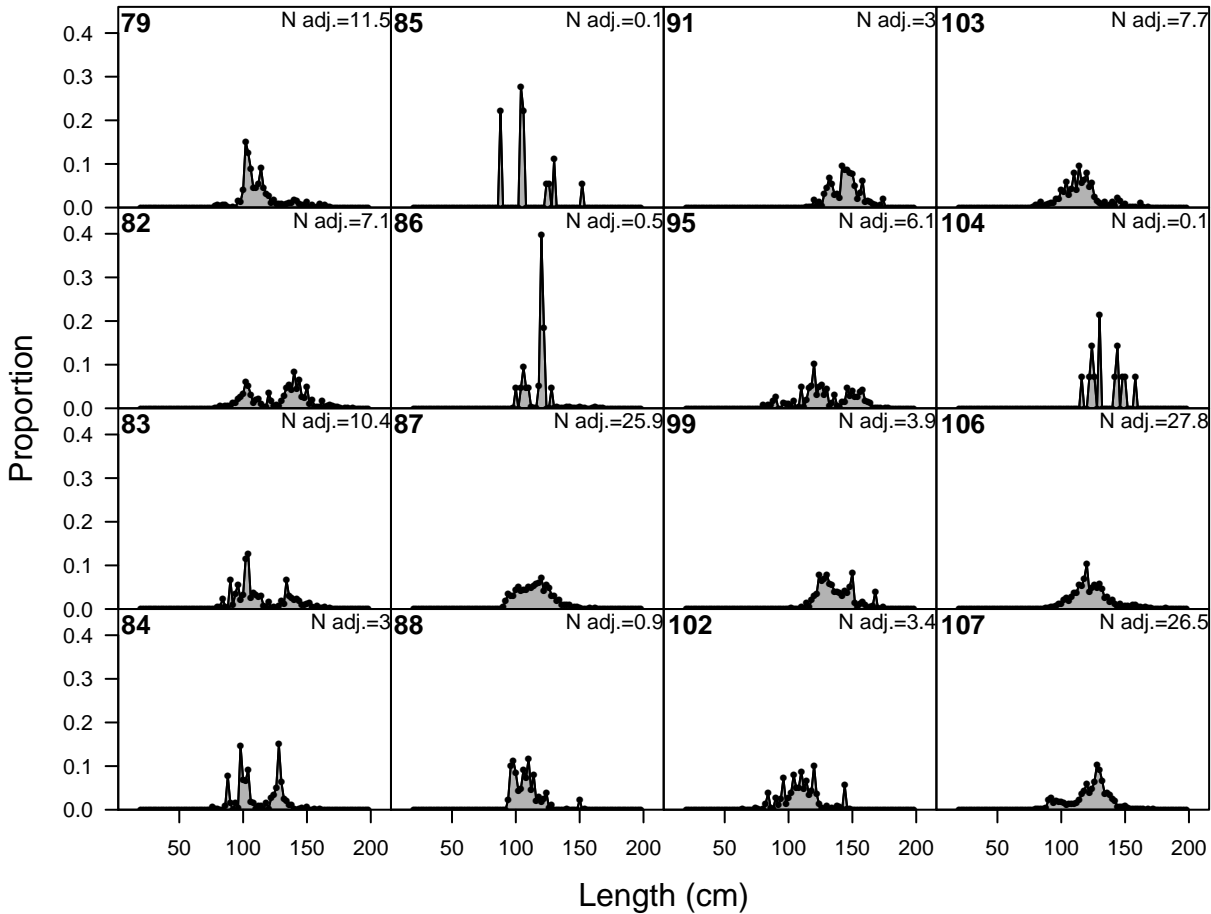
Length (cm)

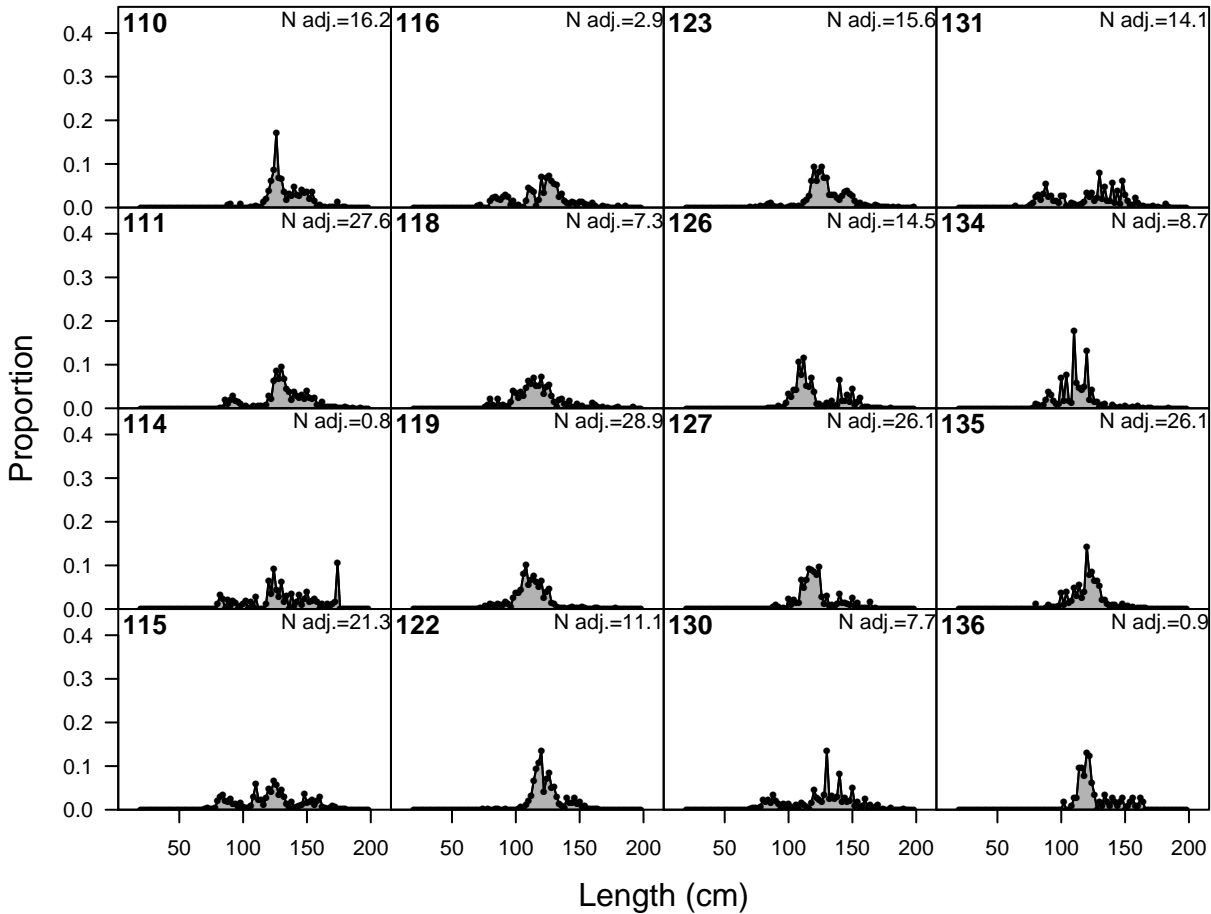


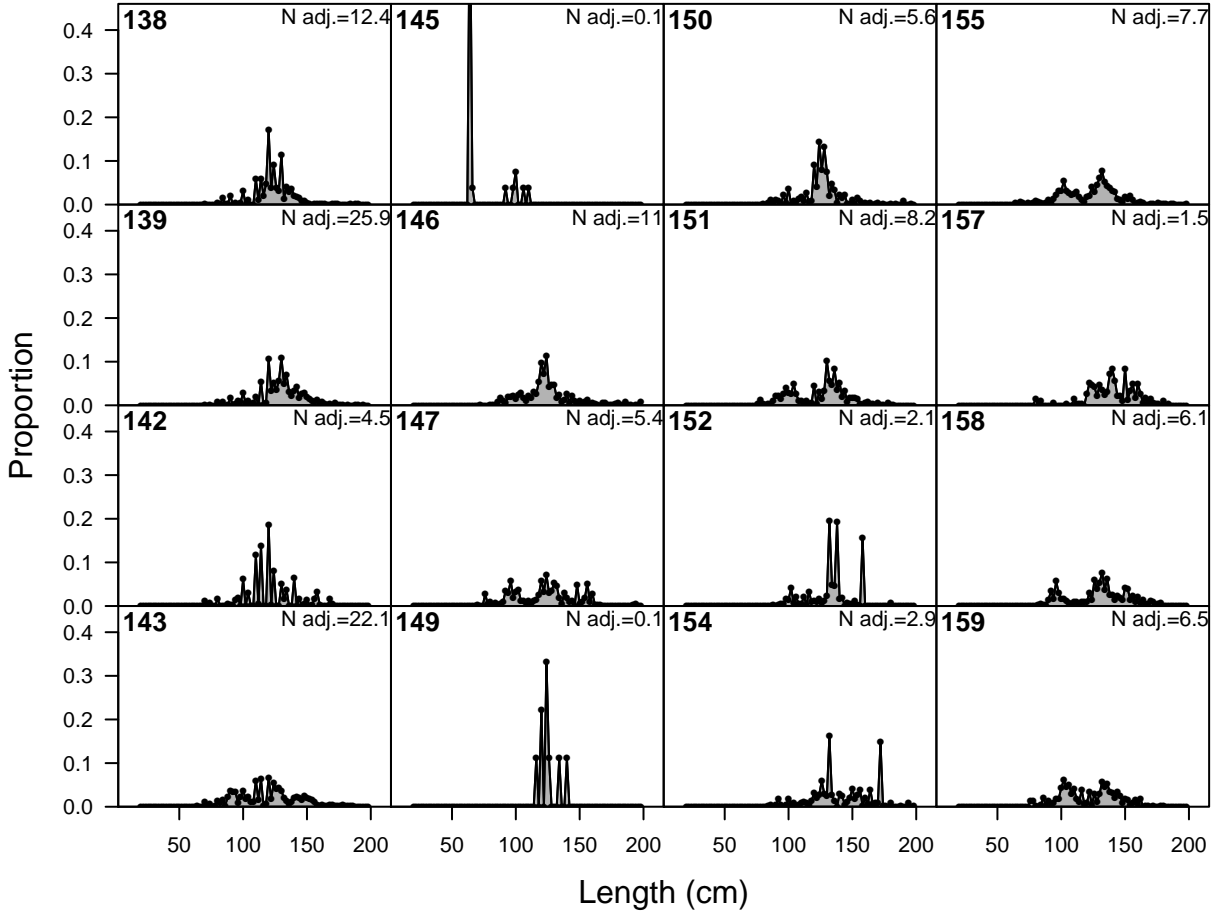
A5-LL-n (whole catch)

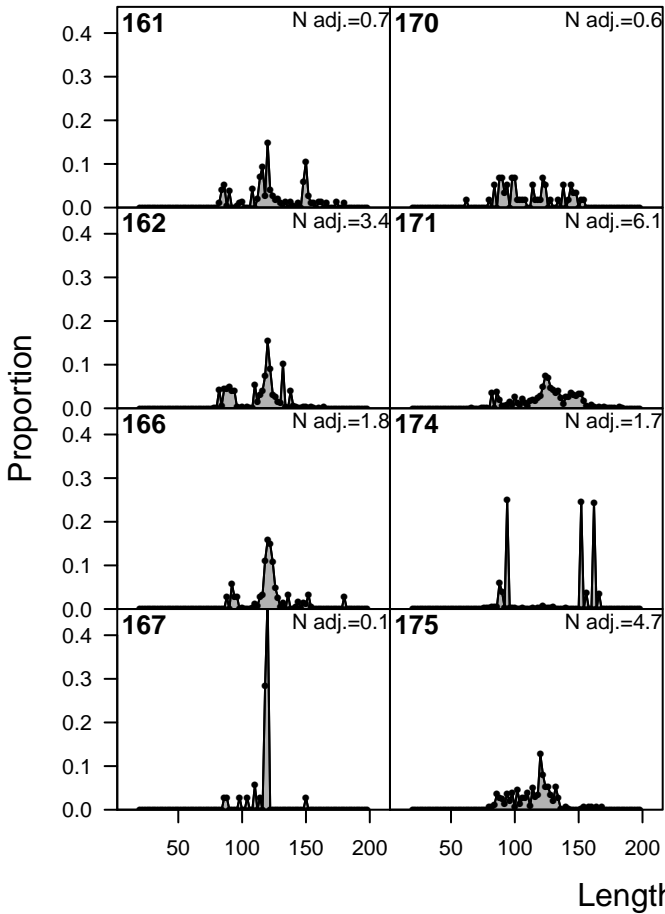


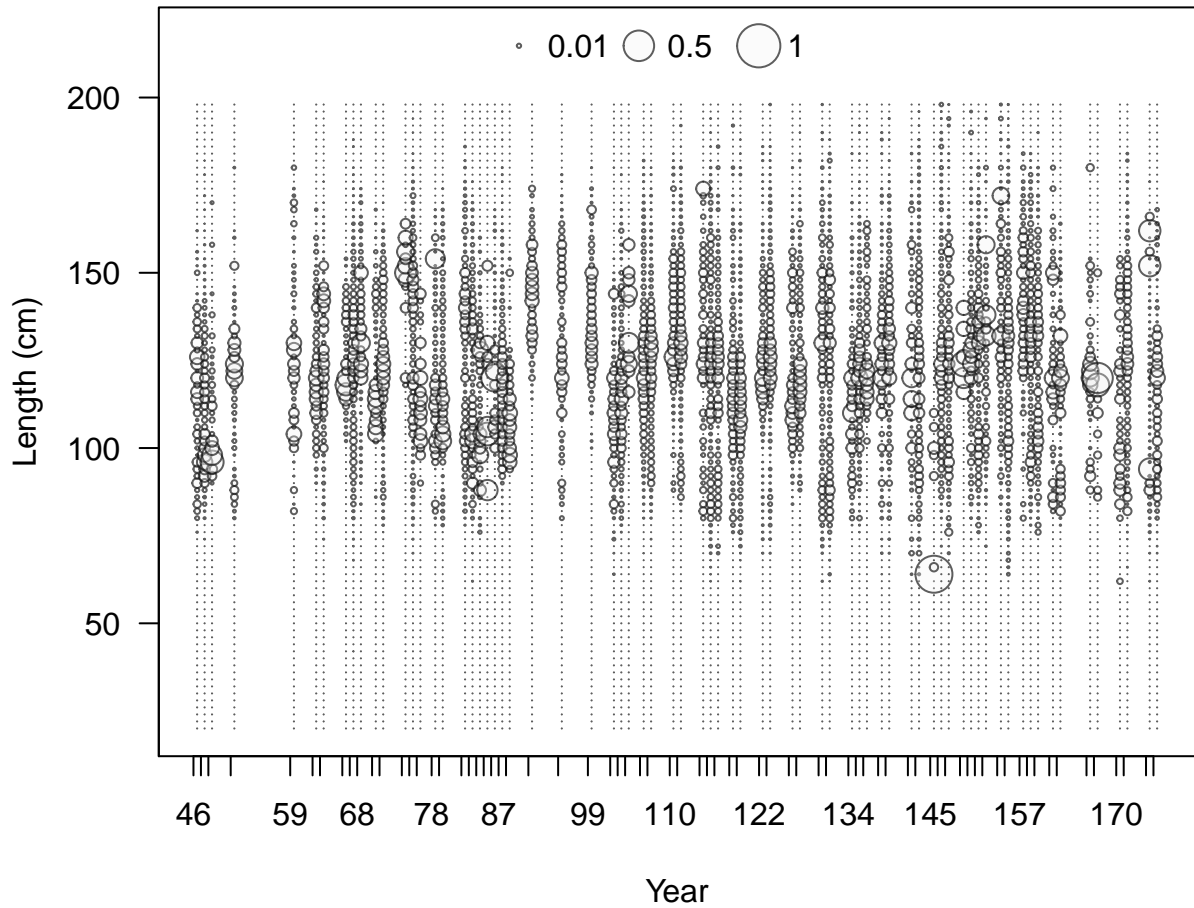




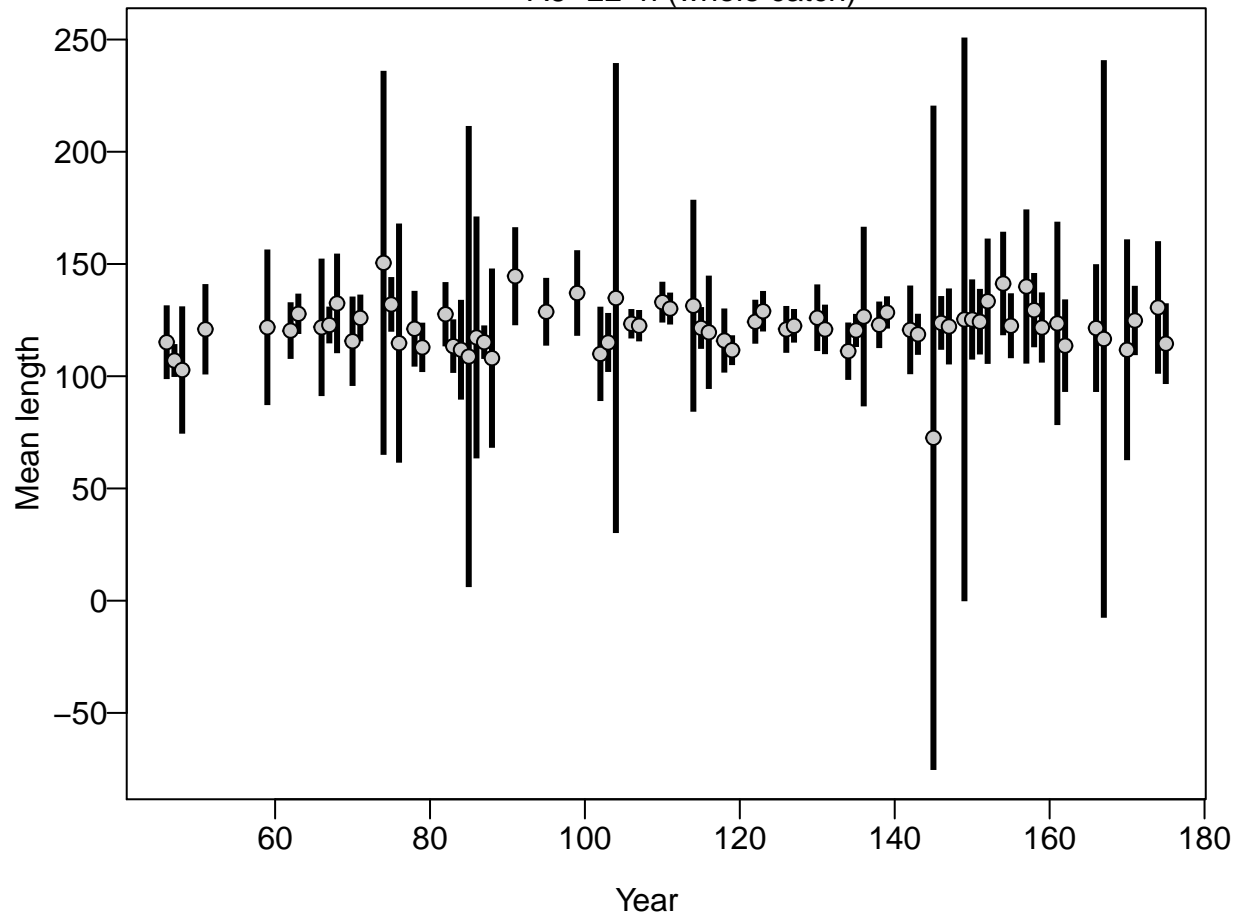


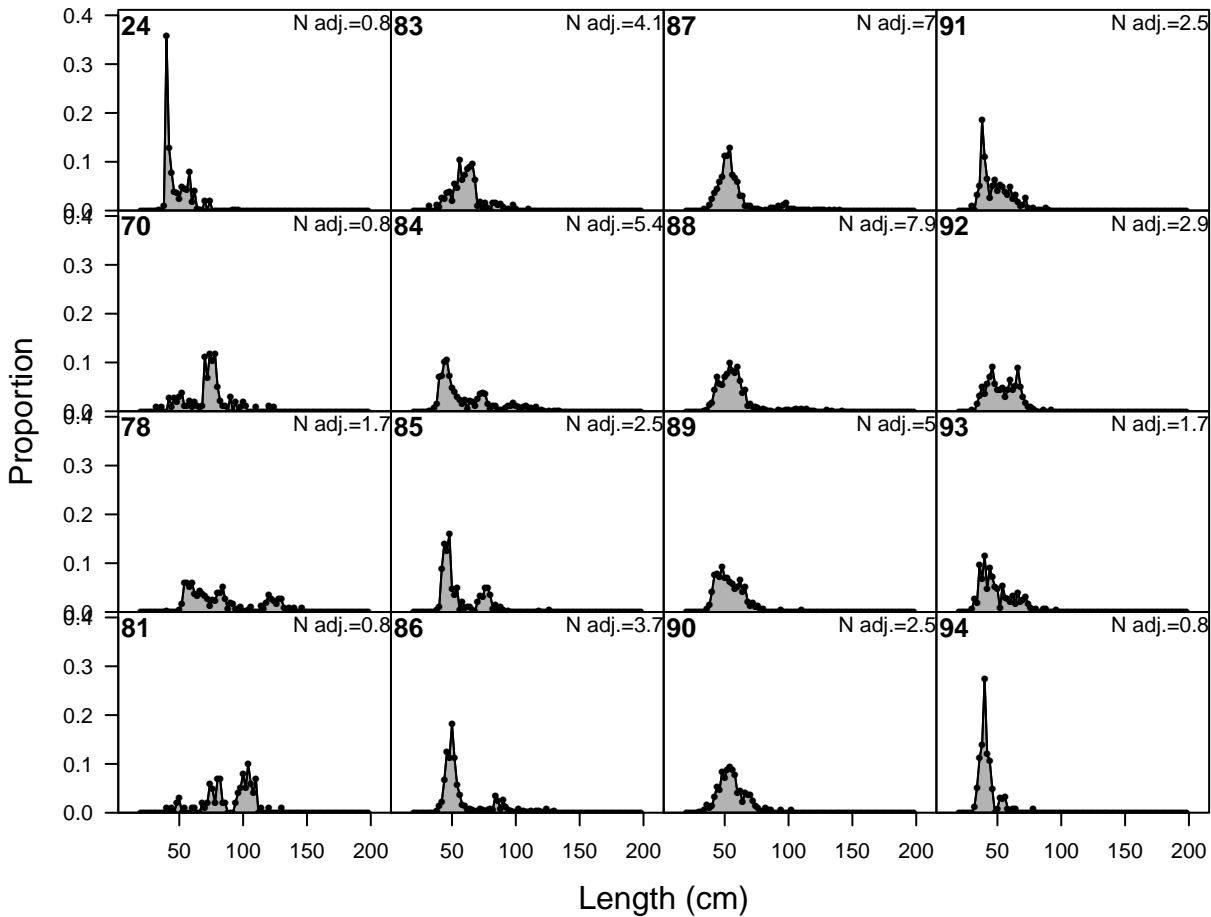


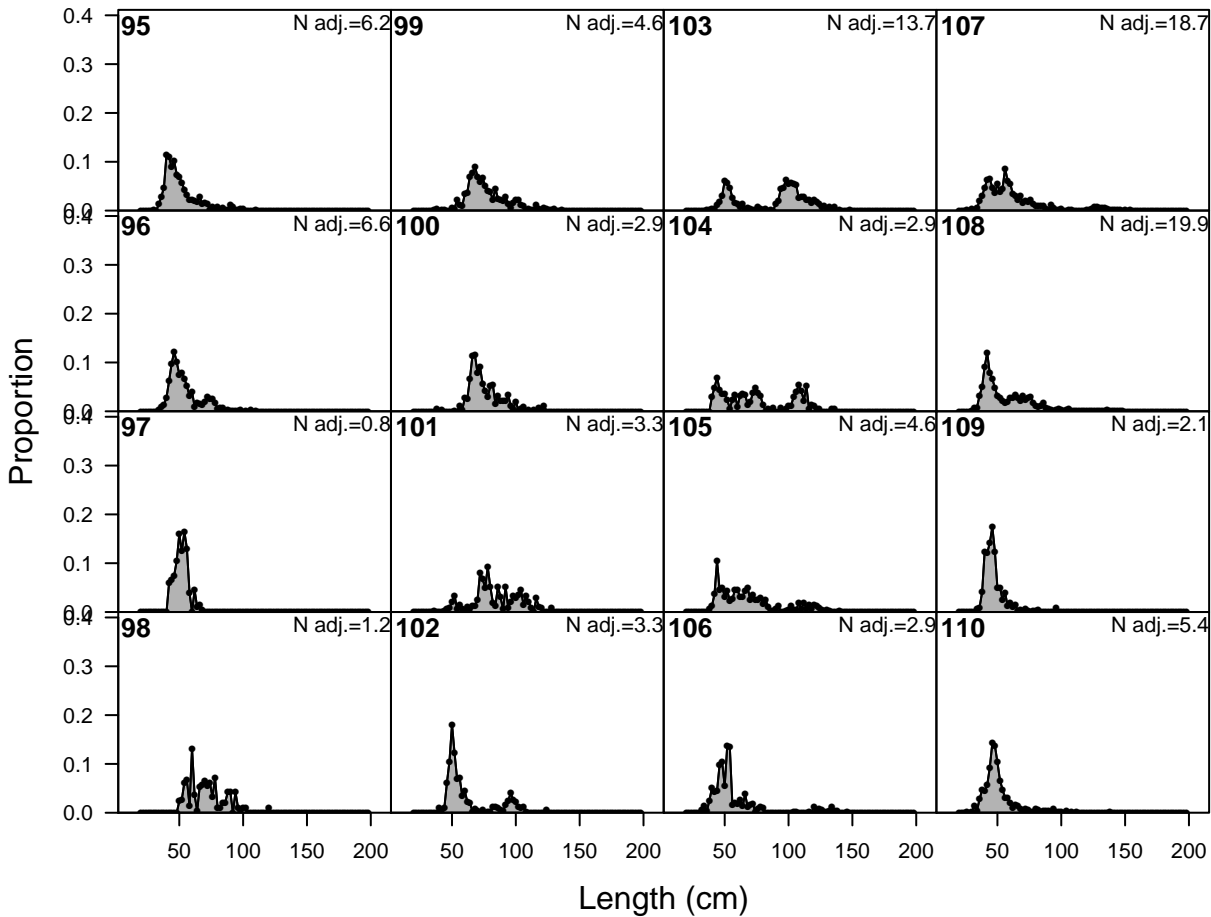


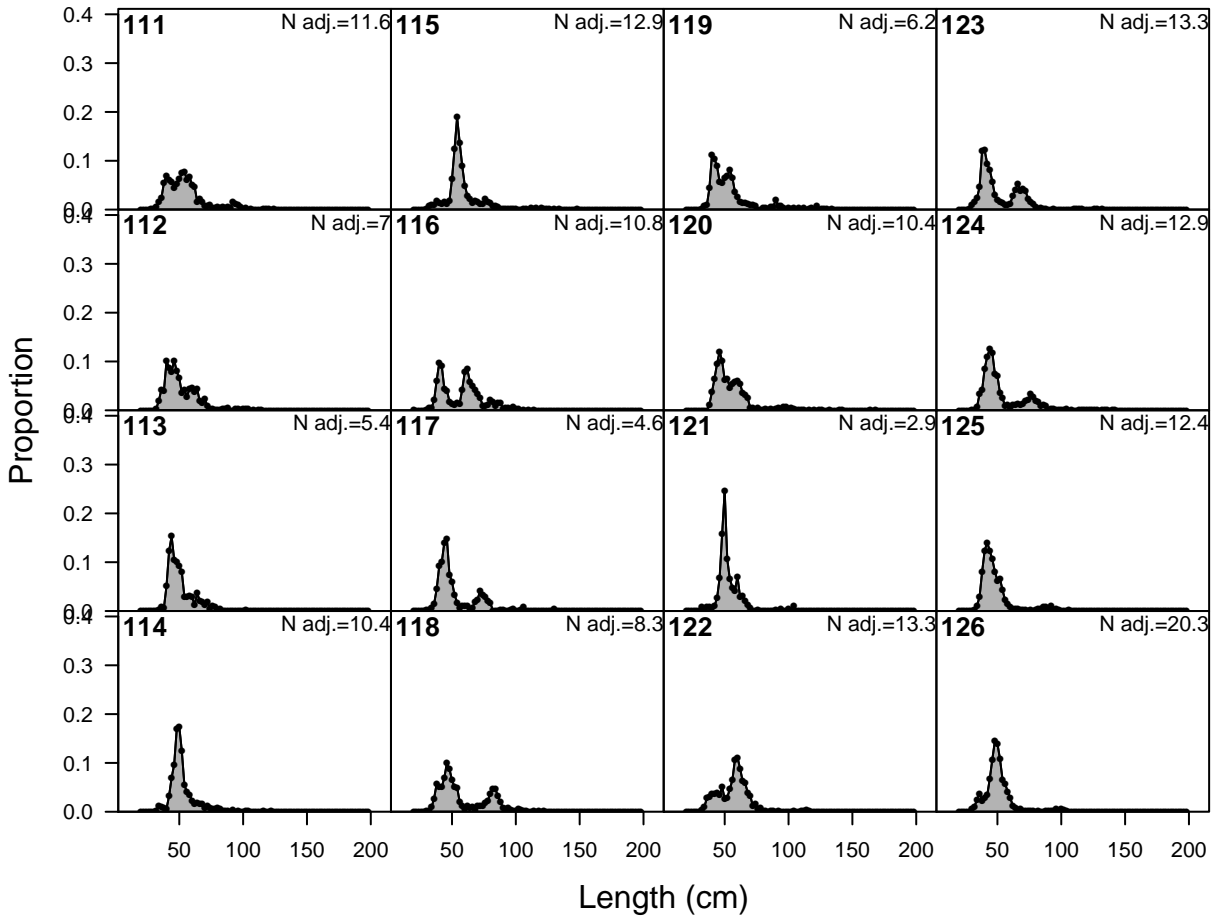


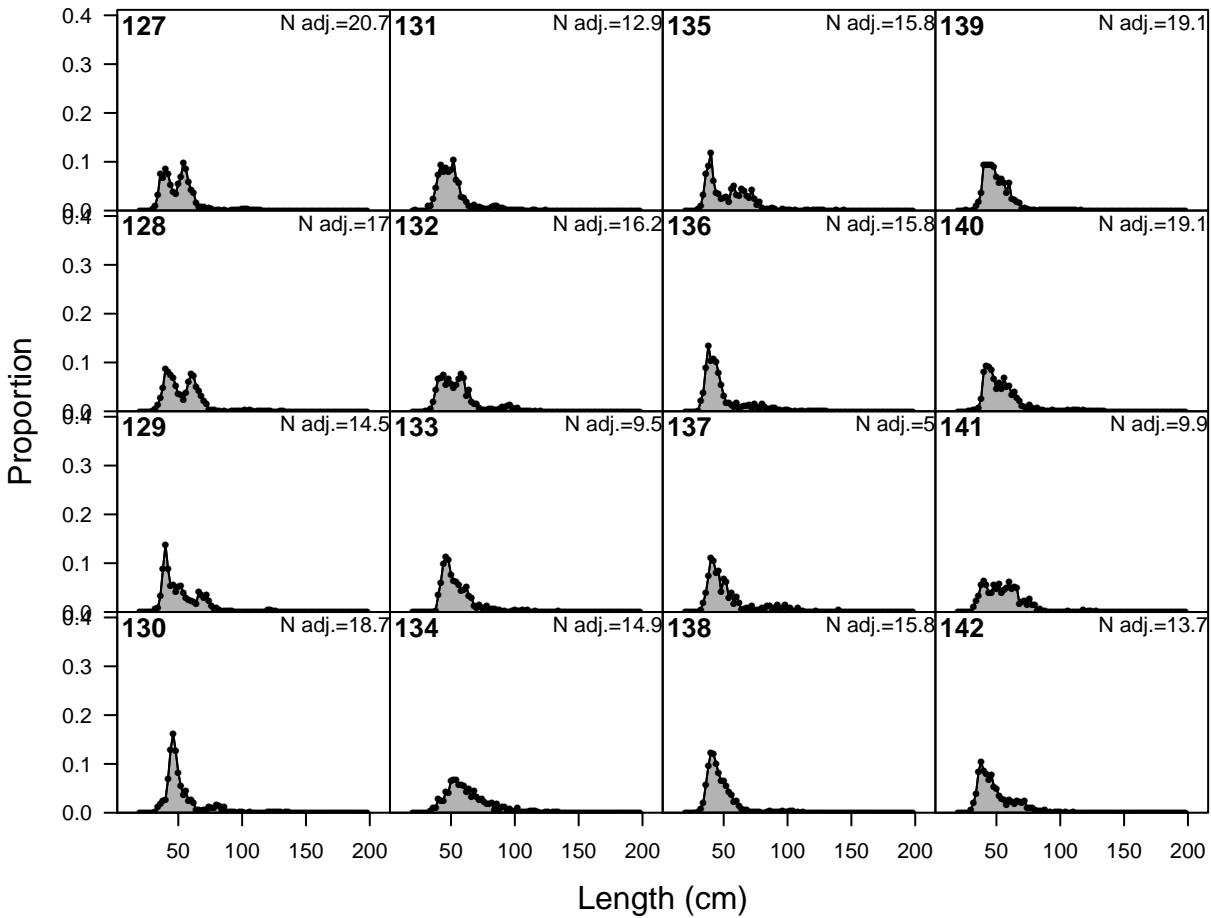
A6-LL-n (whole catch)

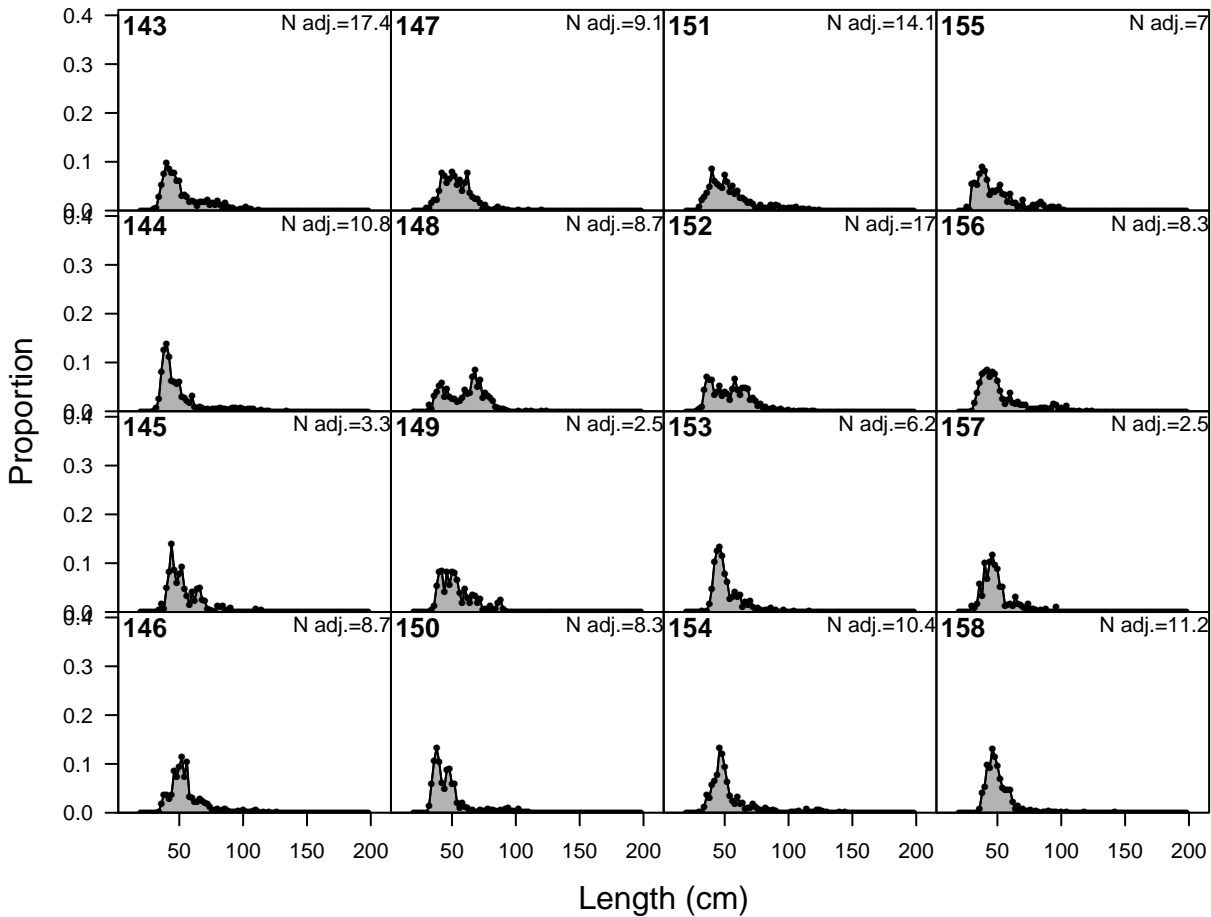


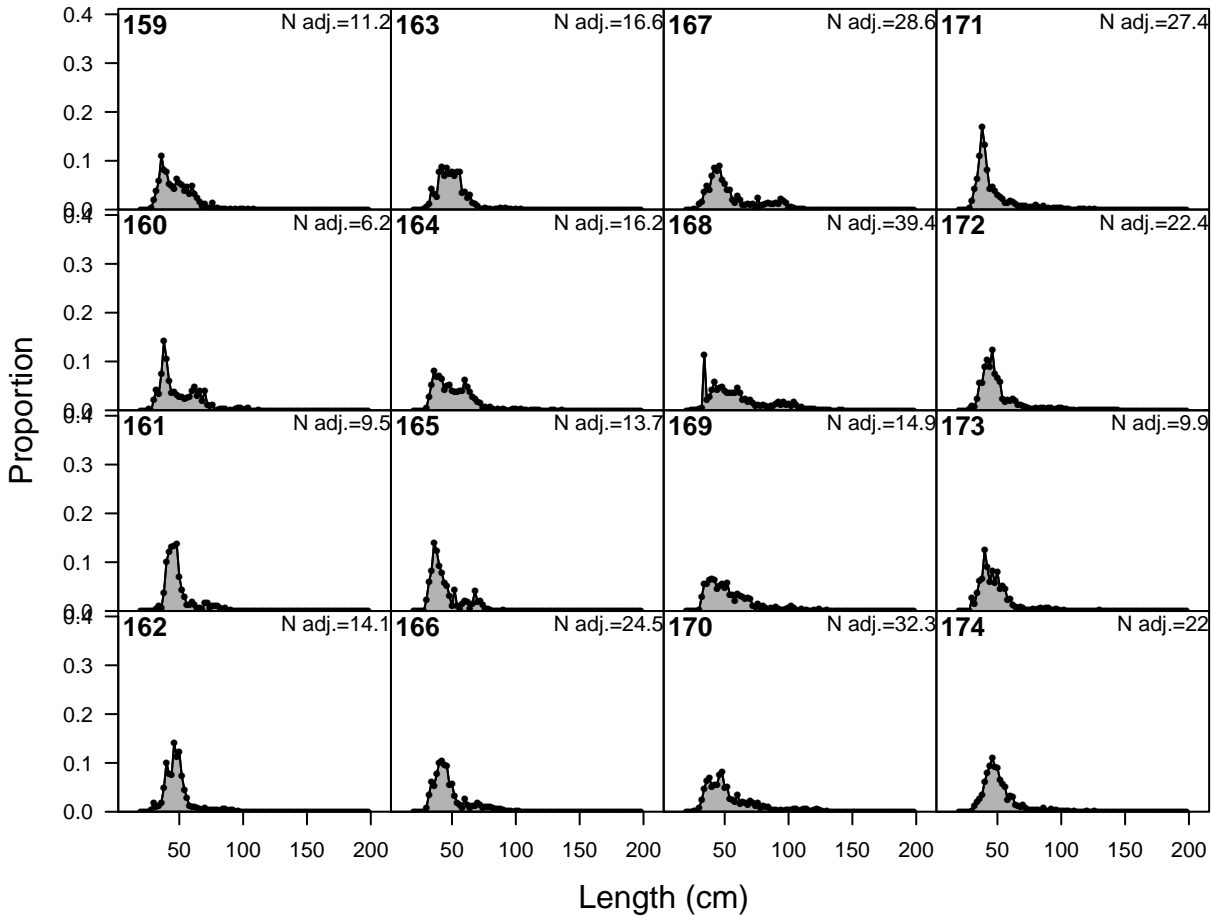


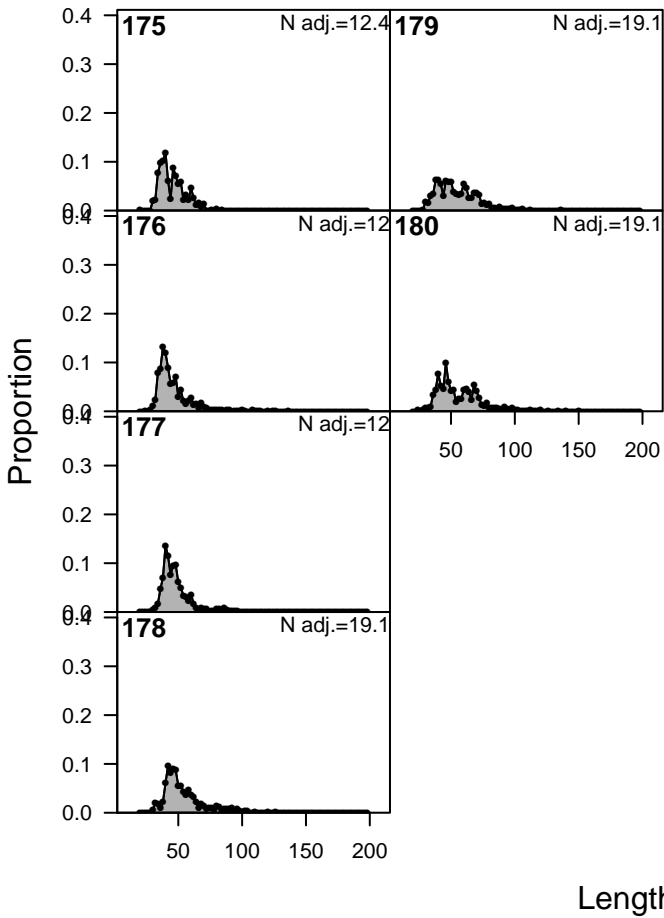


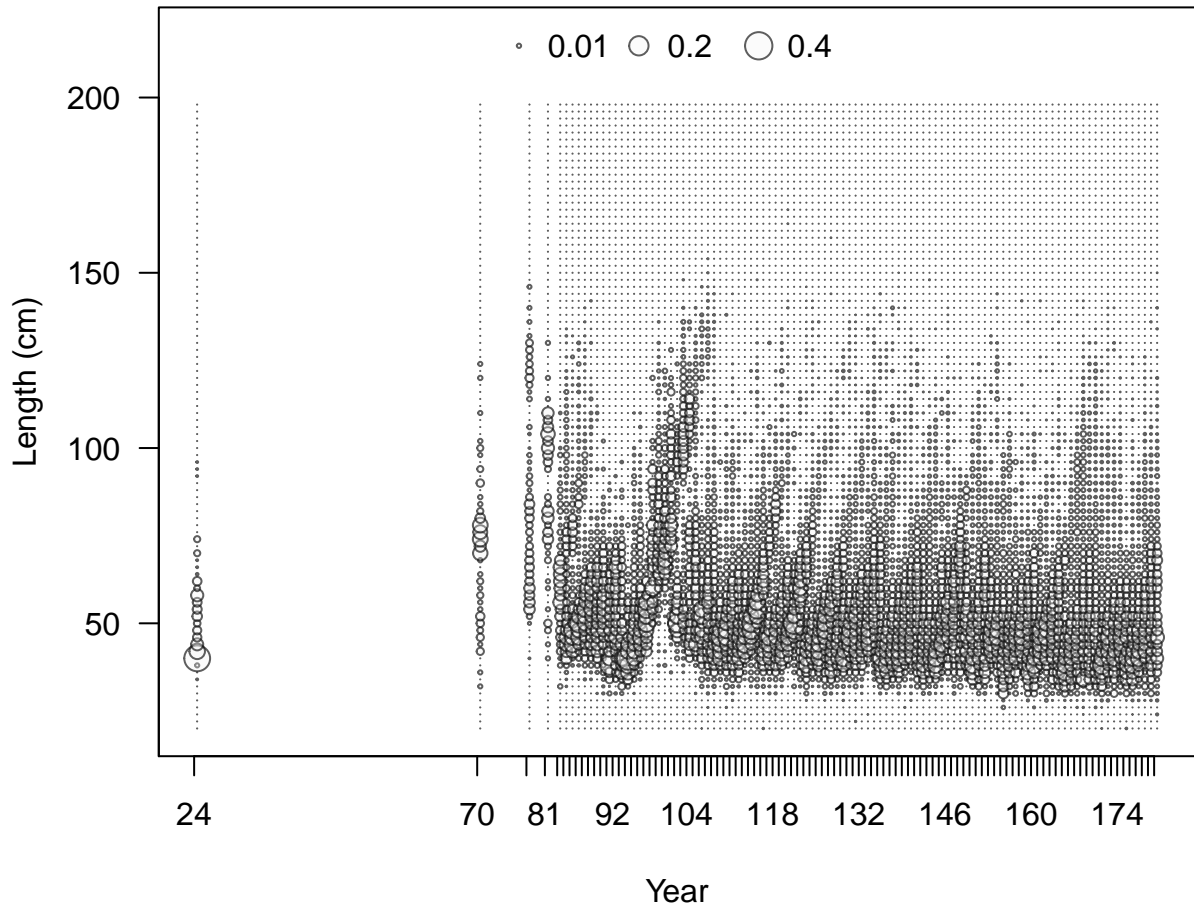




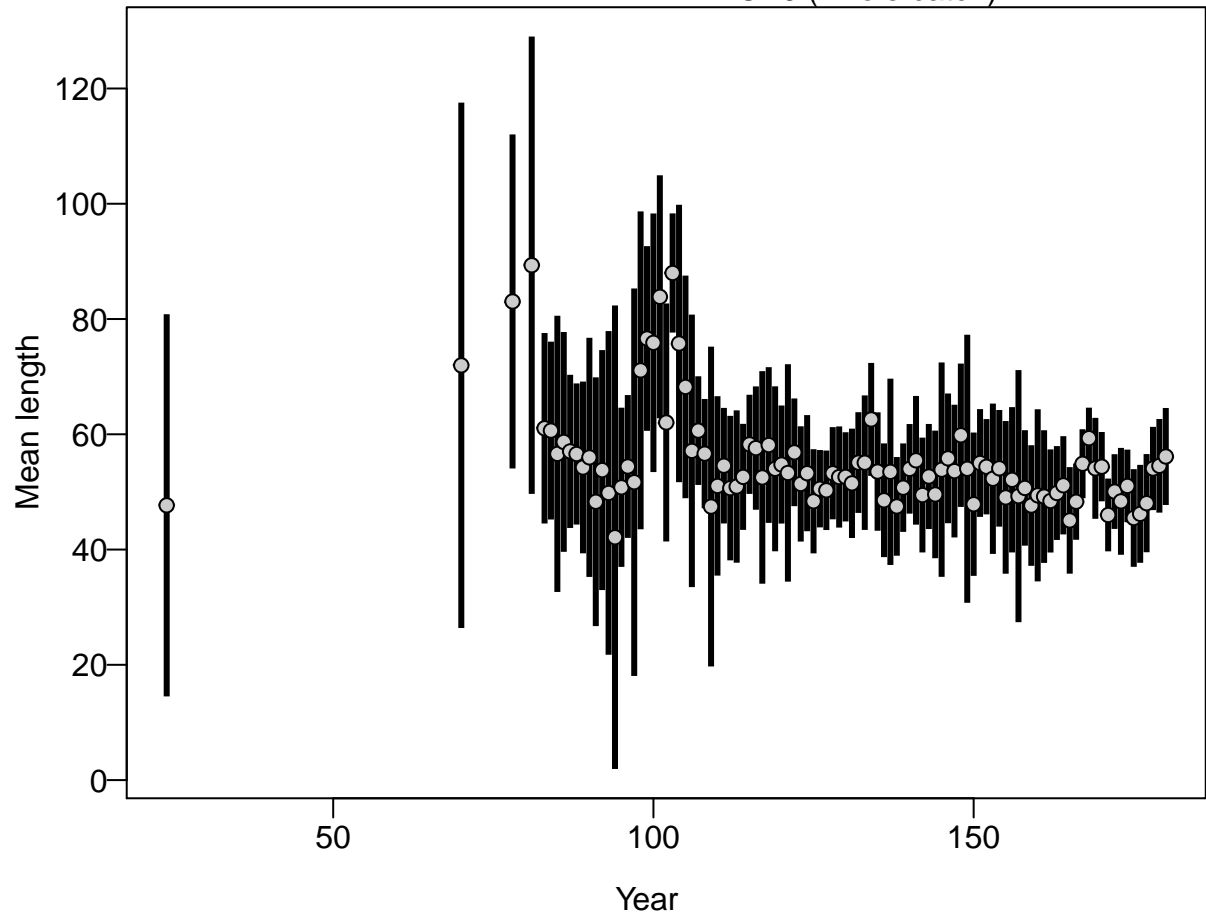


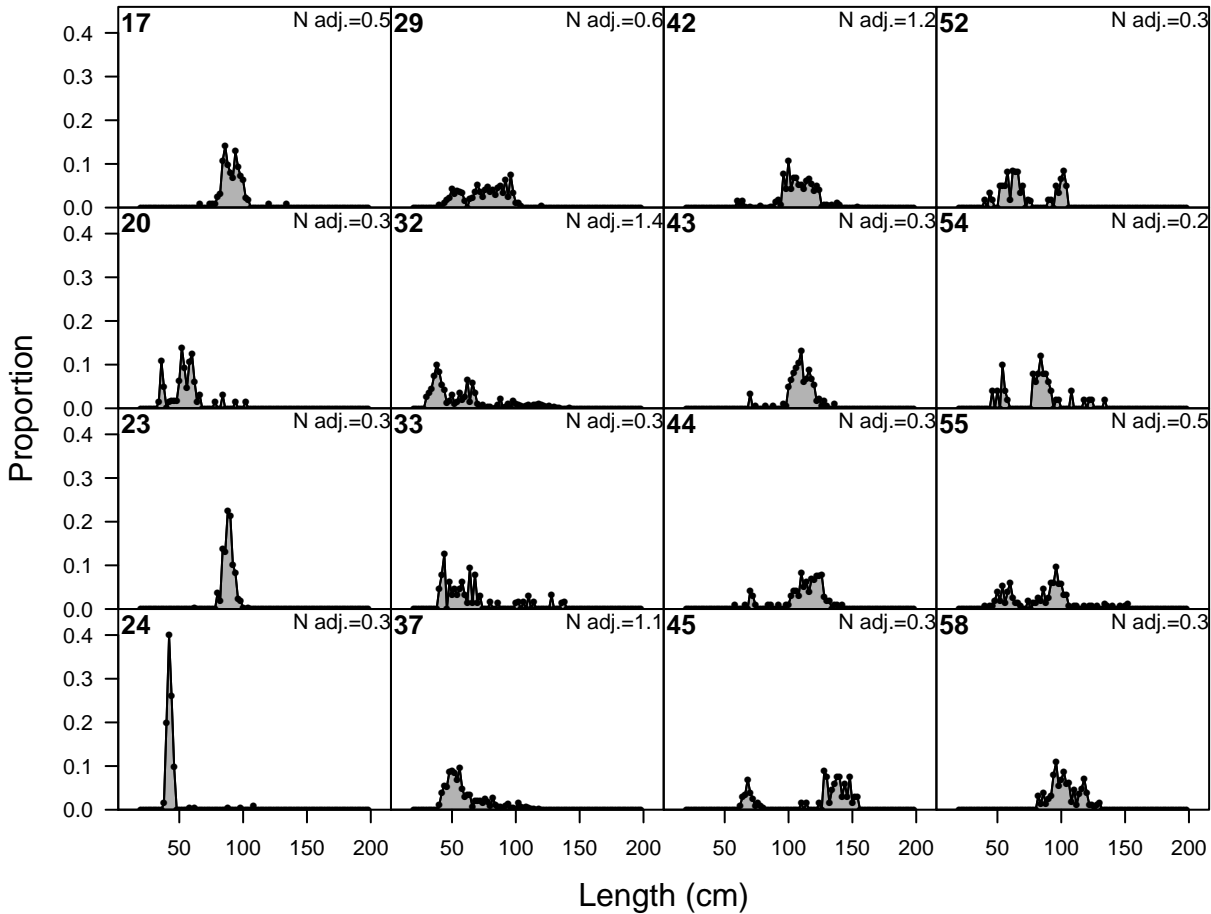


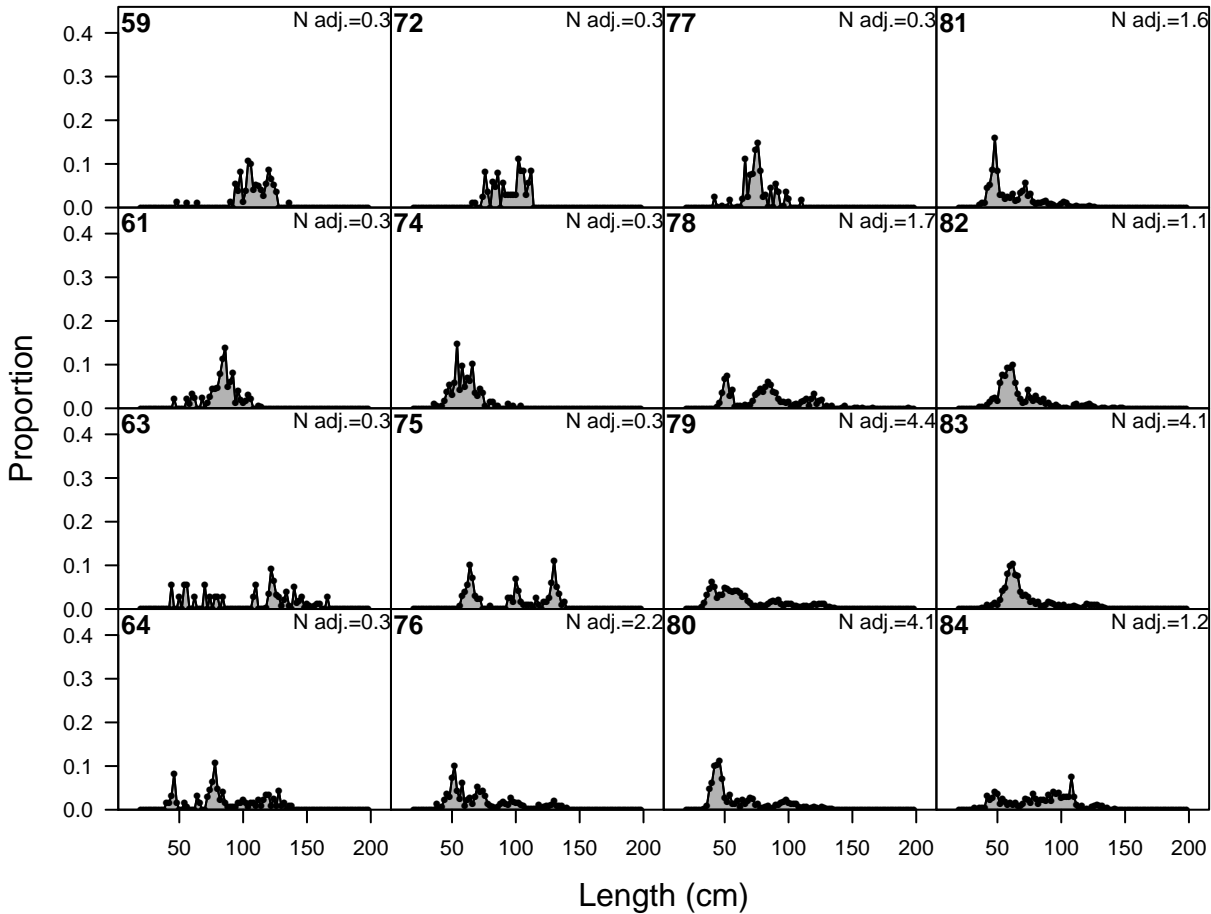


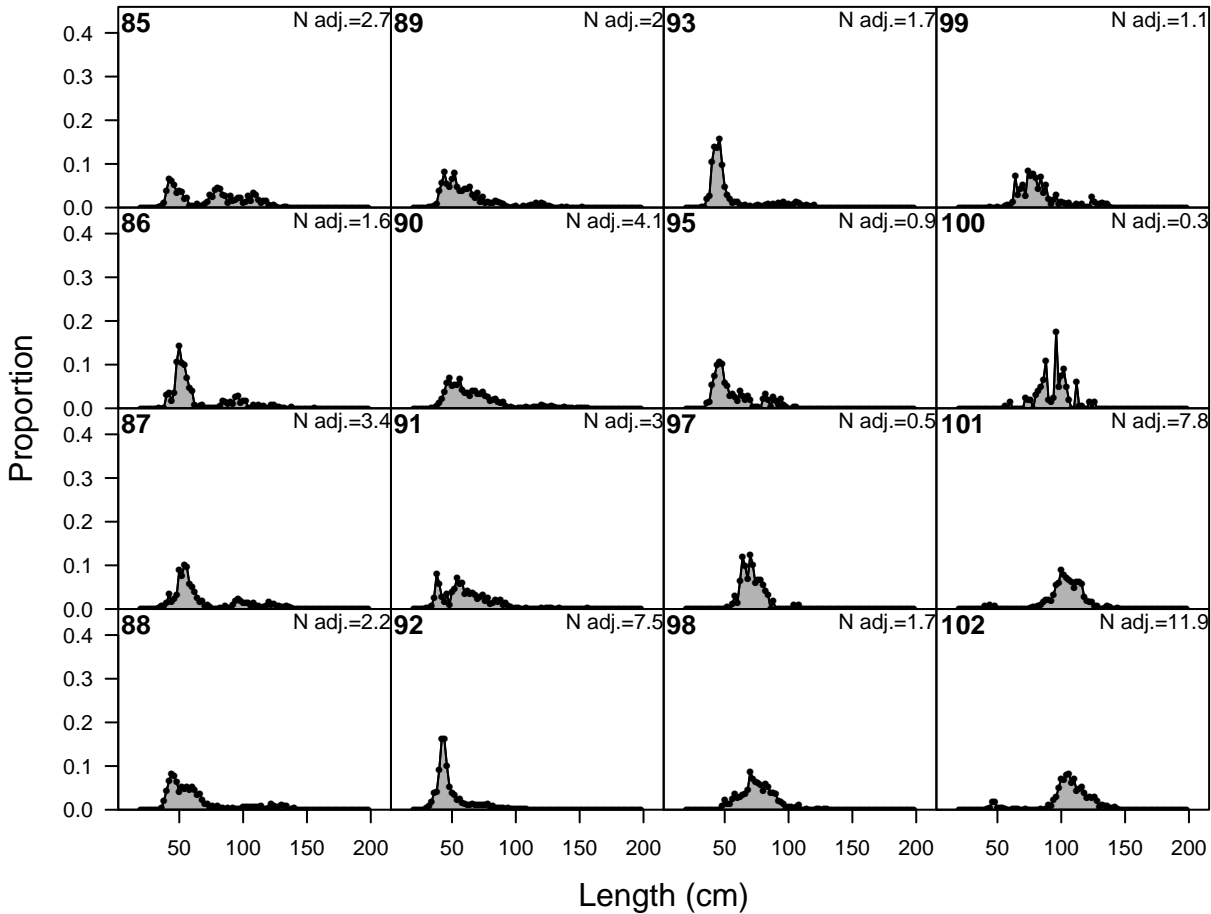


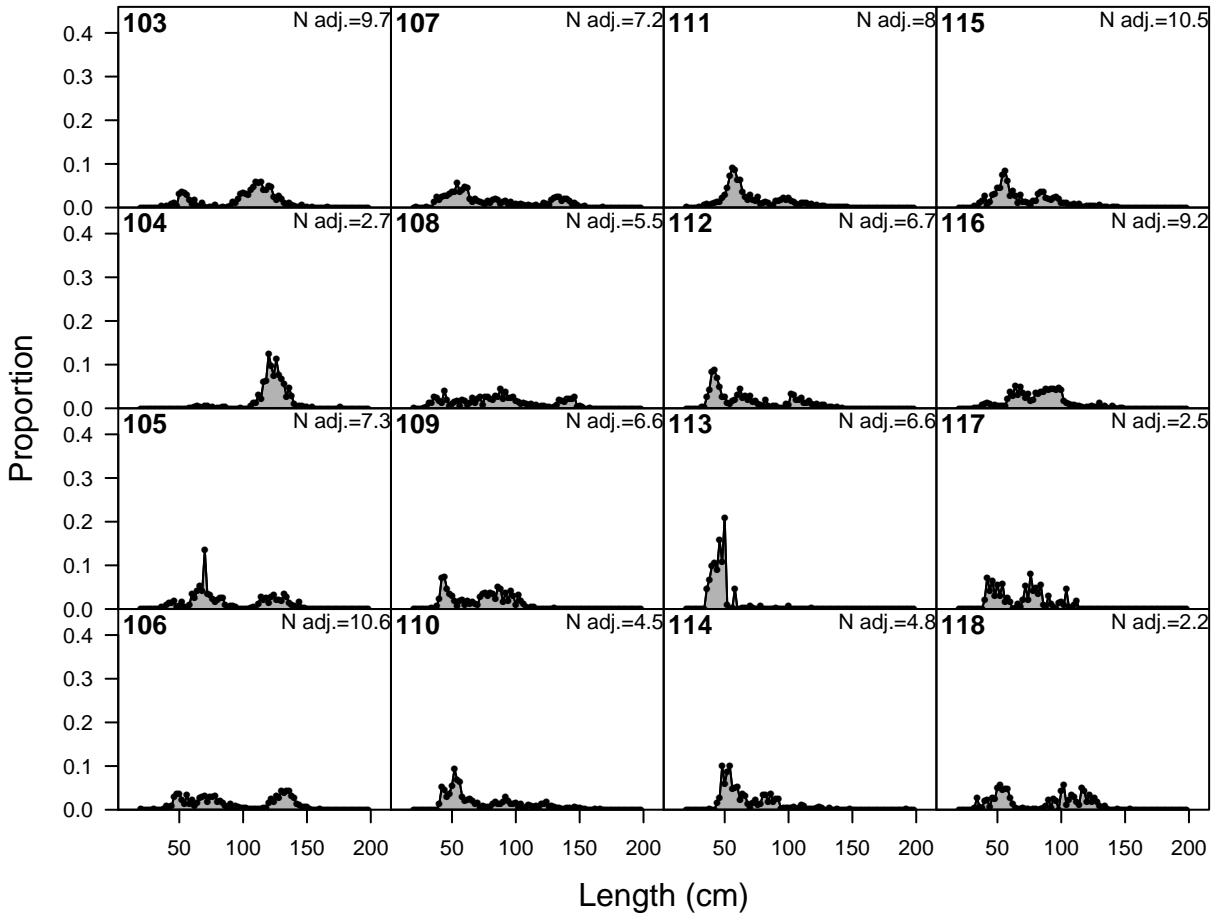
A2-OBJ (whole catch)

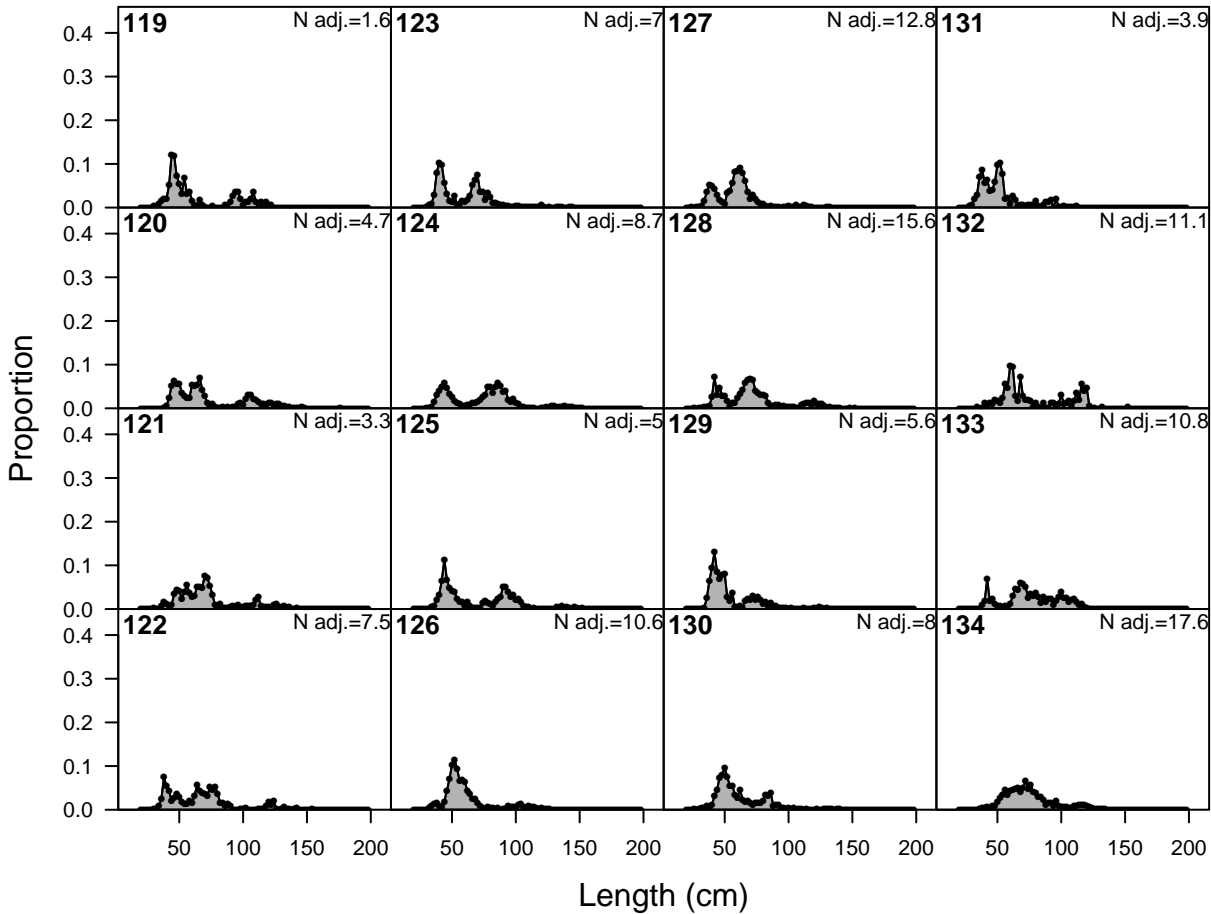


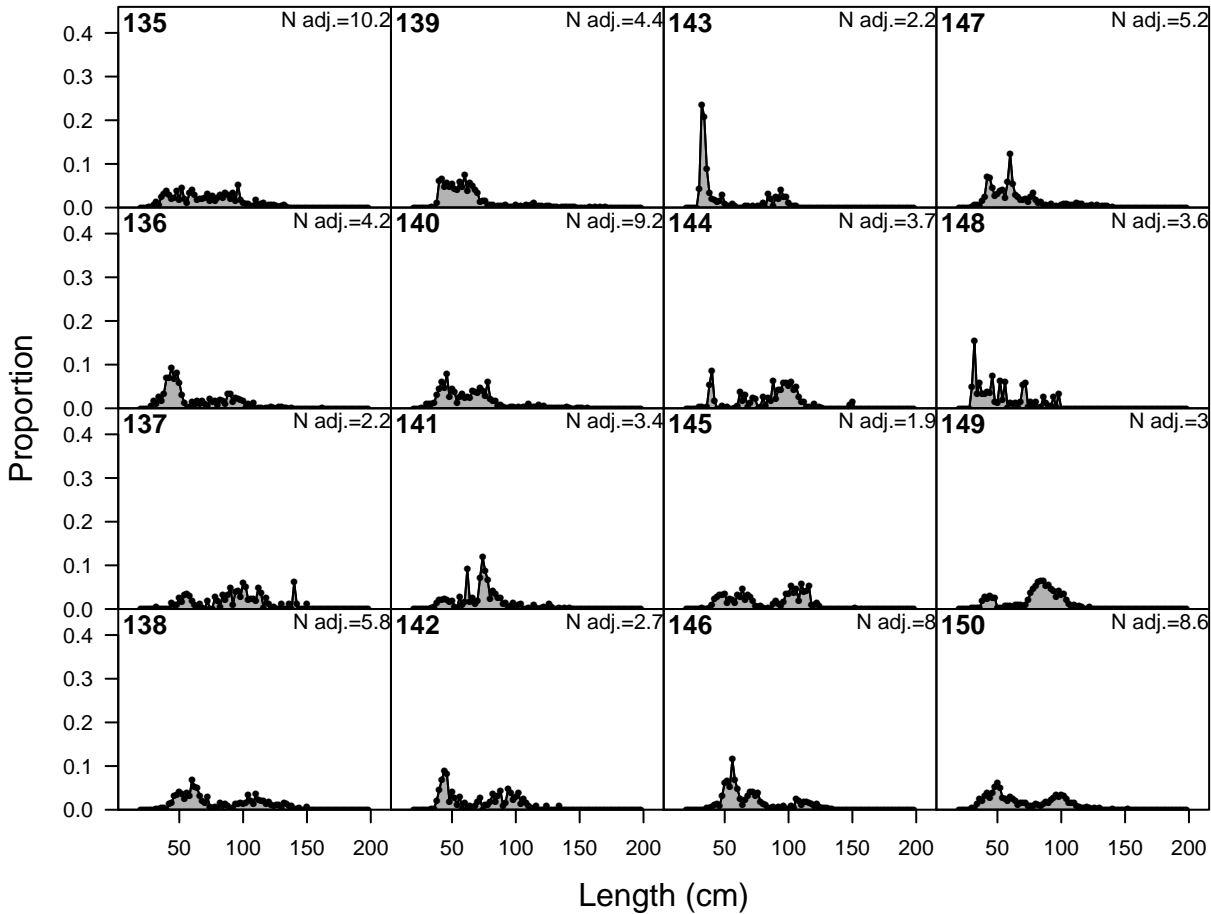


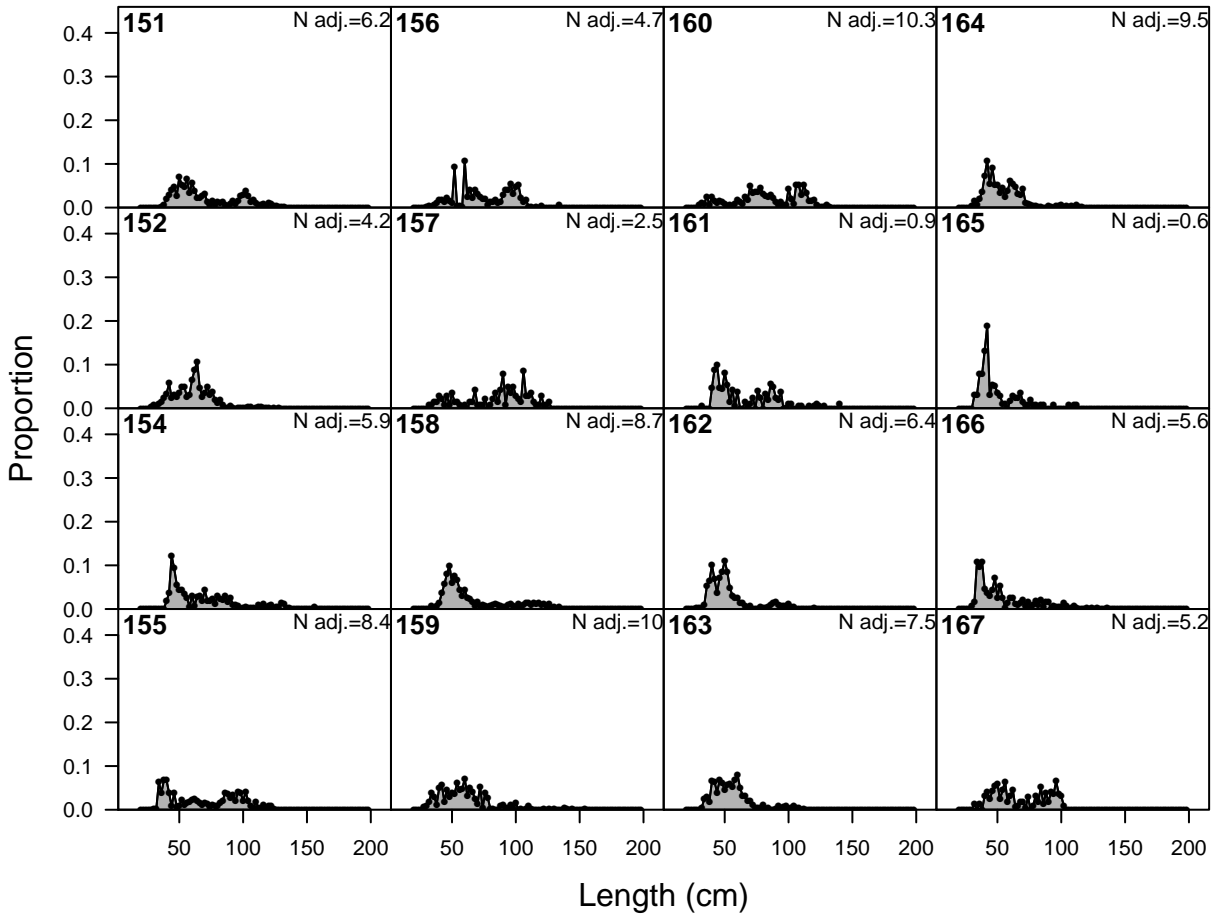


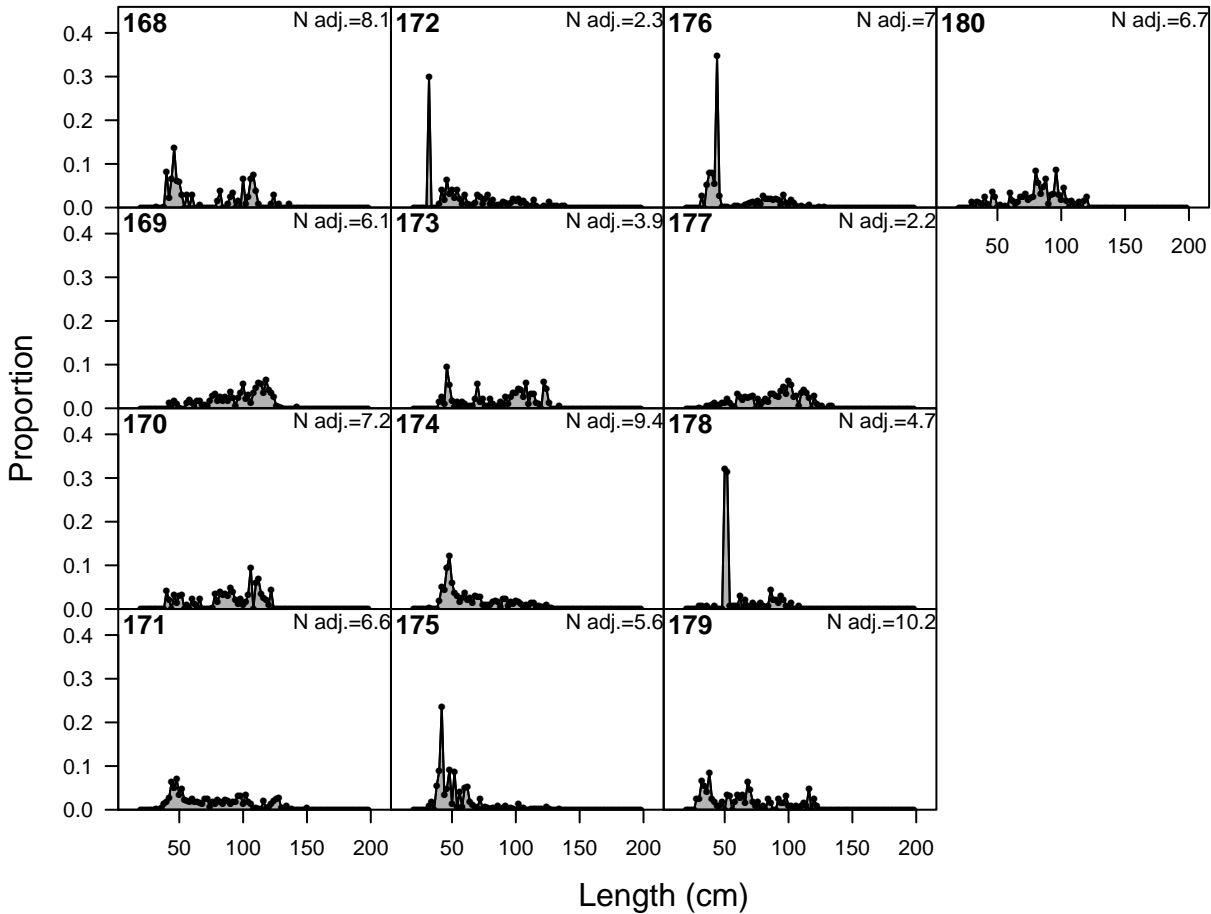


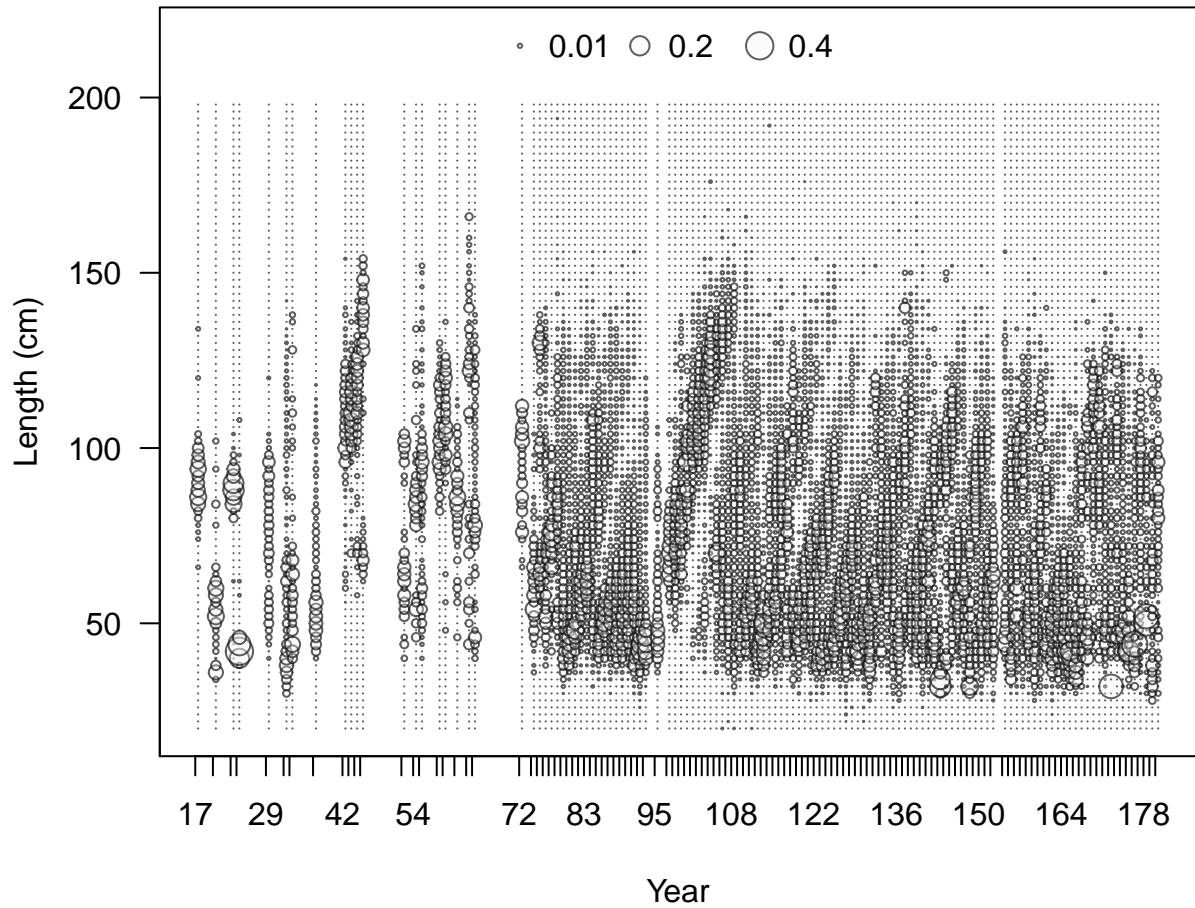




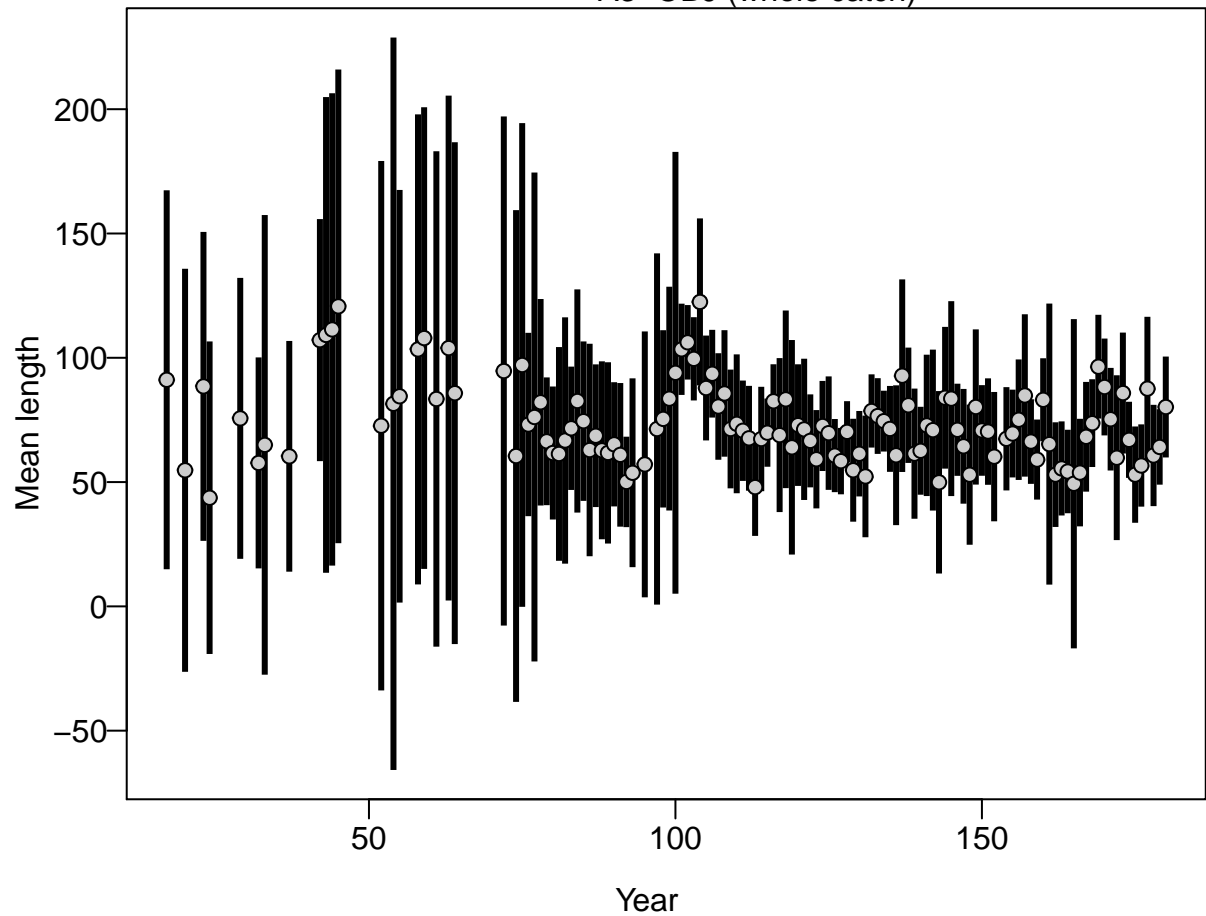




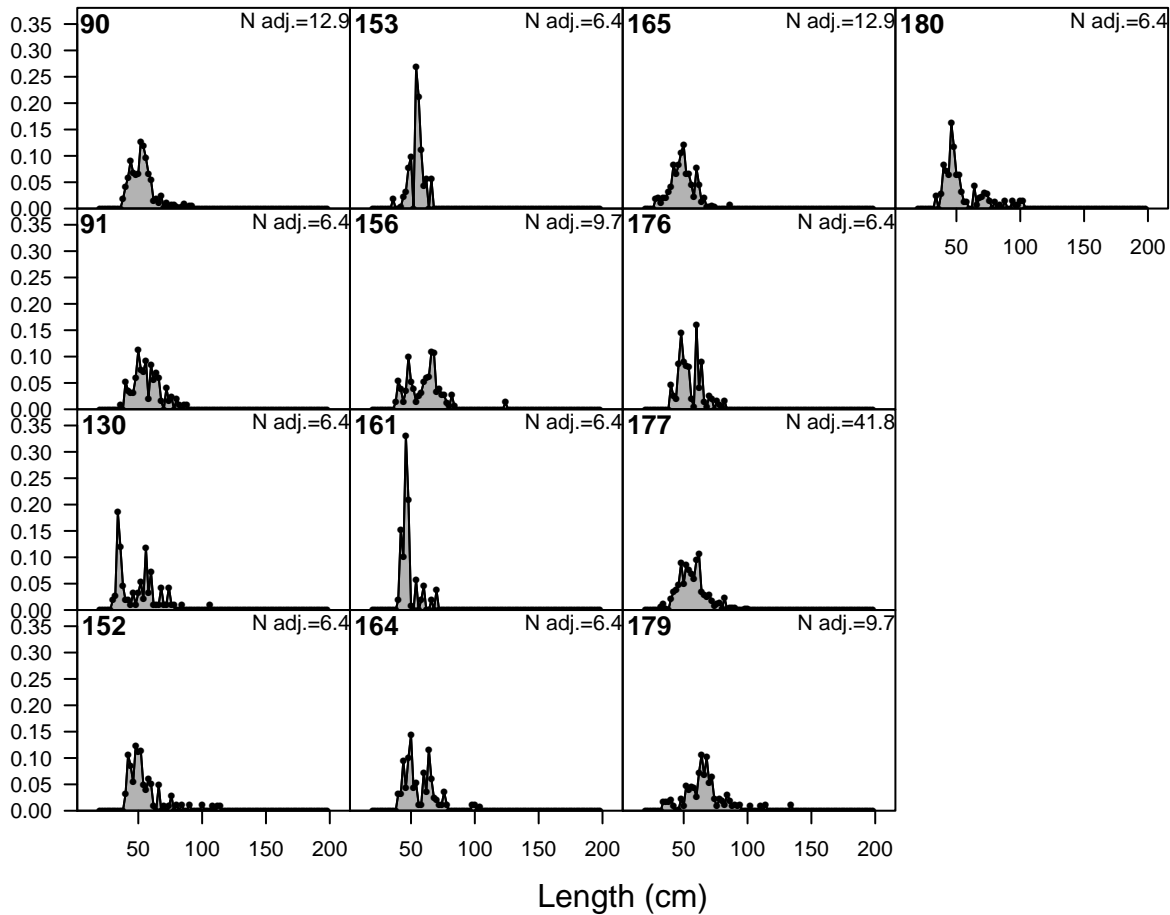


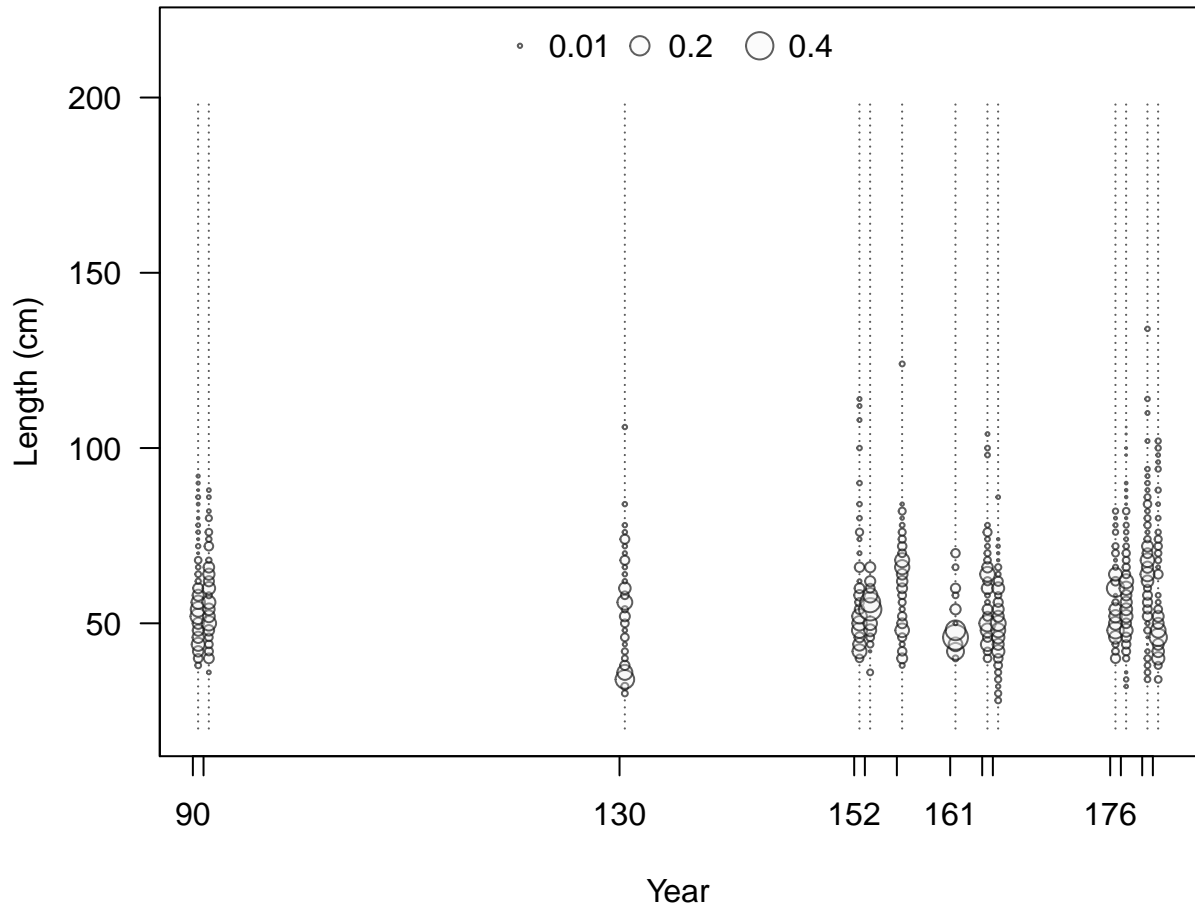


A3-OBJ (whole catch)

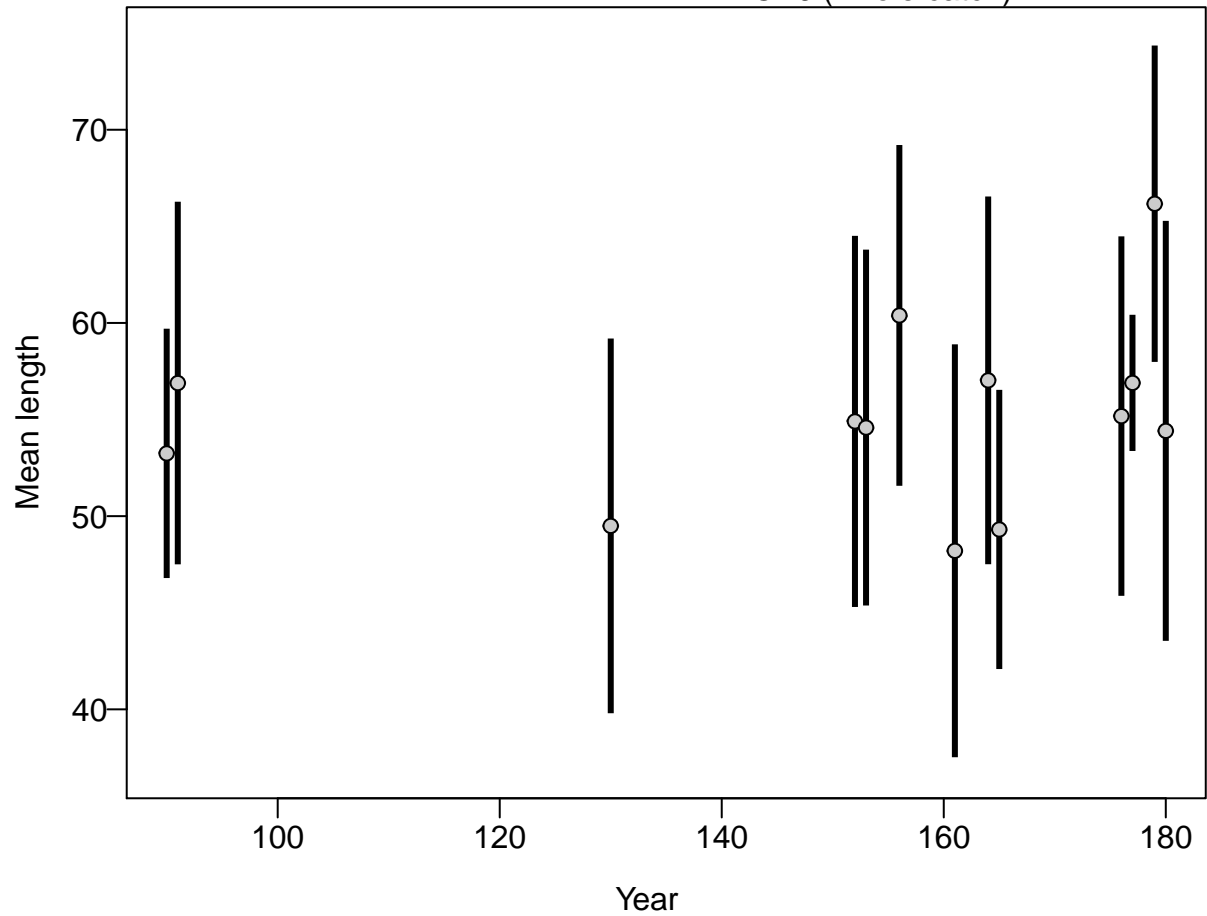


Proportion

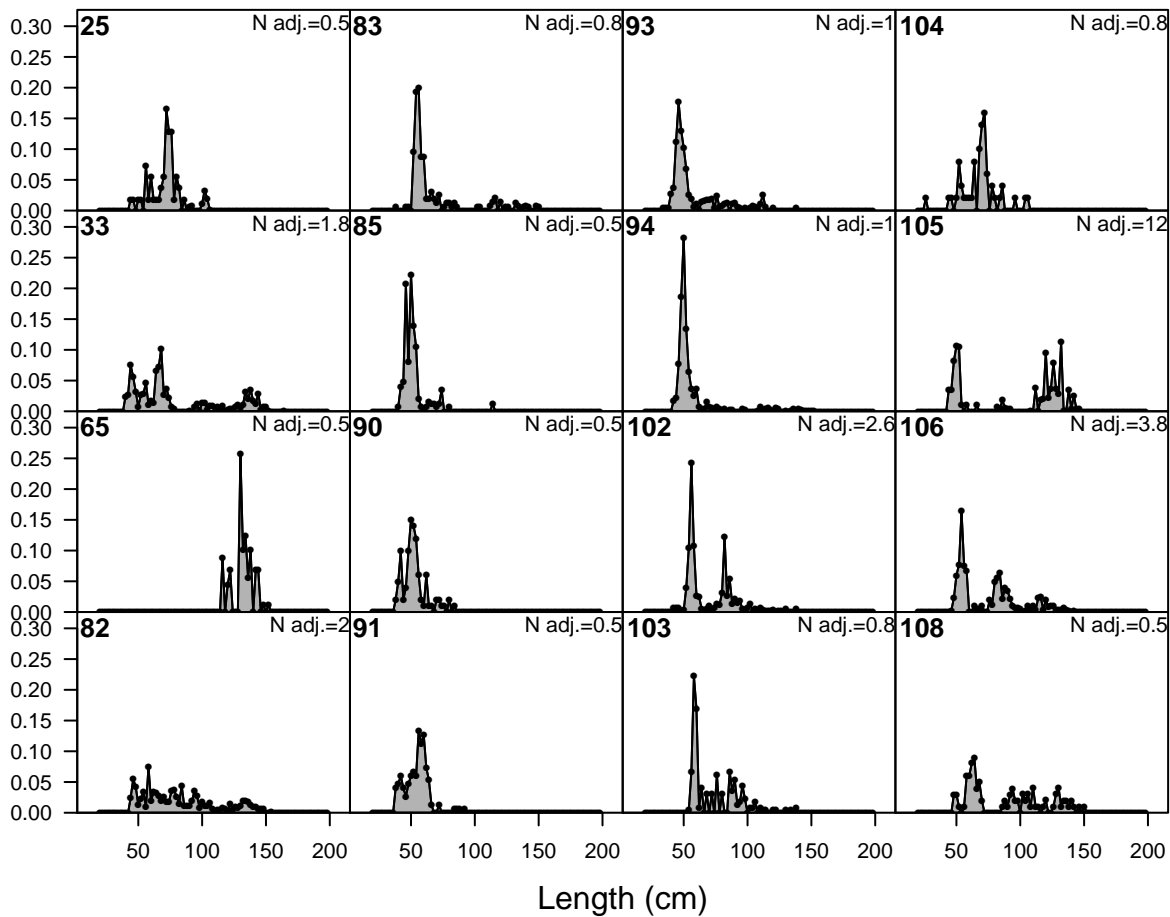




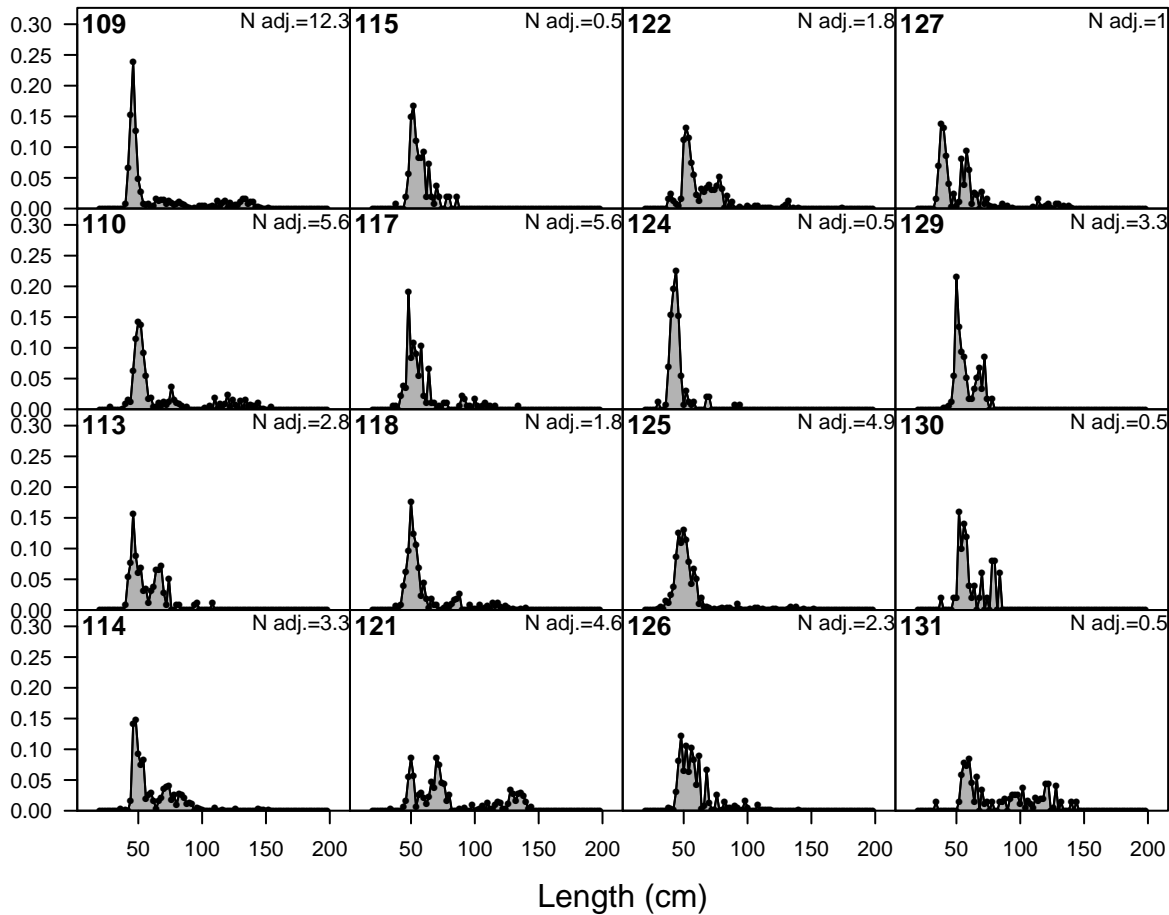
A4-OBJ (whole catch)



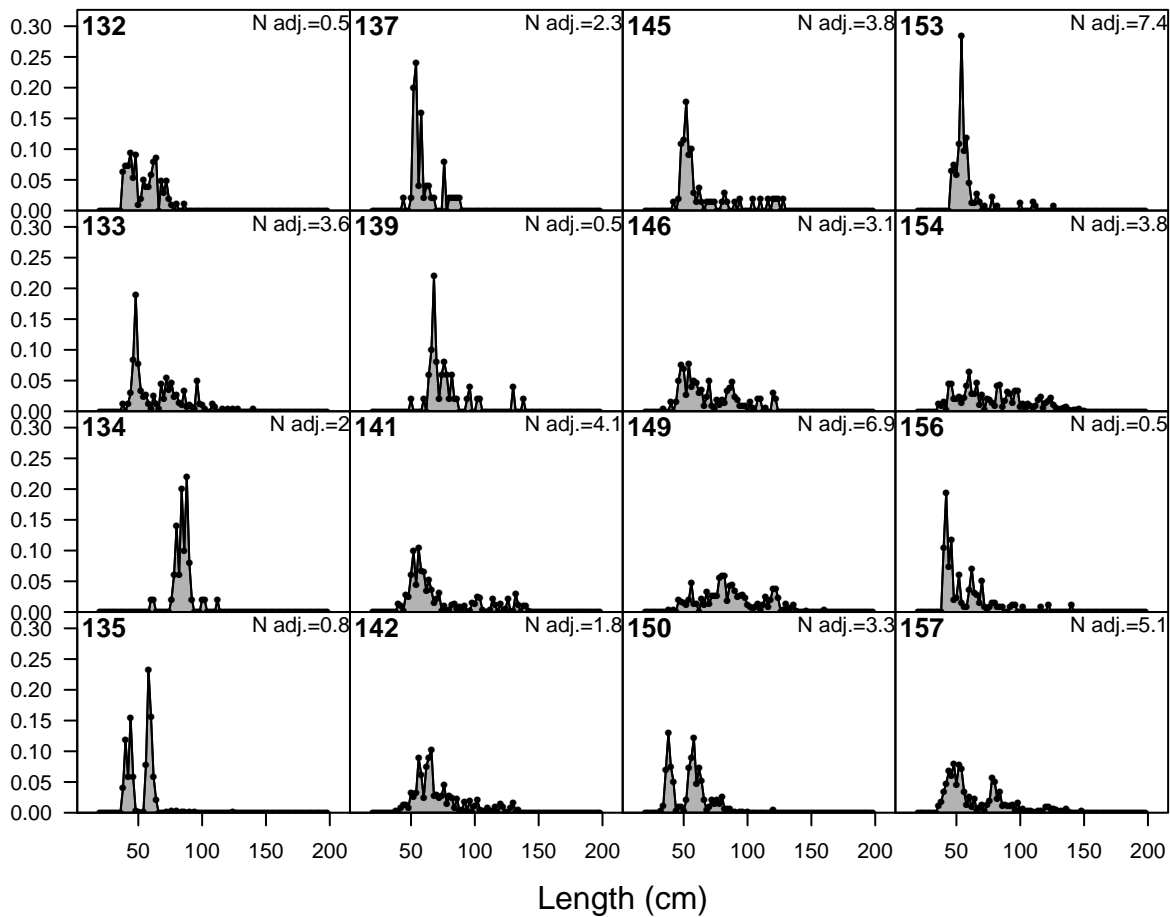
Proportion



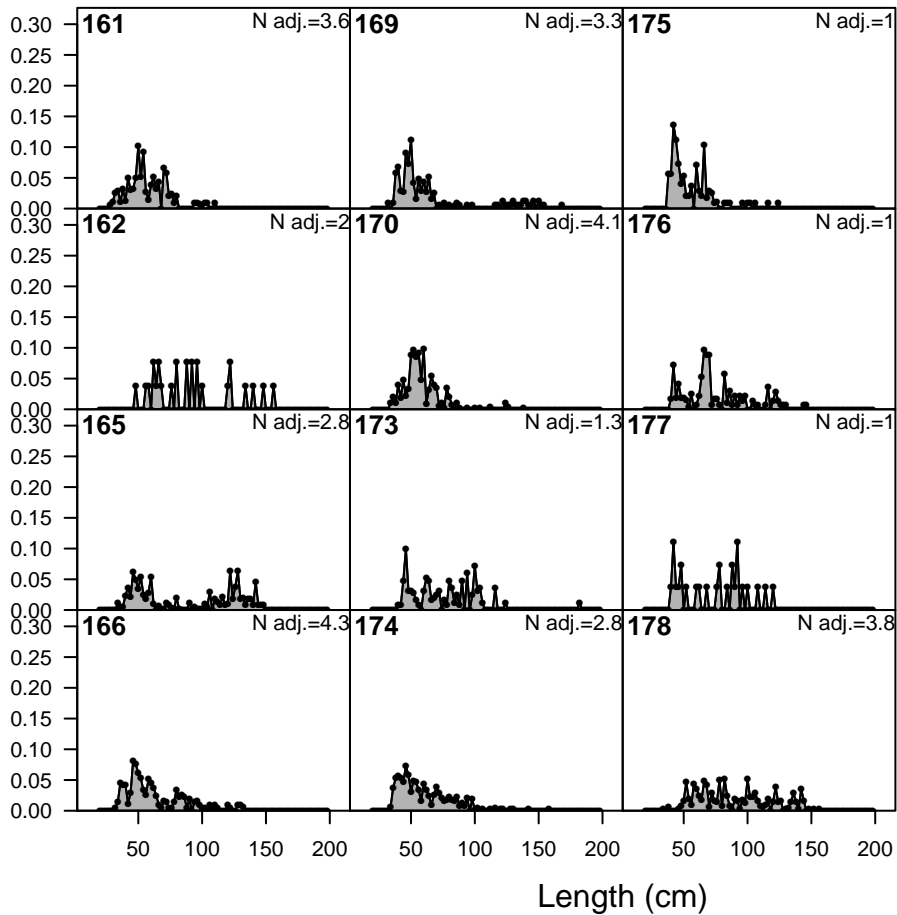
Proportion

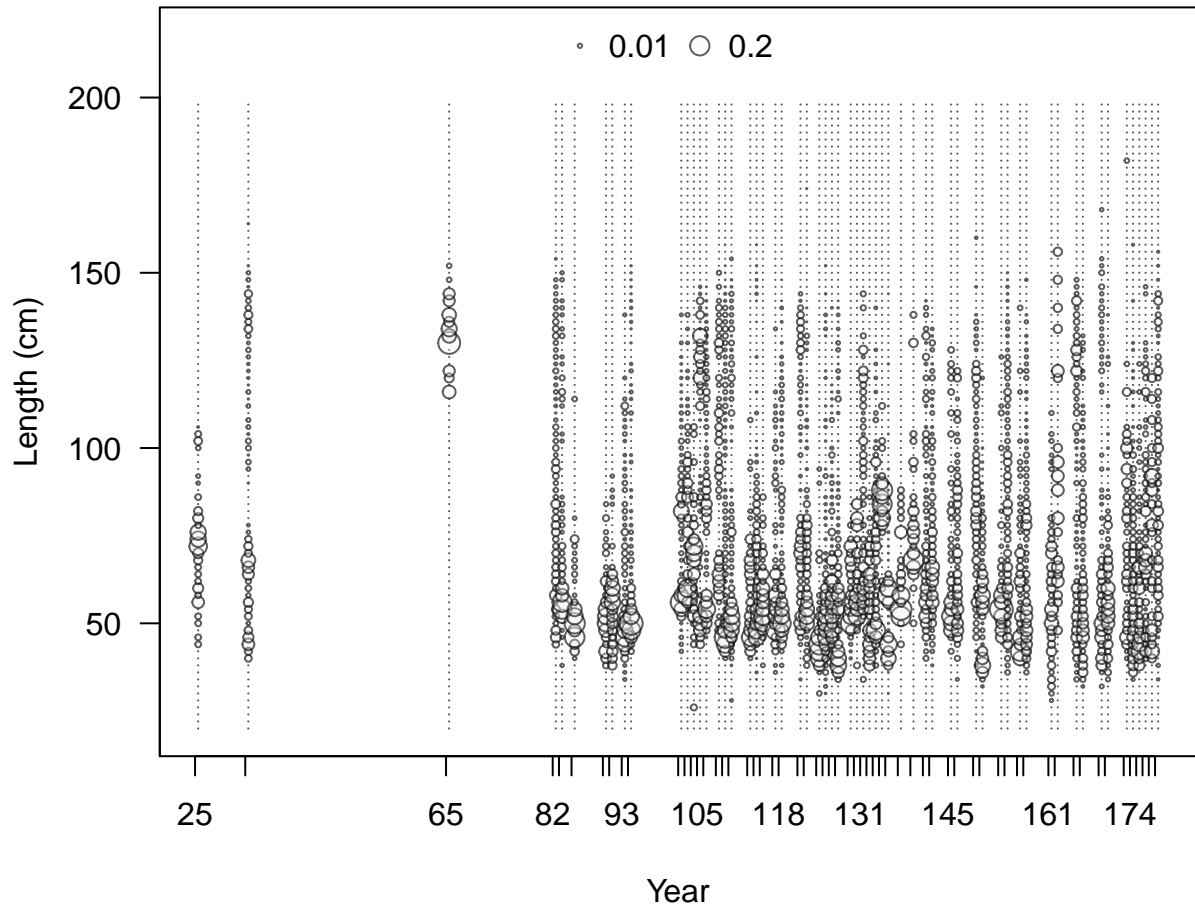


Proportion

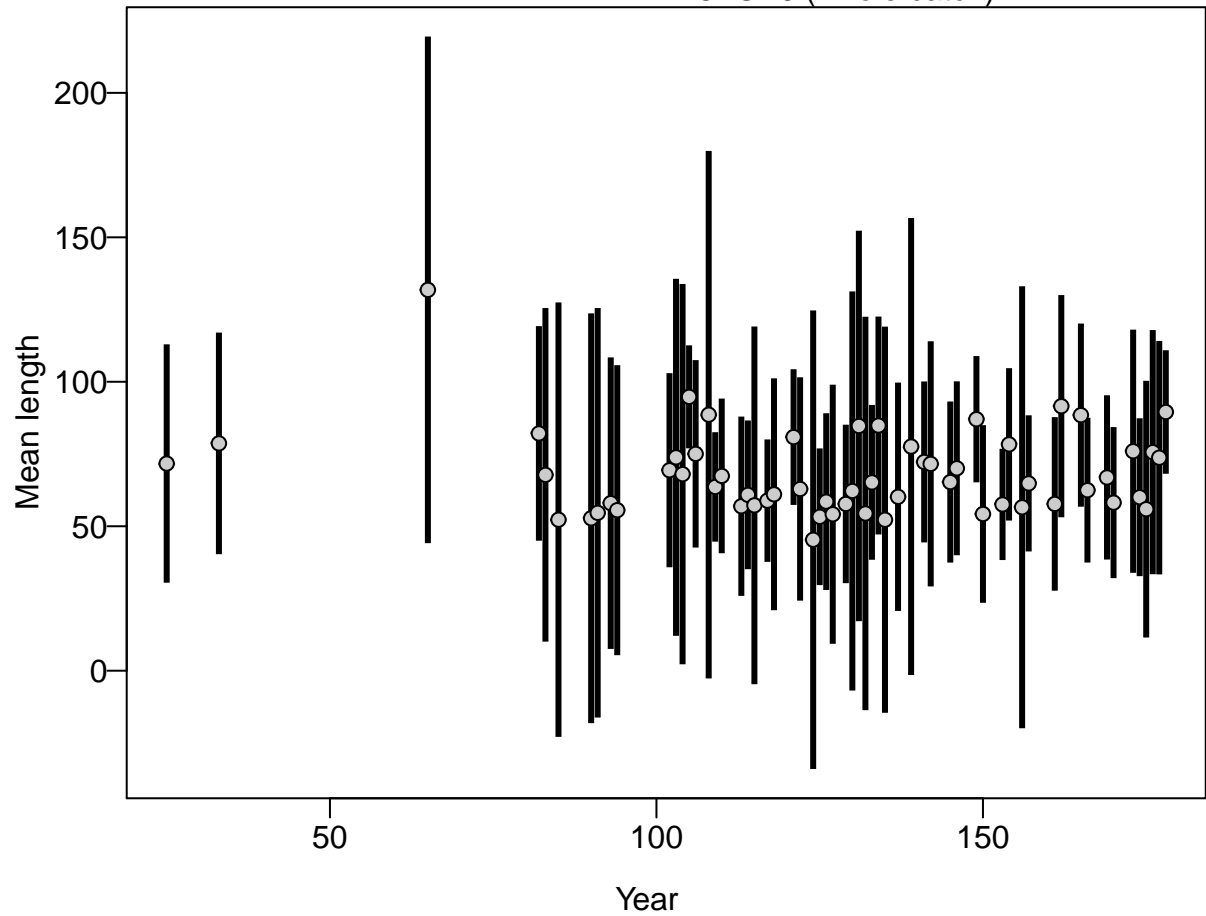


Proportion

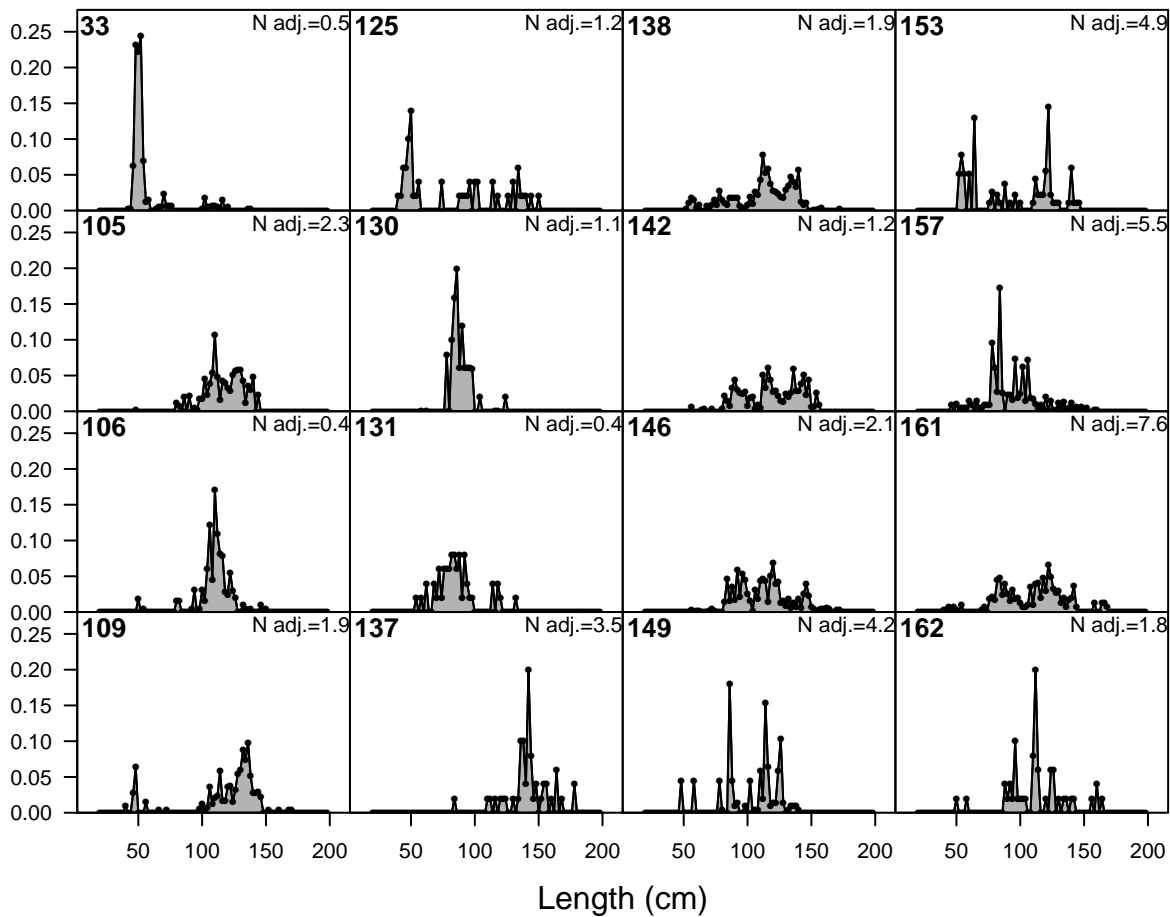


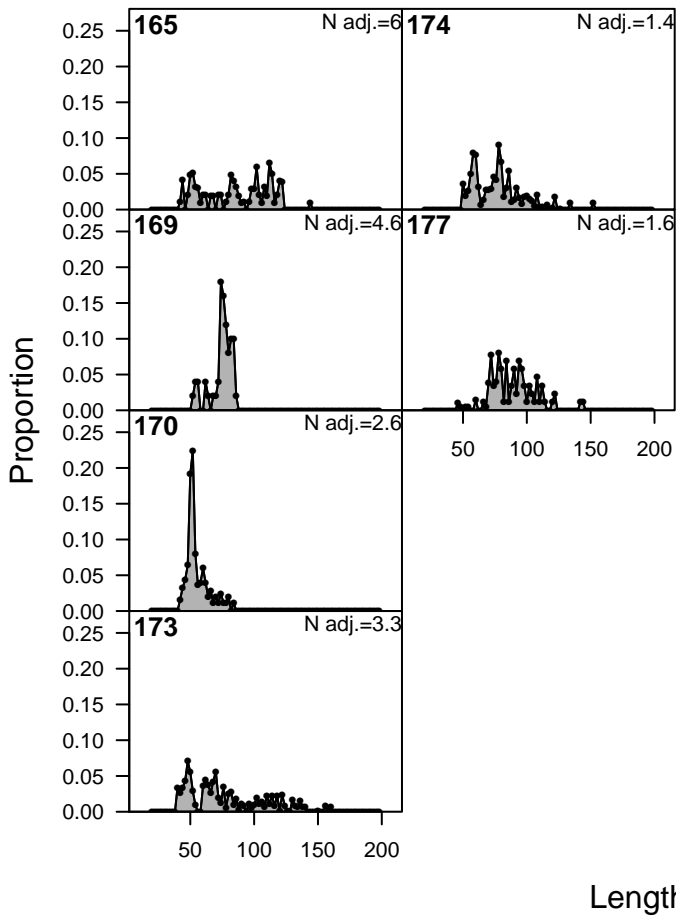


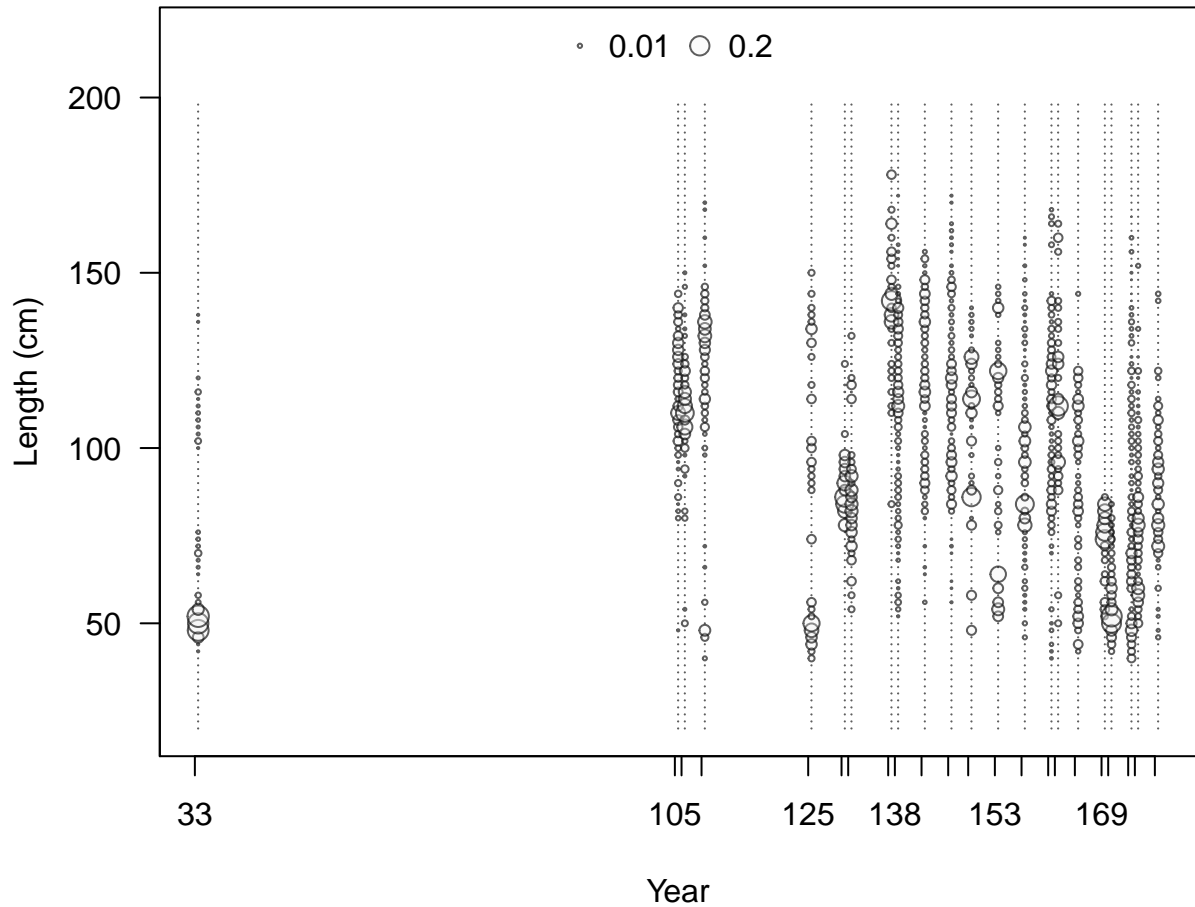
A5-OBJ (whole catch)



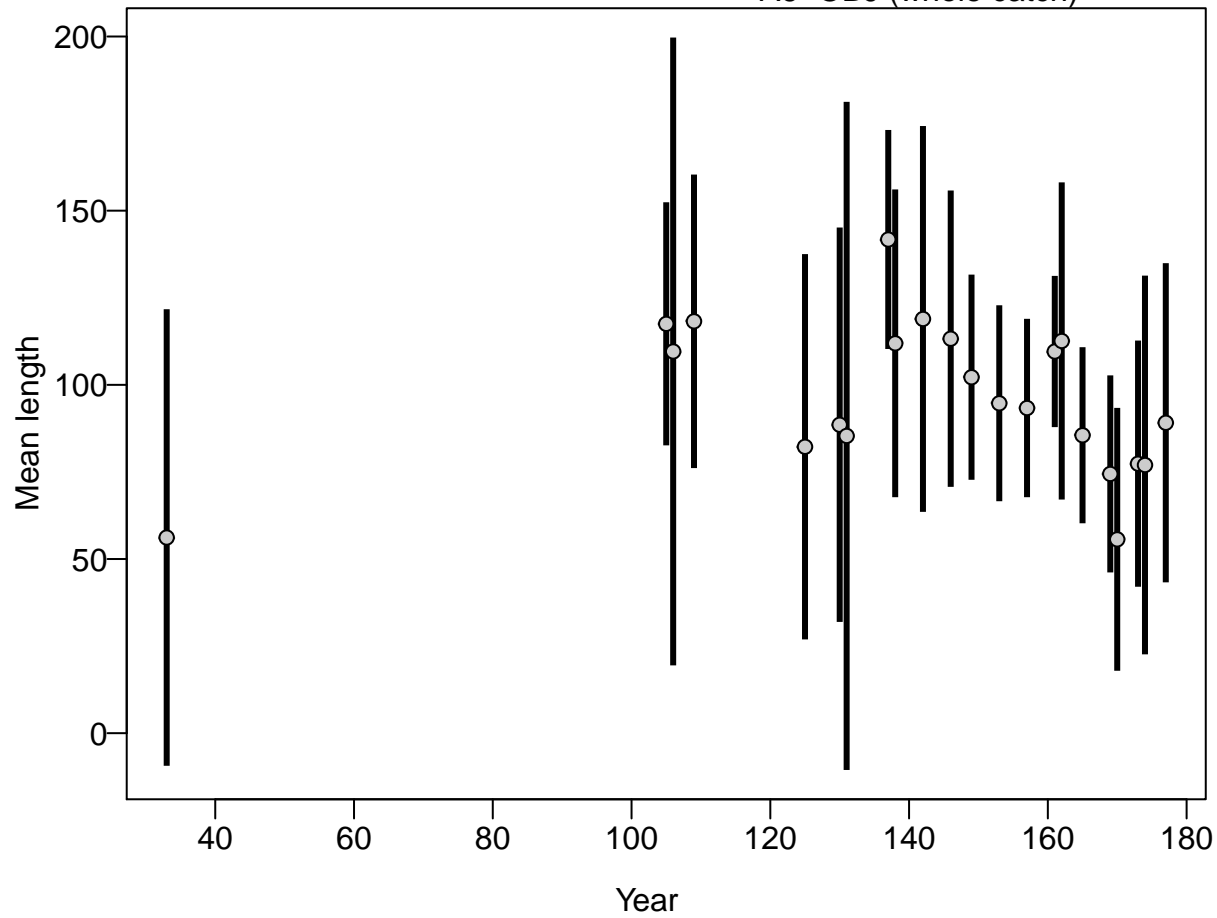
Proportion

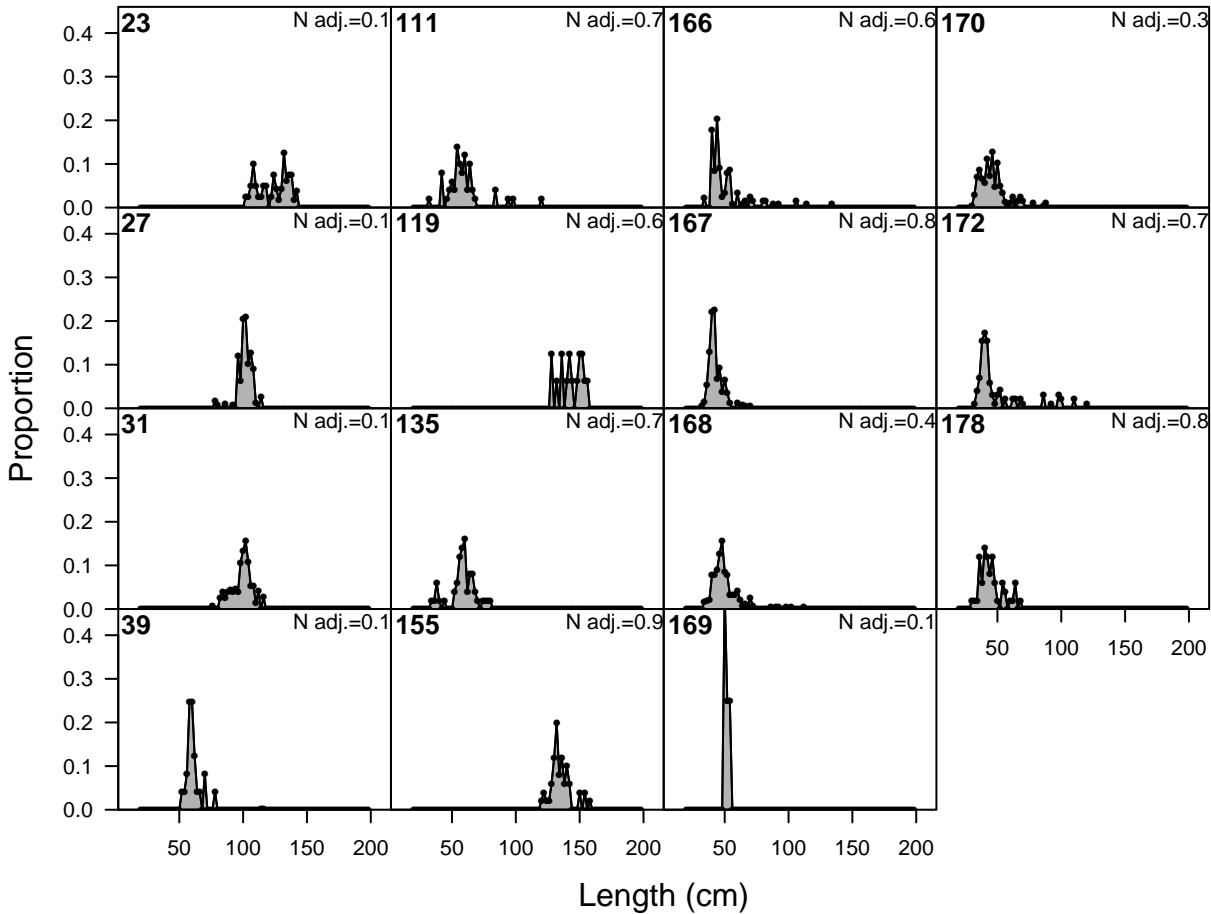


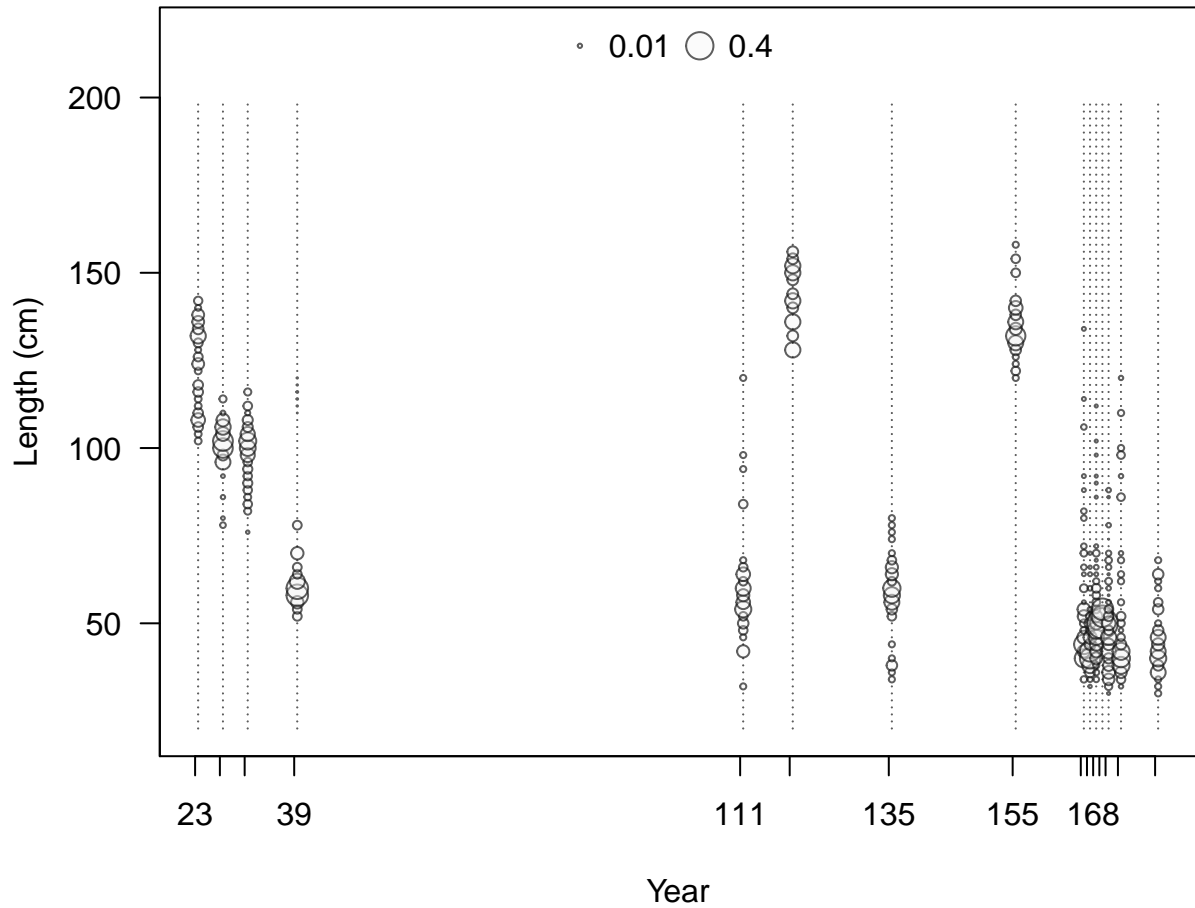




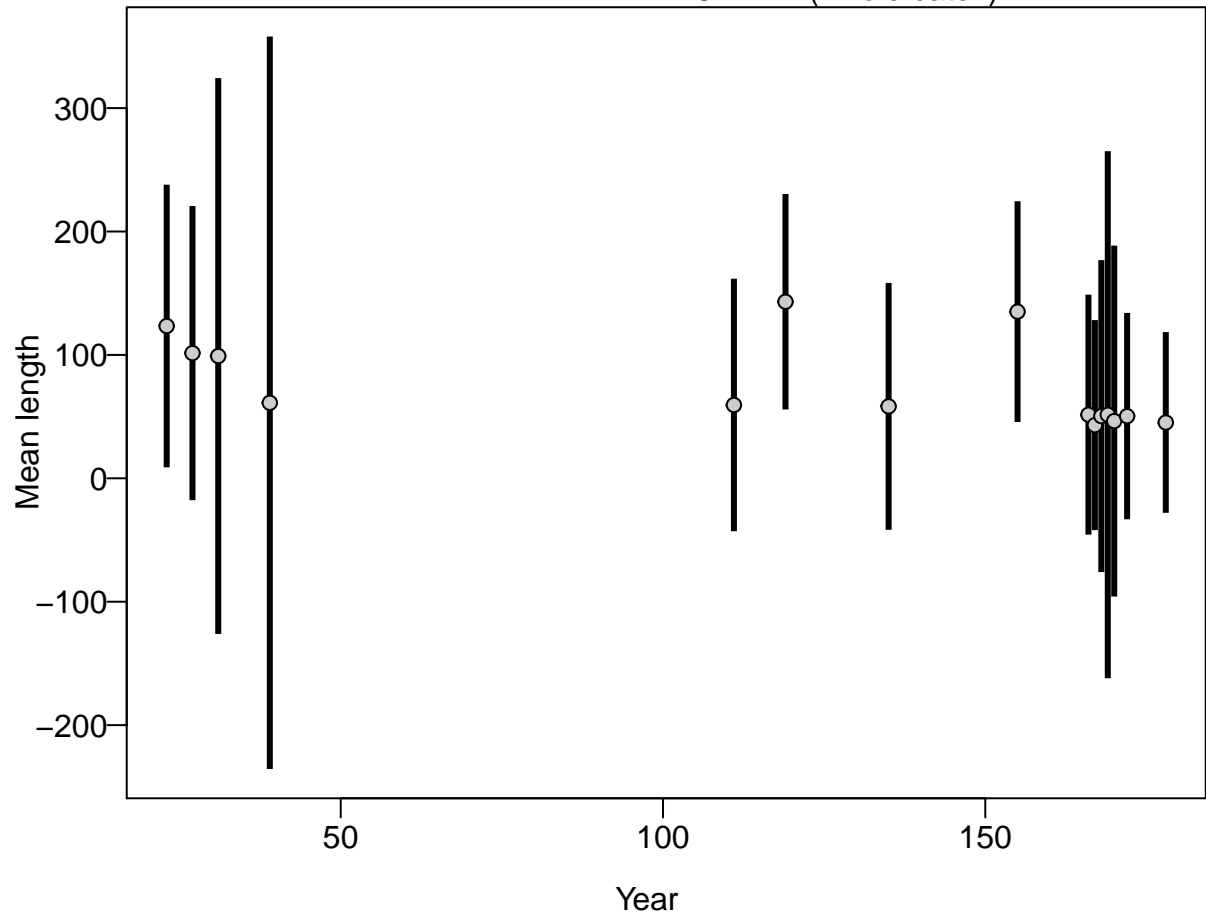
A6-OBJ (whole catch)

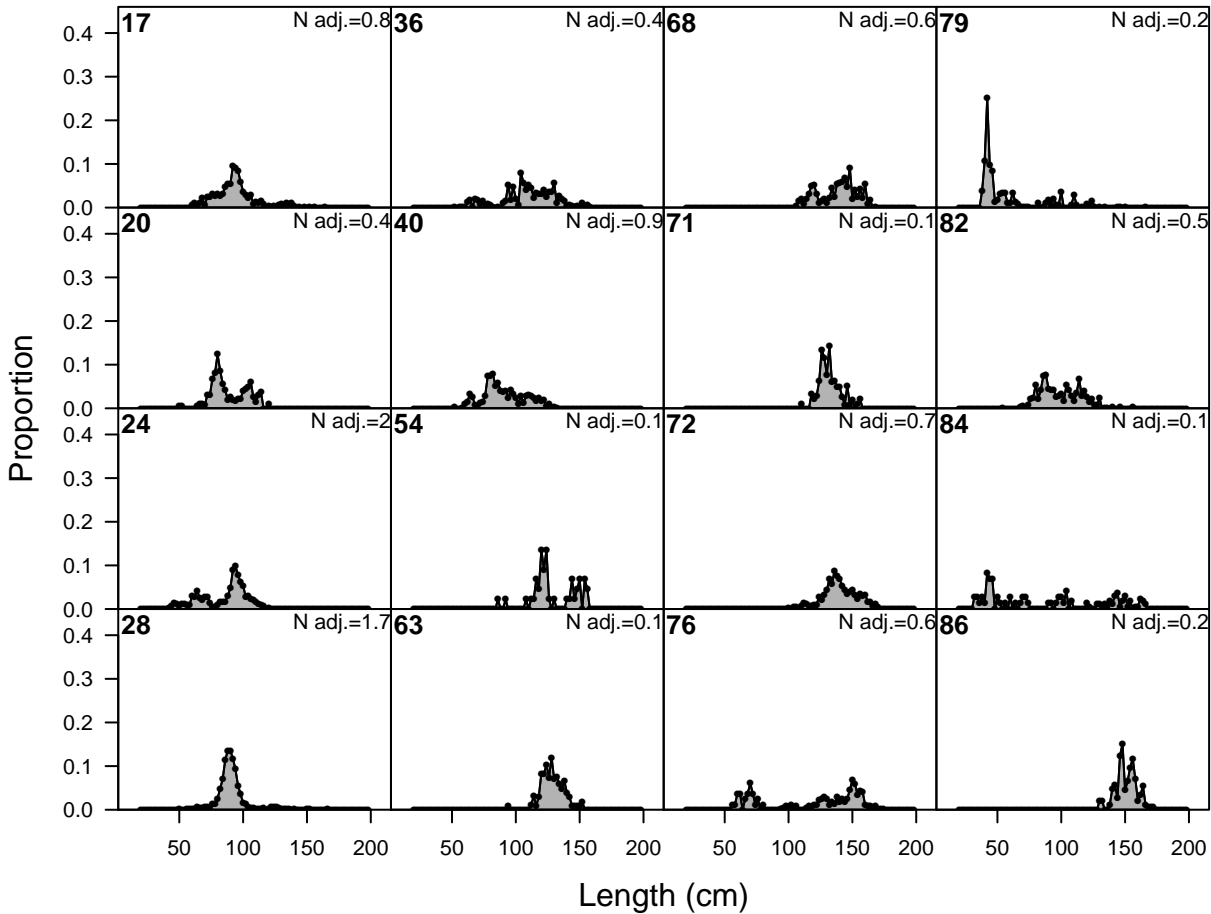


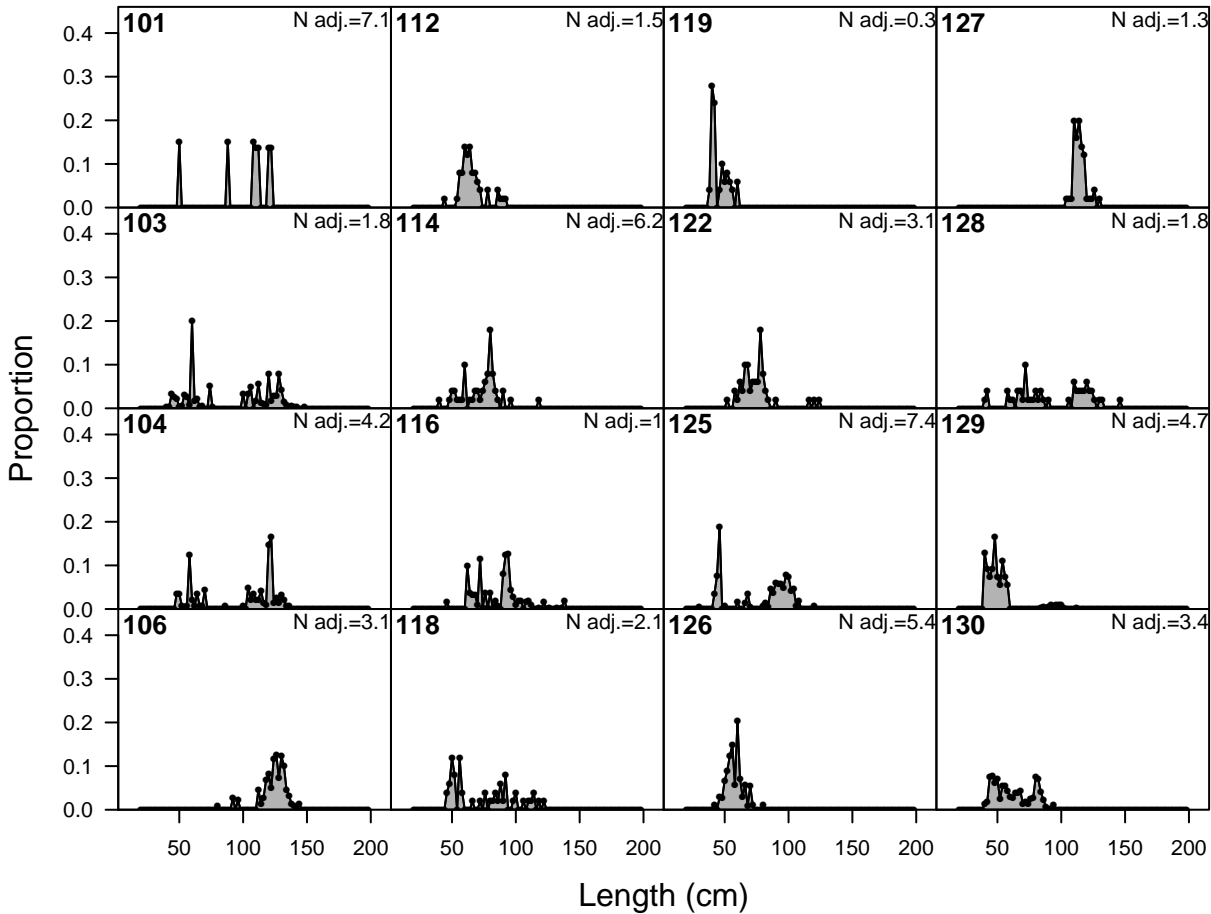


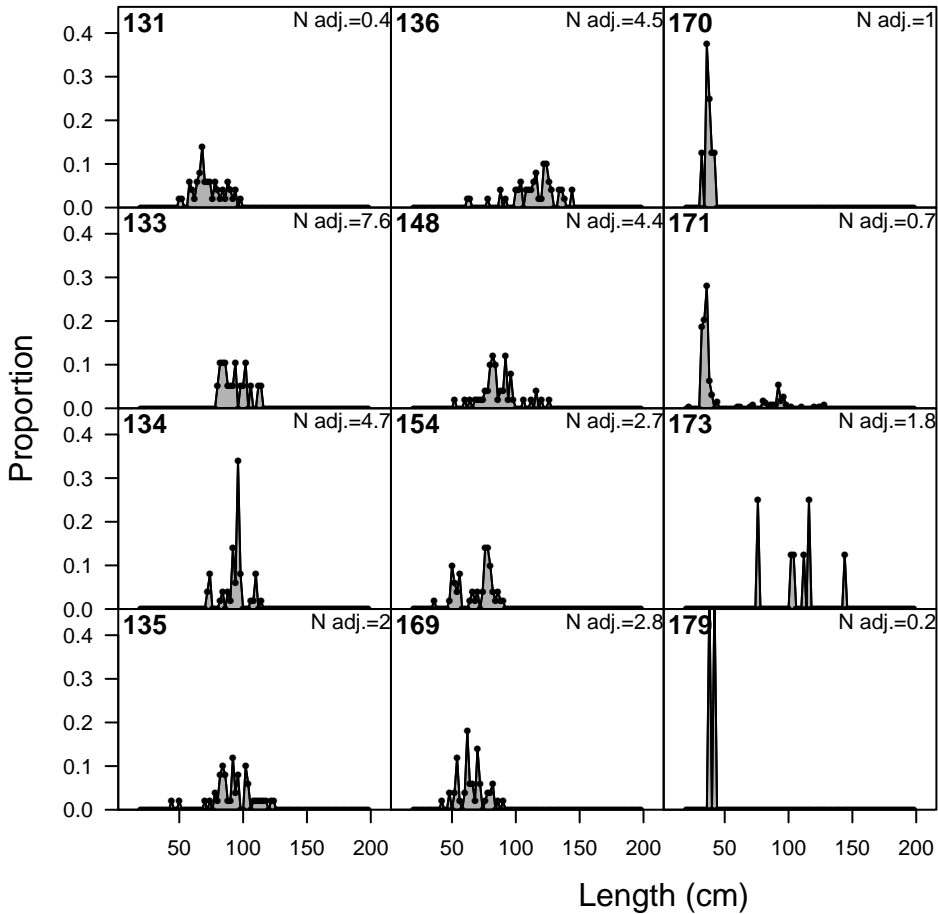


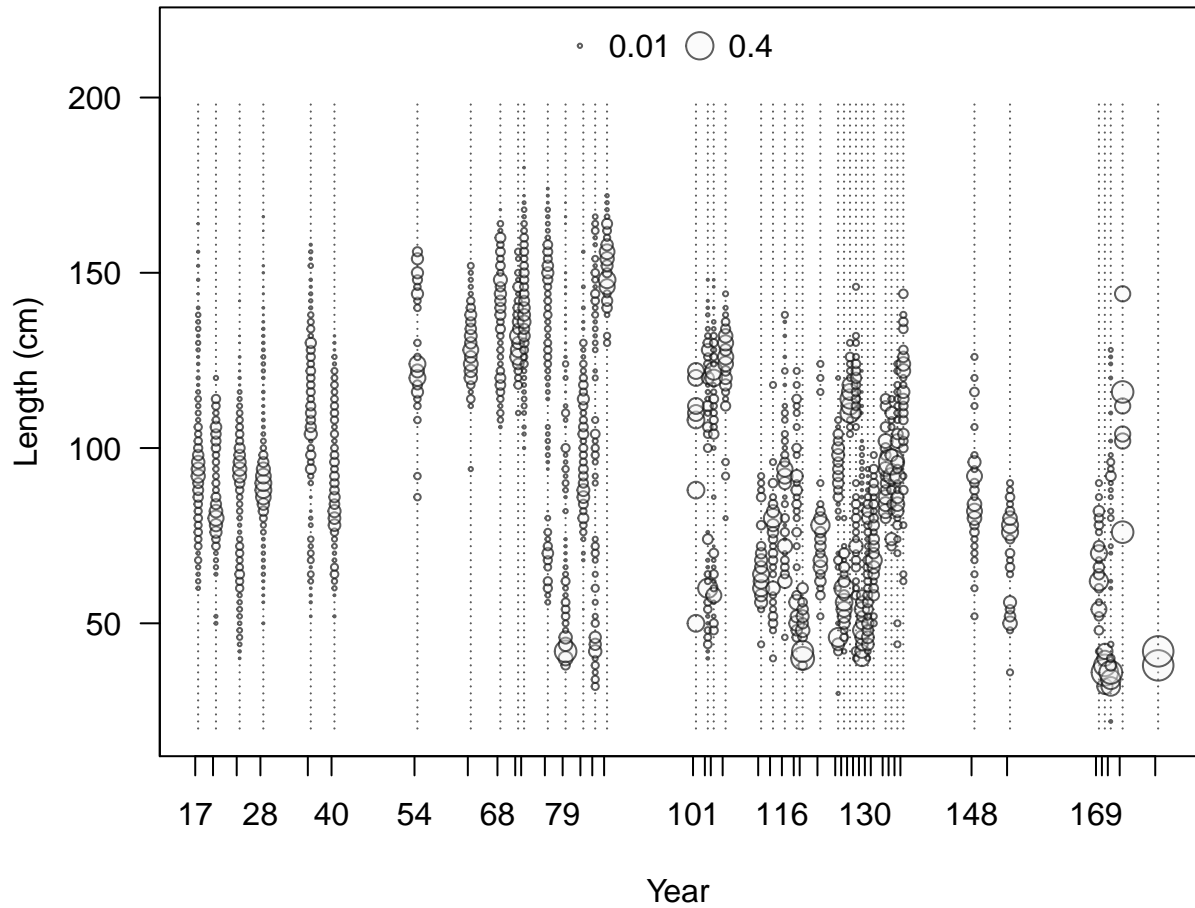
A2-NOADEL (whole catch)



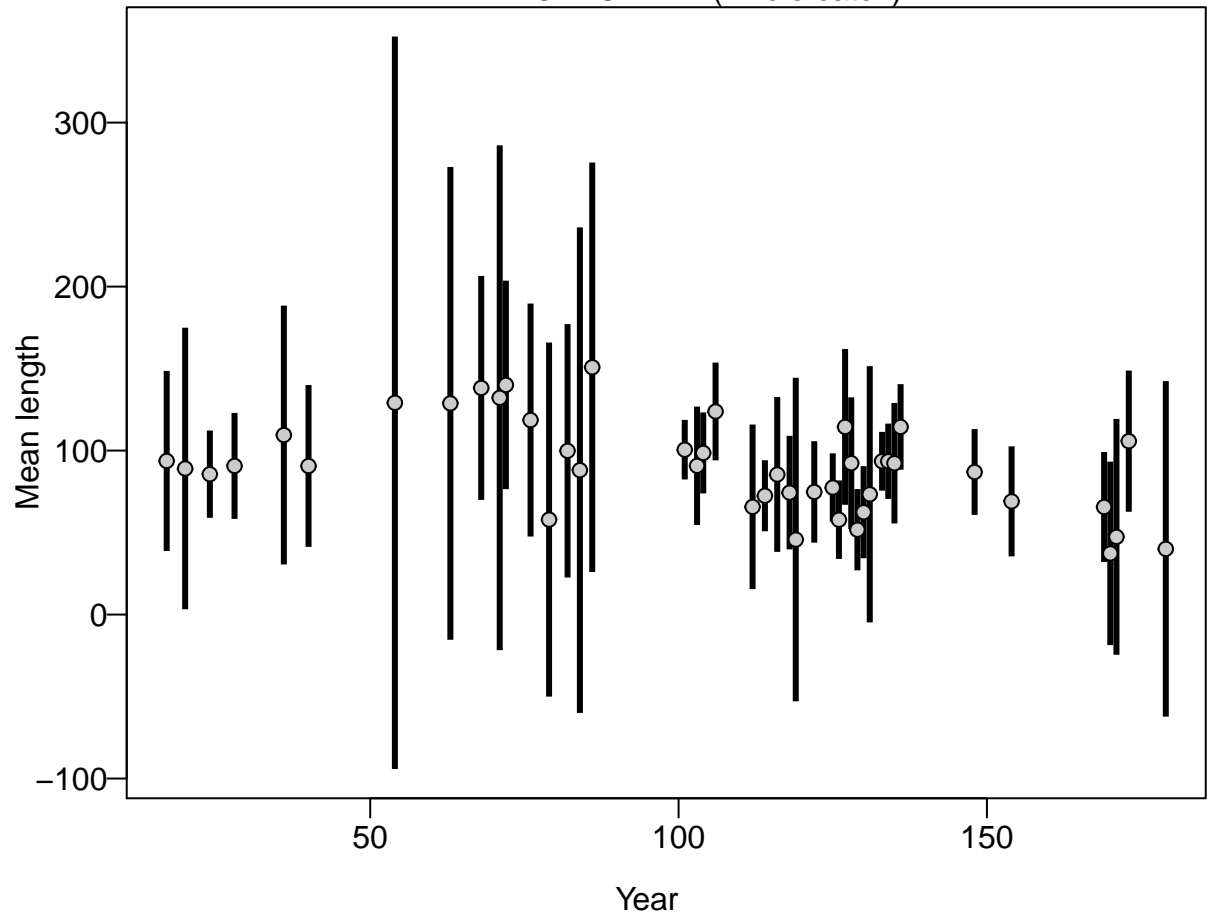


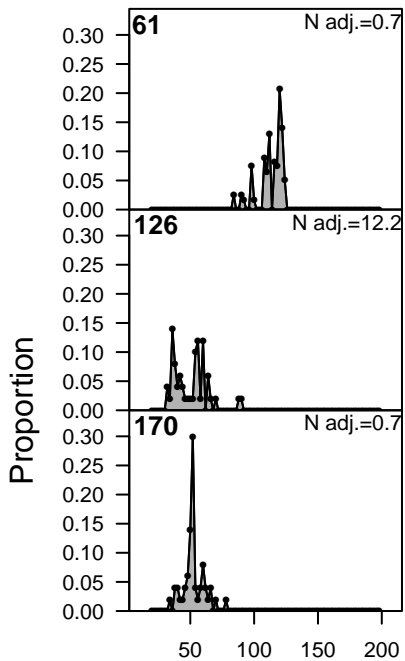




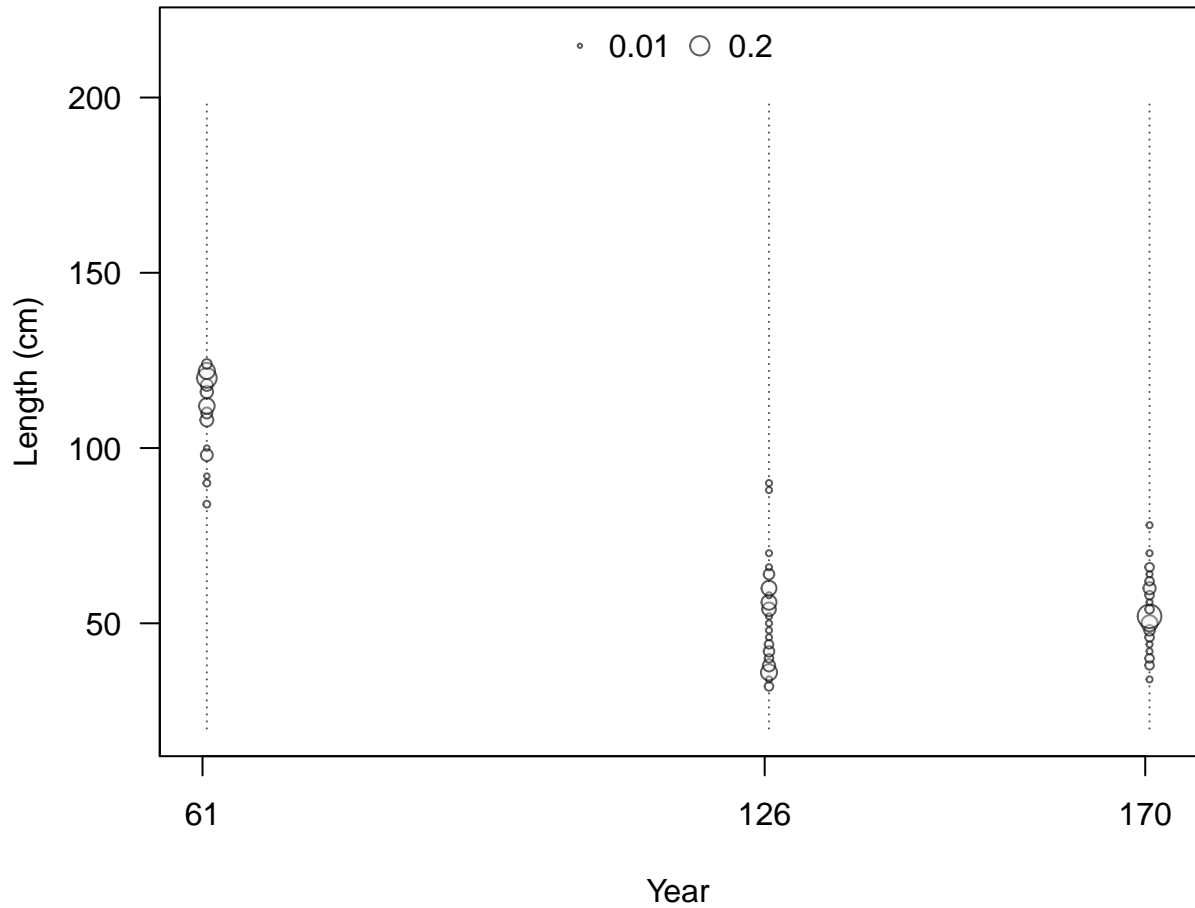


A3-NOADEL (whole catch)

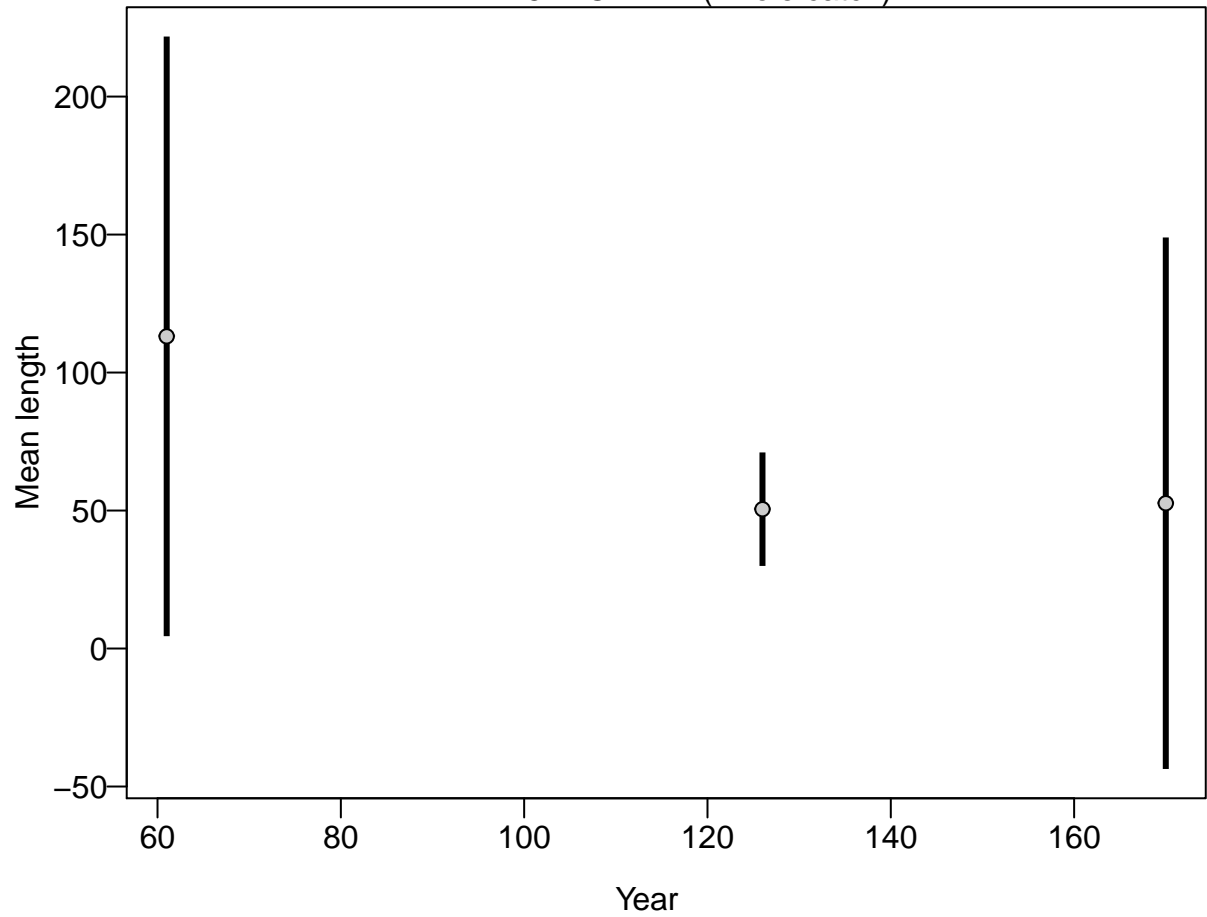




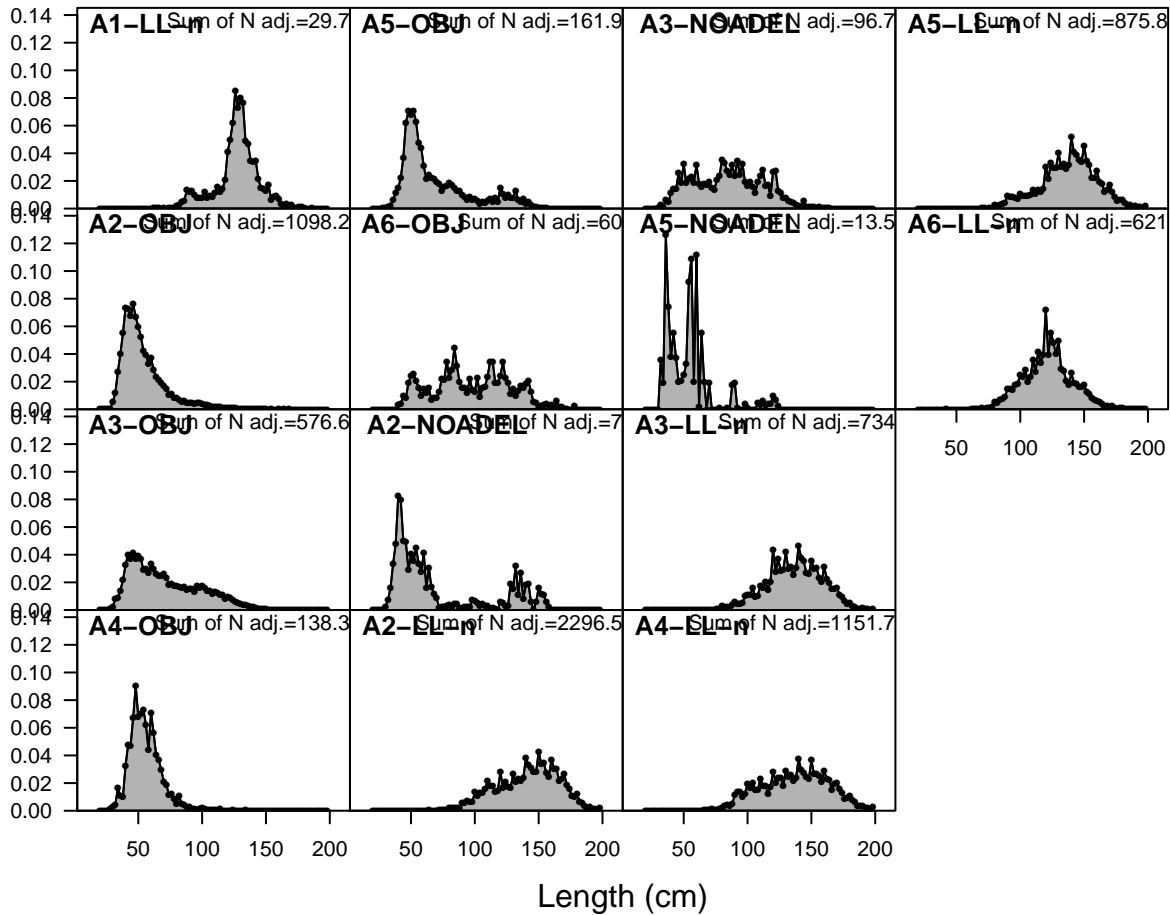
Length (cm)

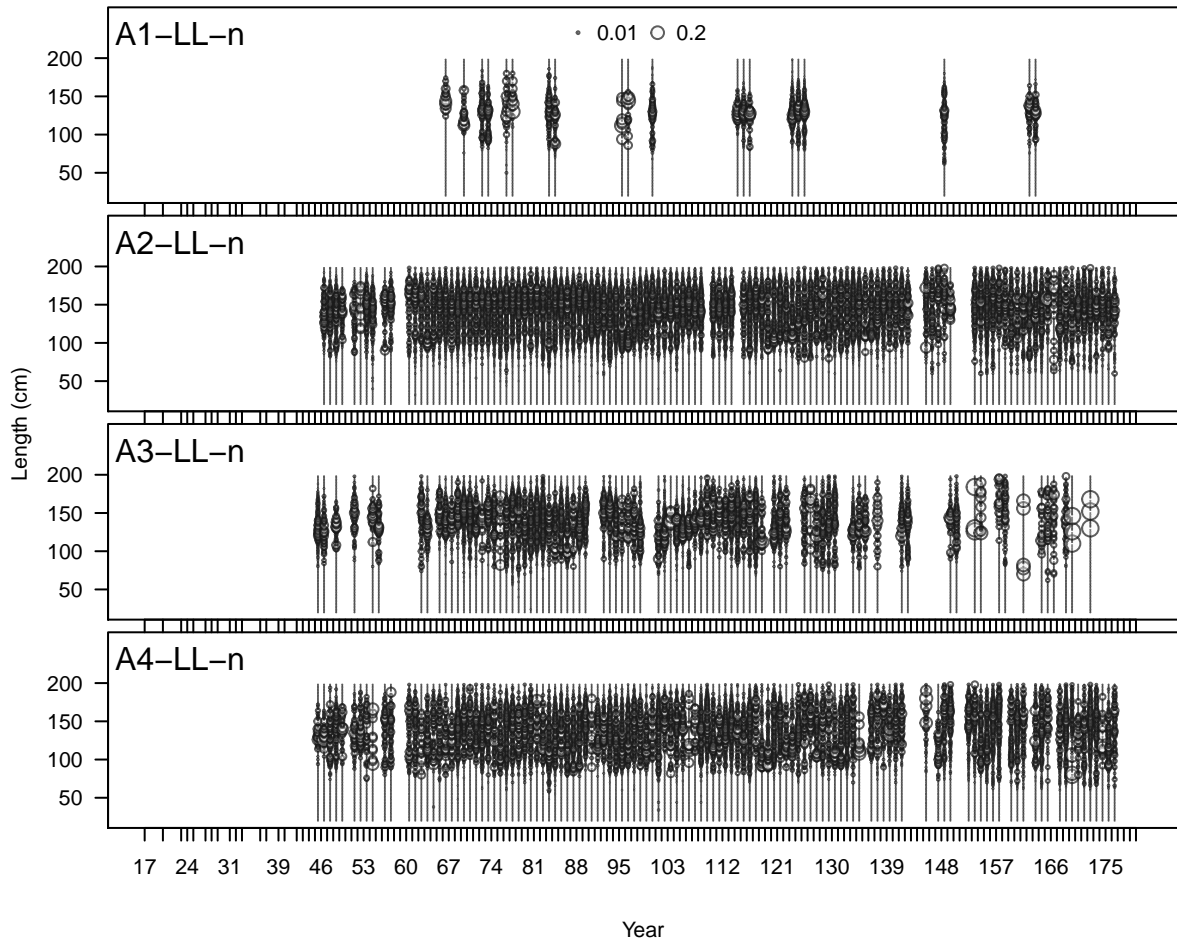


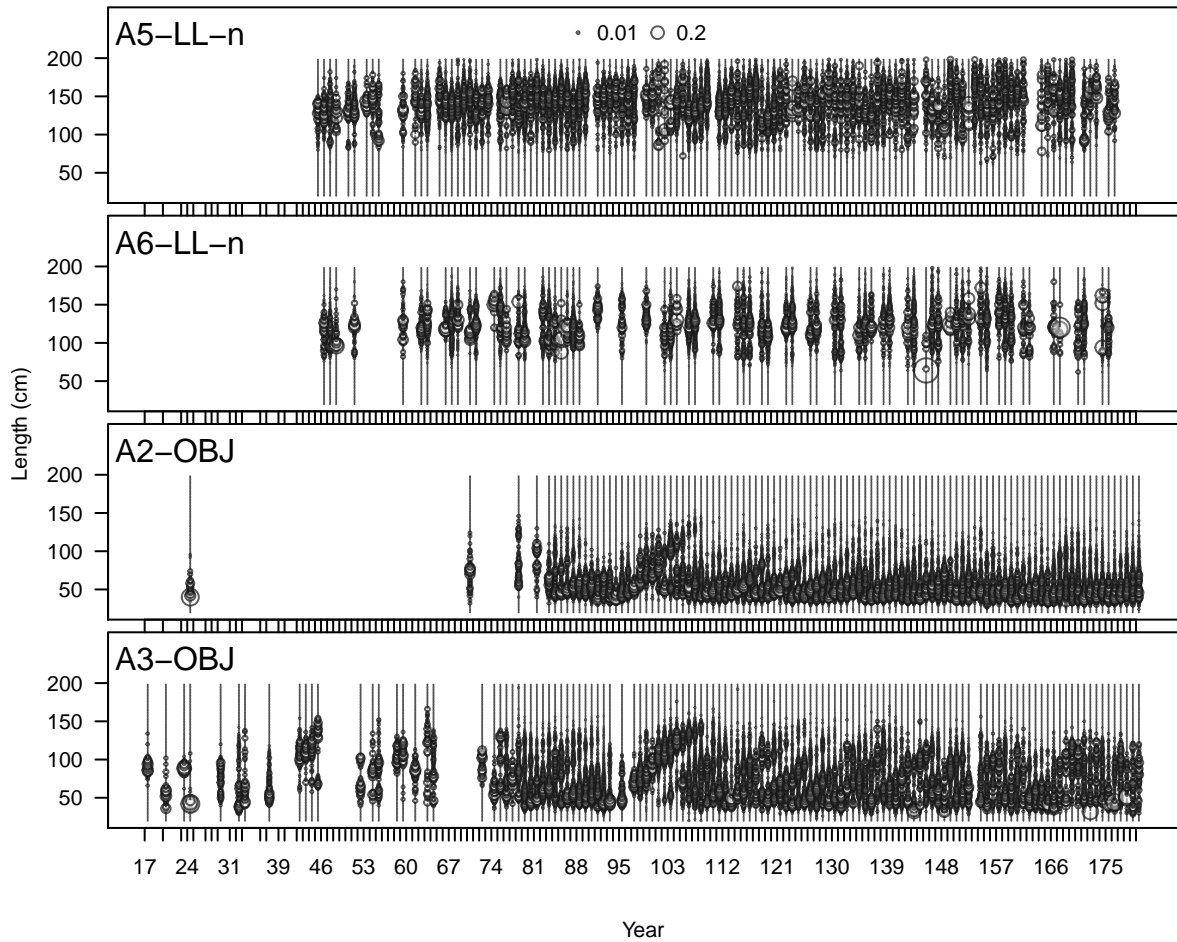
A5-NOADEL (whole catch)

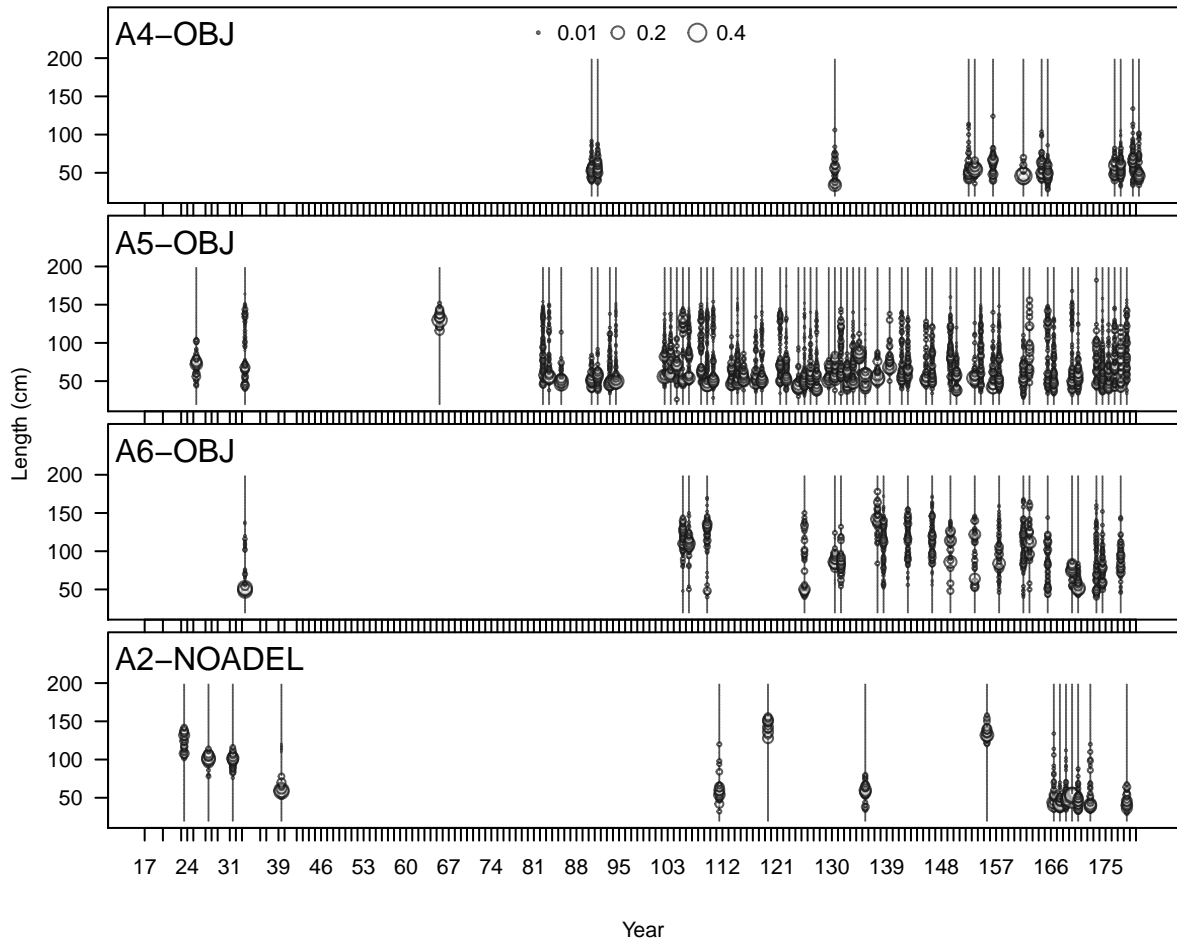


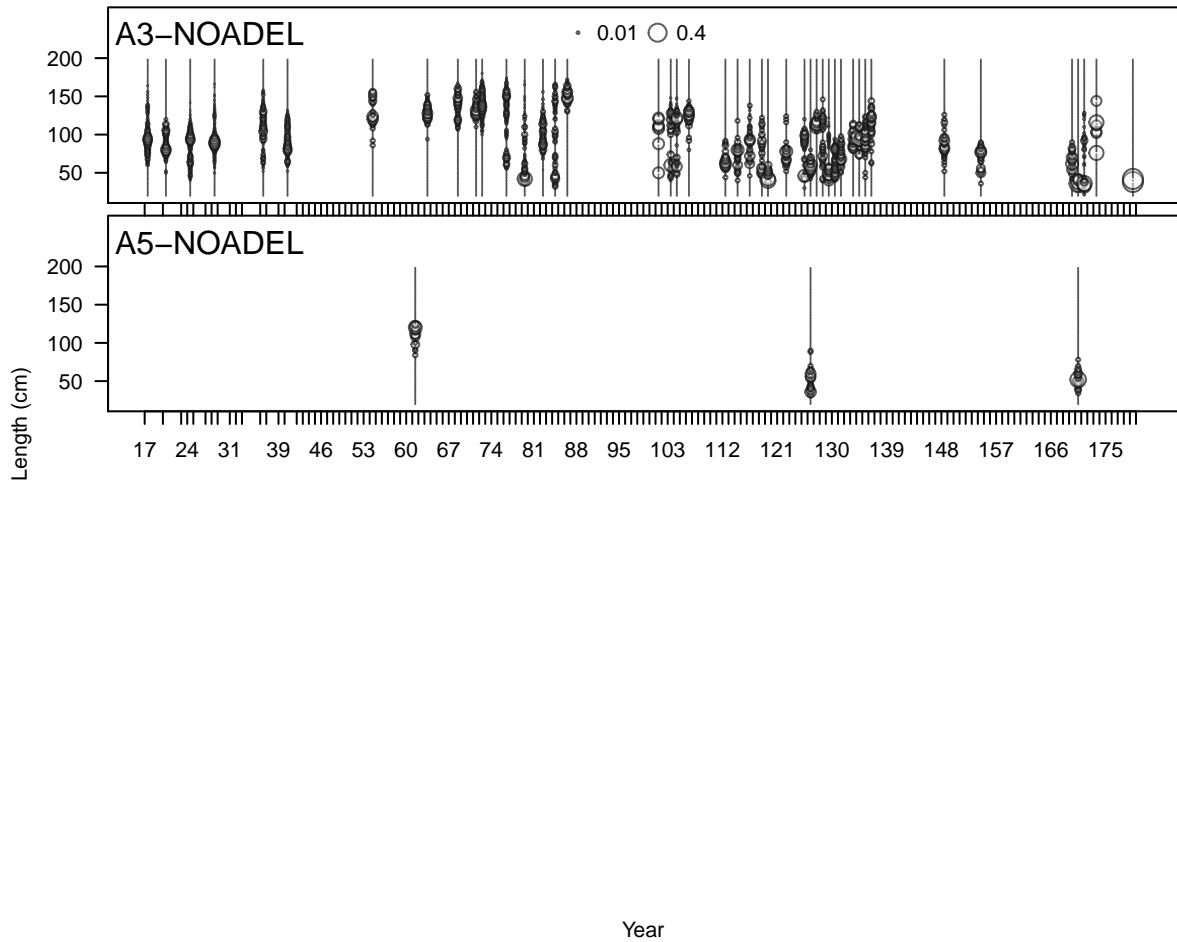
Proportion



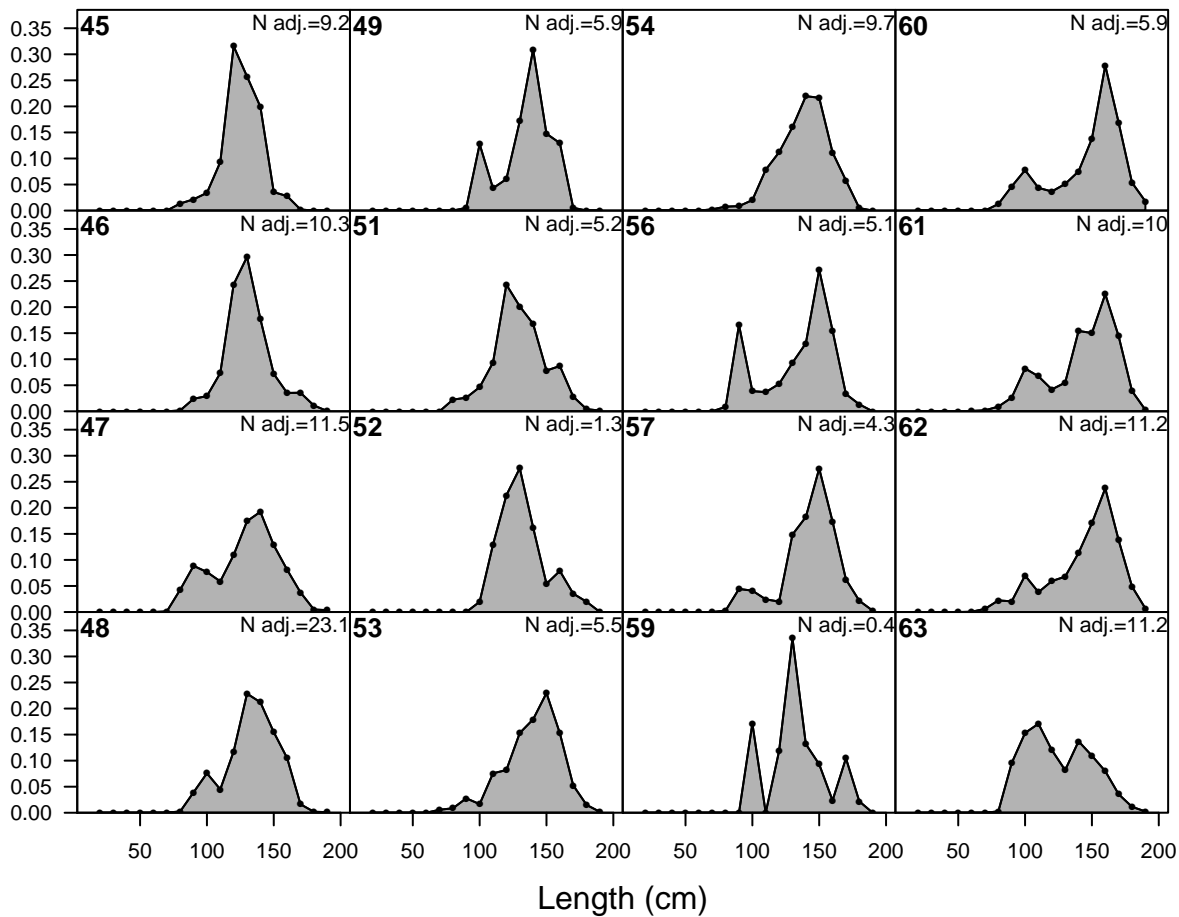




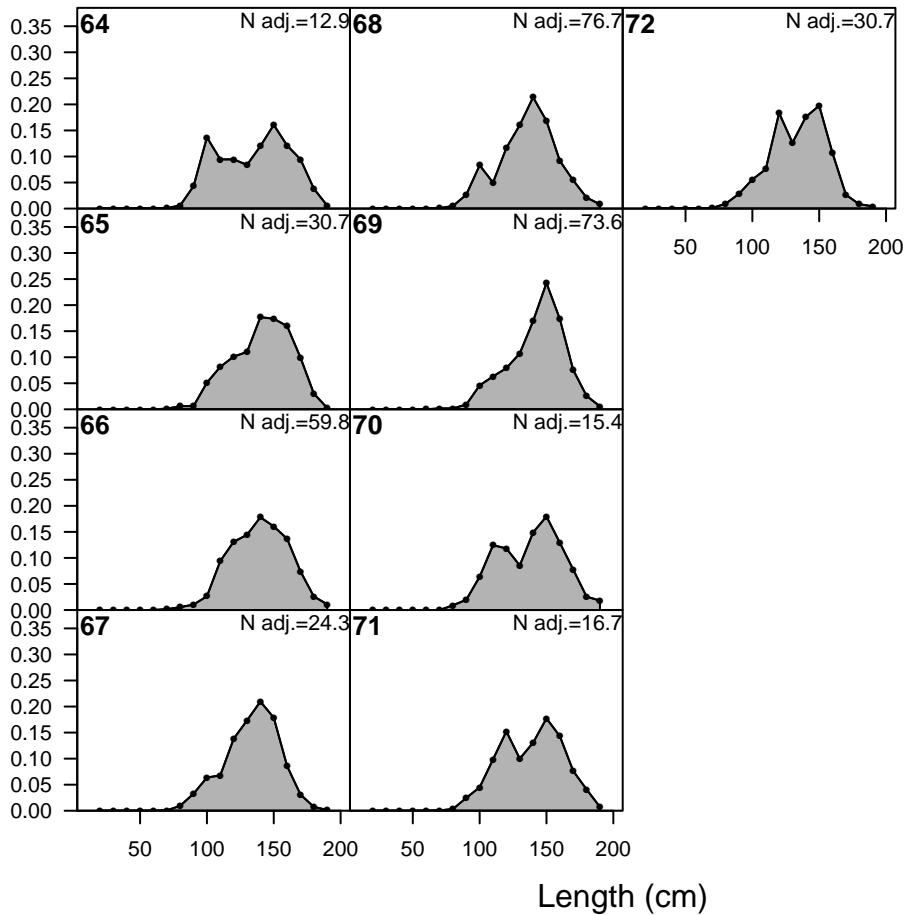


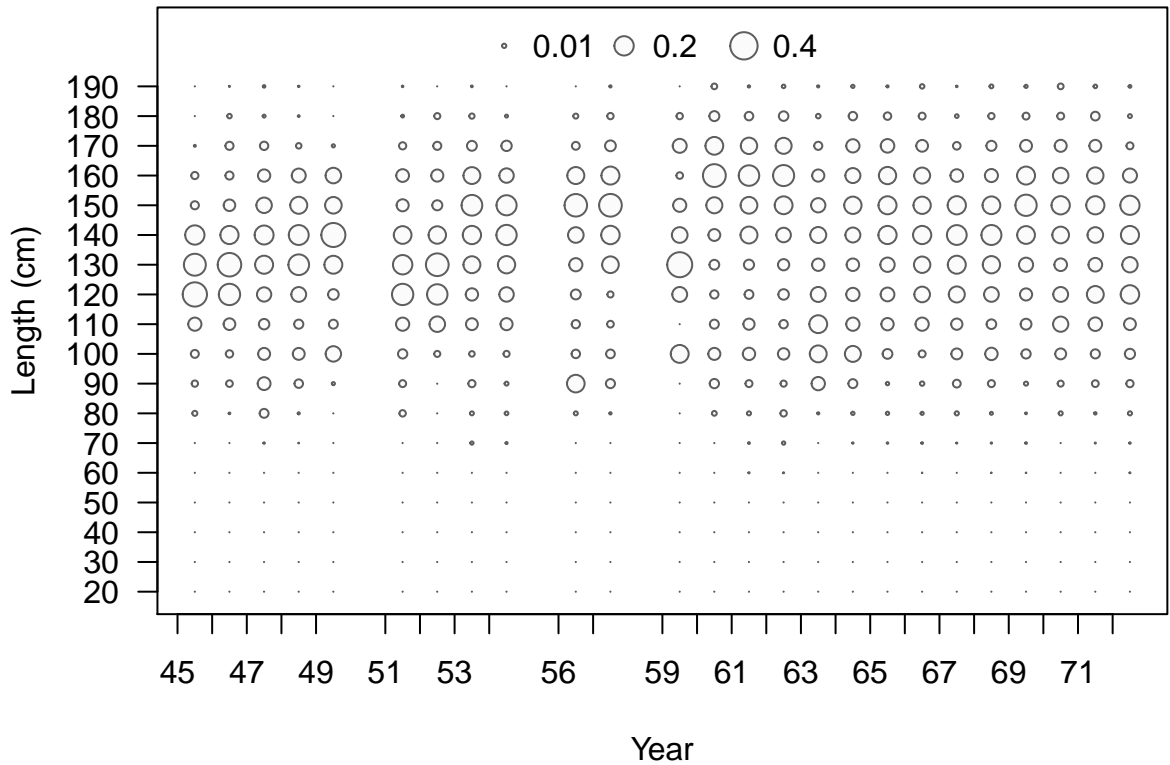


Proportion

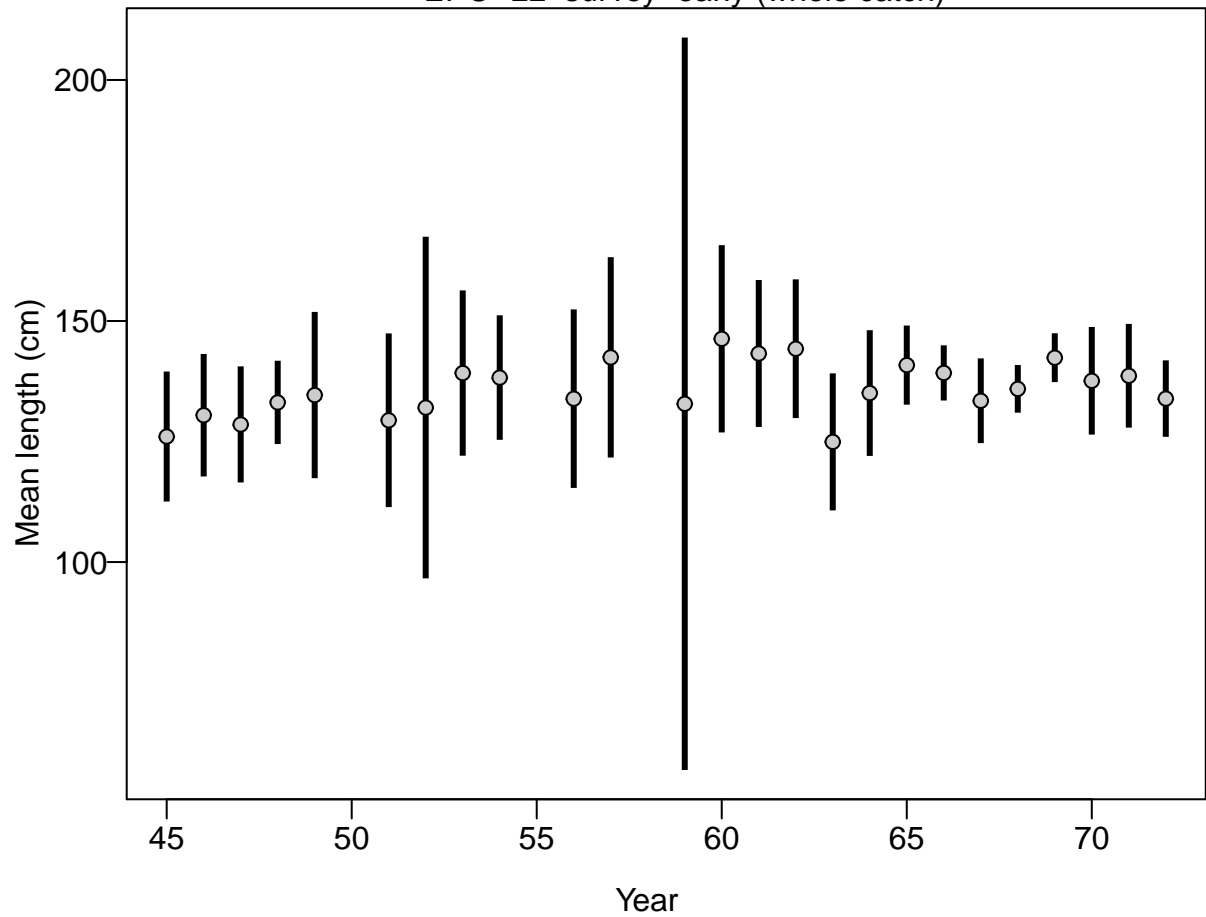


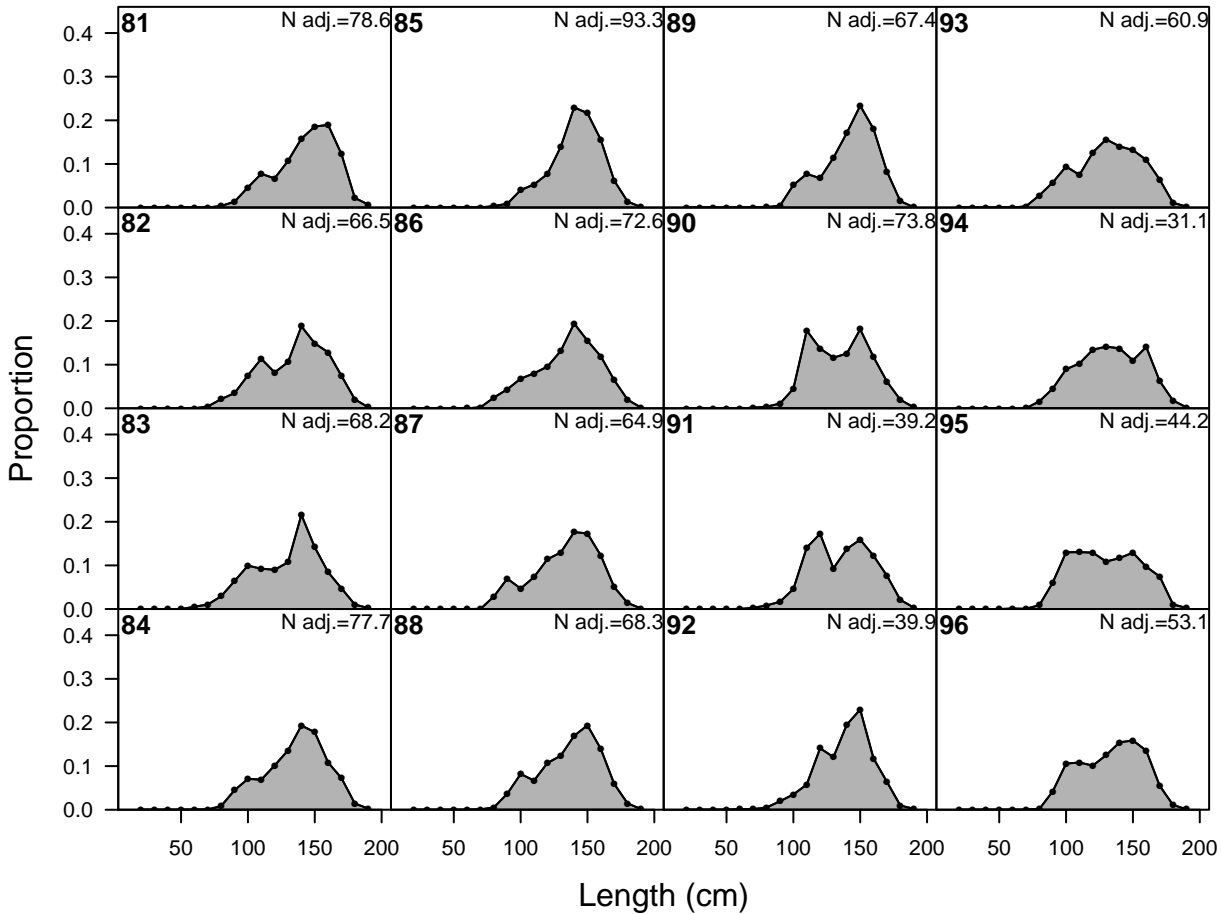
Proportion

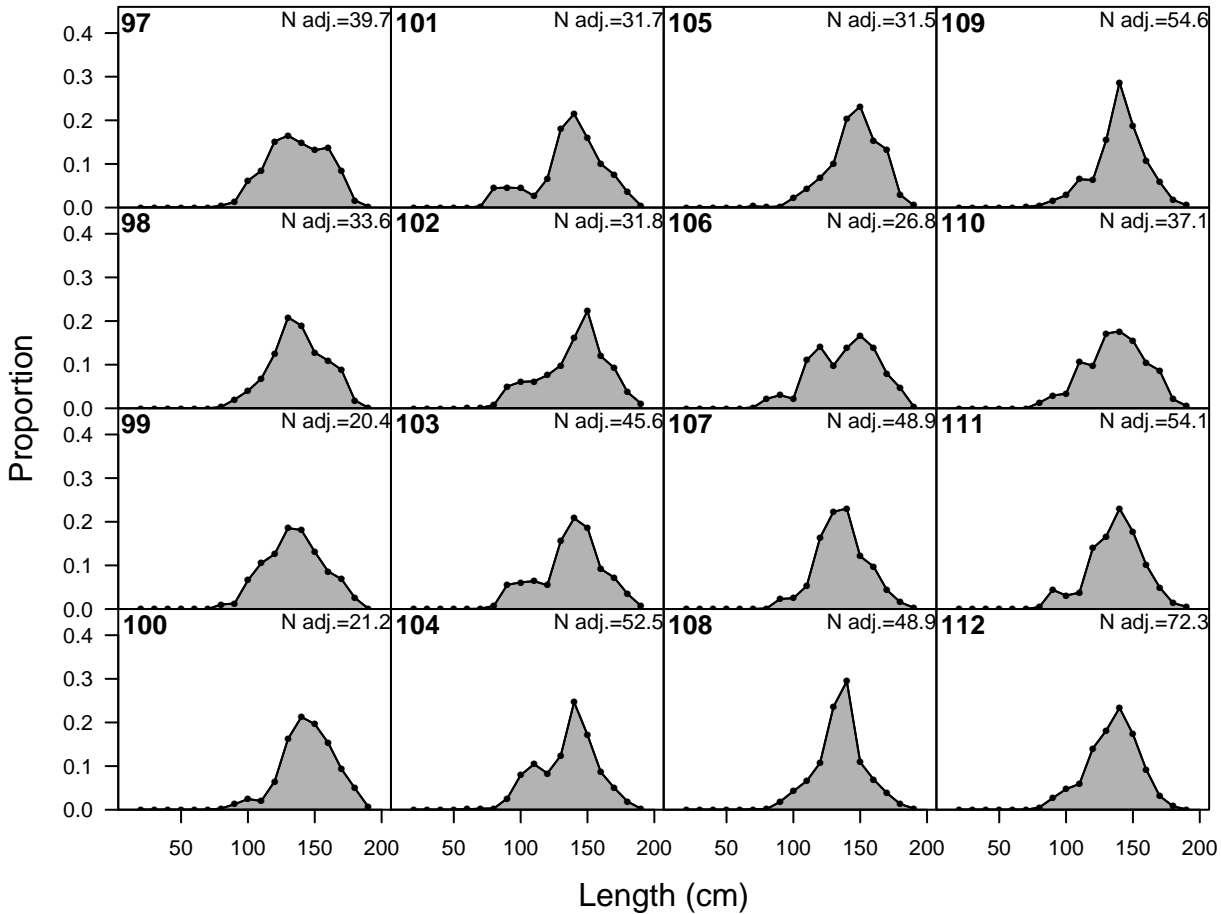


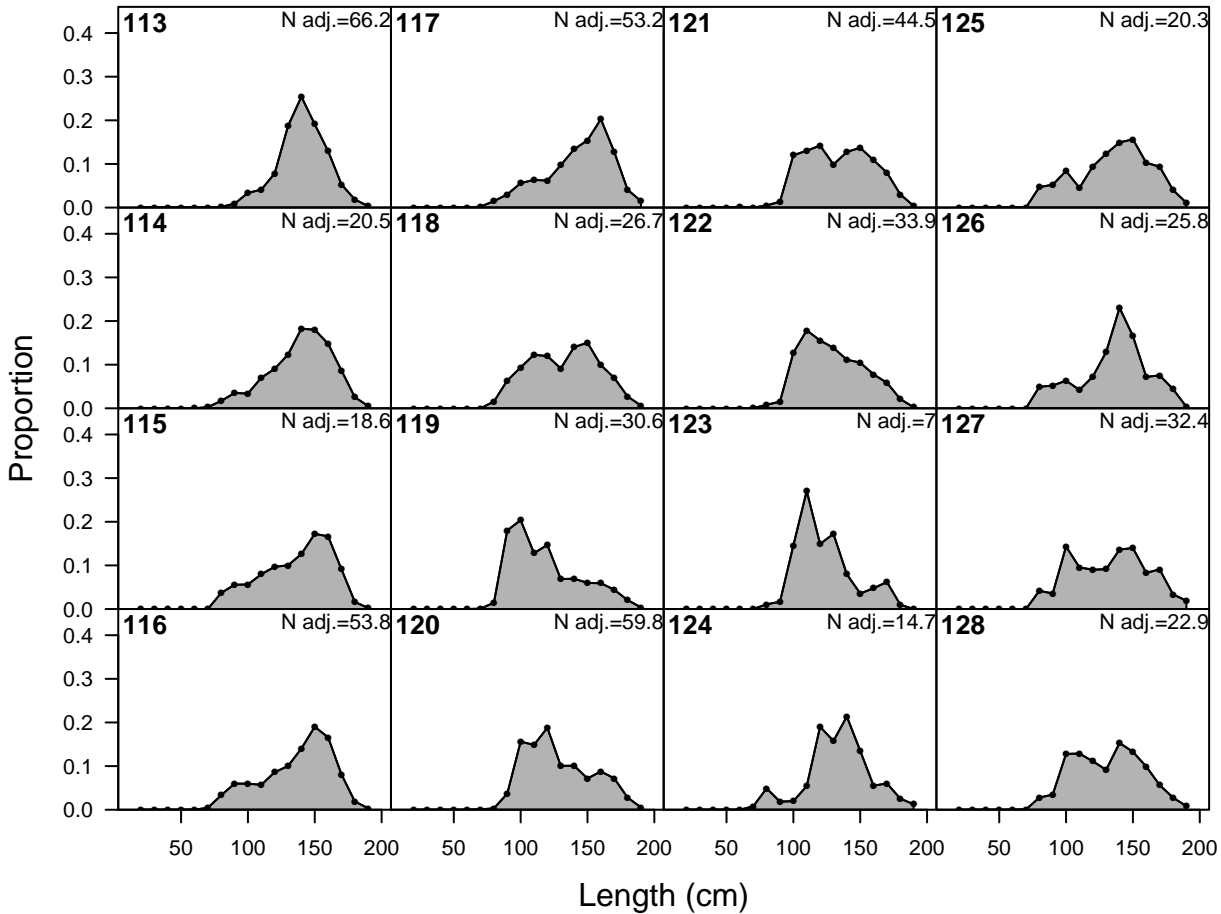


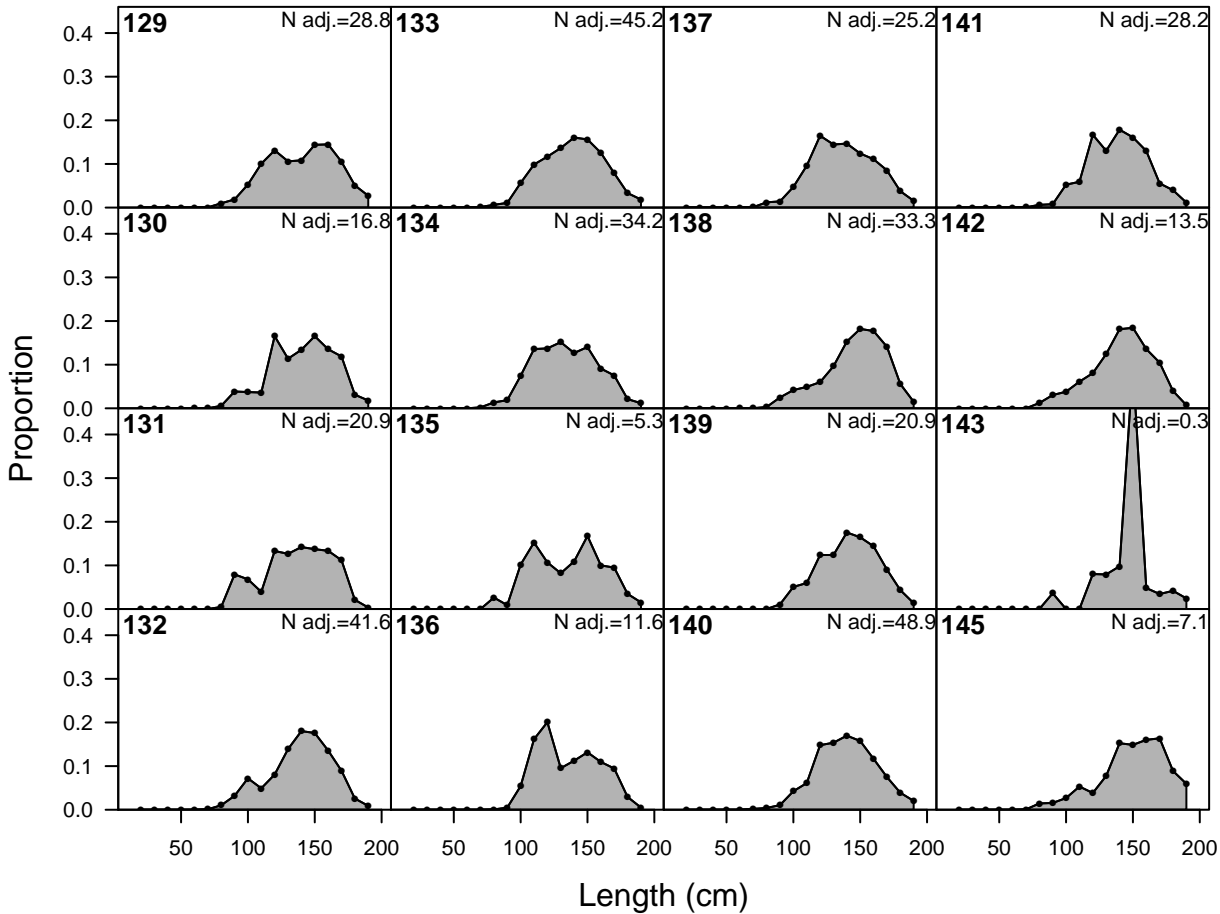
EPO-LL-survey-early (whole catch)

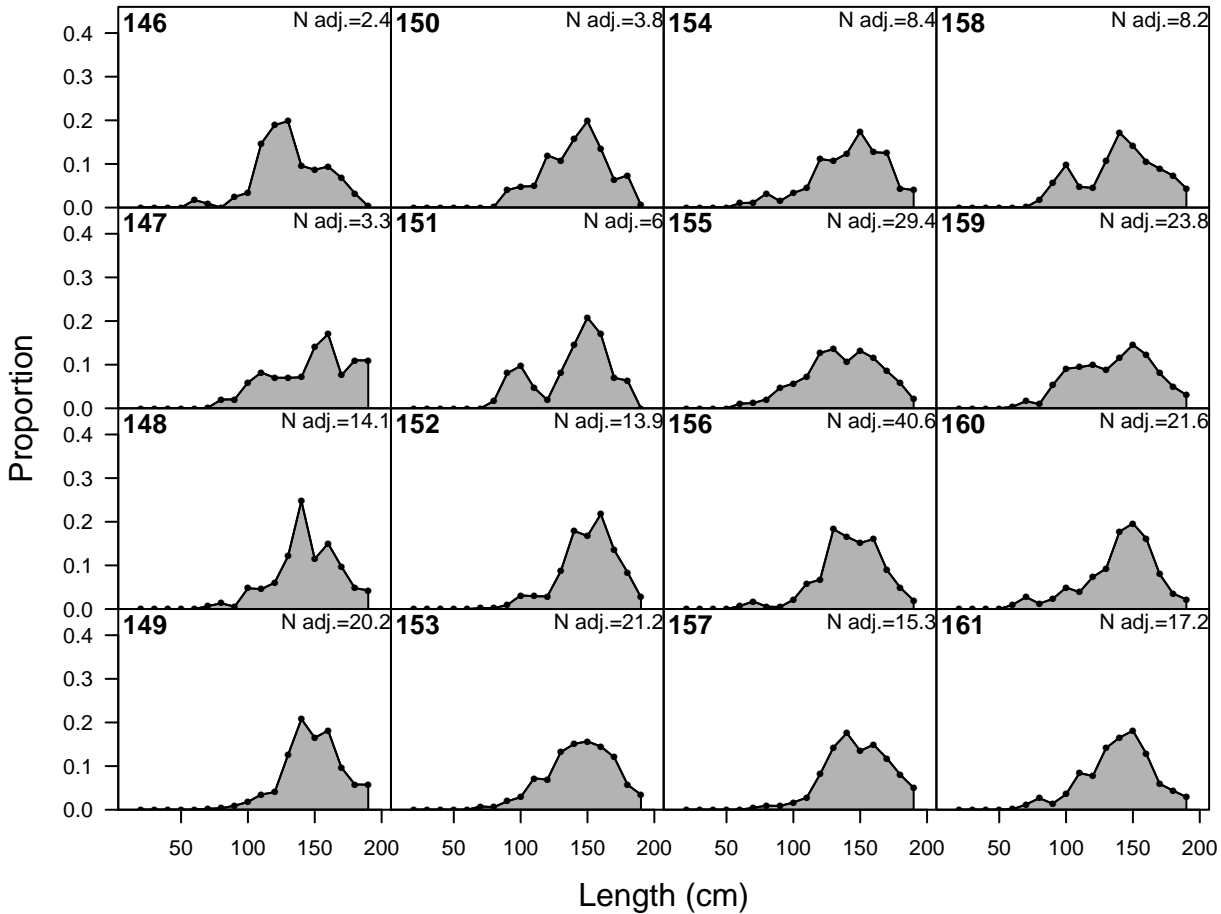


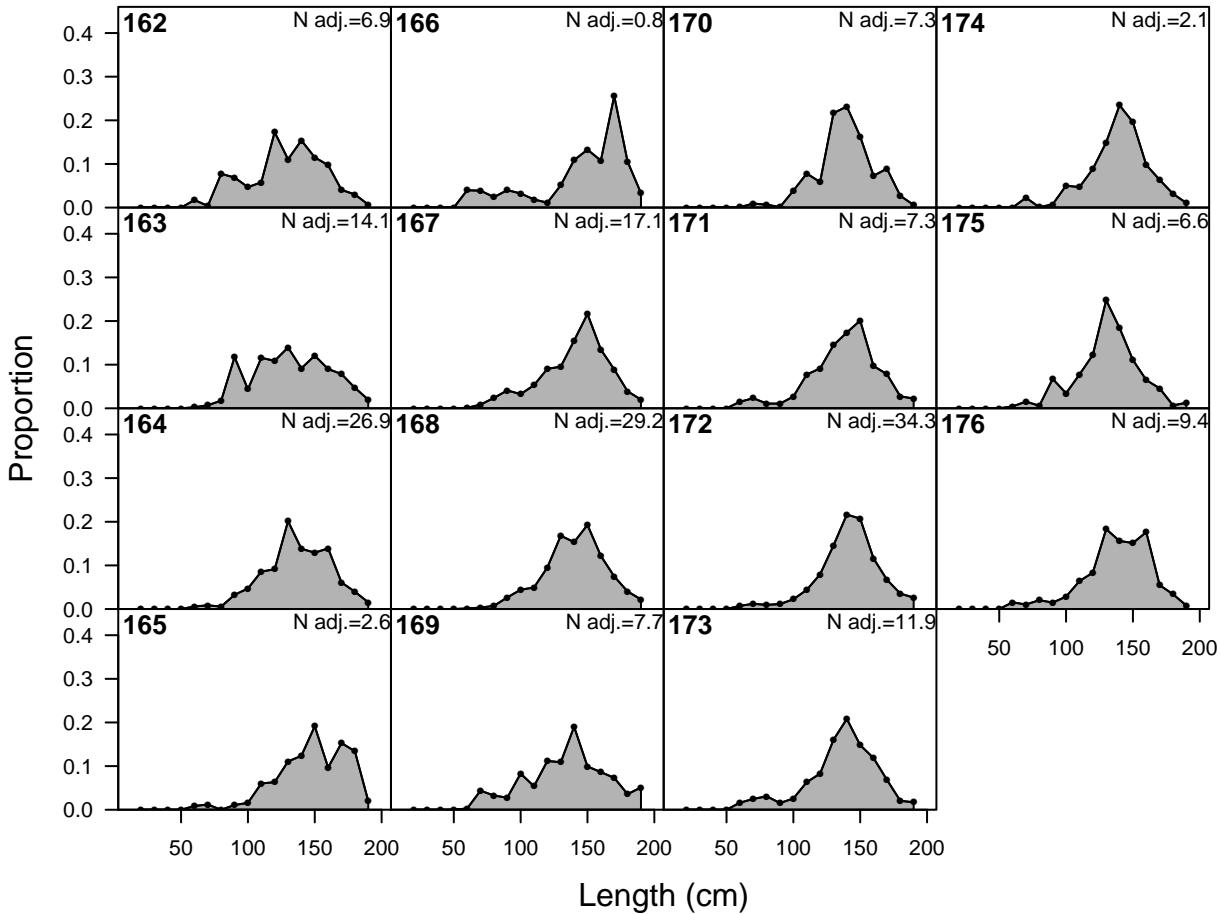


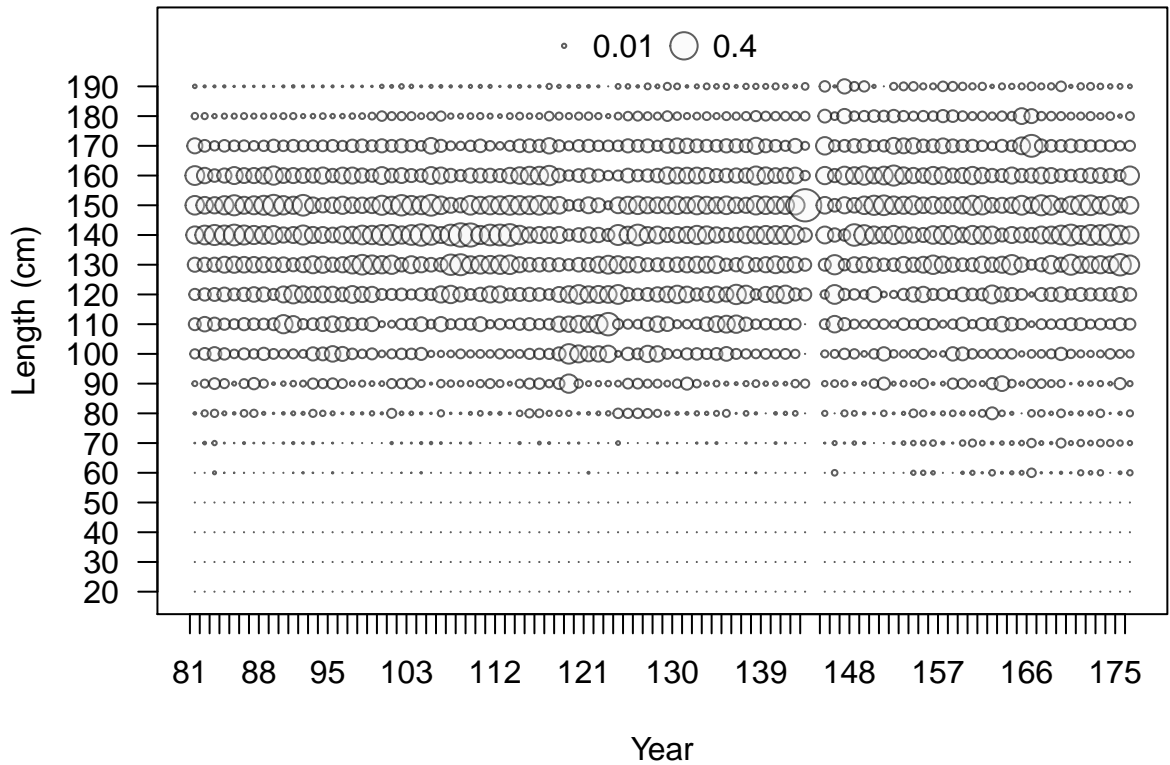




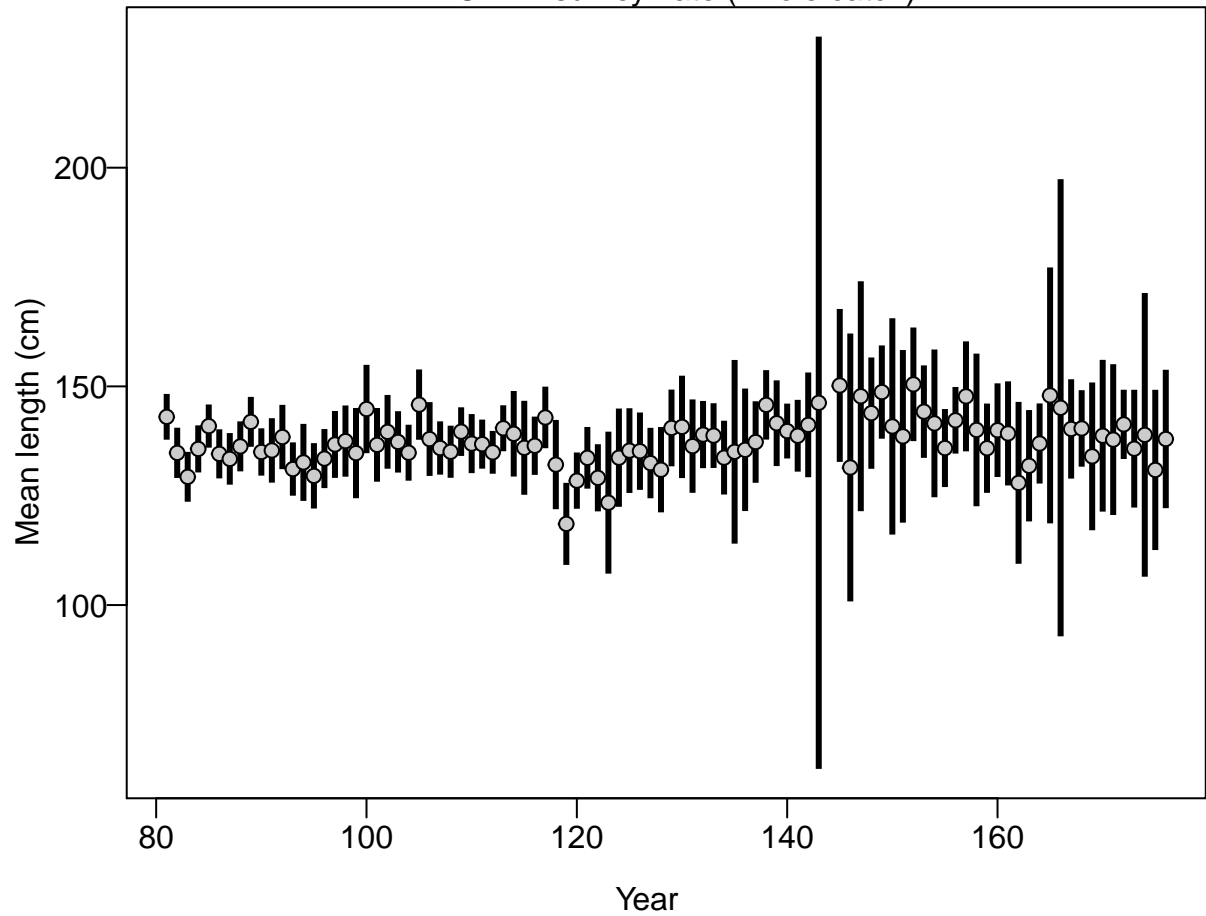








EPO-LL-survey-late (whole catch)



EPO-LL-survey-early

Sum of N adj.=470.6

0.20

0.15

0.10

0.05

0.00

Proportion

EPO-LL-survey-late

Sum of N adj.=2996.3

0.20

0.15

0.10

0.05

0.00

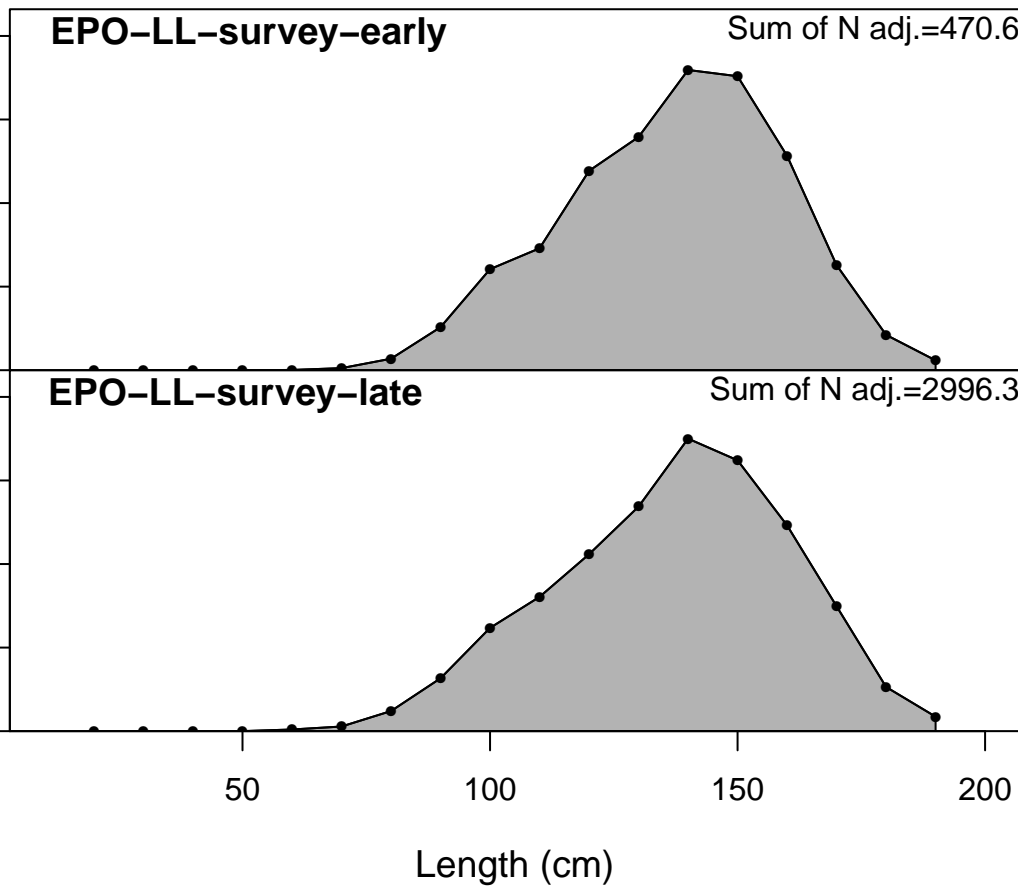
50

100

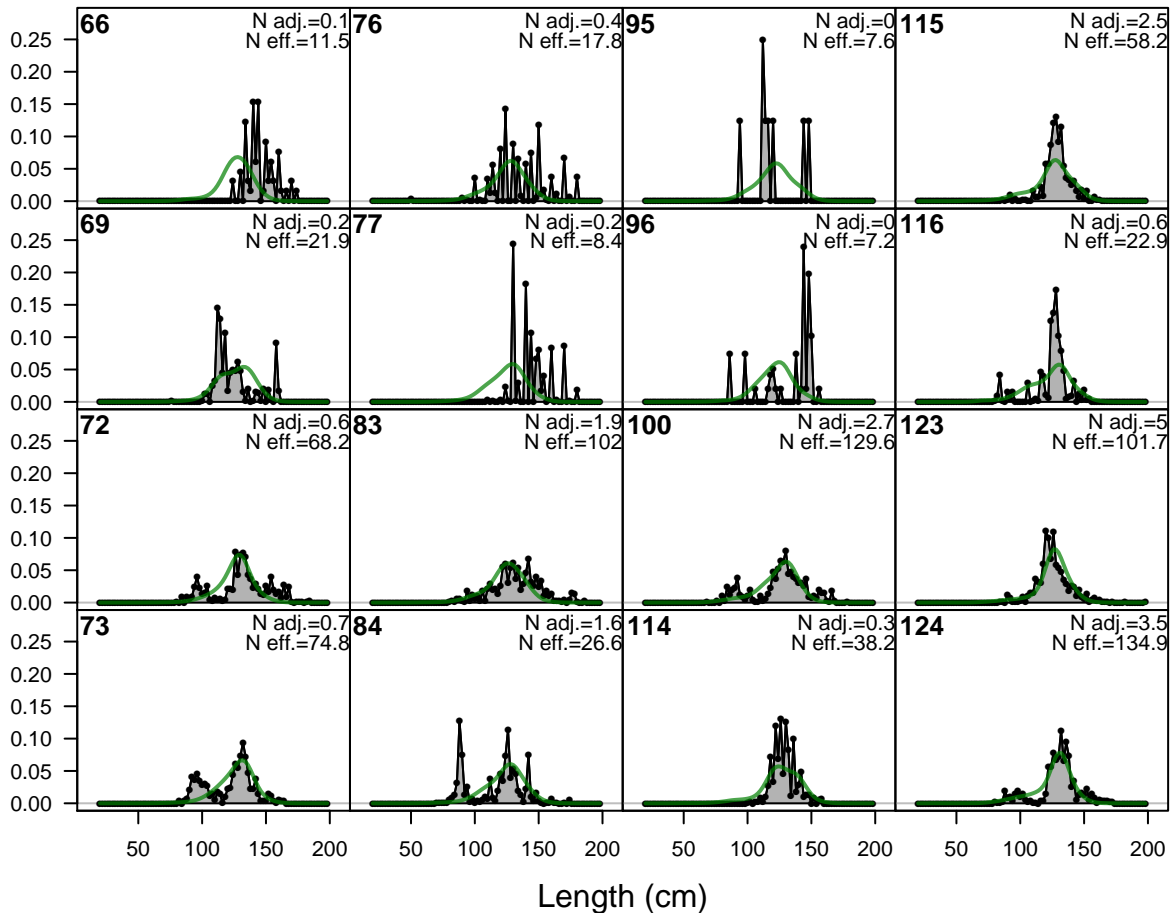
150

200

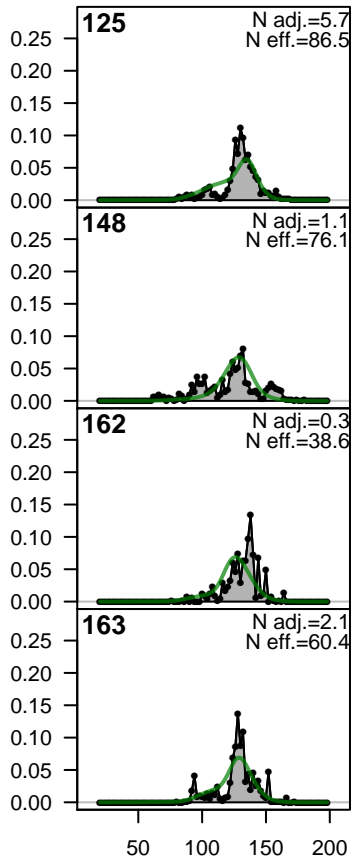
Length (cm)



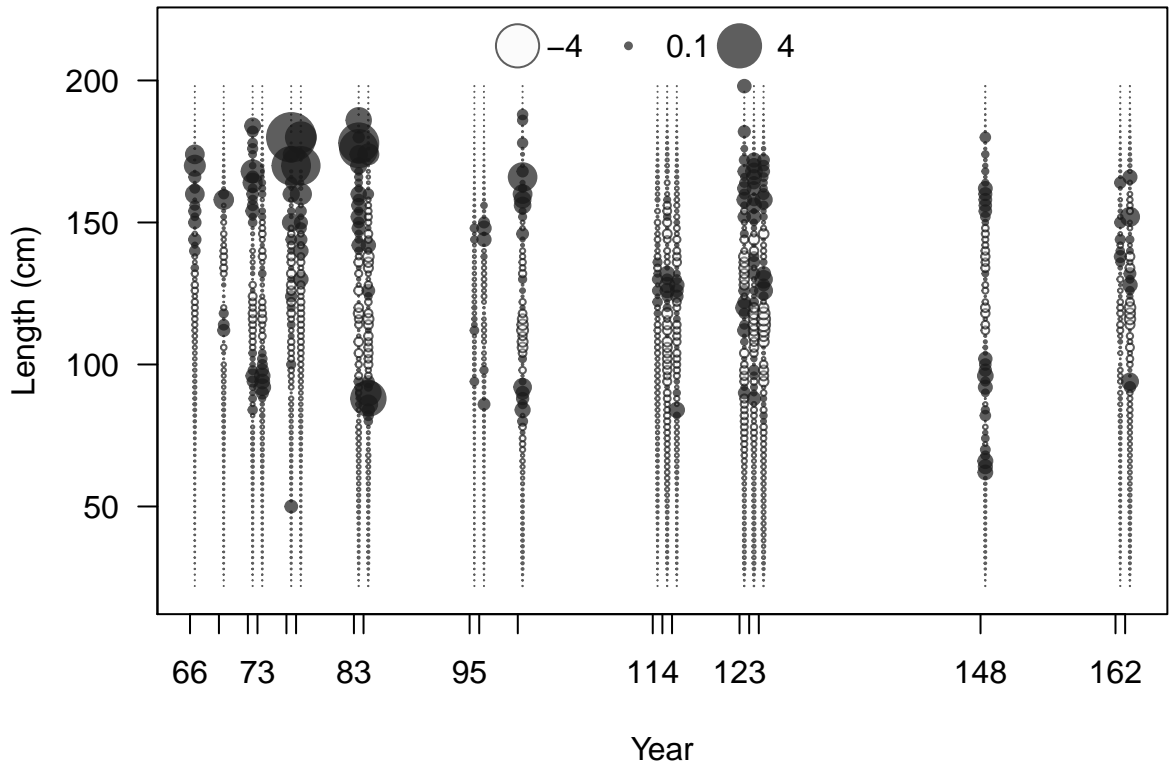
Proportion

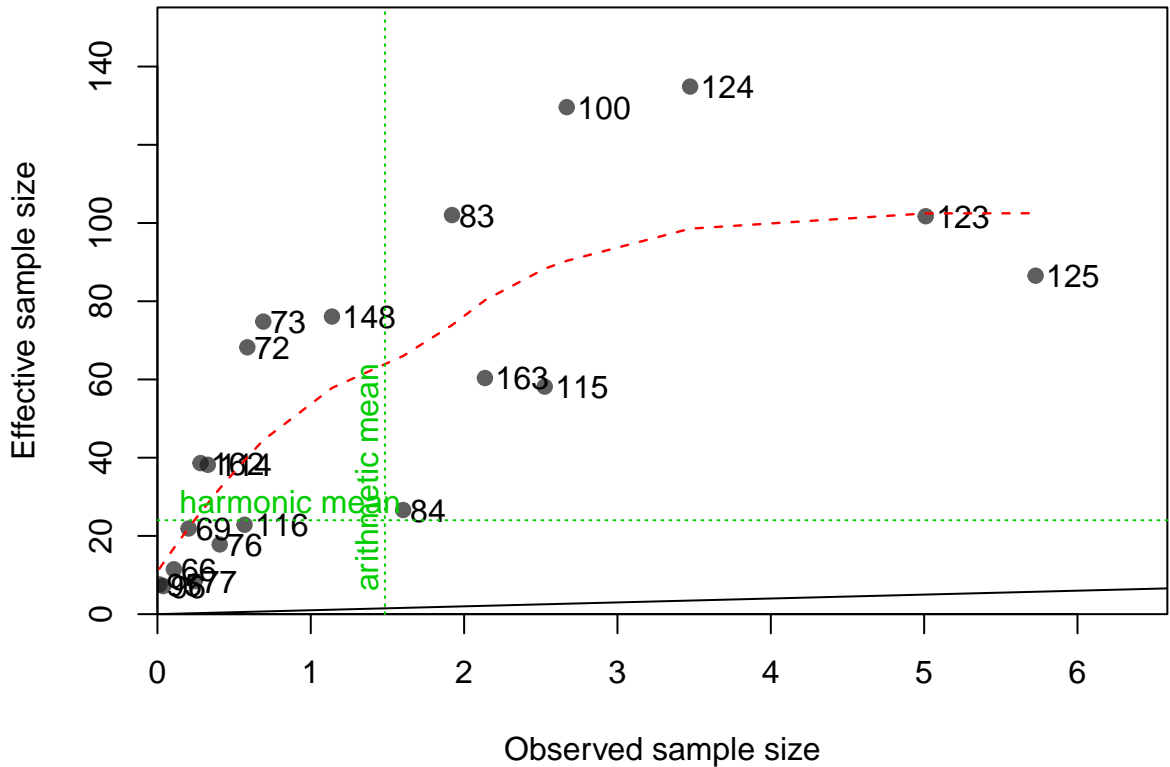


Proportion

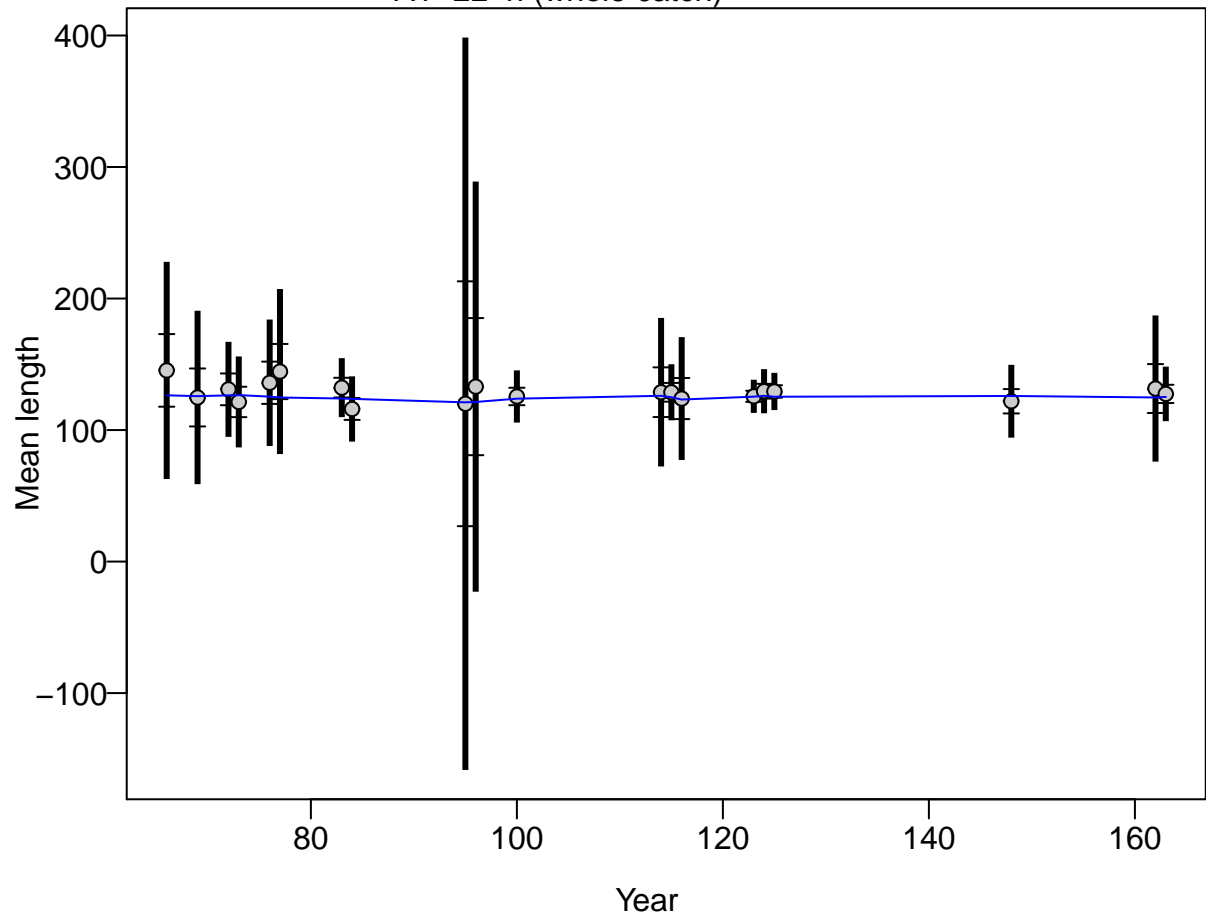


Length (cm)

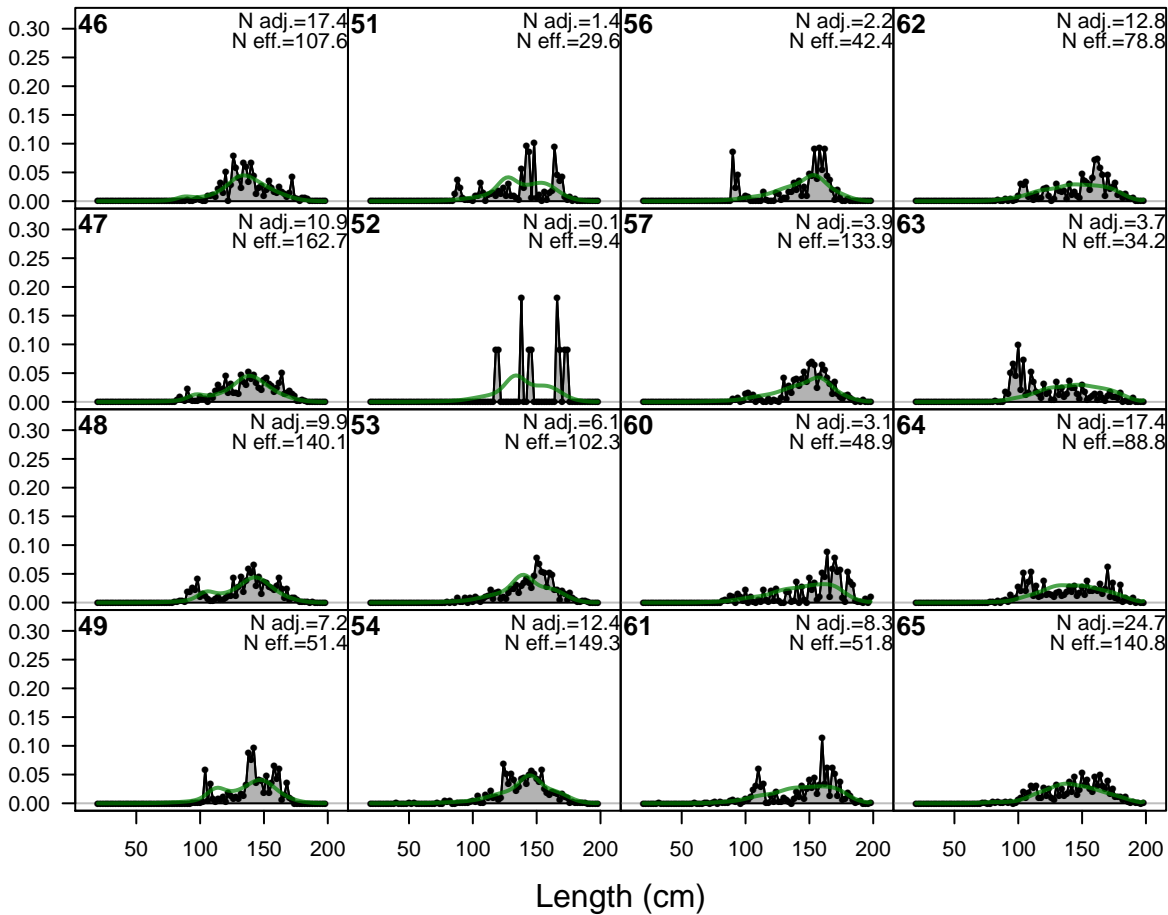




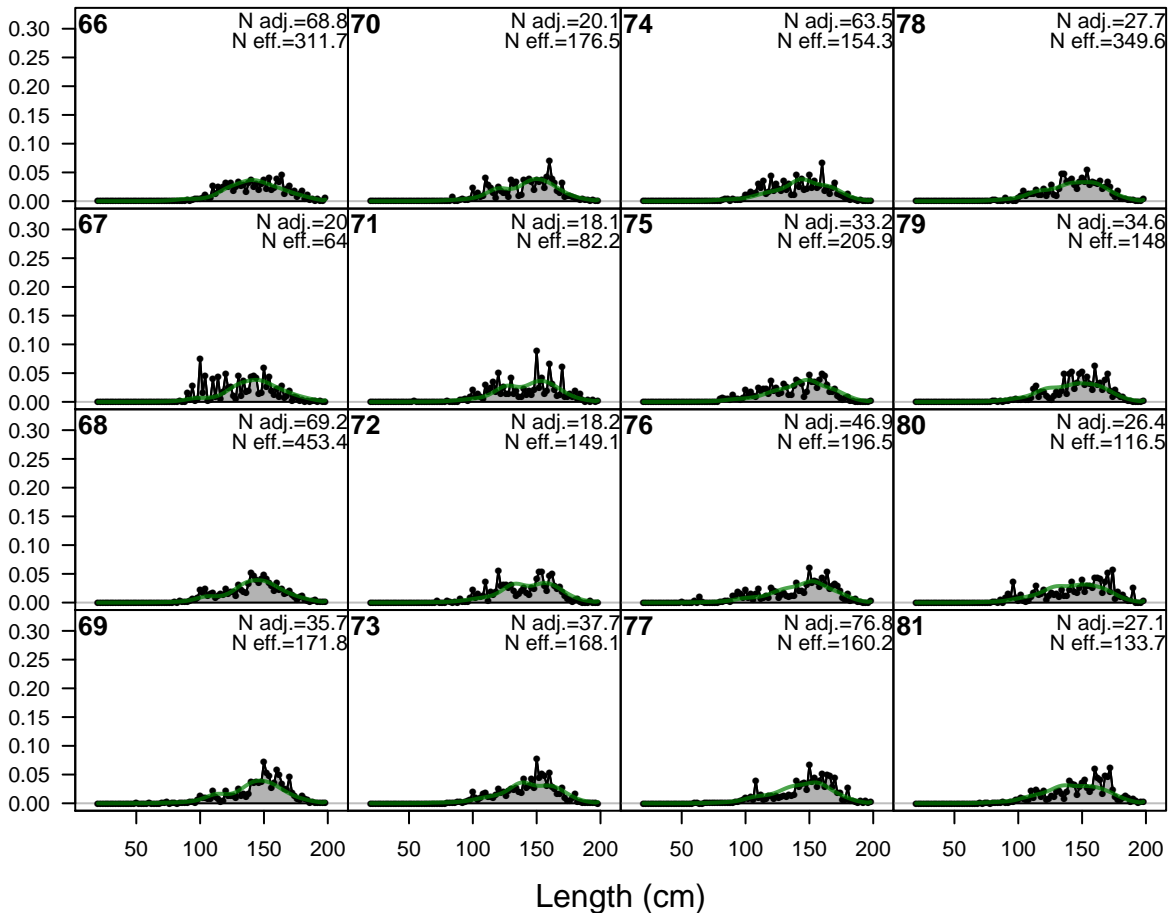
A1-LL-n (whole catch)



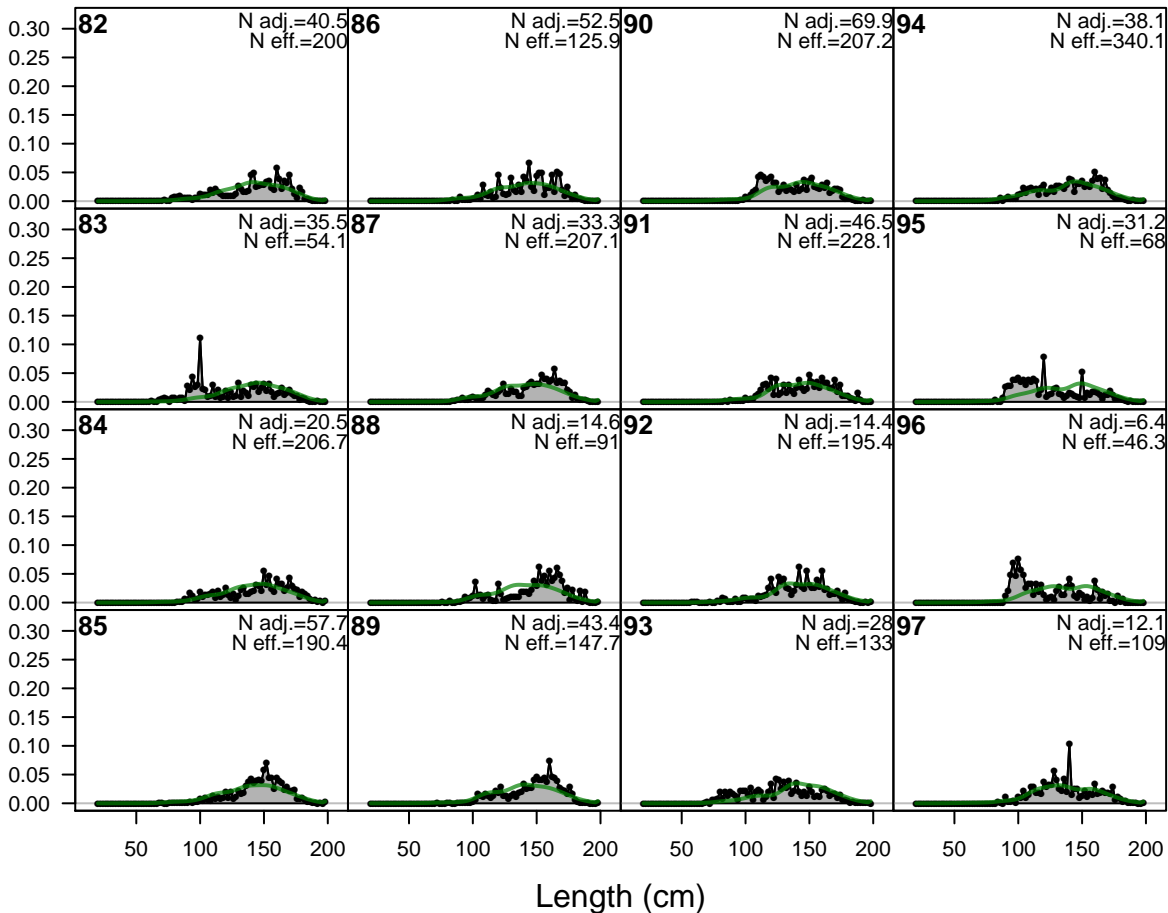
Proportion



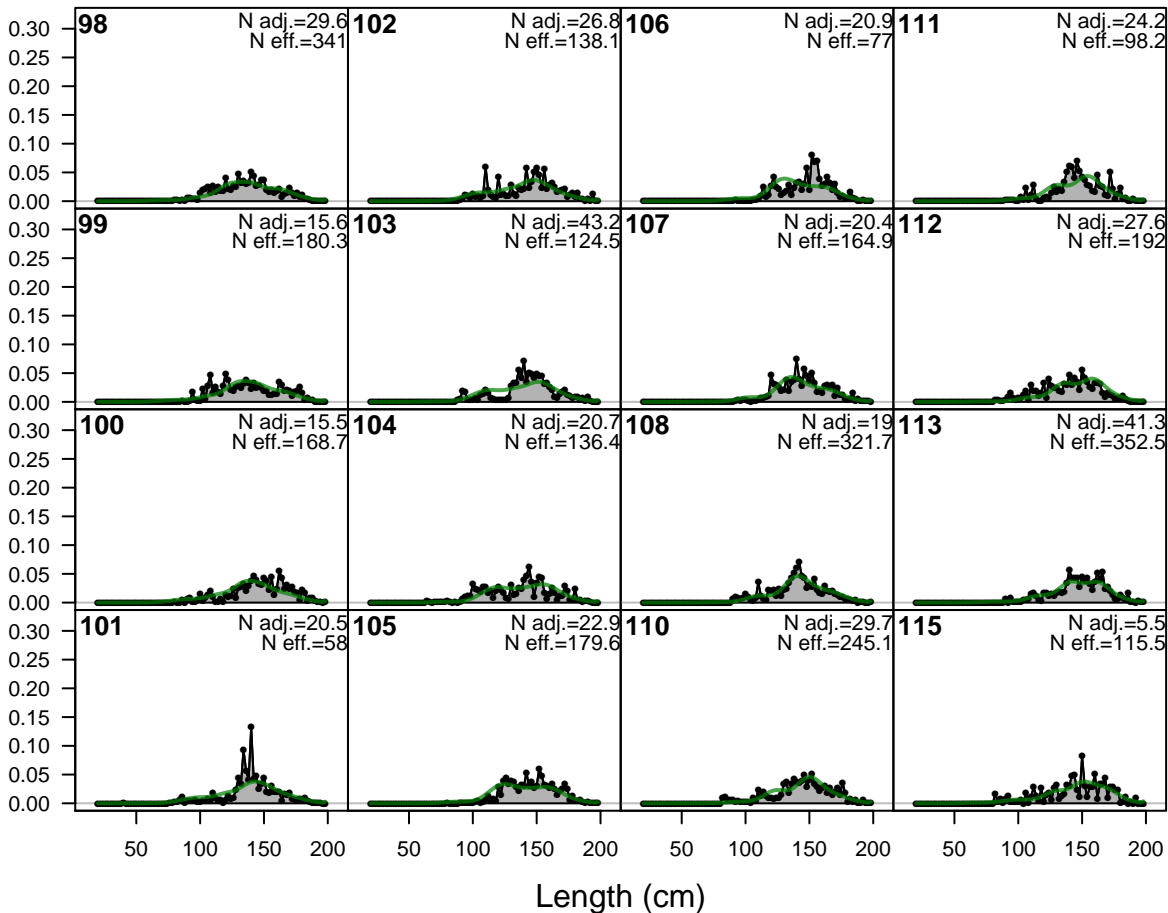
Proportion



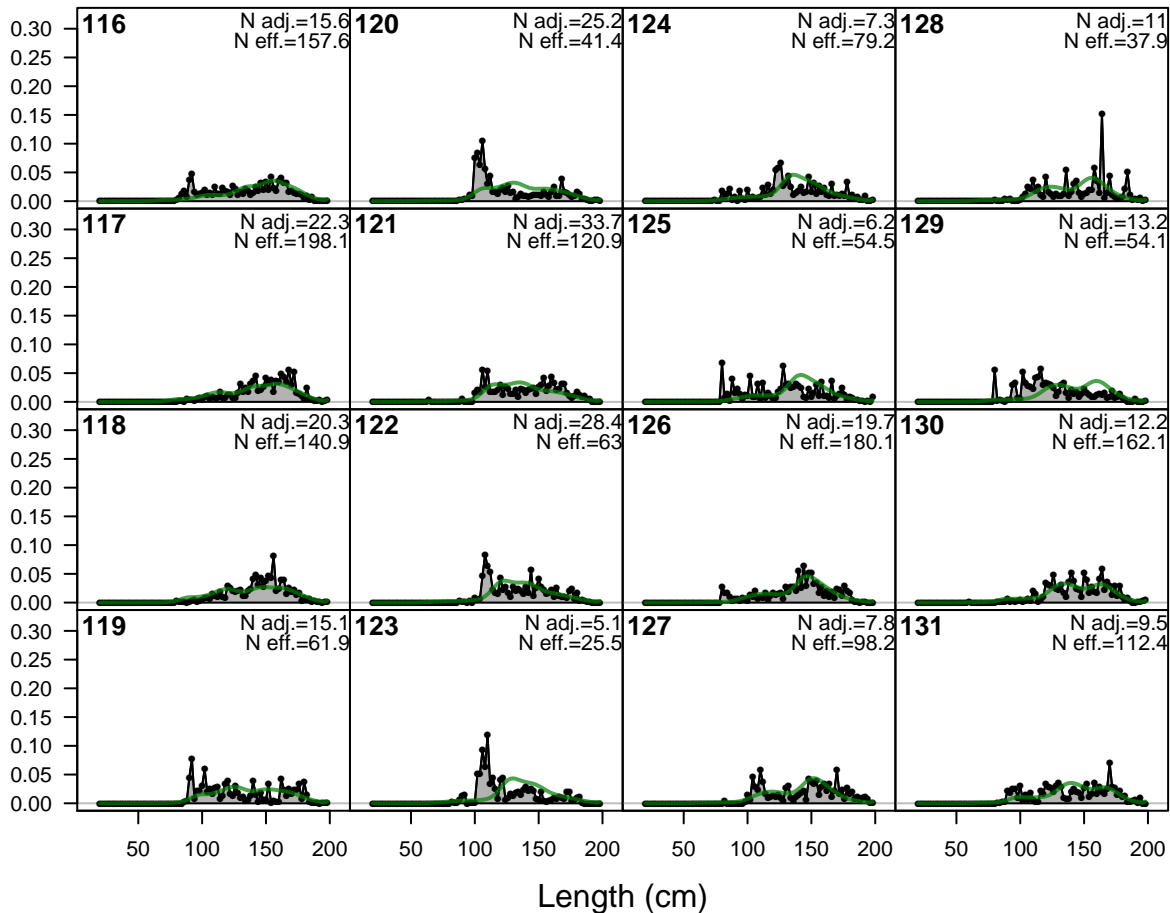
Proportion



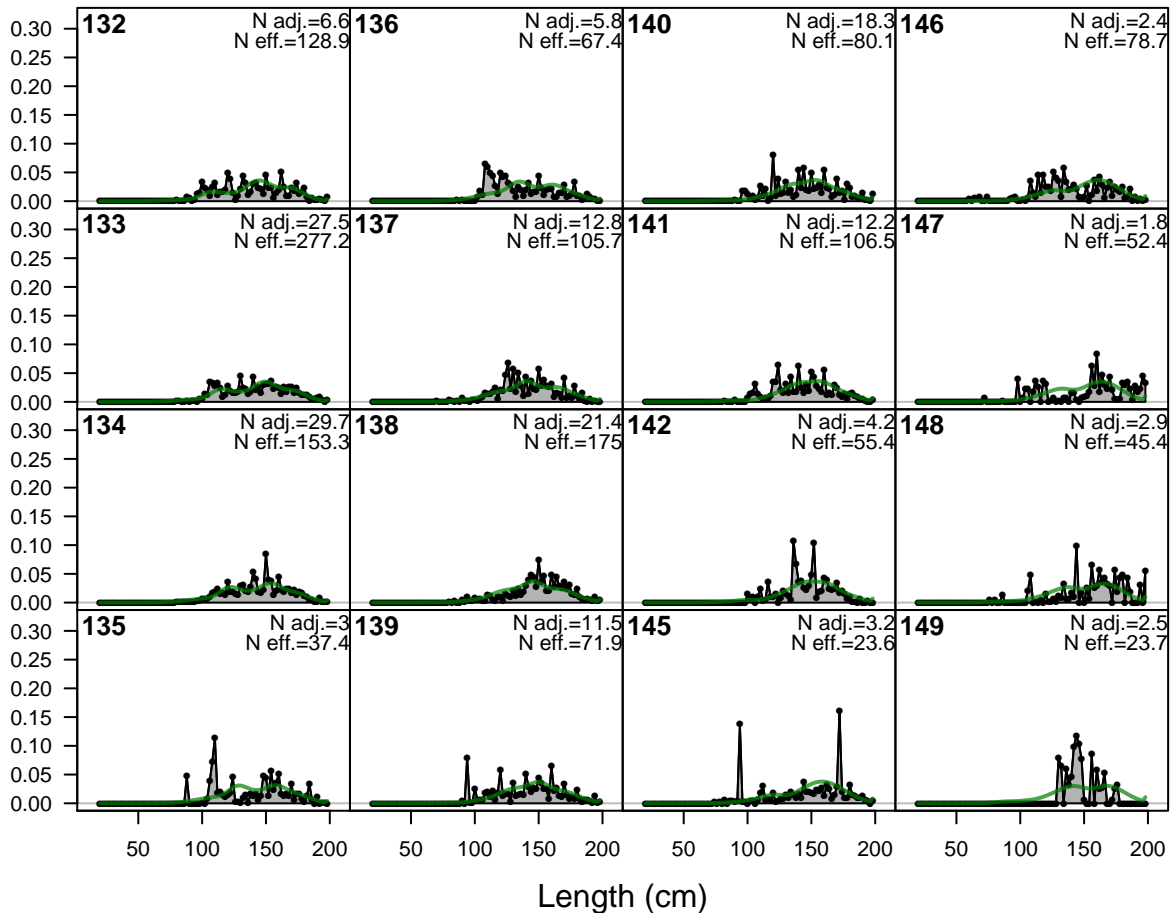
Proportion



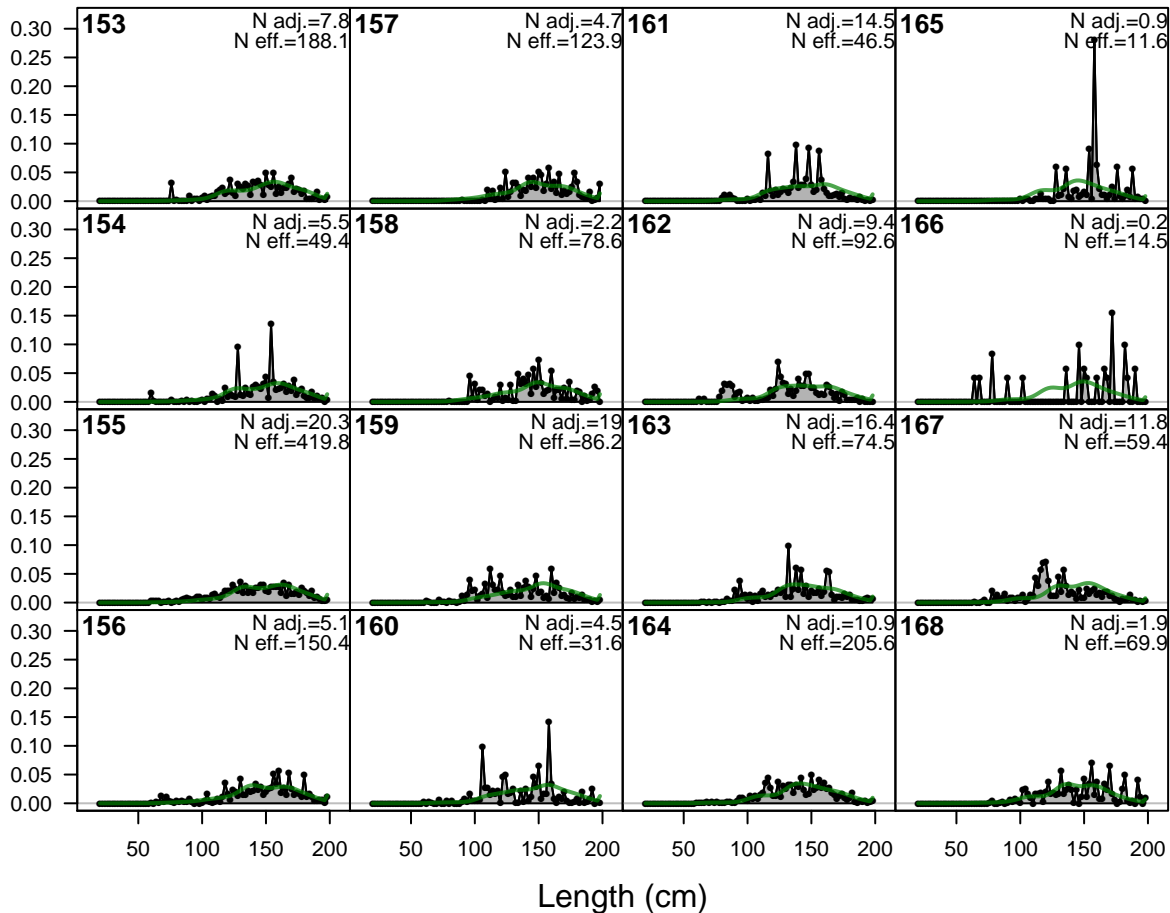
Proportion



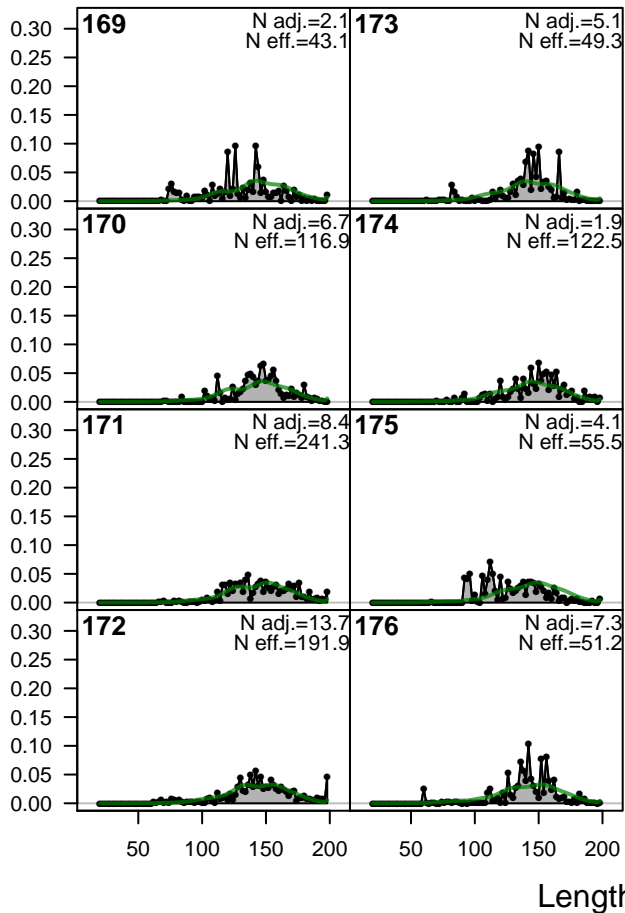
Proportion

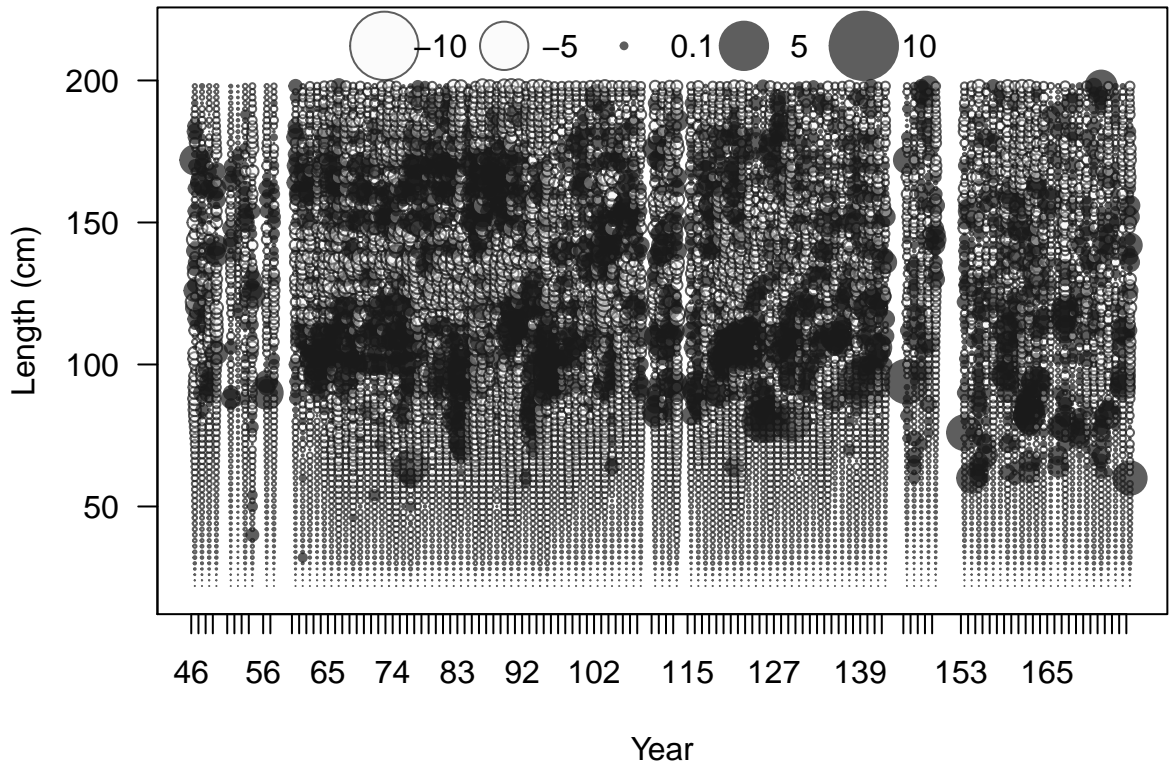


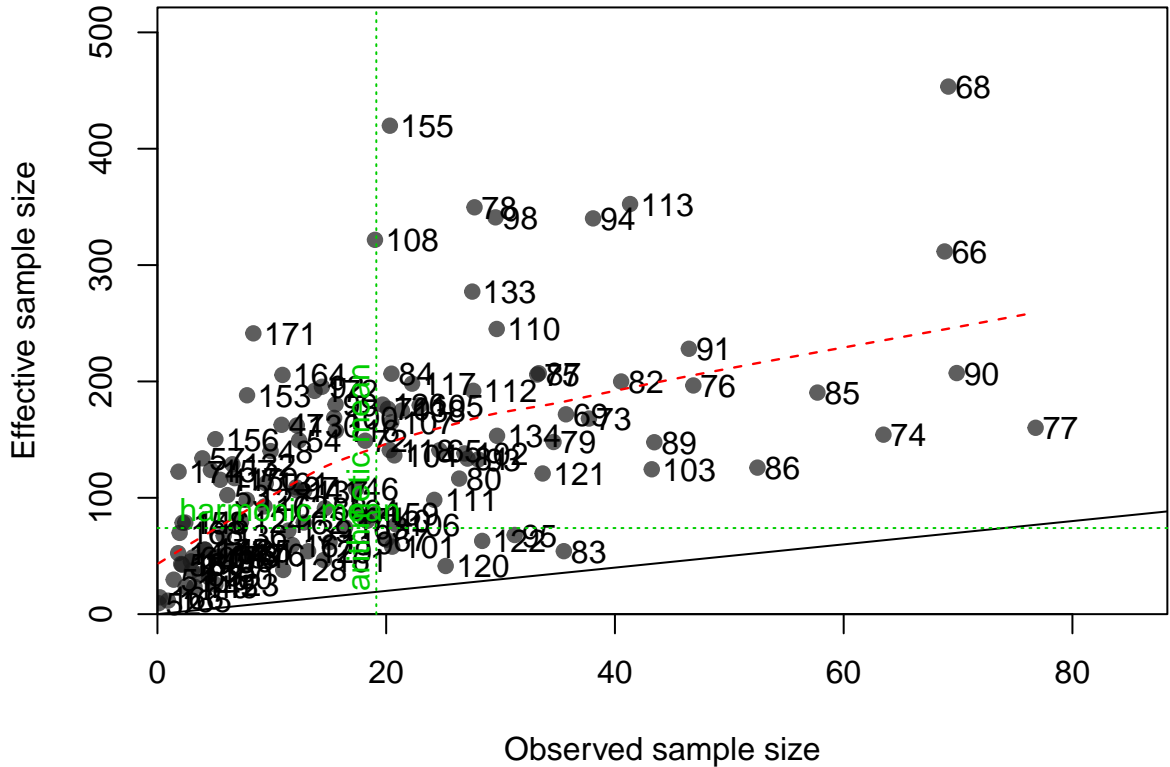
Proportion



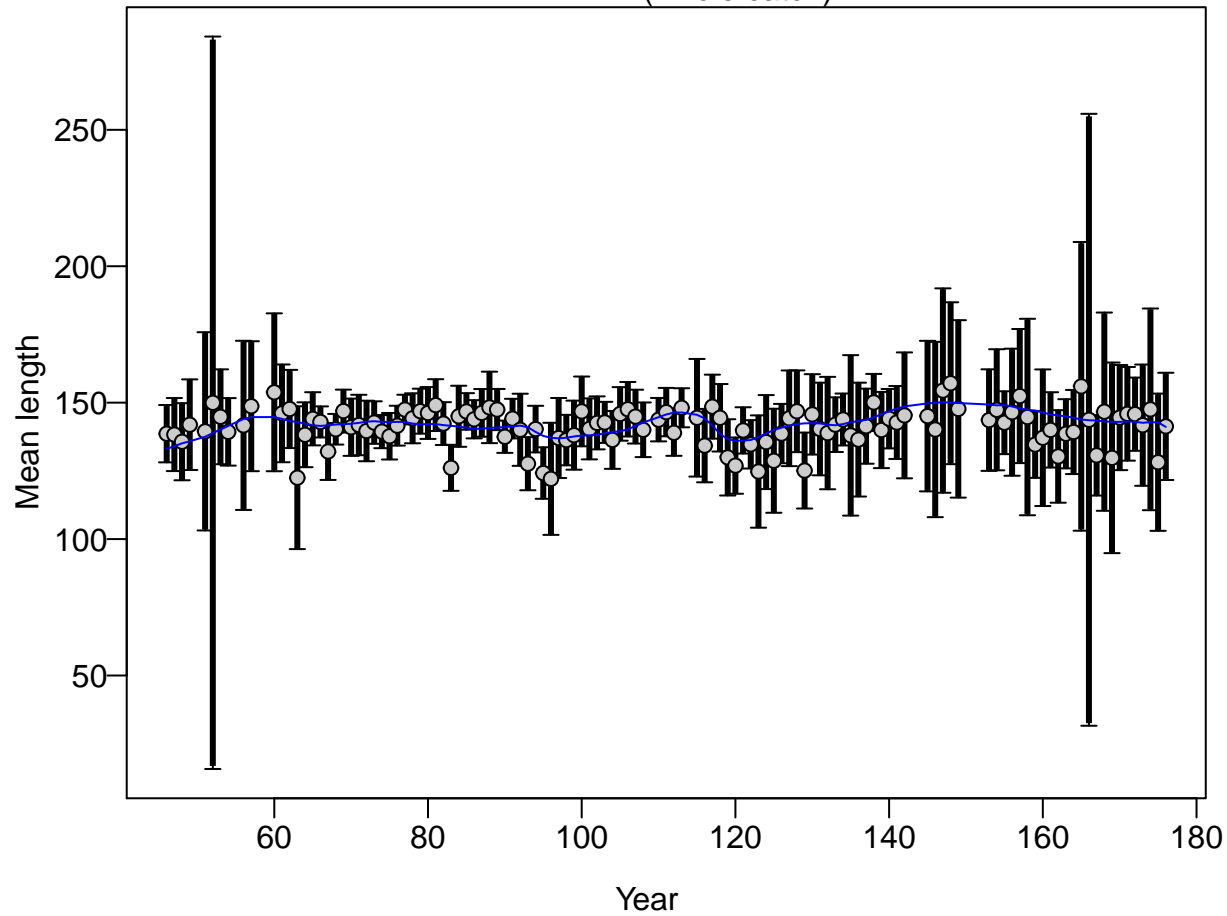
Proportion



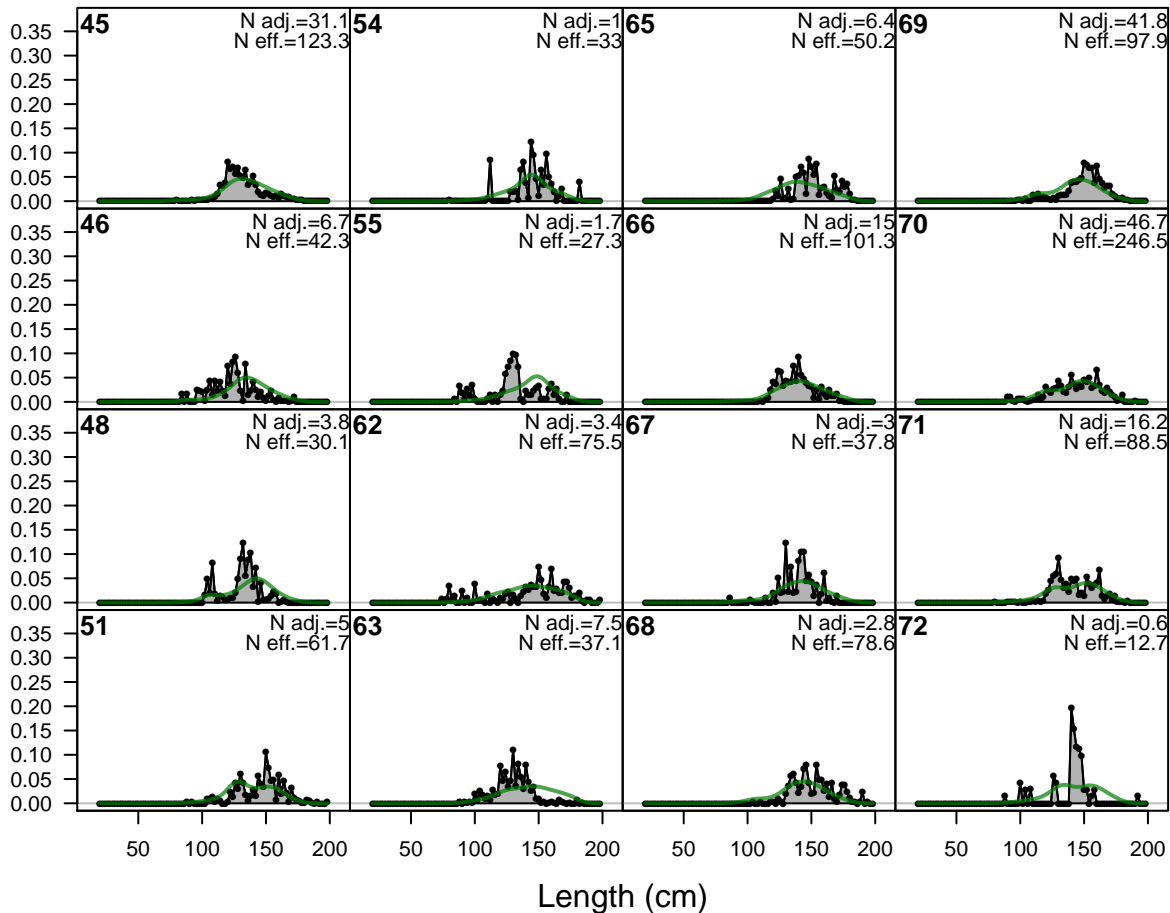




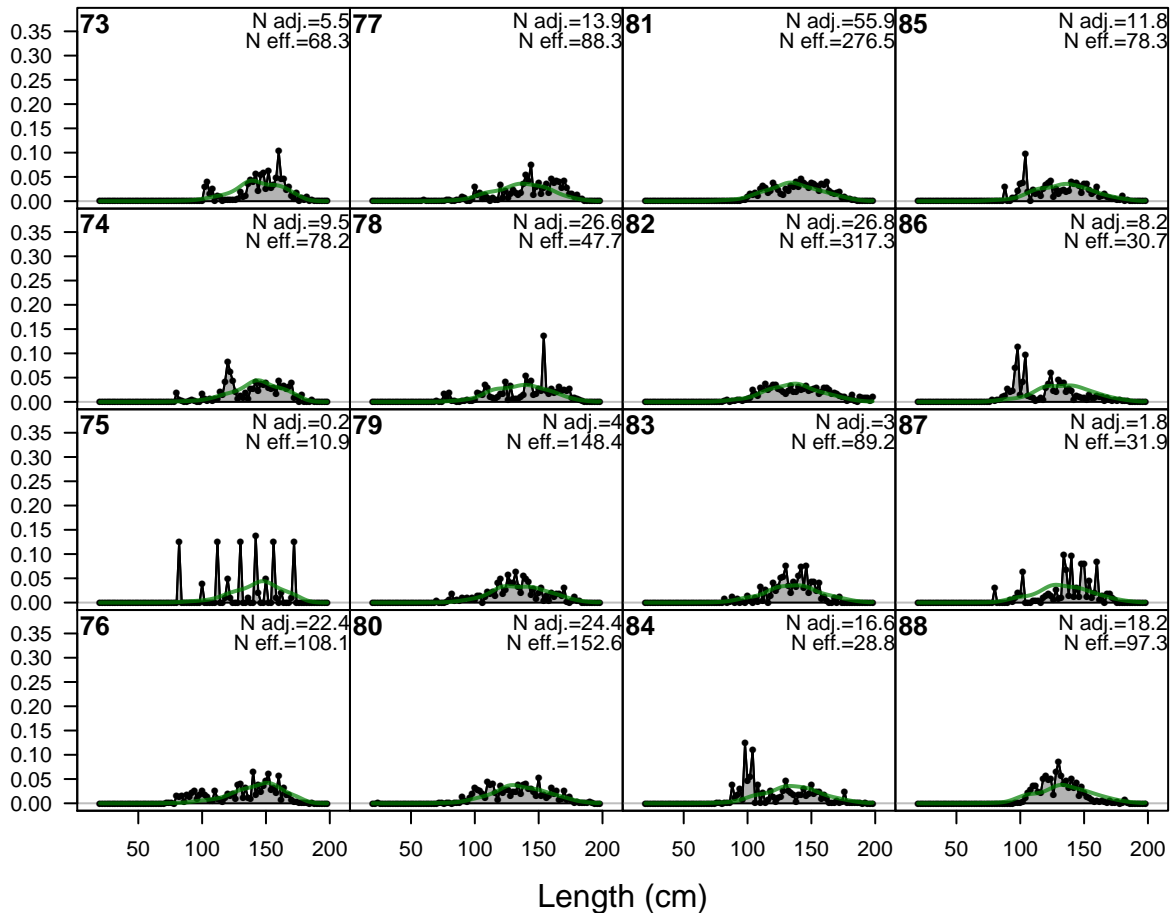
A2-LL-n (whole catch)



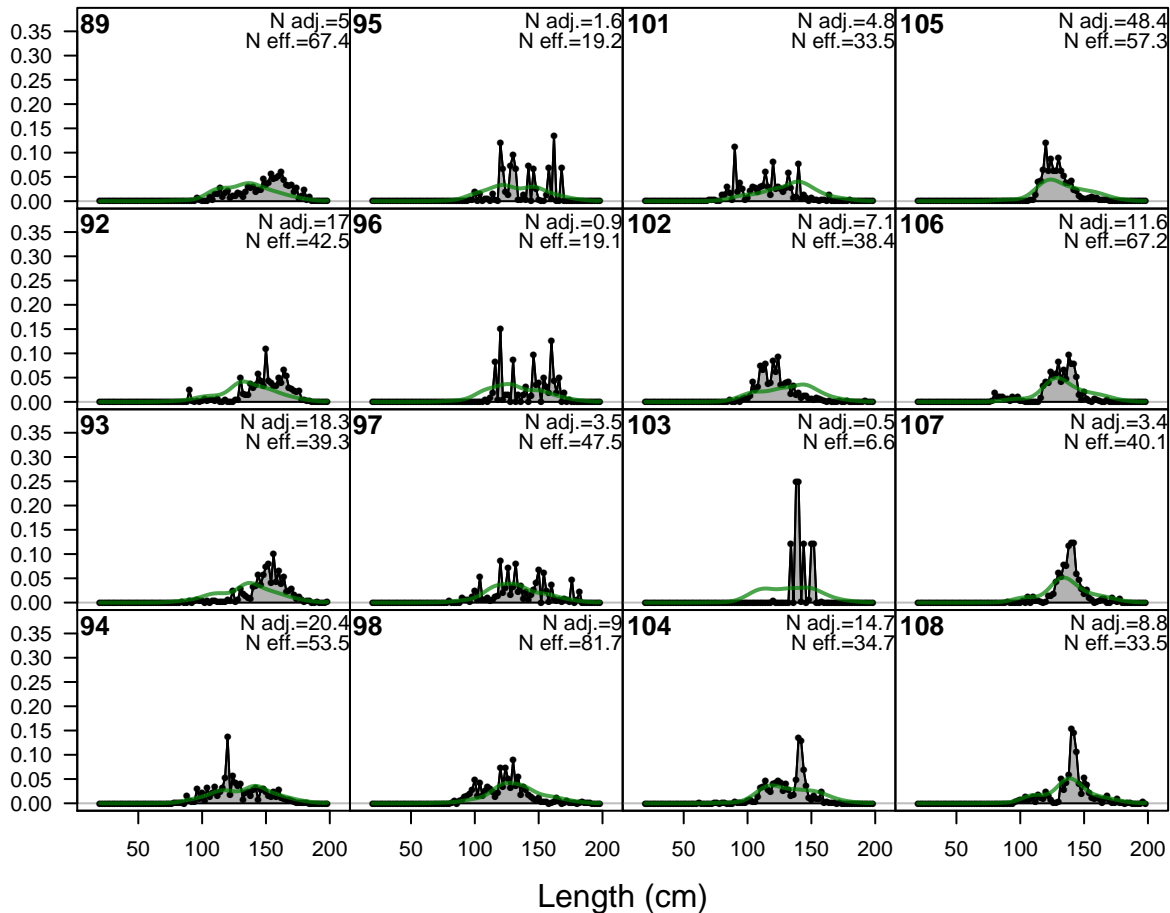
Proportion



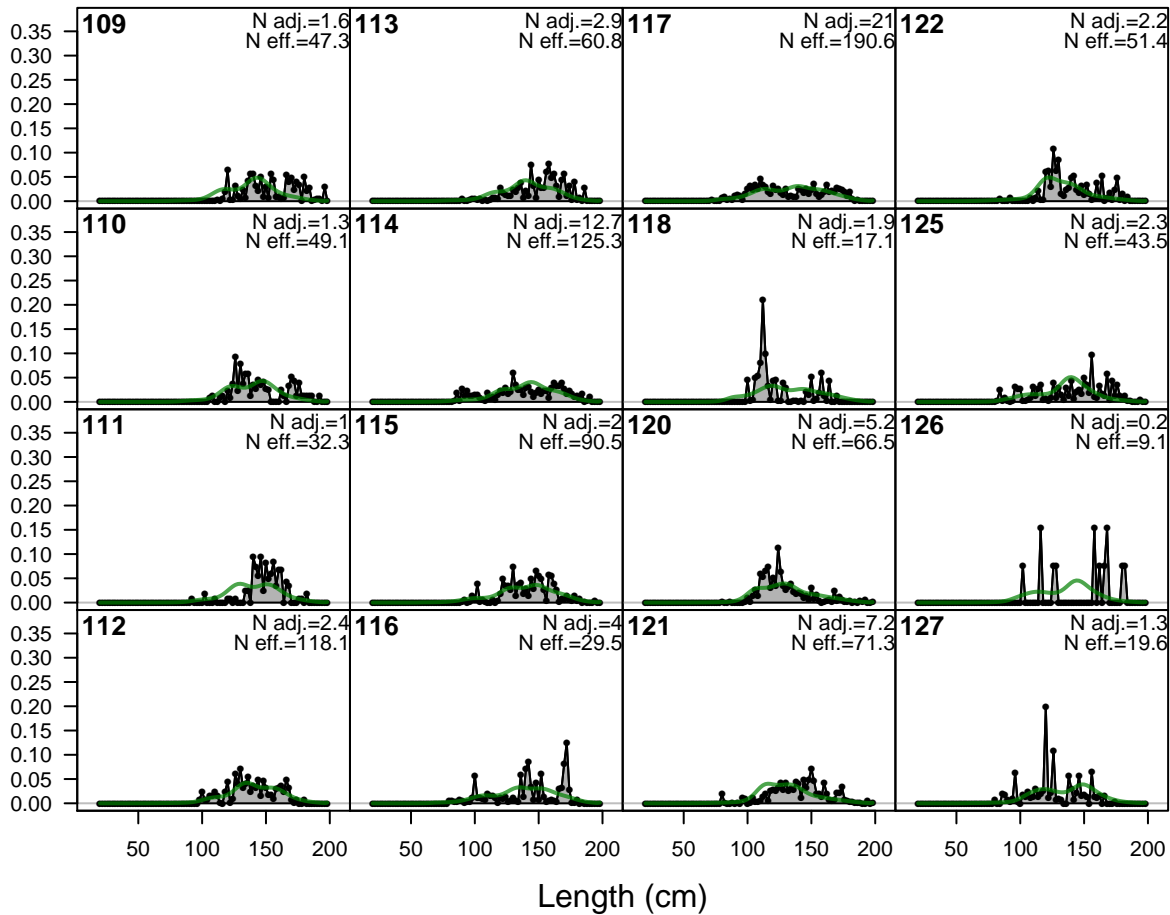
Proportion



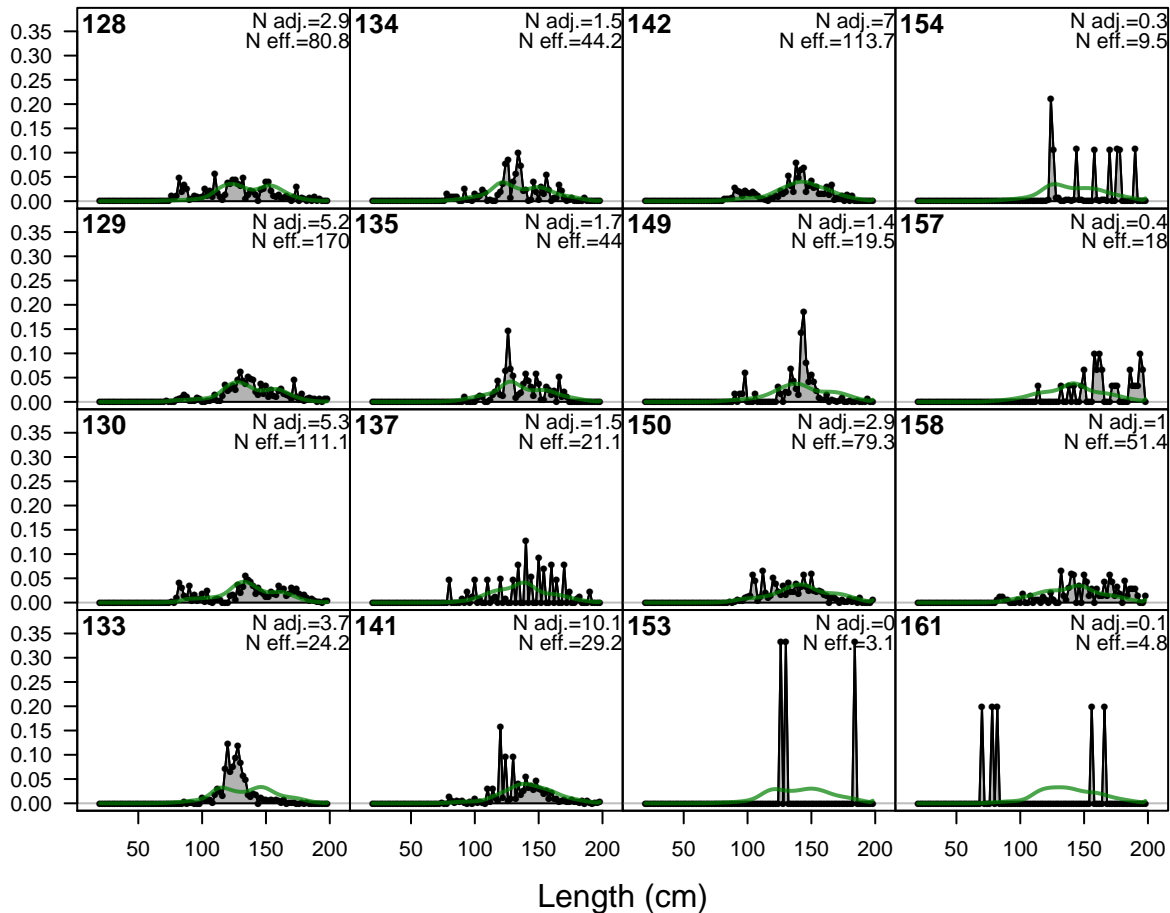
Proportion



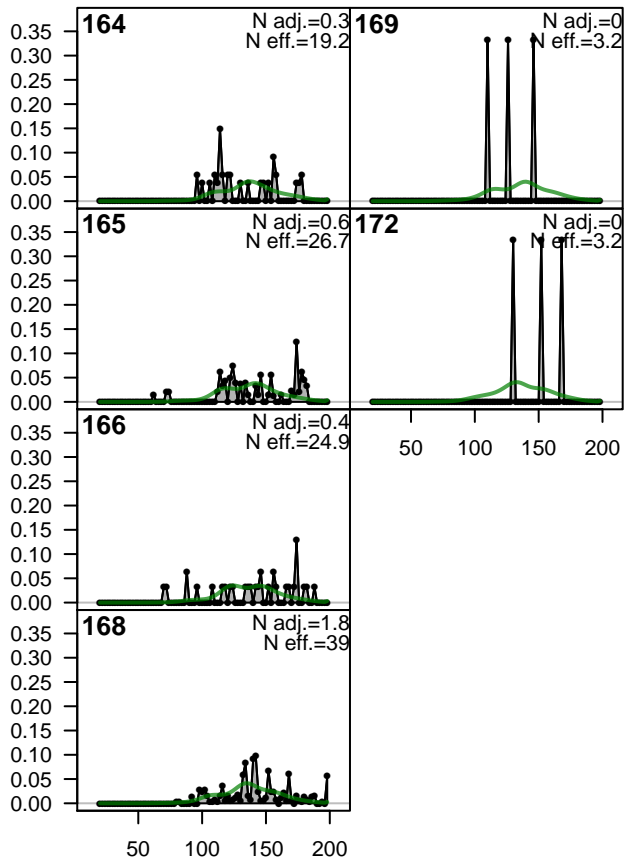
Proportion



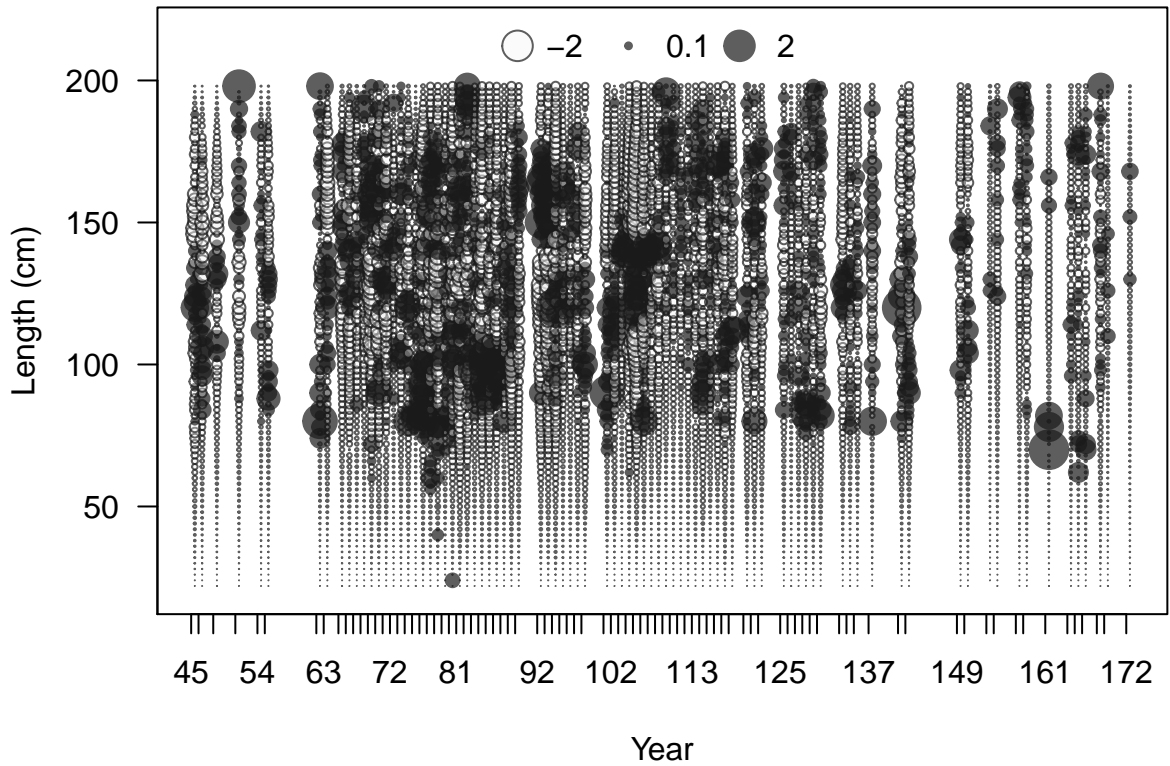
Proportion

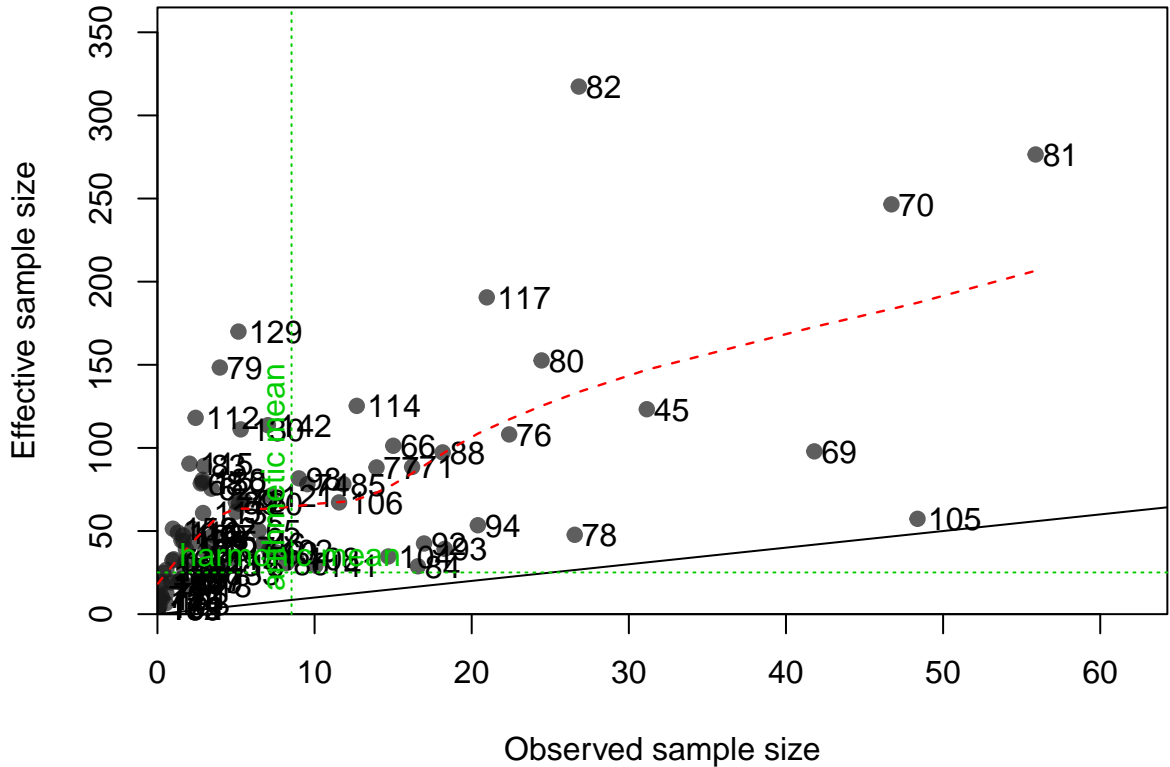


Proportion

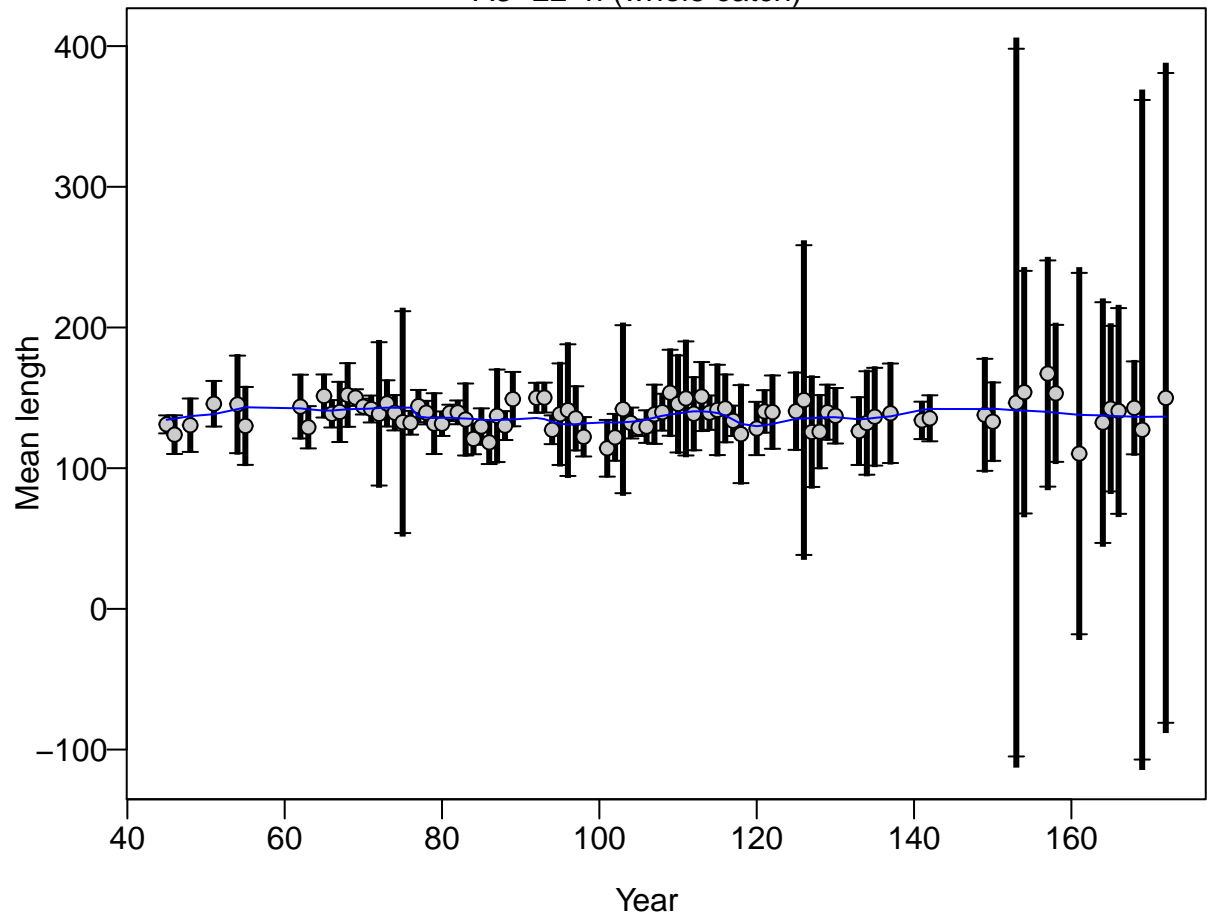


Length (cm)

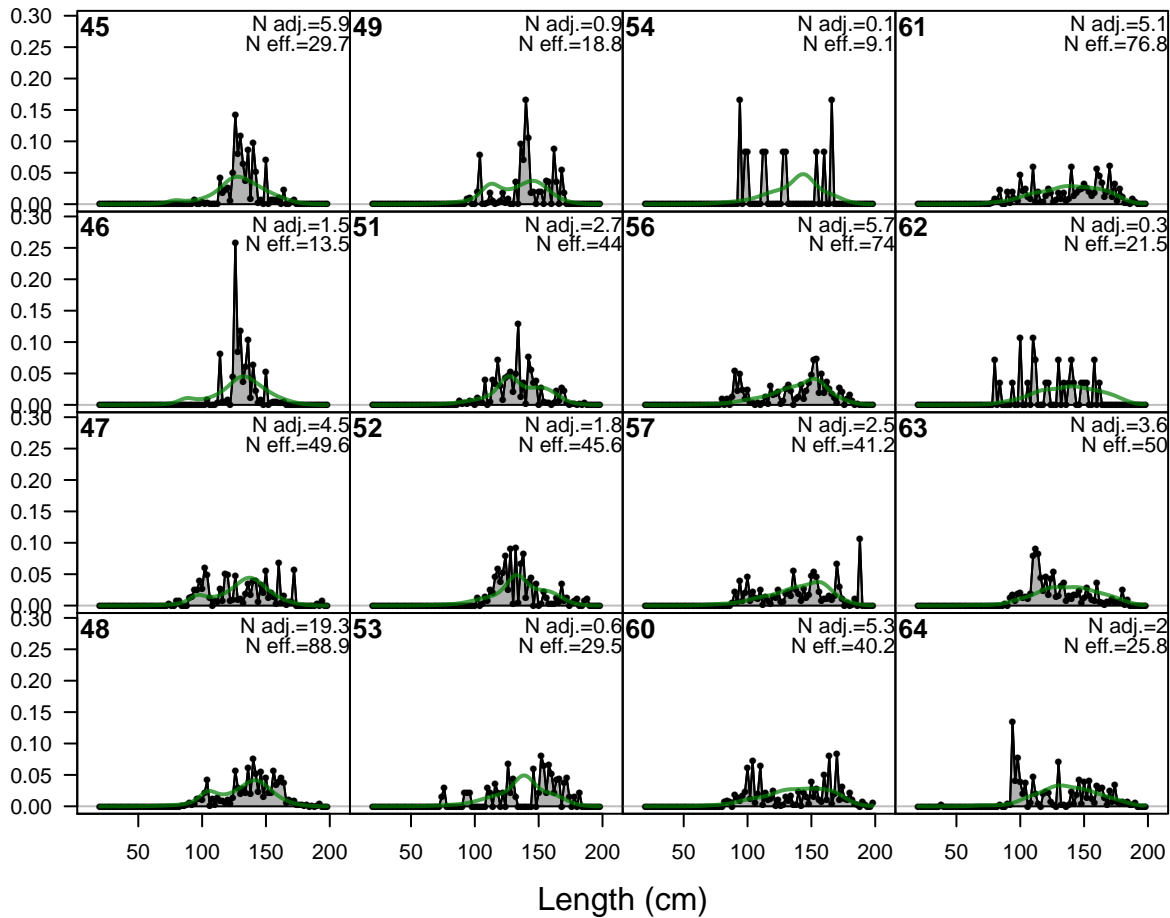




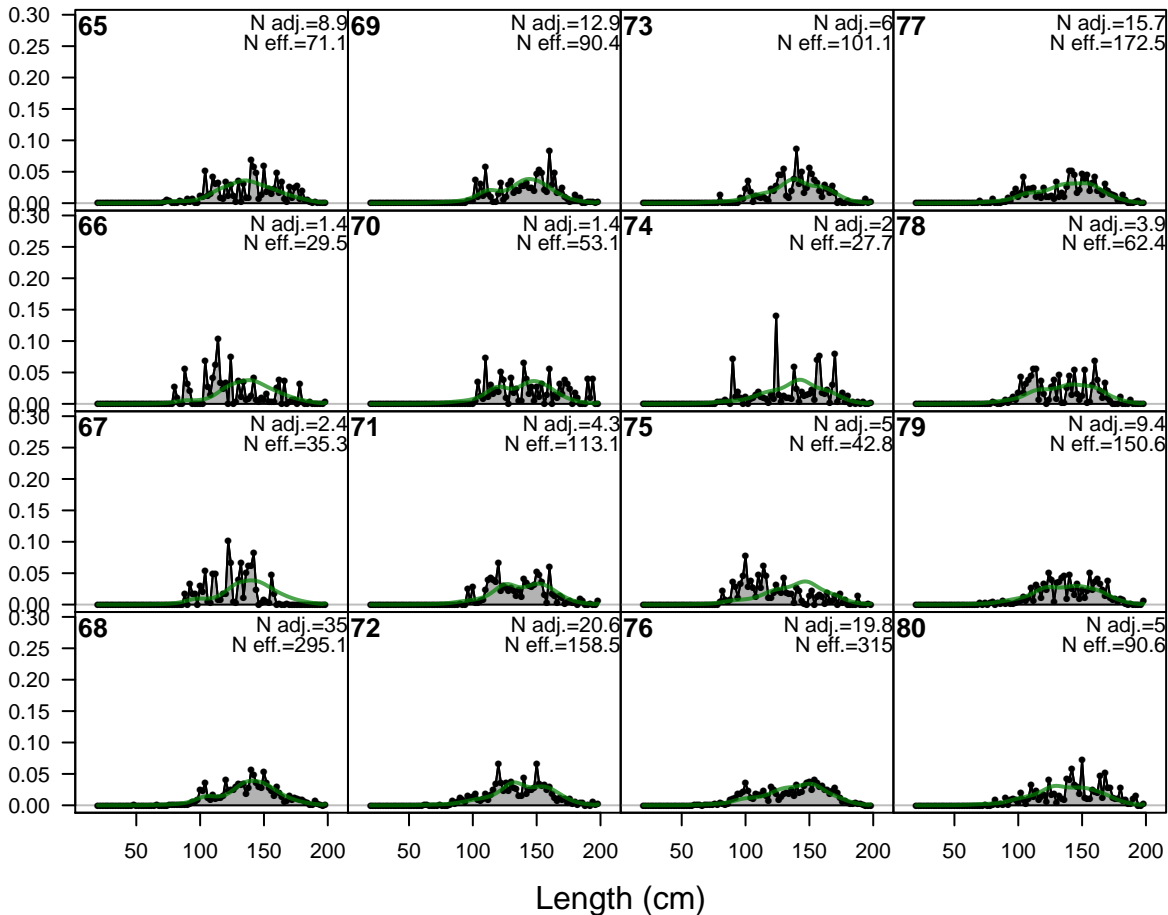
A3-LL-n (whole catch)



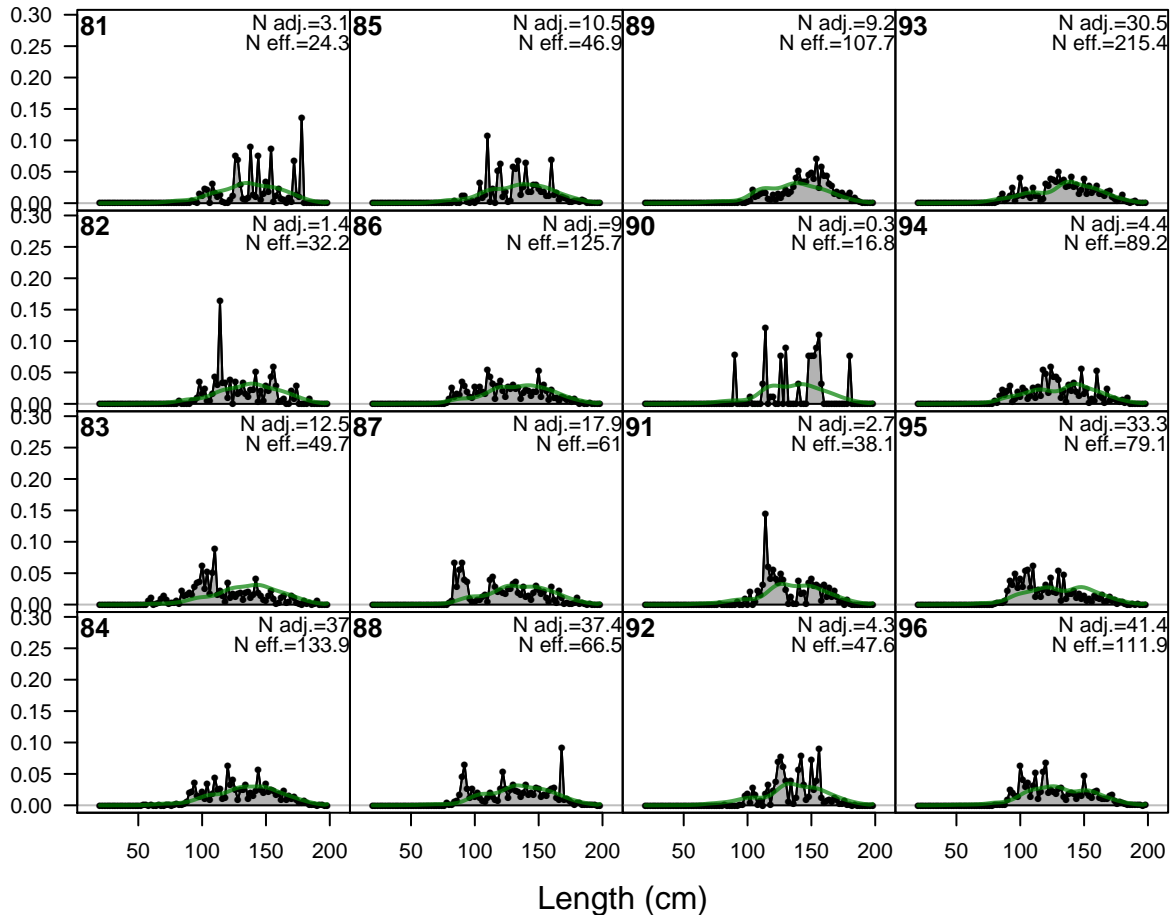
Proportion



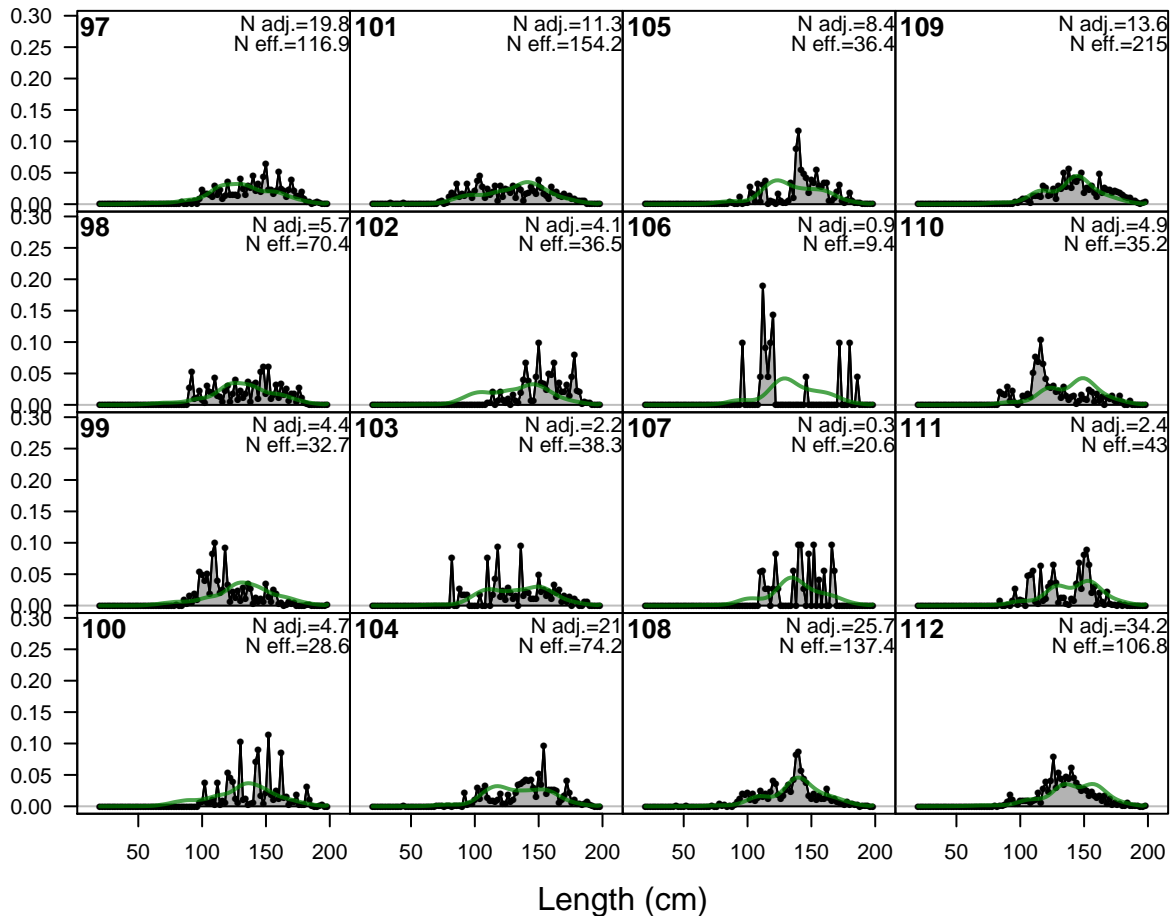
Proportion



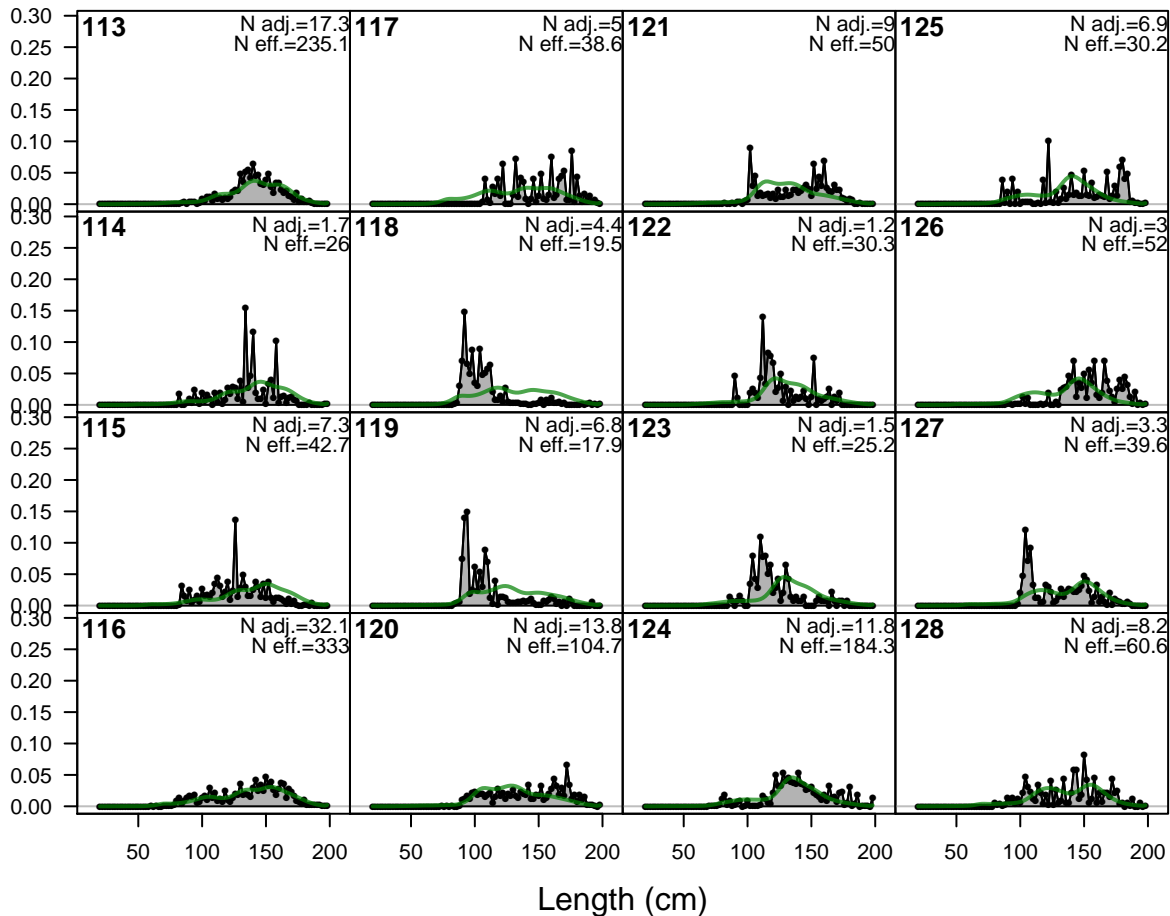
Proportion



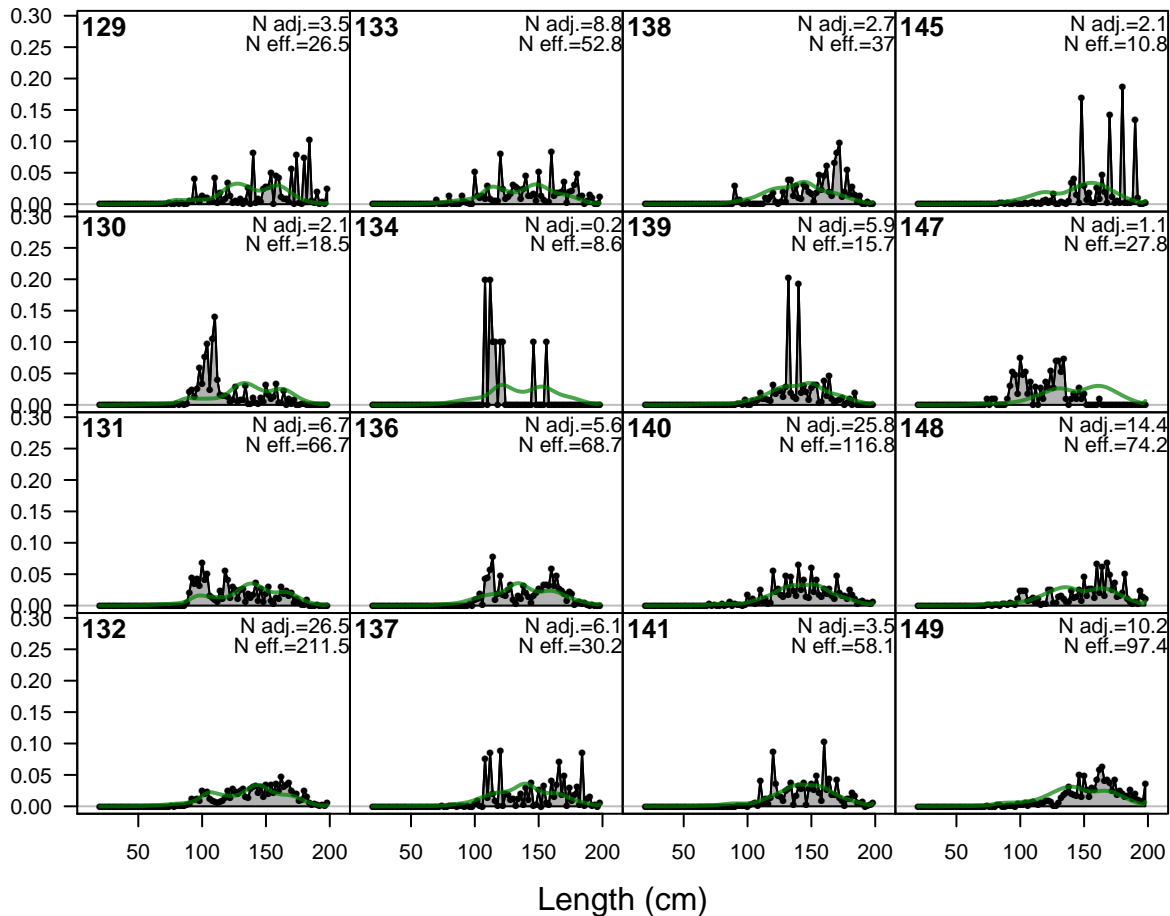
Proportion



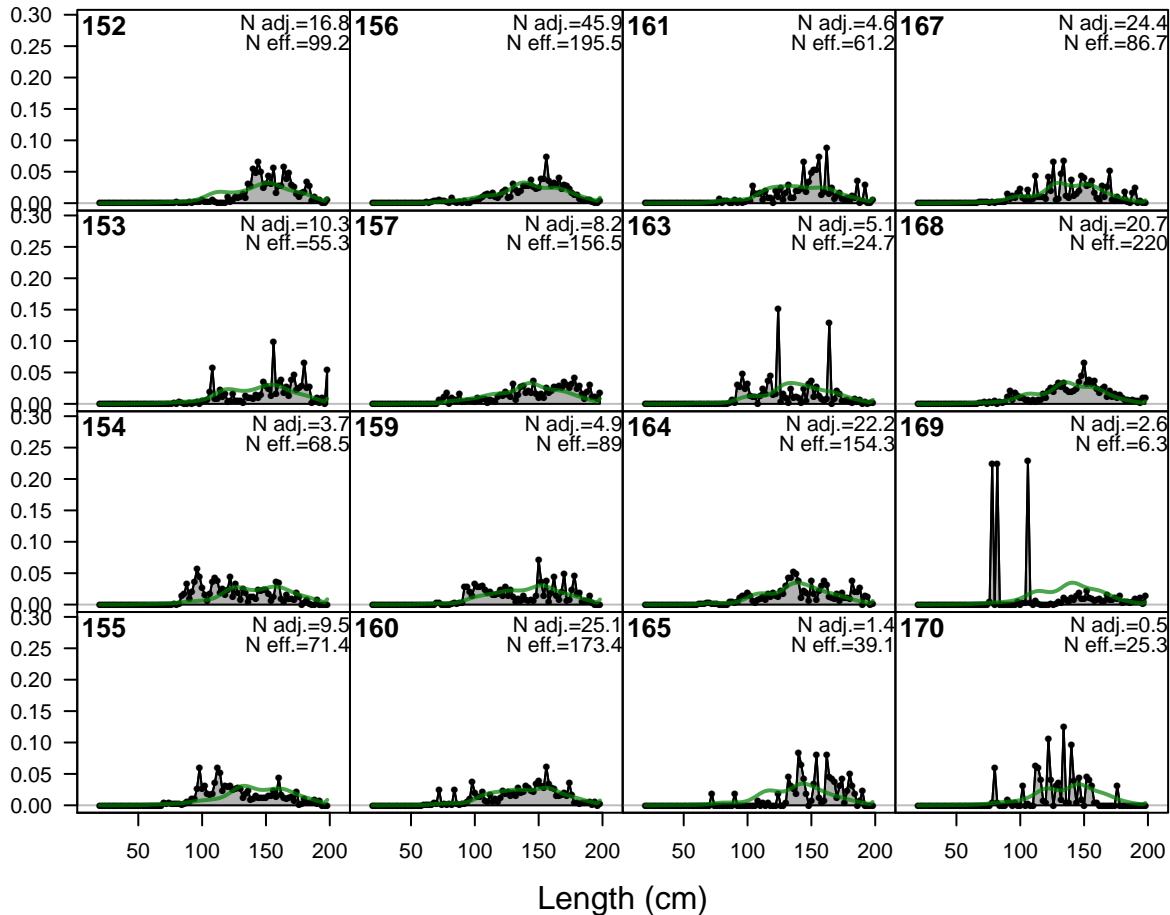
Proportion



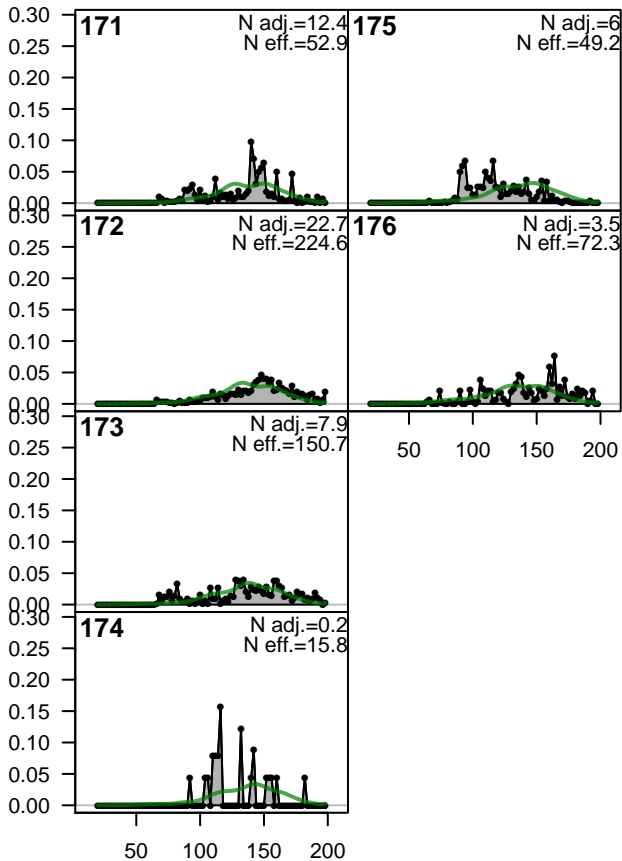
Proportion



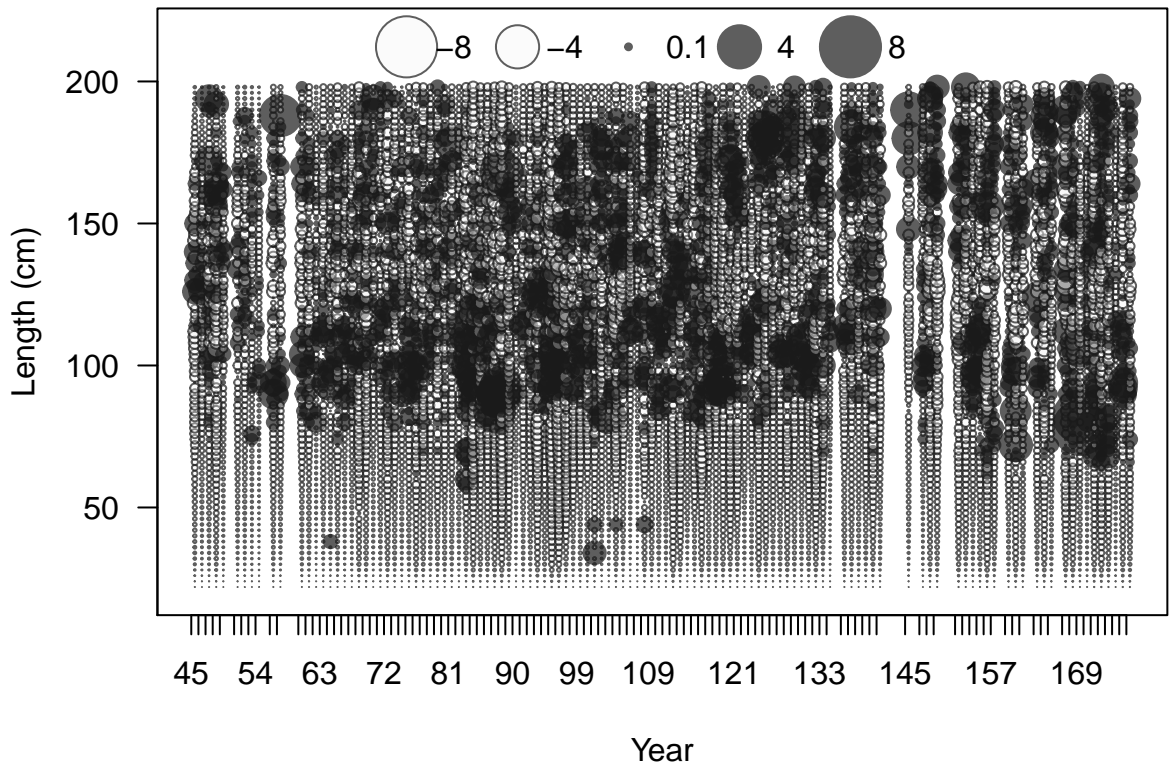
Proportion

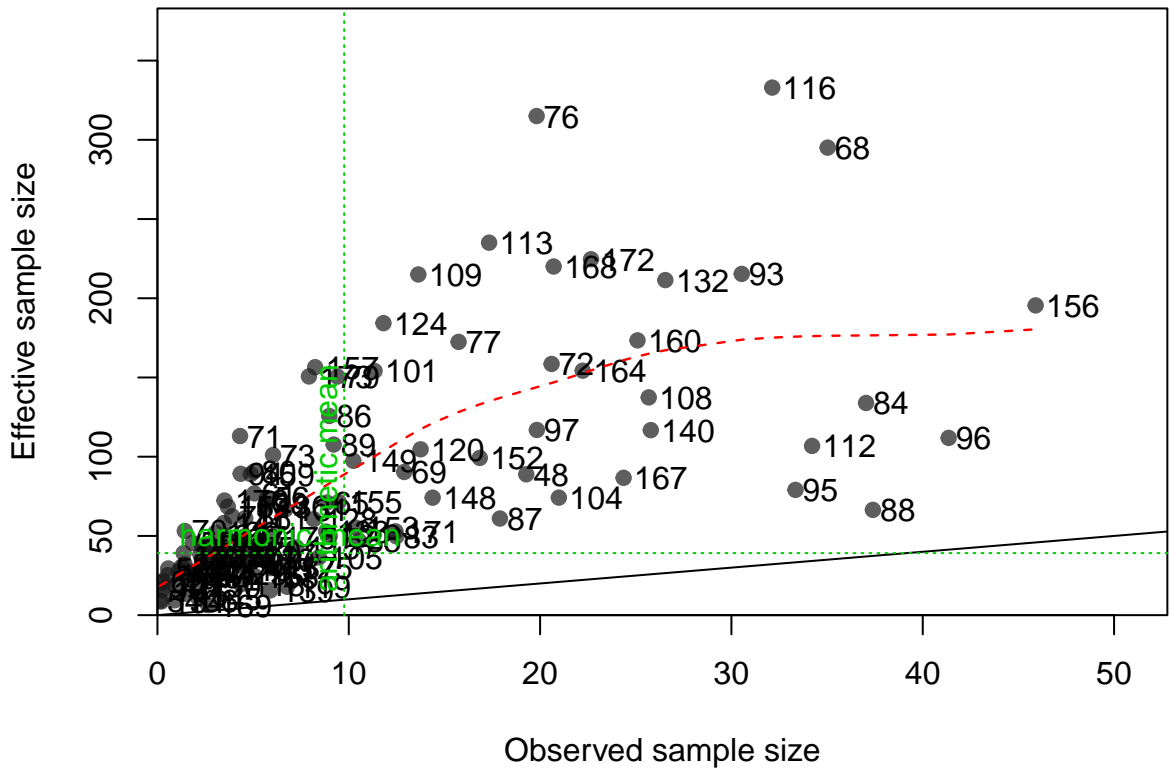


Proportion

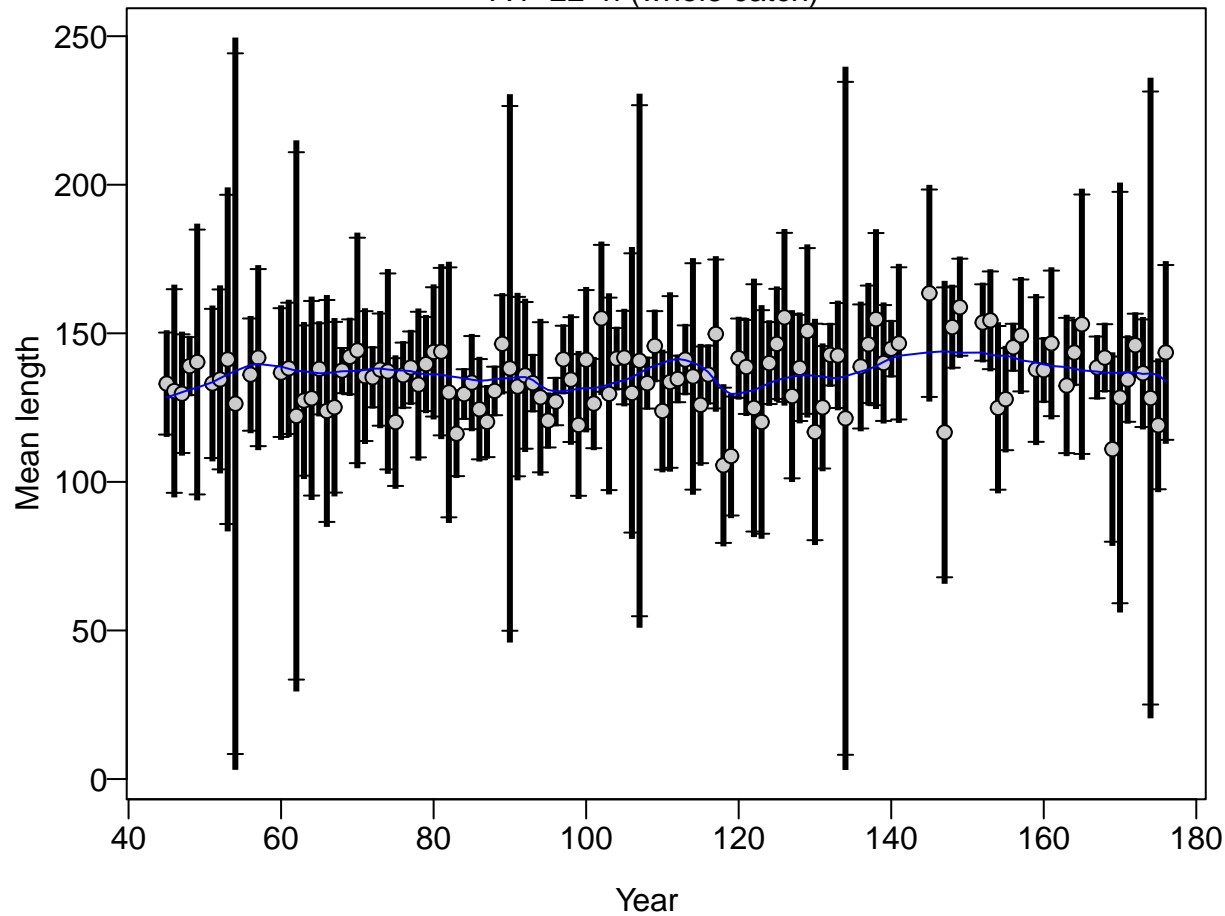


Length (cm)

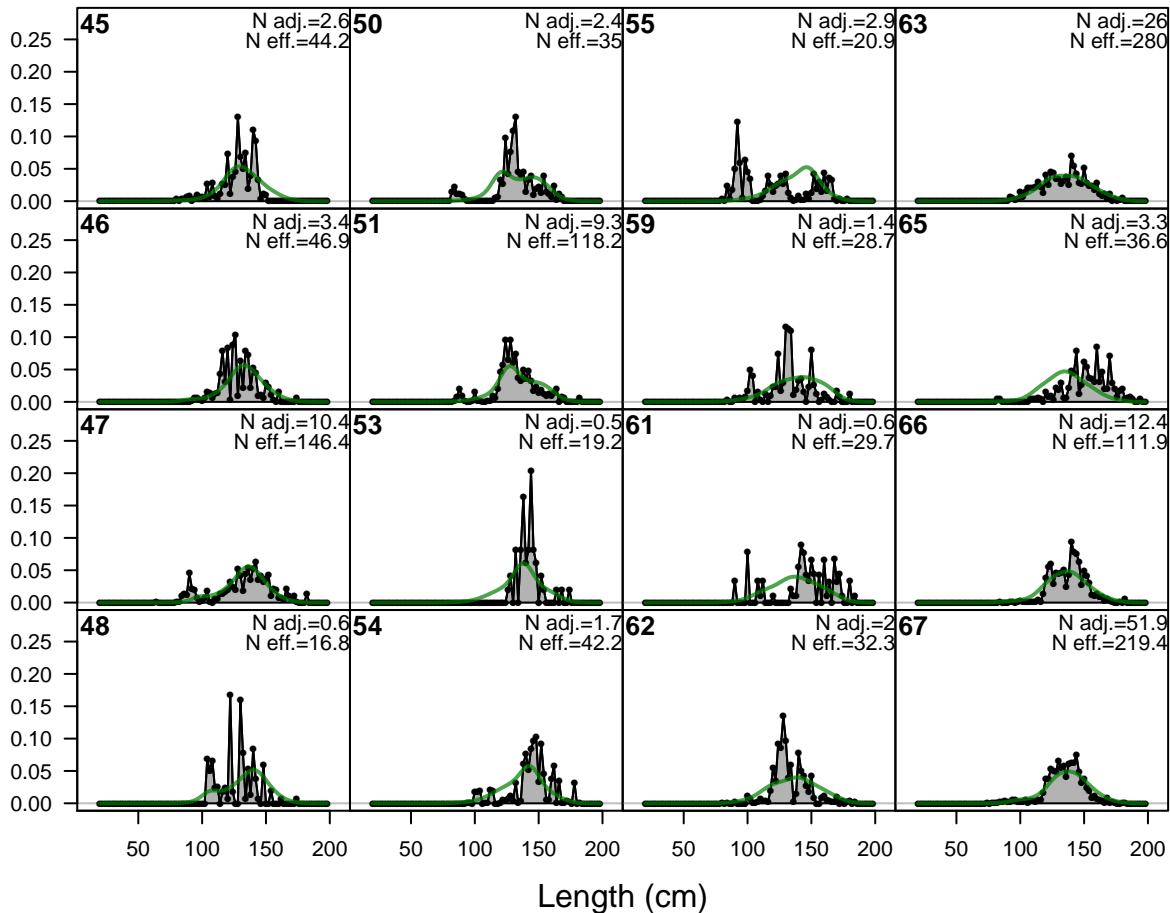




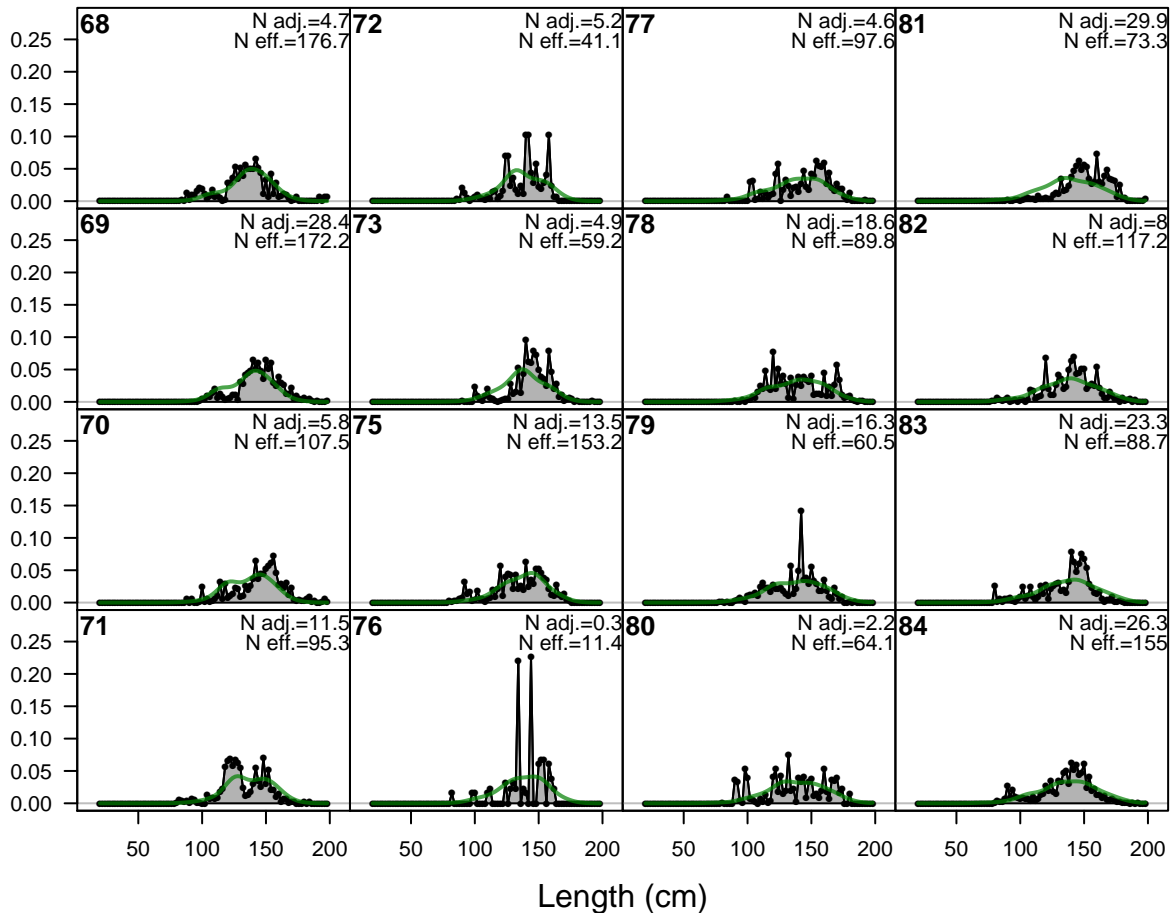
A4-LL-n (whole catch)



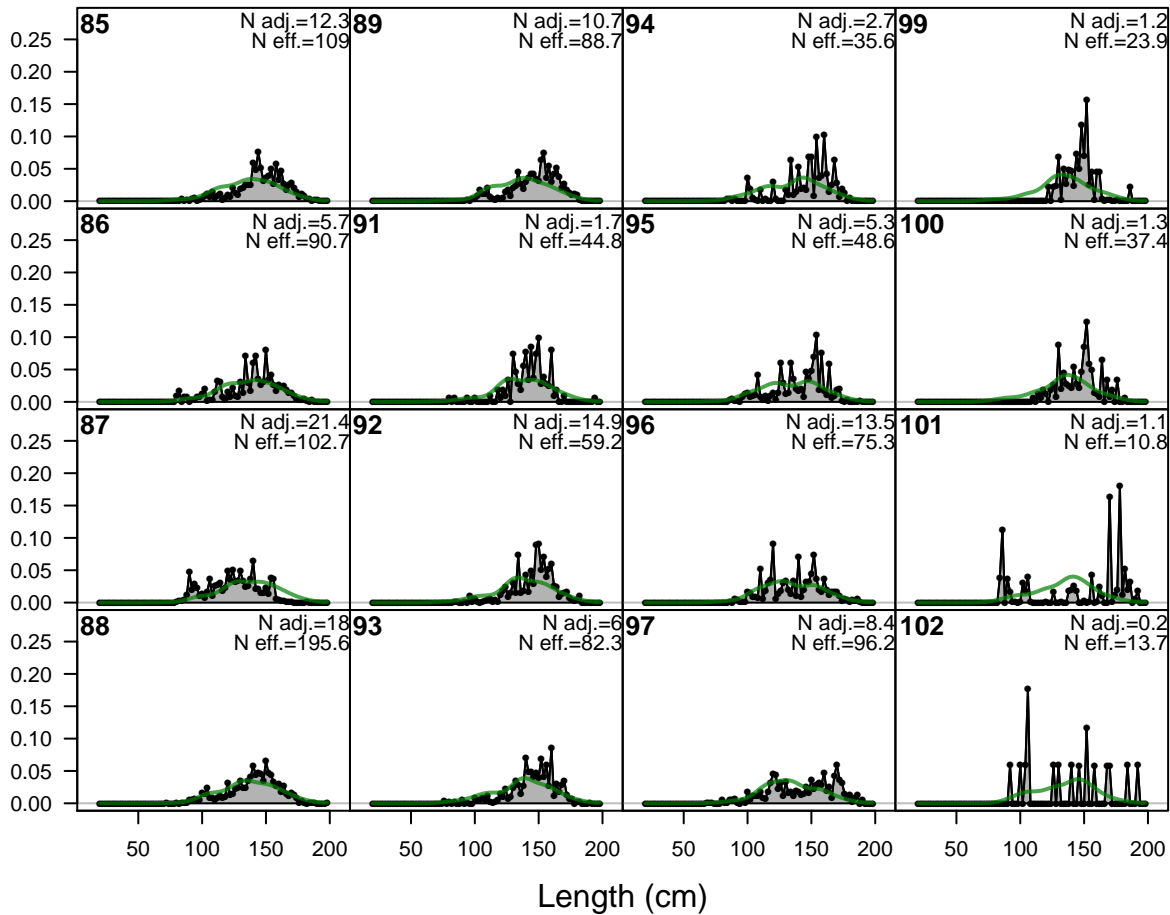
Proportion



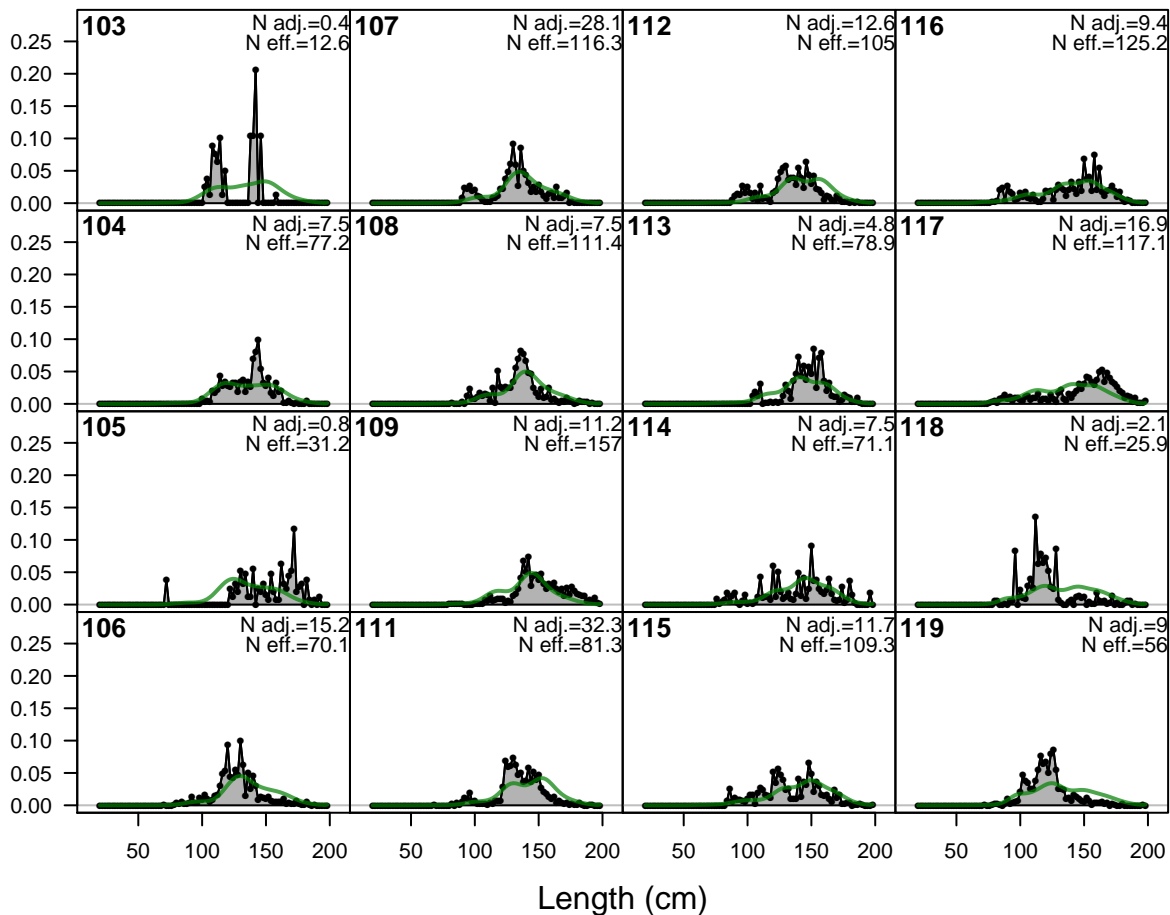
Proportion



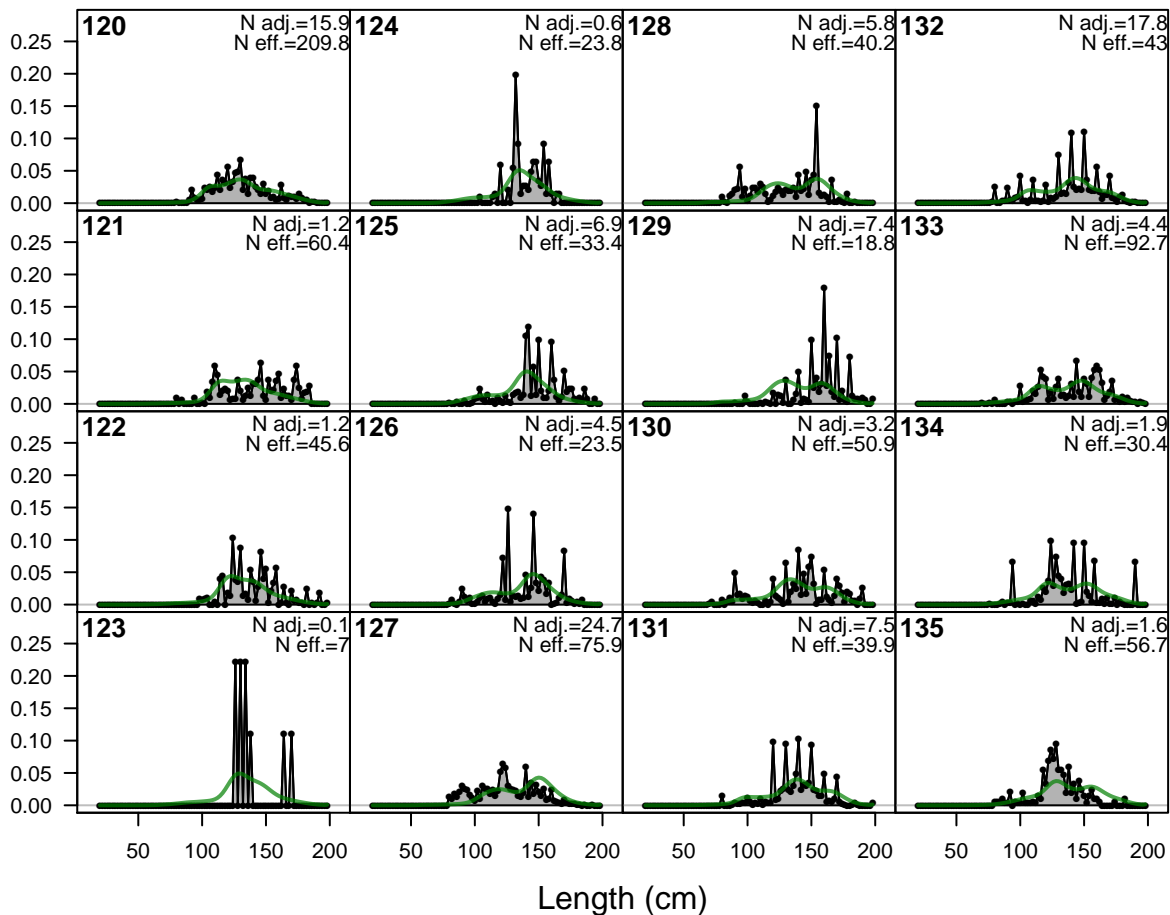
Proportion



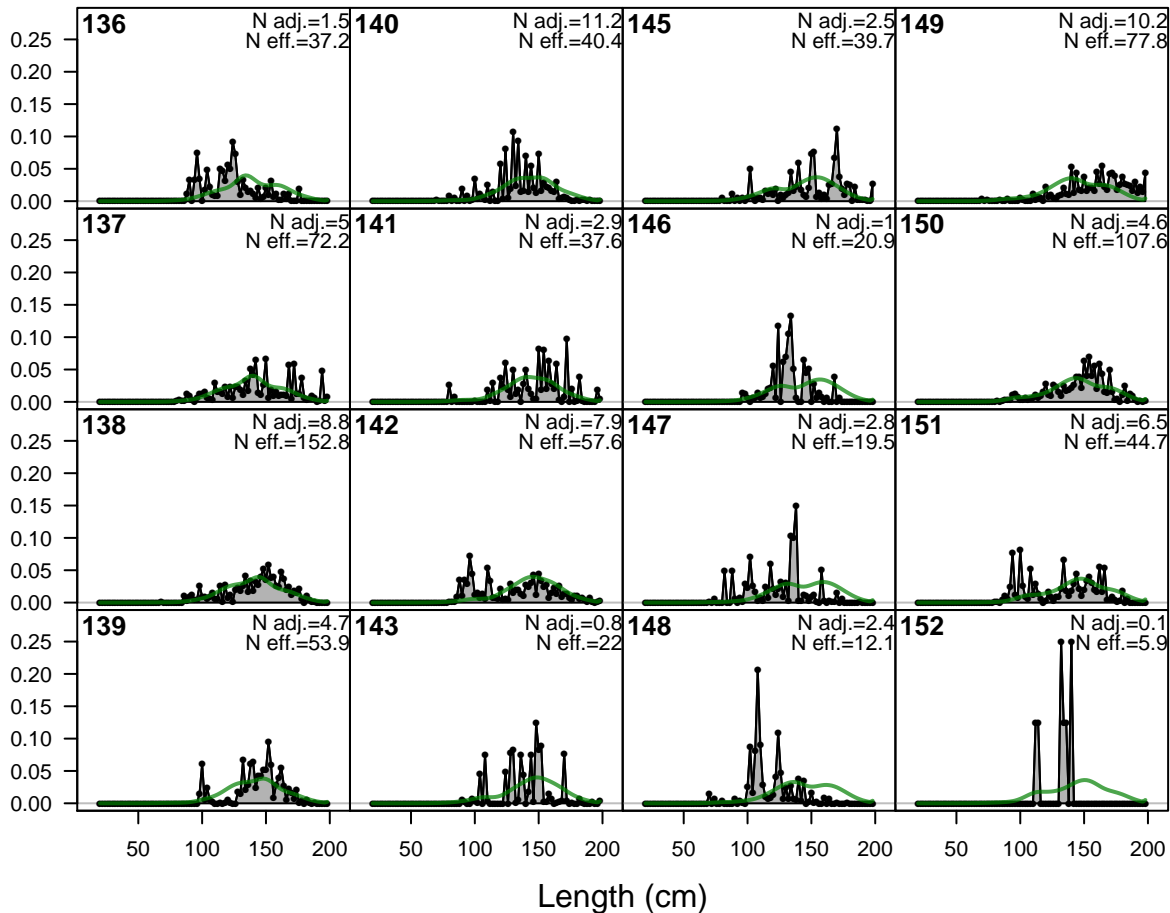
Proportion



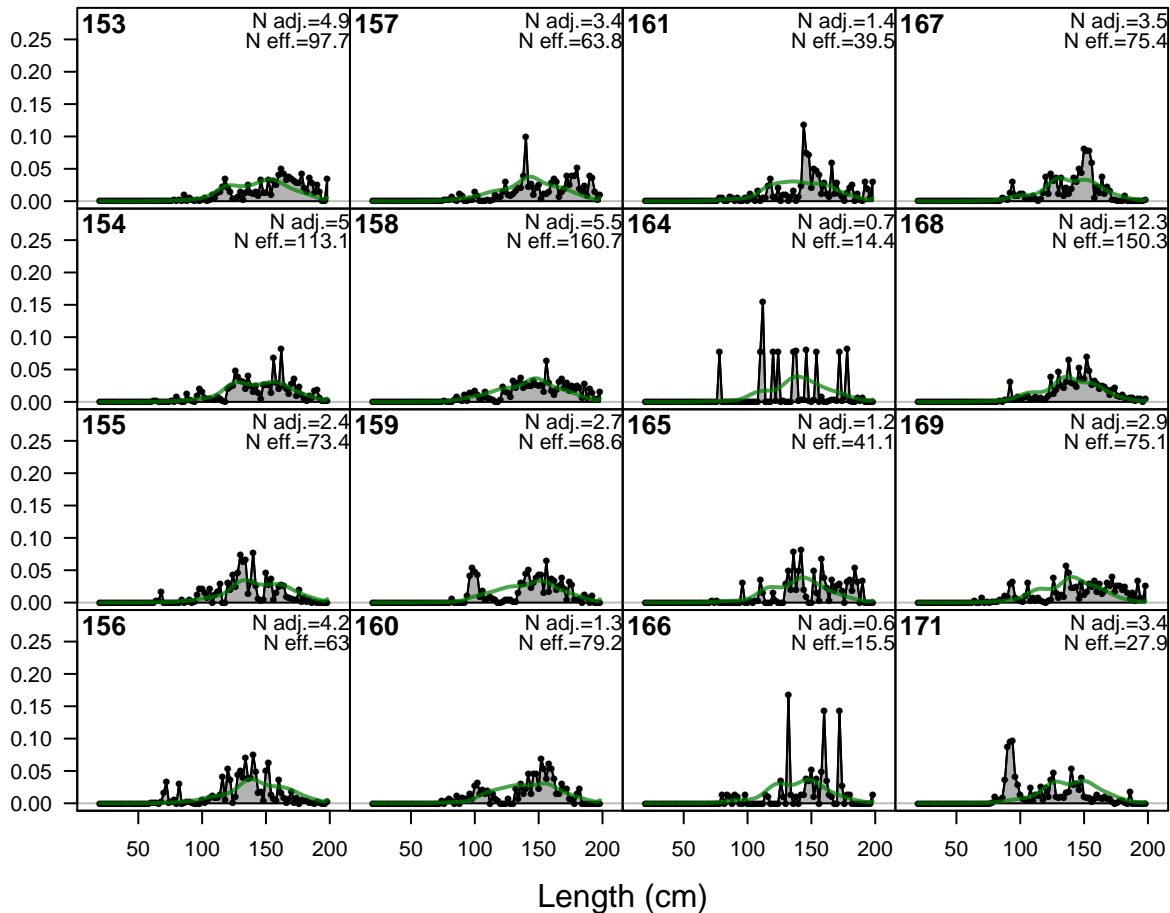
Proportion



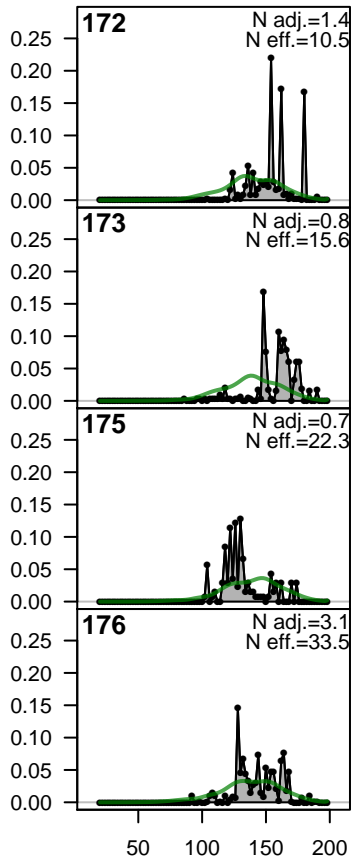
Proportion



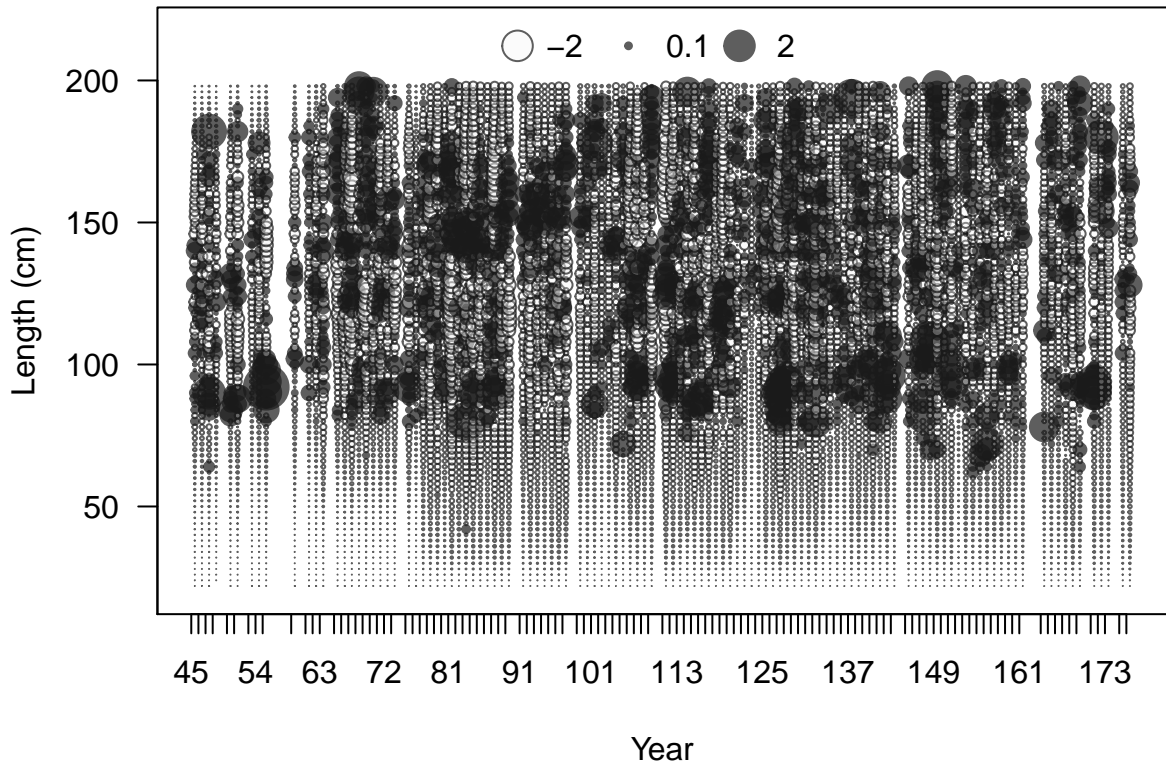
Proportion

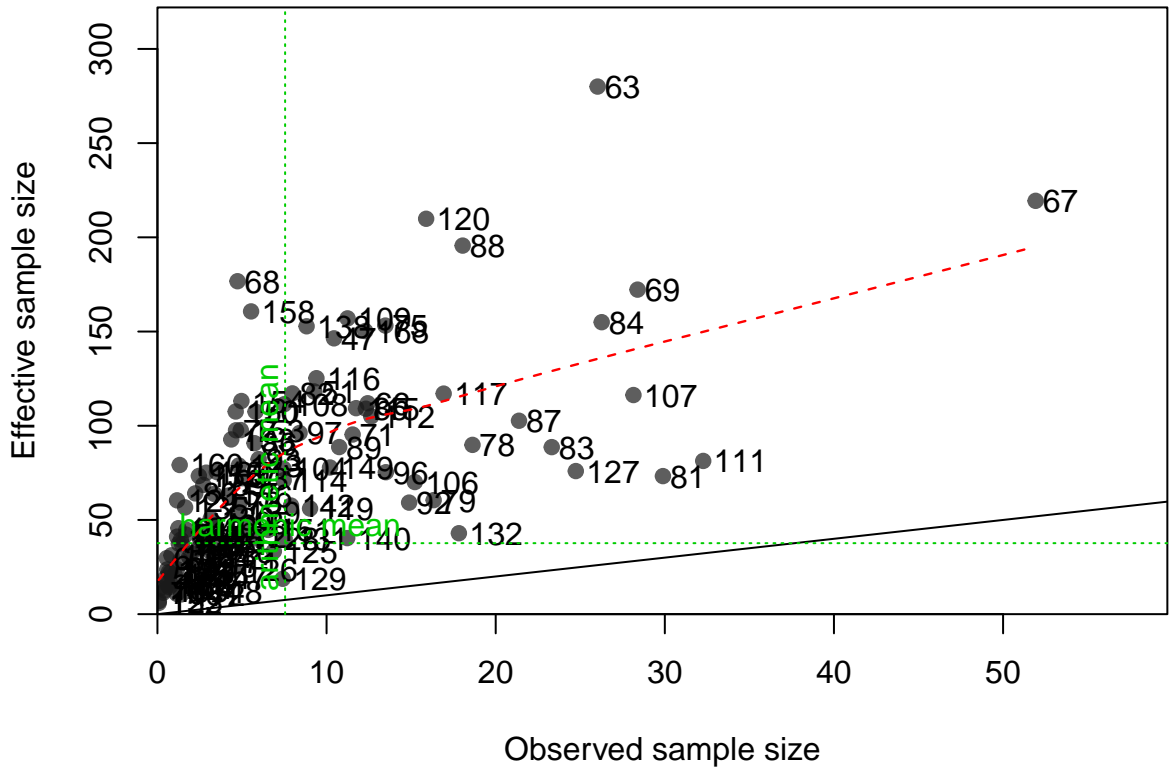


Proportion

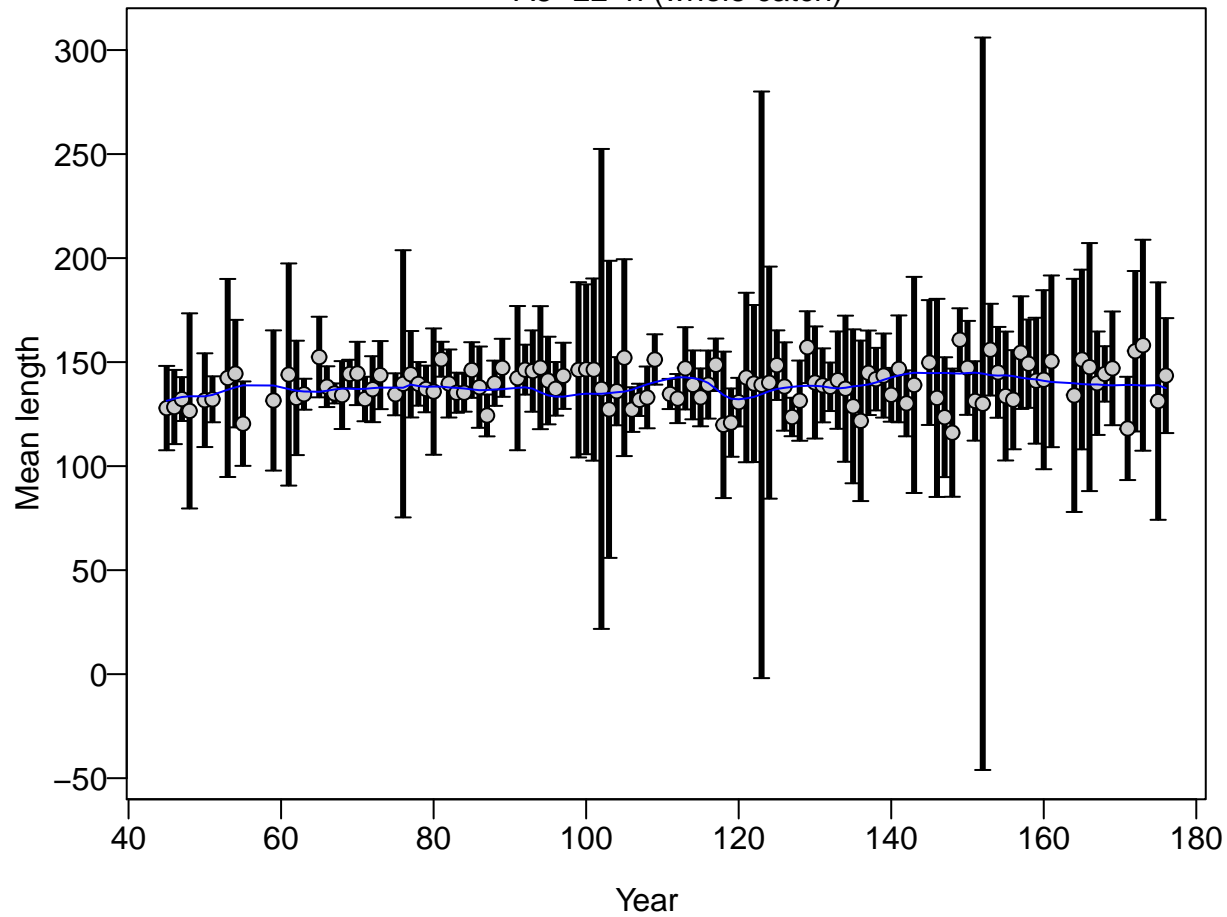


Length (cm)

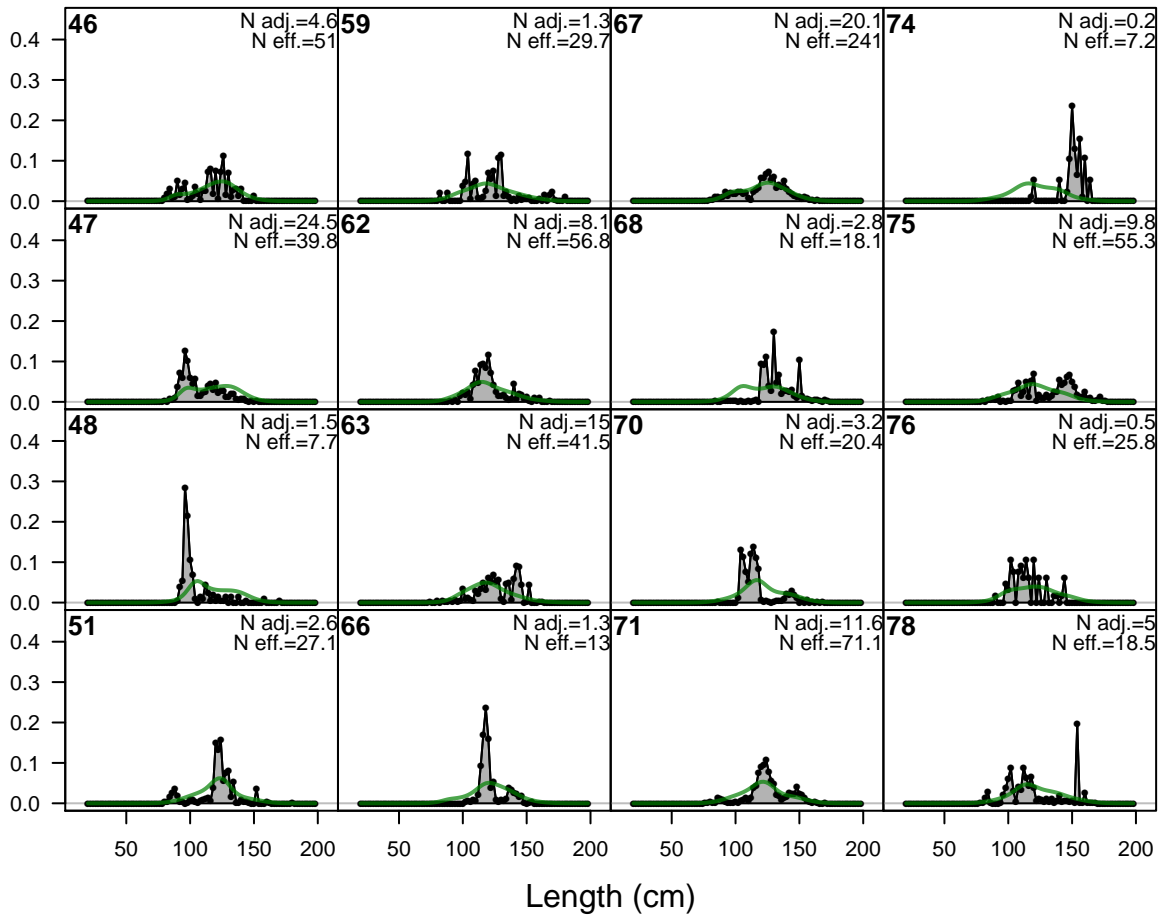




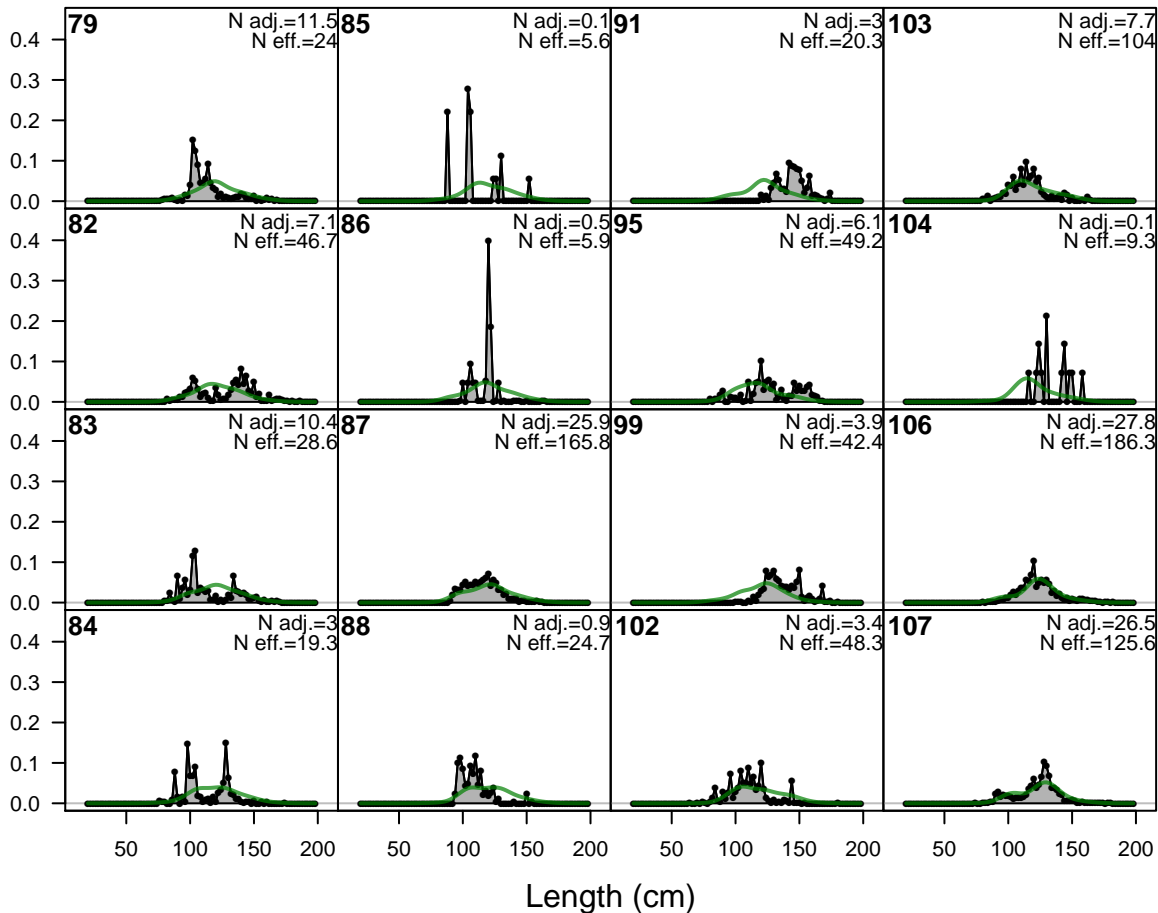
A5-LL-n (whole catch)



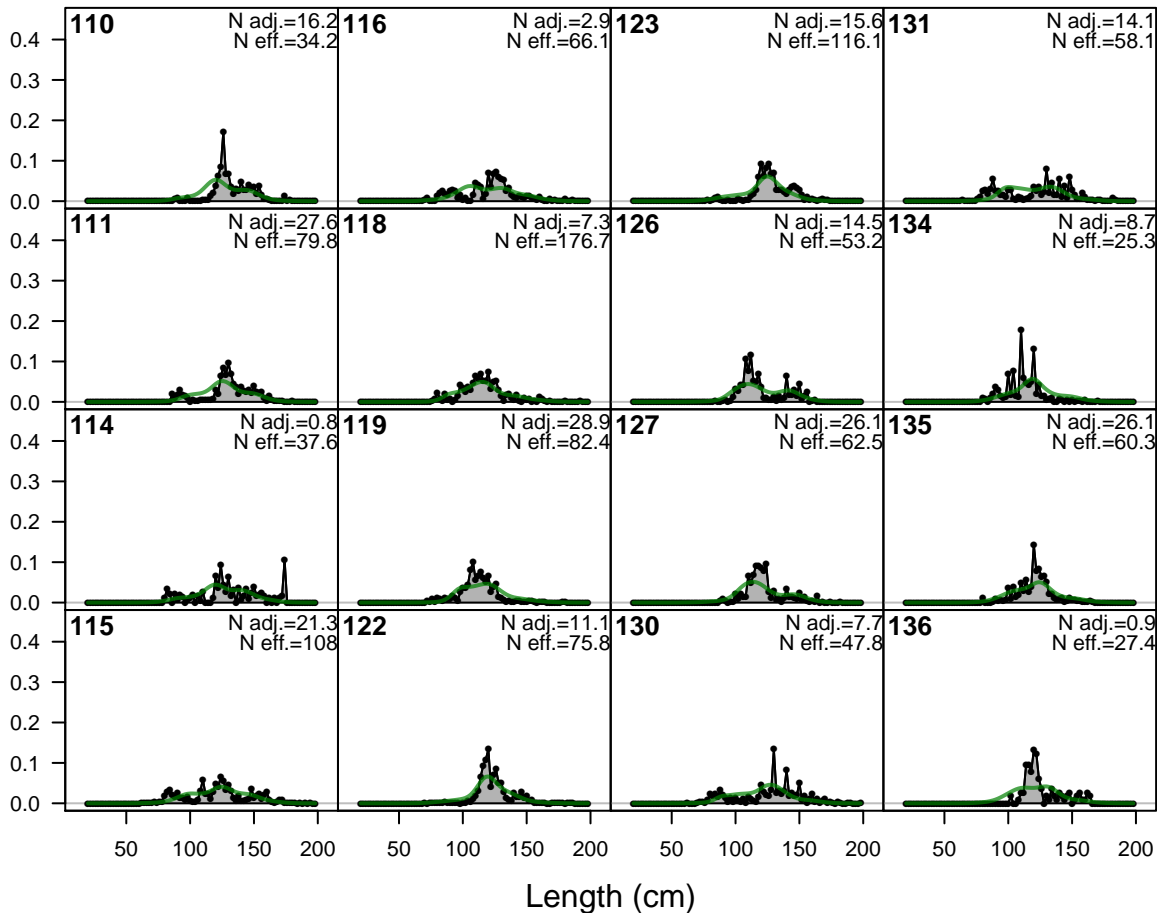
Proportion



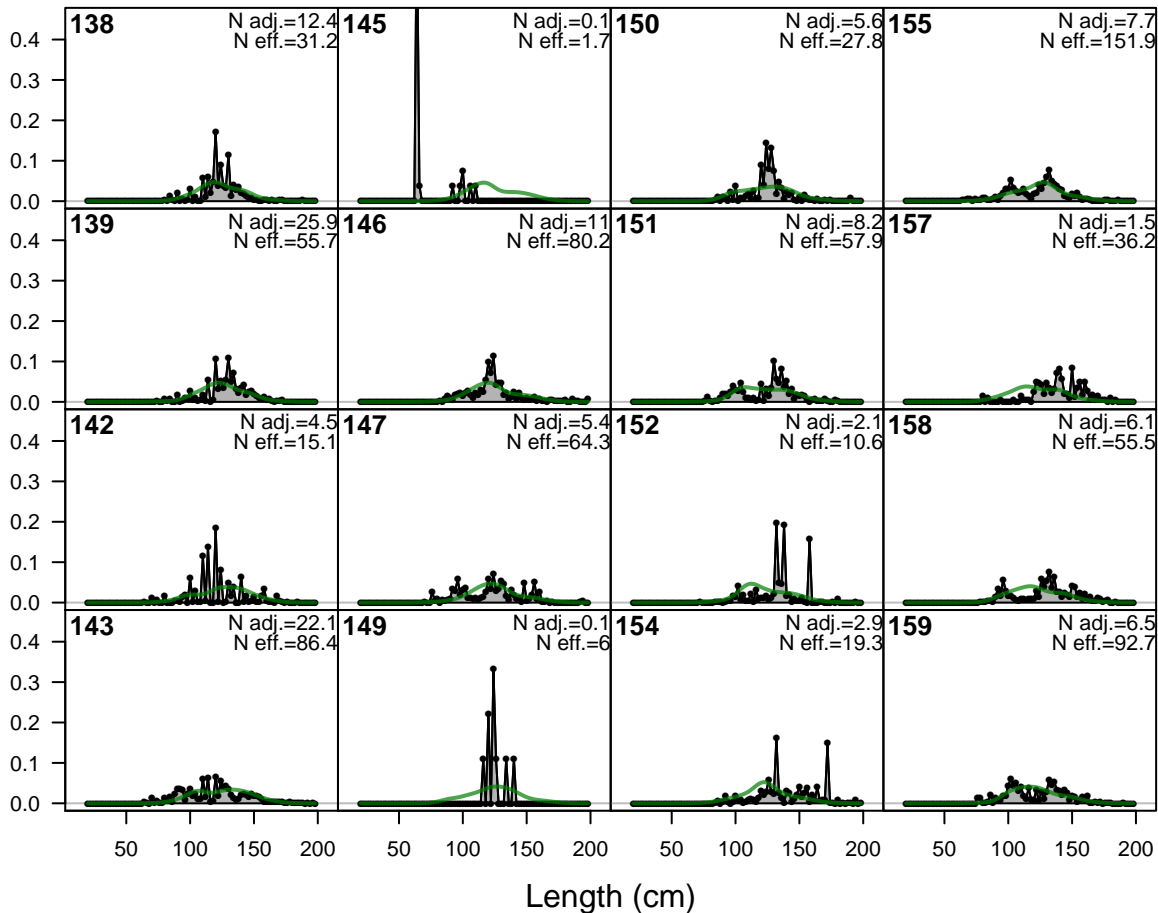
Proportion



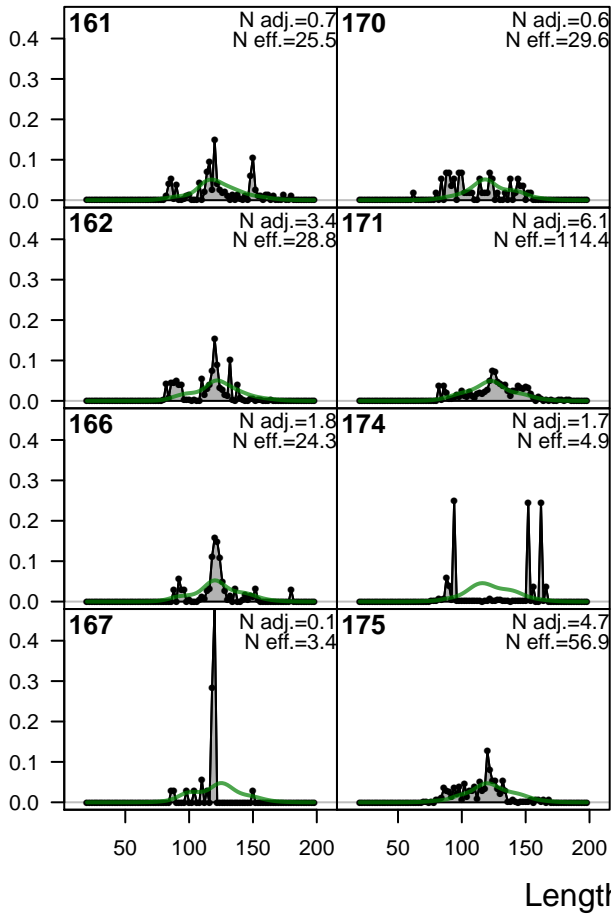
Proportion

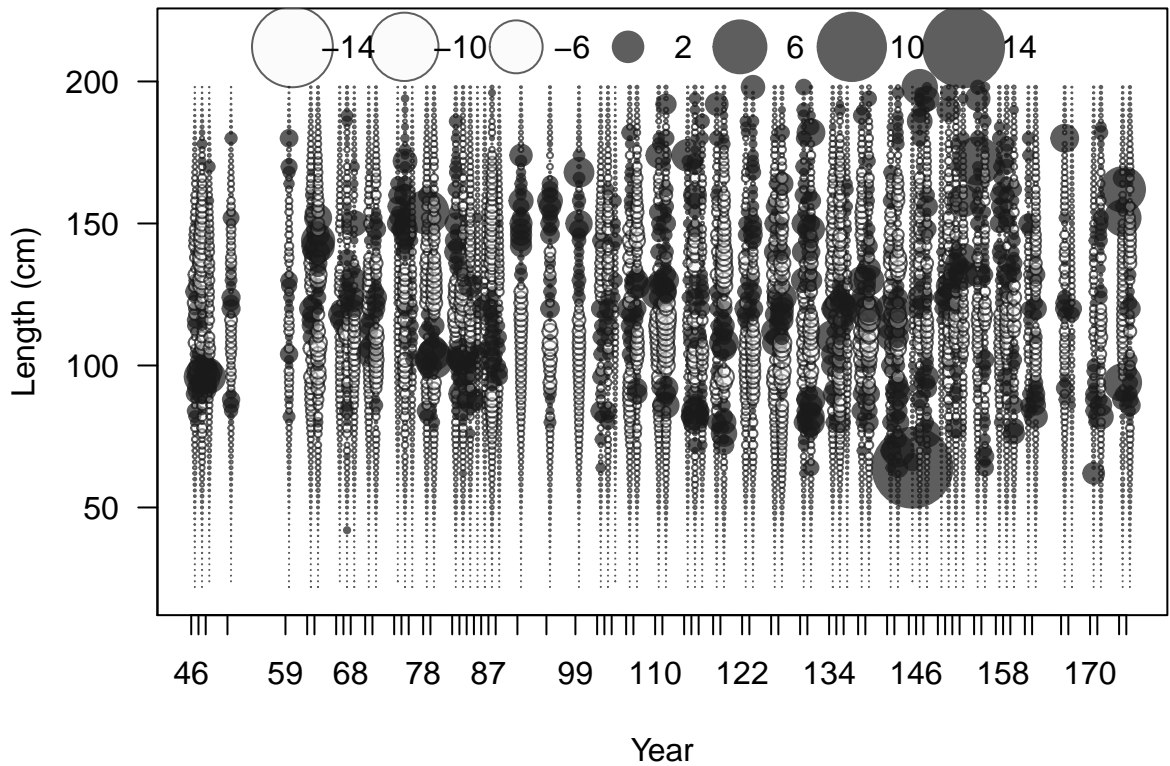


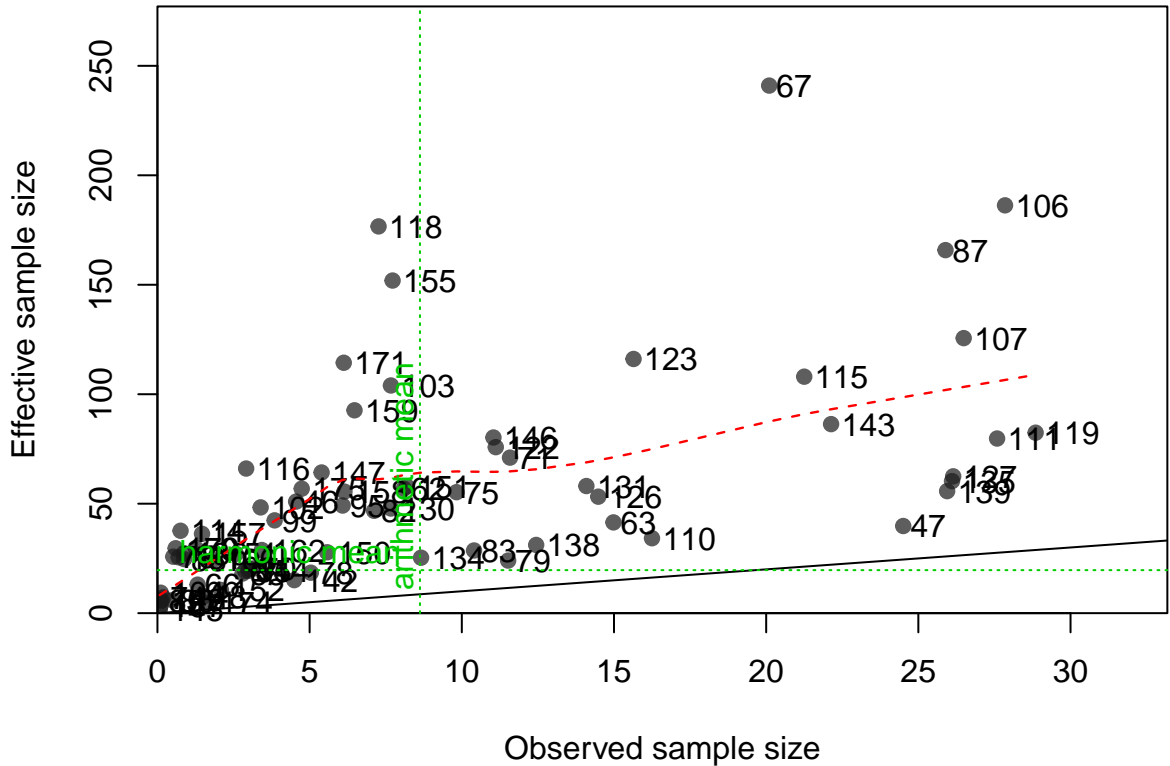
Proportion



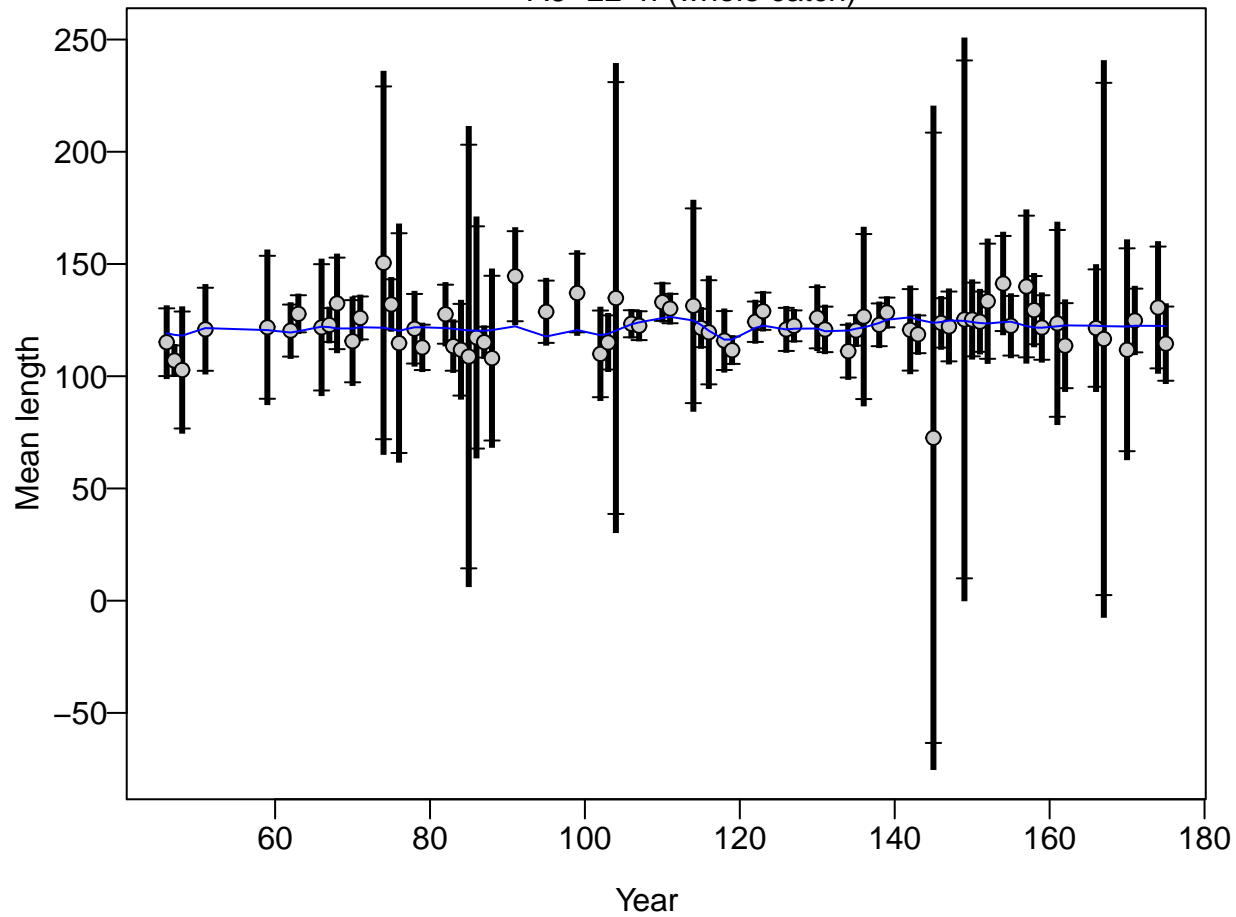
Proportion

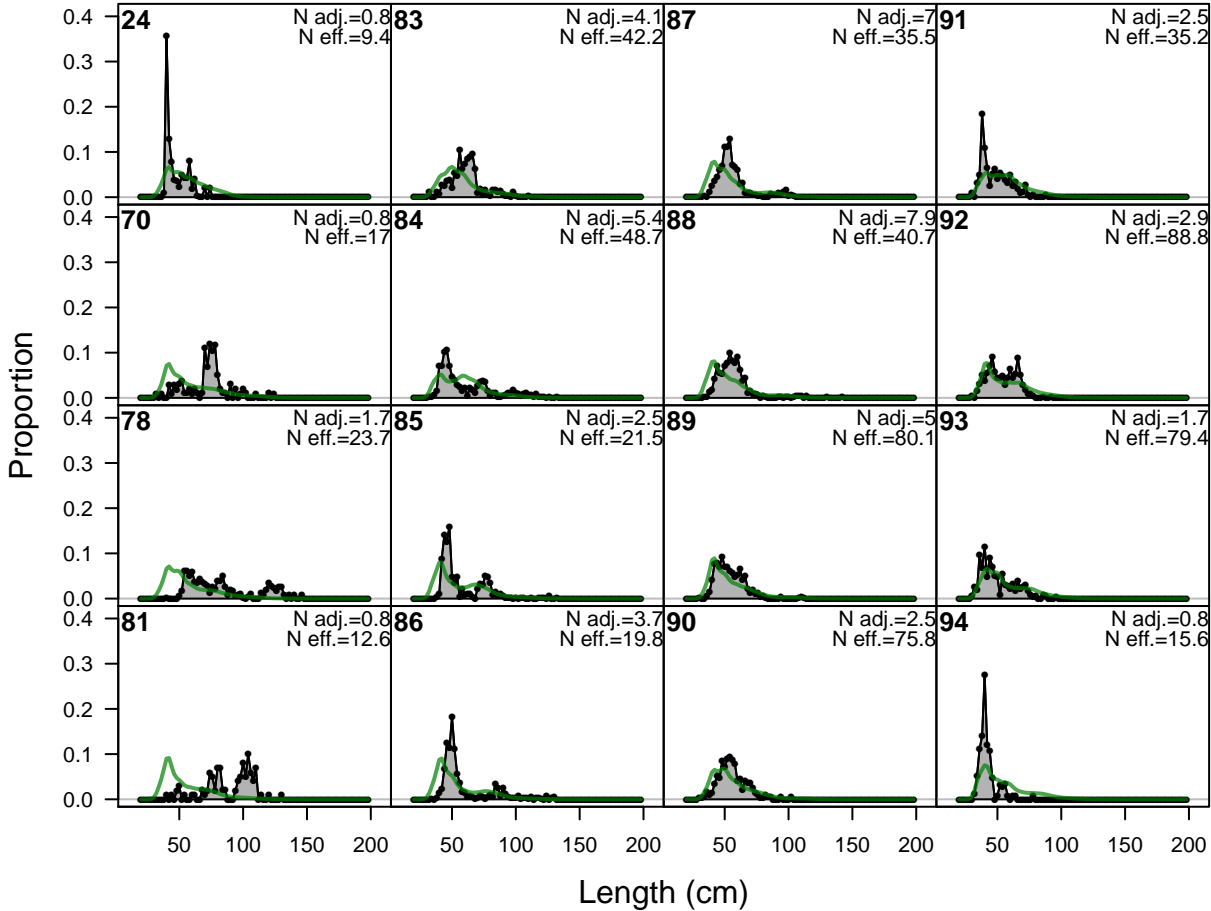




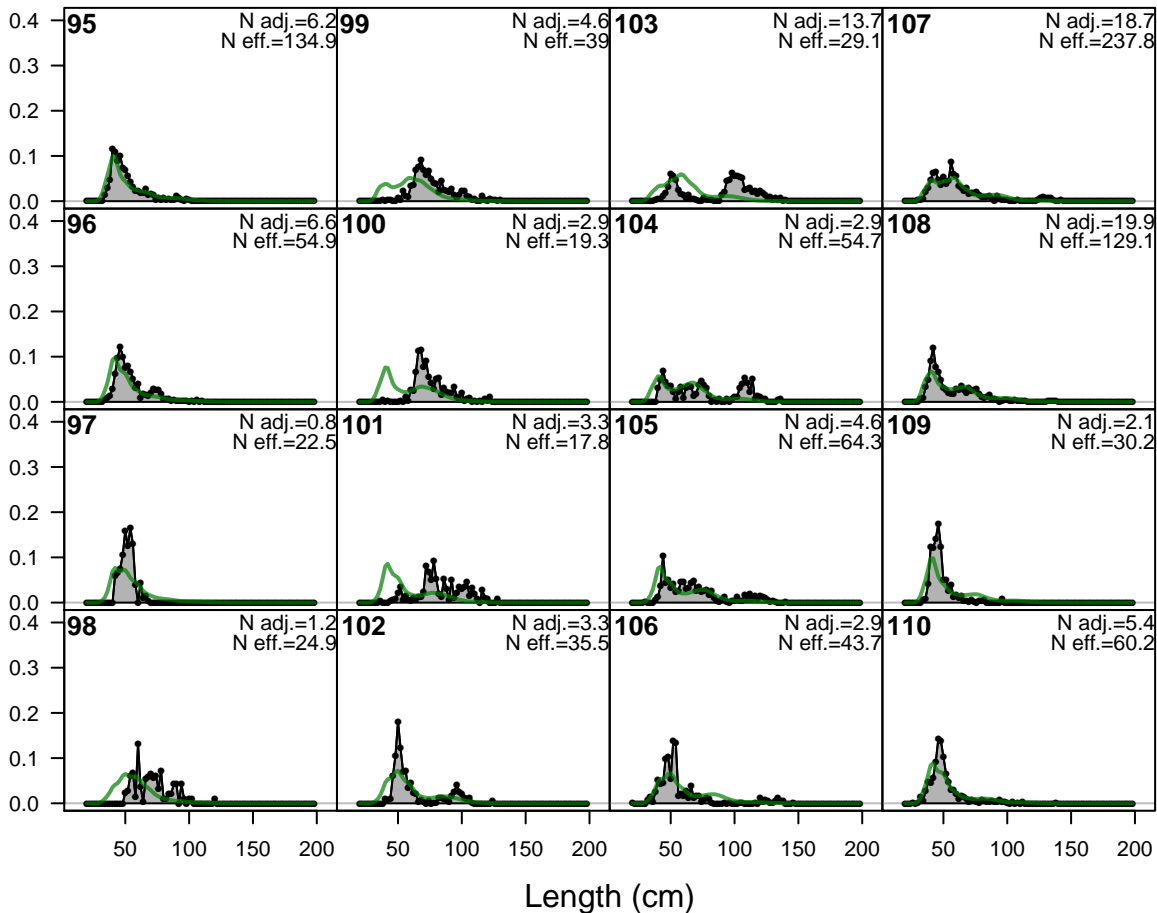


A6-LL-n (whole catch)

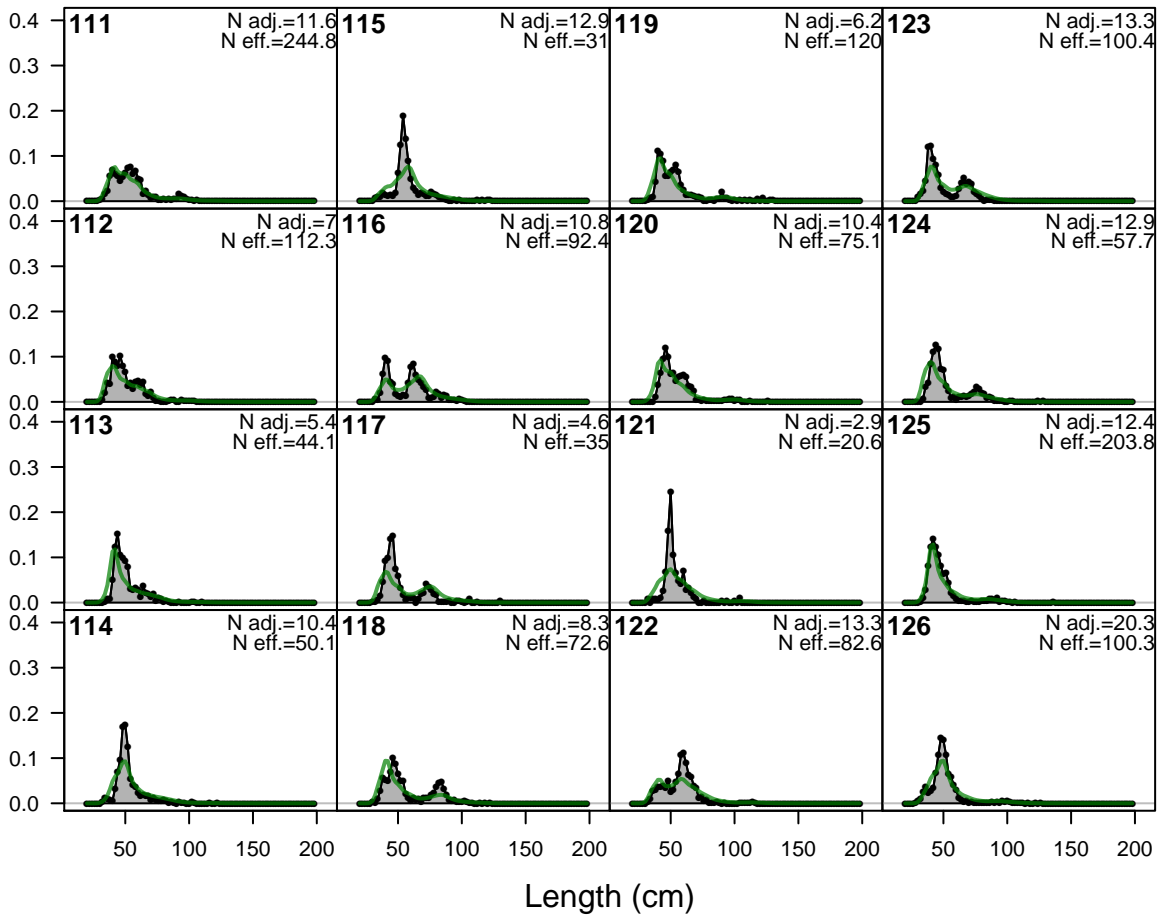




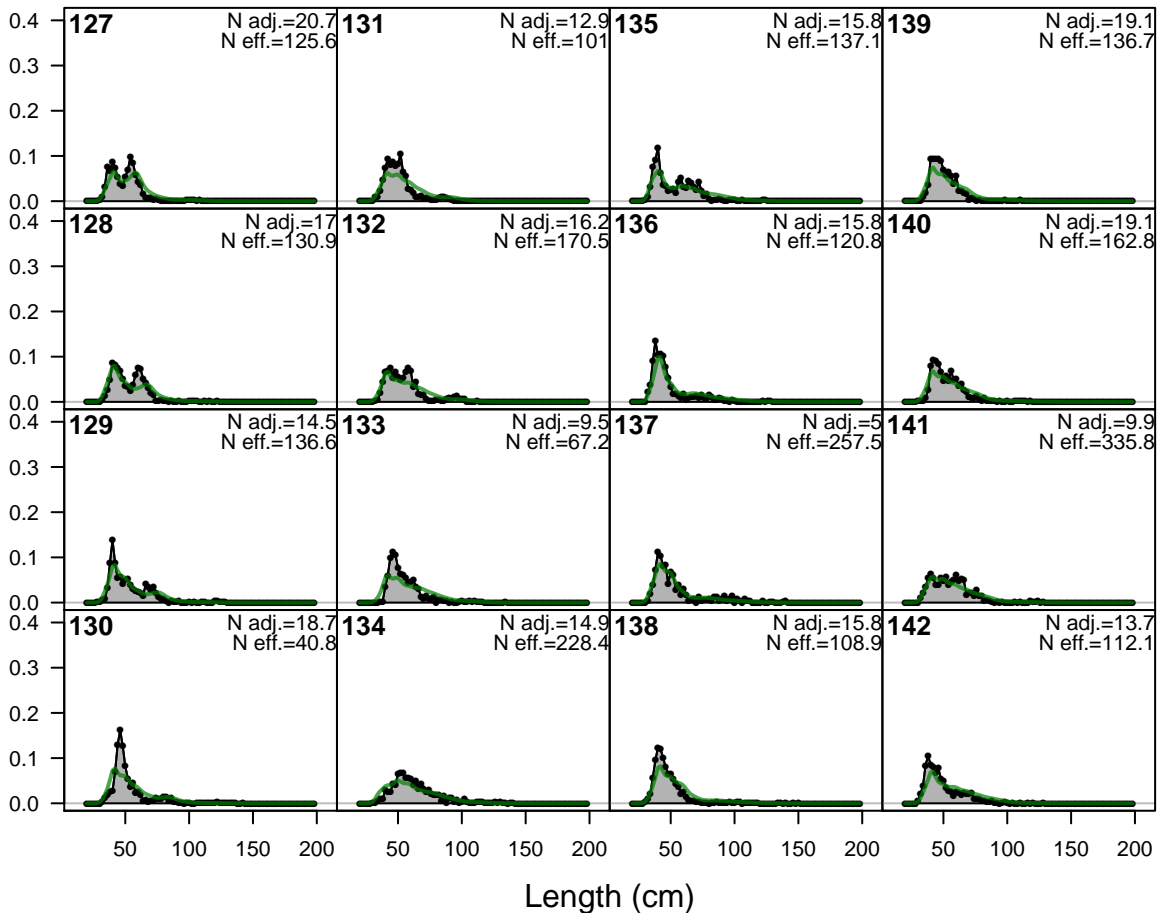
Proportion



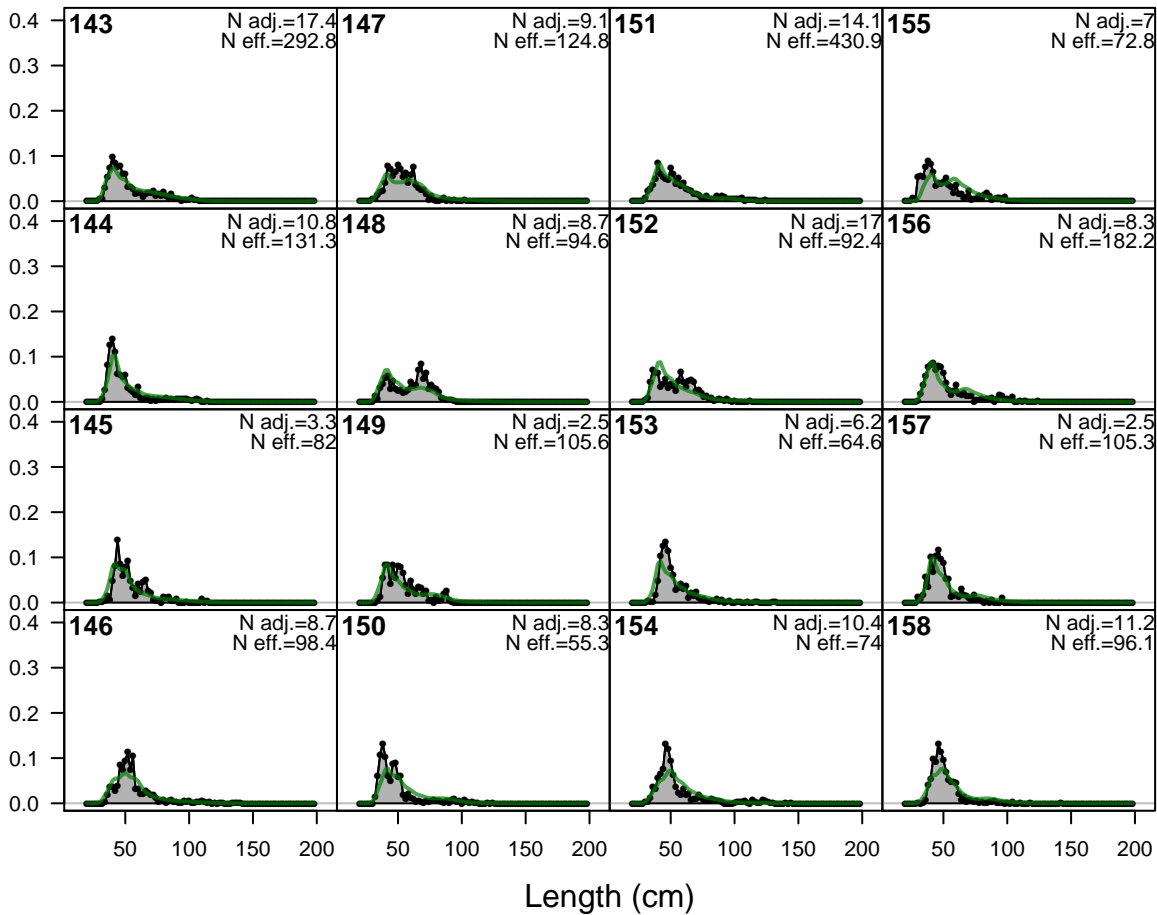
Proportion



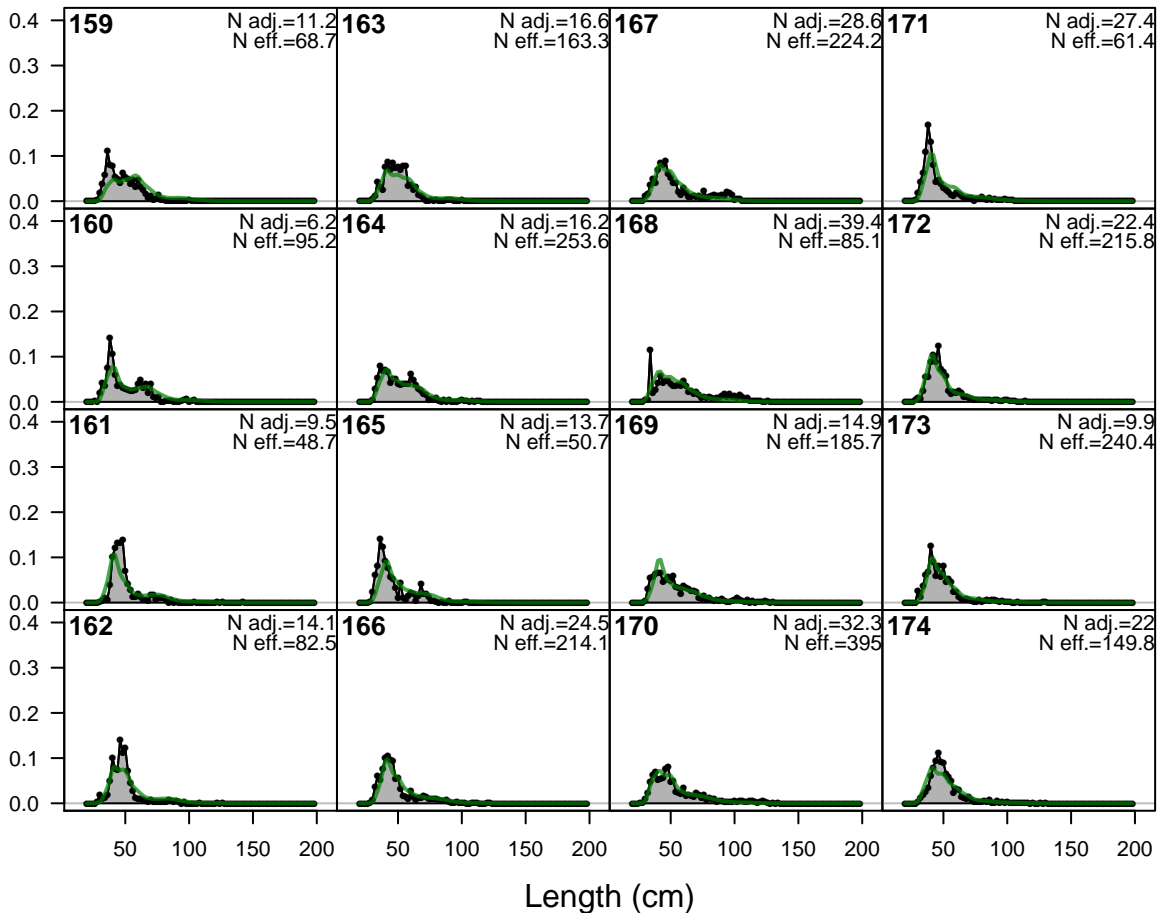
Proportion

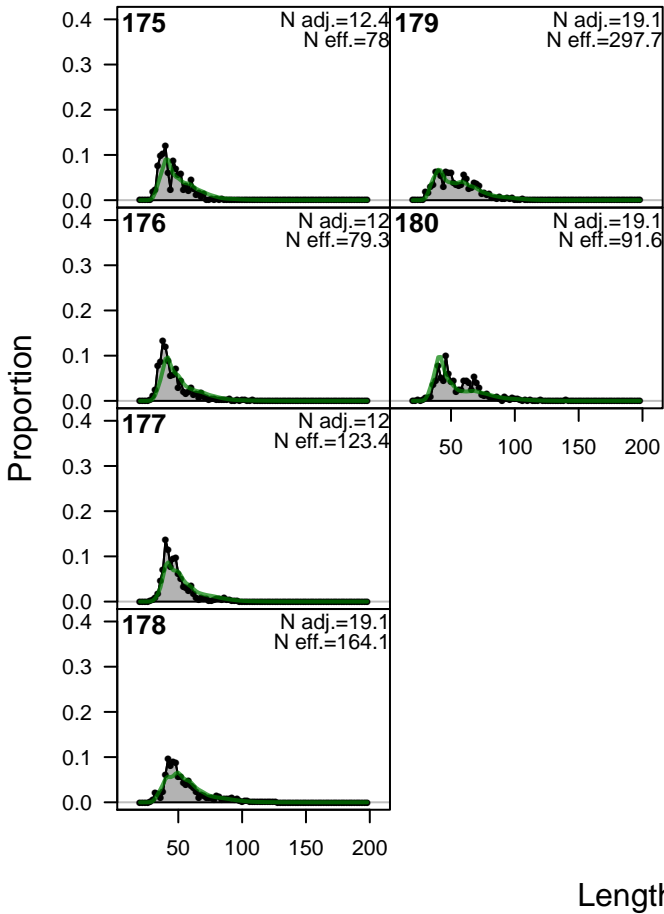


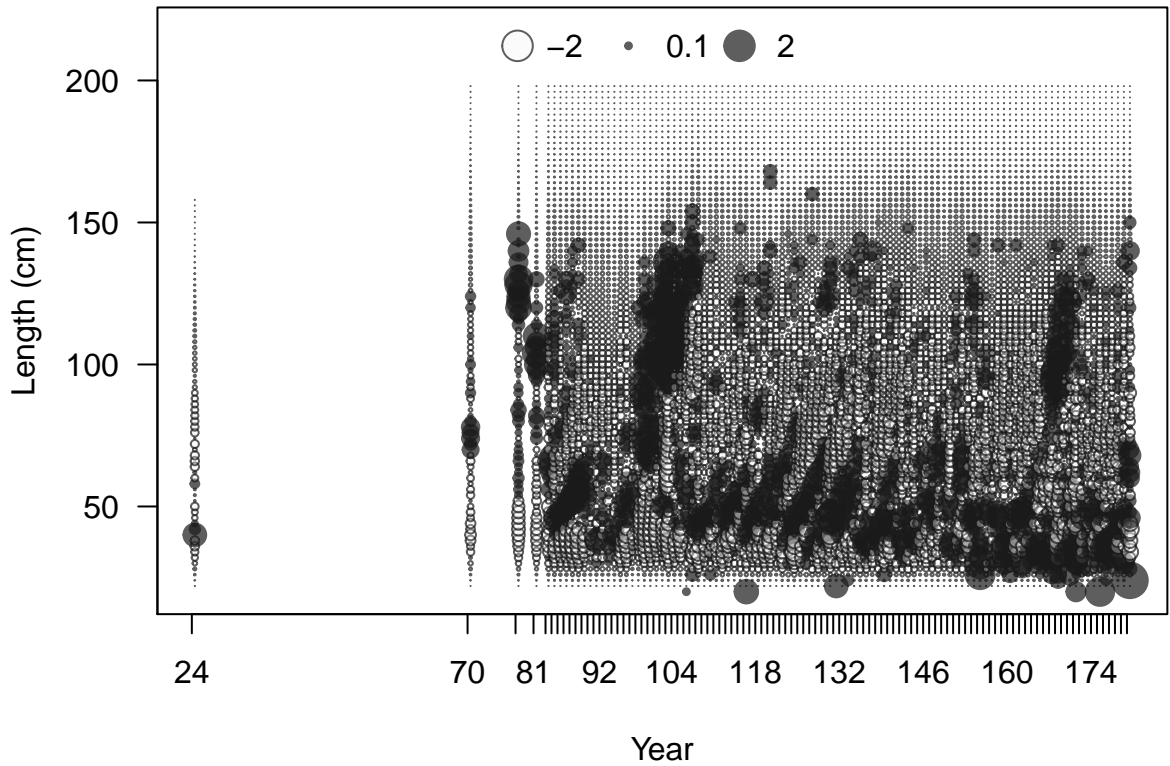
Proportion



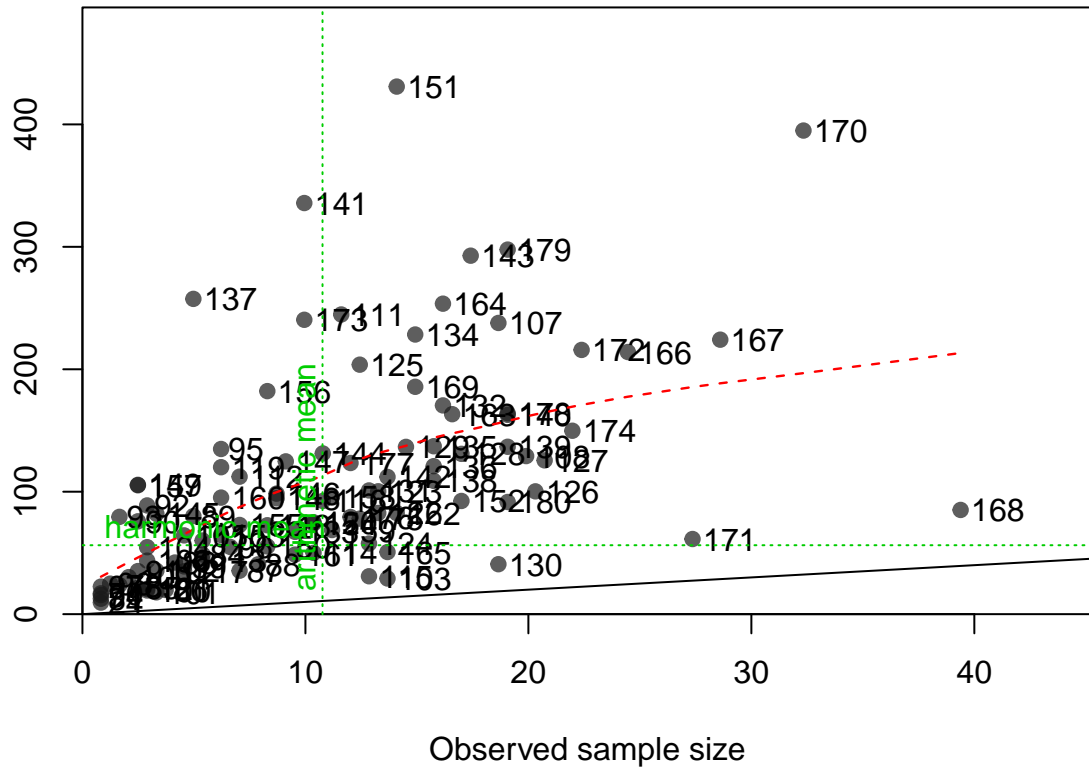
Proportion



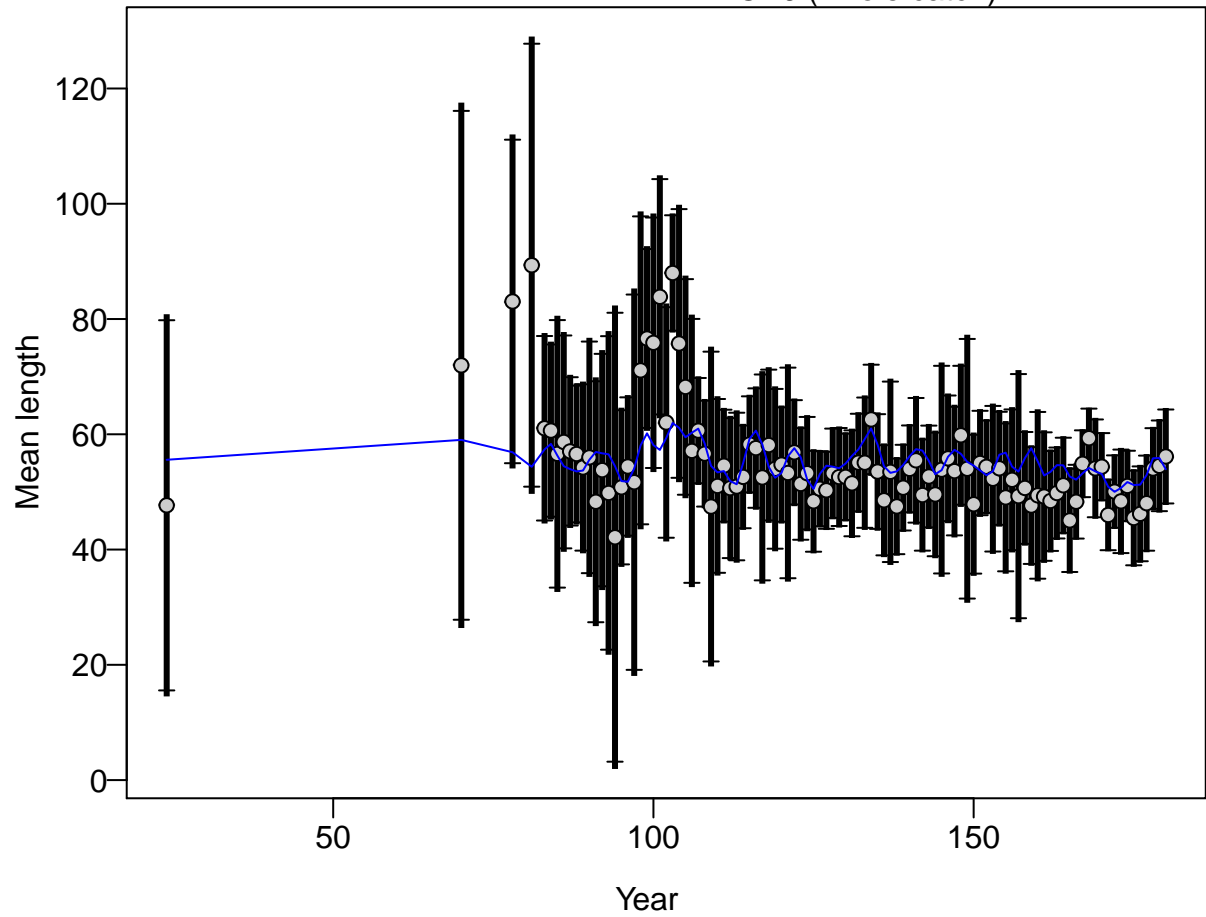




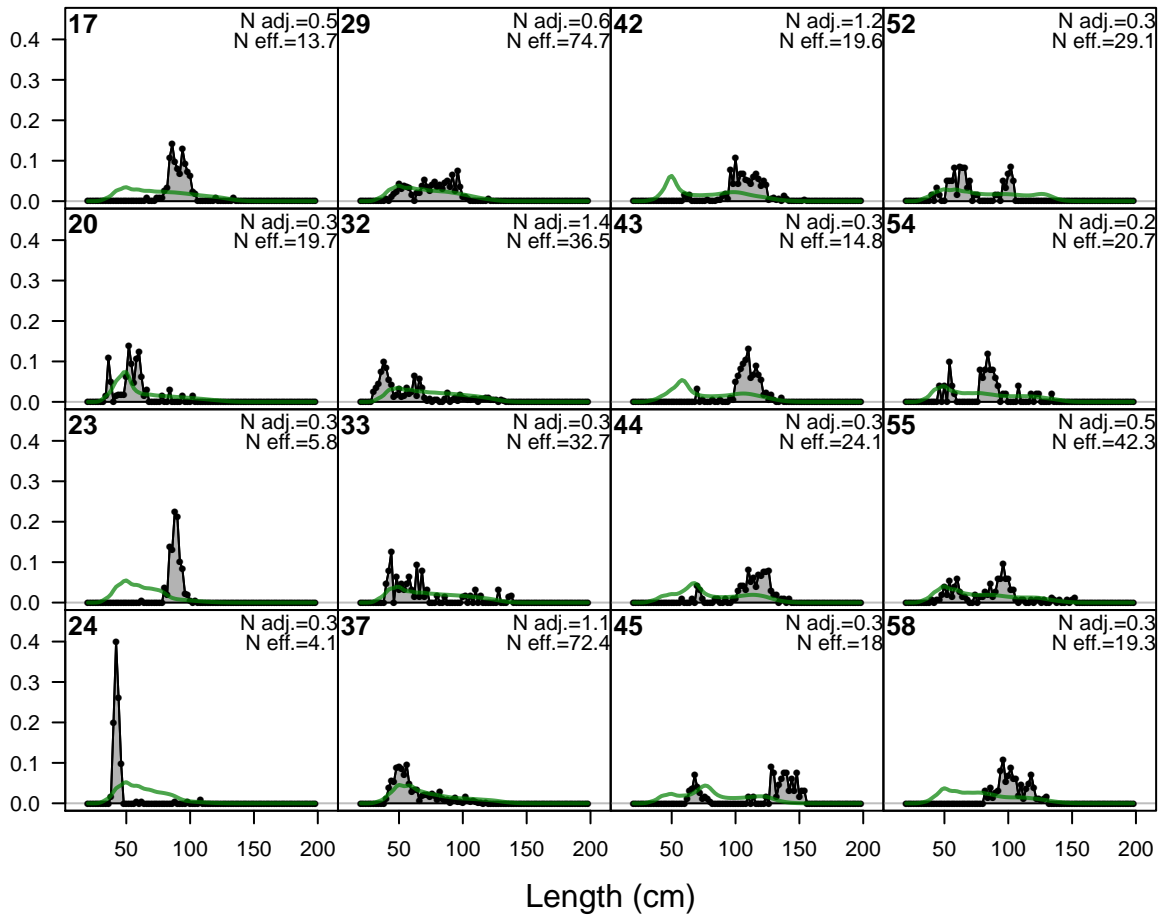
Effective sample size



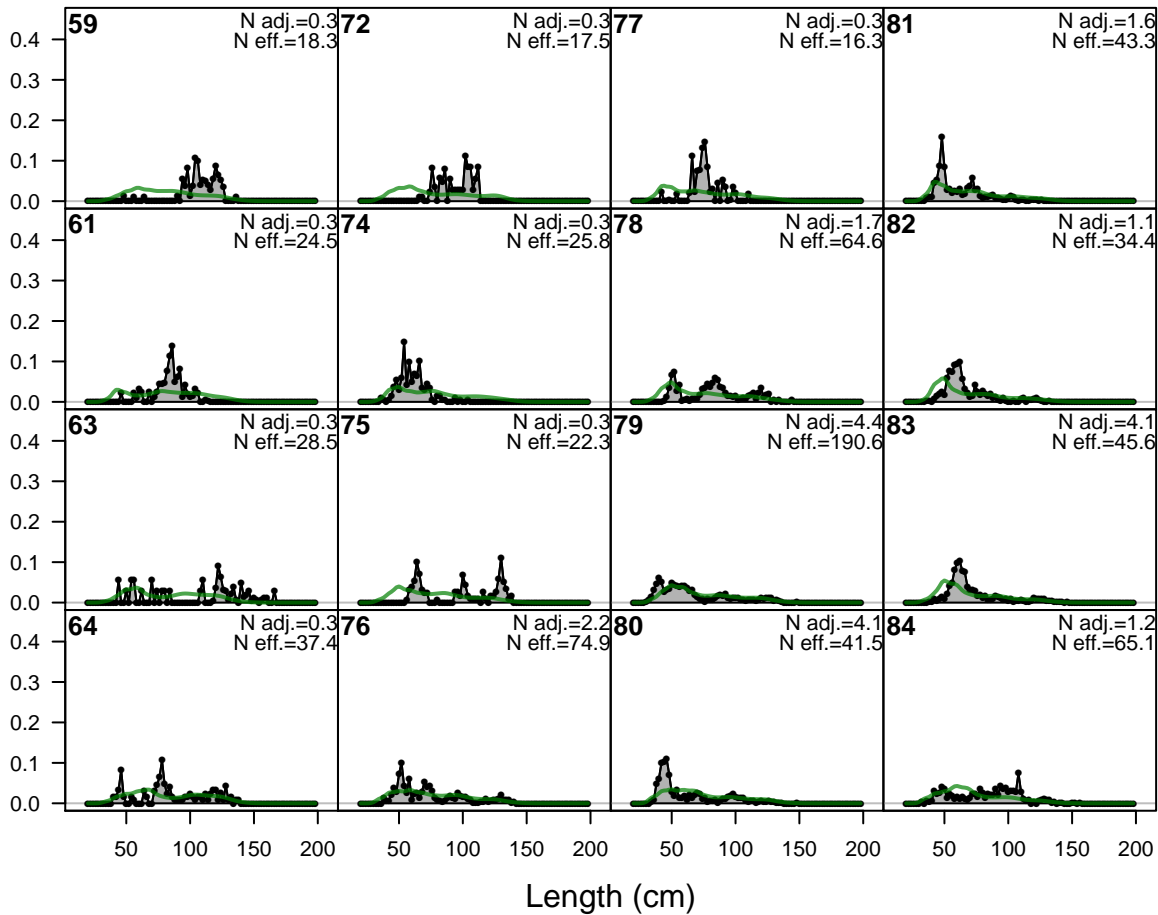
A2-OBJ (whole catch)

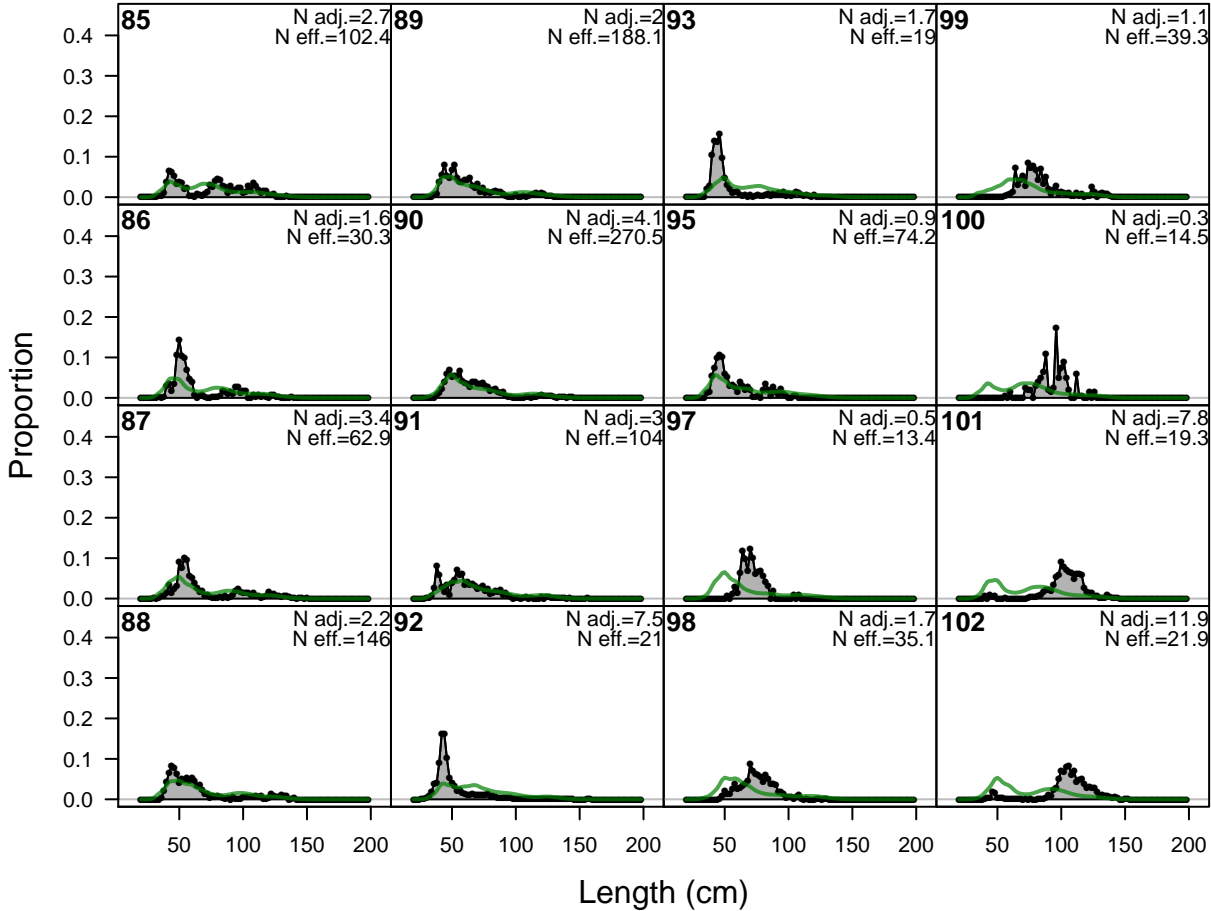


Proportion

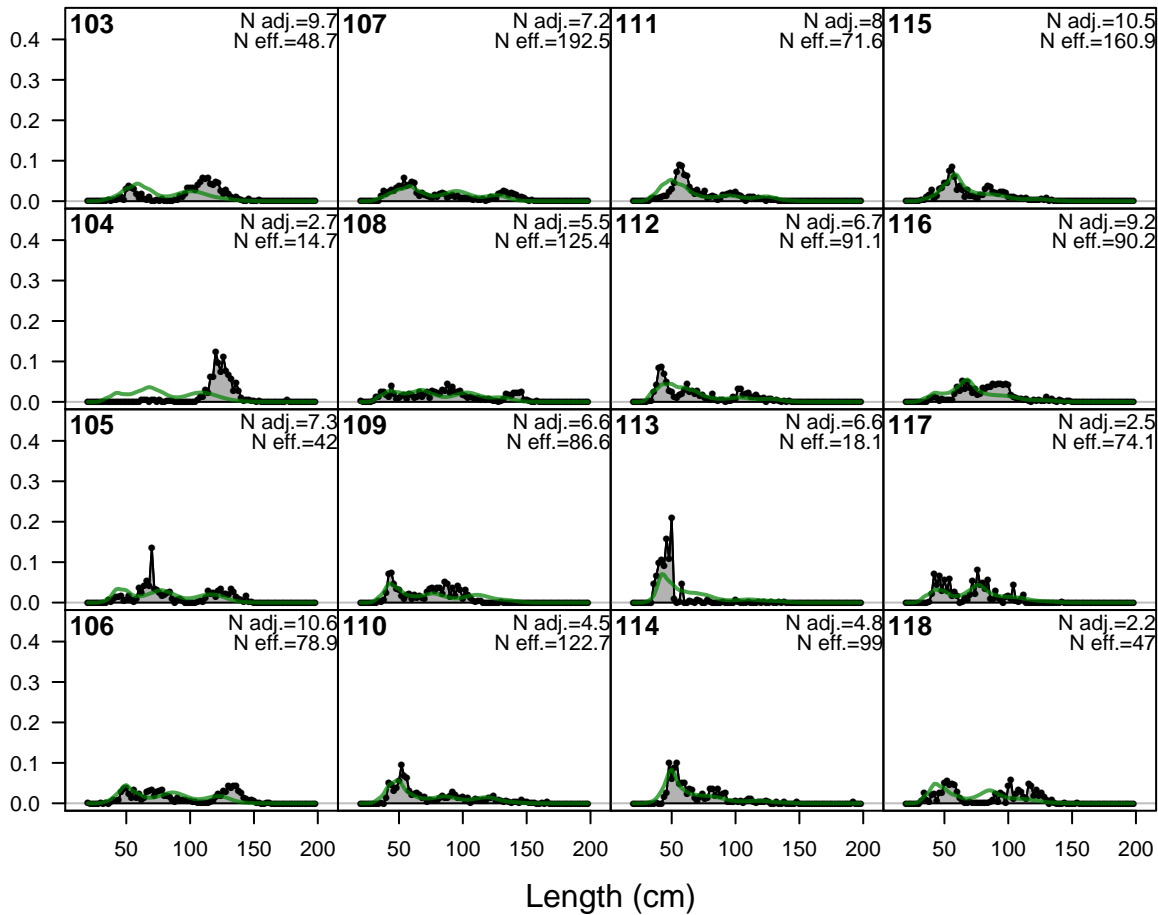


Proportion

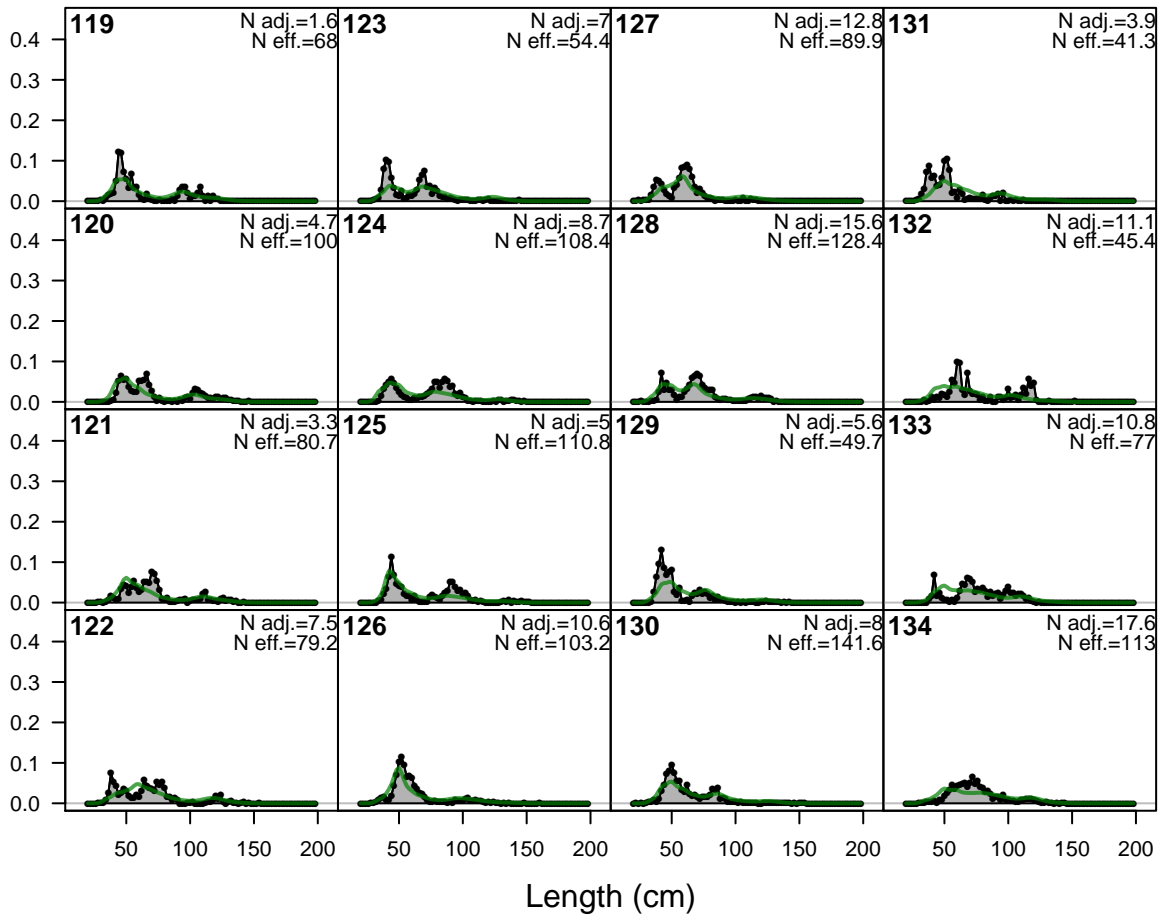




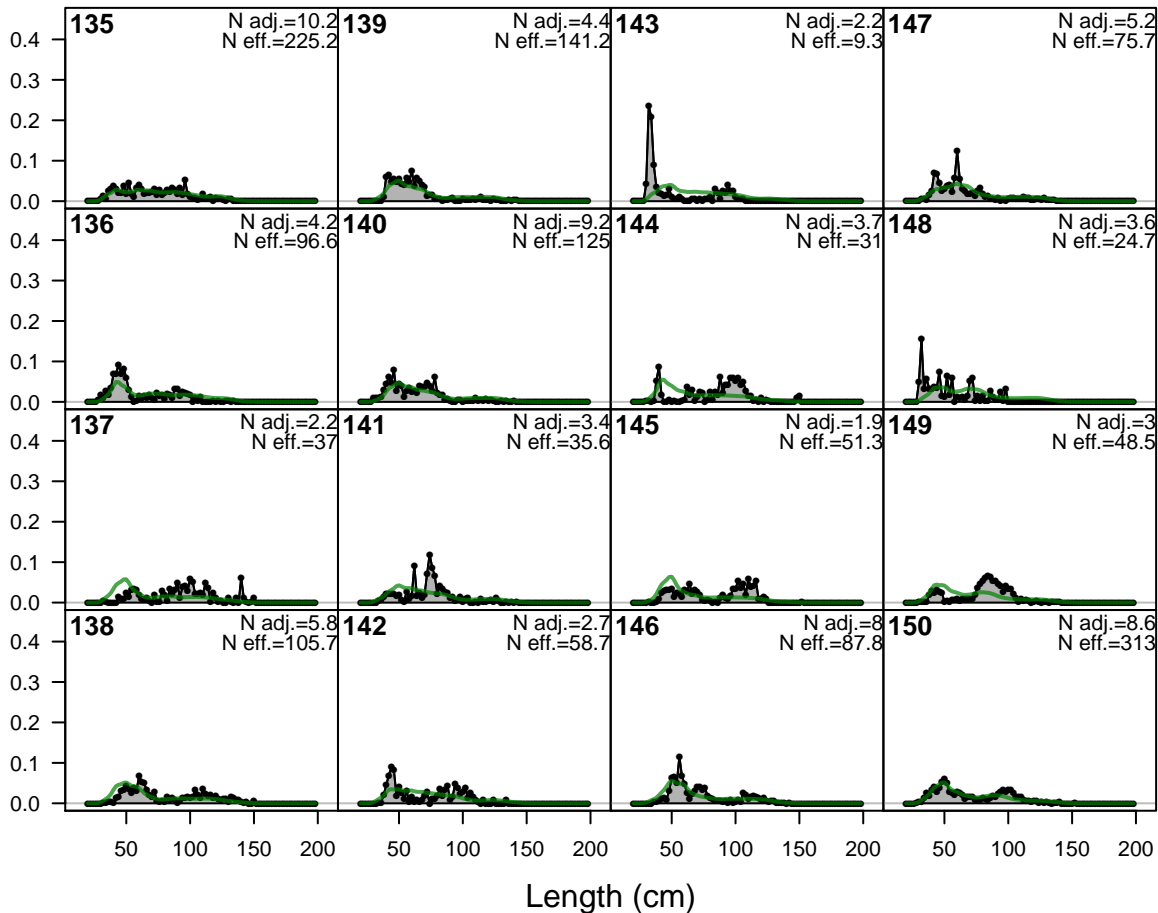
Proportion



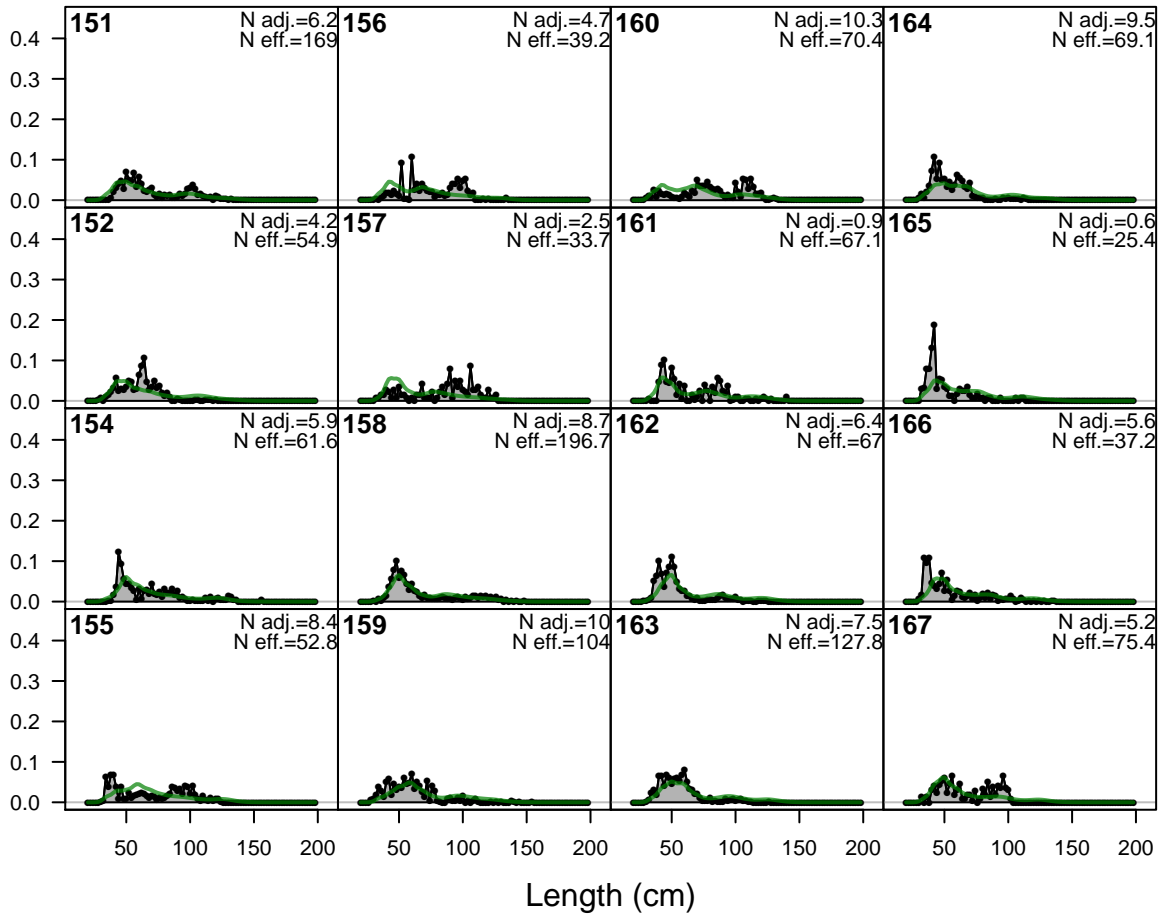
Proportion



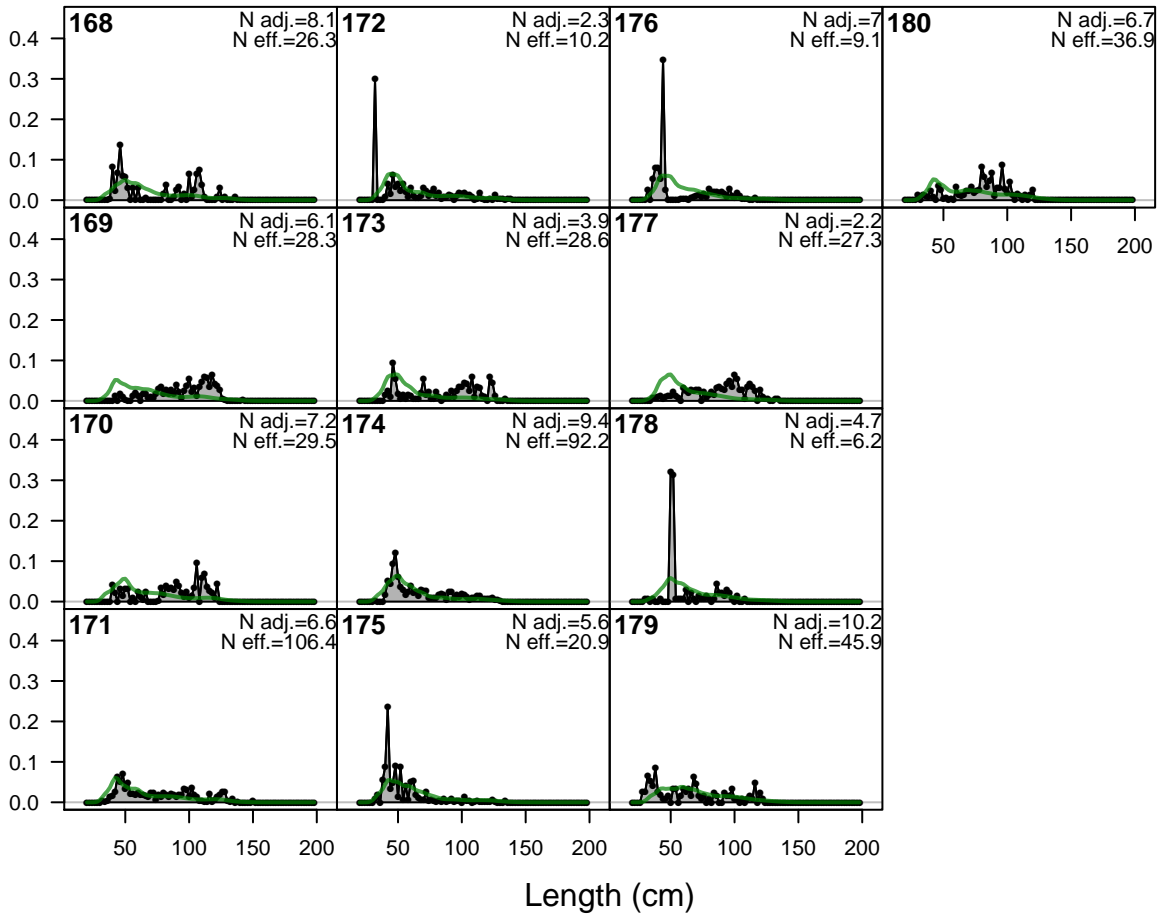
Proportion

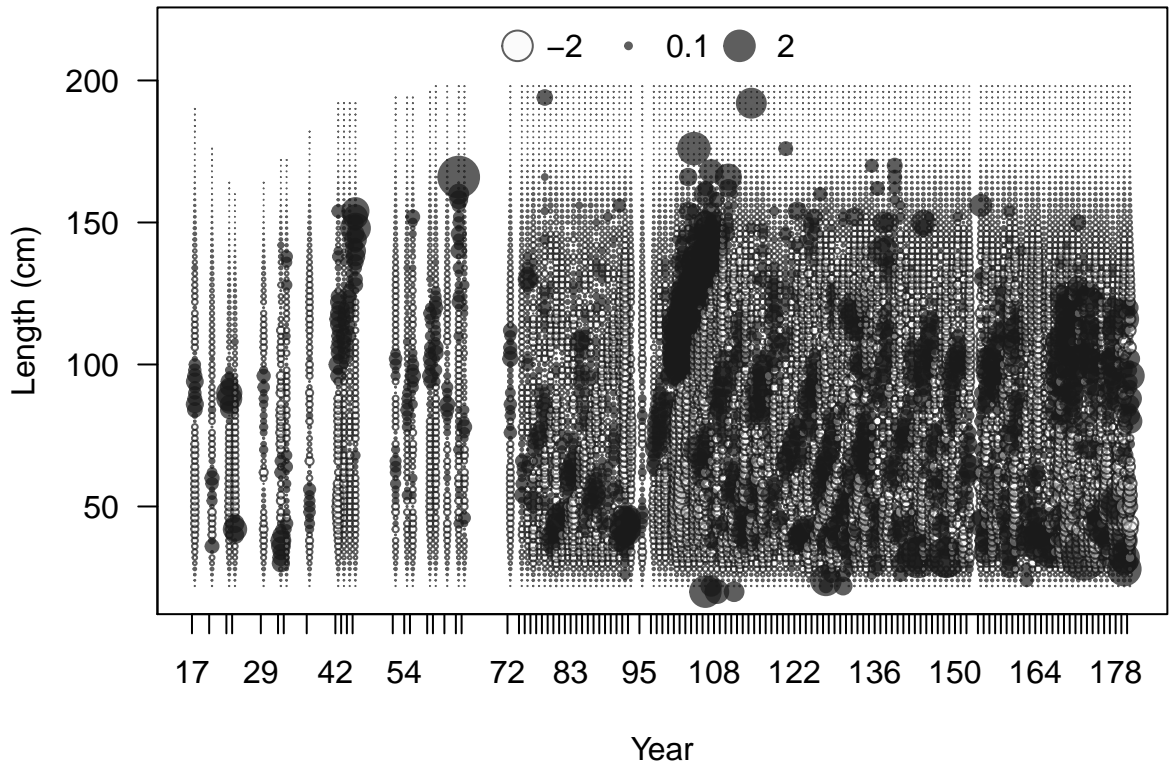


Proportion

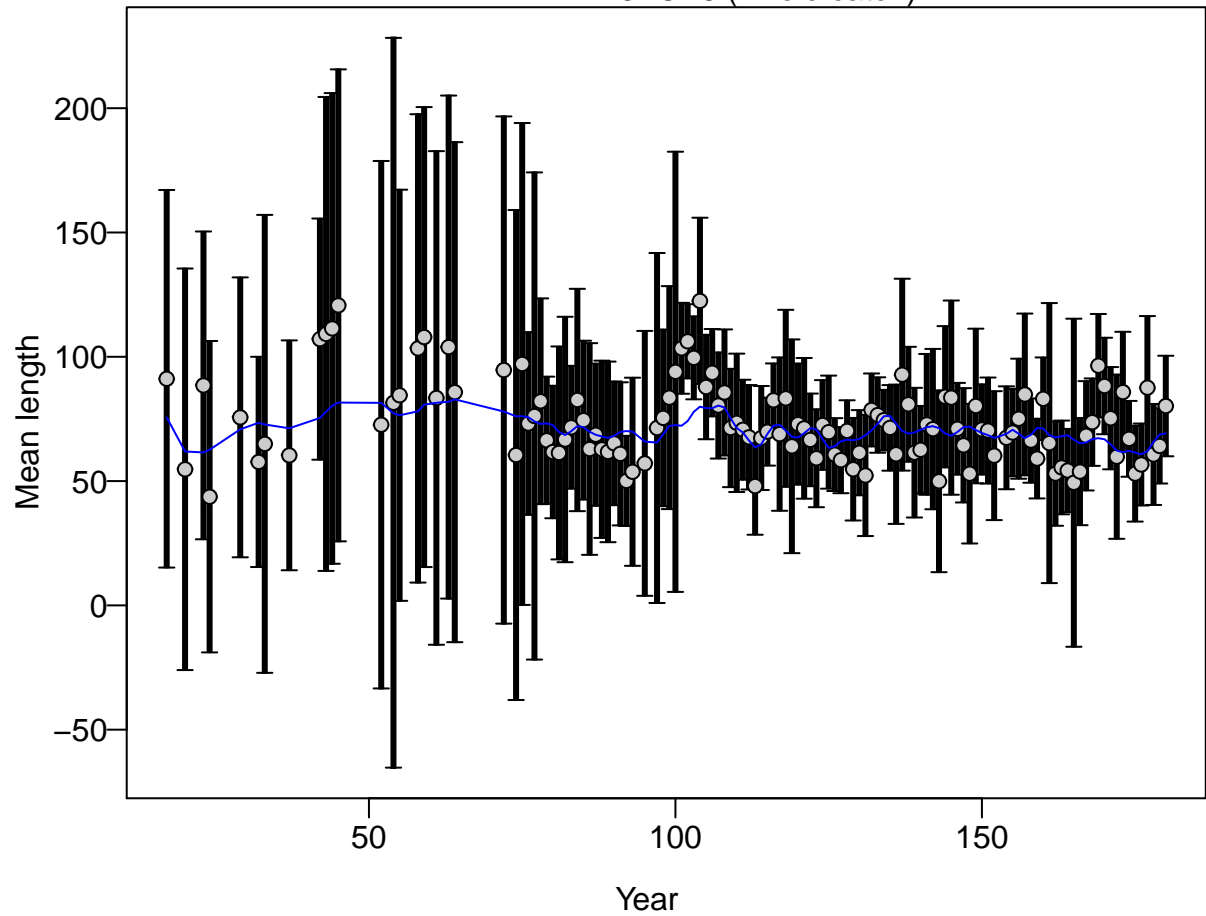


Proportion

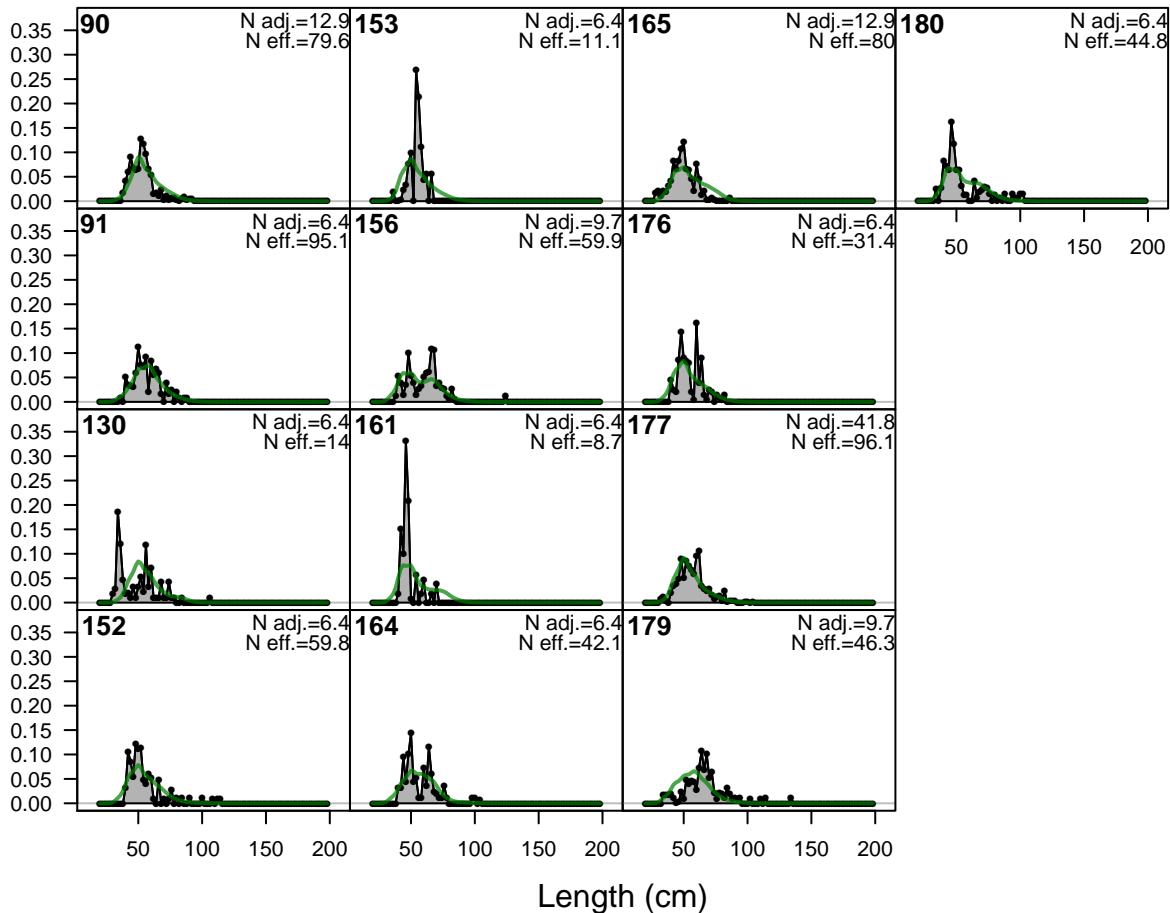


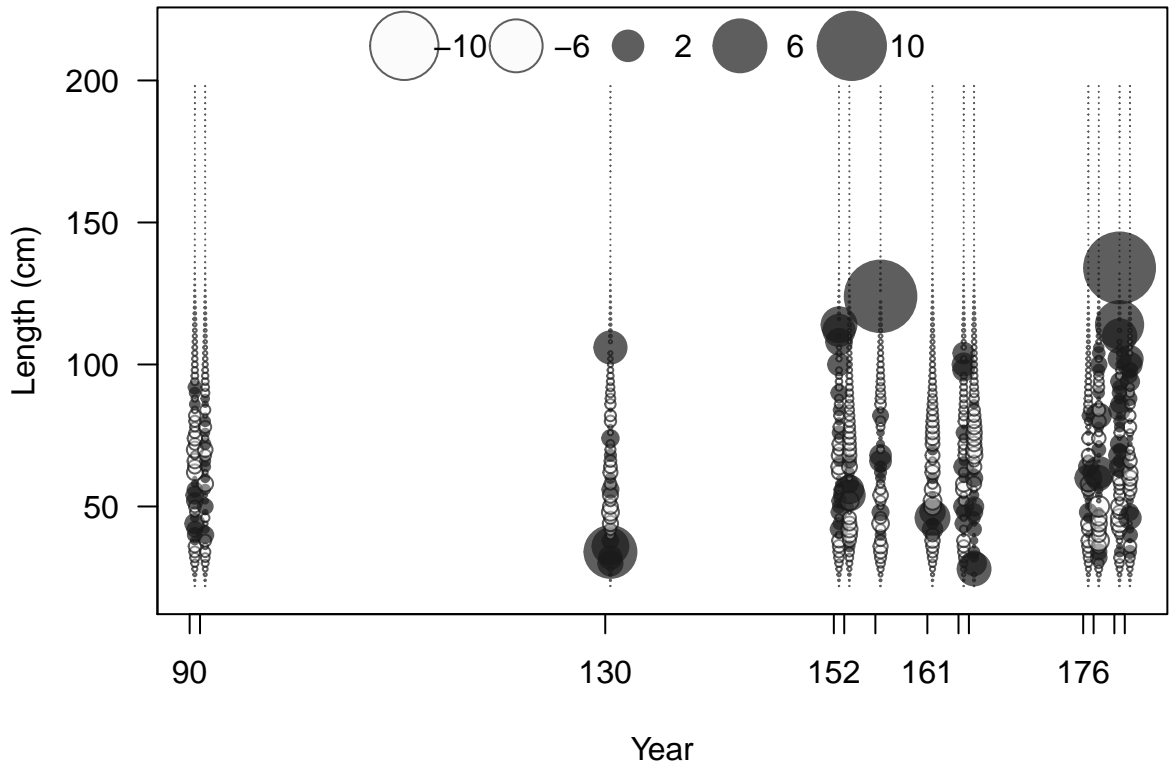


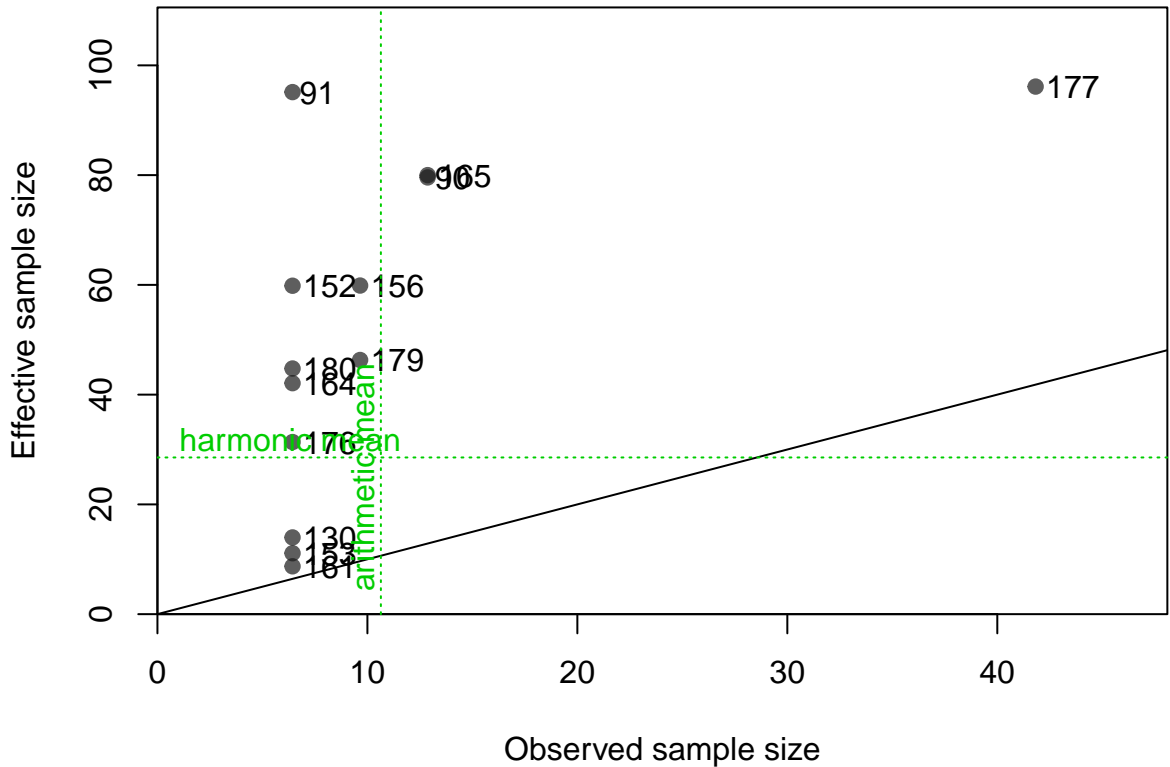
A3-OBJ (whole catch)



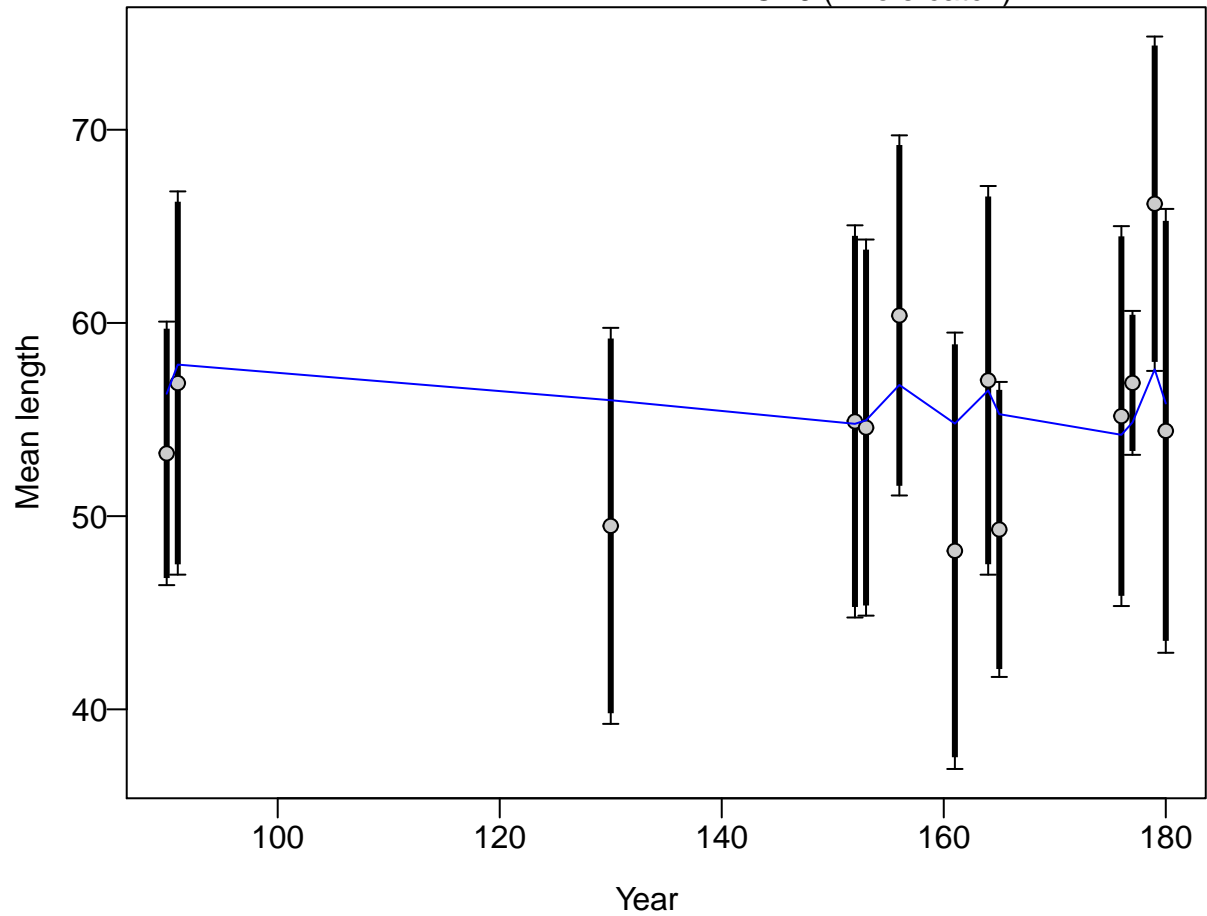
Proportion



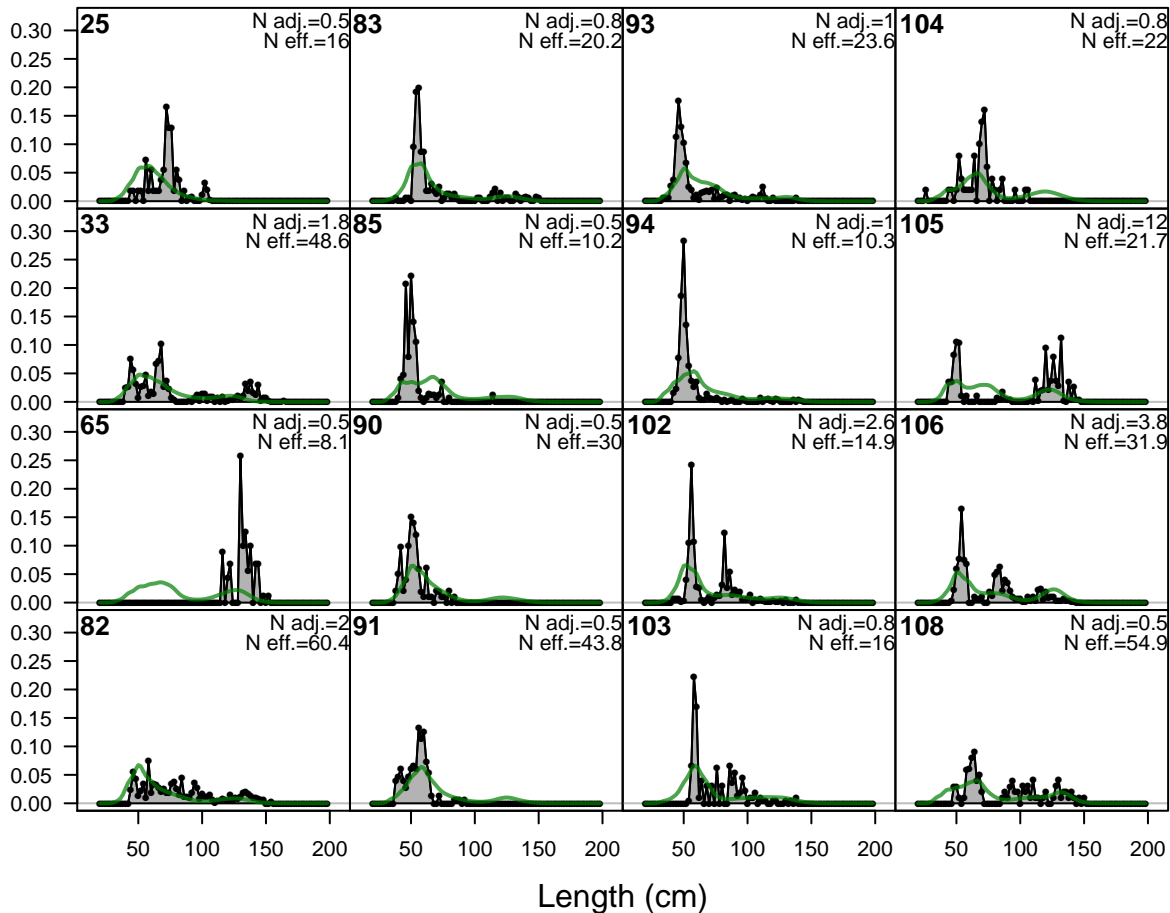




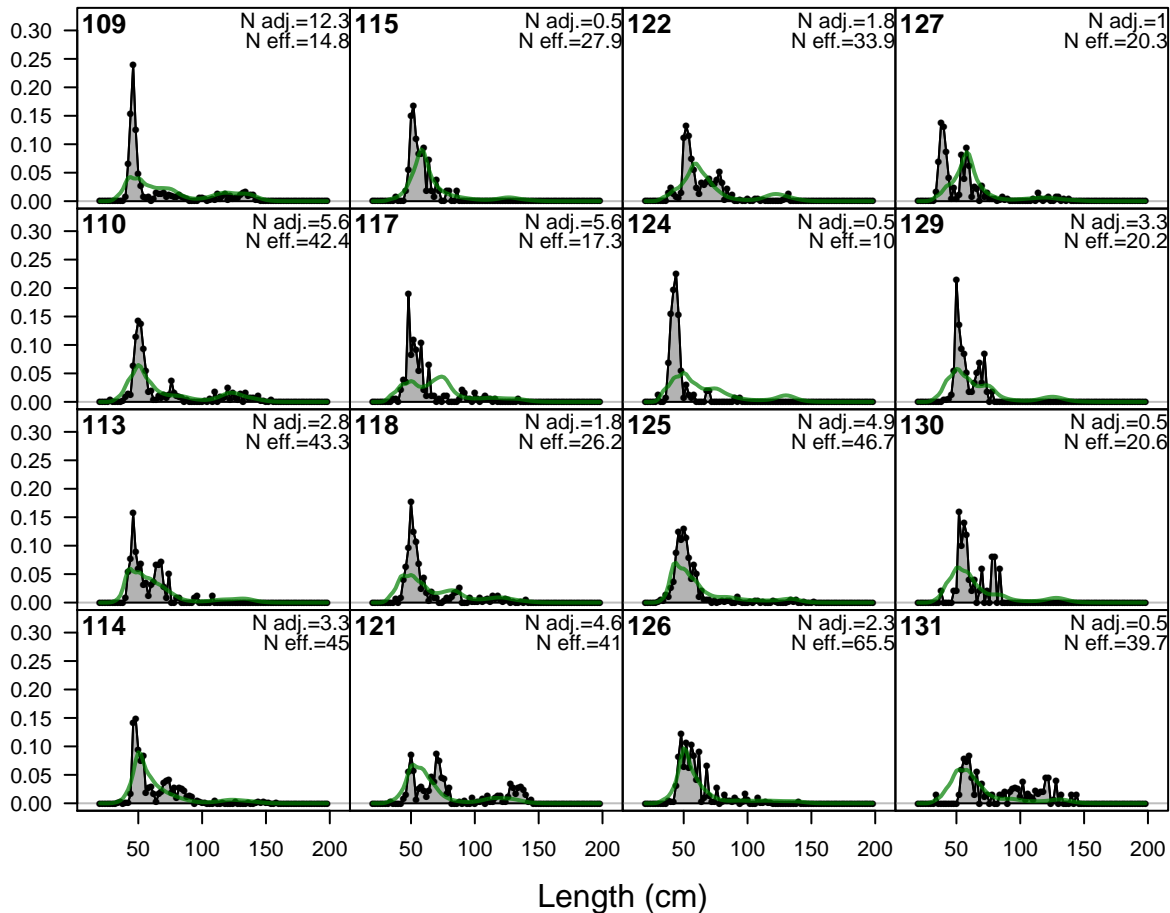
A4-OBJ (whole catch)



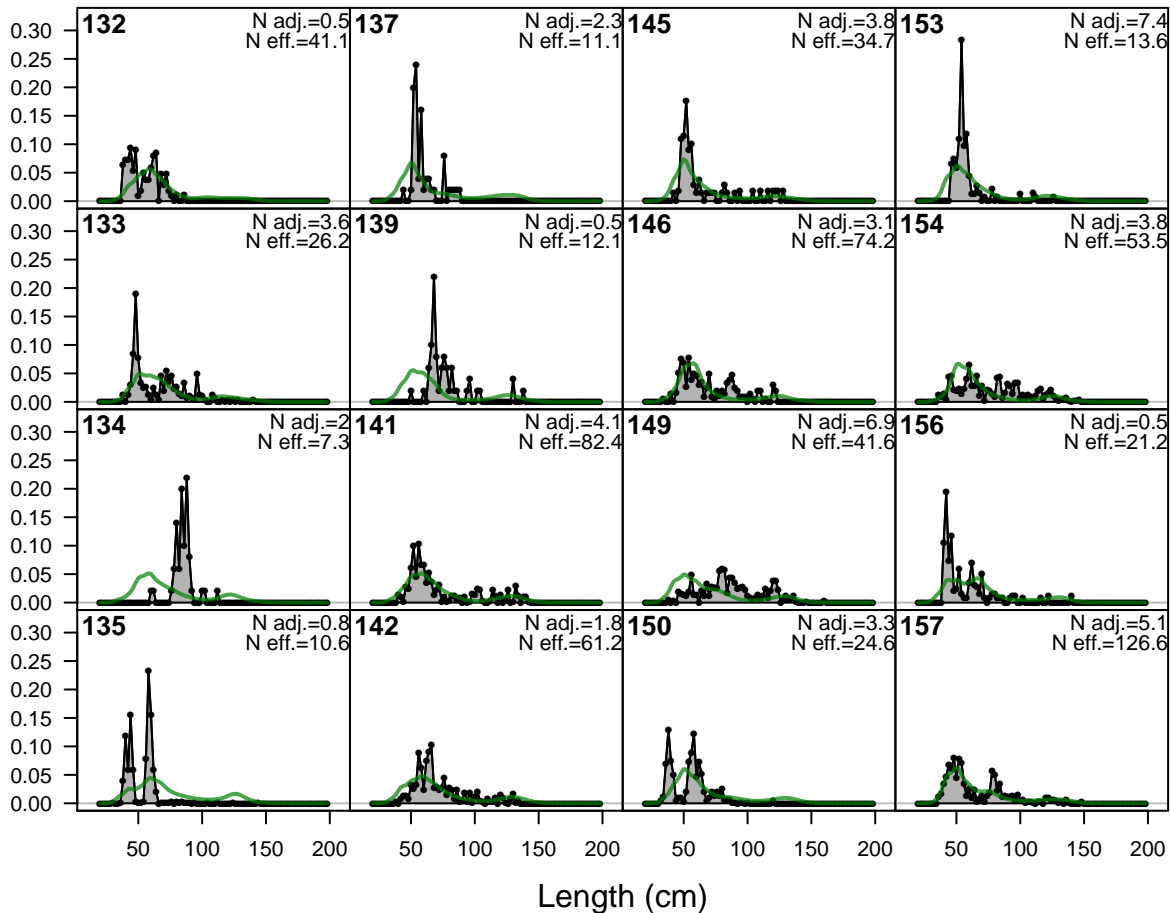
Proportion



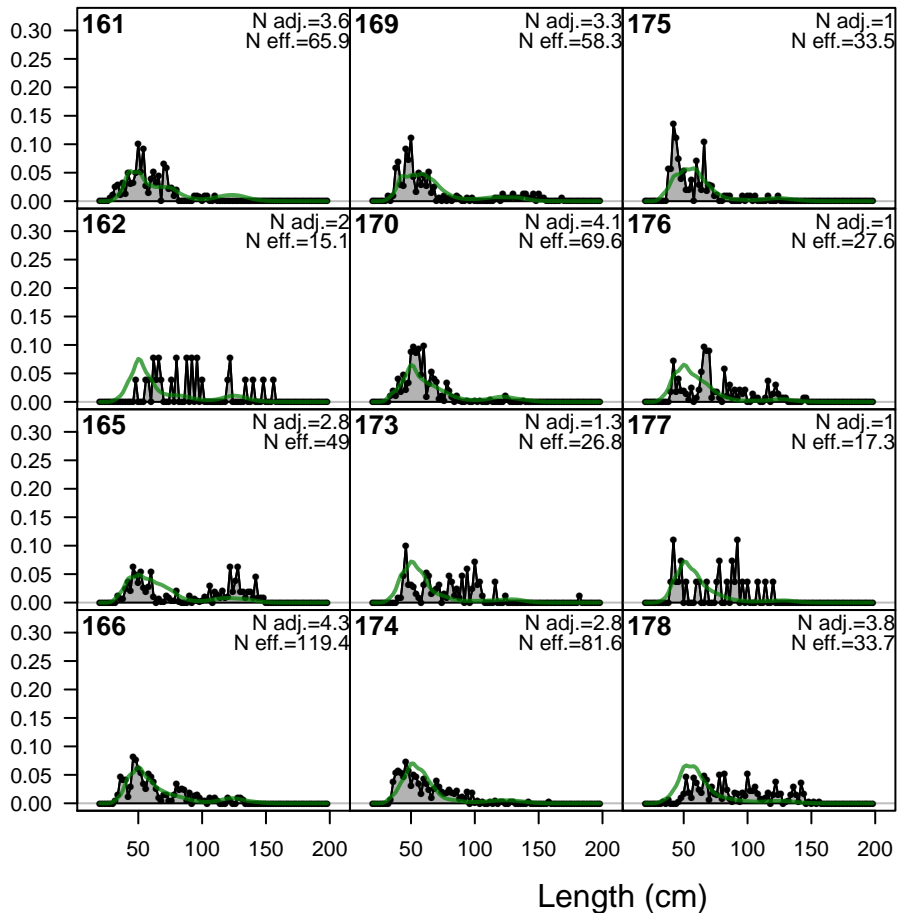
Proportion

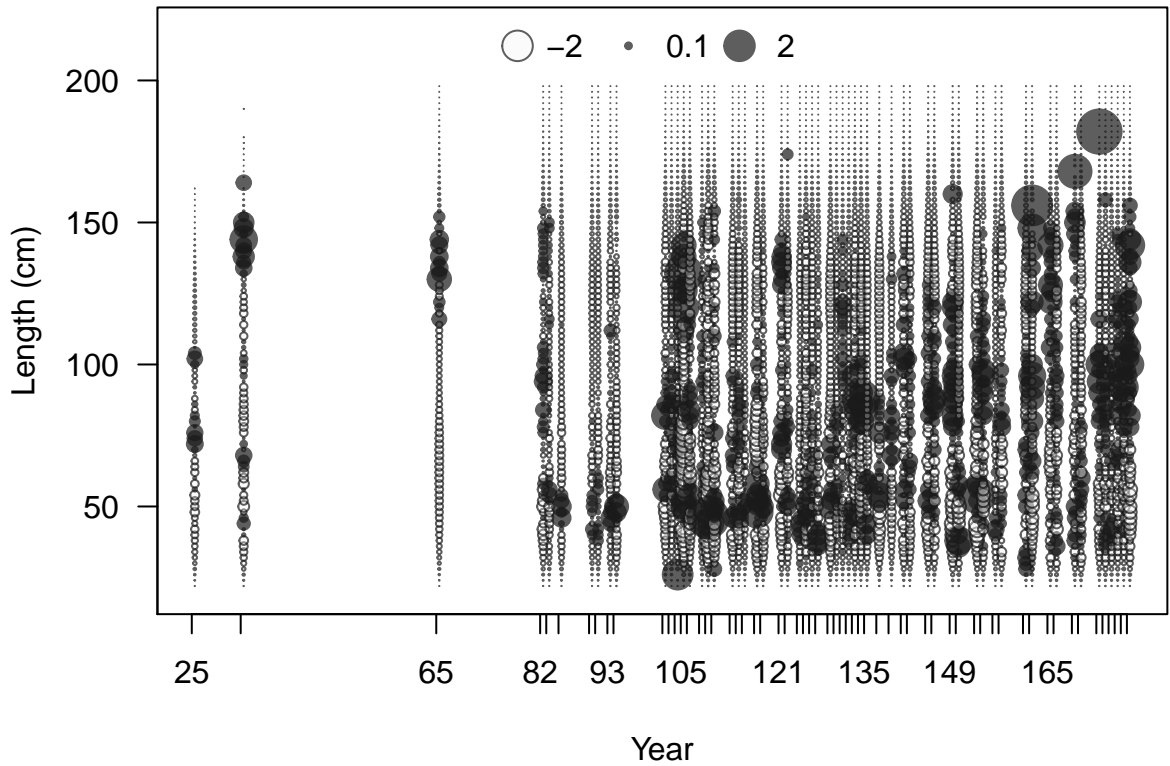


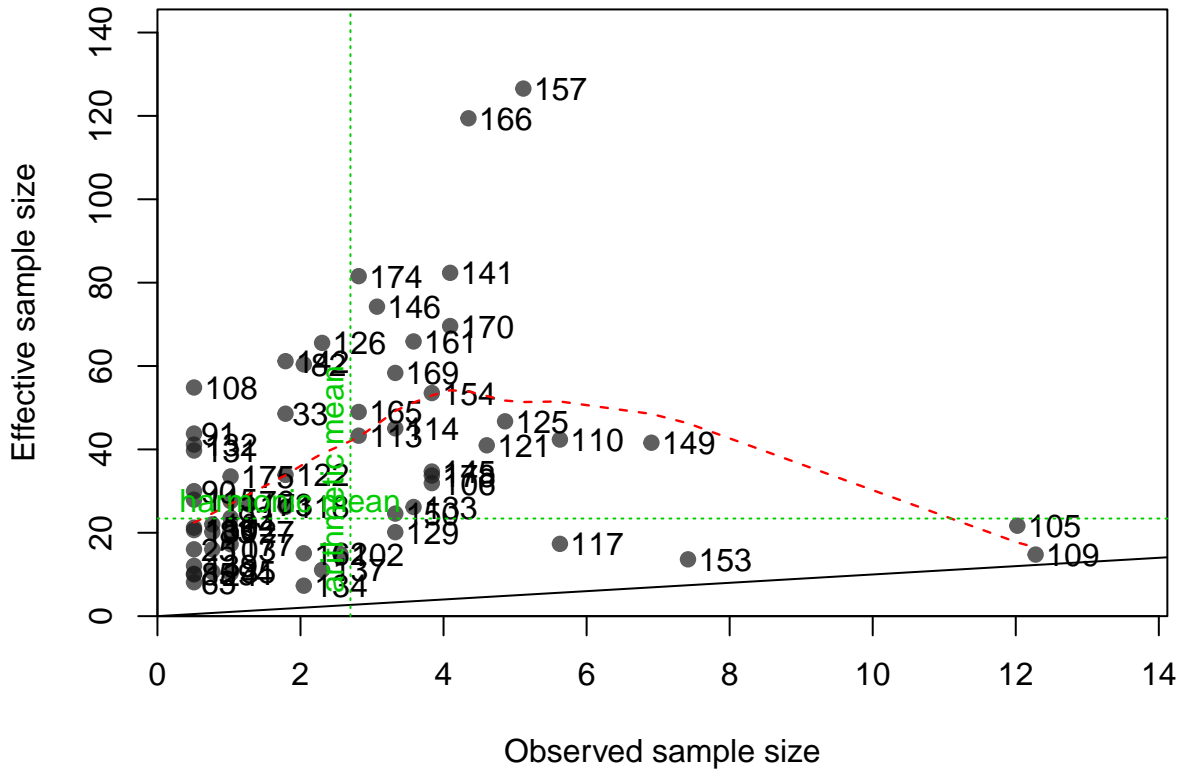
Proportion



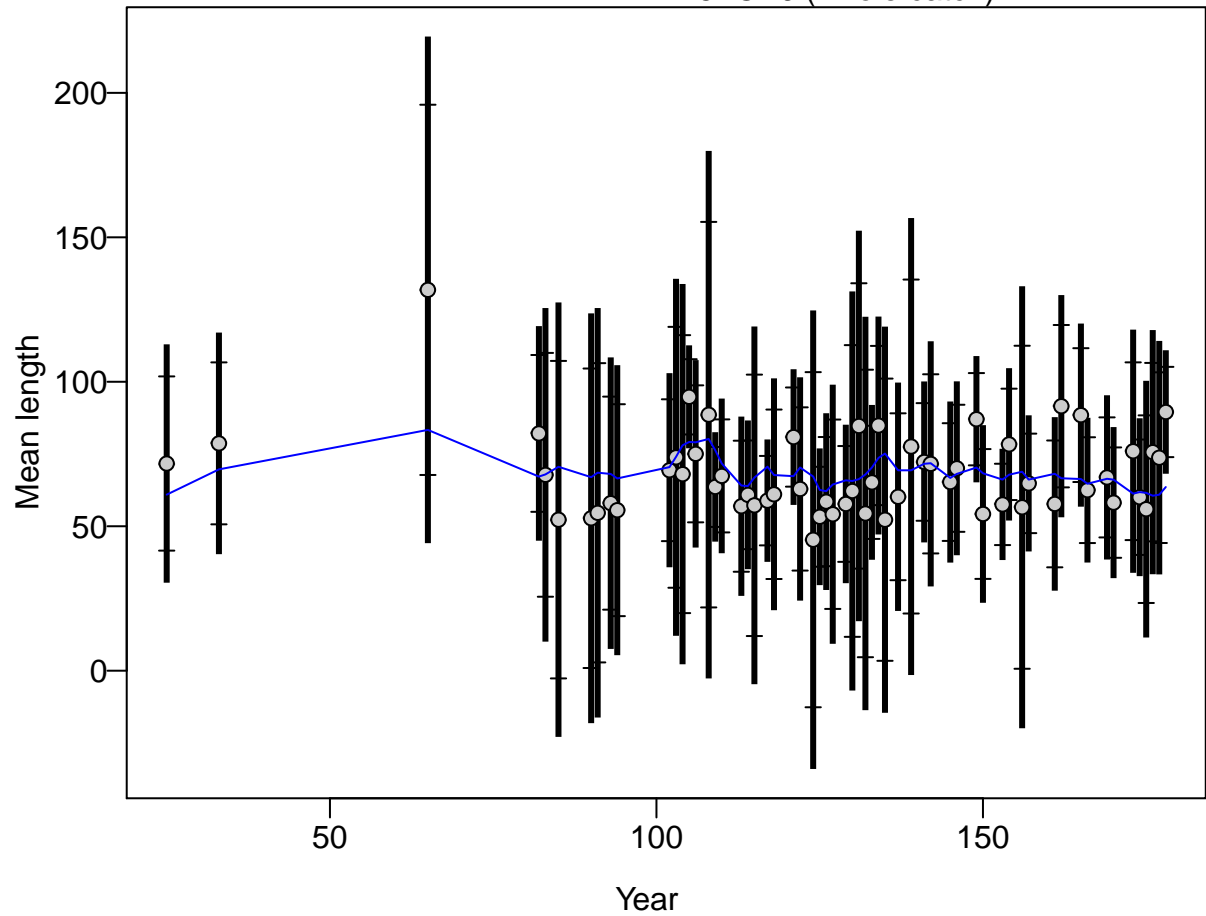
Proportion



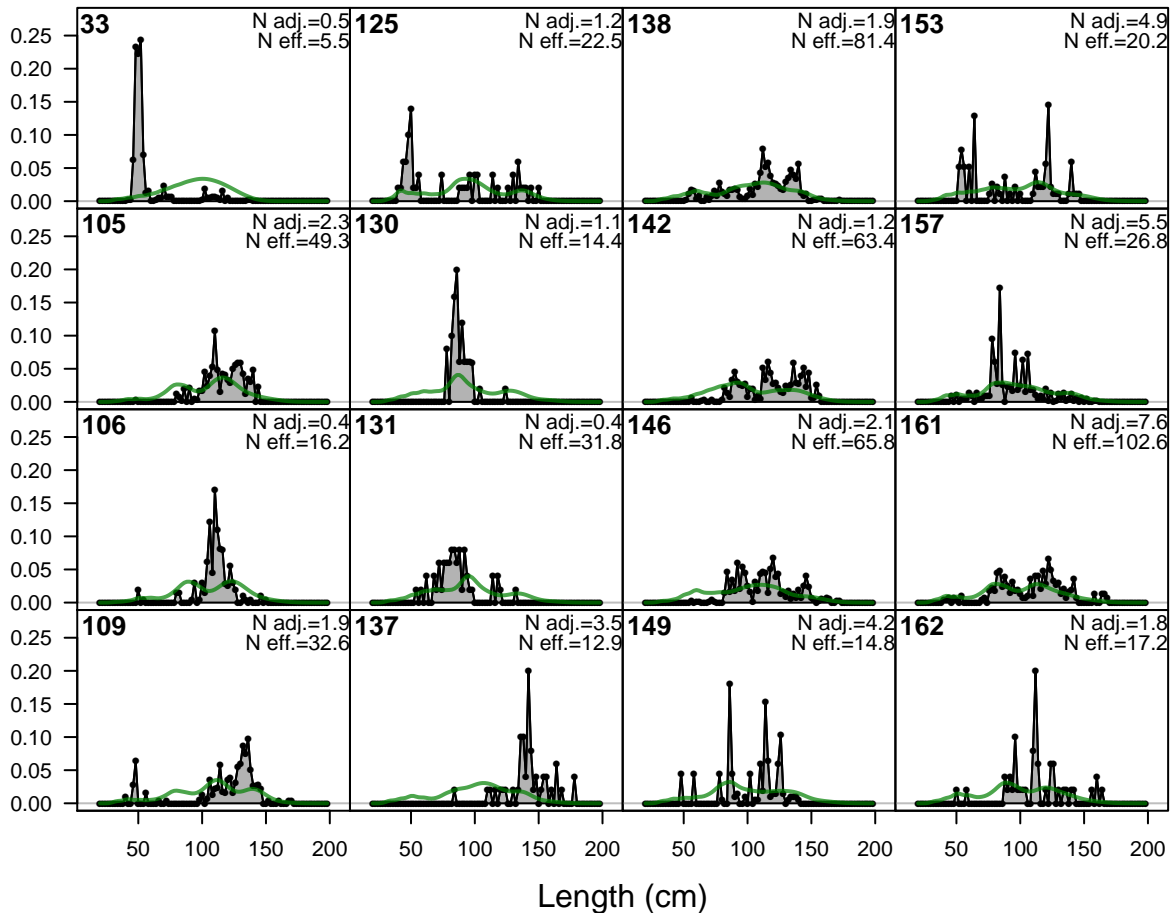




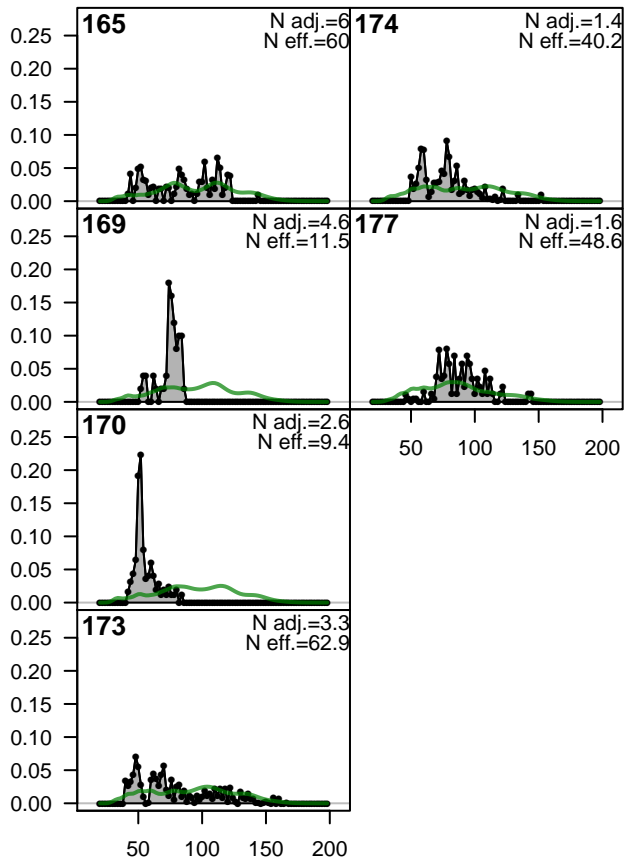
A5-OBJ (whole catch)



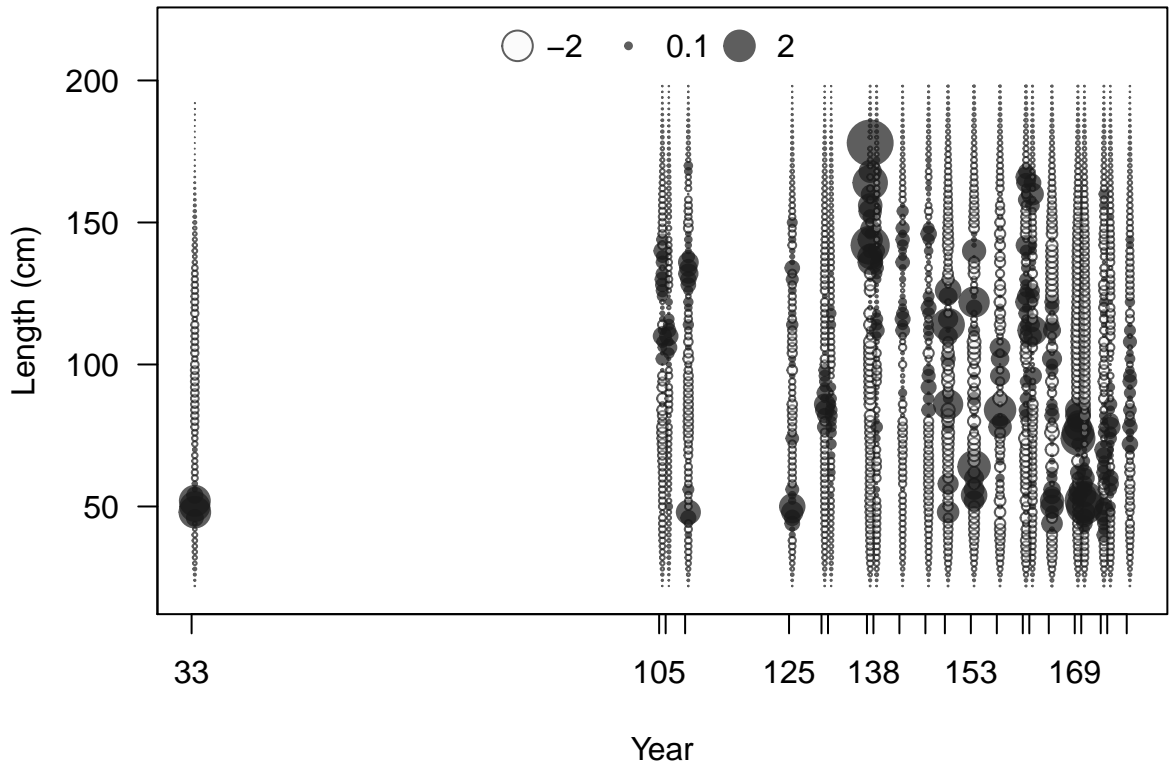
Proportion

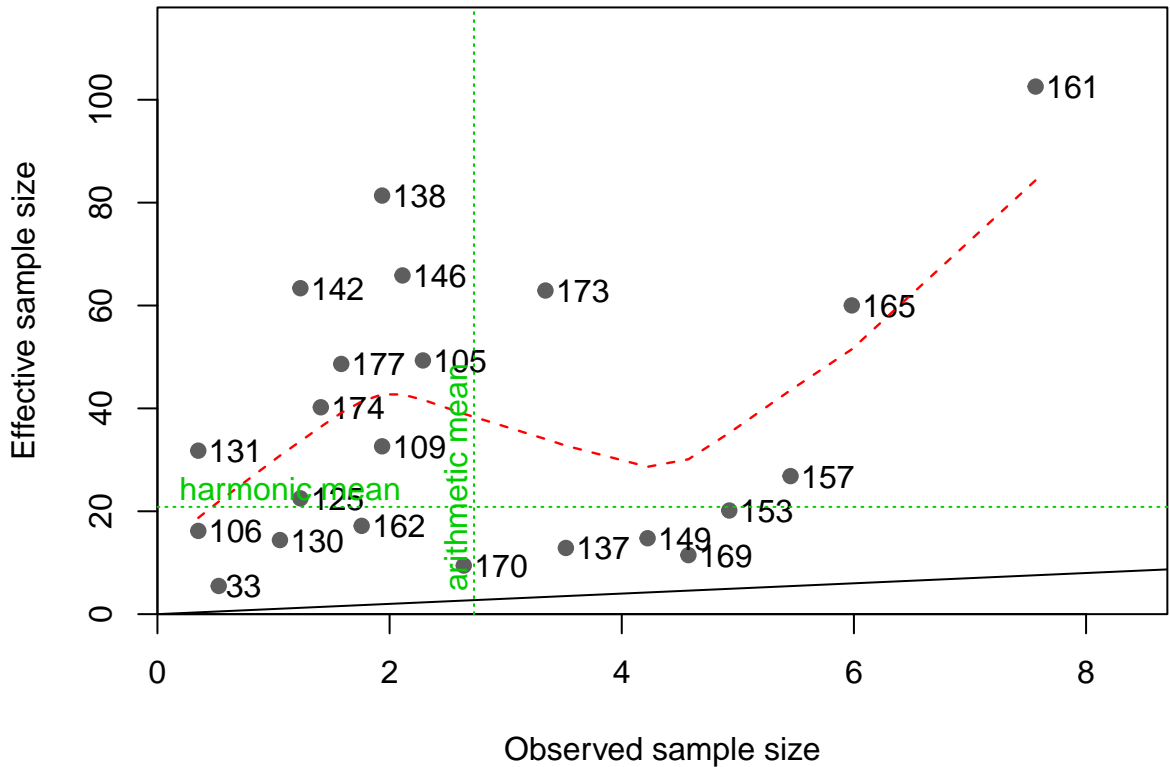


Proportion

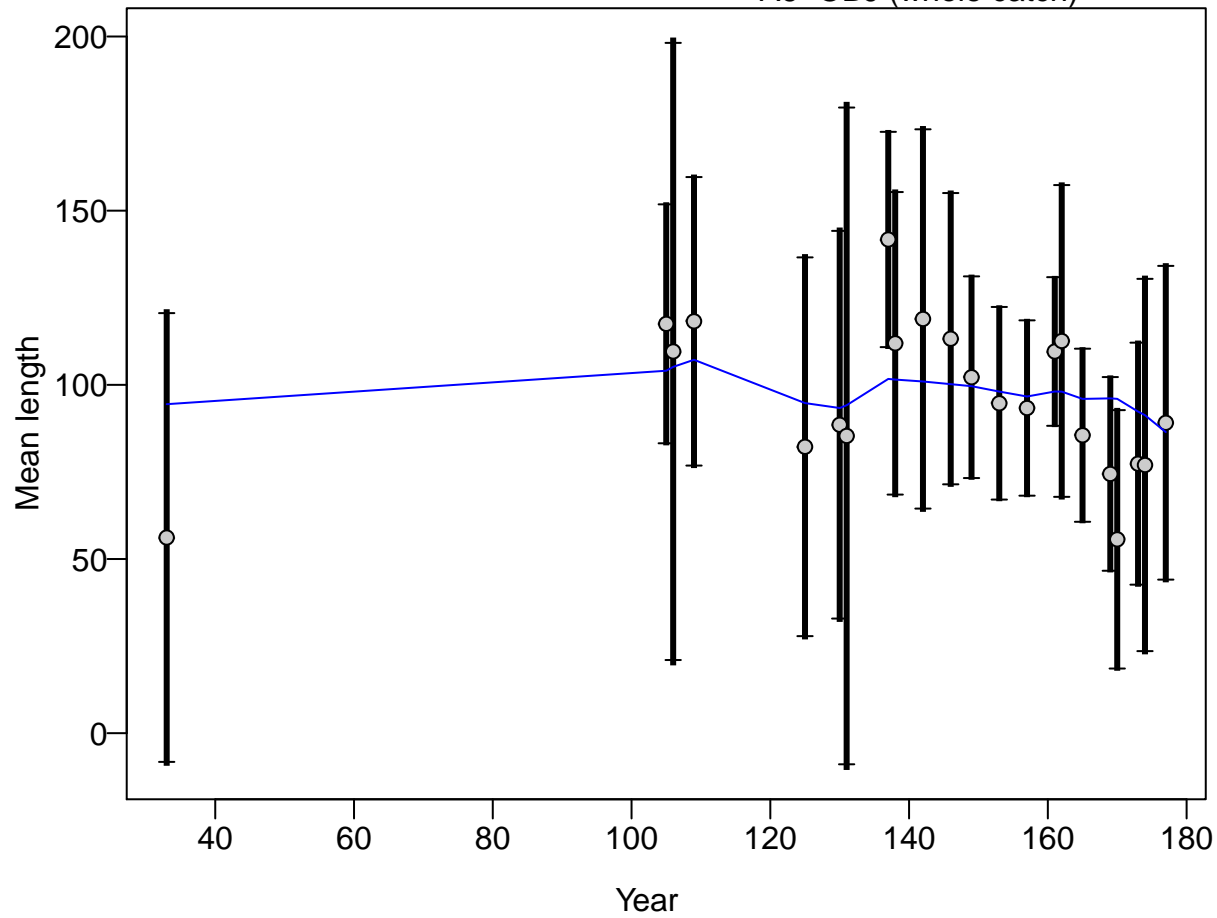


Length (cm)

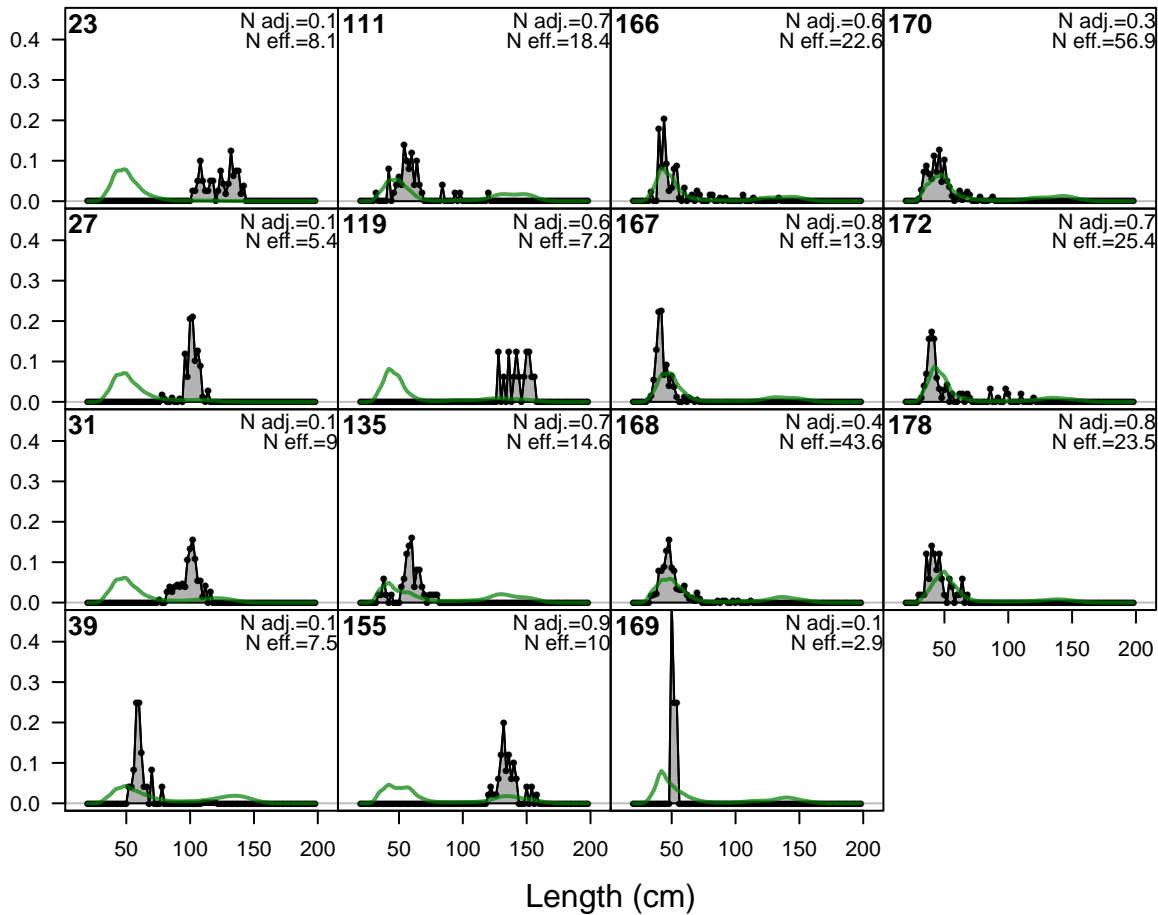


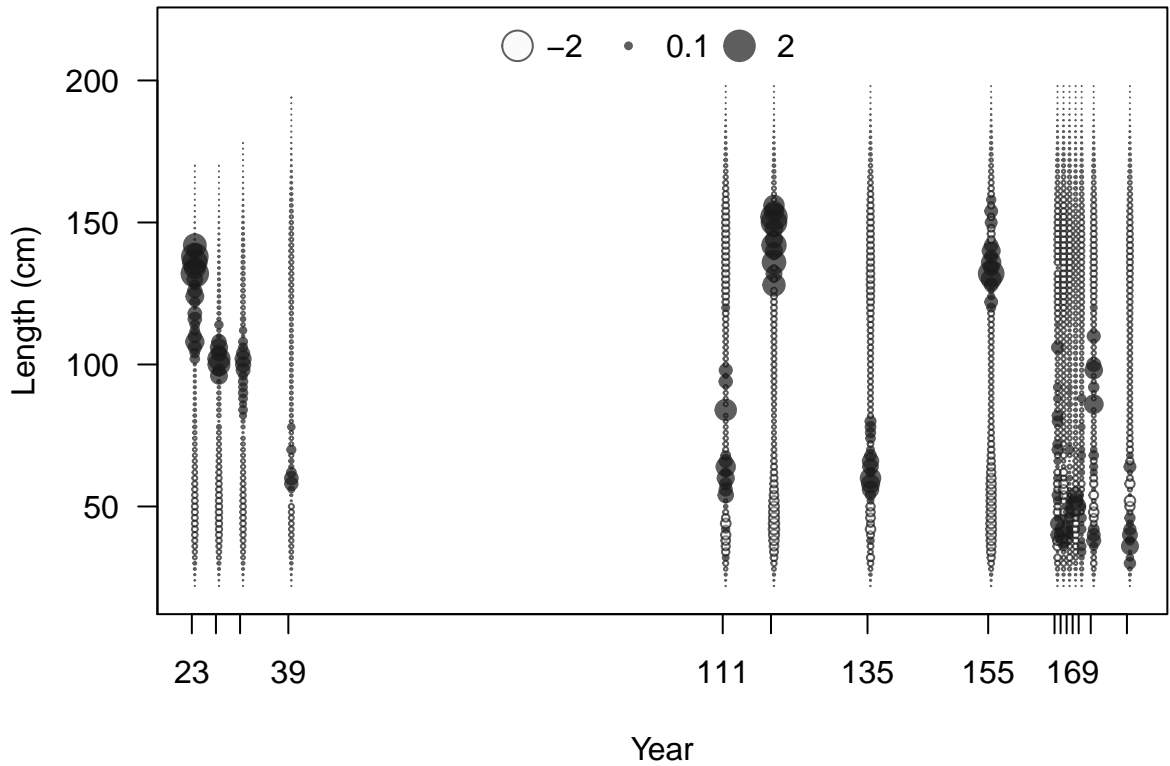


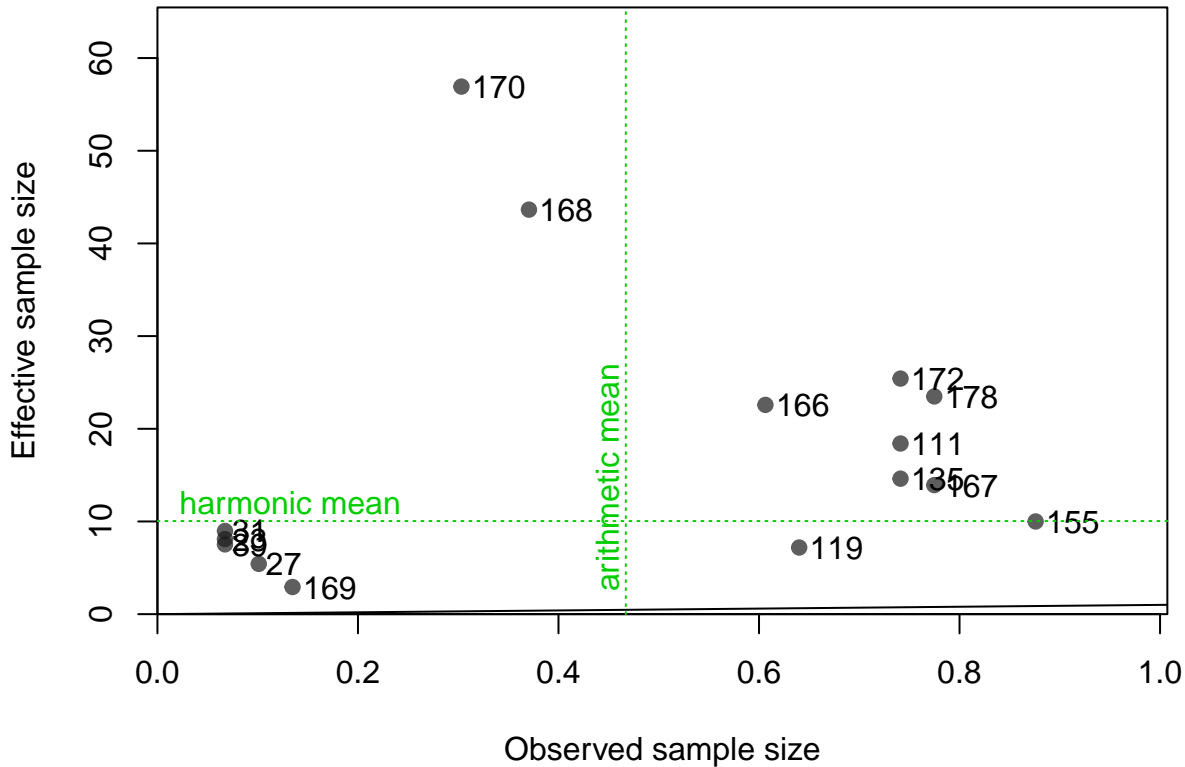
A6-OBJ (whole catch)



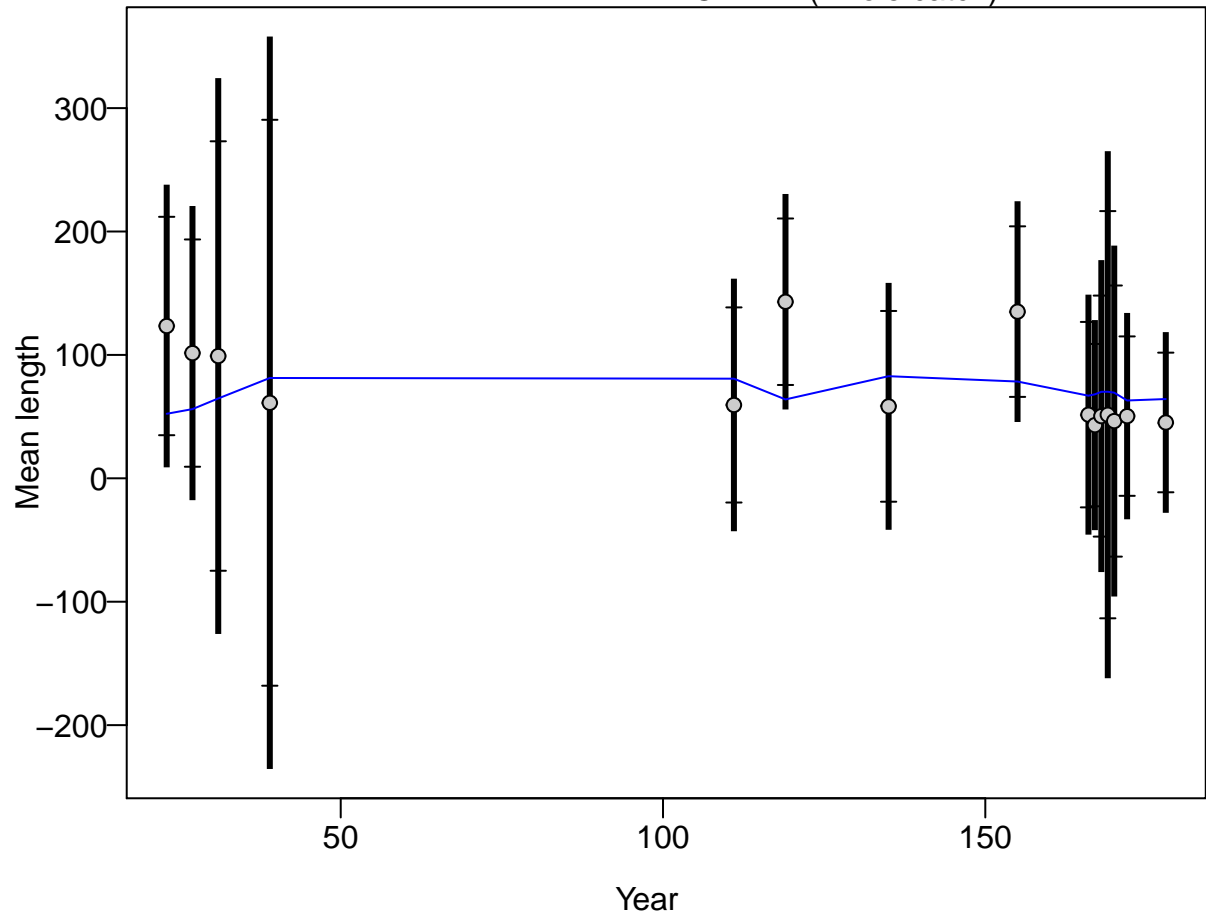
Proportion

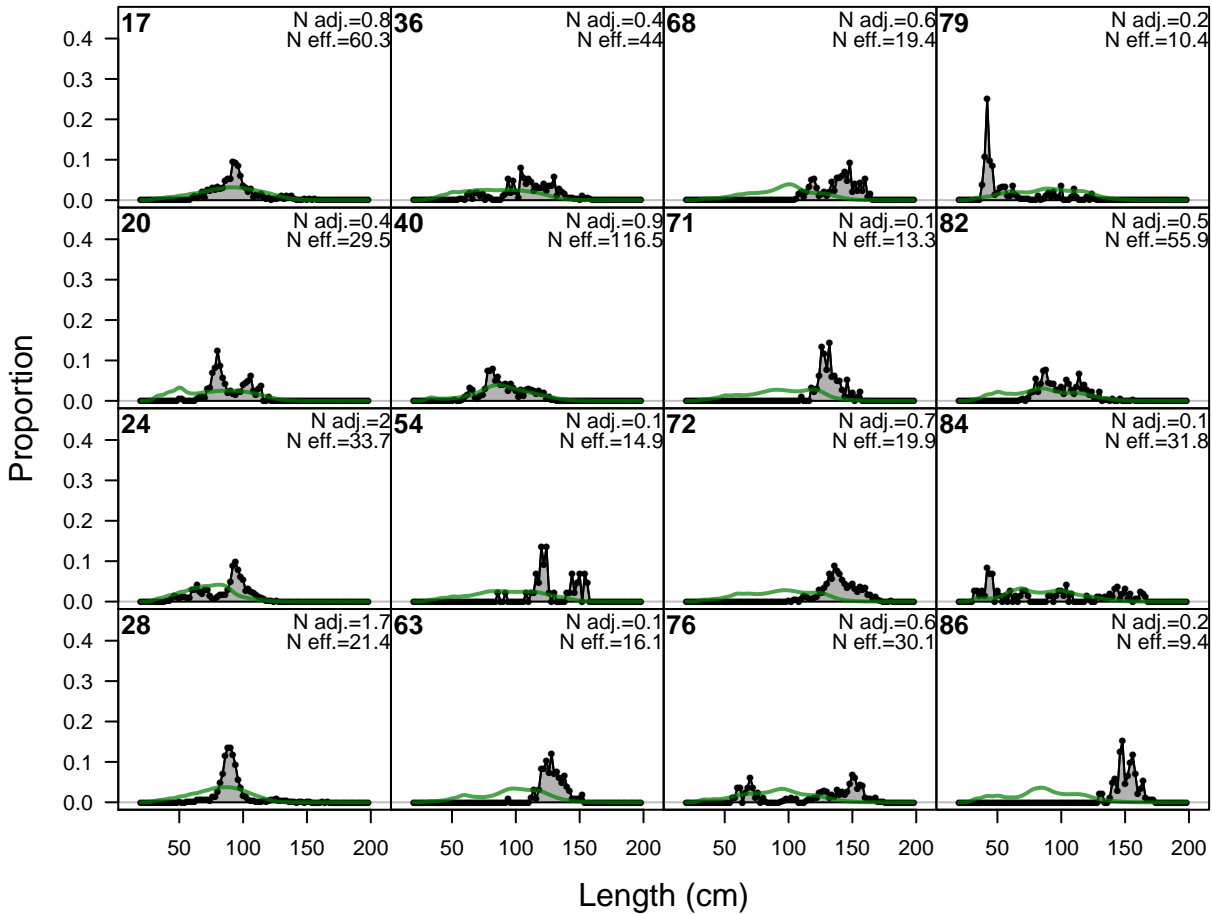




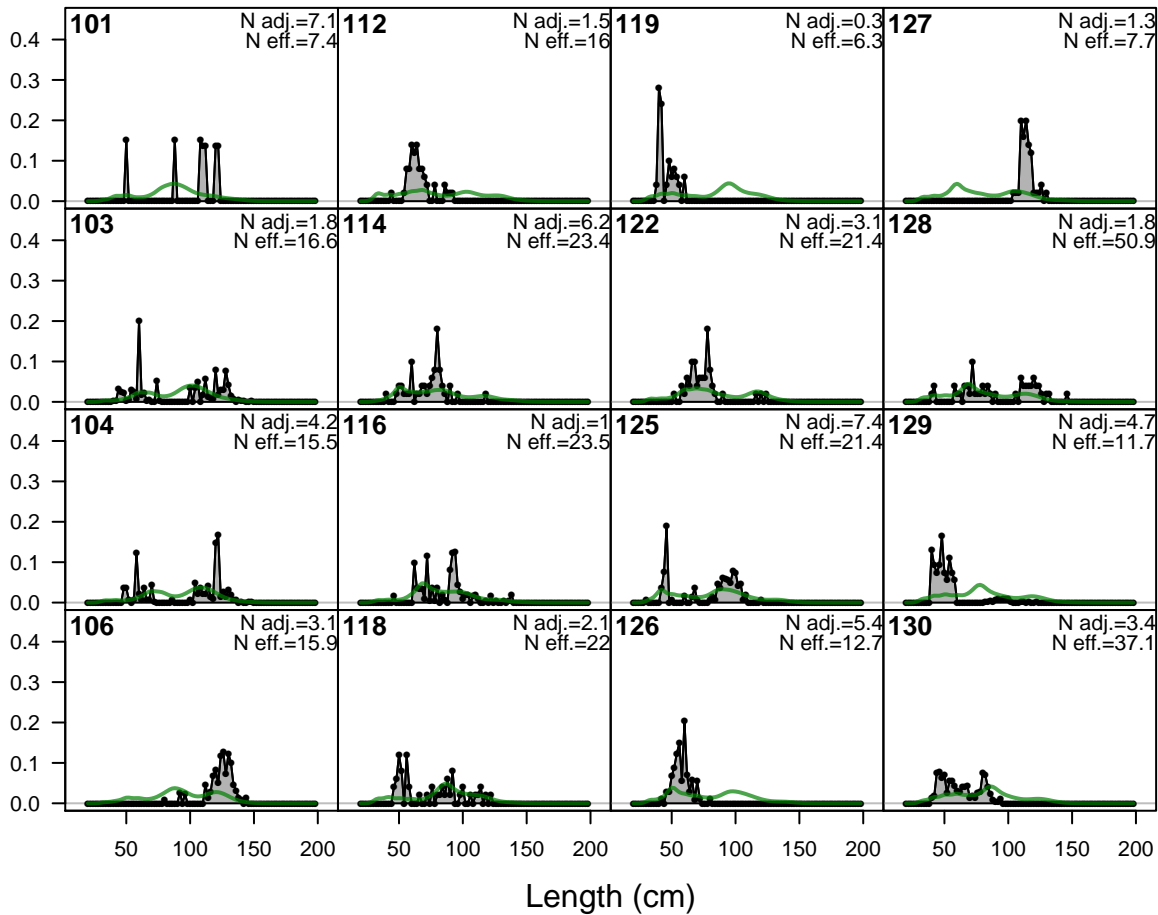


A2-NOADEL (whole catch)

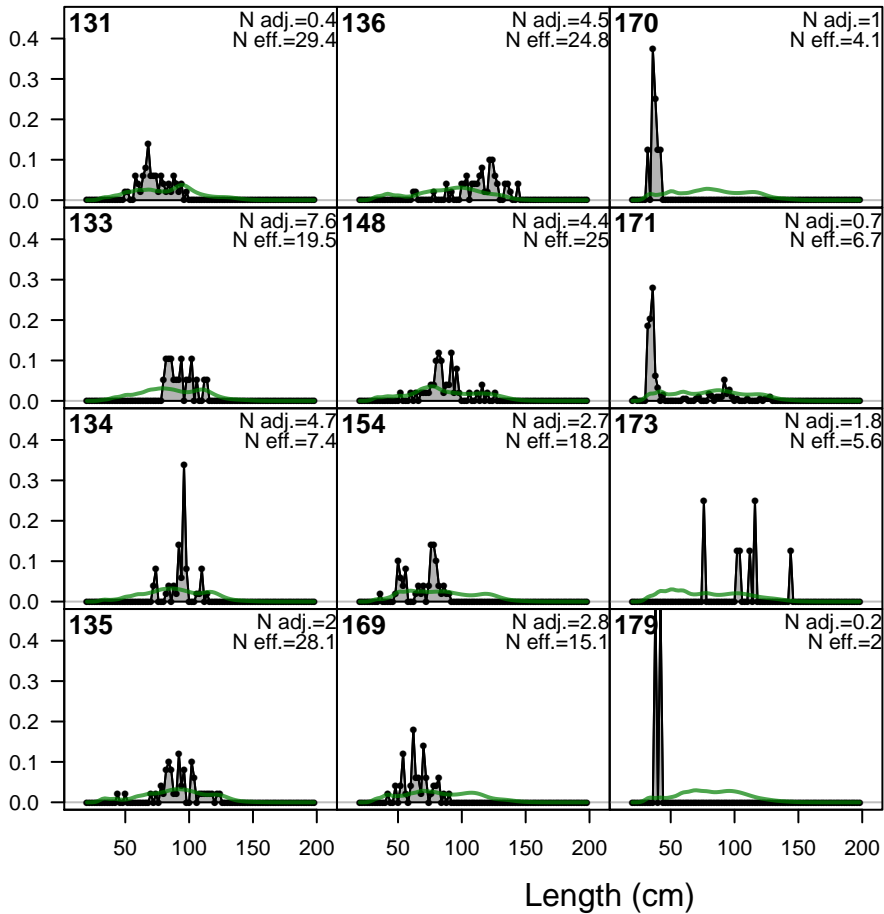


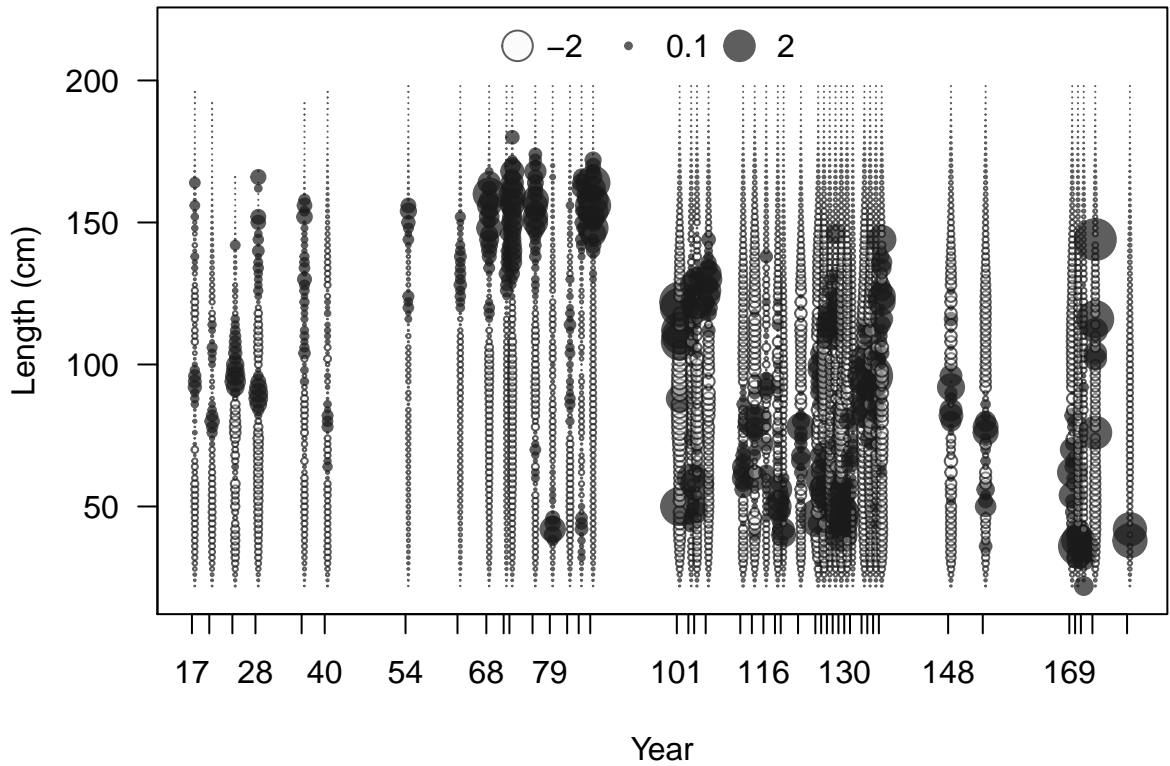


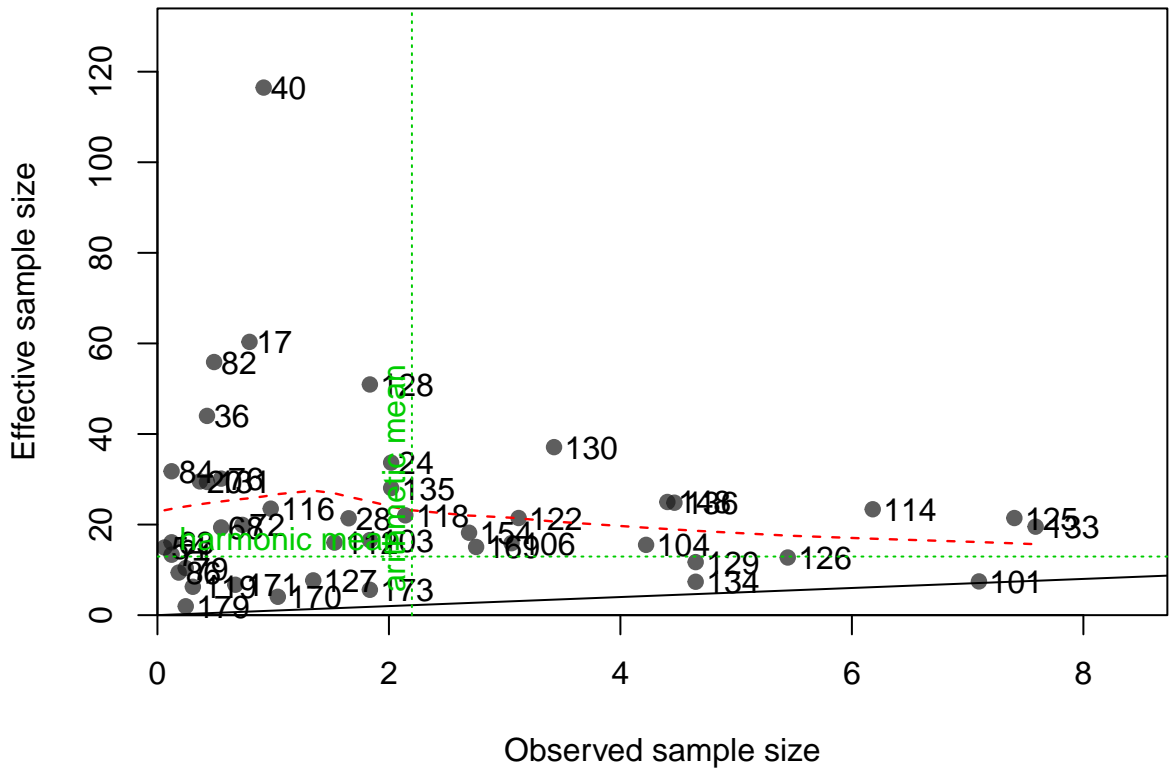
Proportion



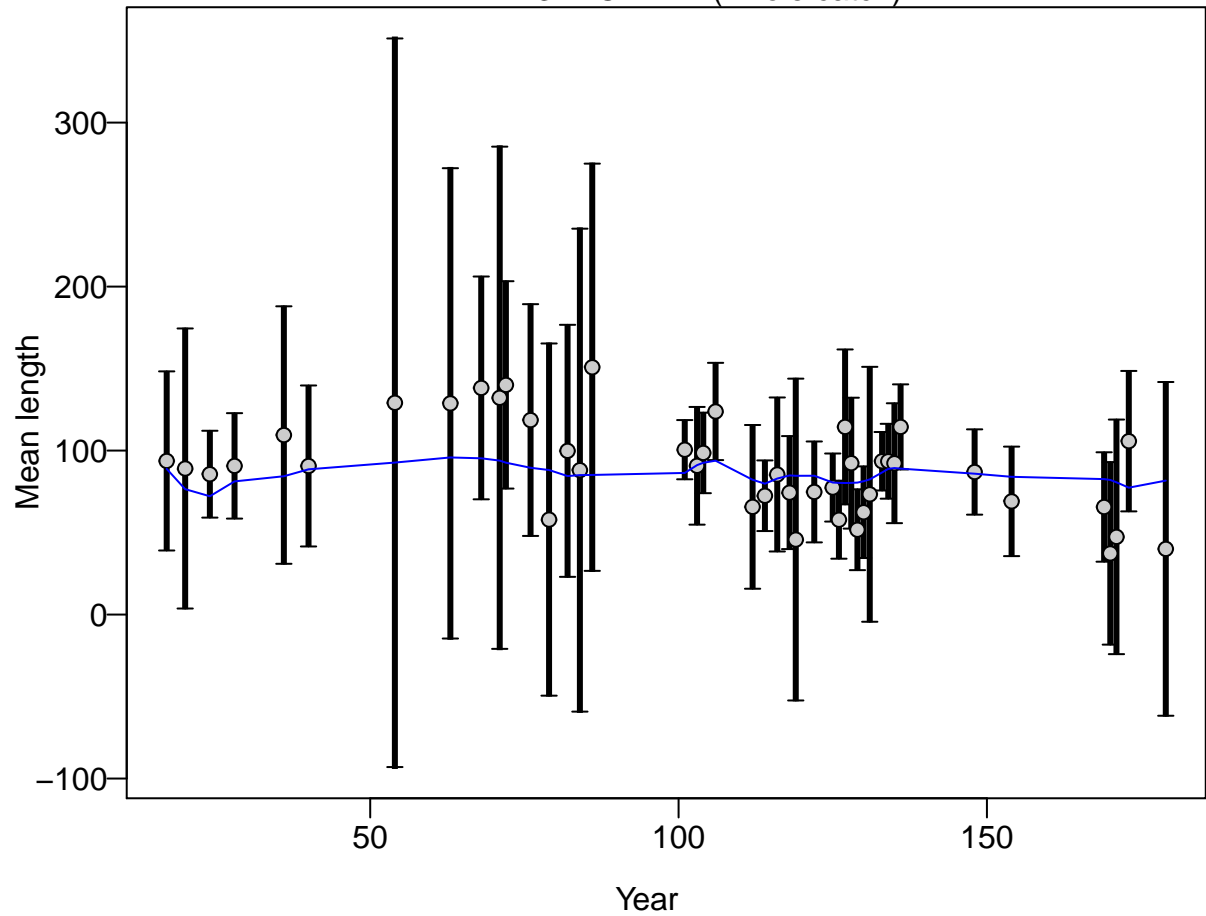
Proportion

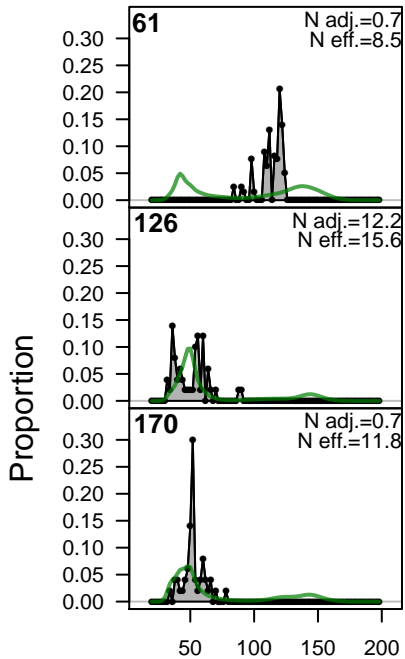




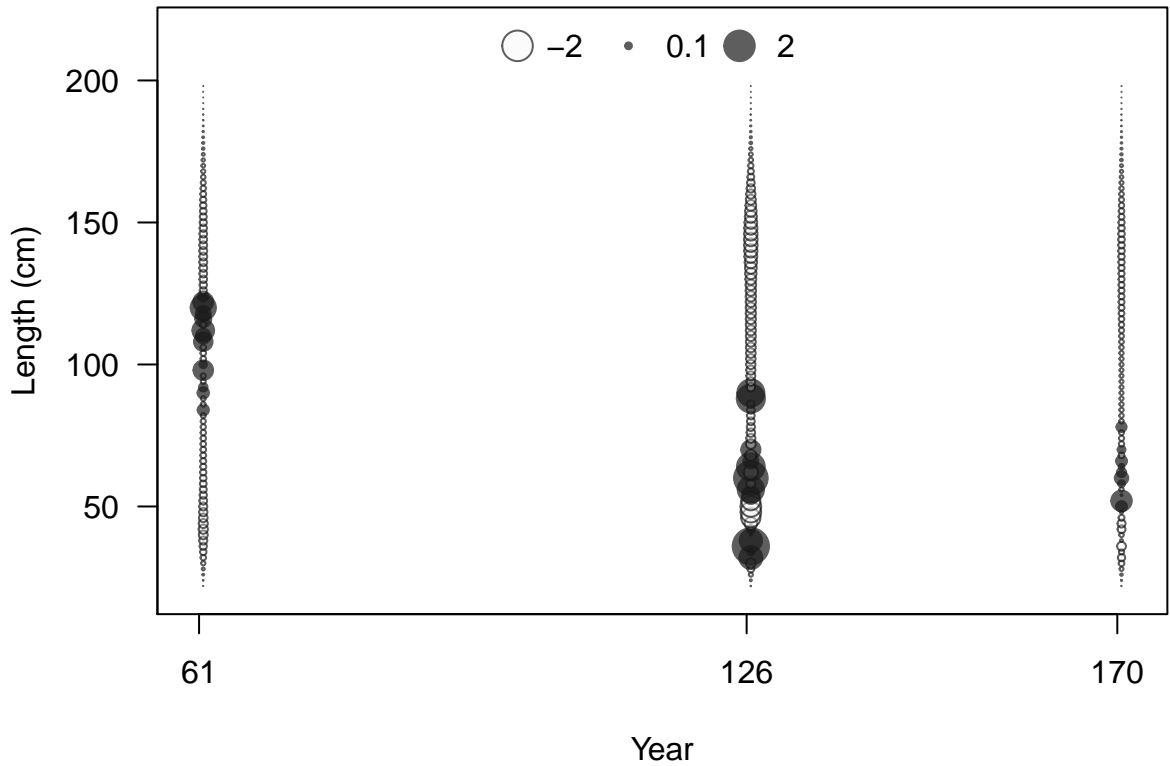


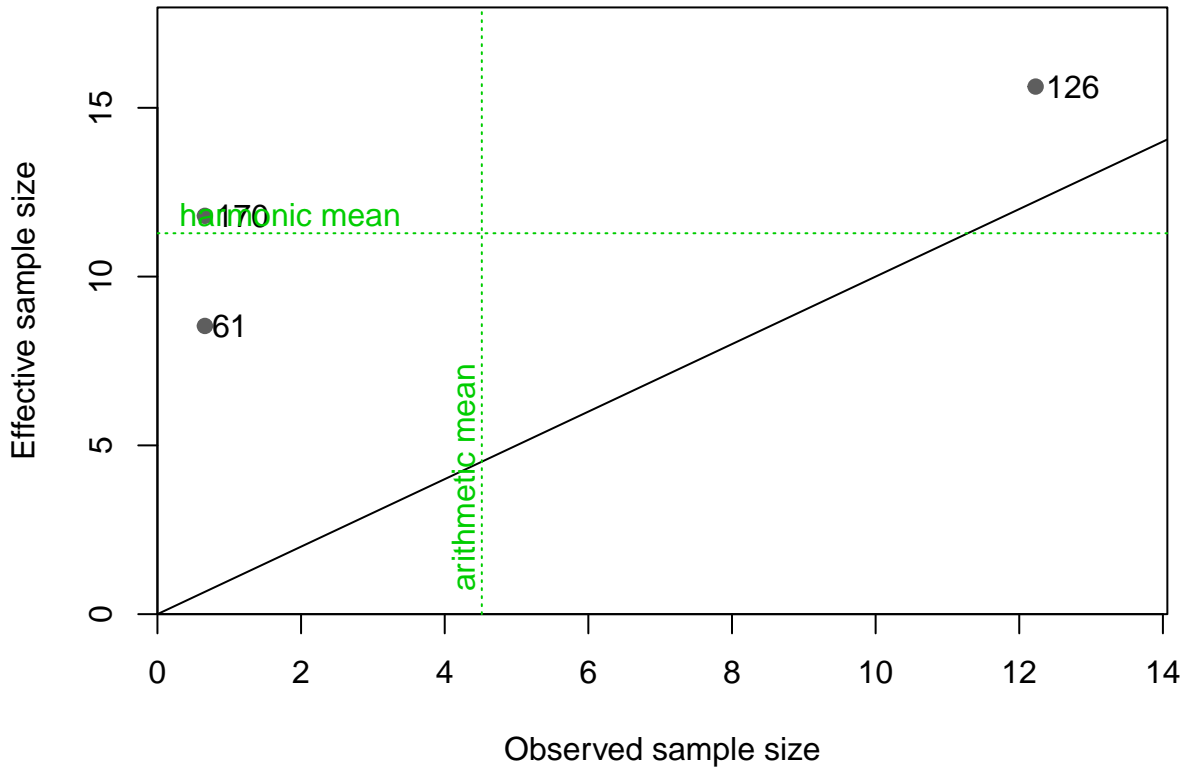
A3-NOADEL (whole catch)



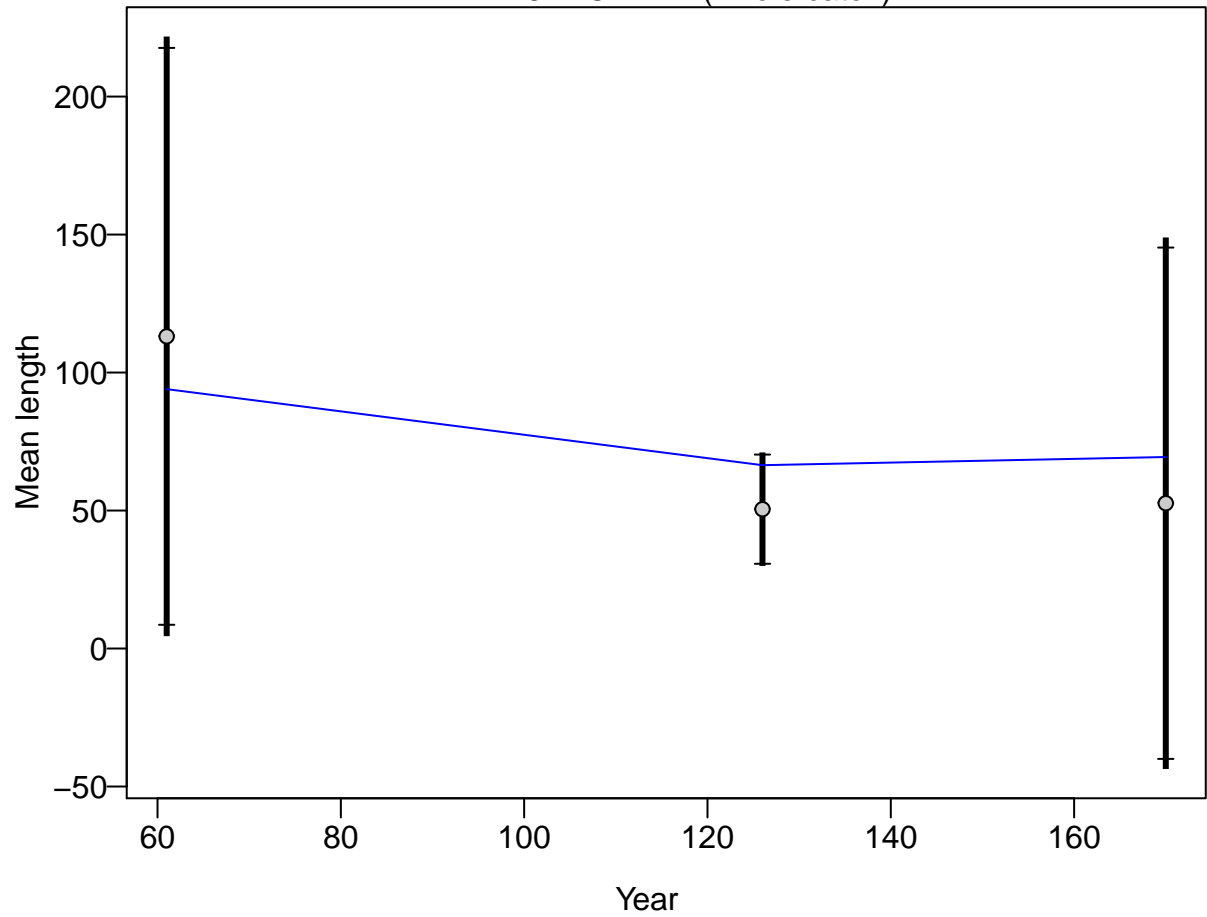


Length (cm)

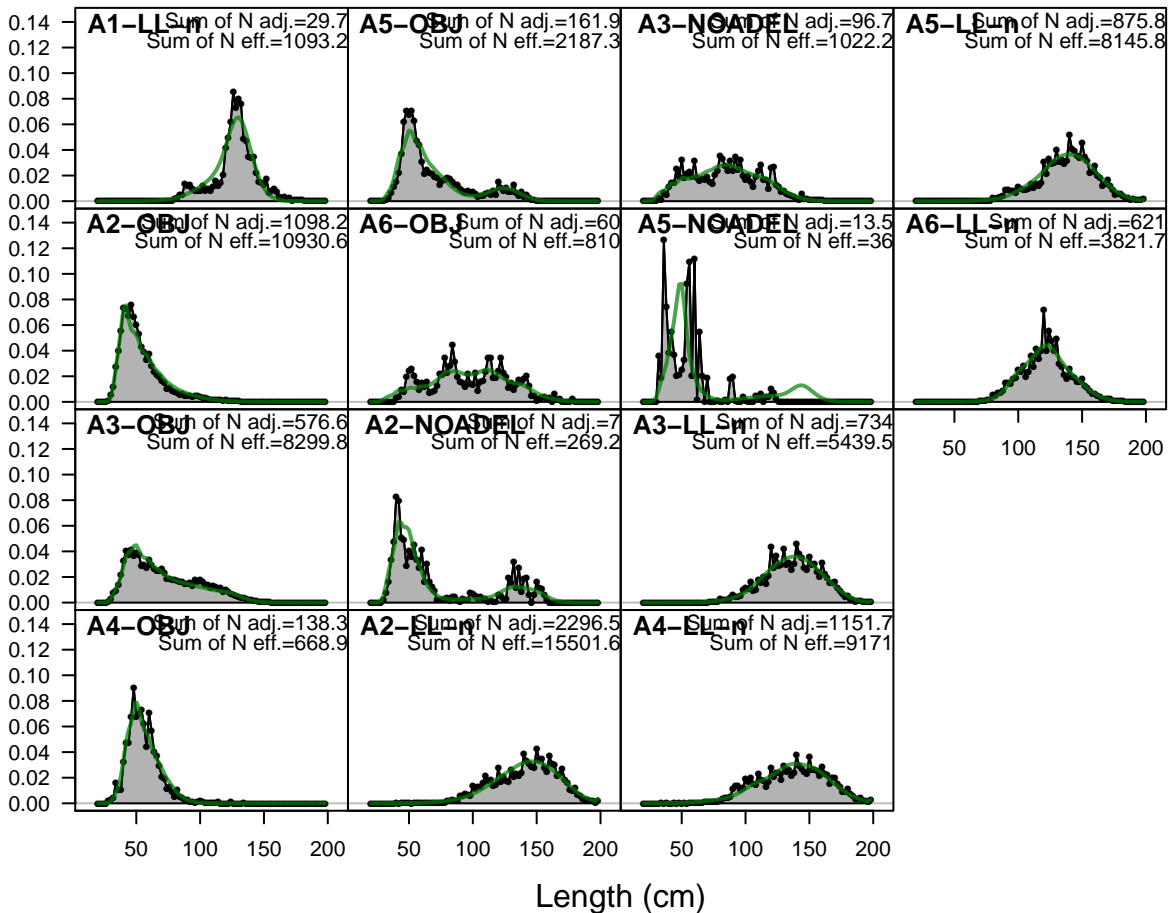




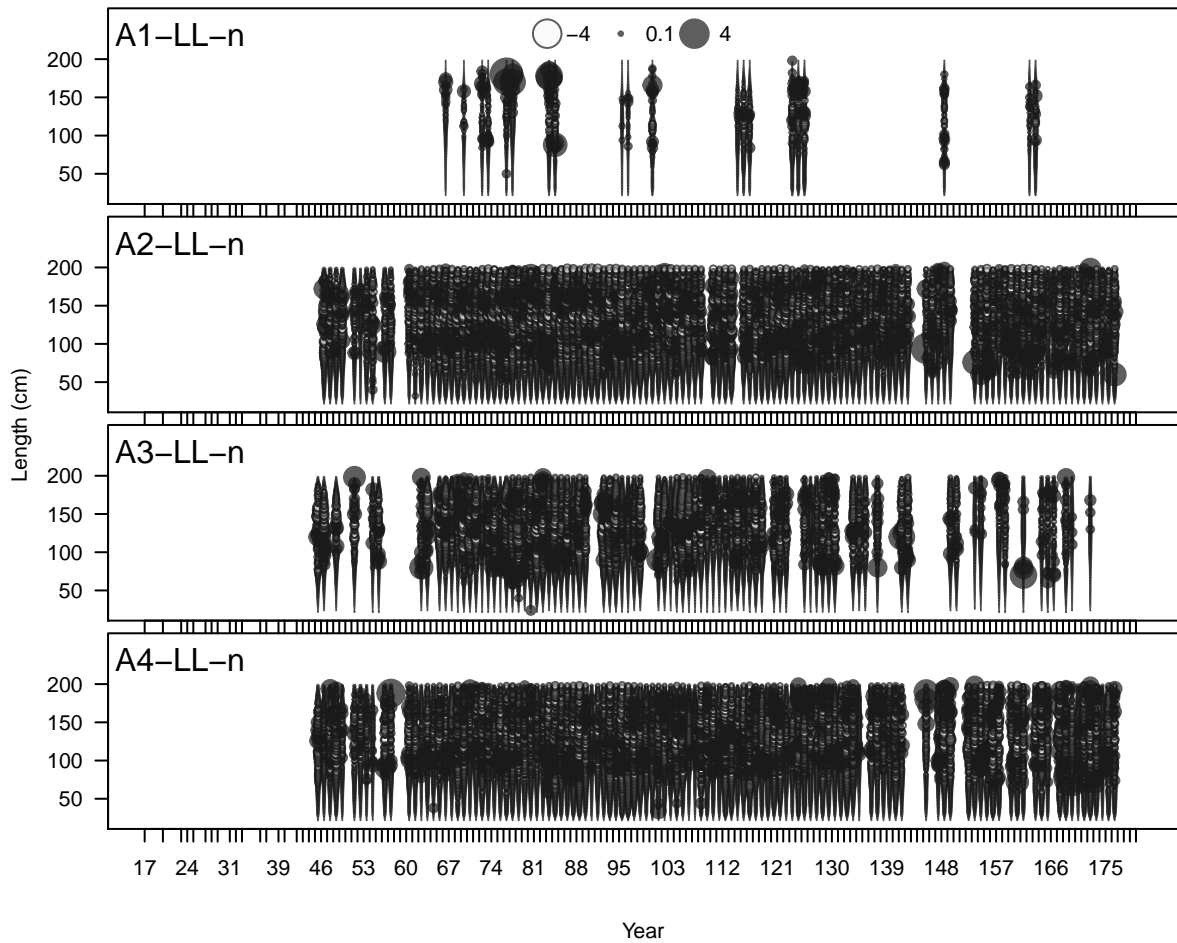
A5-NOADEL (whole catch)

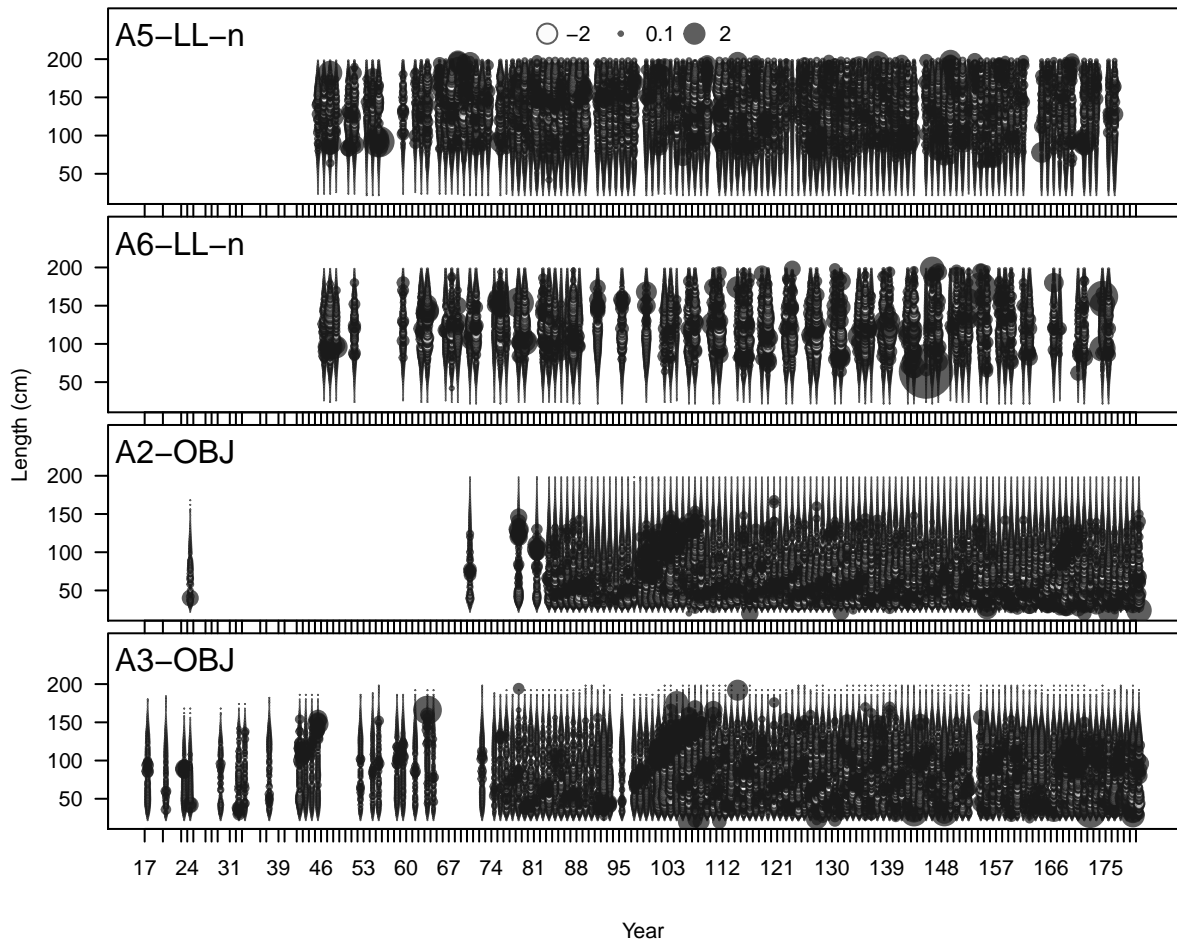


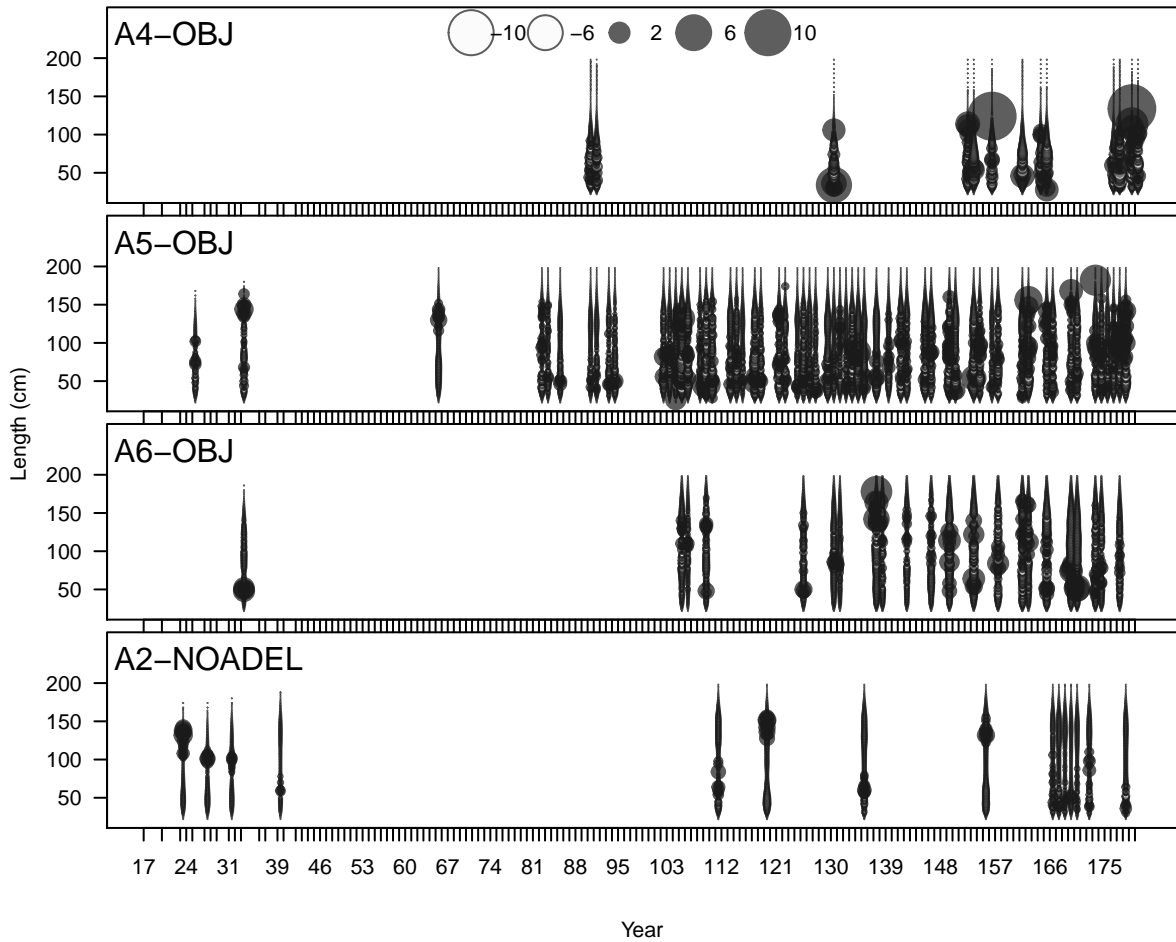
Proportion

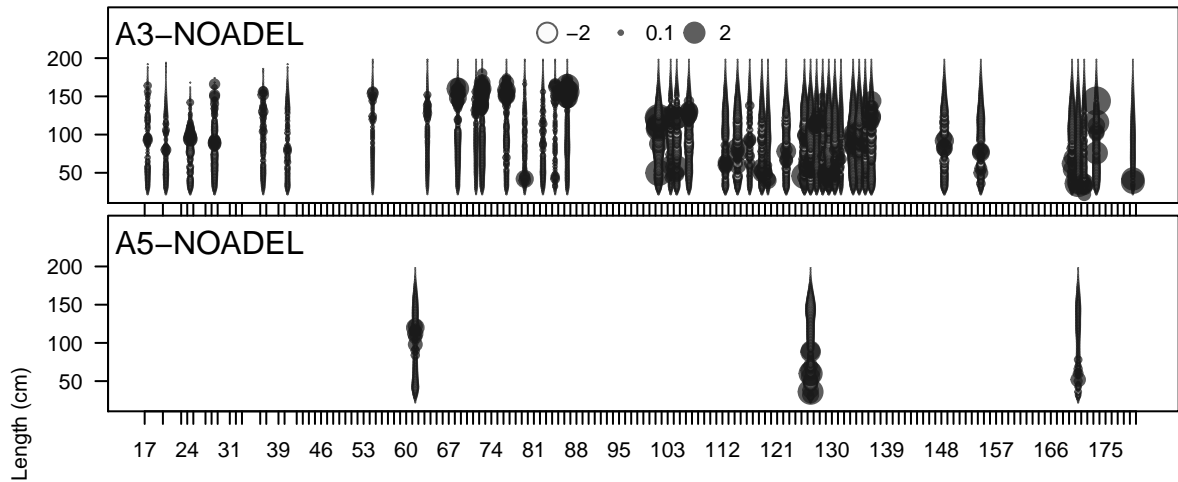


Length (cm)



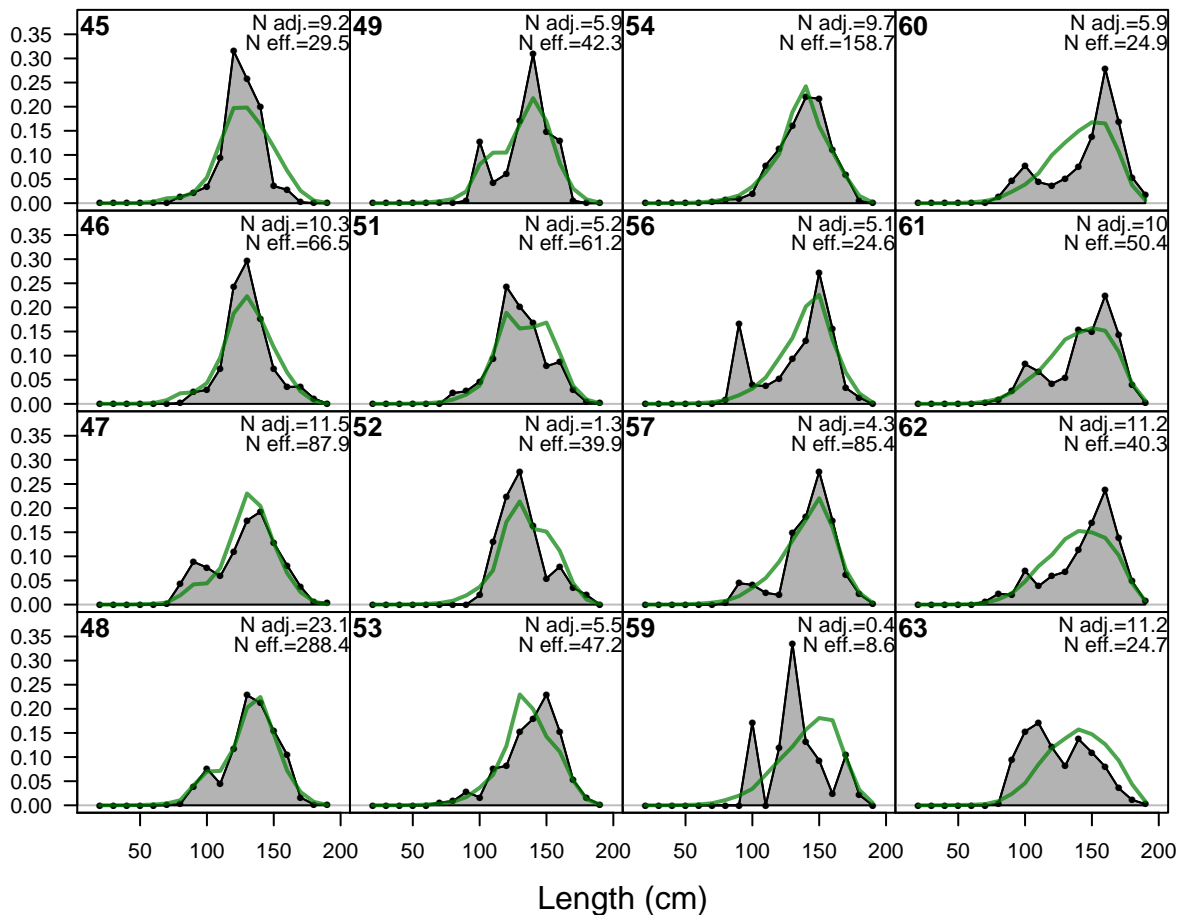




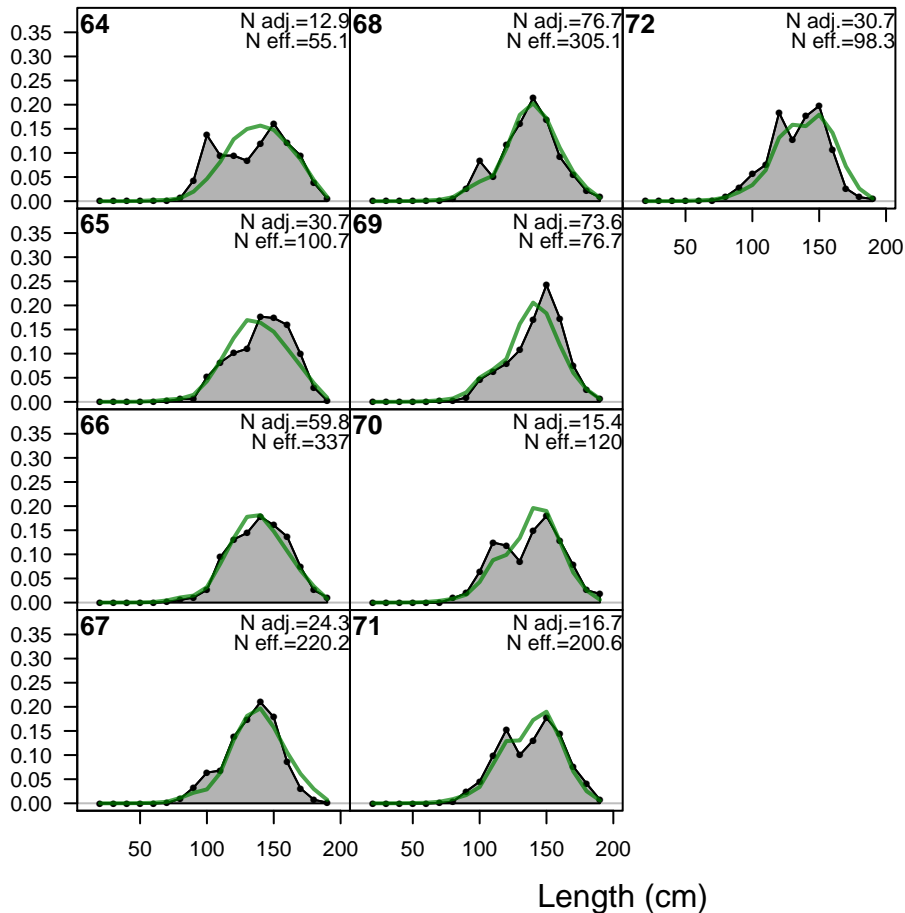


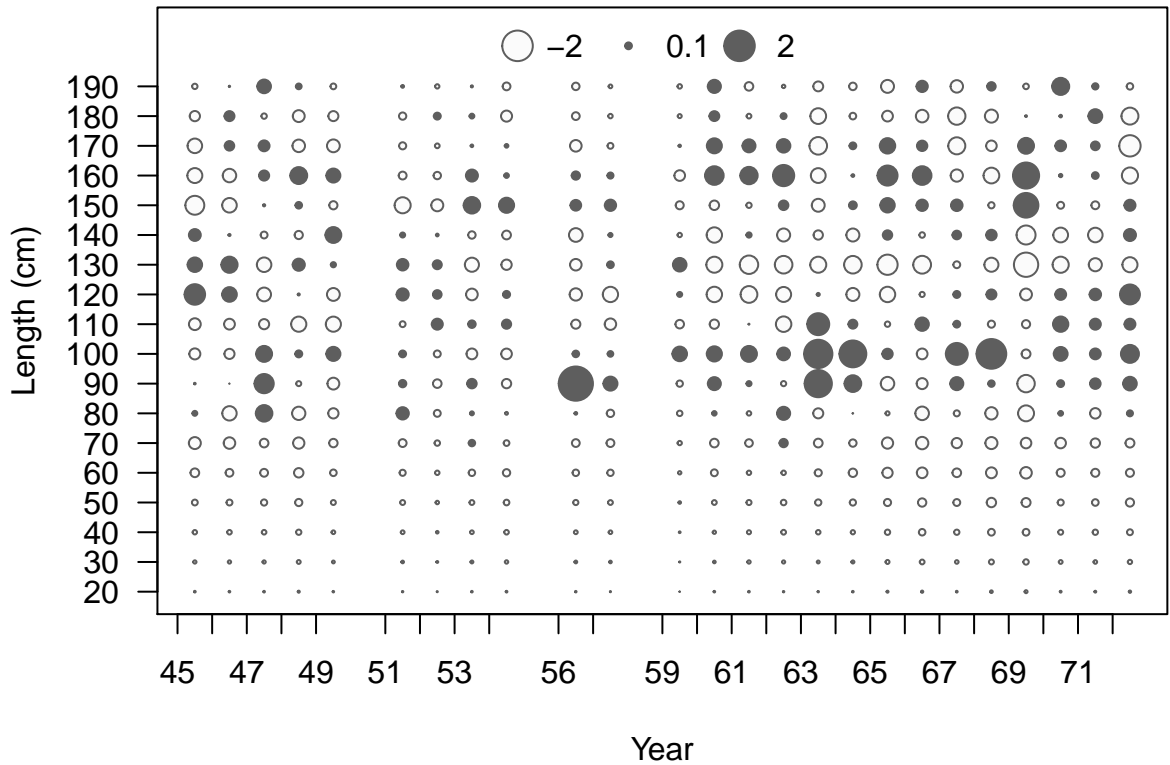
Year

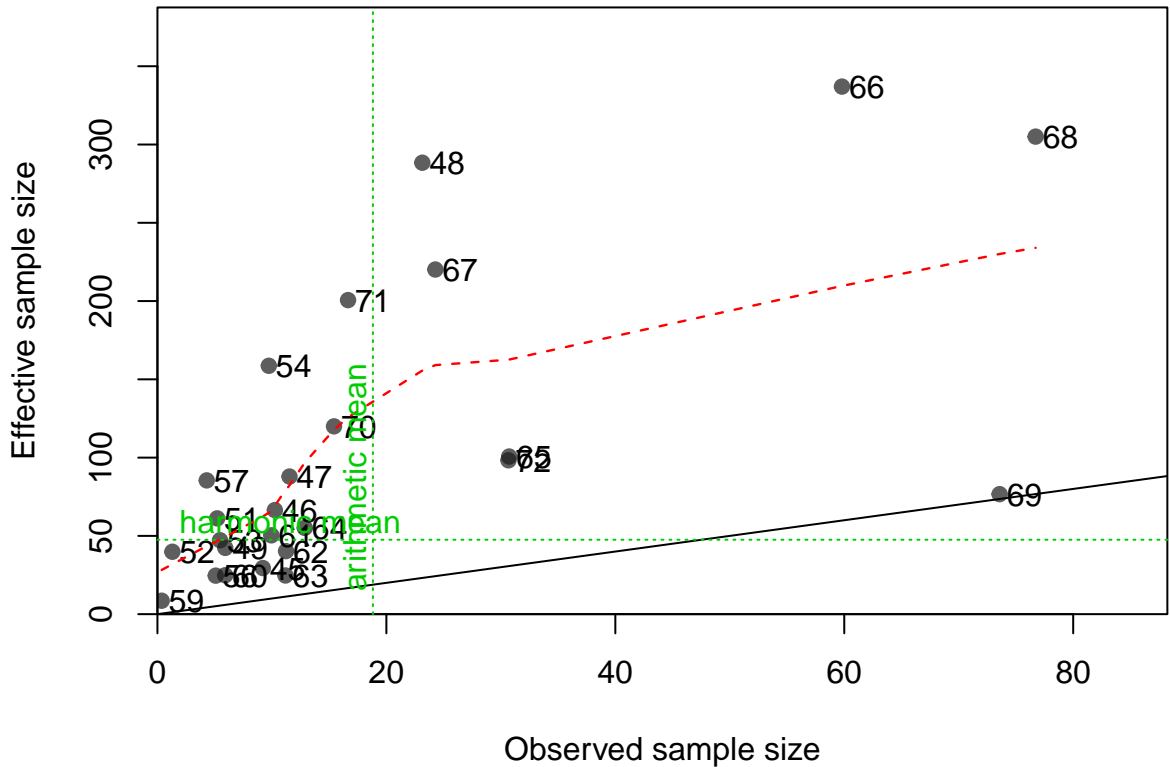
Proportion



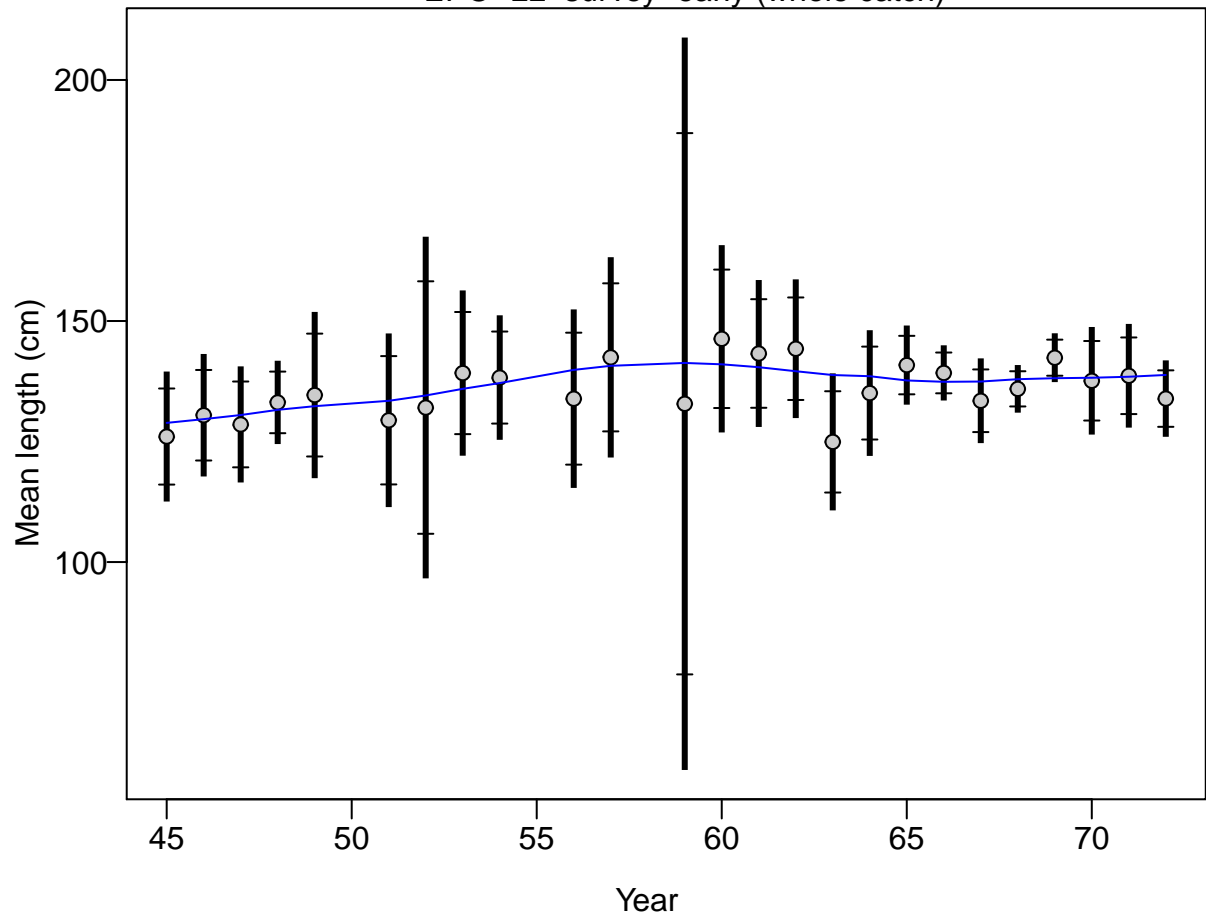
Proportion



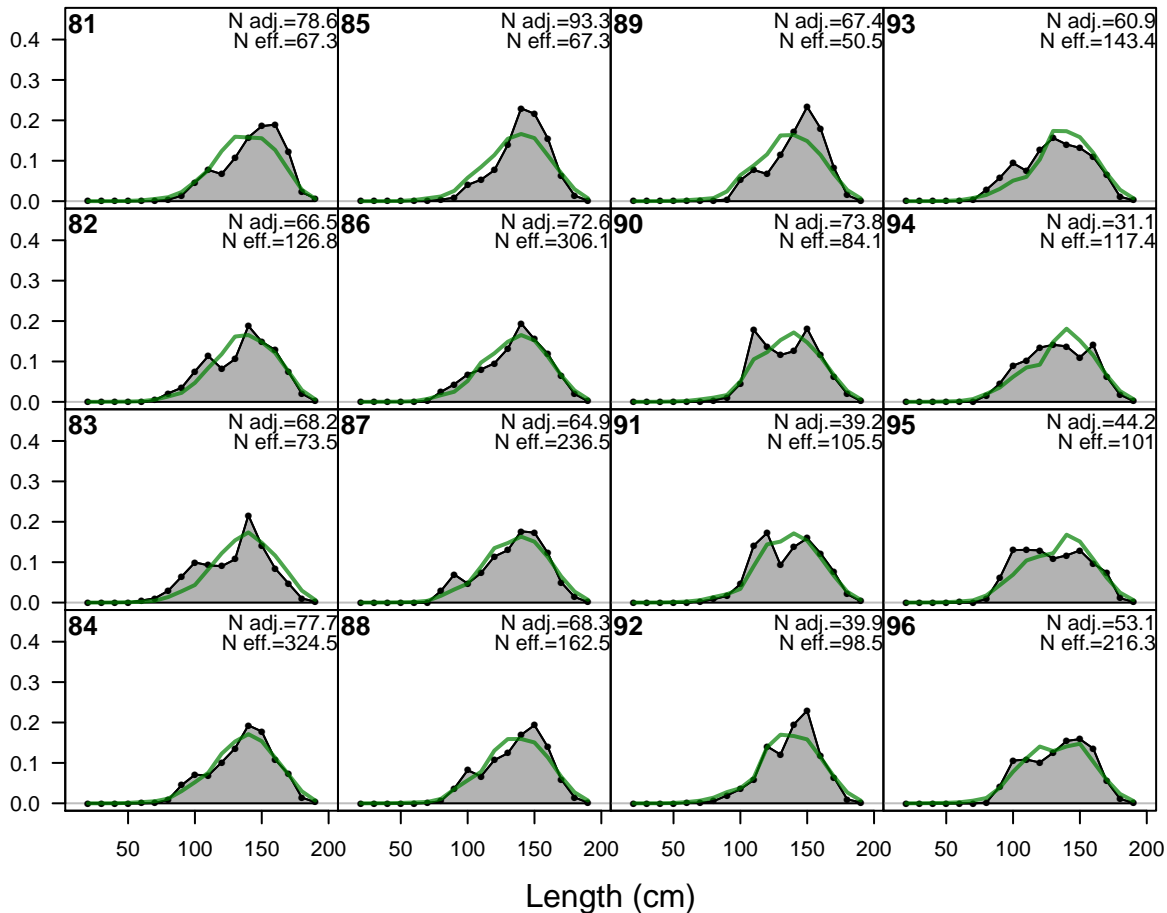




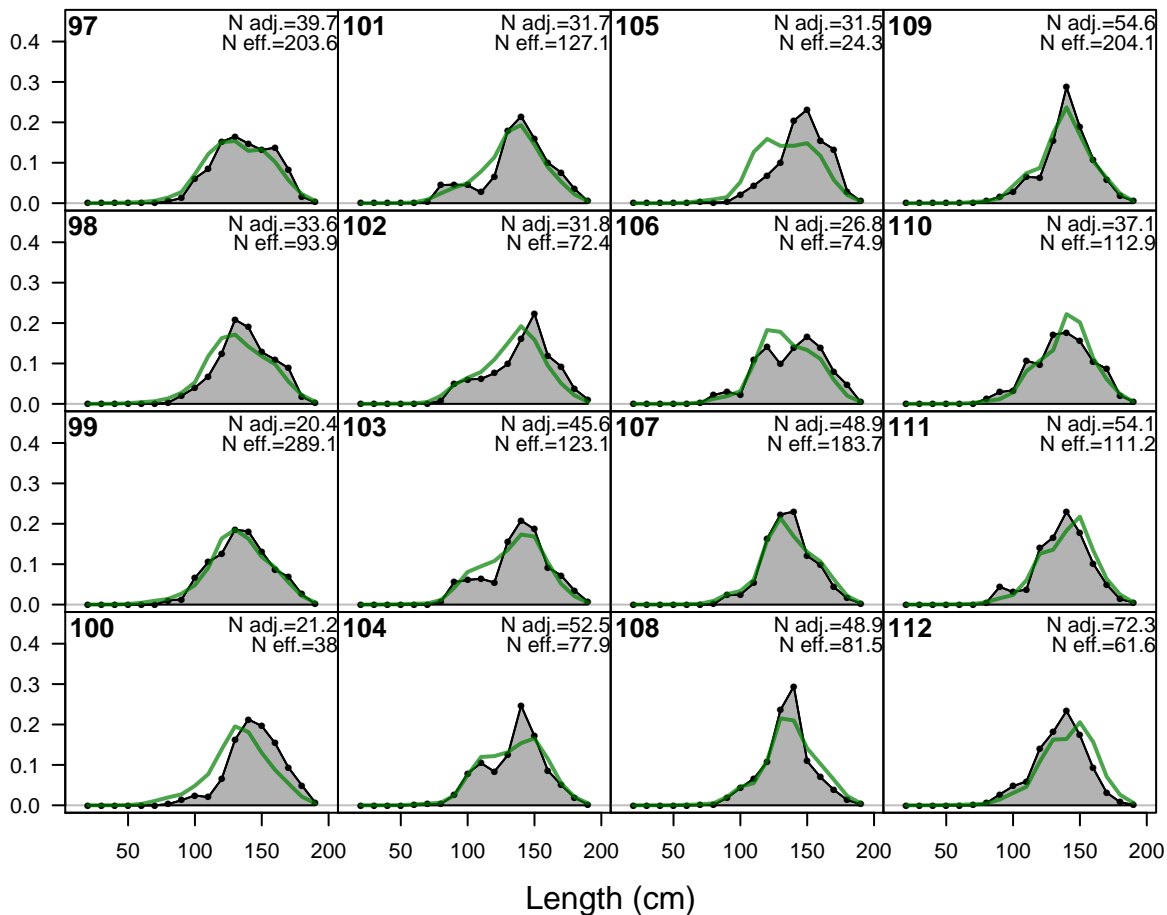
EPO-LL-survey-early (whole catch)



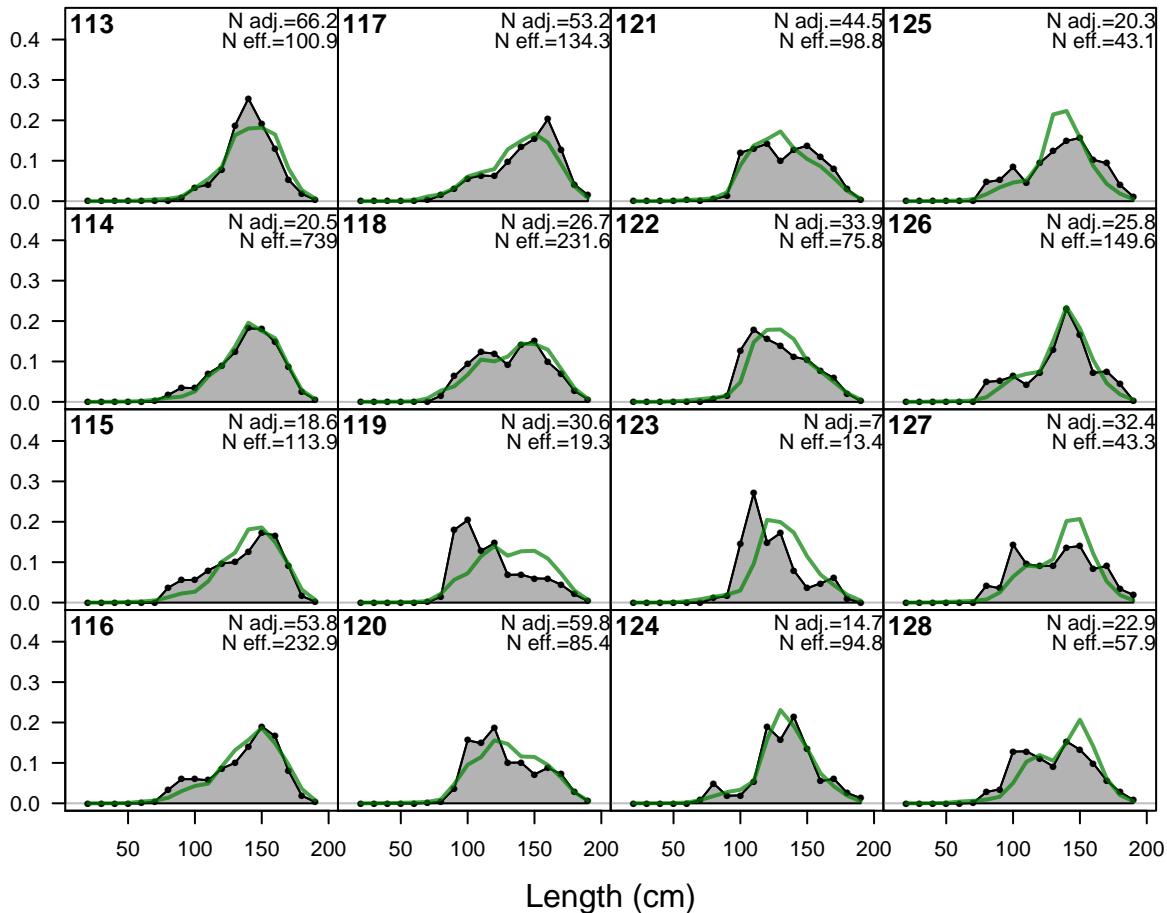
Proportion



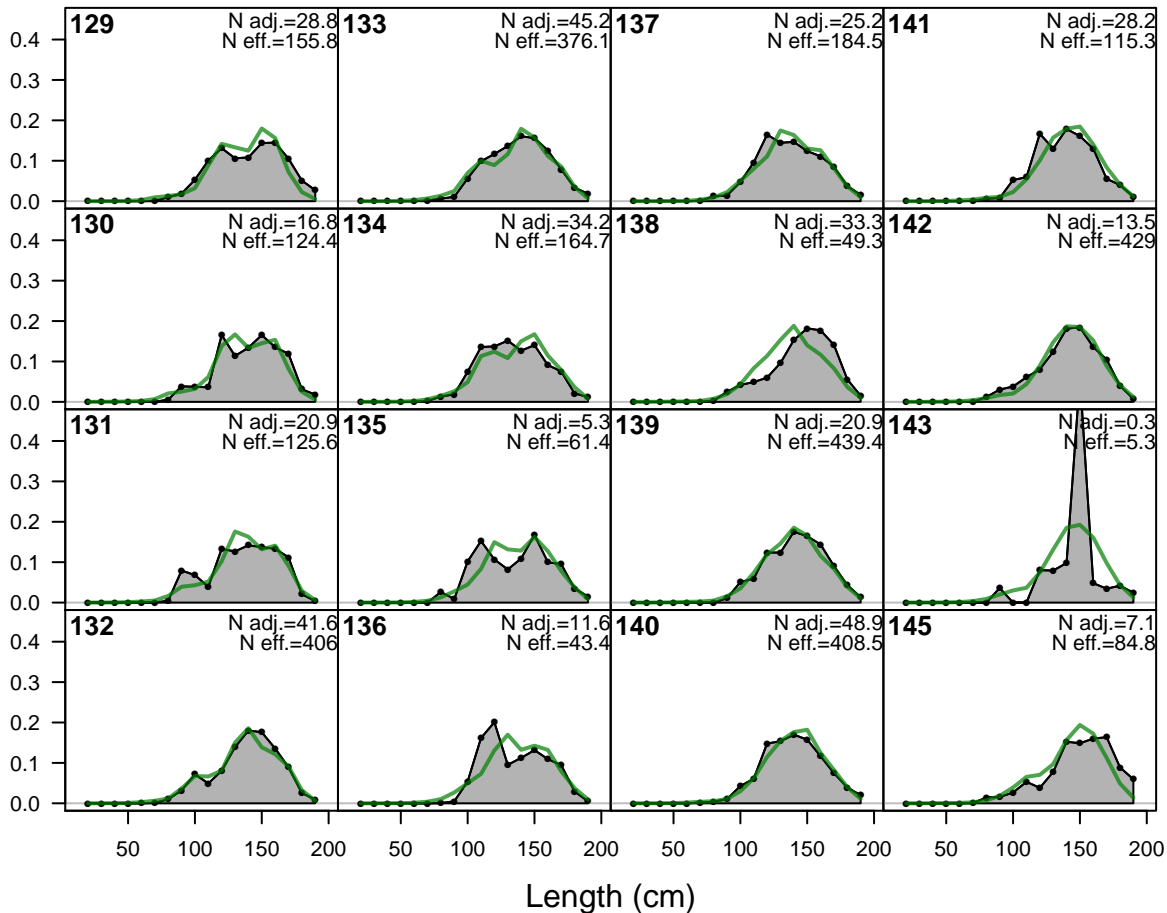
Proportion



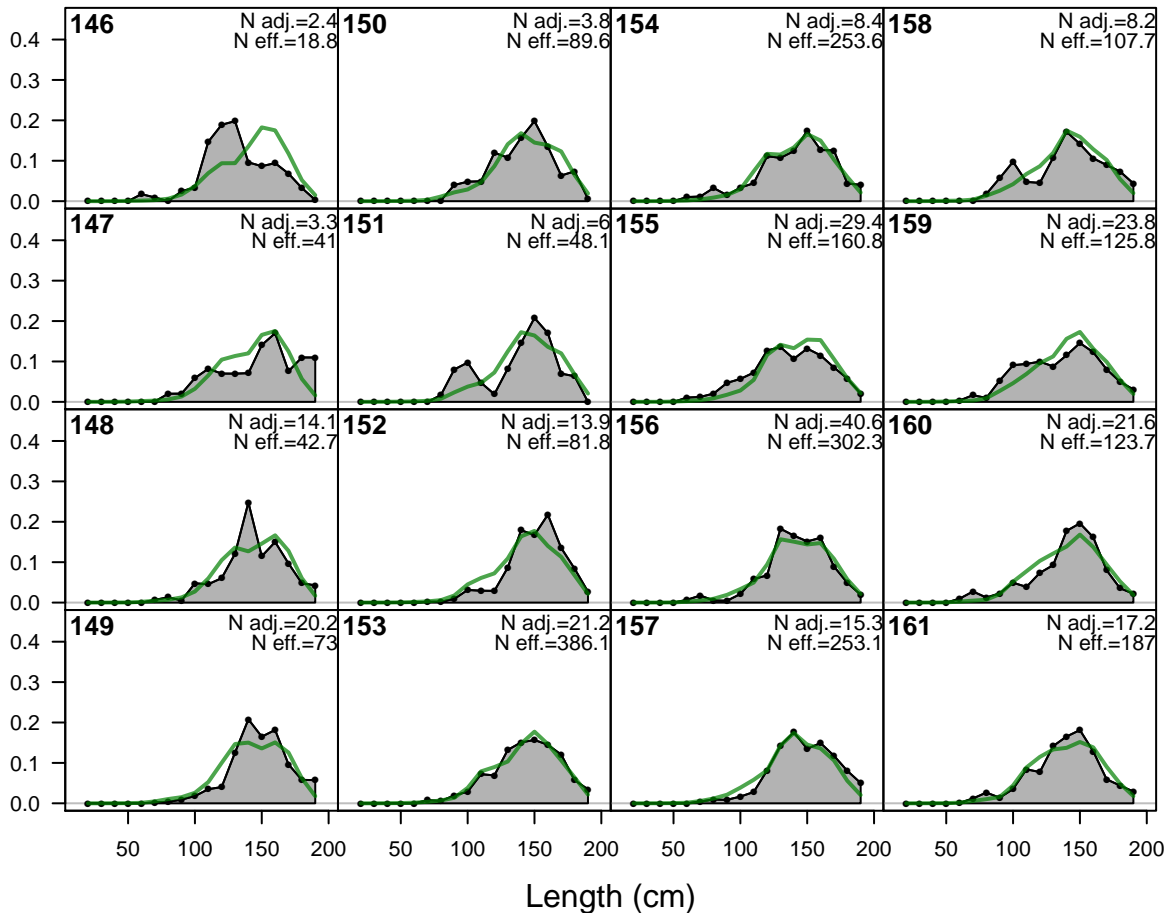
Proportion



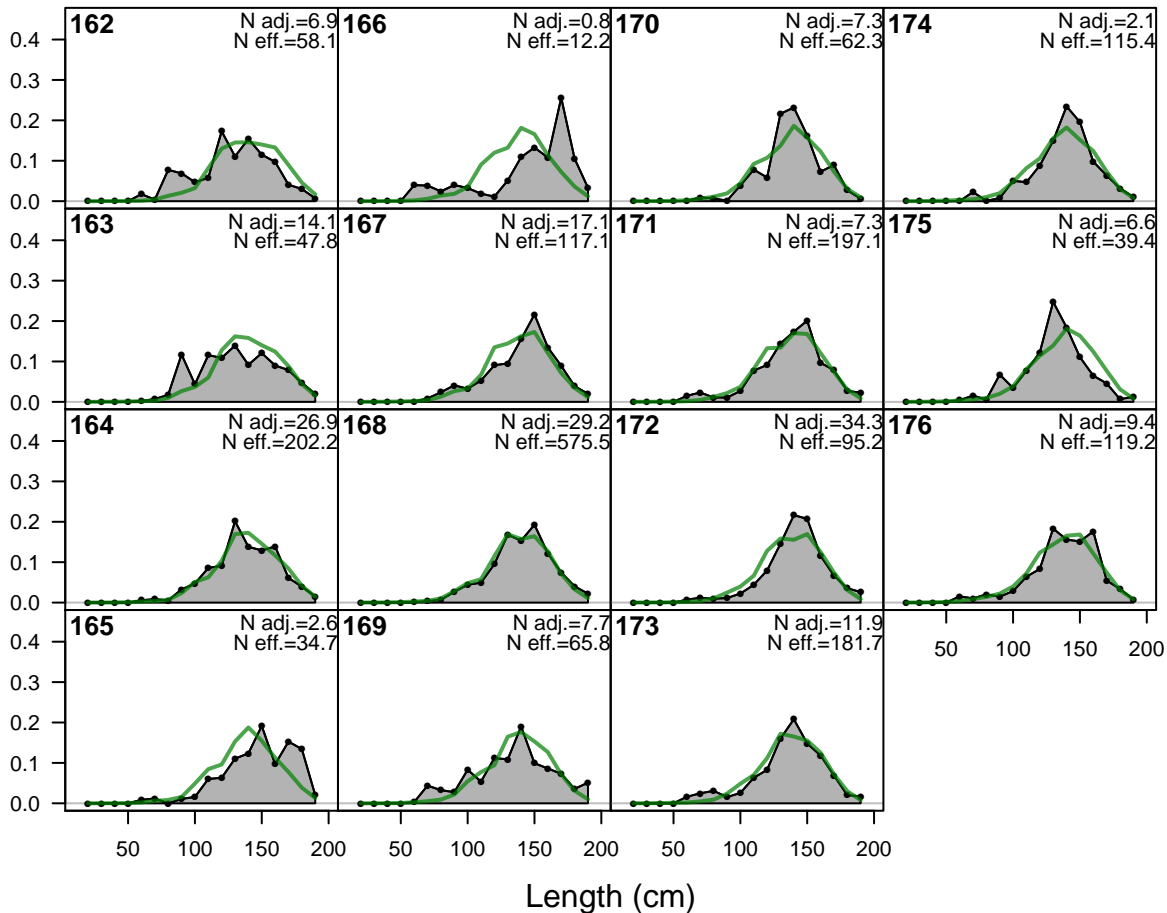
Proportion

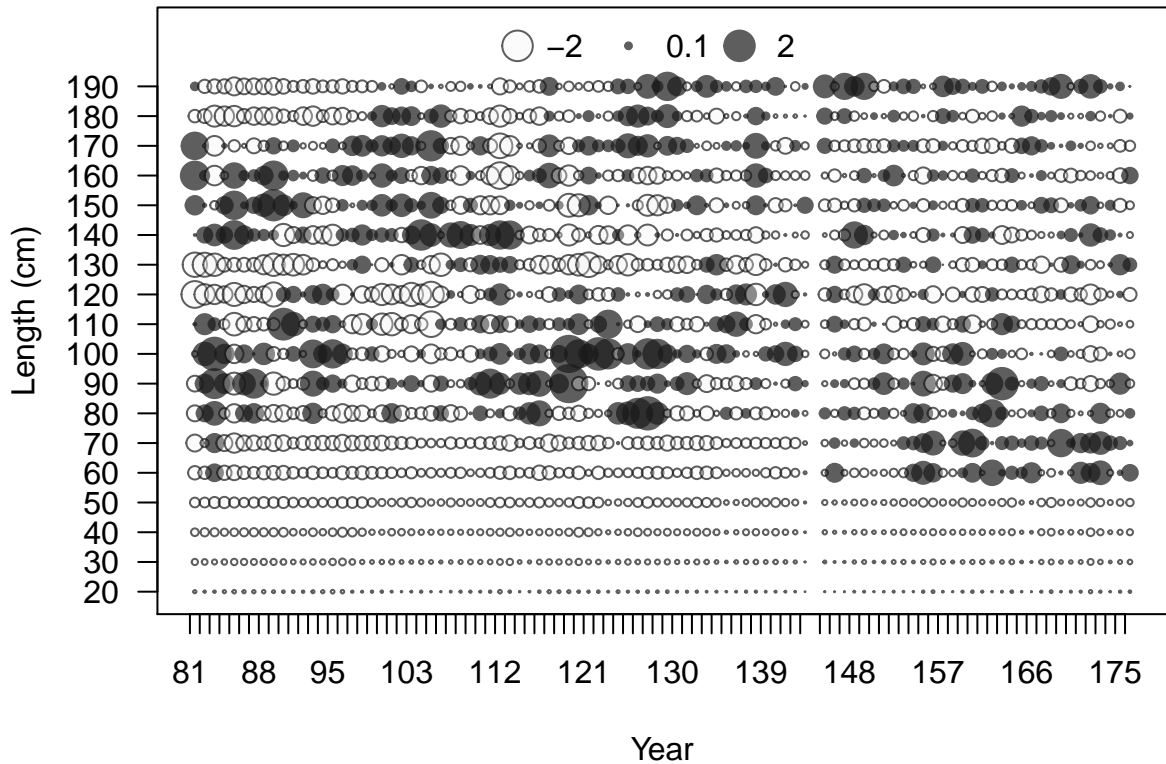


Proportion

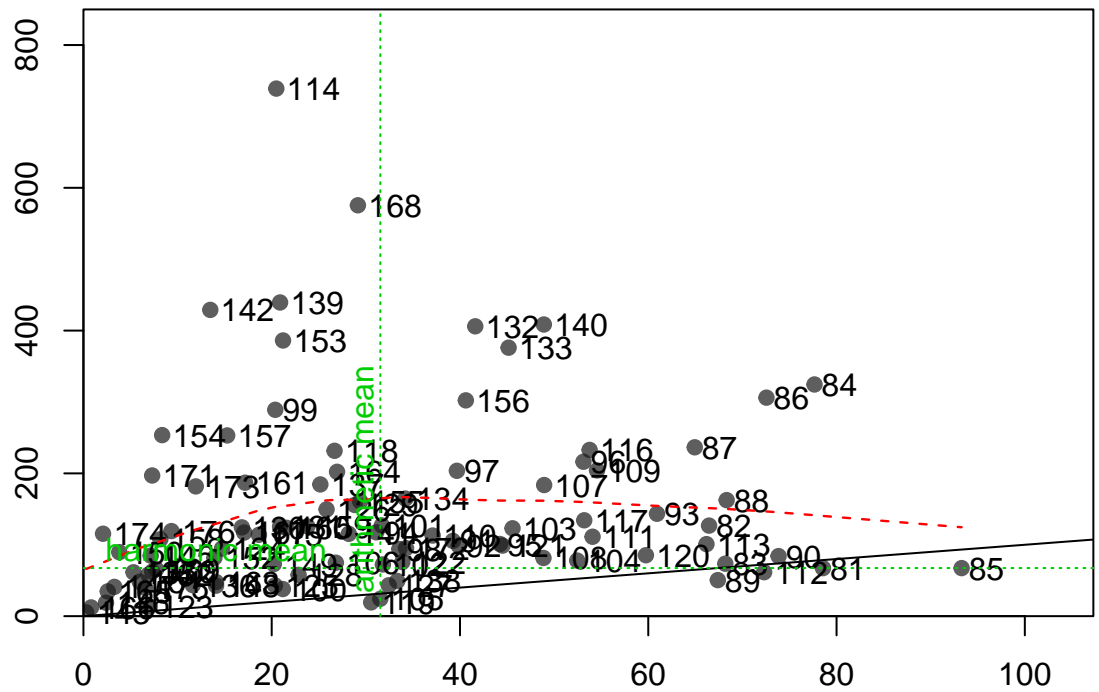


Proportion



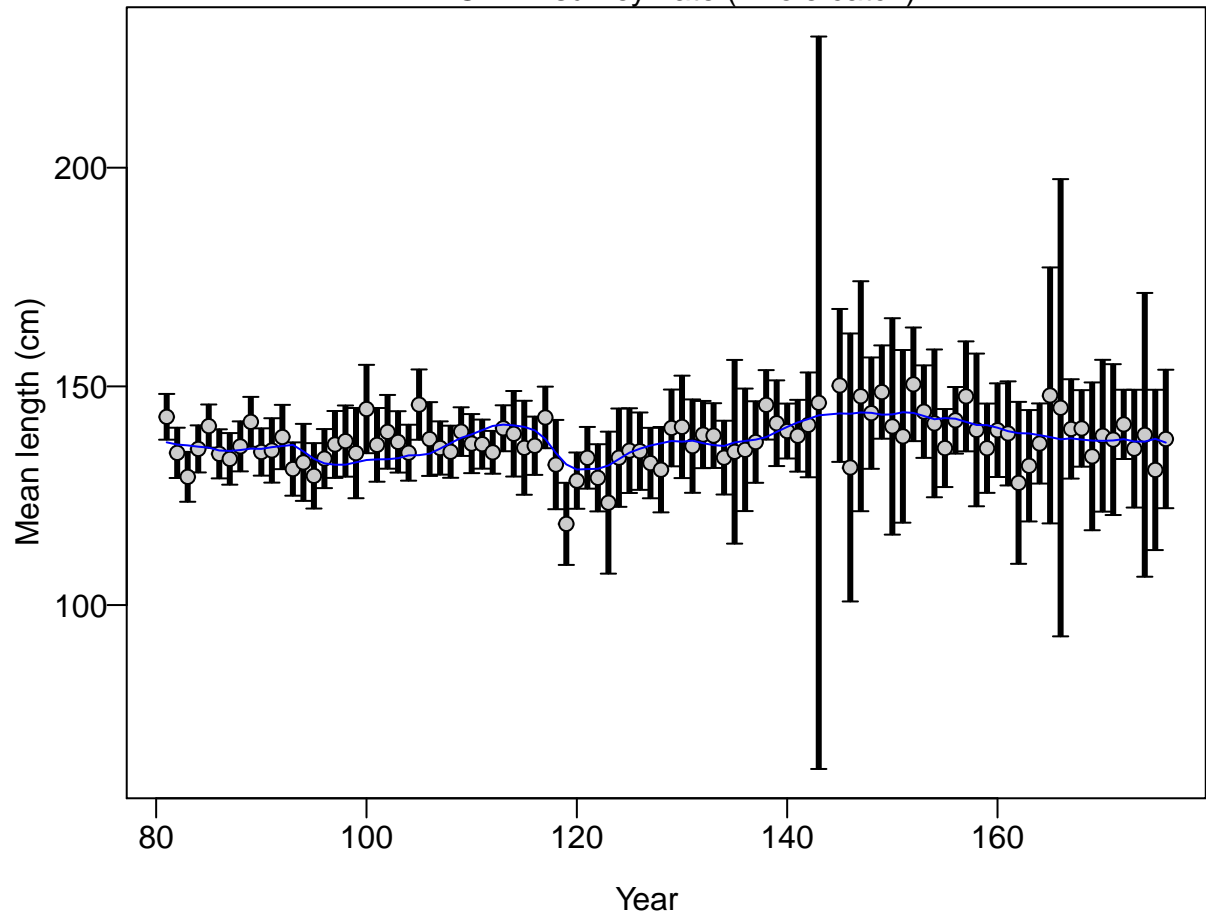


Effective sample size



Observed sample size

EPO-LL-survey-late (whole catch)

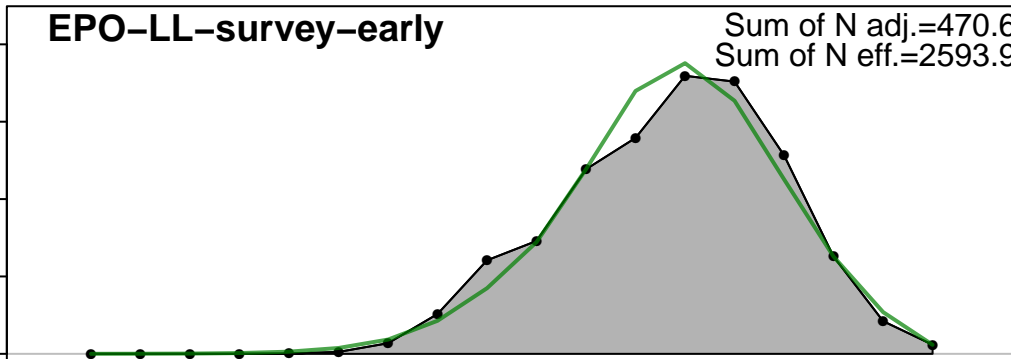


EPO-LL-survey-early

Sum of N adj.=470.6
Sum of N eff.=2593.9

Proportion

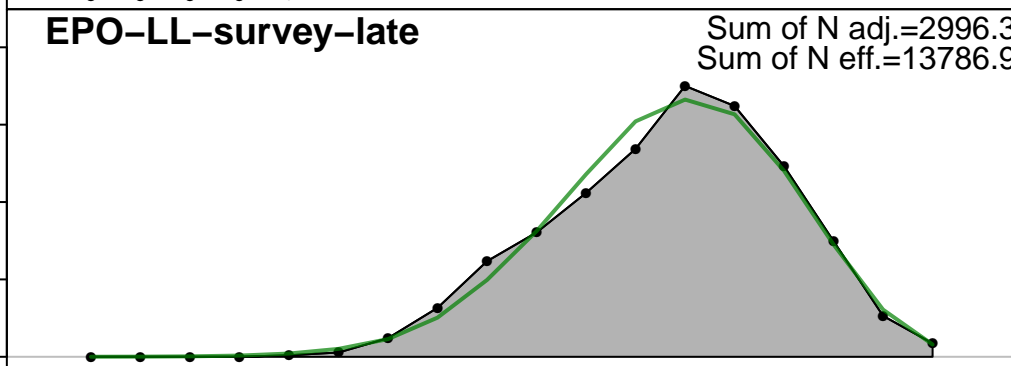
0.20
0.15
0.10
0.05
0.00



EPO-LL-survey-late

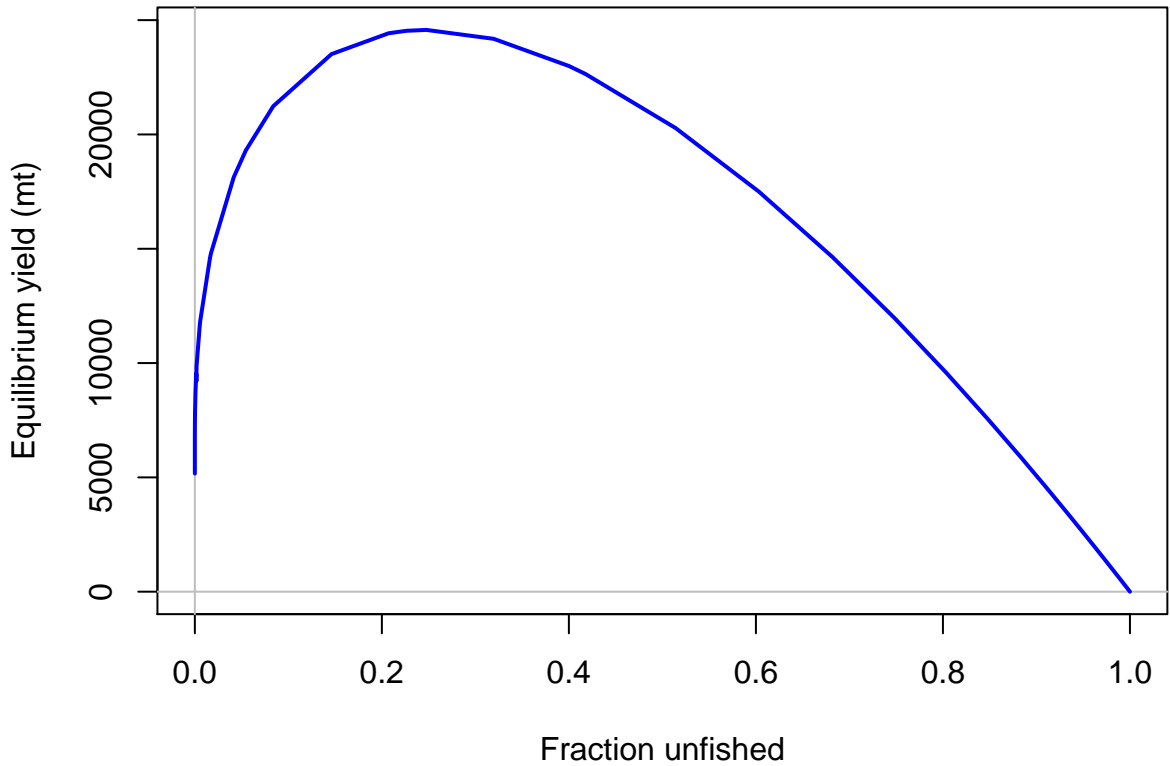
Sum of N adj.=2996.3
Sum of N eff.=13786.9

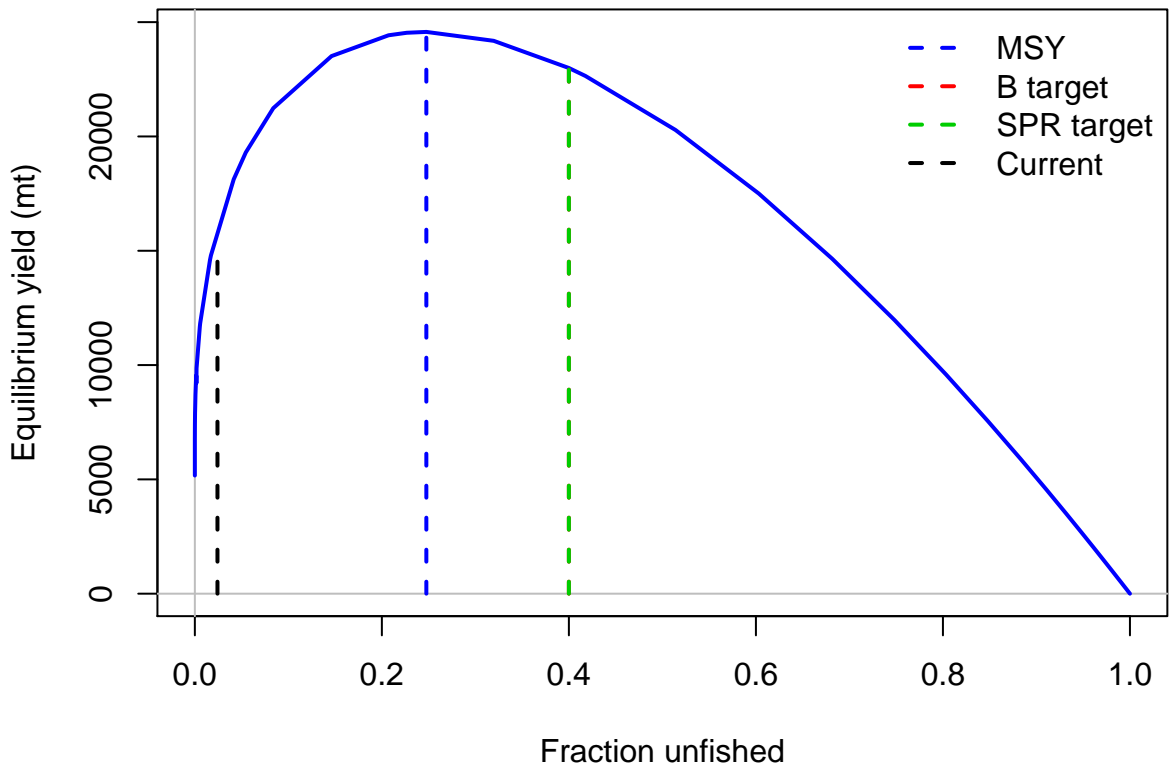
0.20
0.15
0.10
0.05
0.00

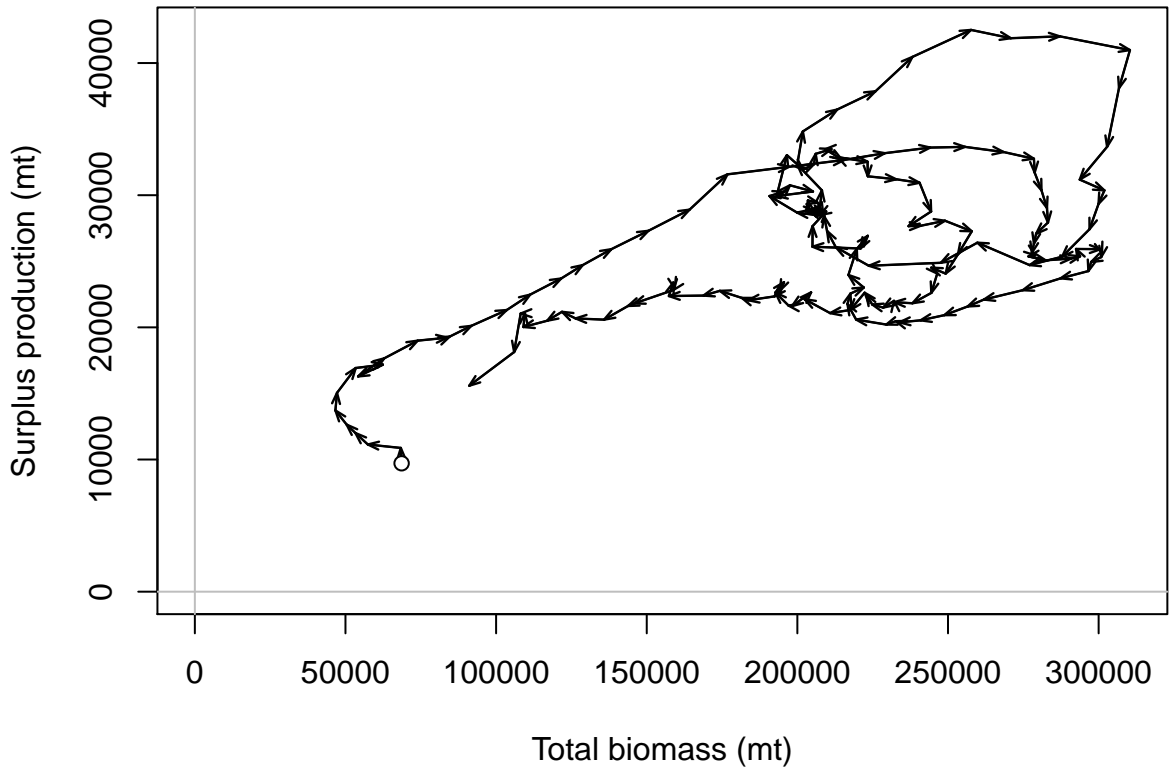


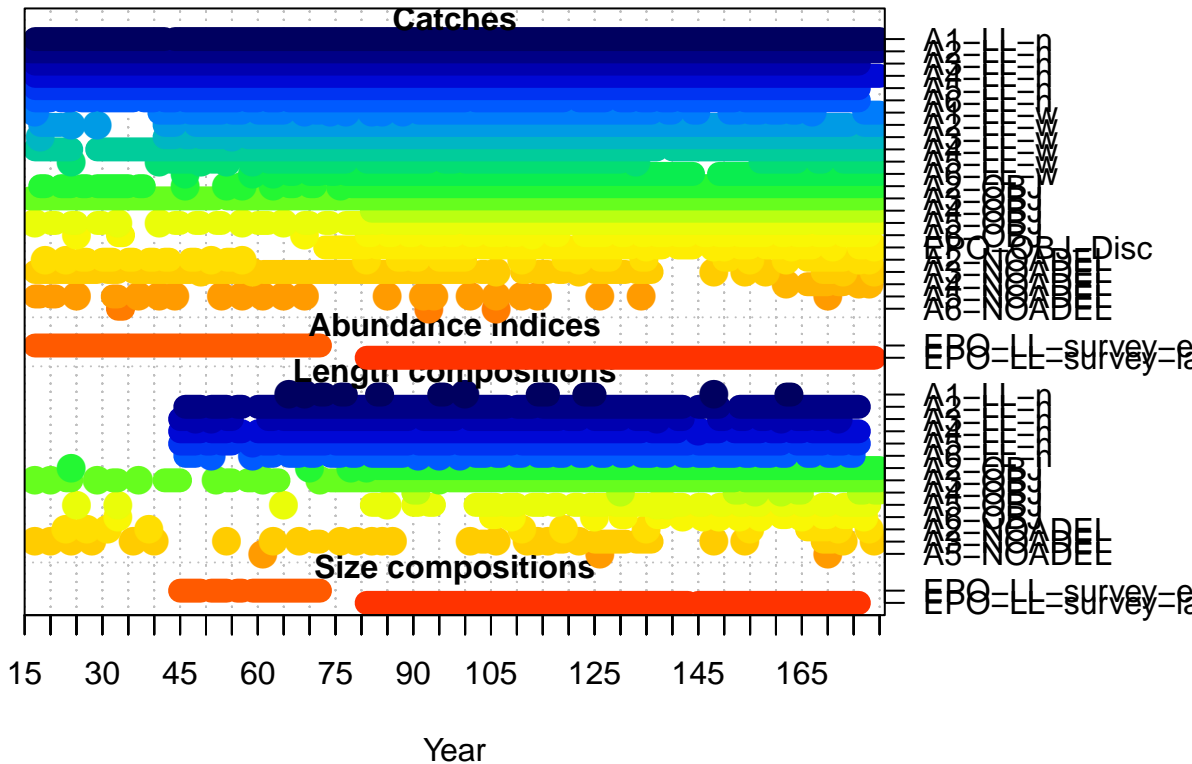
Length (cm)

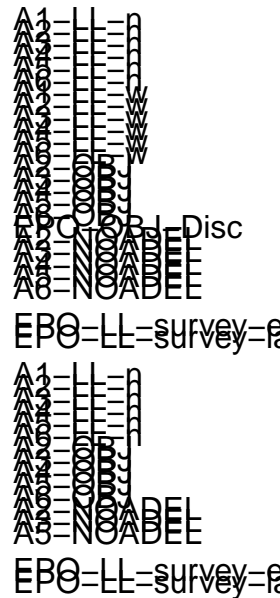
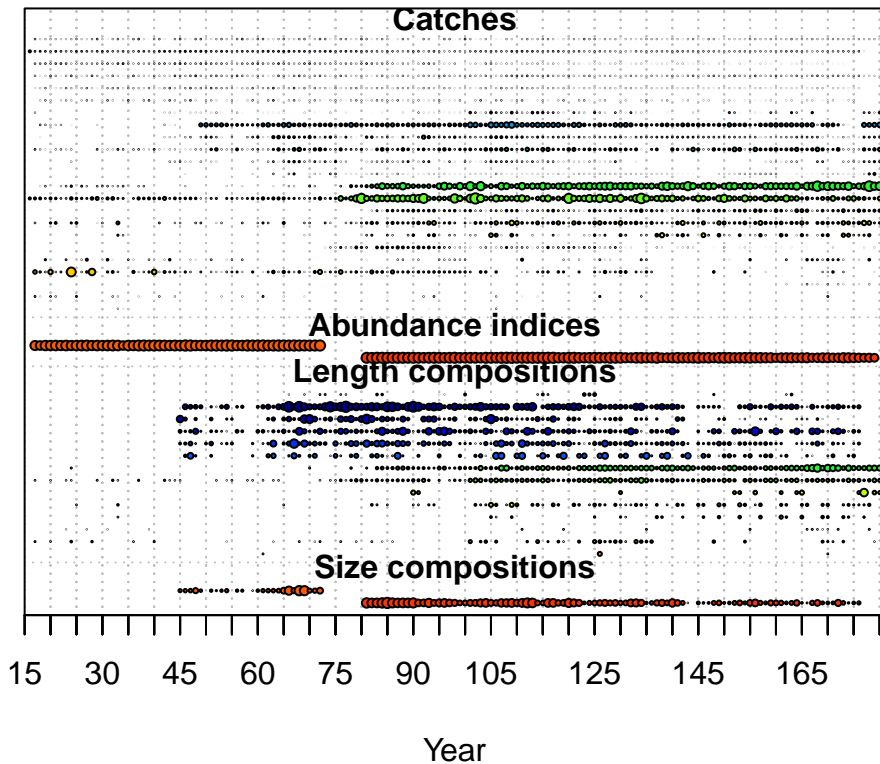
200



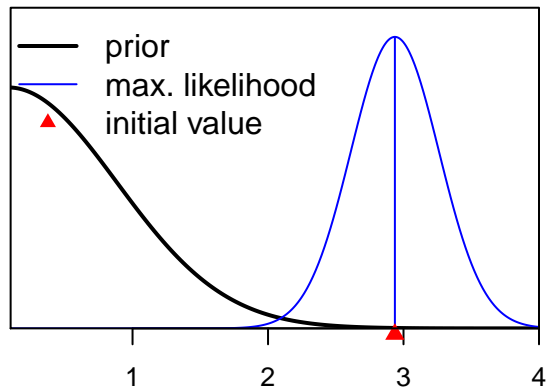




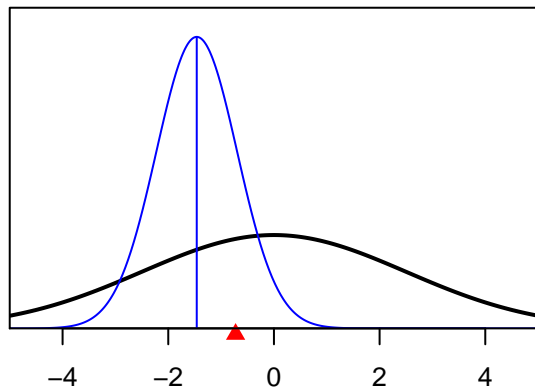




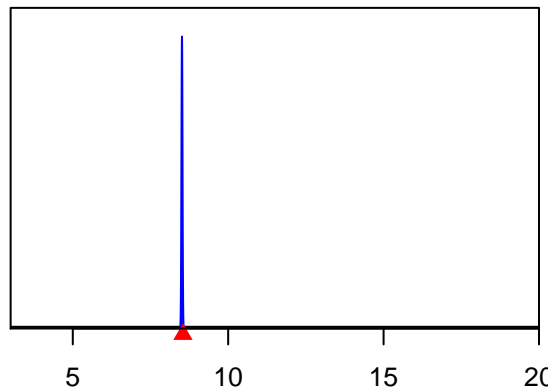
SD_young_Fem_GP_1



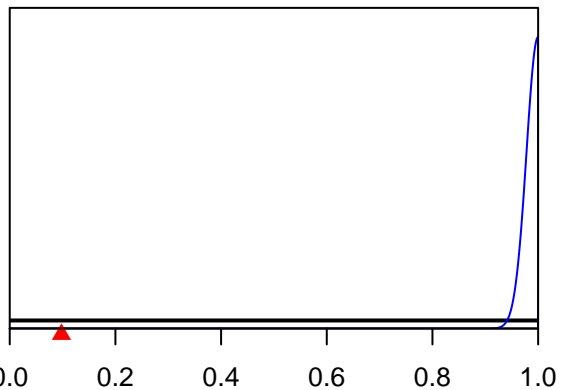
SR_regime_BLK1add_16



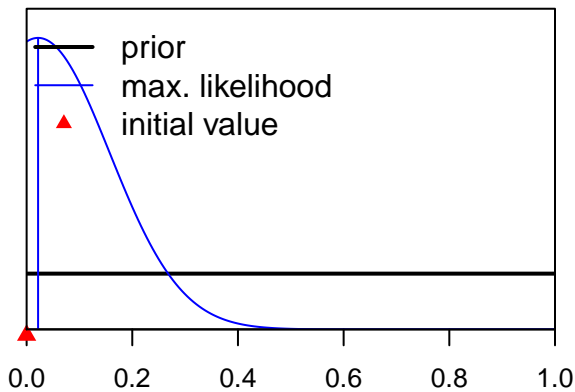
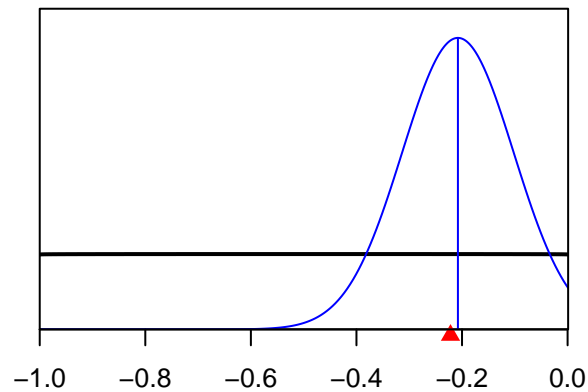
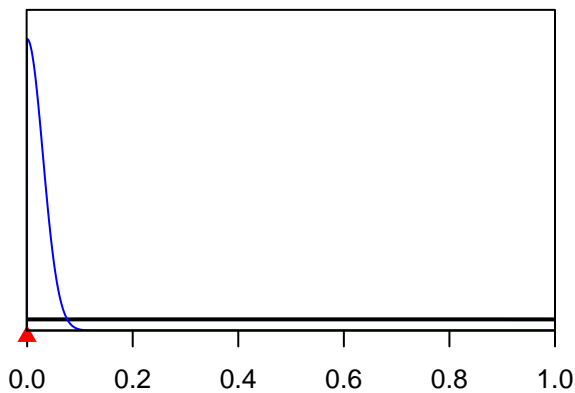
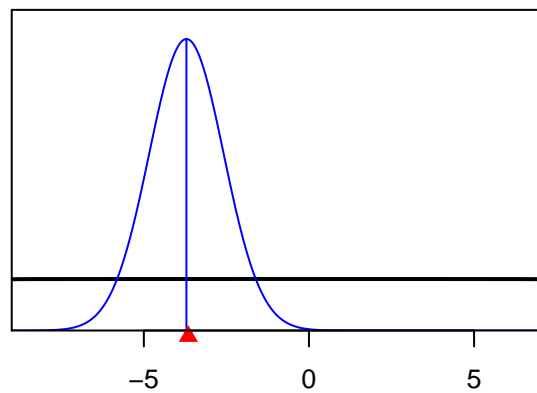
SR_LN(R0)



InitF_seas_1_fit_2A2-LL-n

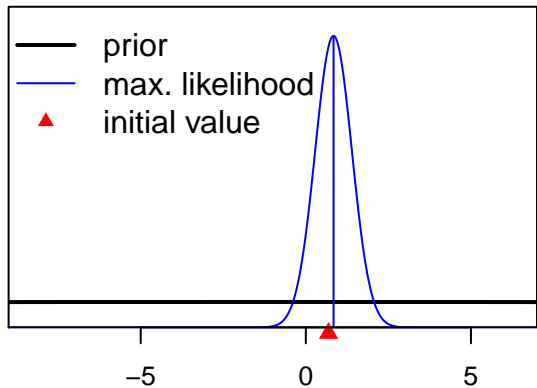


Parameter value

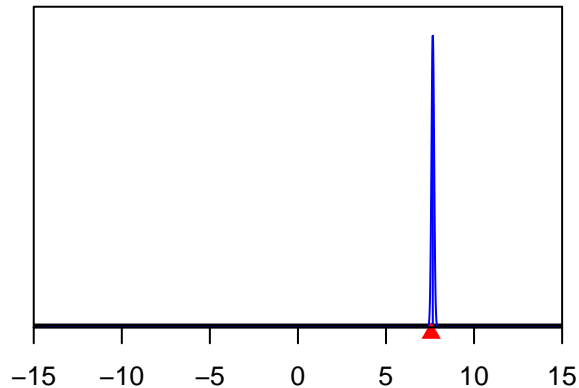
InitF_seas_1flt_14A3-OBJ**SizeSpline_GradHi_A1-LL-n(1)****SizeSpline_GradLo_A1-LL-n(1)****SizeSpline_Val_2_A1-LL-n(1)**

Parameter value

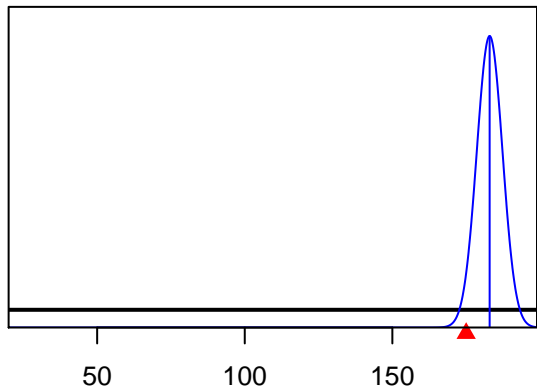
SizeSpline_Val_4_A1-LL-n(1)



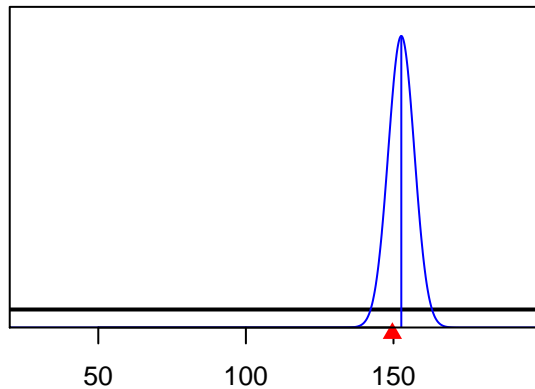
Size_DbIN_ascend_se_A2-LL-n(2)



Size_DbIN_peak_A2-LL-n(2)

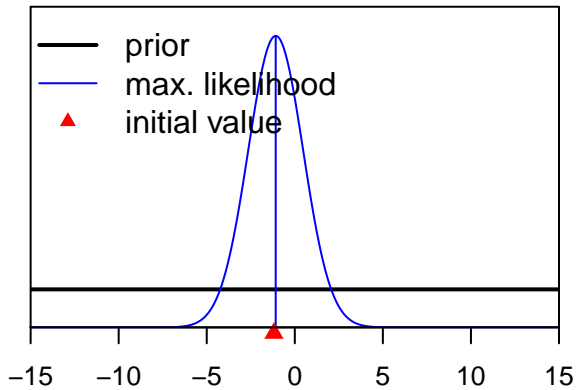


Size_DbIN_peak_A3-LL-n(3)

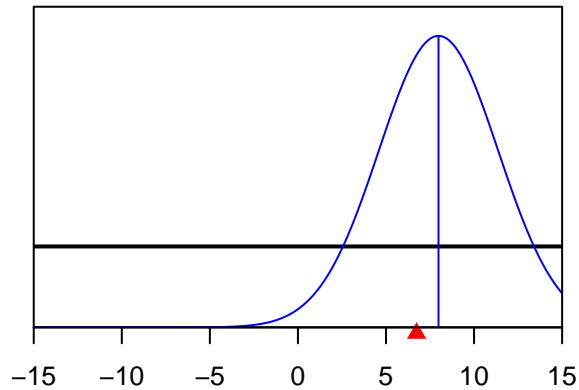


Parameter value

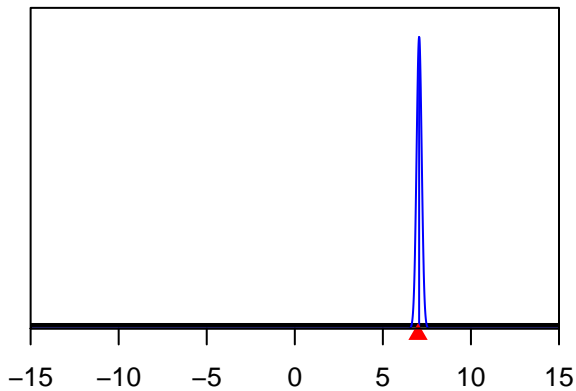
Size_DbIN_top_logit_A3-LL-n(3)



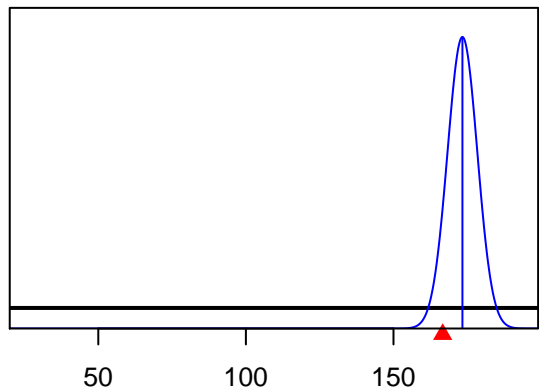
Size_DbIN_descend_se_A3-LL-n(3)



Size_DbIN_ascend_se_A3-LL-n(3)

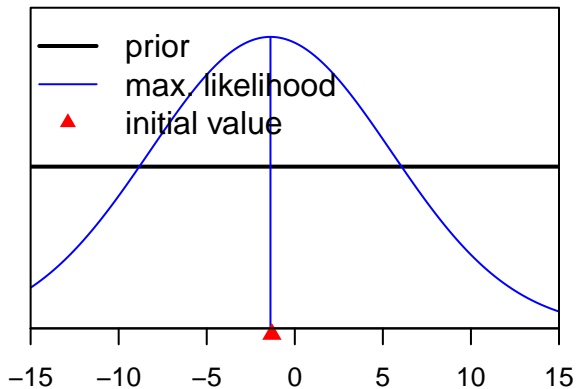


Size_DbIN_peak_A4-LL-n(4)

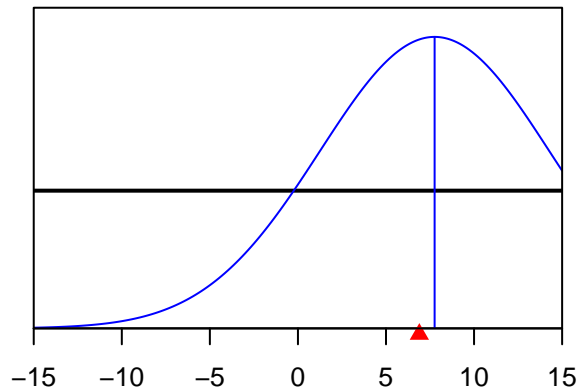


Parameter value

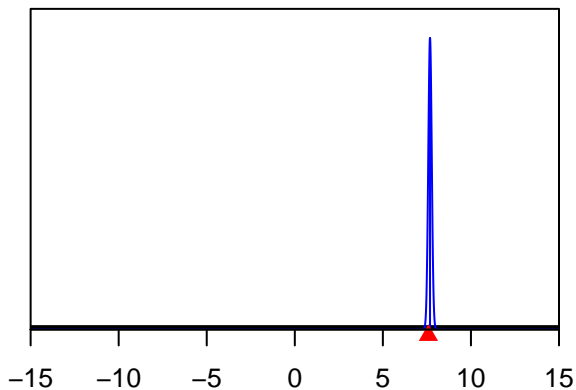
Size_DbIN_top_logit_A4-LL-n(4)



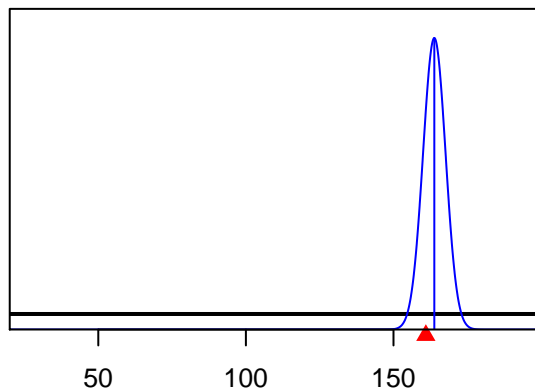
Size_DbIN_descend_se_A4-LL-n(4)



Size_DbIN_ascend_se_A4-LL-n(4)

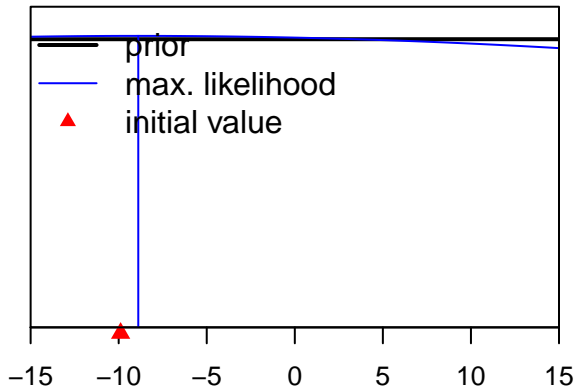


Size_DbIN_peak_A5-LL-n(5)

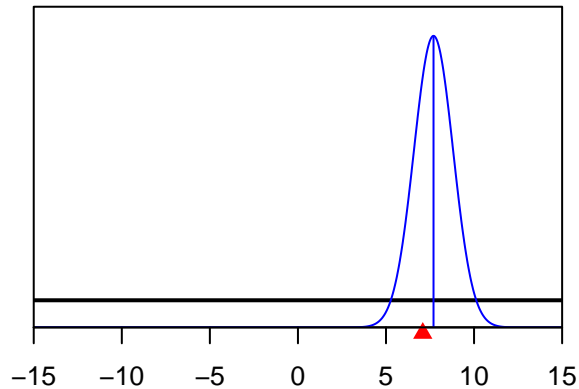


Parameter value

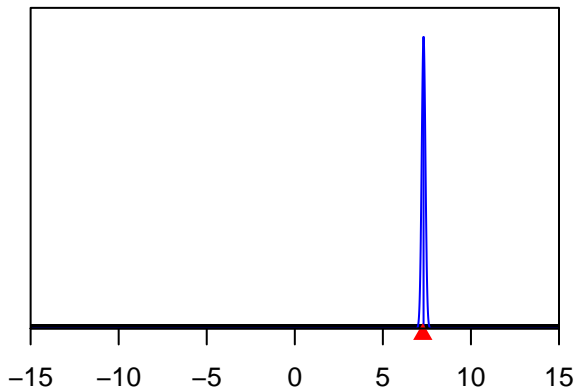
Size_DbIN_top_logit_A5-LL-n(5)



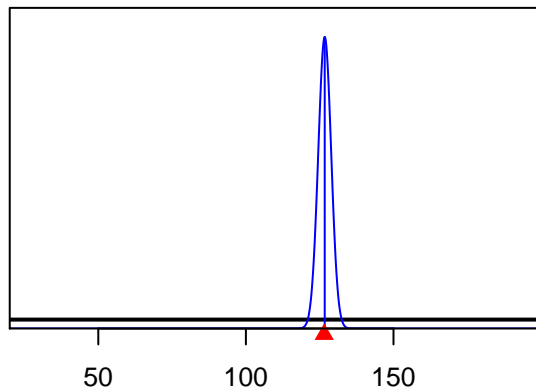
Size_DbIN_descend_se_A5-LL-n(5)



Size_DbIN_ascend_se_A5-LL-n(5)

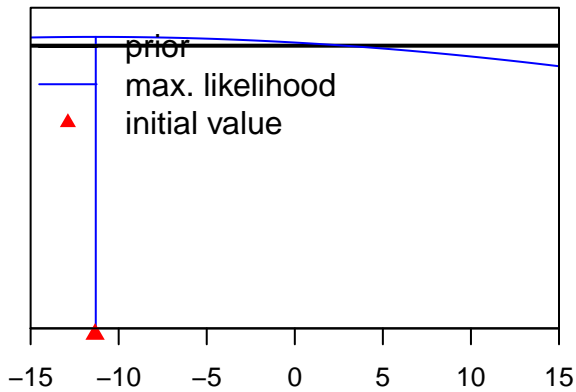


Size_DbIN_peak_A6-LL-n(6)

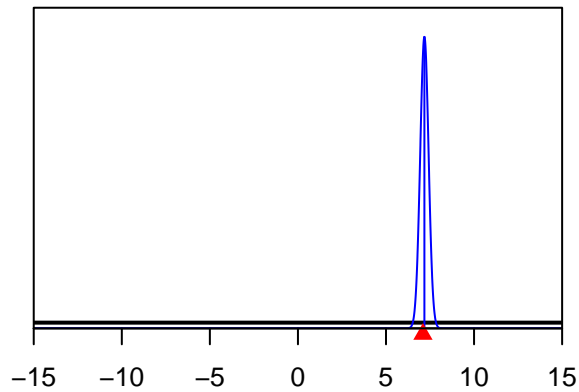


Parameter value

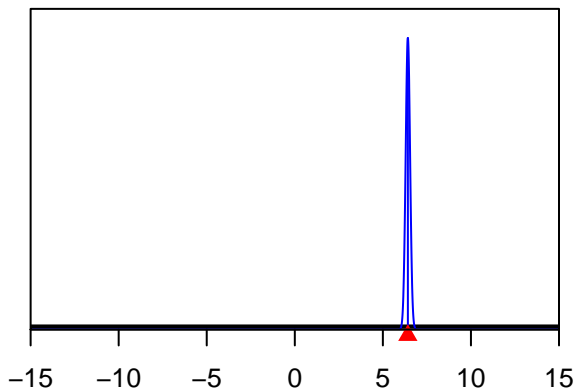
Size_DbIN_top_logit_A6-LL-n(6)



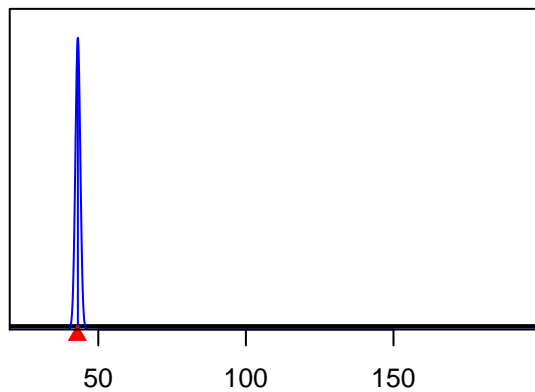
Size_DbIN_descend_se_A6-LL-n(6)



Size_DbIN_ascend_se_A6-LL-n(6)

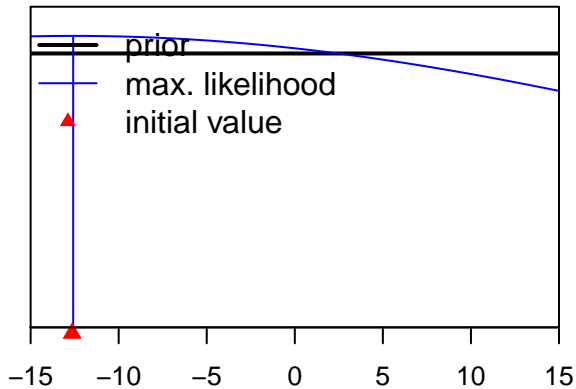


Size_DbIN_peak_A2-OBJ(13)

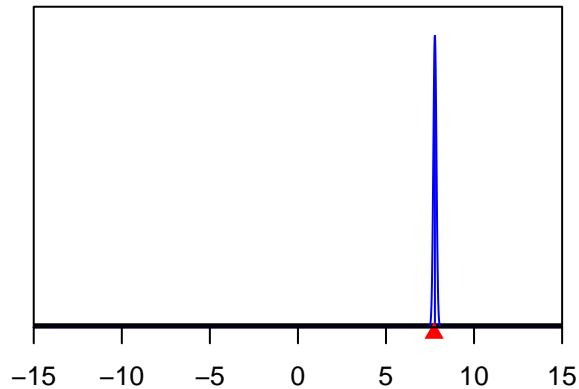


Parameter value

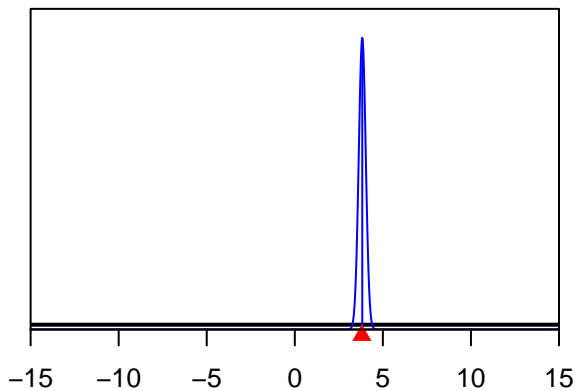
Size_DbIN_top_logit_A2-OBJ(13)



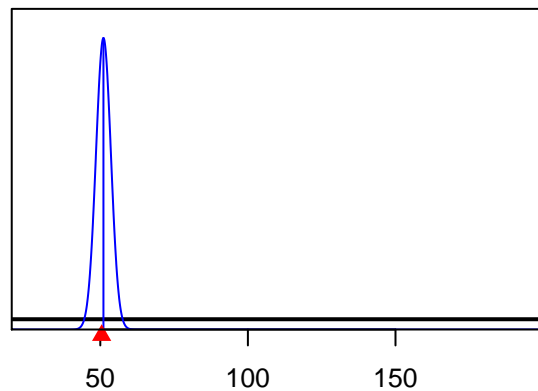
Size_DbIN_descend_se_A2-OBJ(13)



Size_DbIN_ascend_se_A2-OBJ(13)



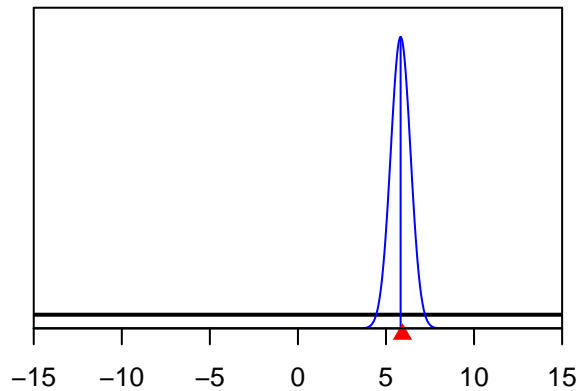
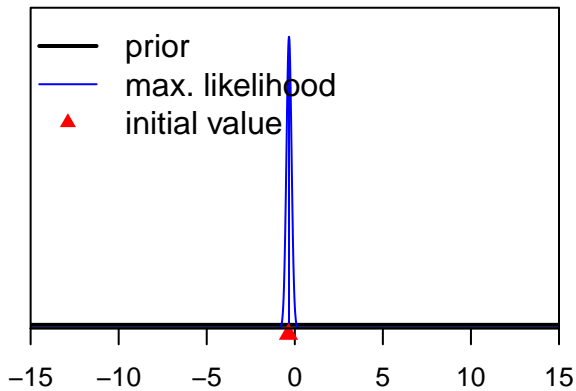
Size_DbIN_peak_A3-OBJ(14)



Parameter value

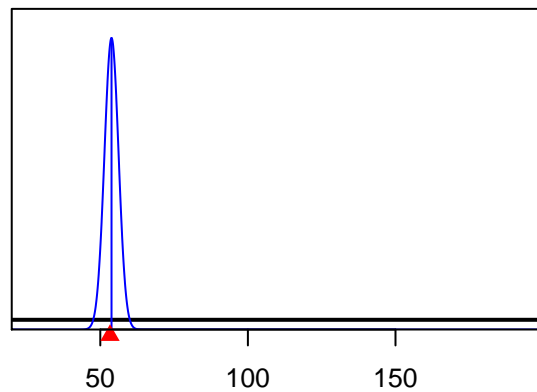
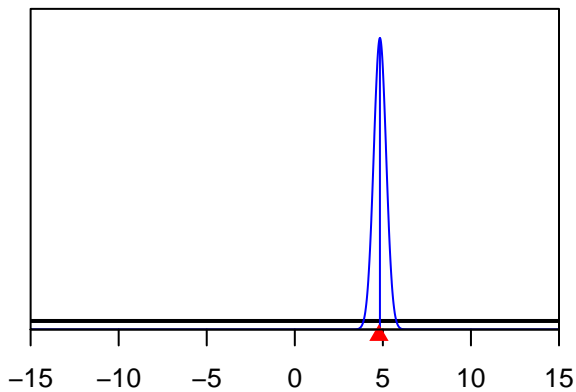
Size_DbIN_top_logit_A3-OBJ(14)

Size_DbIN_descend_se_A3-OBJ(14)



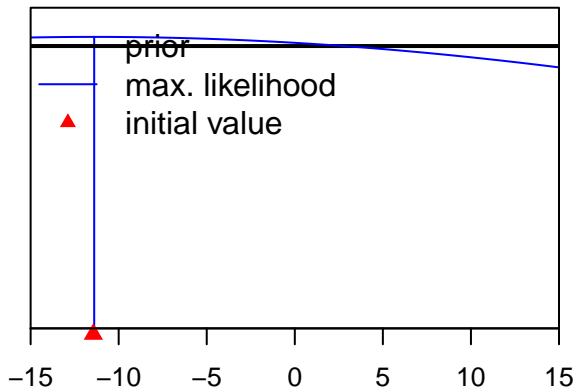
Size_DbIN_ascend_se_A3-OBJ(14)

Size_DbIN_peak_A4-OBJ(15)

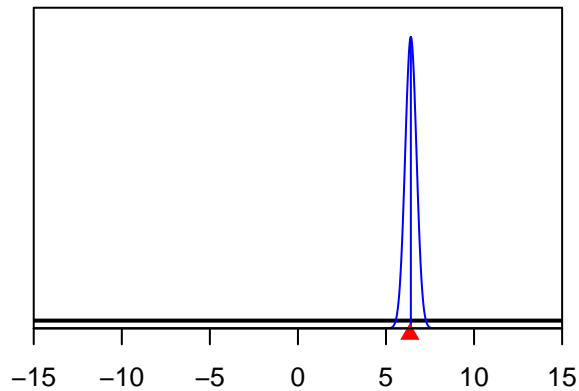


Parameter value

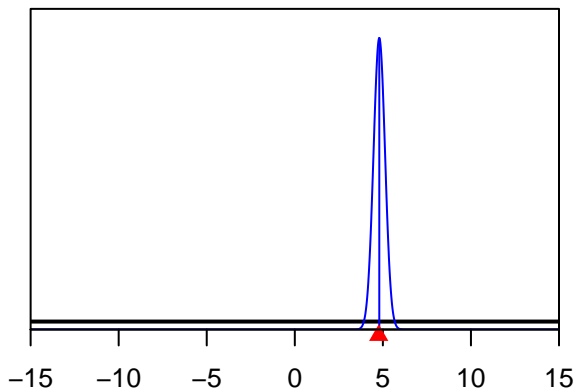
Size_DbIN_top_logit_A4-OBJ(15)



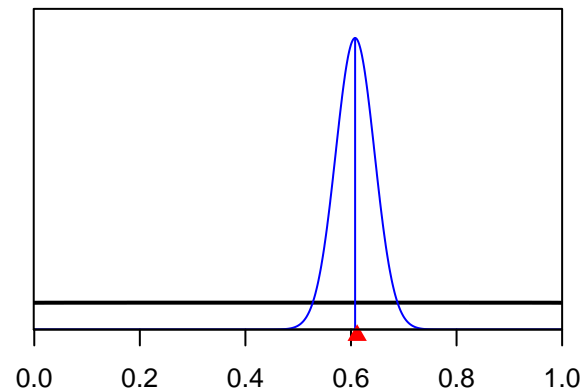
Size_DbIN_descend_se_A4-OBJ(15)



Size_DbIN_ascend_se_A4-OBJ(15)

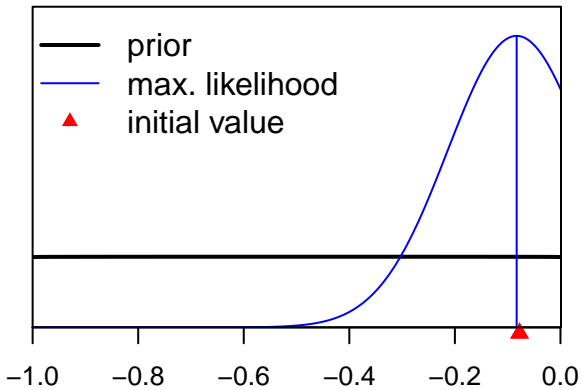


SizeSpline_GradLo_A5-OBJ(16)

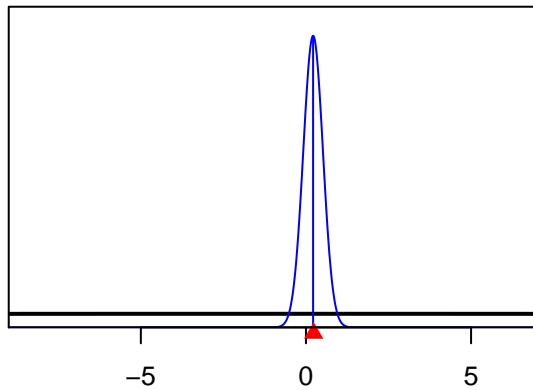


Parameter value

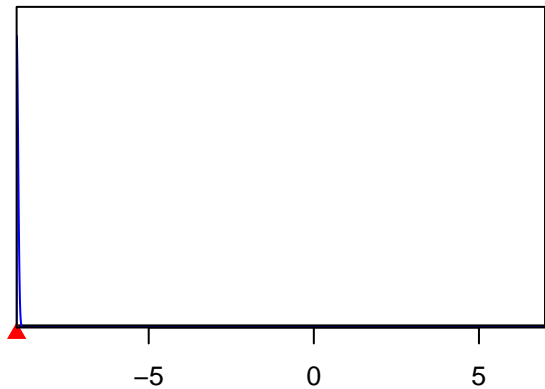
SizeSpline_GradHi_A5-Obj(16)



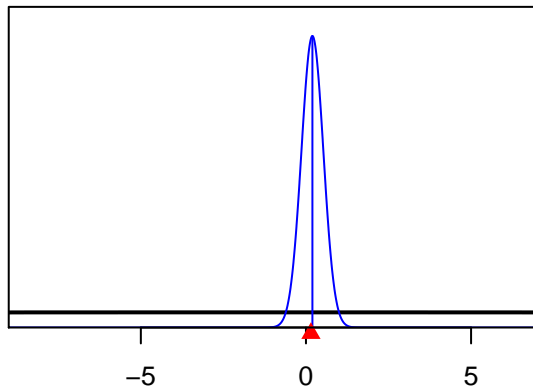
SizeSpline_Val_2_A5-Obj(16)



SizeSpline_Val_1_A5-Obj(16)

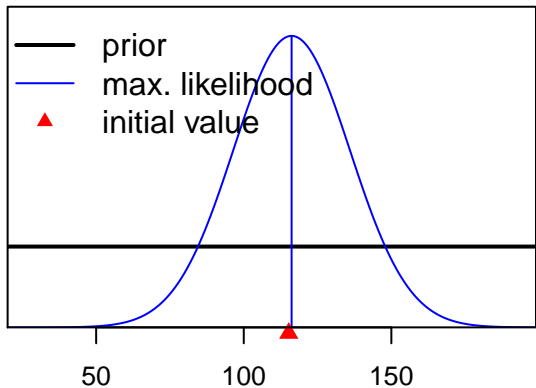


SizeSpline_Val_4_A5-Obj(16)

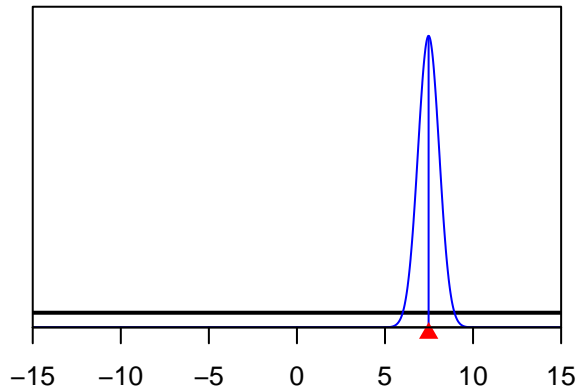


Parameter value

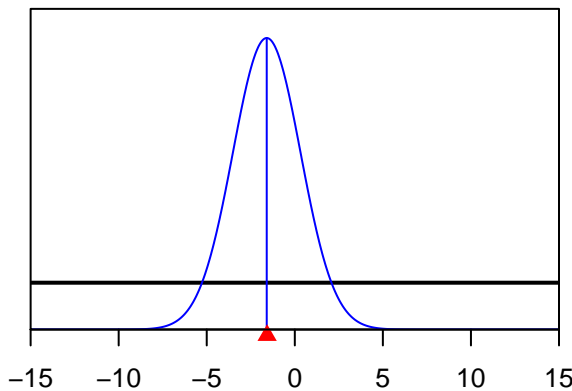
Size_DbIN_peak_A6-Obj(17)



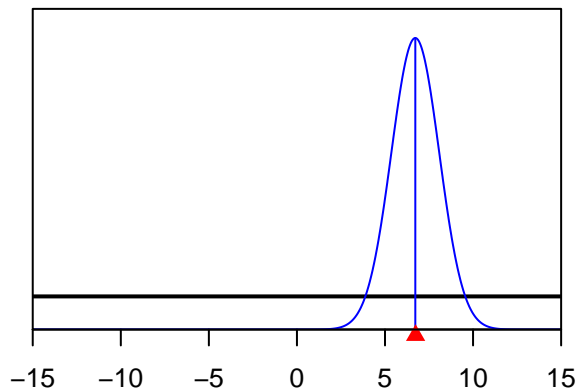
Size_DbIN_ascend_se_A6-Obj(17)



Size_DbIN_top_logit_A6-Obj(17)

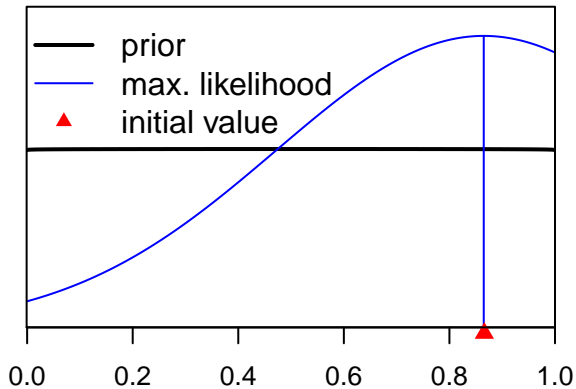


Size_DbIN_descend_se_A6-Obj(17)

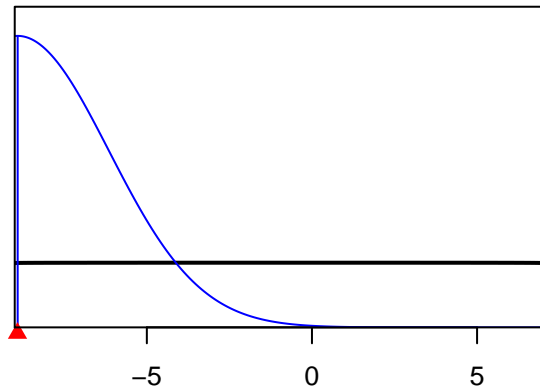


Parameter value

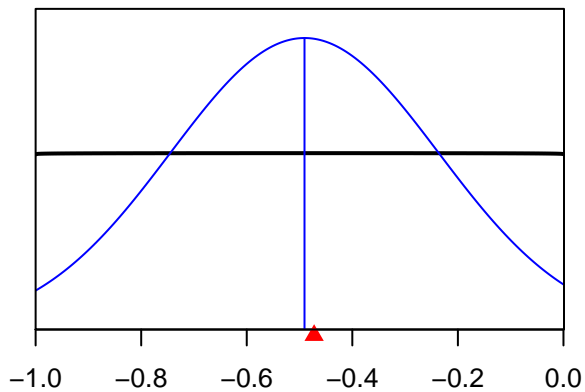
SizeSpline_GradLo_A2-NOADEL(19)



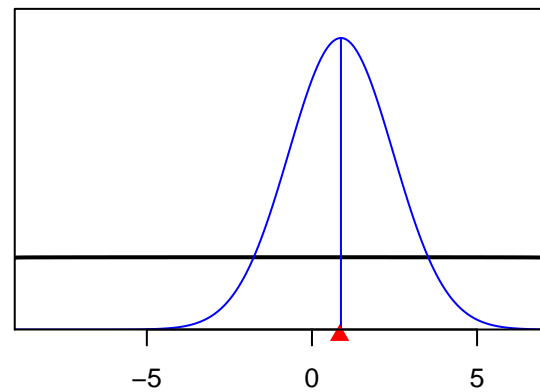
SizeSpline_Val_1_A2-NOADEL(19)



SizeSpline_GradHi_A2-NOADEL(19)

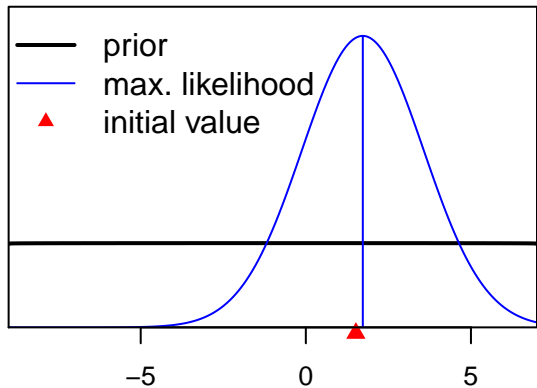


SizeSpline_Val_2_A2-NOADEL(19)

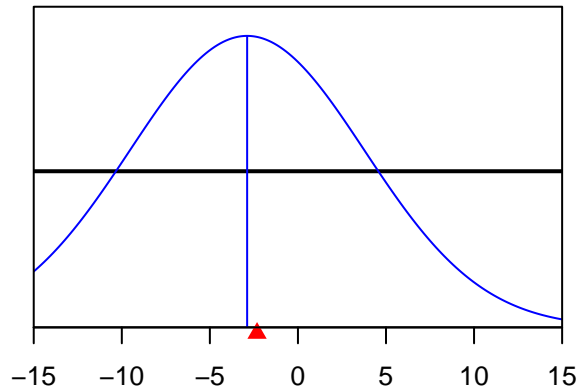


Parameter value

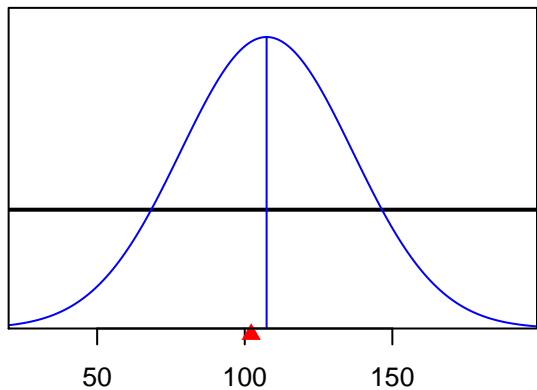
SizeSpline_Val_4_A2-NOADEL(19)



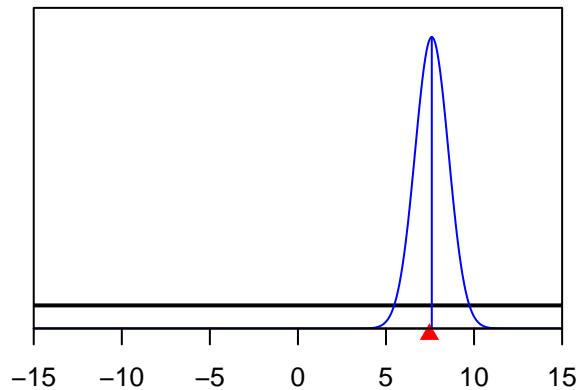
Size_DbIN_top_logit_A3-NOADEL(20)



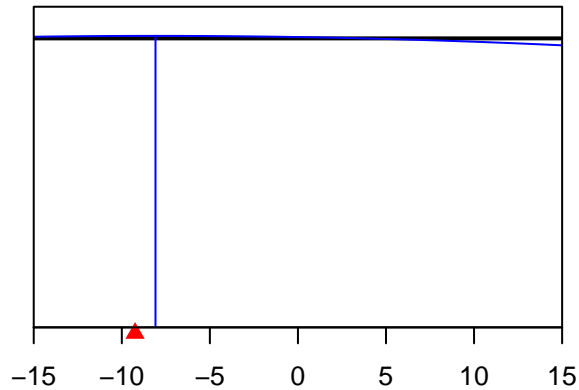
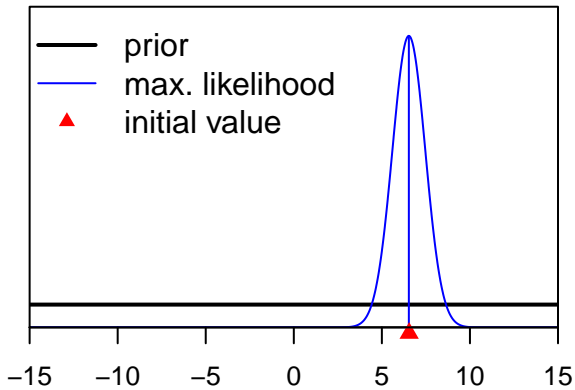
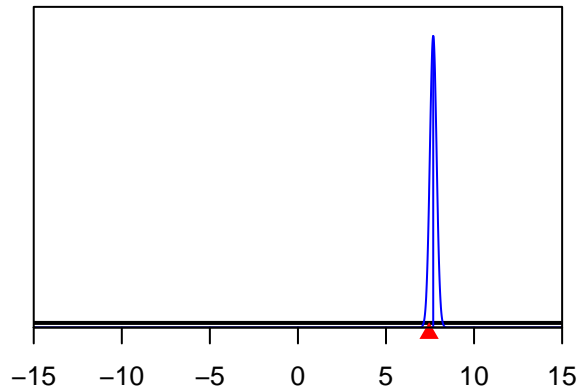
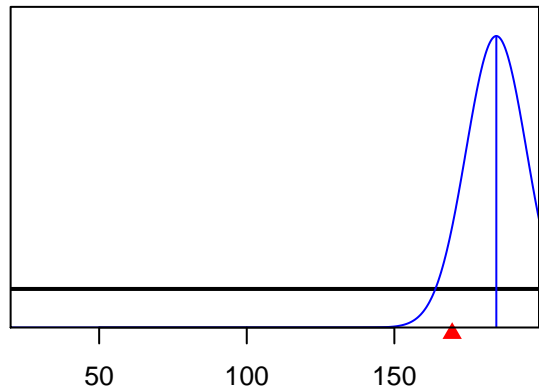
Size_DbIN_peak_A3-NOADEL(20)



Size_DbIN_ascend_se_A3-NOADEL(20)

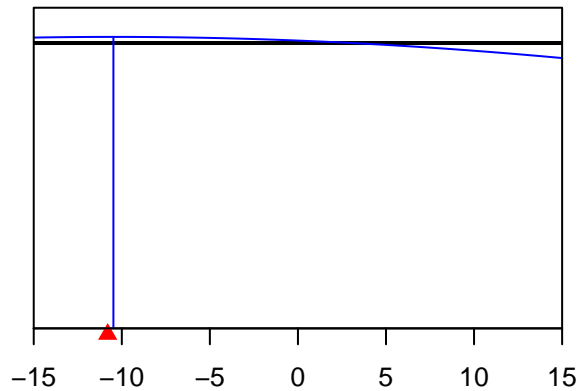
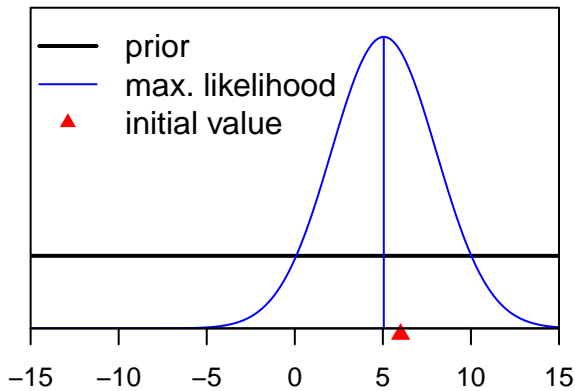


Parameter value

Size_DbIN_descend_se_A3-NOADEL(20)**Size_DbIN_top_logit_EPO-LL-survey-early(24)****Size_DbIN_peak_EPO-LL-survey-early(24)****ize_DbIN_ascend_se_EPO-LL-survey-early(24)**

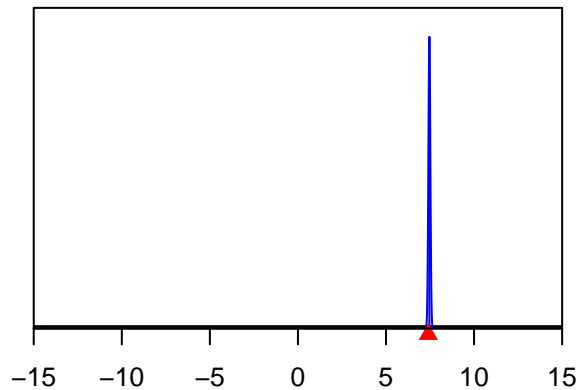
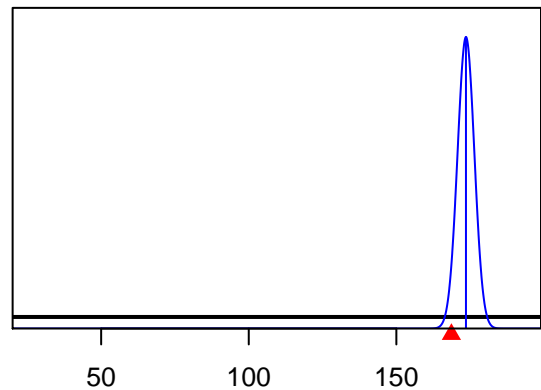
Parameter value

ze_DbIN_descend_se_EPO-LL-survey-early(2Size_DbIN_top_logit_EPO-LL-survey-late(25)



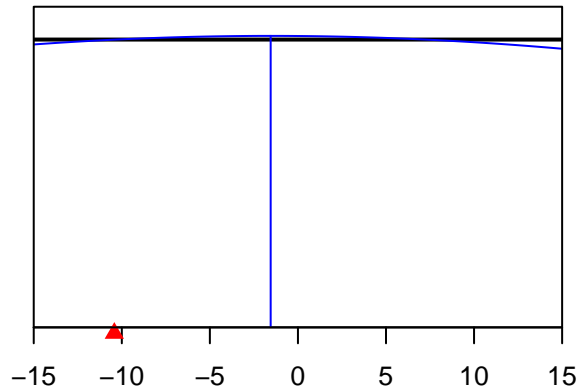
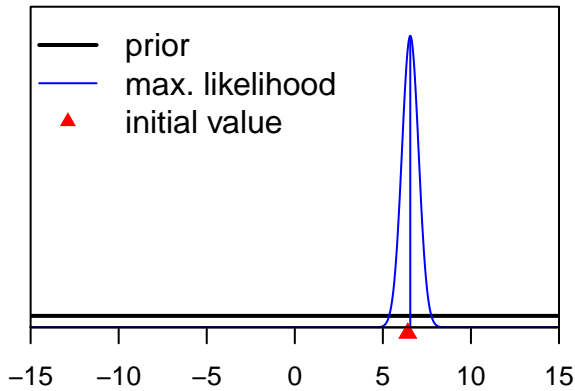
Size_DbIN_peak_EPO-LL-survey-late(25)

size_DbIN_ascend_se_EPO-LL-survey-late(25)



Parameter value

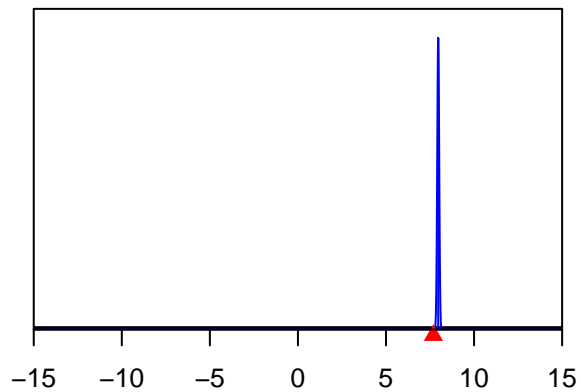
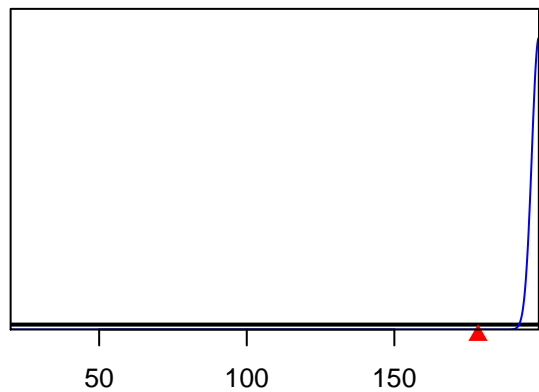
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Density

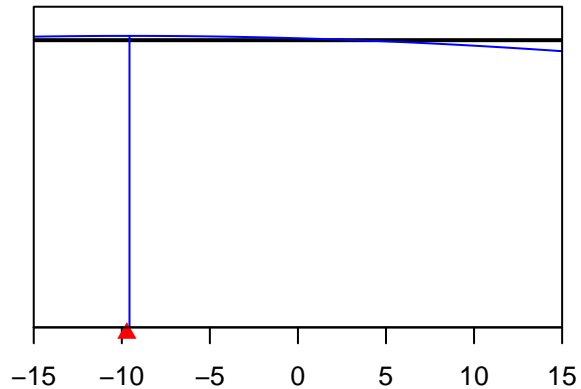
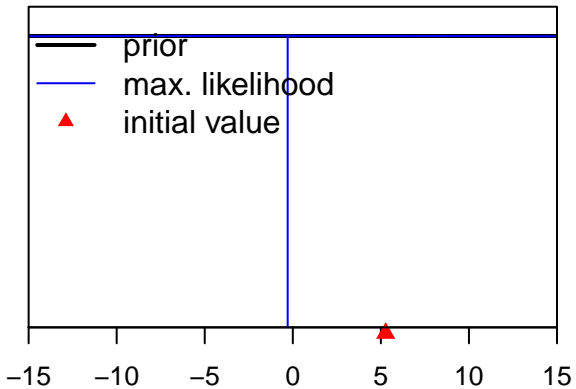
Size_DbIN_peak_A2-LL-n(2)_BLK2repl_17

ize_DbIN_descend_se_EPO-LL-survey-late(2)Size_DbIN_top_logit_A2-LL-n(2)_BLK2repl_17



Parameter value

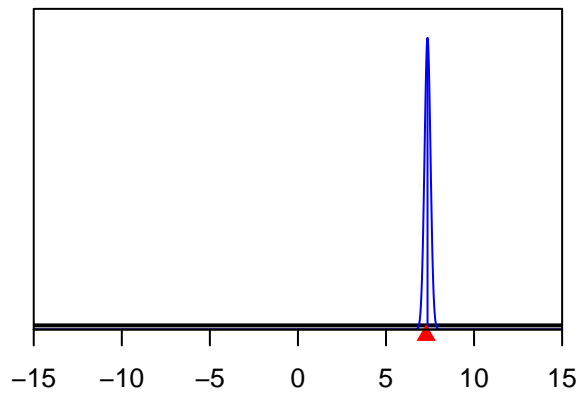
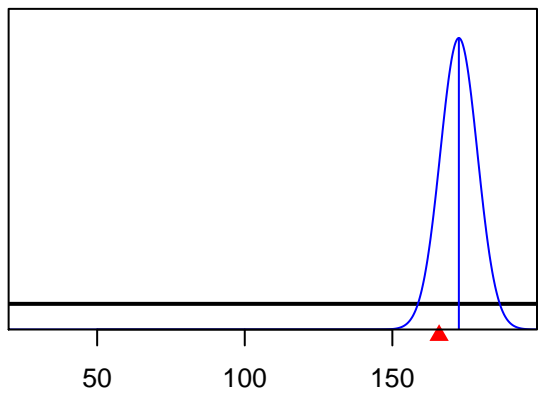
ize_DbIN_descend_se_A2-LL-n(2)_BLK2repl_Size_DbIN_top_logit_A3-LL-n(3)_BLK2repl_17



Density

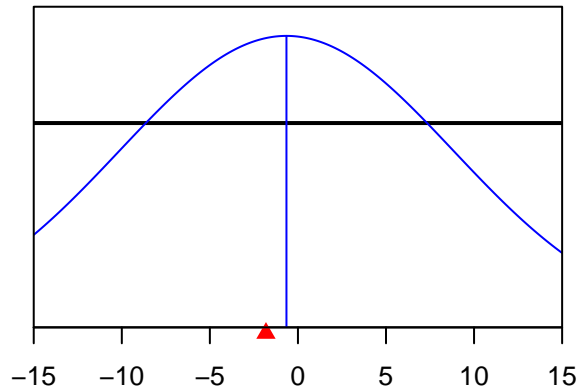
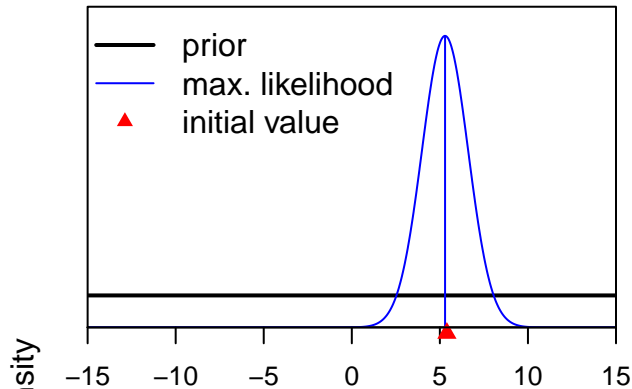
Size_DbIN_peak_A3-LL-n(3)_BLK2repl_17

ize_DbIN_ascend_se_A3-LL-n(3)_BLK2repl_17

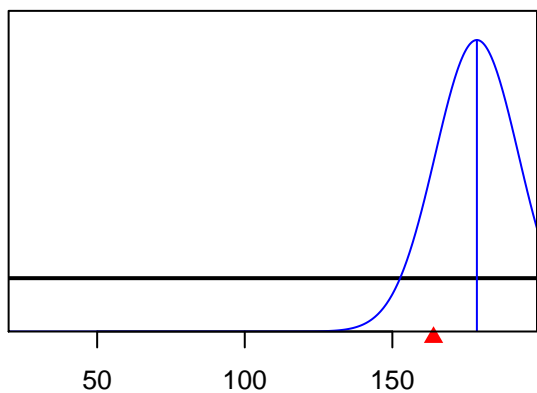


Parameter value

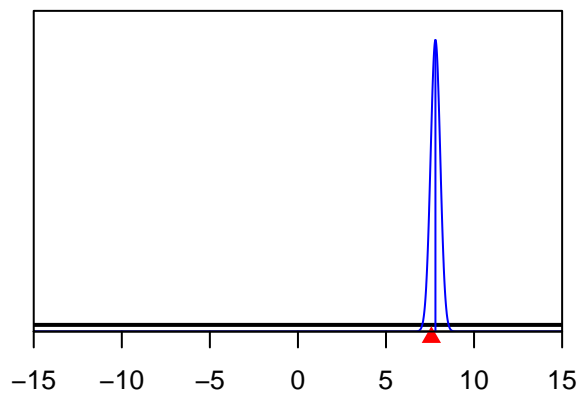
ize_DbIN_descend_se_A3-LL-n(3)_BLK2repl_Size_DbIN_top_logit_A4-LL-n(4)_BLK2repl_17



Size_DbIN_peak_A4-LL-n(4)_BLK2repl_17

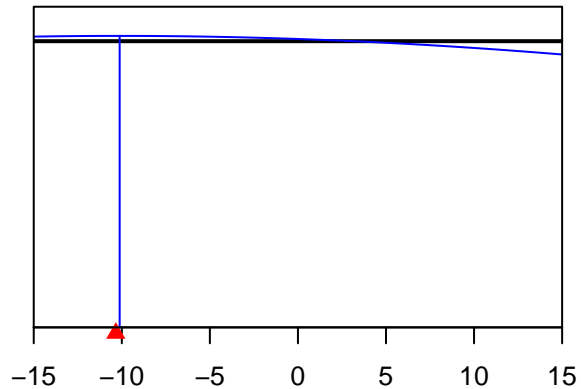
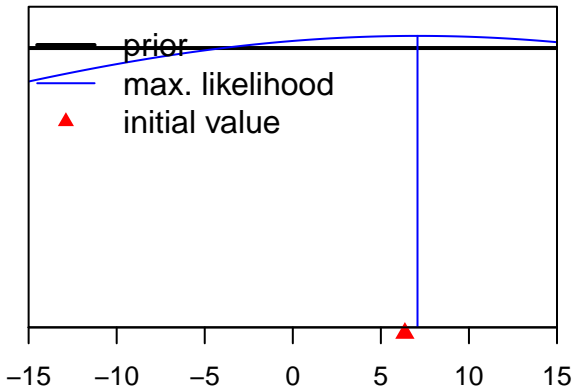


ize_DbIN_ascend_se_A4-LL-n(4)_BLK2repl_17



Parameter value

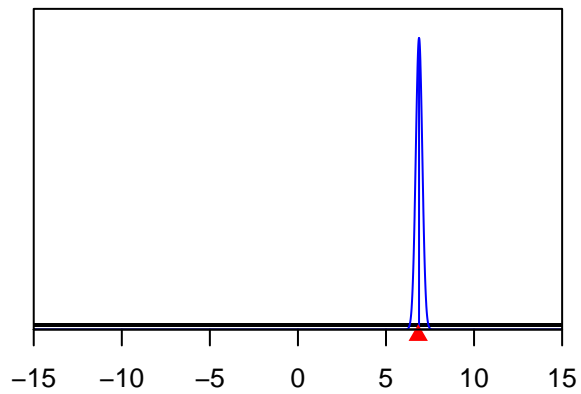
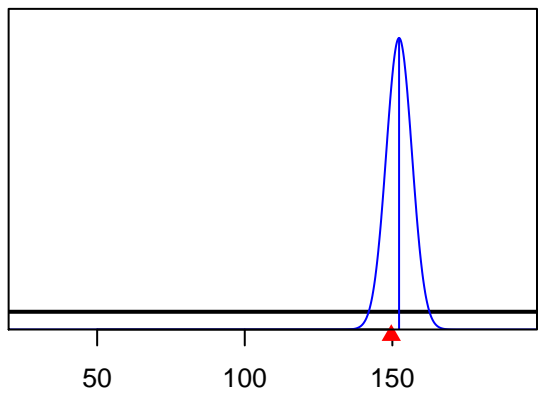
ize_DbIN_descend_se_A4-LL-n(4)_BLK2repl_Size_DbIN_top_logit_A5-LL-n(5)_BLK2repl_17



Density

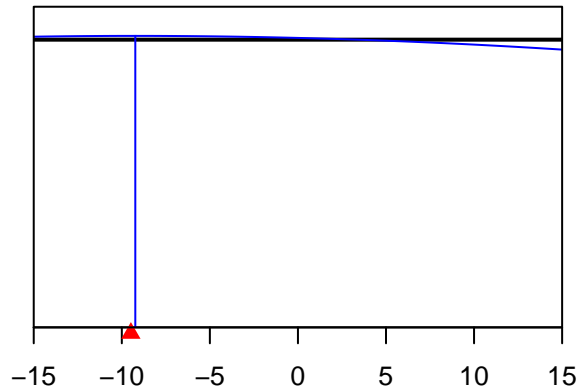
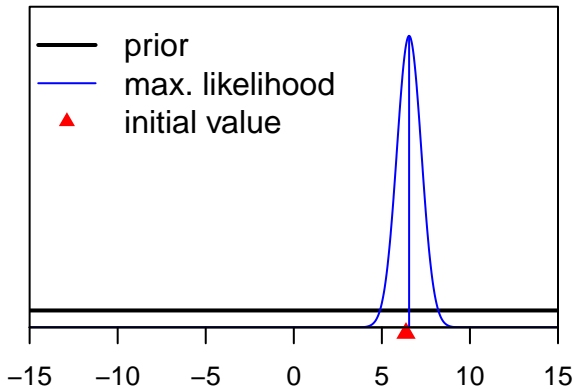
Size_DbIN_peak_A5-LL-n(5)_BLK2repl_17

ize_DbIN_ascend_se_A5-LL-n(5)_BLK2repl_17



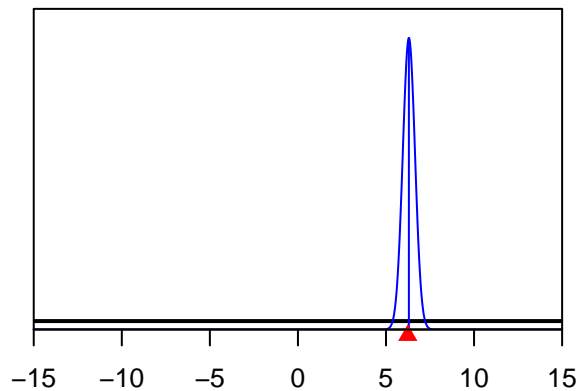
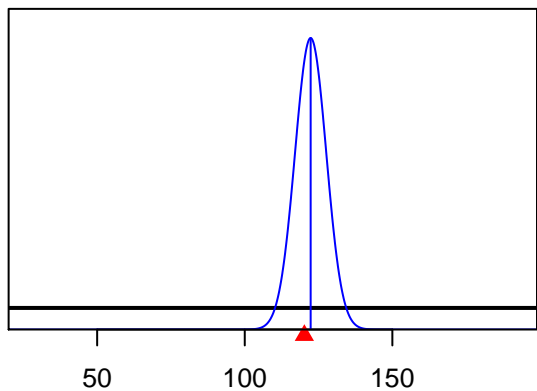
Parameter value

ize_DbIN_descend_se_A5-LL-n(5)_BLK2repl_ Size_DbIN_top_logit_A6-LL-n(6)_BLK2repl_17



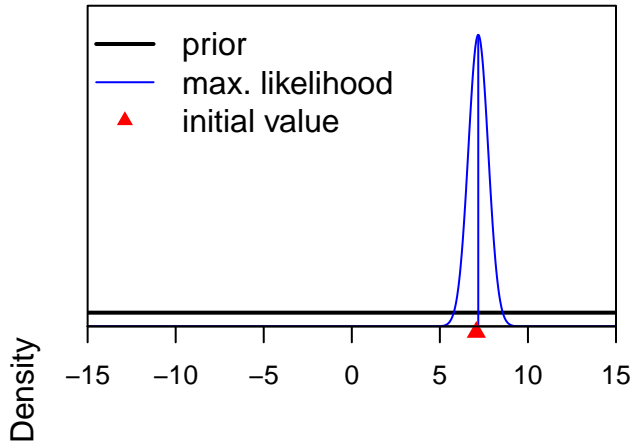
Size_DbIN_peak_A6-LL-n(6)_BLK2repl_17

ize_DbIN_ascend_se_A6-LL-n(6)_BLK2repl_17



Parameter value

ize_DbIN_descend_se_A6-LL-n(6)_BLK2repl_1



Parameter value