

Plots created using the 'r4ss' package in R

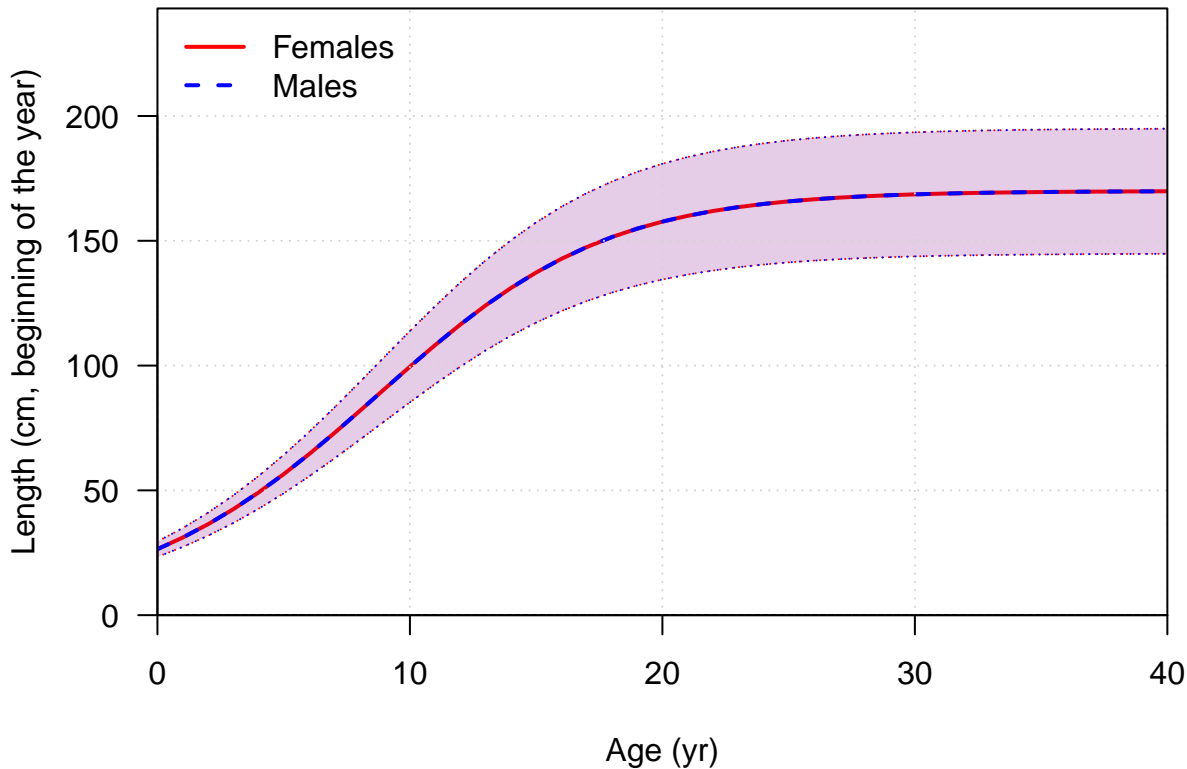
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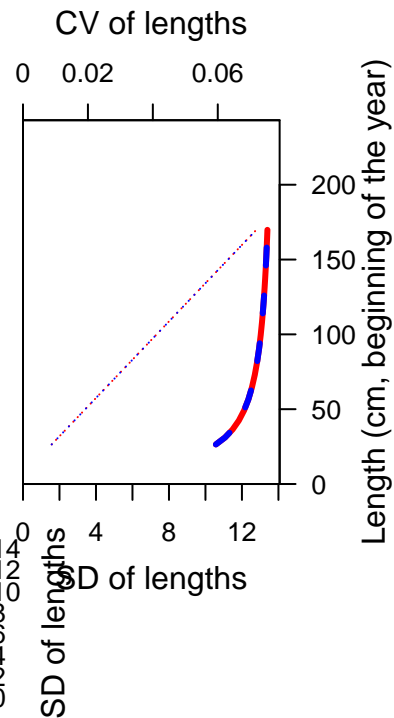
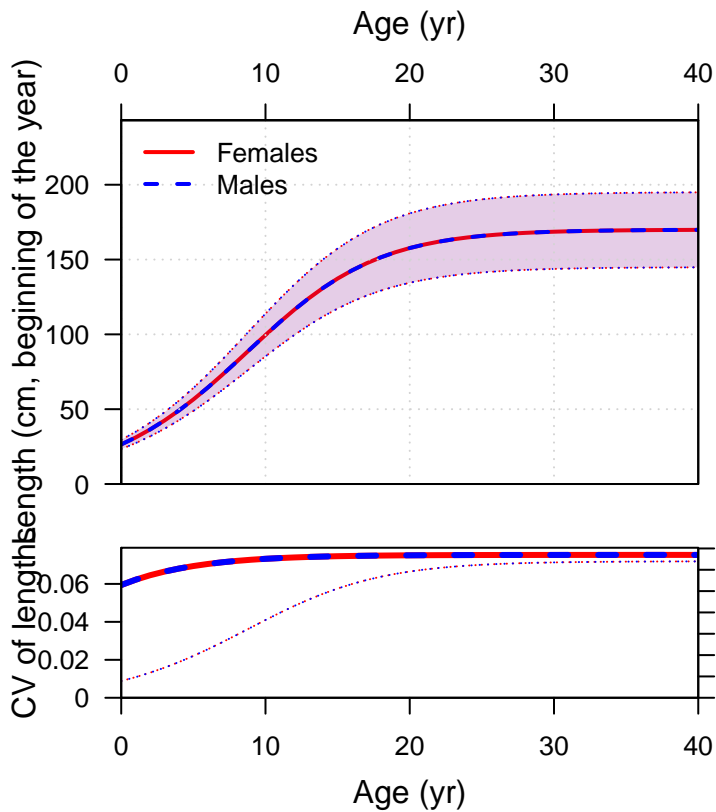
StartTime: Wed May 13 11:57:54 2020

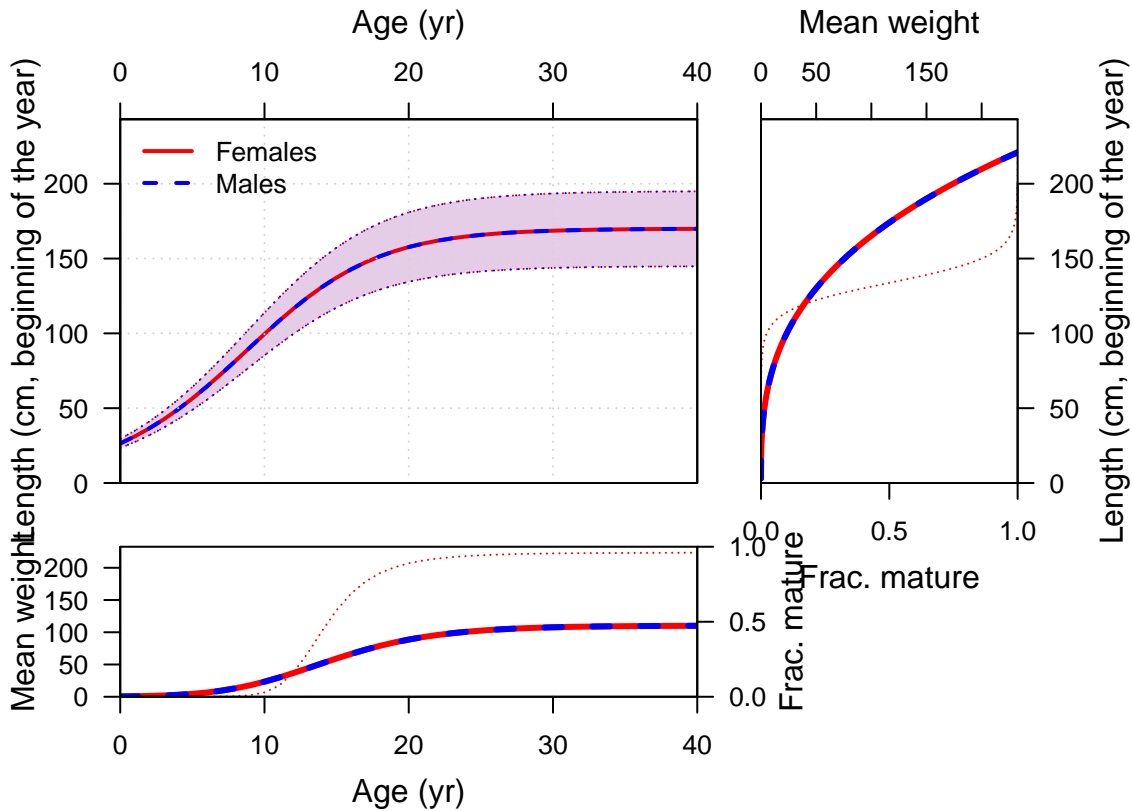
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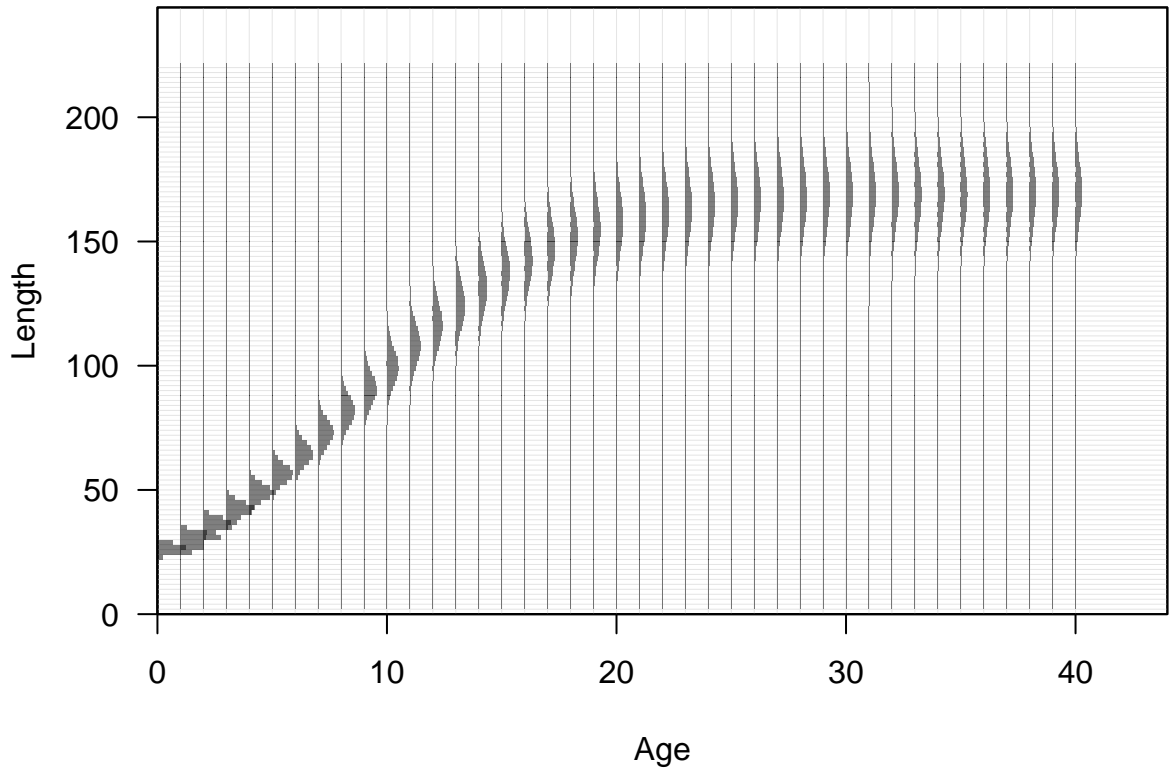
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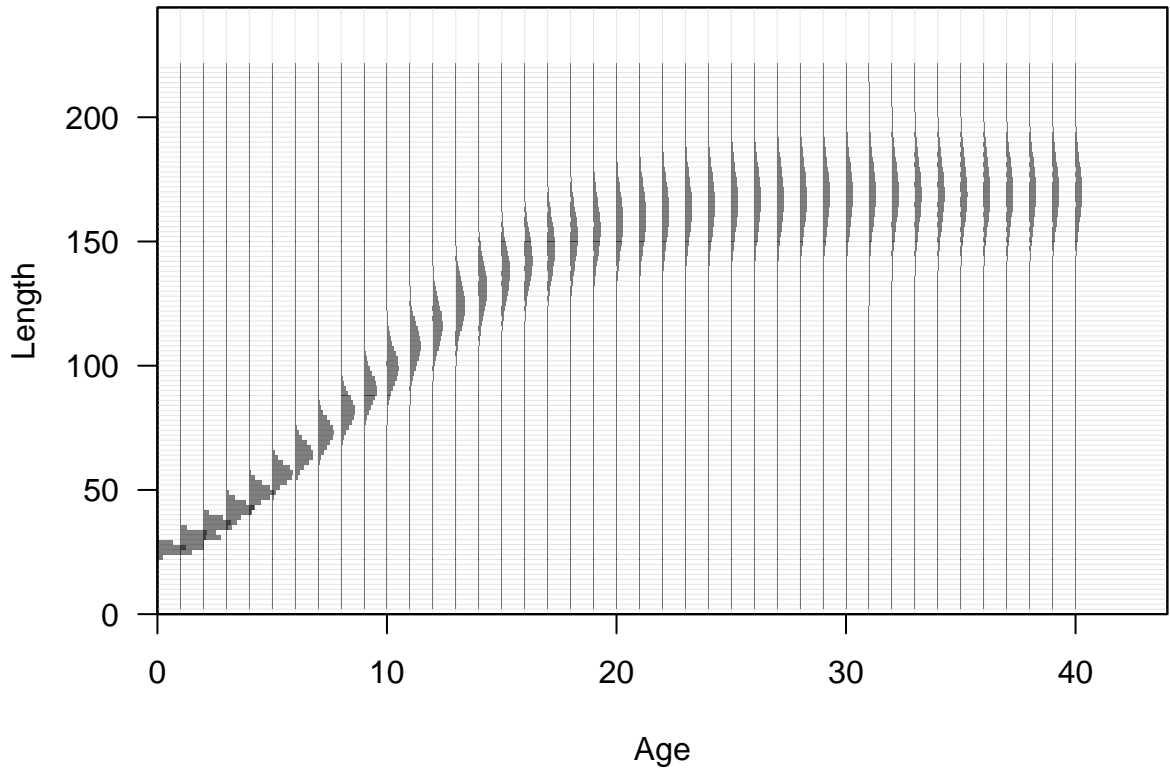
Ending year expected growth (with 95% intervals)

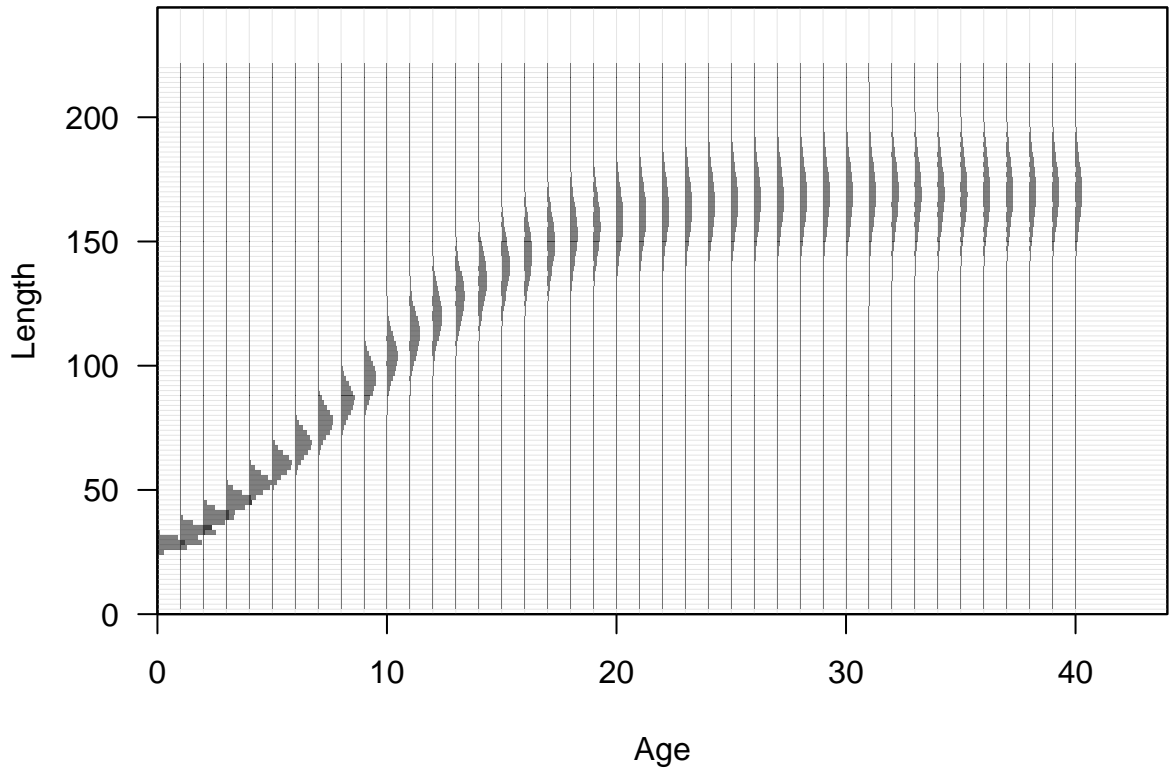


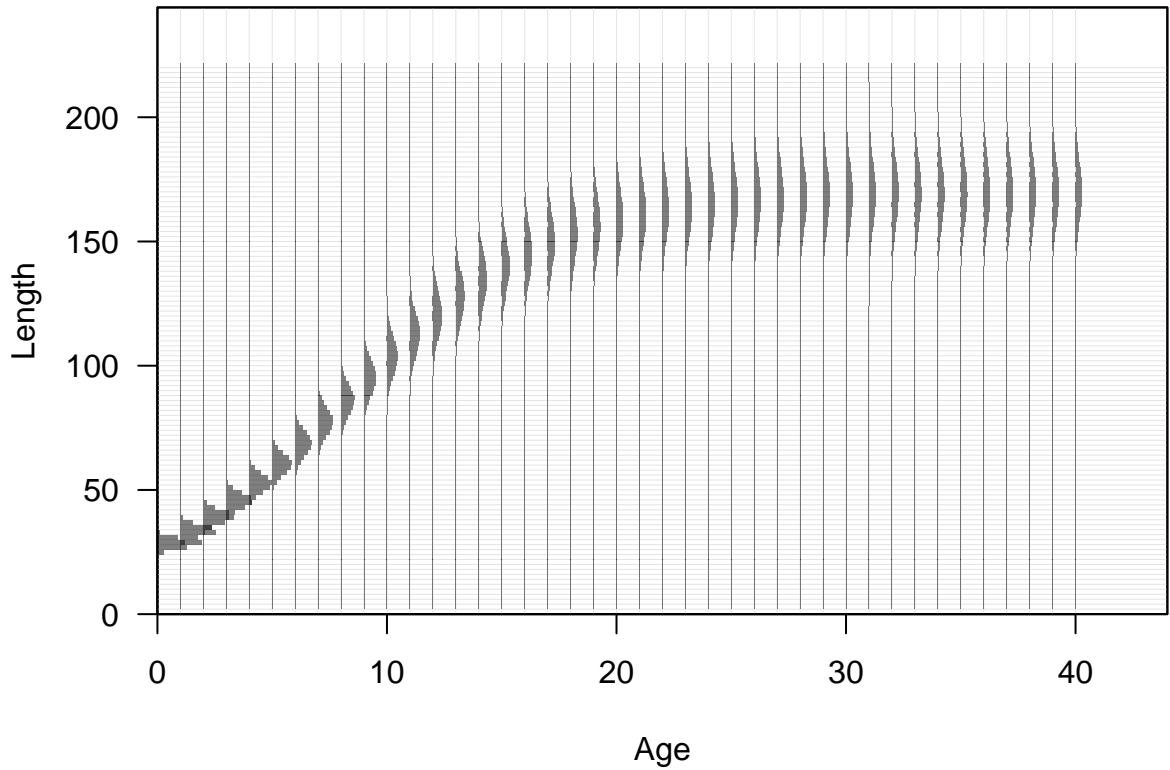


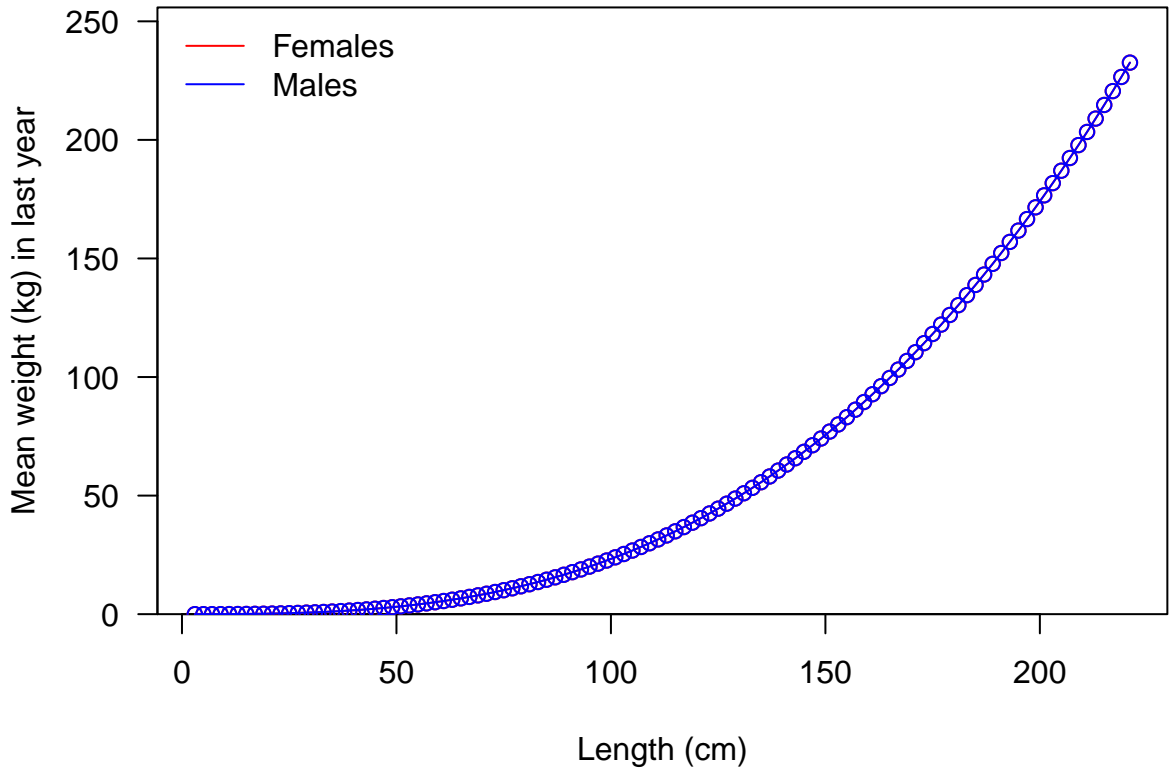


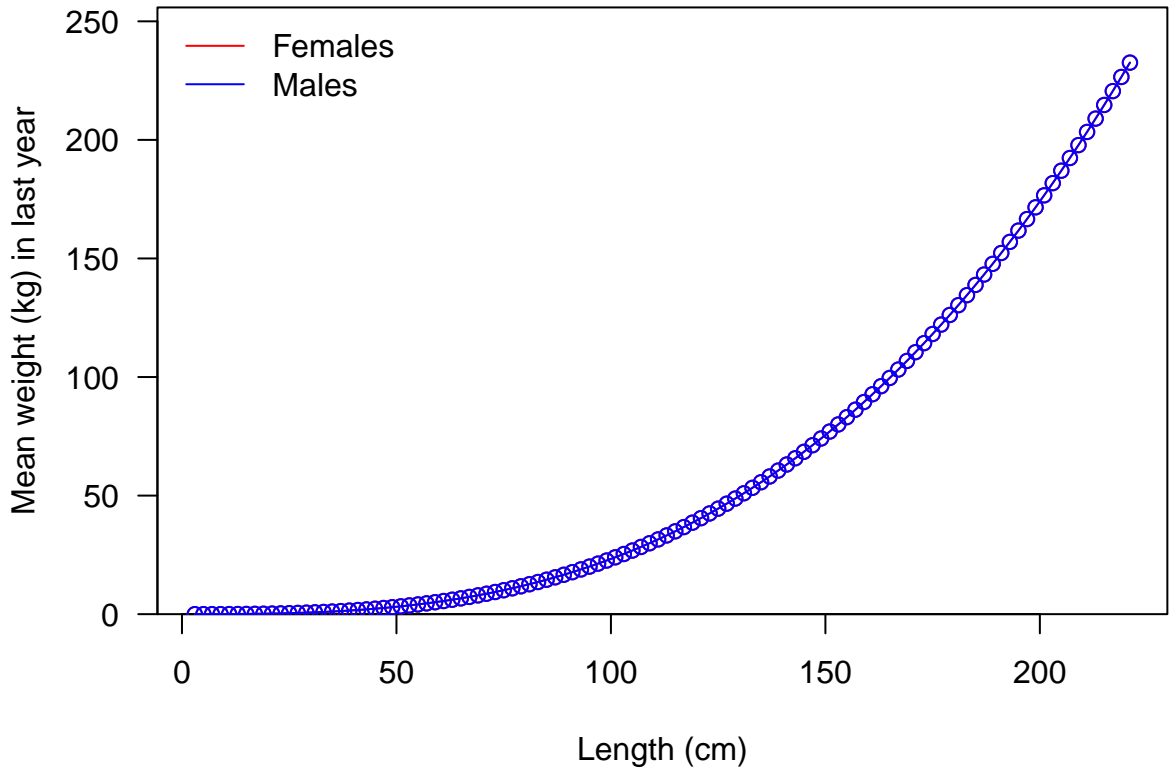


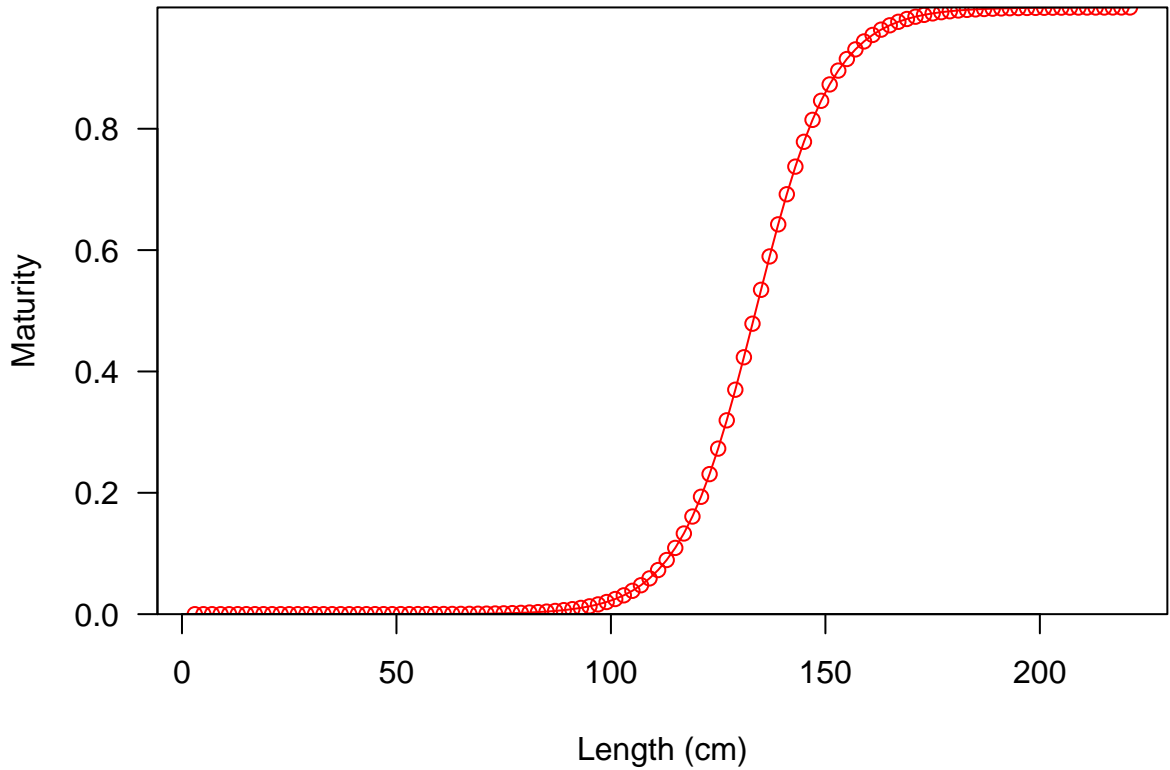


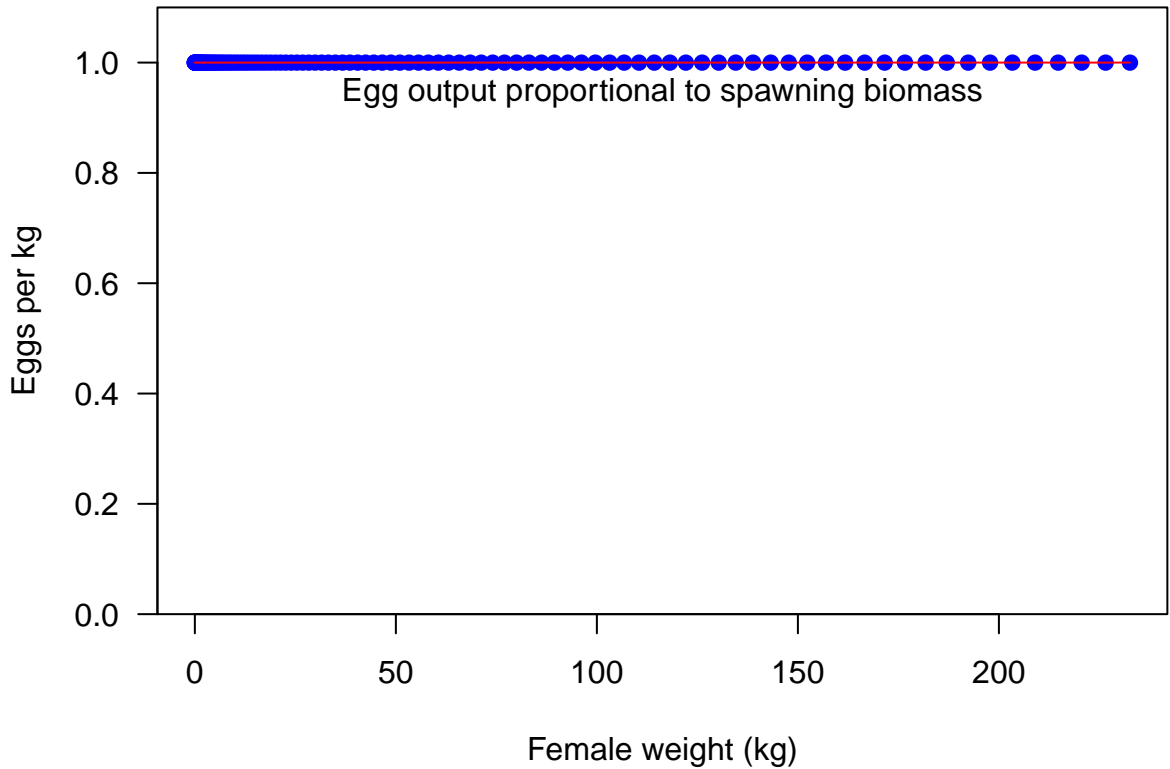


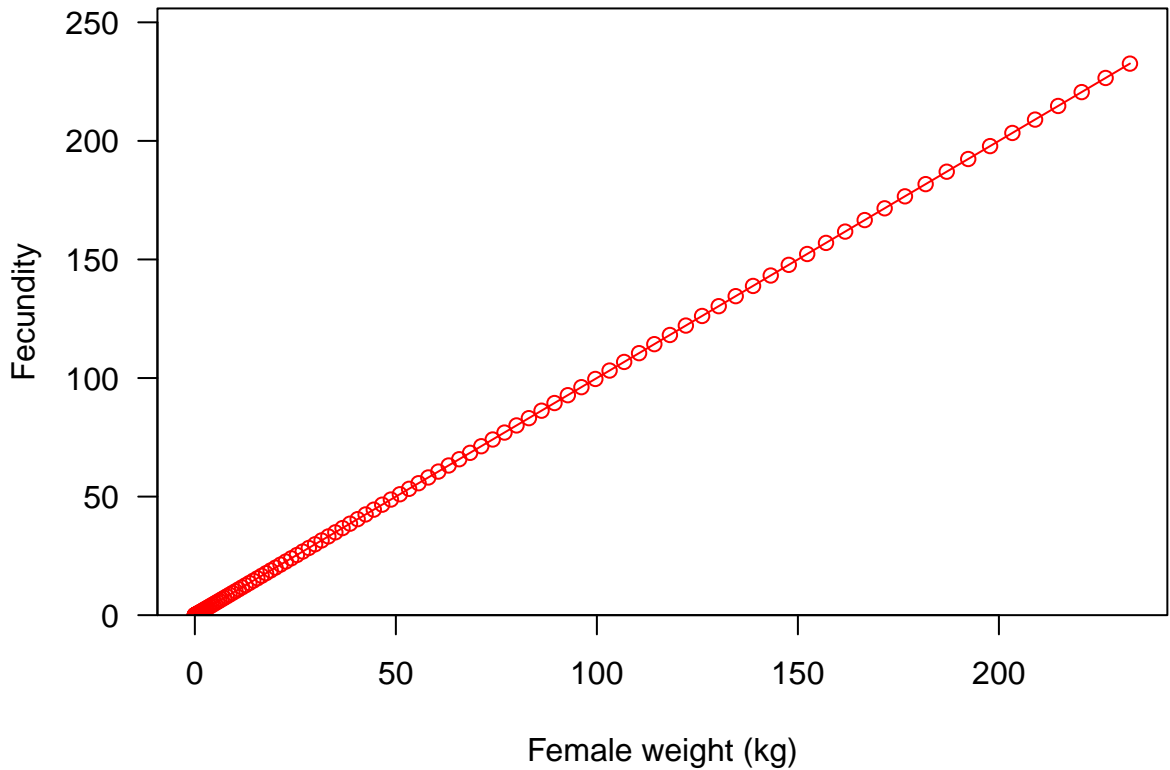


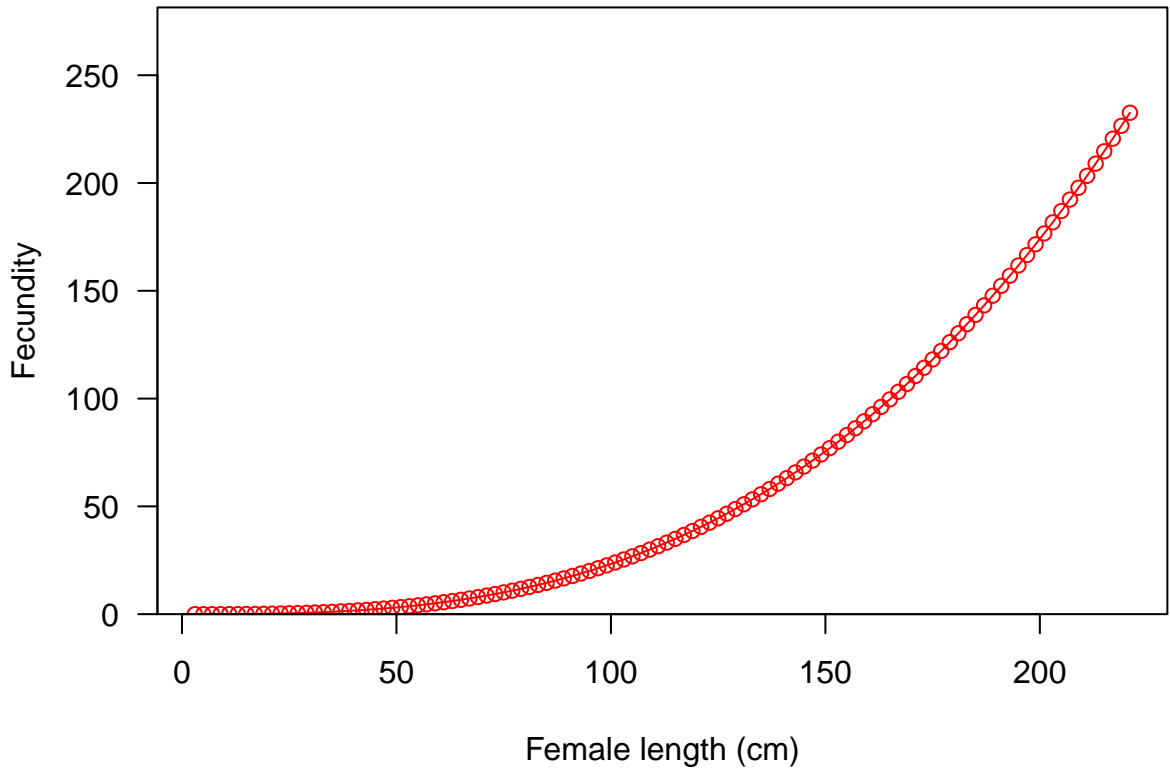


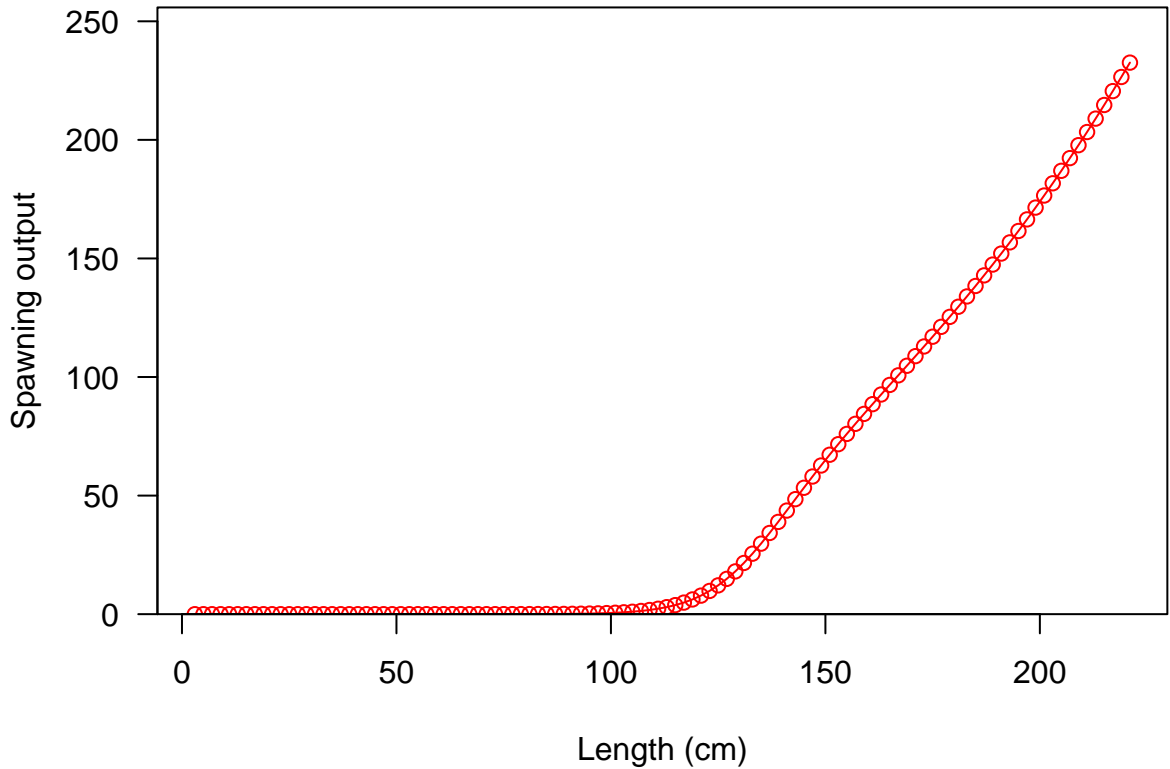


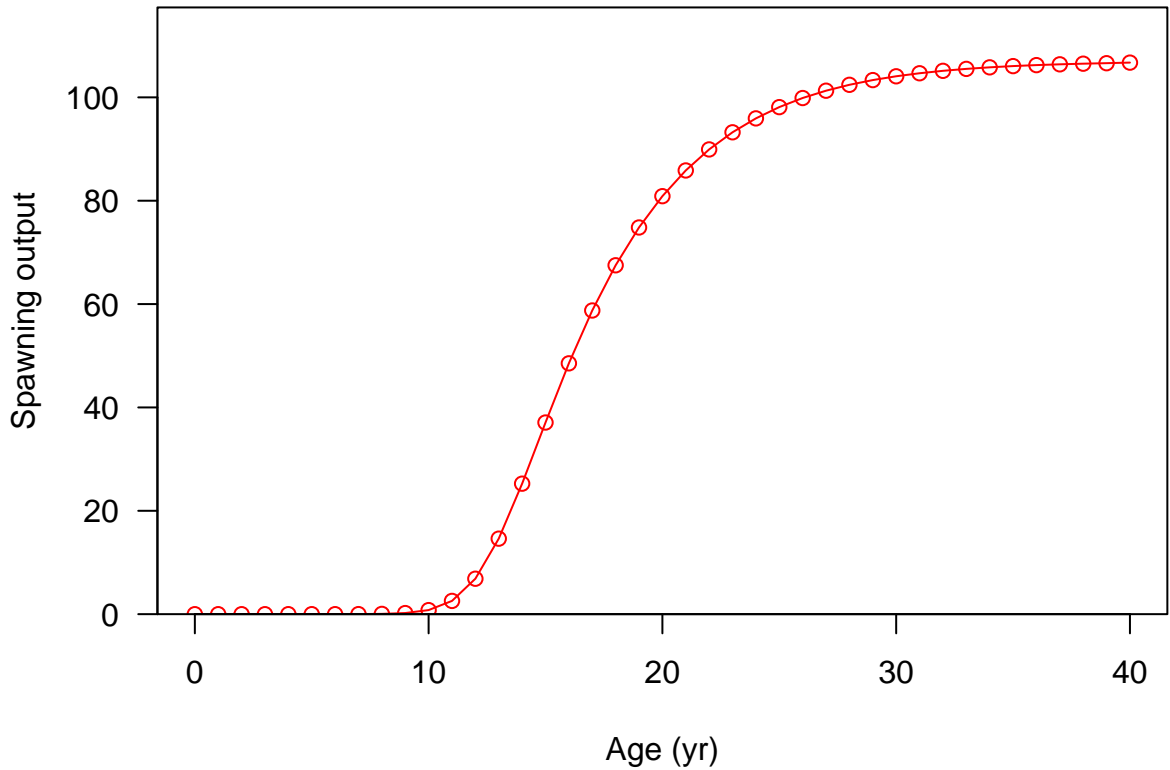




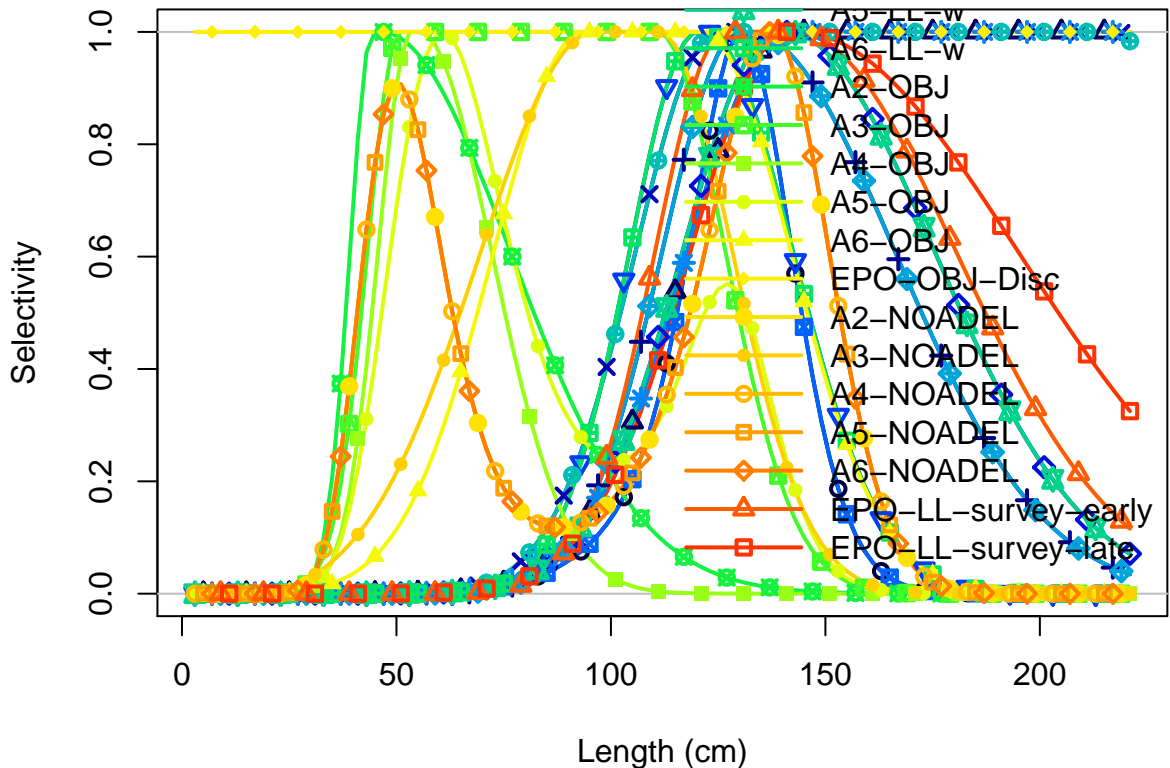




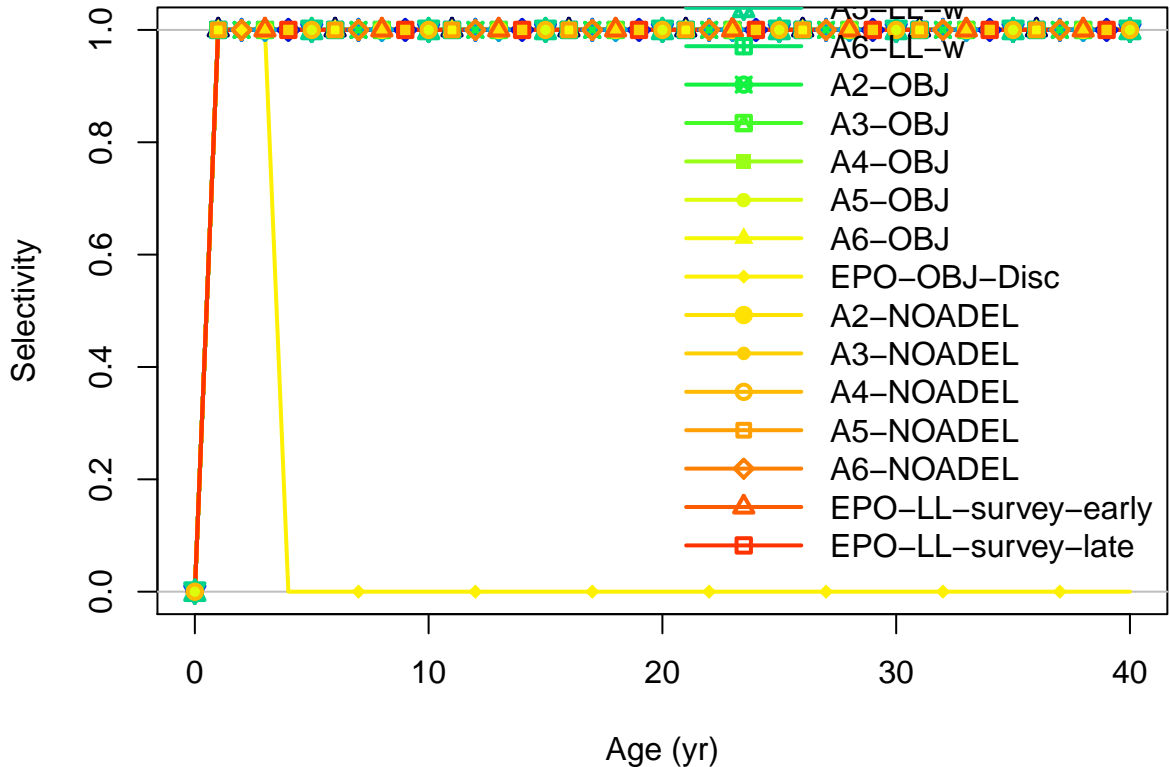




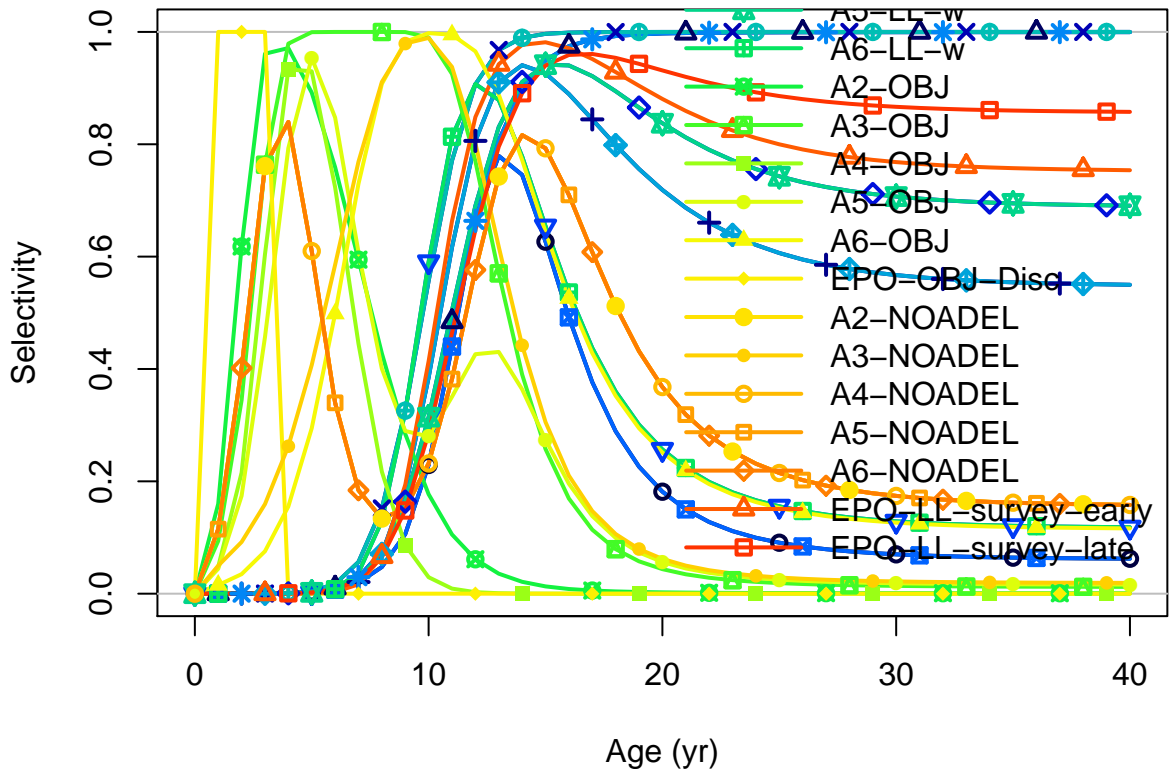
Length-based selectivity by fleet in 180



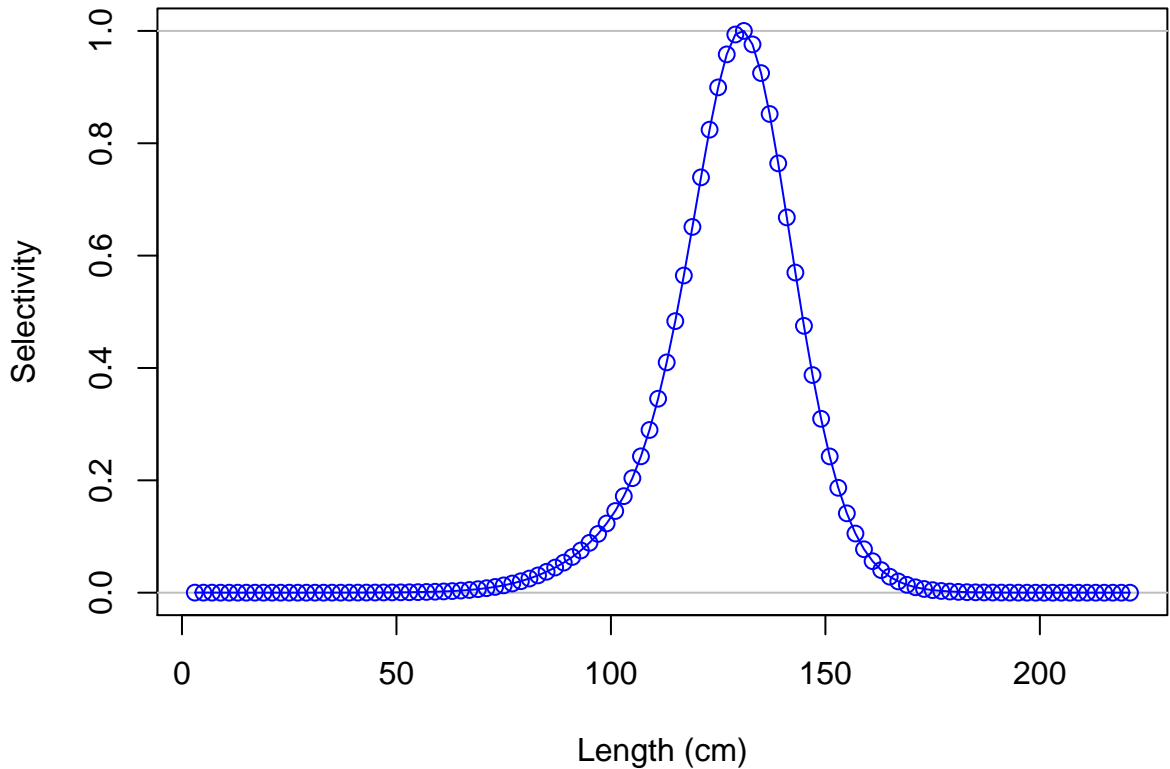
Age-based selectivity by fleet in 180



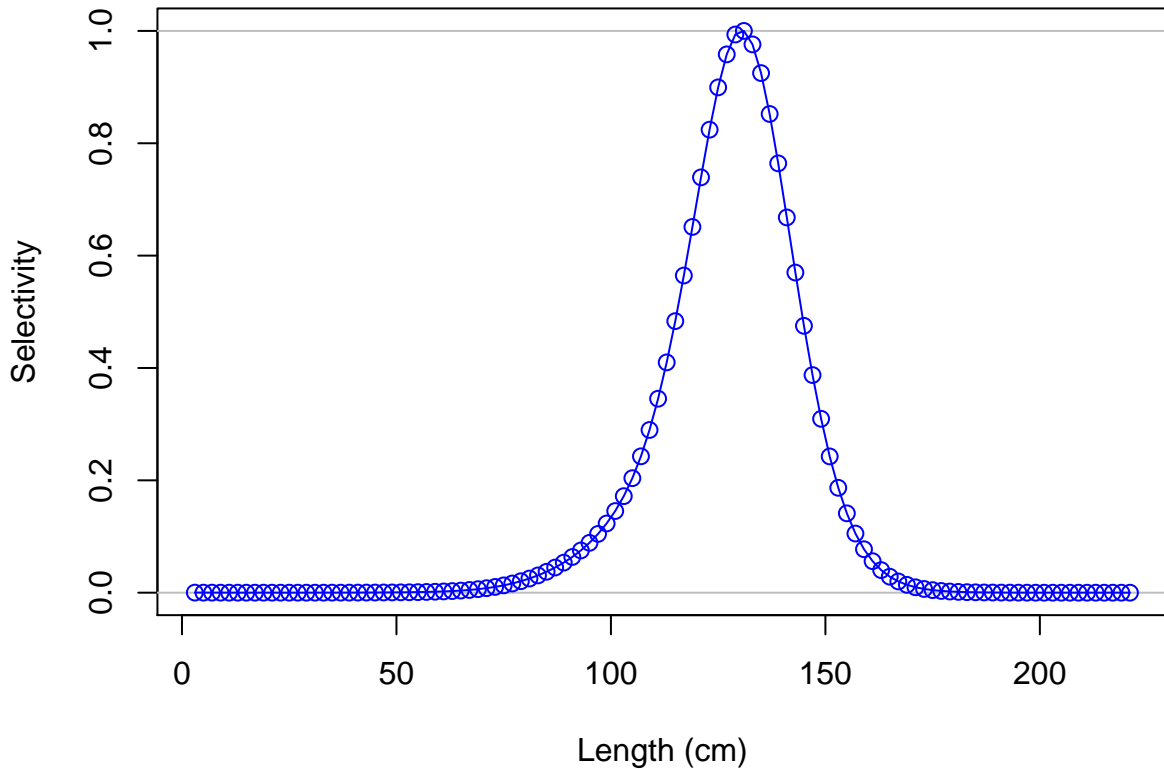
Derived age-based from length-based selectivity by fleet in 180



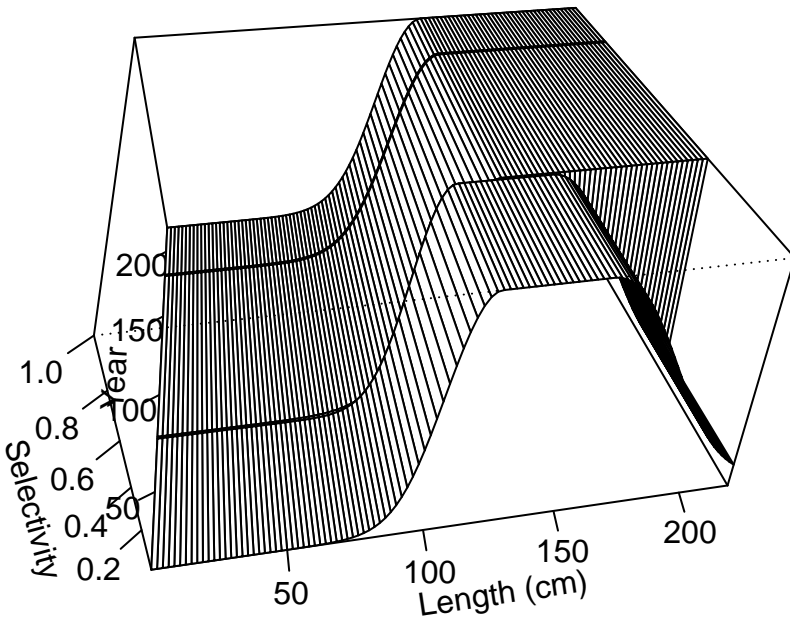
Female ending year selectivity for A1-LL-n



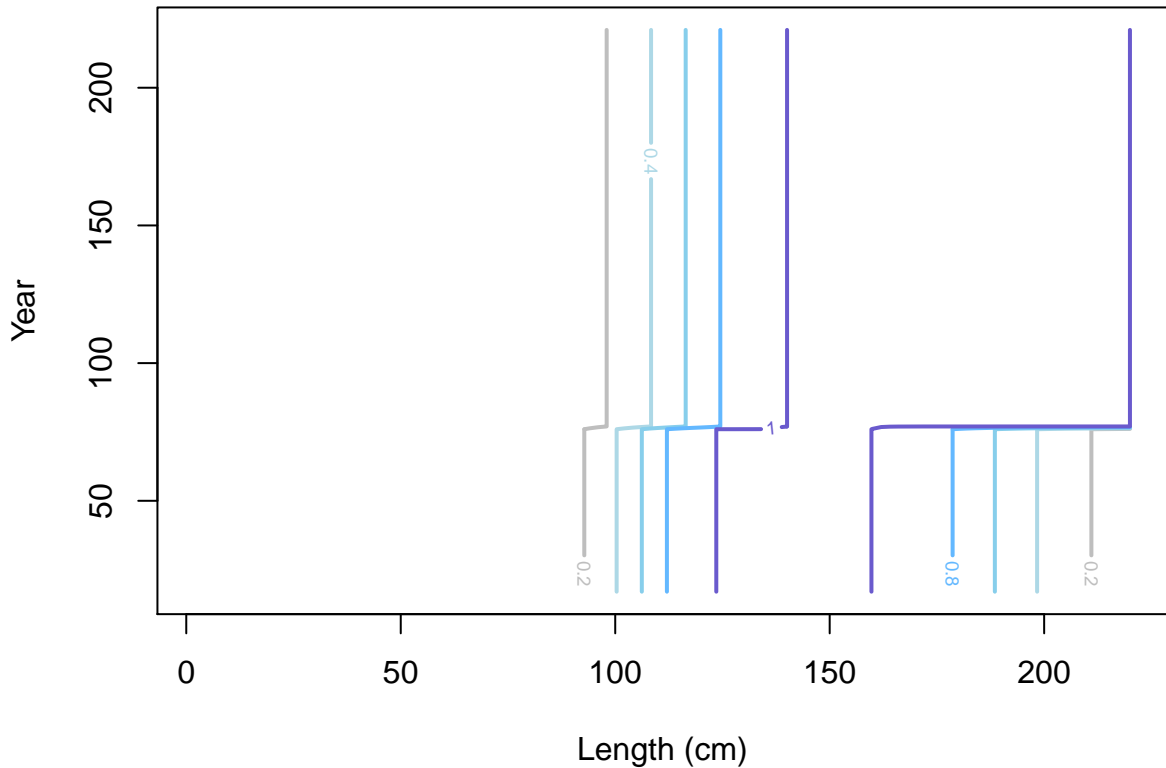
Male ending year selectivity for A1-LL-n



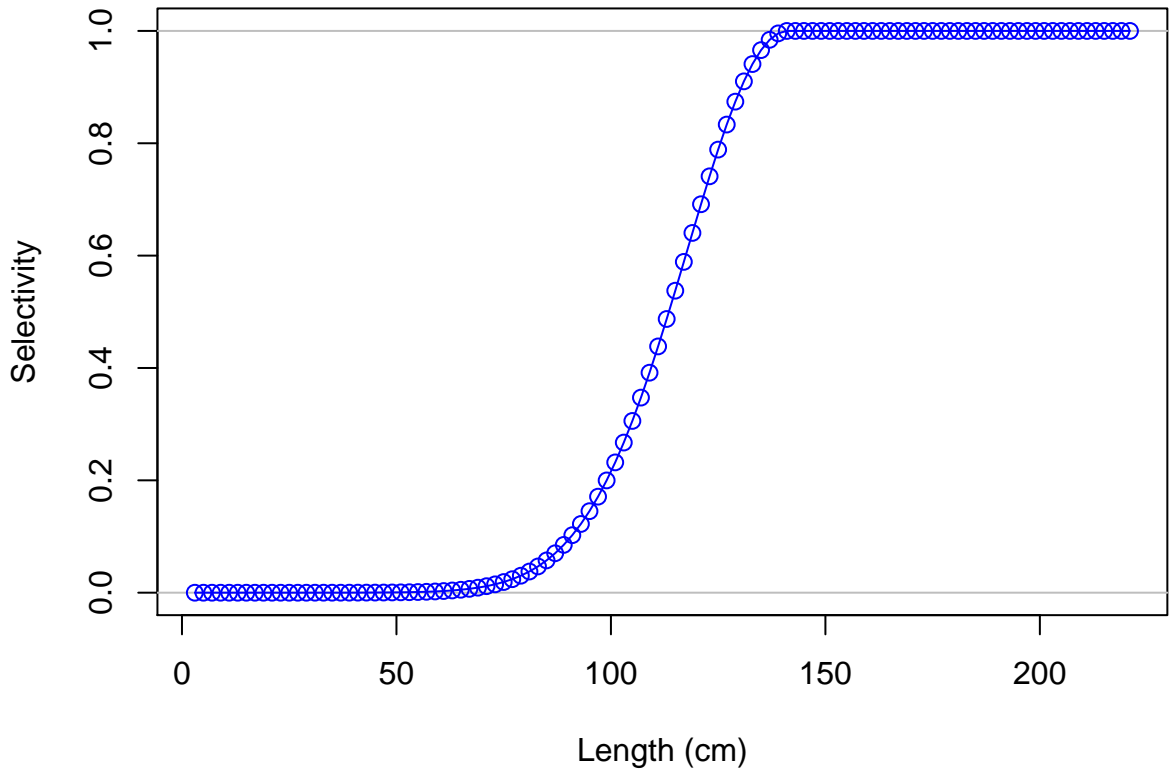
Female time-varying selectivity for A2-LL-n



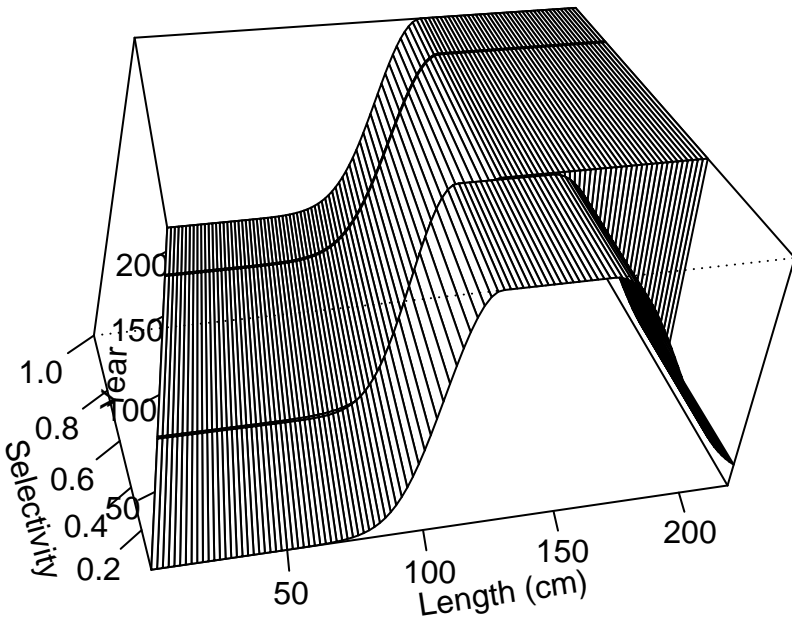
Female time-varying selectivity for A2-LL-n



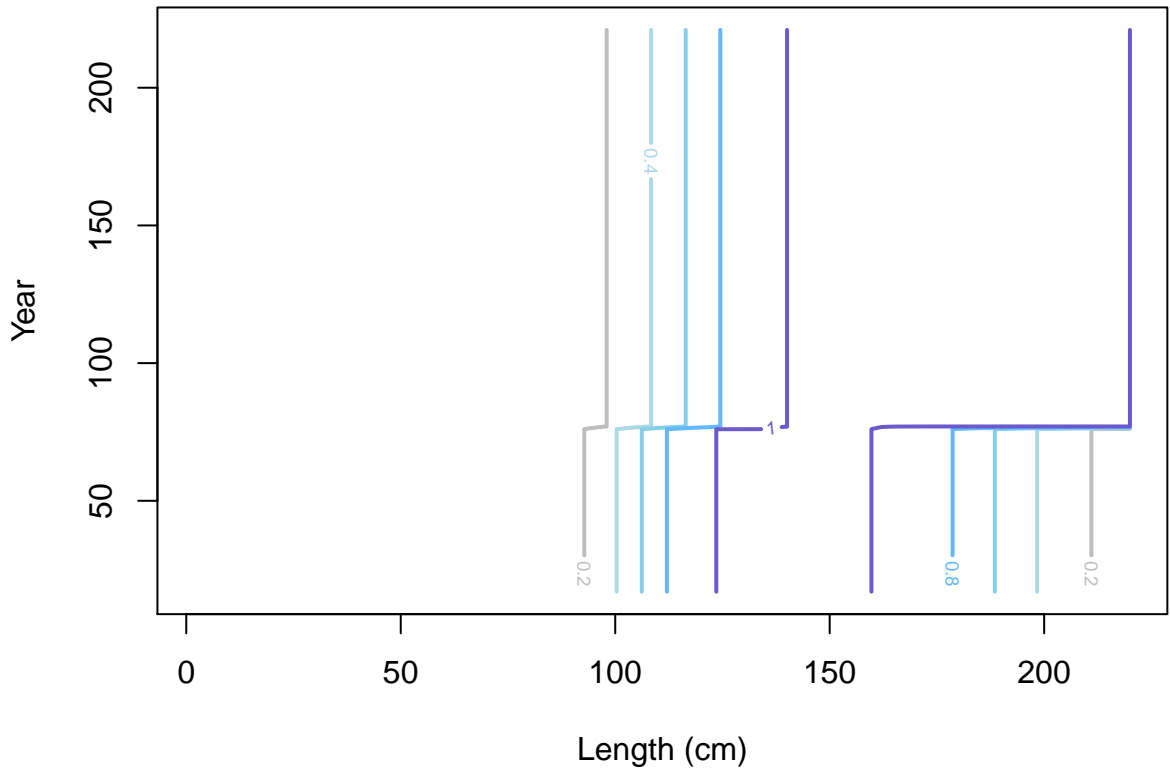
Female ending year selectivity for A2-LL-n



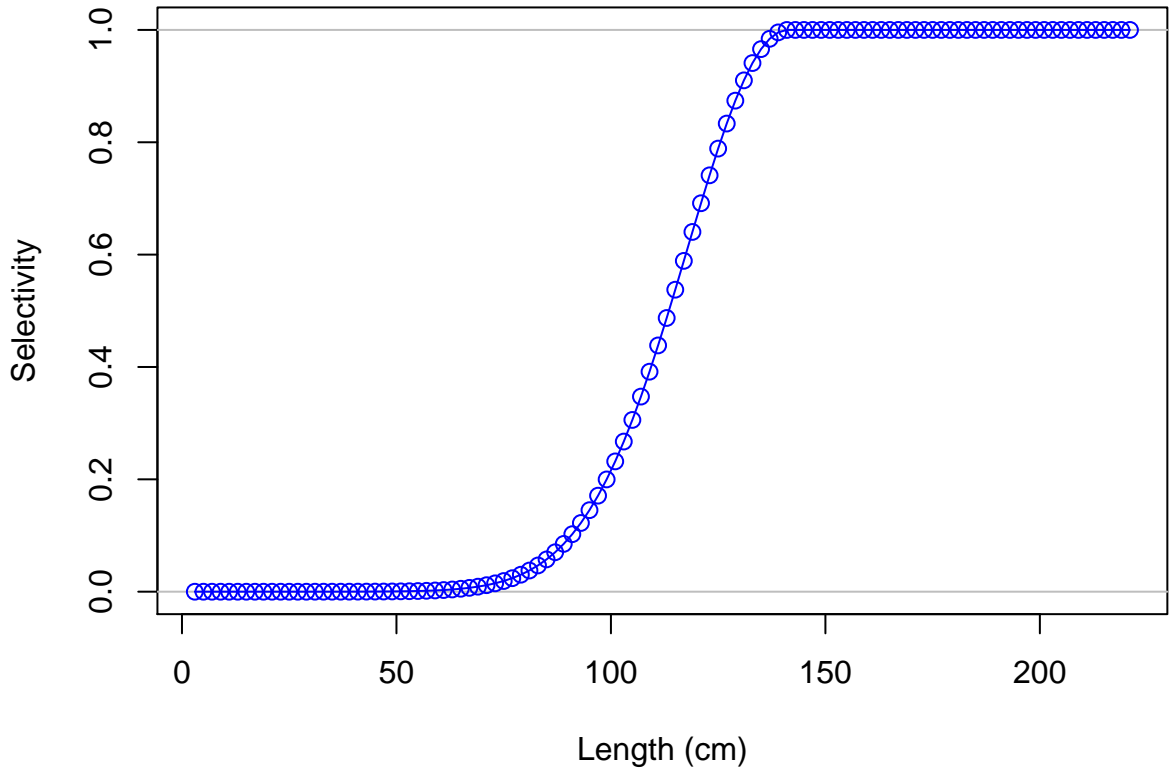
Male time-varying selectivity for A2-LL-n



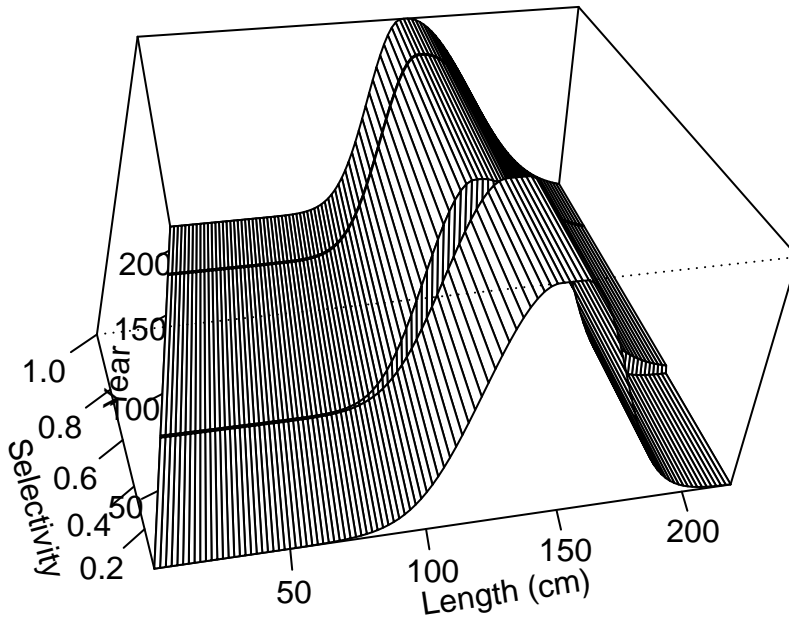
Male time-varying selectivity for A2-LL-n



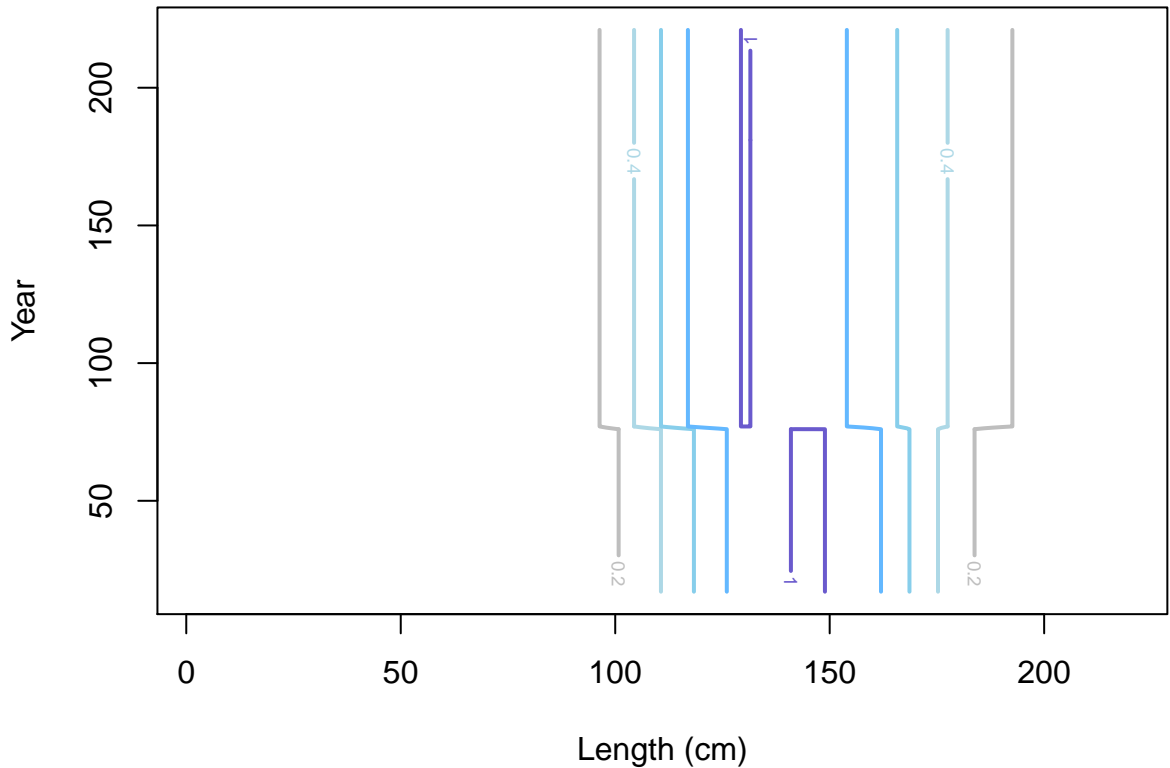
Male ending year selectivity for A2-LL-n



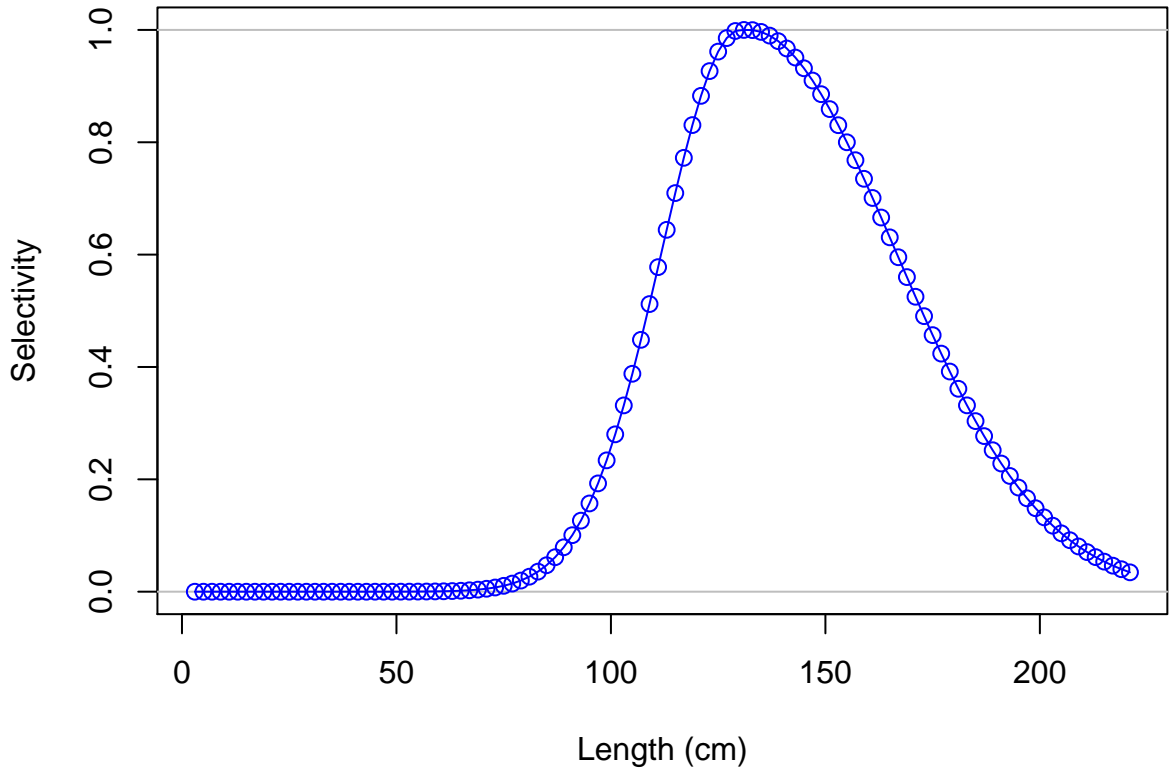
Female time-varying selectivity for A3-LL-n



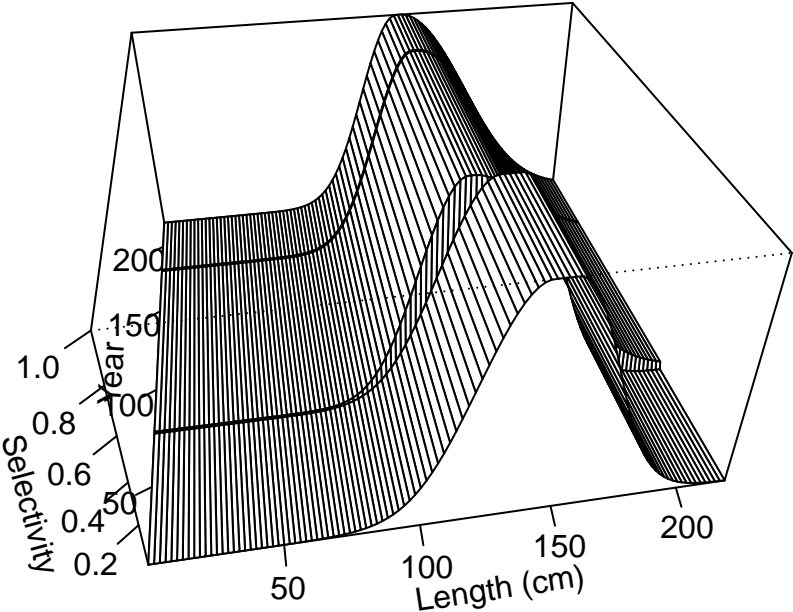
Female time-varying selectivity for A3-LL-n



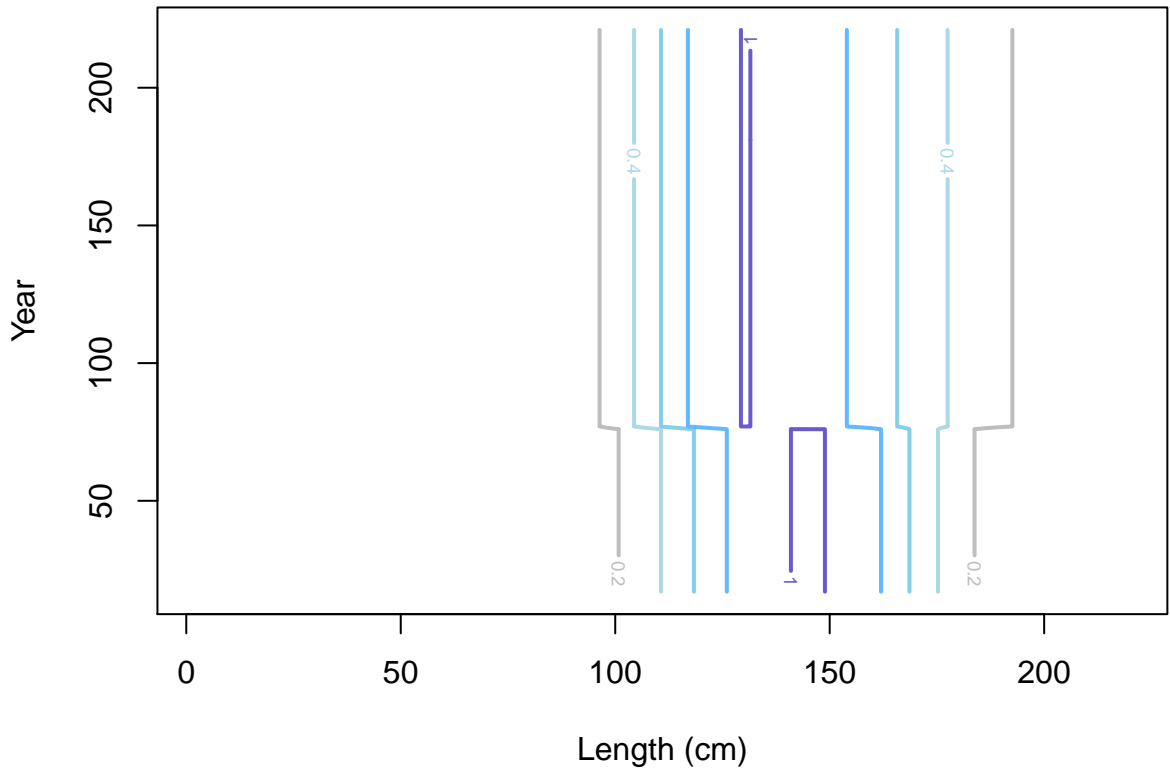
Female ending year selectivity for A3-LL-n



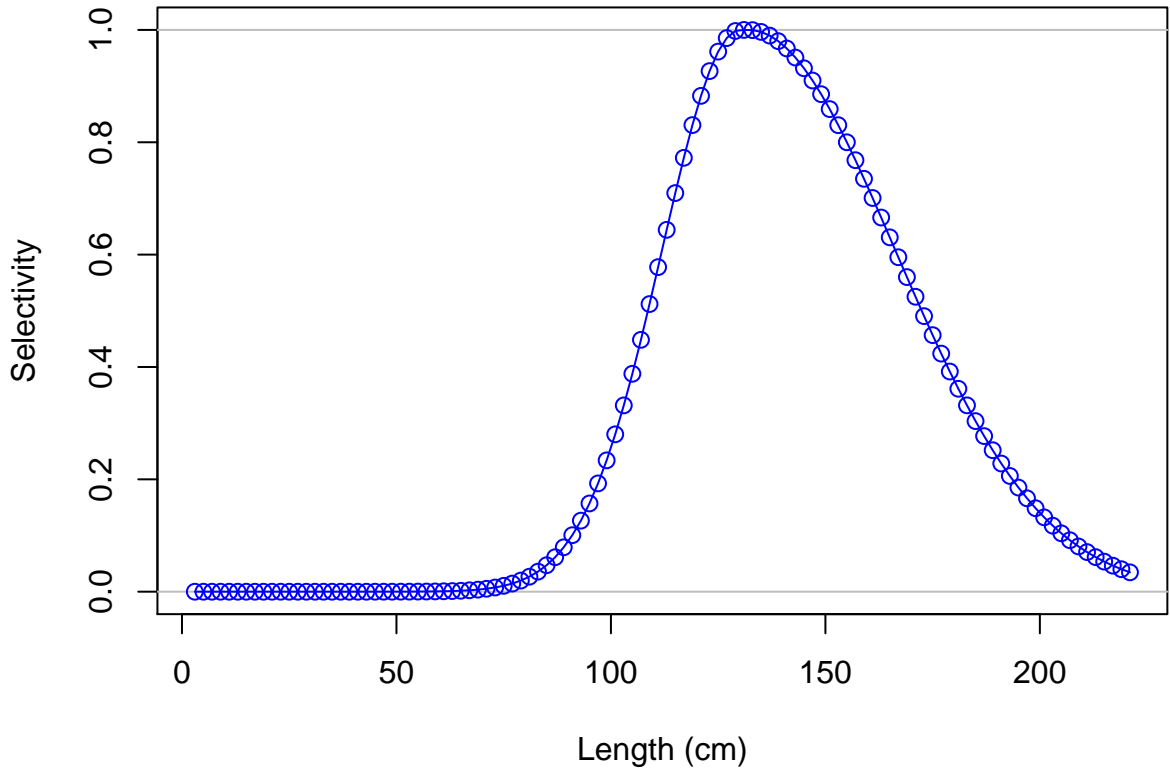
Male time-varying selectivity for A3-LL-n



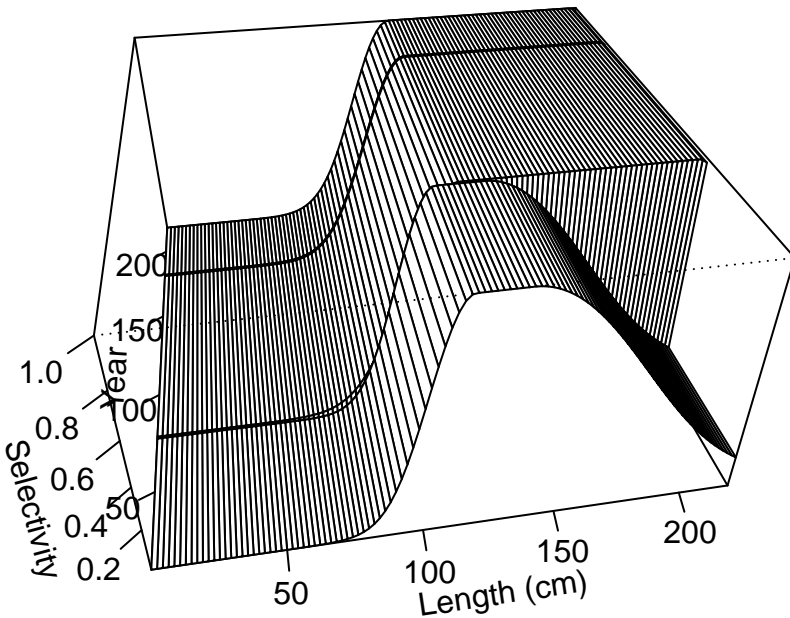
Male time-varying selectivity for A3-LL-n



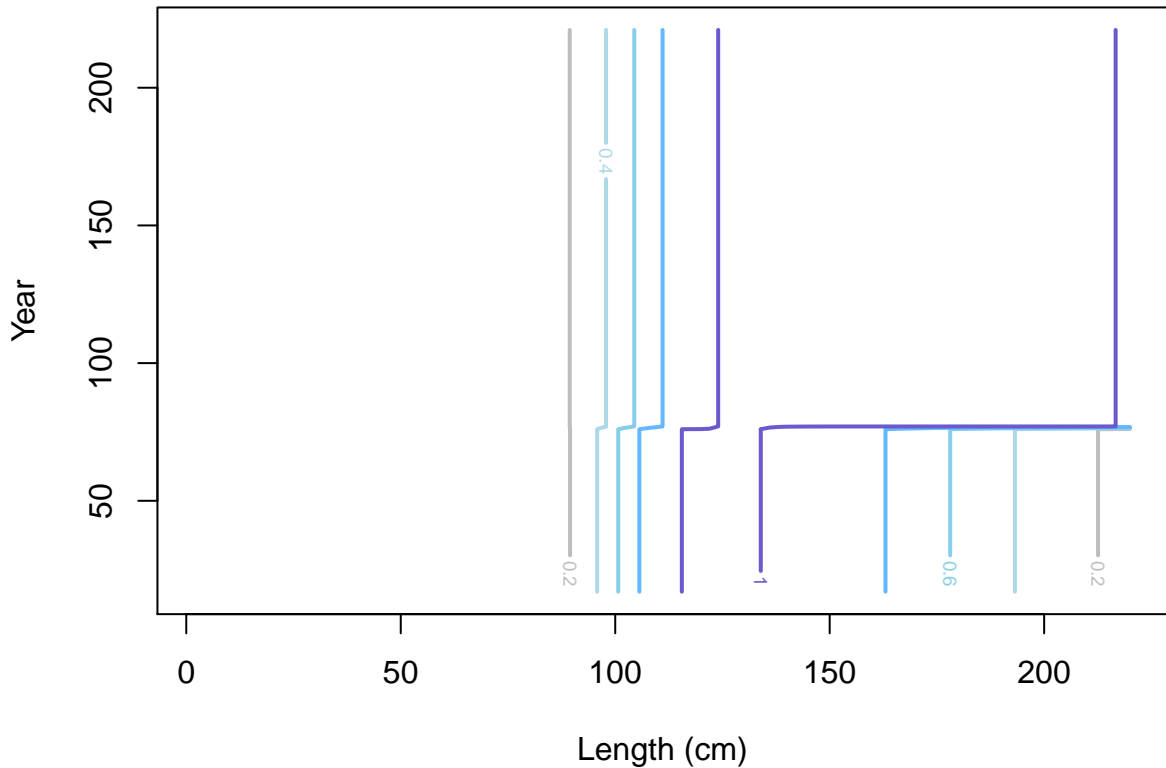
Male ending year selectivity for A3-LL-n



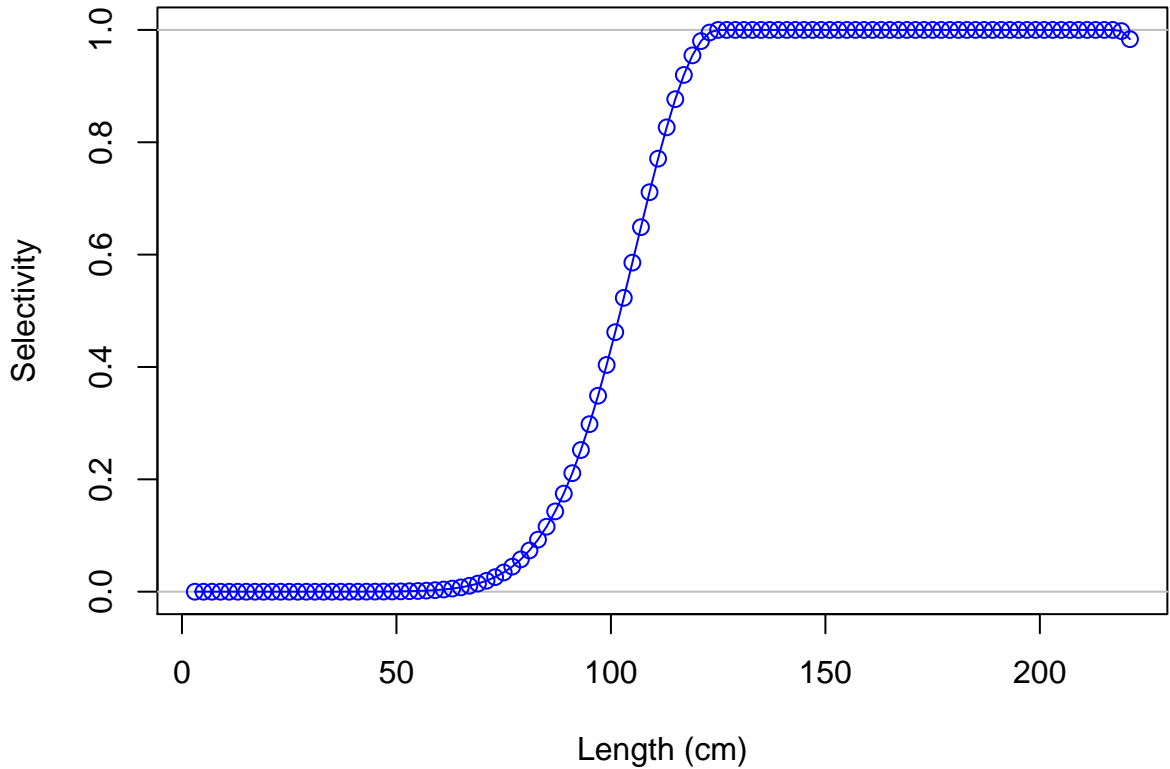
Female time-varying selectivity for A4-LL-n



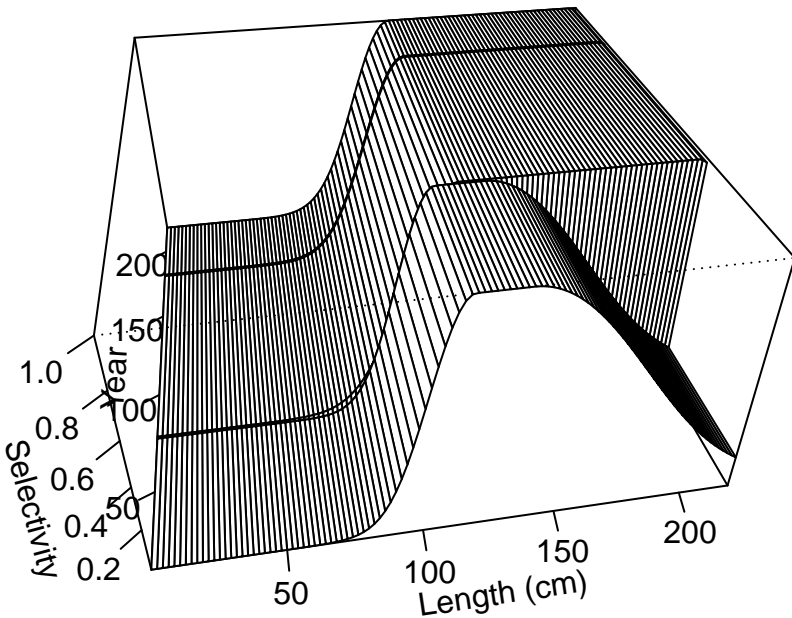
Female time-varying selectivity for A4-LL-n



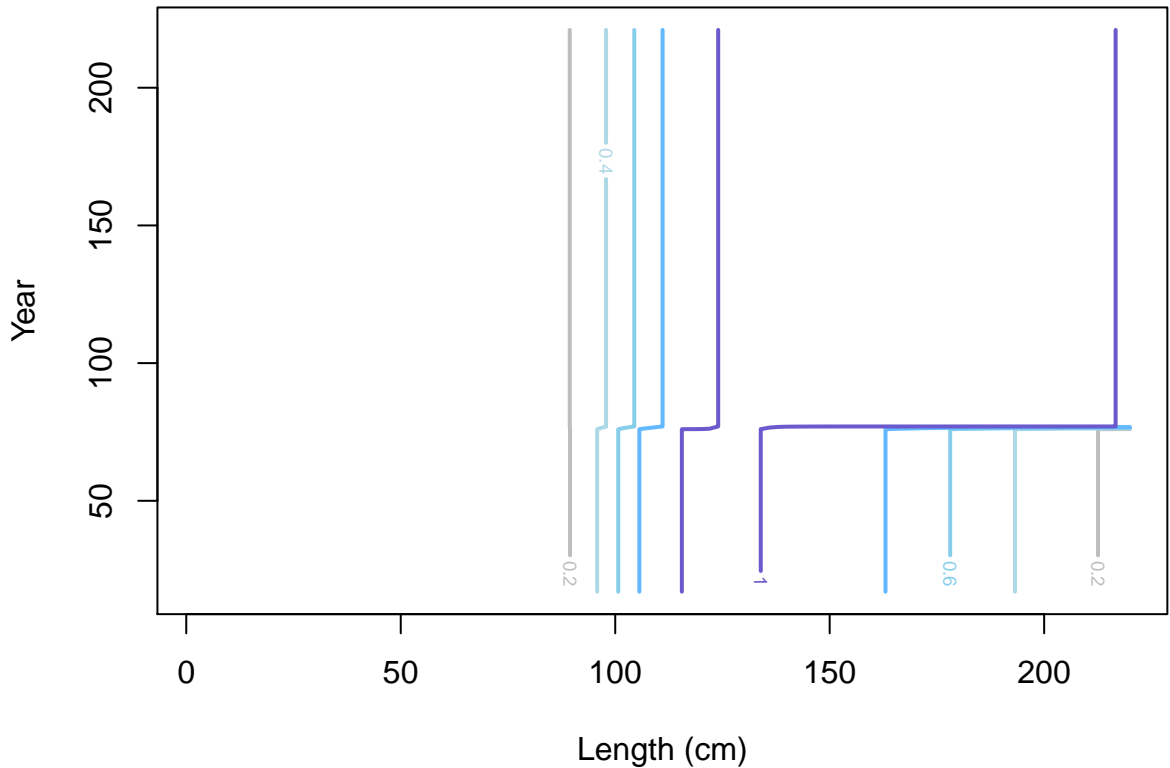
Female ending year selectivity for A4-LL-n



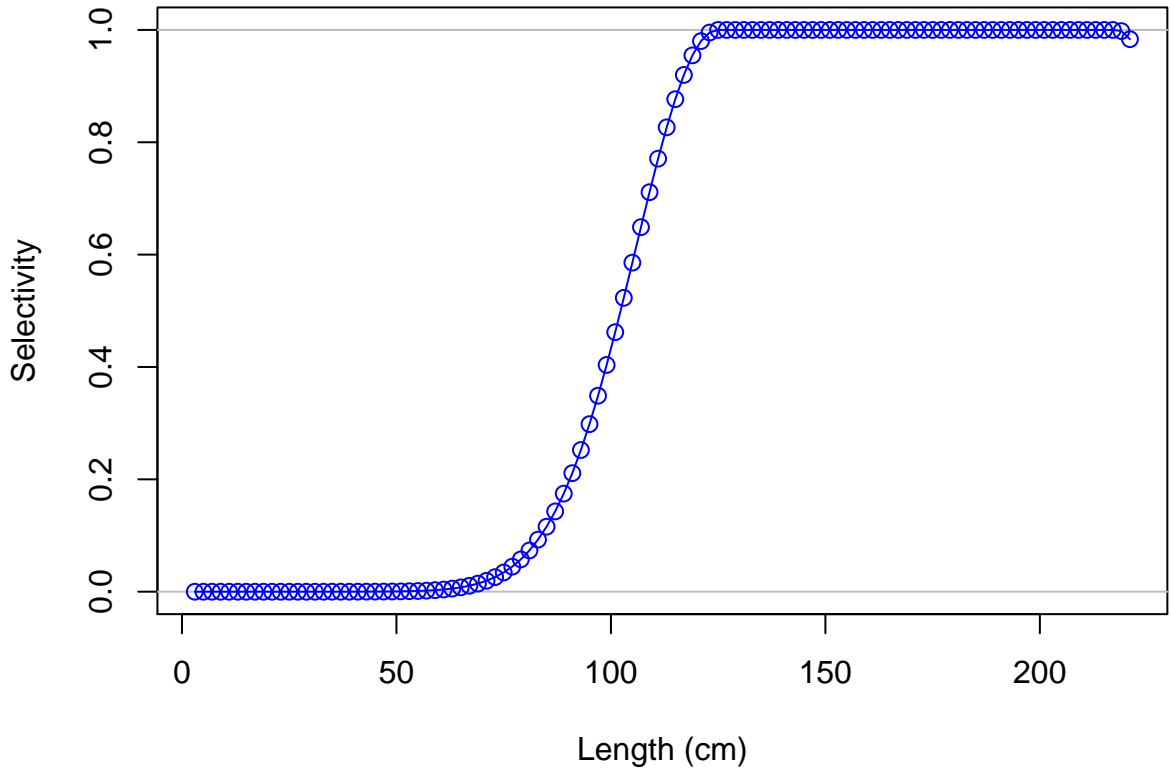
Male time-varying selectivity for A4-LL-n



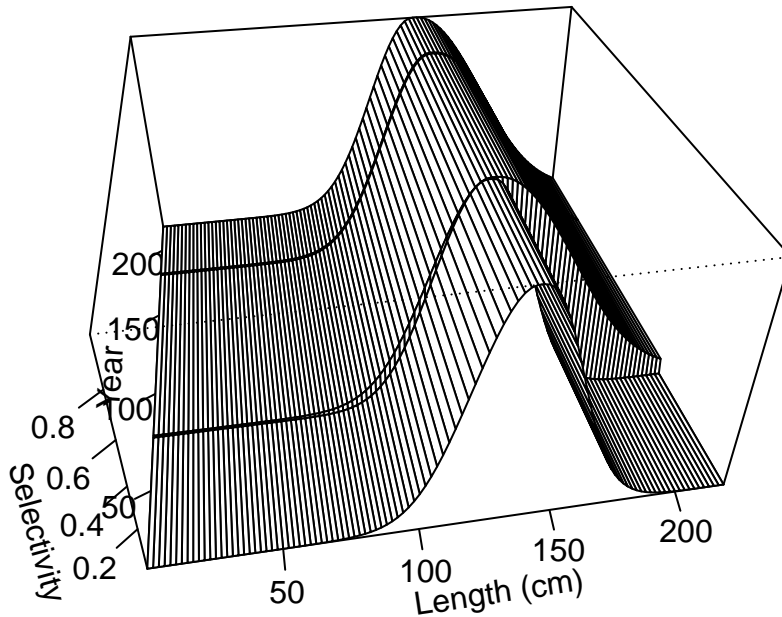
Male time-varying selectivity for A4-LL-n



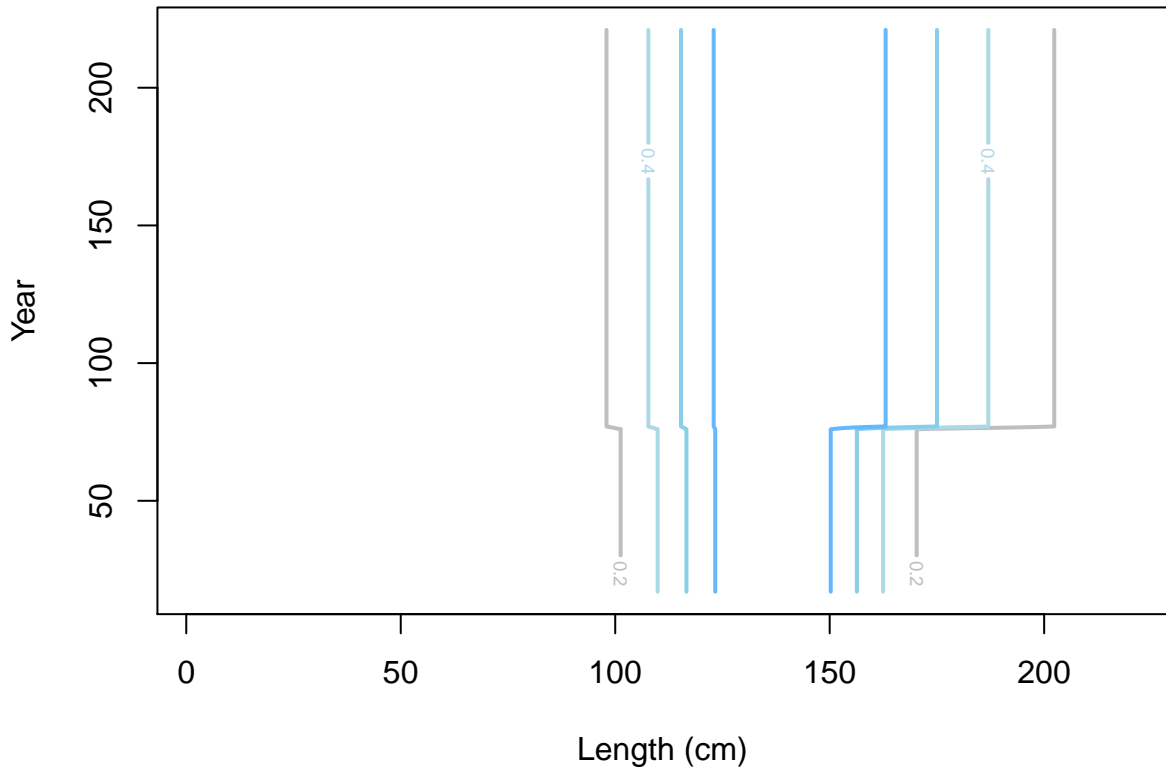
Male ending year selectivity for A4-LL-n



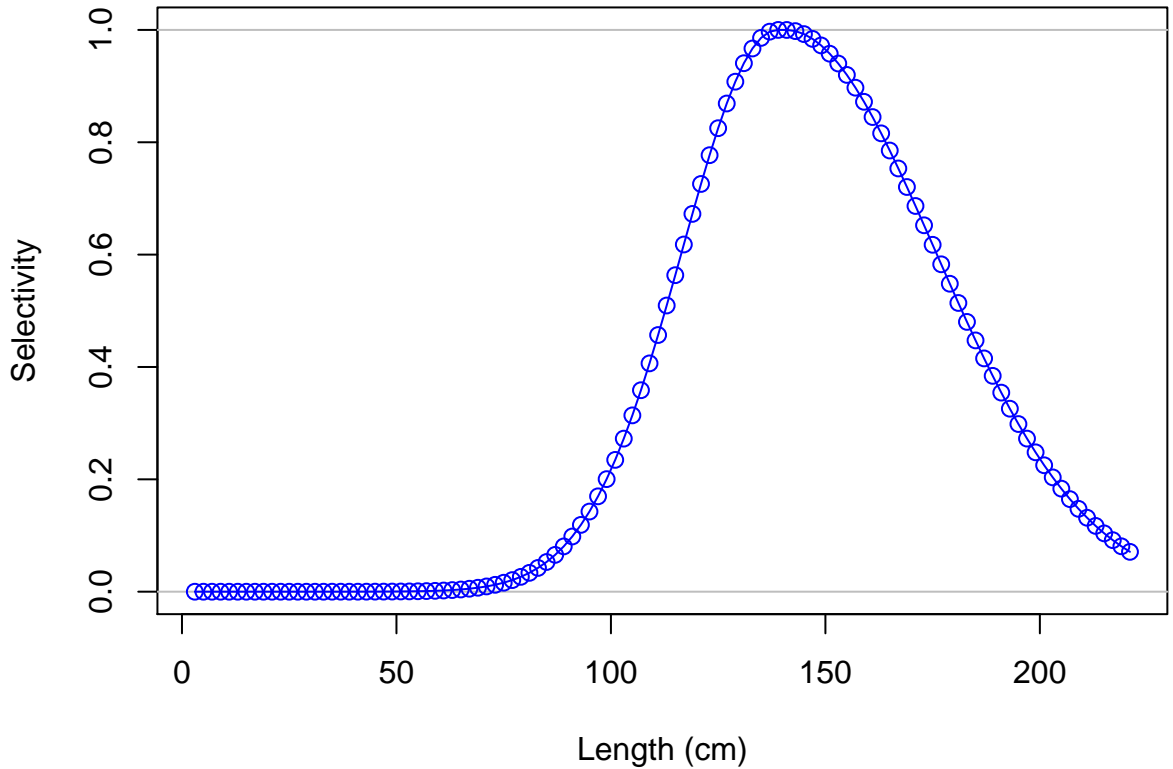
Female time-varying selectivity for A5-LL-n



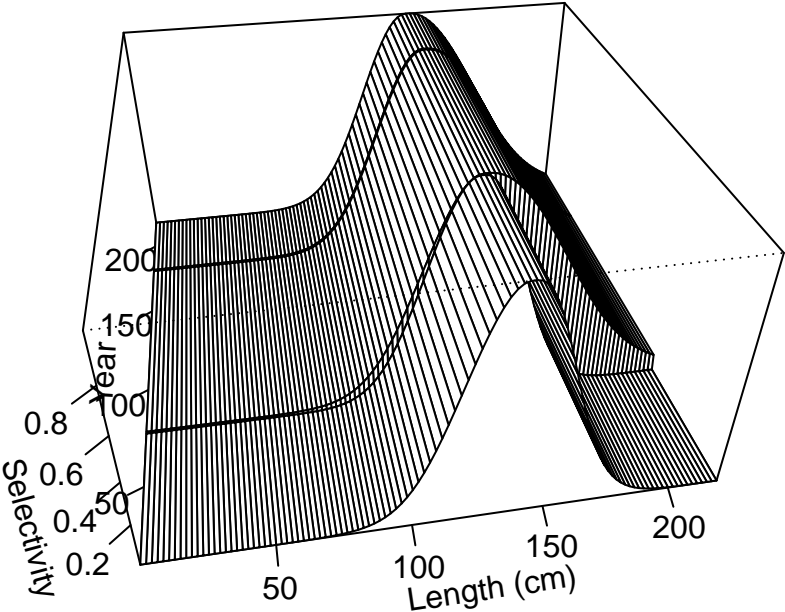
Female time-varying selectivity for A5-LL-n



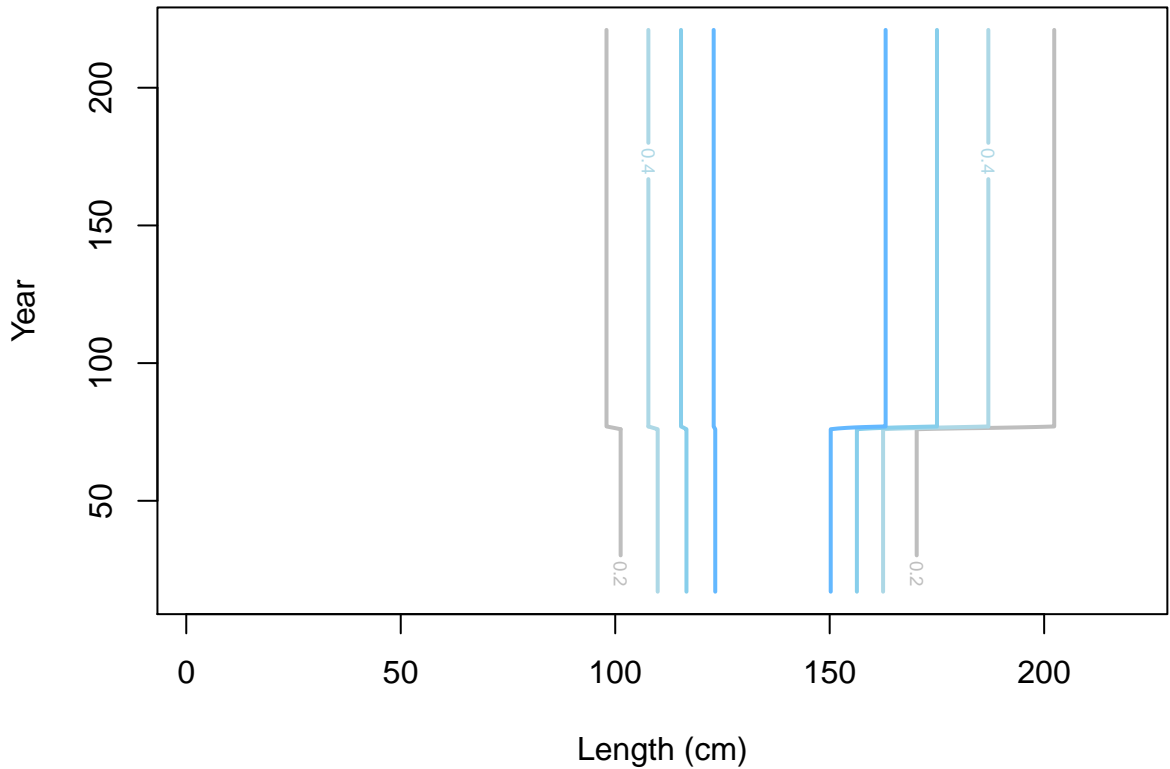
Female ending year selectivity for A5-LL-n



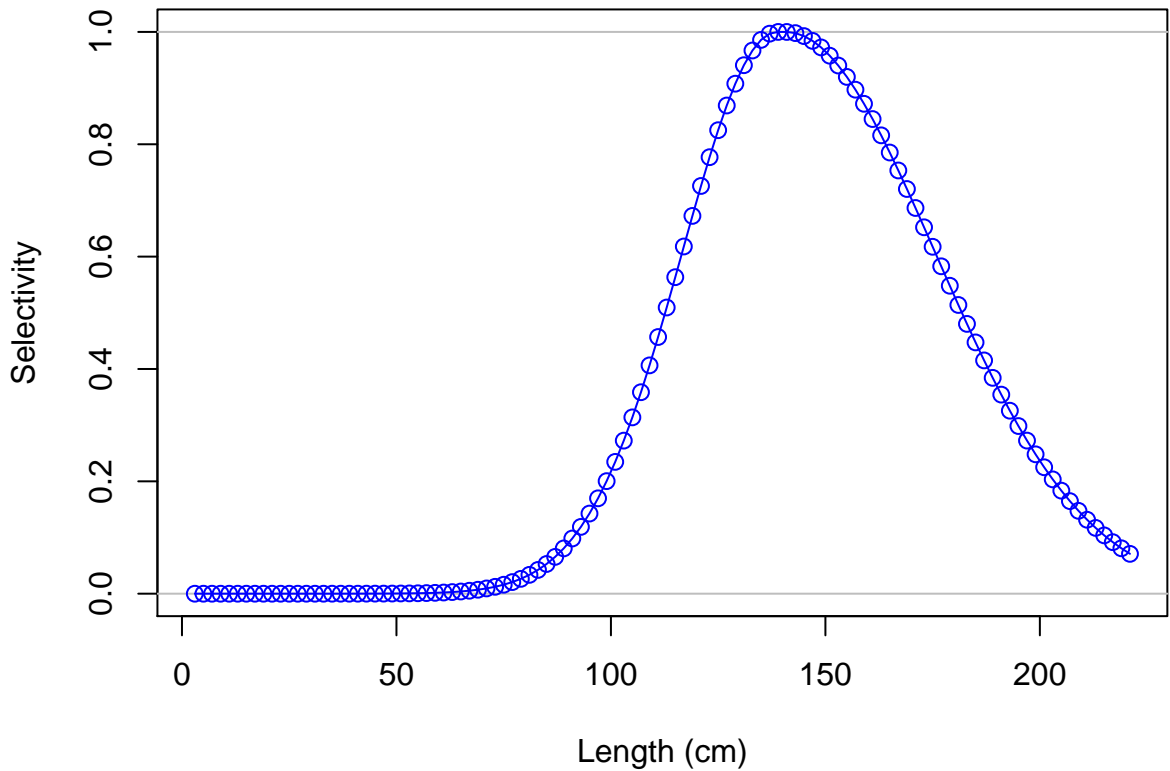
Male time-varying selectivity for A5-LL-n



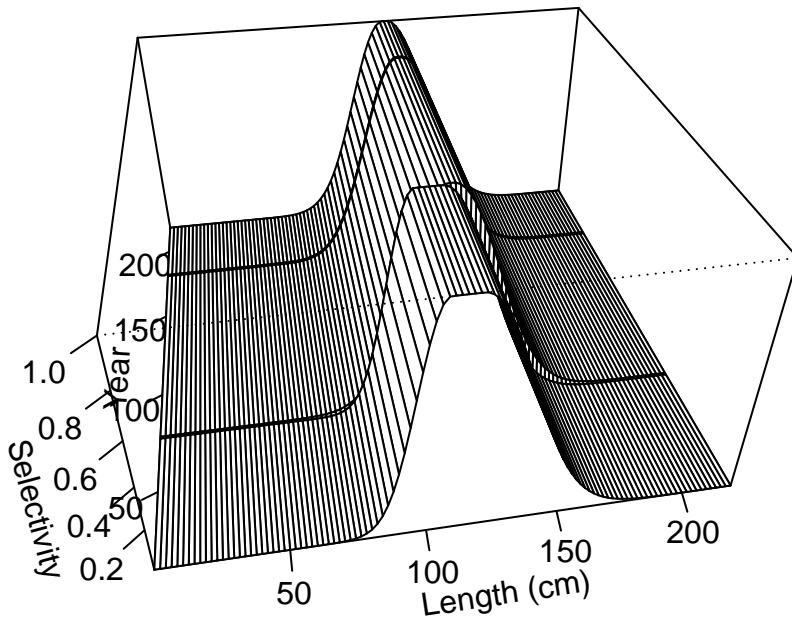
Male time-varying selectivity for A5-LL-n



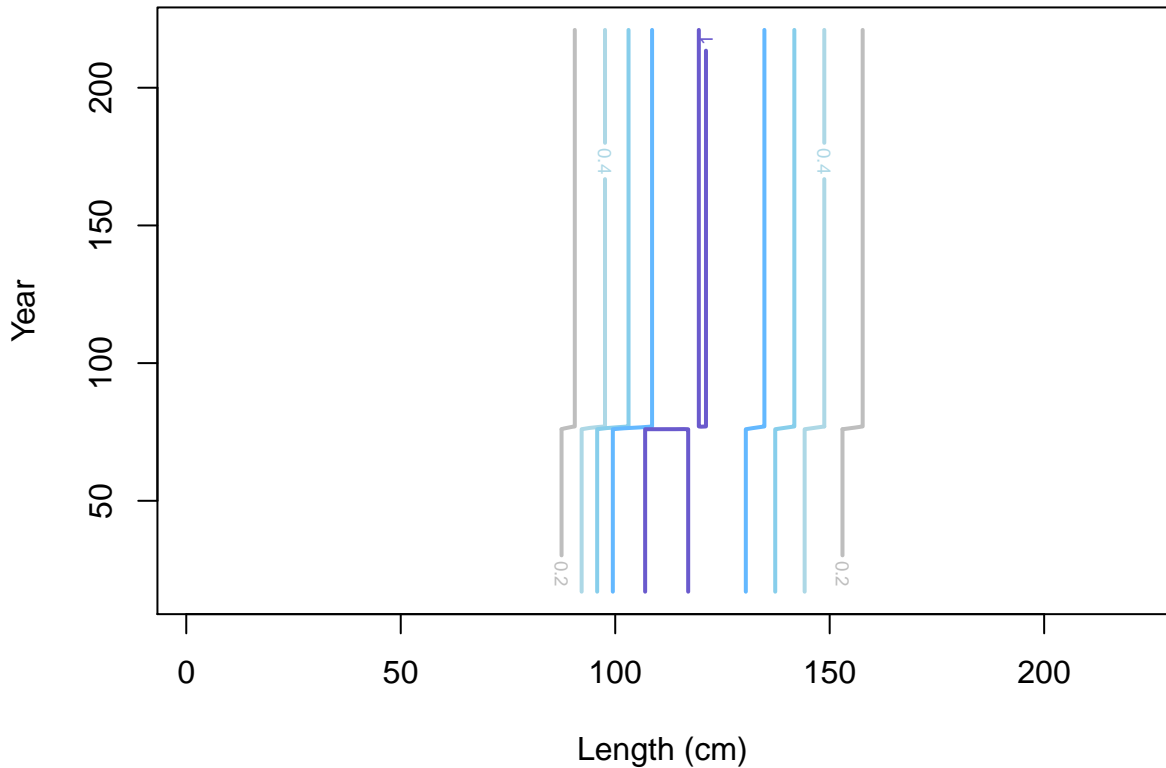
Male ending year selectivity for A5-LL-n



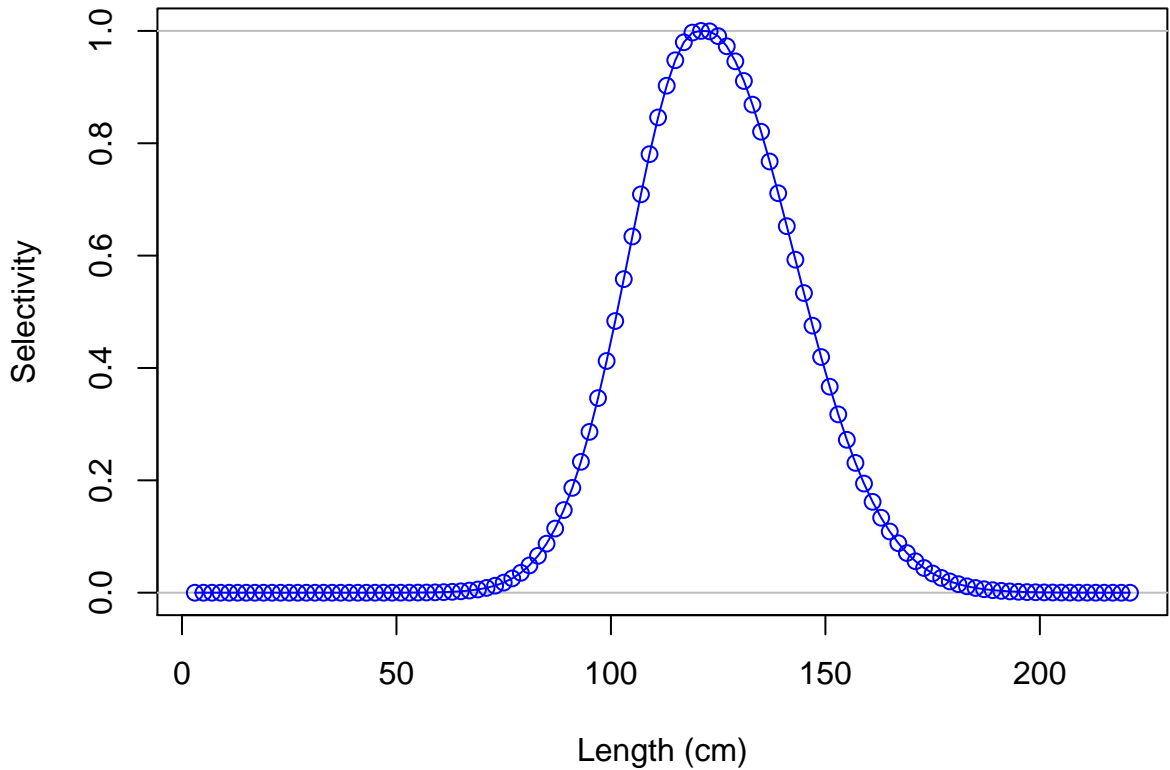
Female time-varying selectivity for A6-LL-n



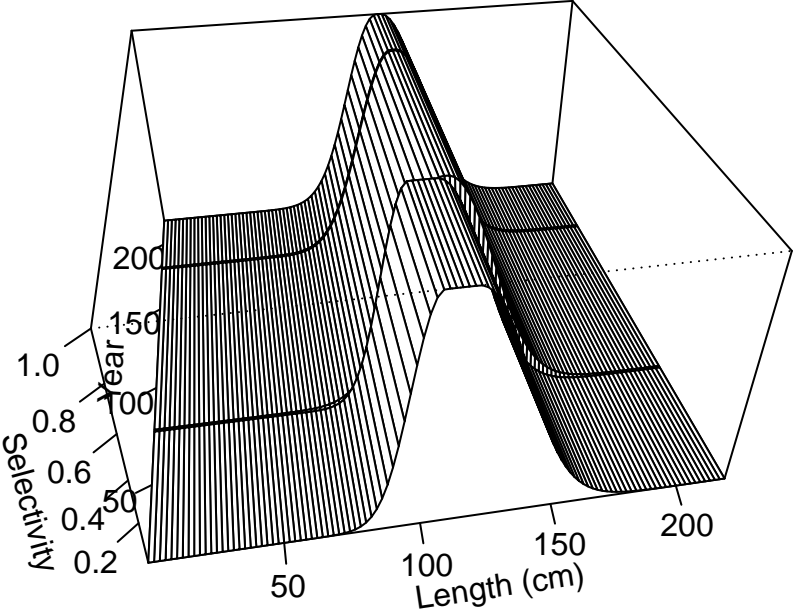
Female time-varying selectivity for A6-LL-n



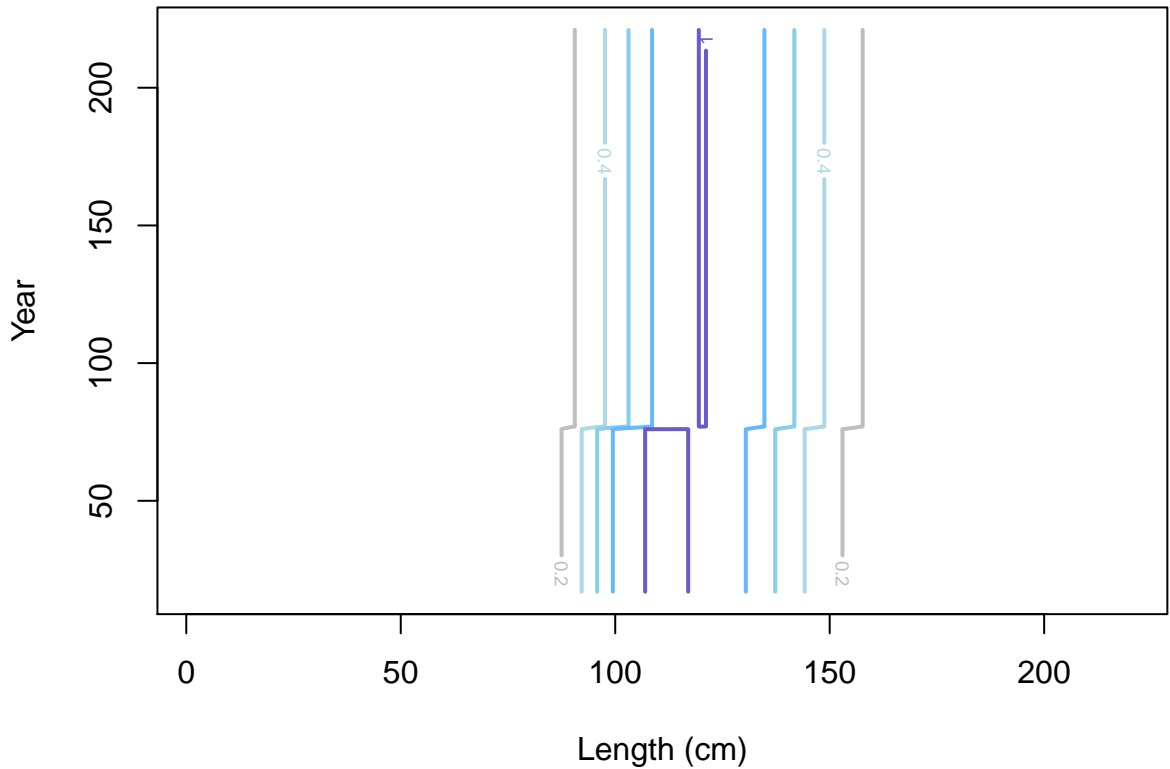
Female ending year selectivity for A6-LL-n



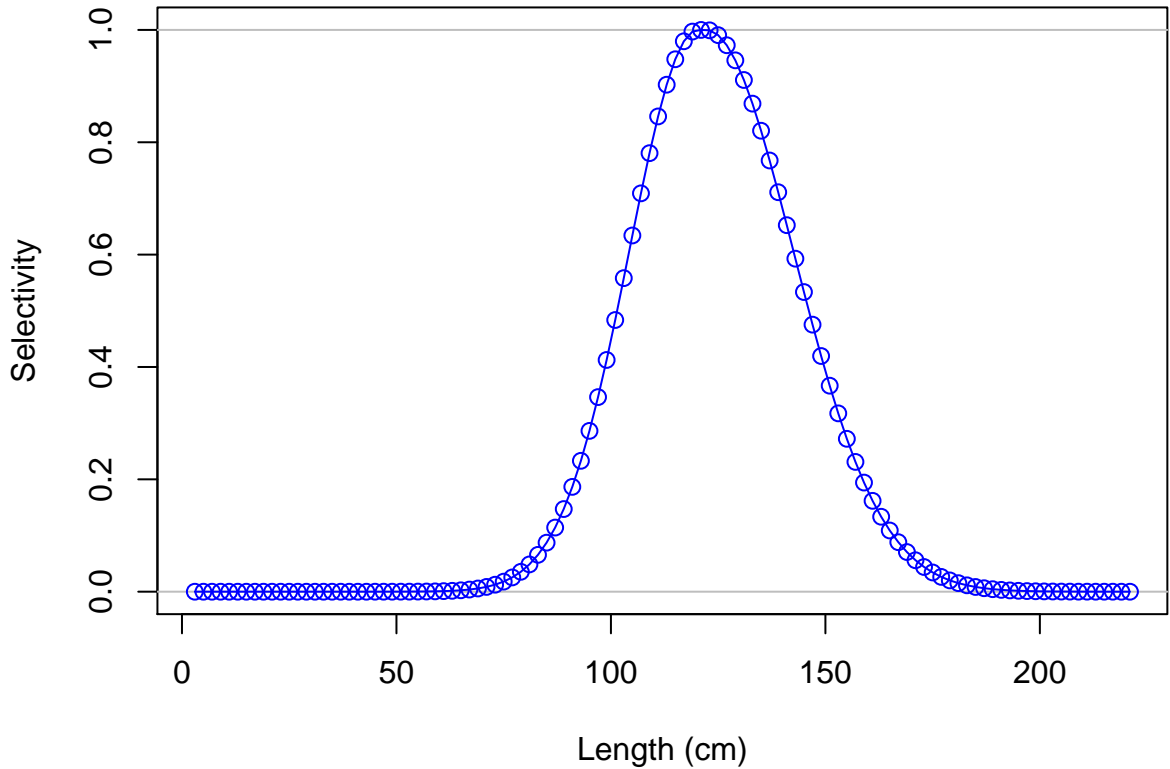
Male time-varying selectivity for A6-LL-n



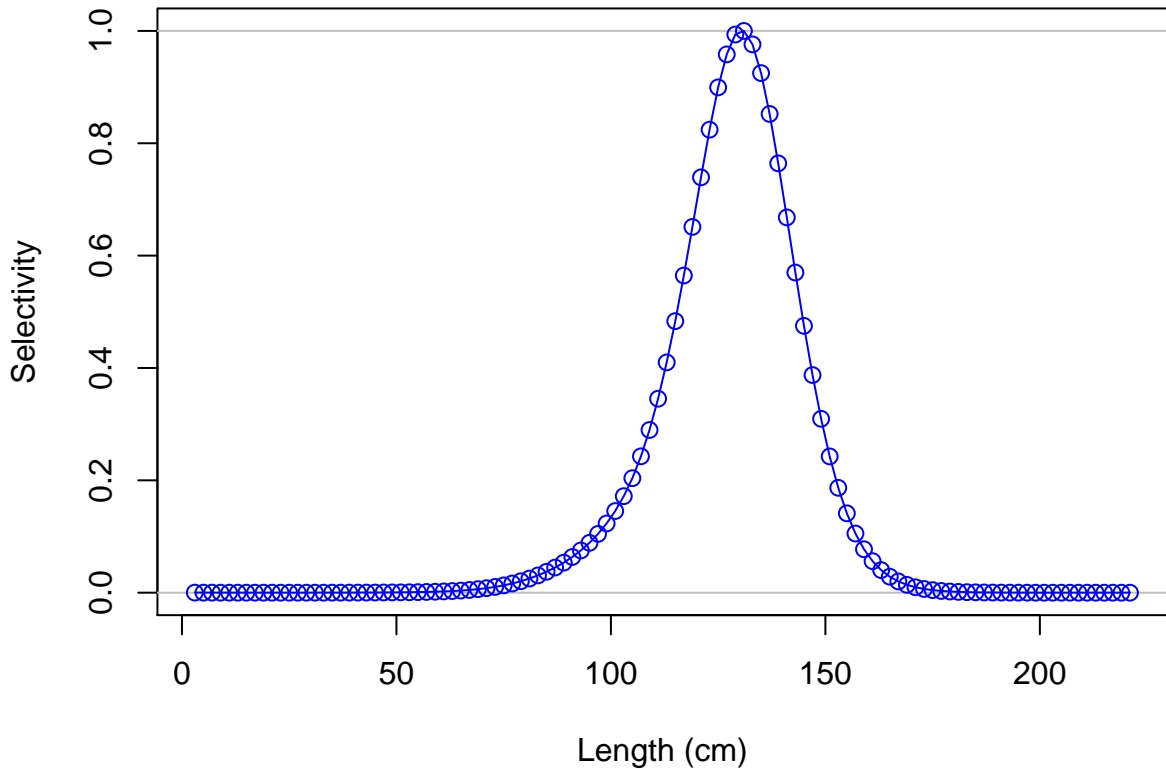
Male time-varying selectivity for A6-LL-n



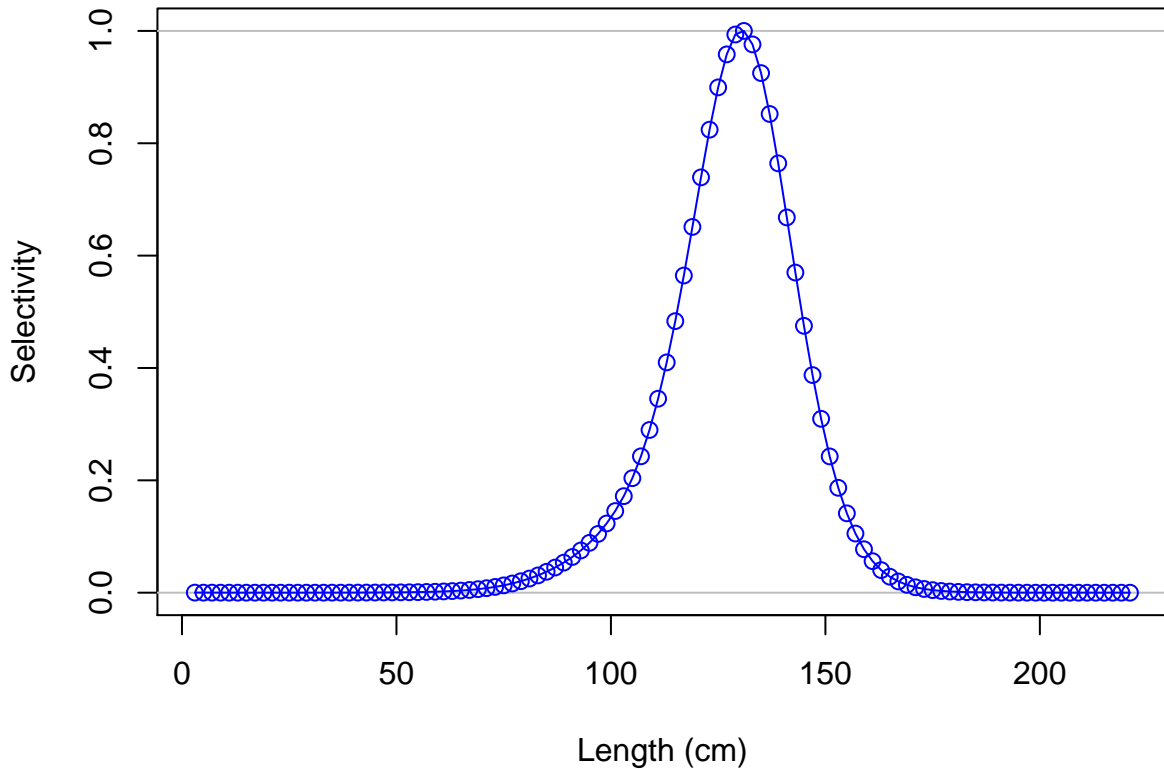
Male ending year selectivity for A6-LL-n



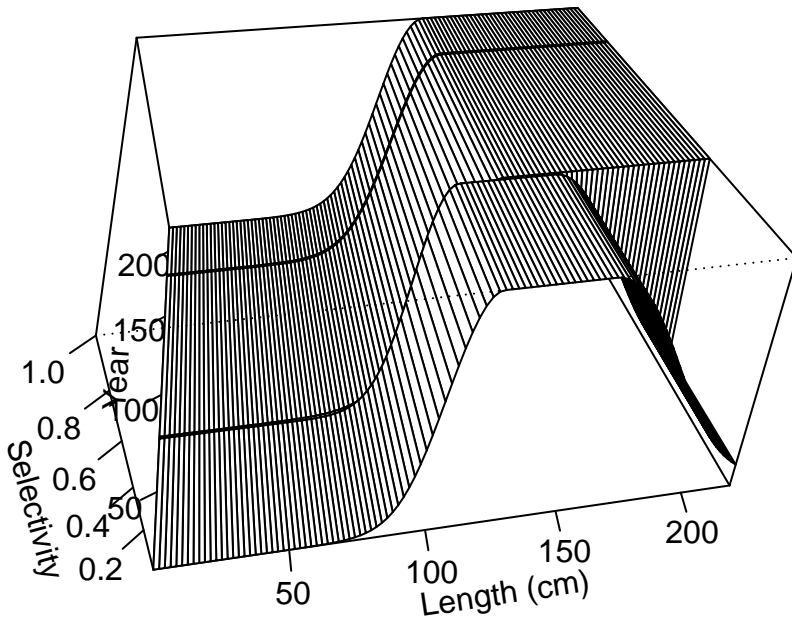
Female ending year selectivity for A1-LL-w



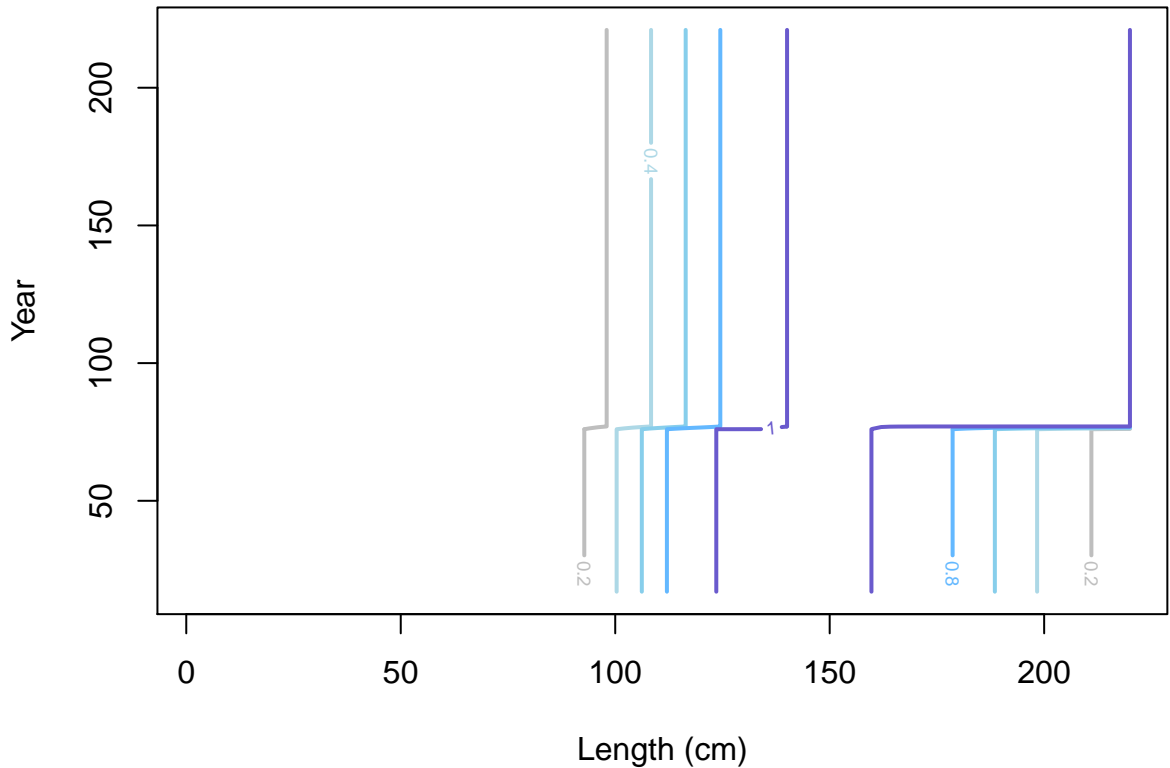
Male ending year selectivity for A1-LL-w



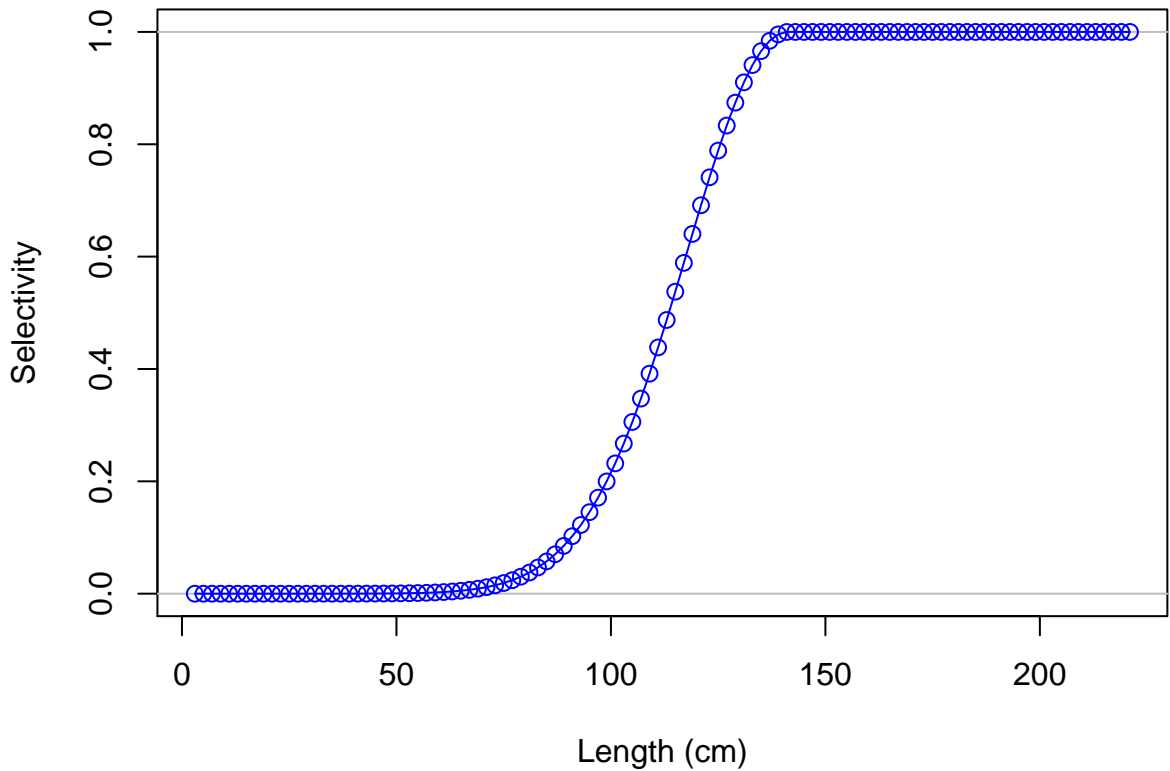
Female time-varying selectivity for A2-LL-w



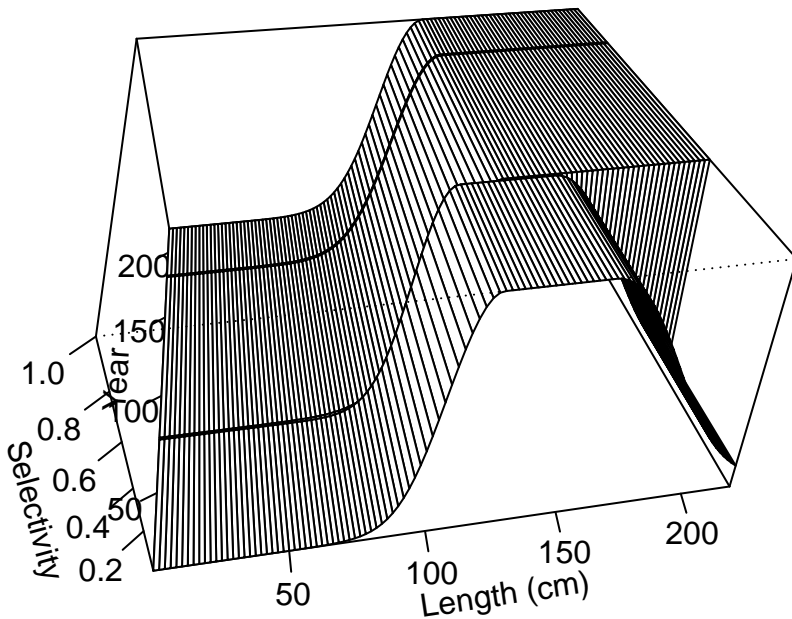
Female time-varying selectivity for A2-LL-w



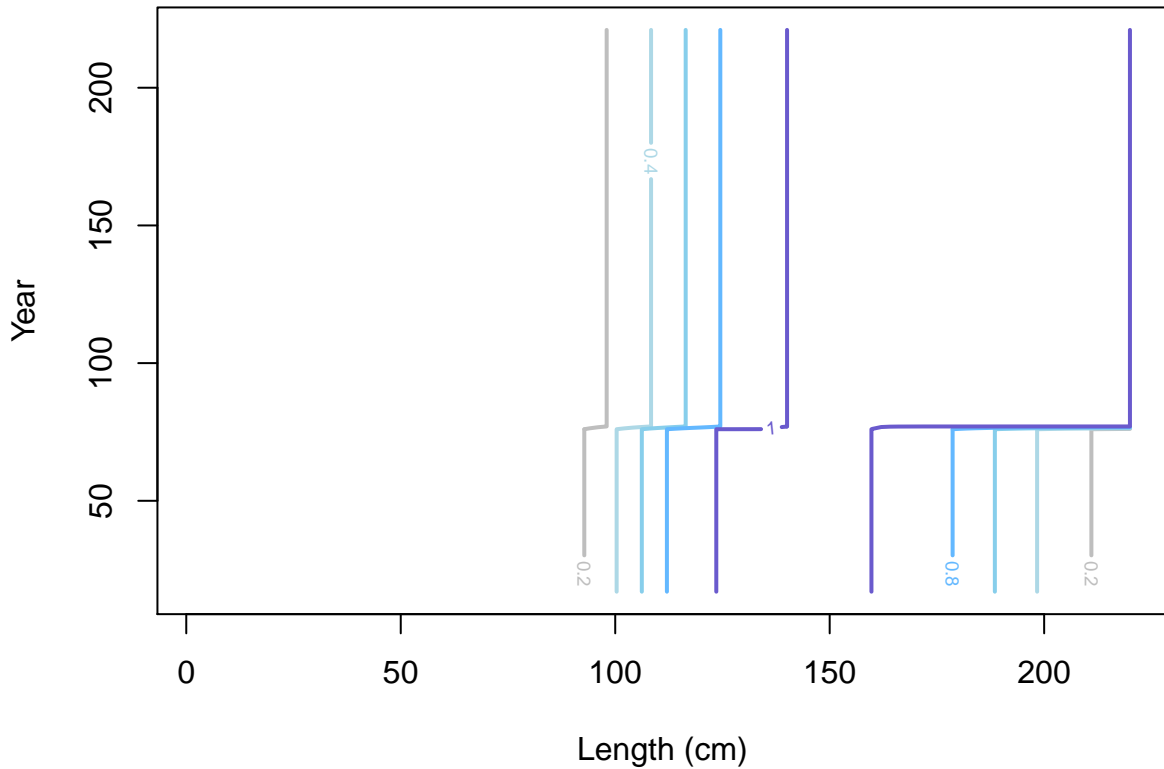
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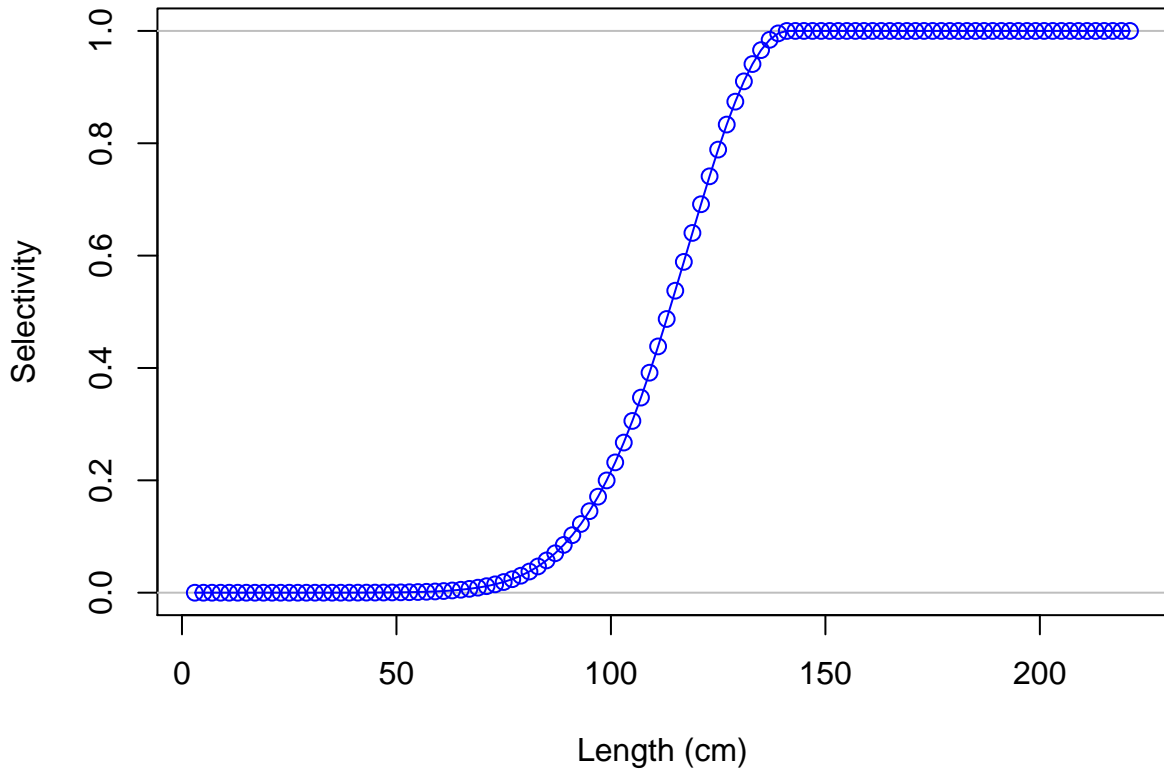
Male time-varying selectivity for A2-LL-w



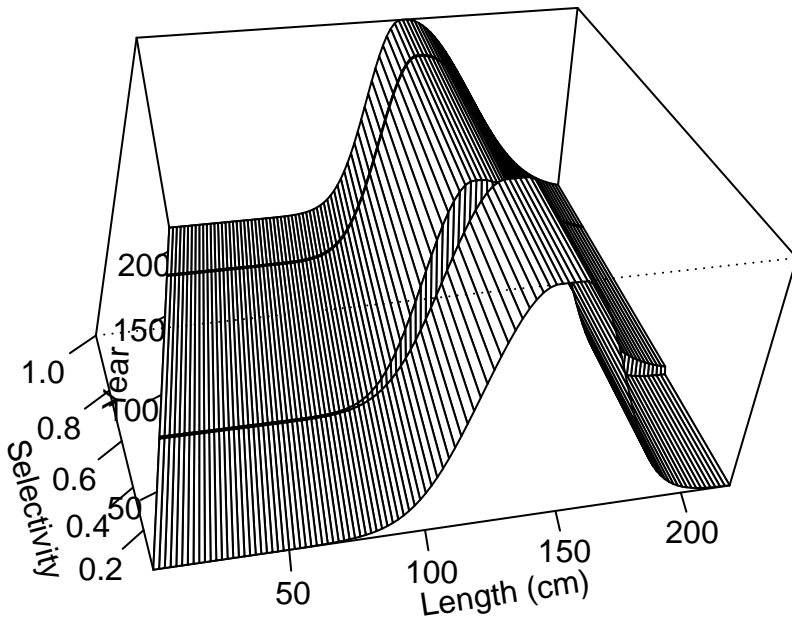
Male time-varying selectivity for A2-LL-w



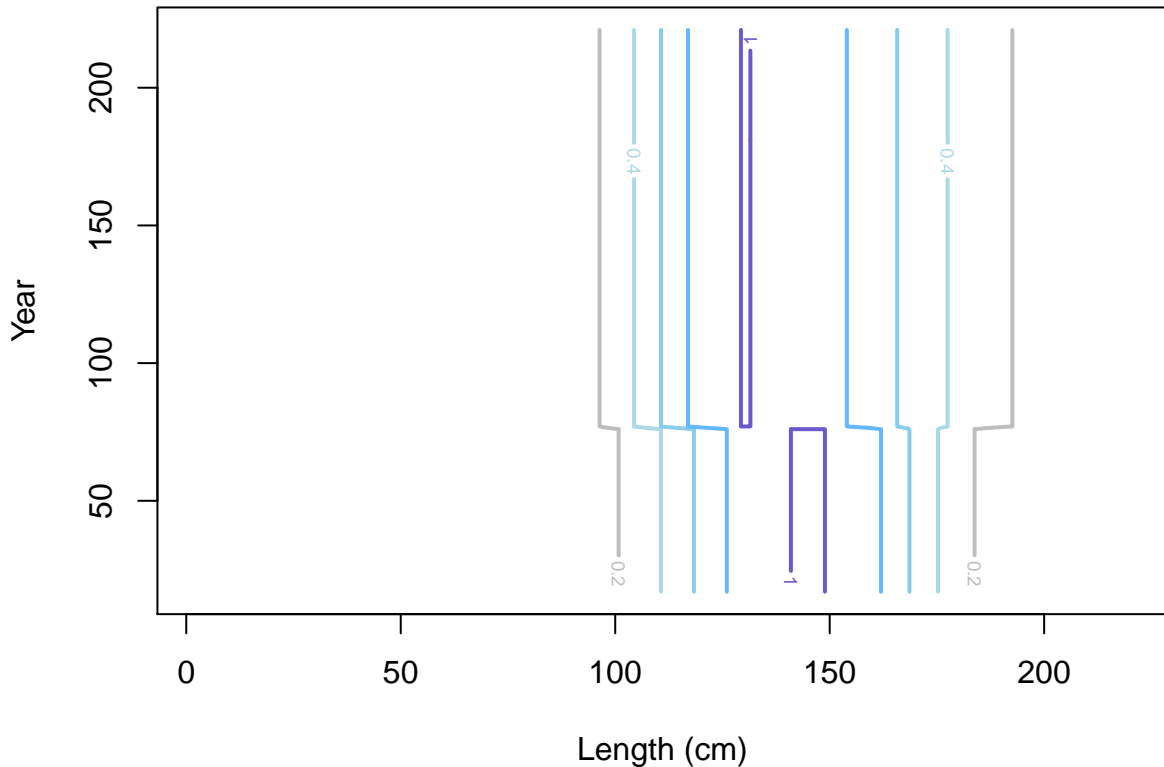
Male ending year selectivity for A2-LL-w



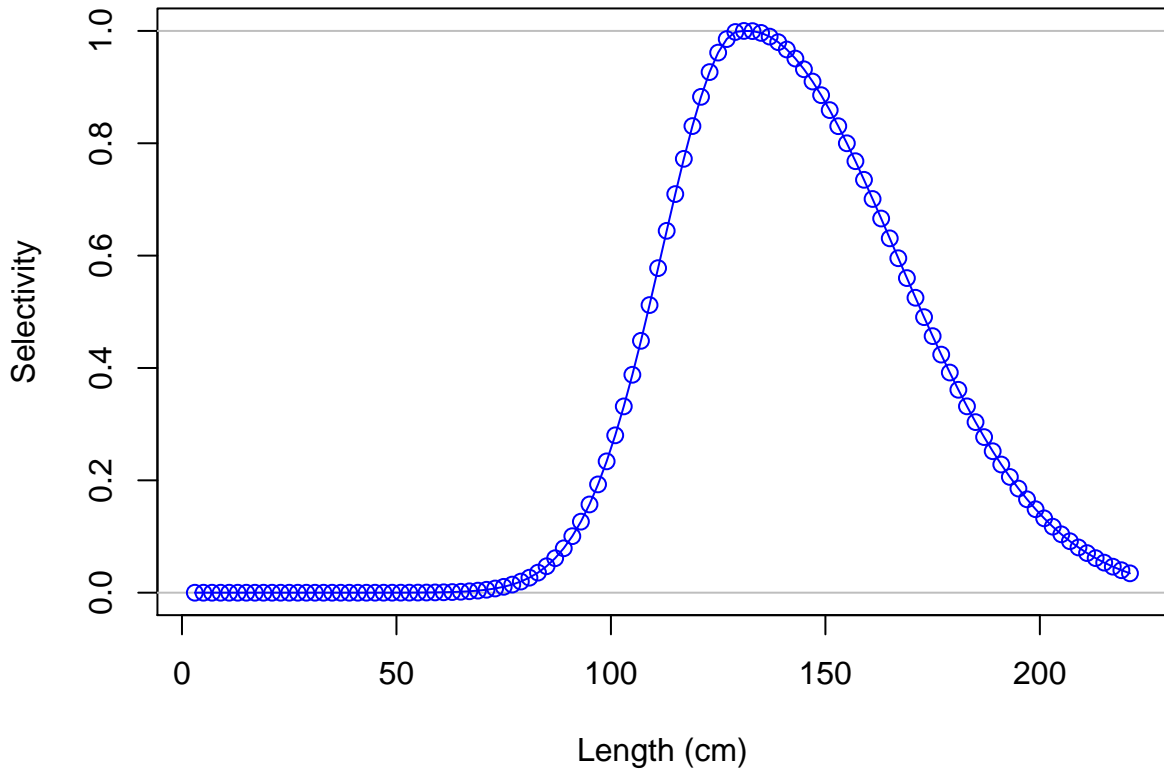
Female time-varying selectivity for A3-LL-w



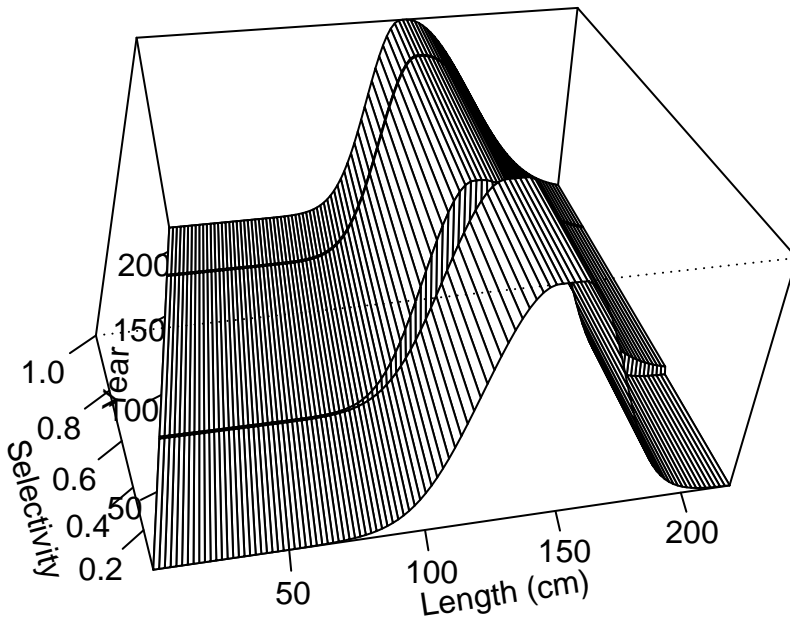
Female time-varying selectivity for A3-LL-w



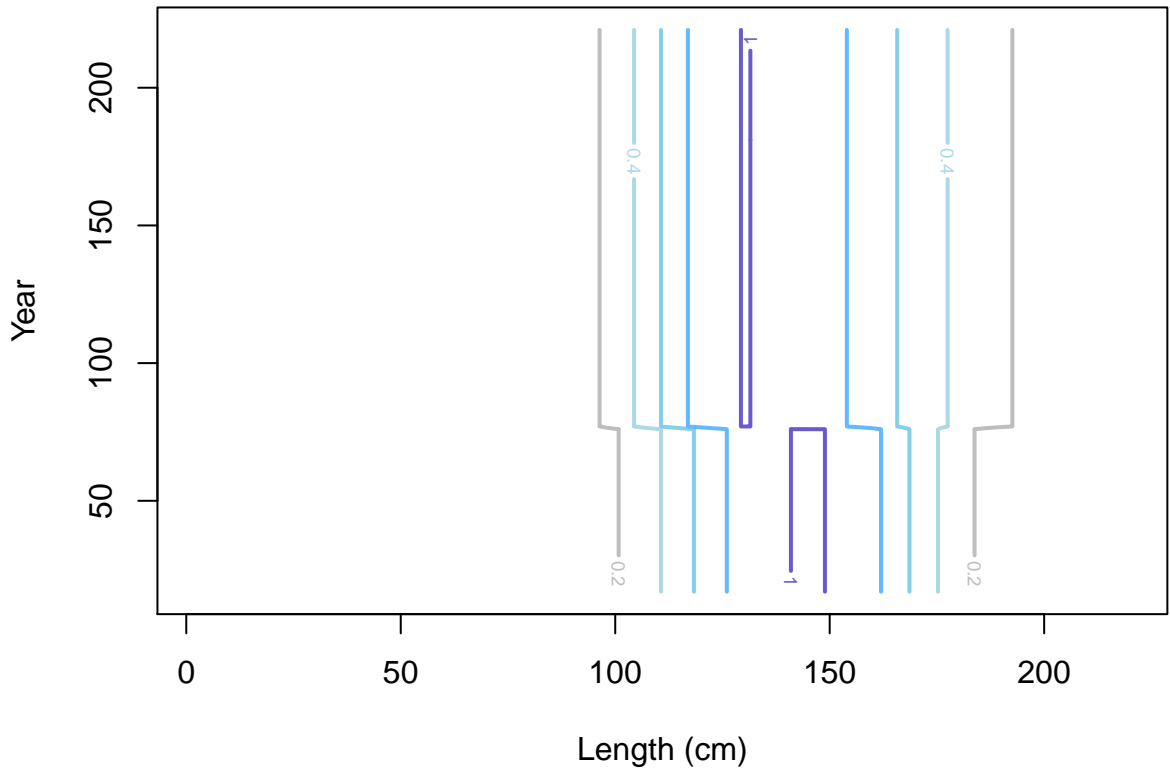
Female ending year selectivity for A3-LL-w



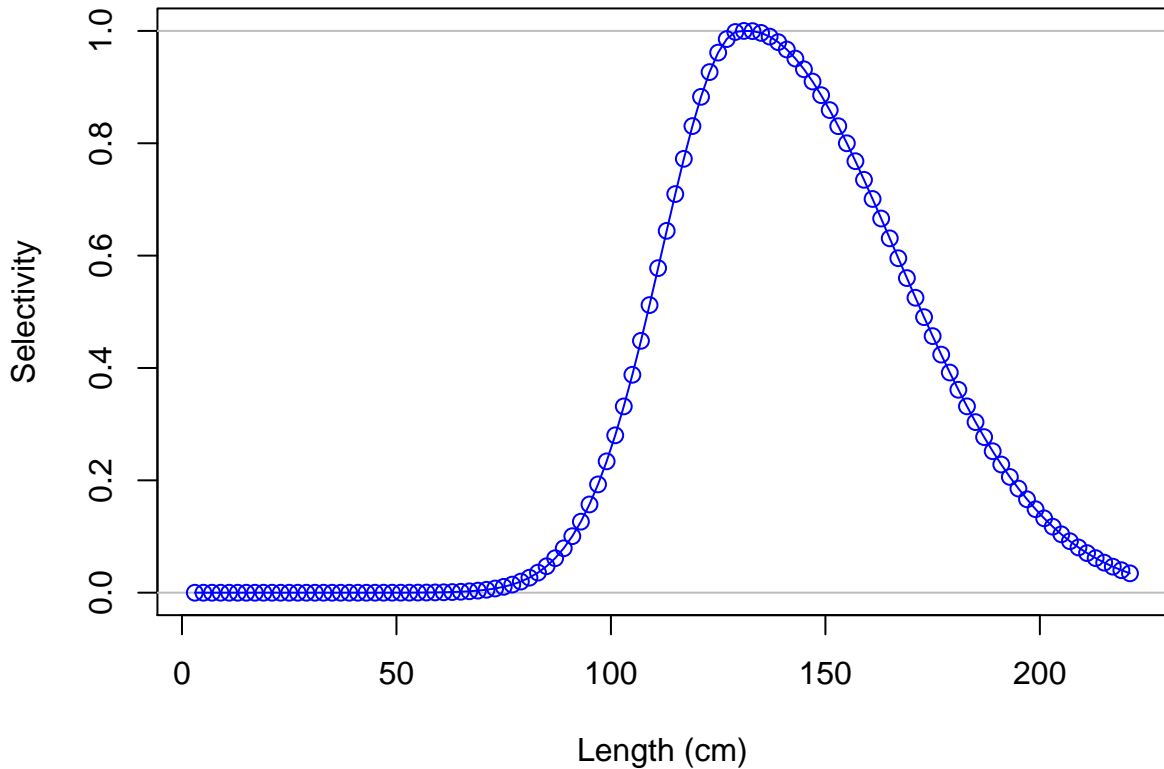
Male time-varying selectivity for A3-LL-w



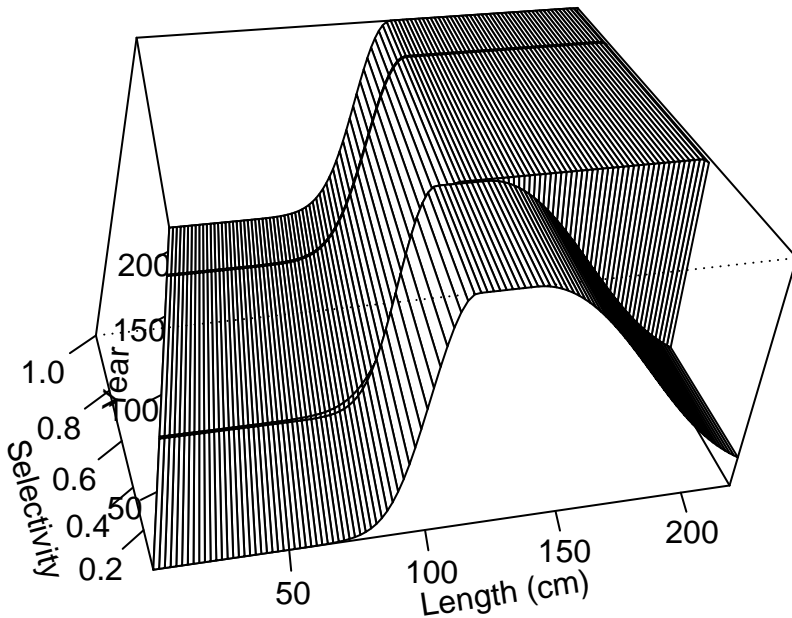
Male time-varying selectivity for A3-LL-w



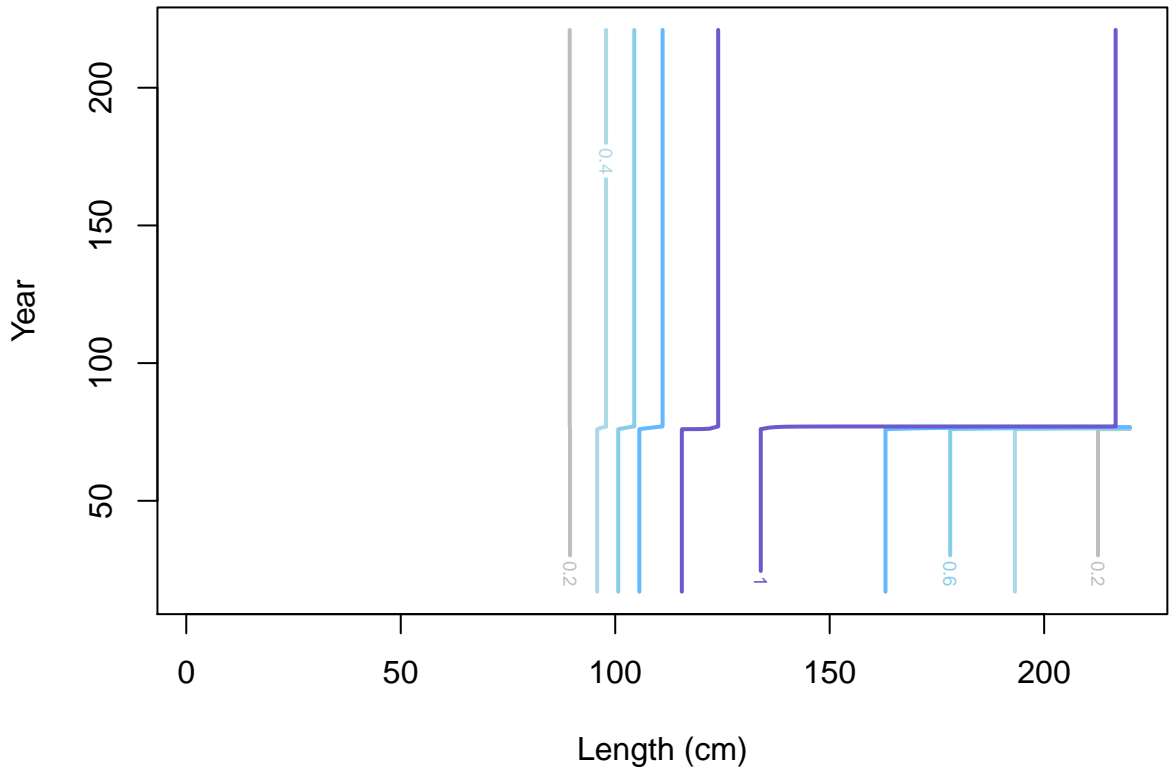
Male ending year selectivity for A3-LL-w



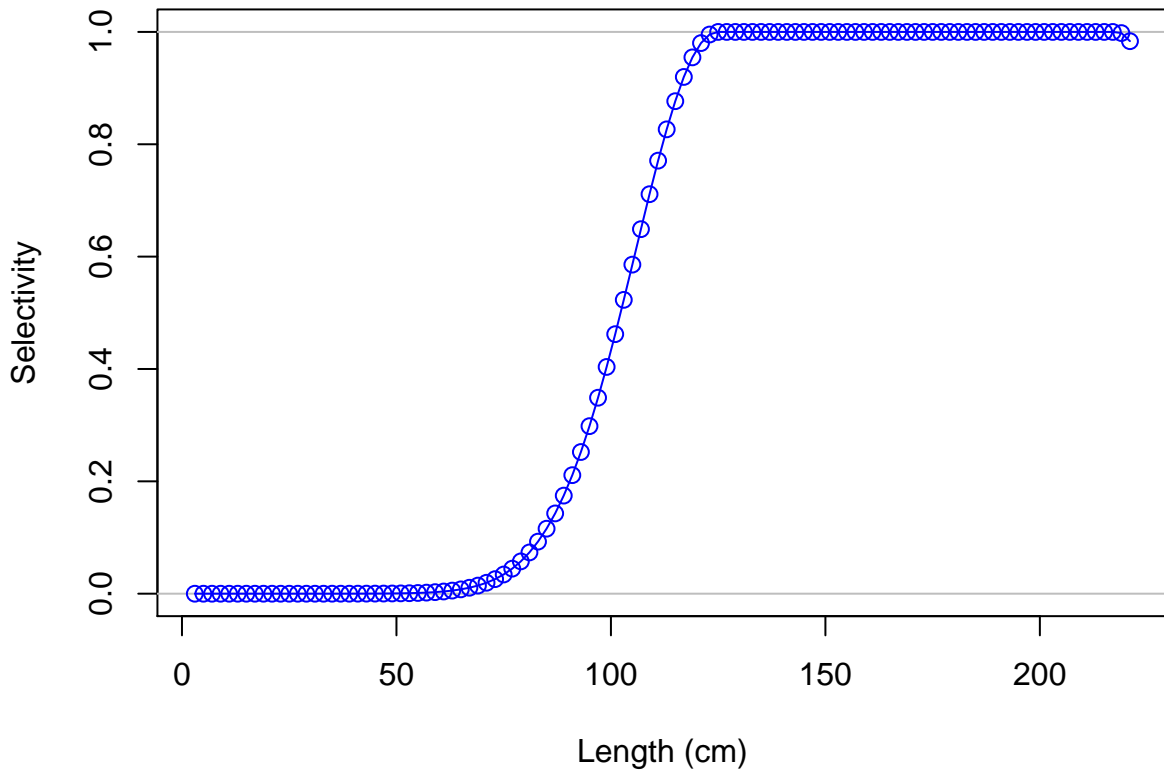
Female time-varying selectivity for A4-LL-w



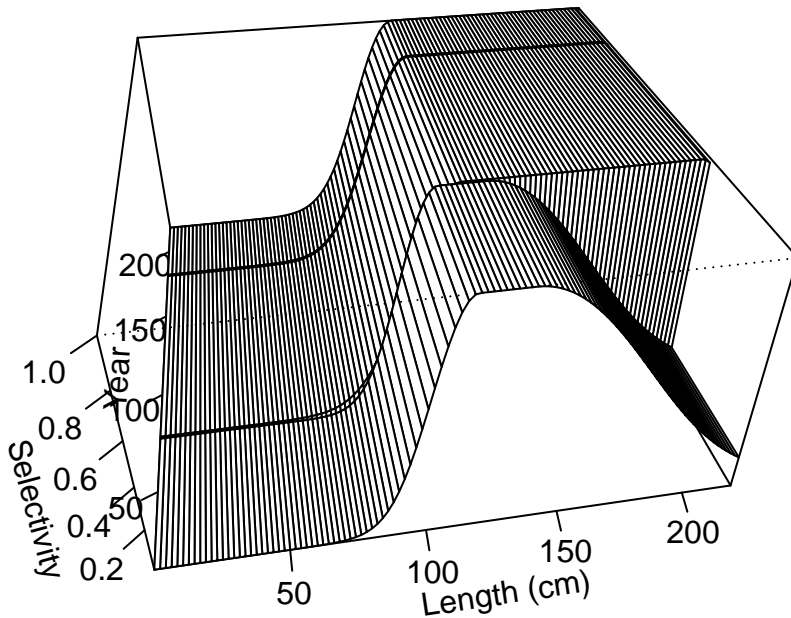
Female time-varying selectivity for A4-LL-w



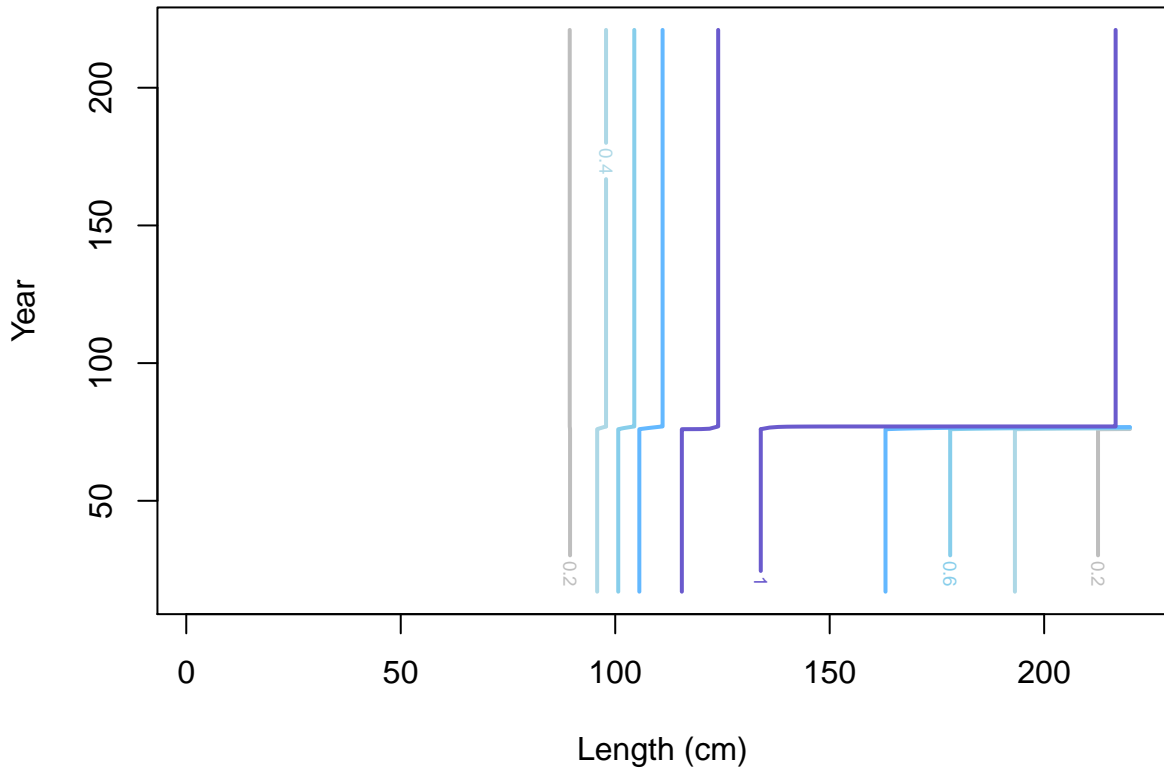
Female ending year selectivity for A4-LL-w



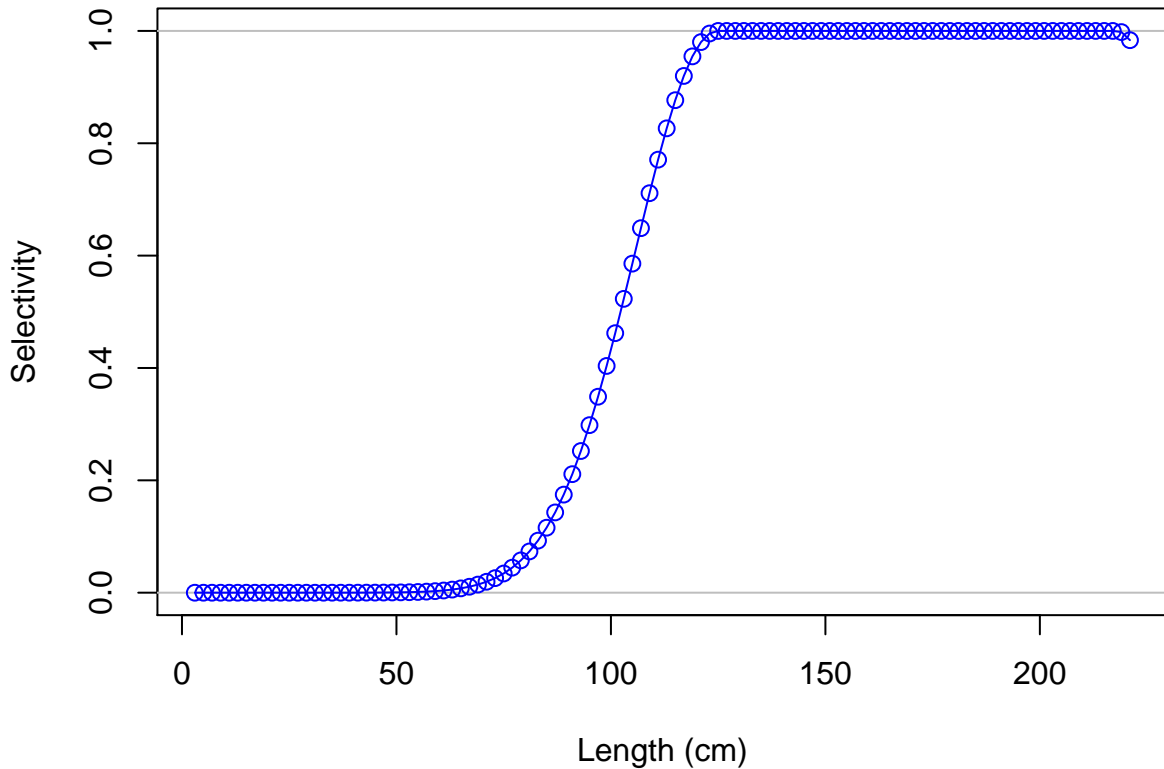
Male time-varying selectivity for A4-LL-w



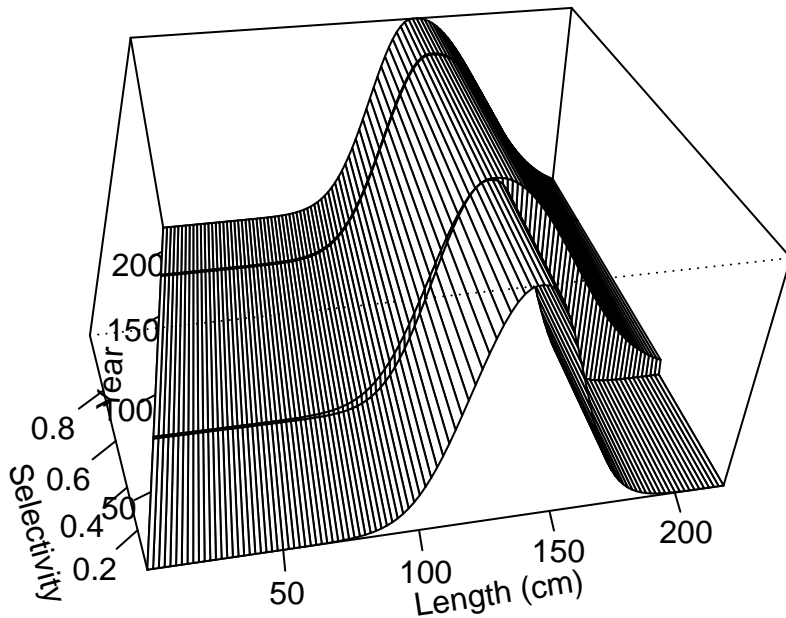
Male time-varying selectivity for A4-LL-w



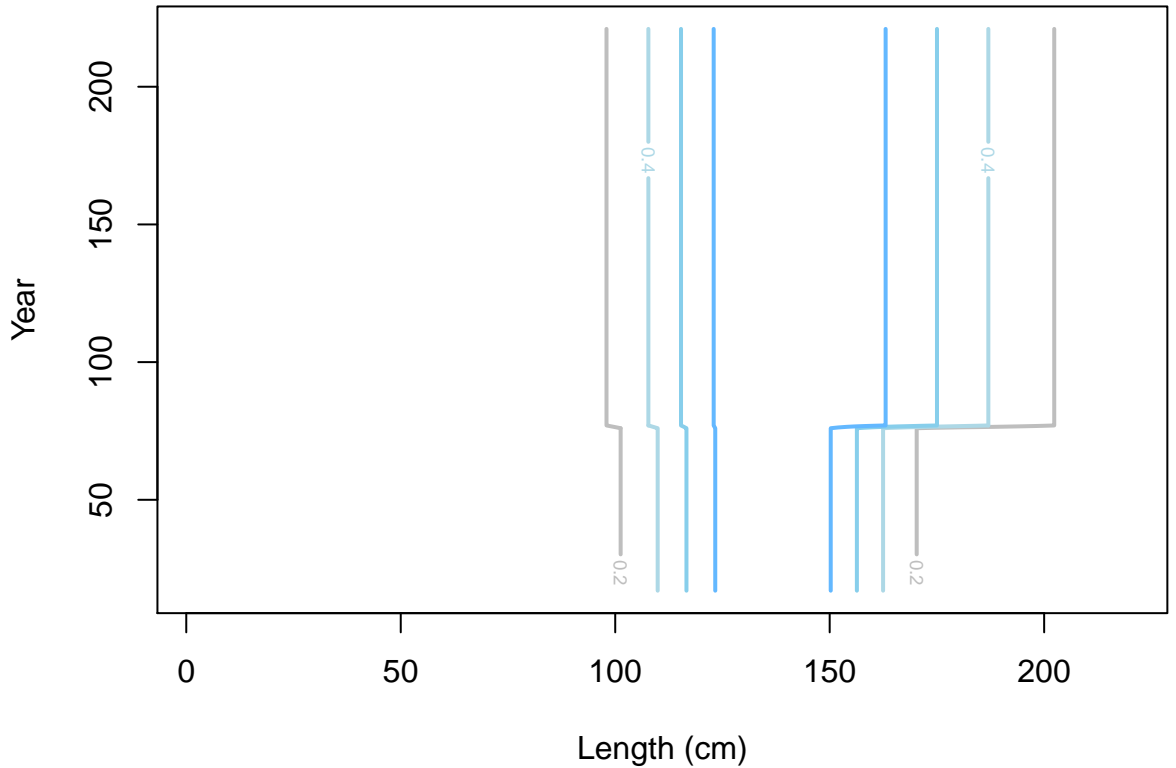
Male ending year selectivity for A4-LL-w



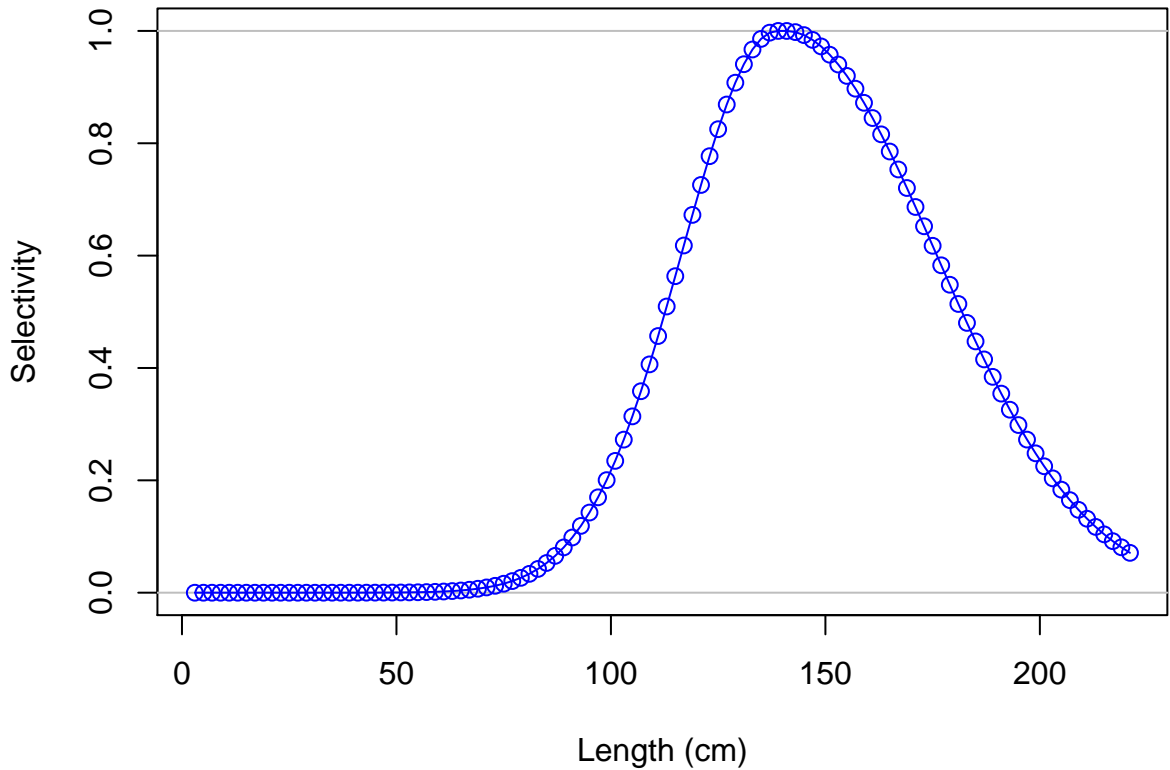
Female time-varying selectivity for A5-LL-w



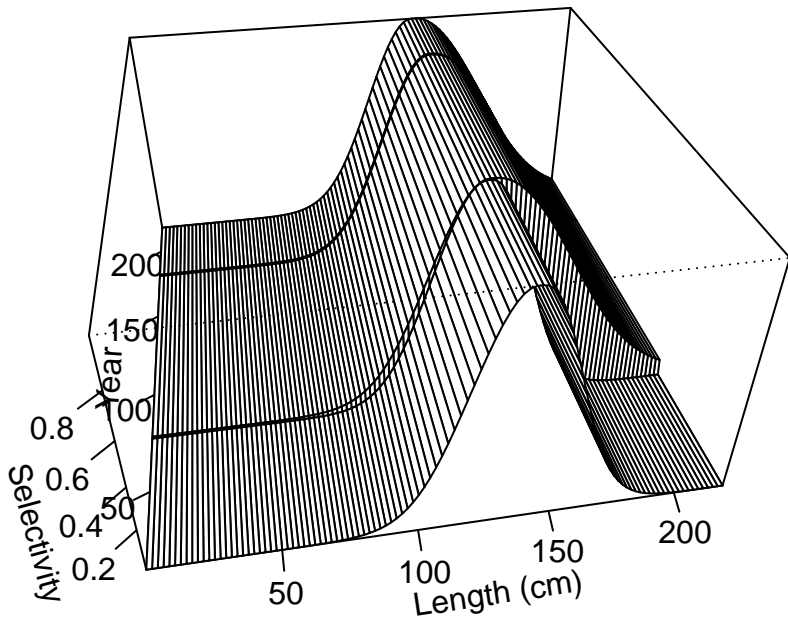
Female time-varying selectivity for A5-LL-w



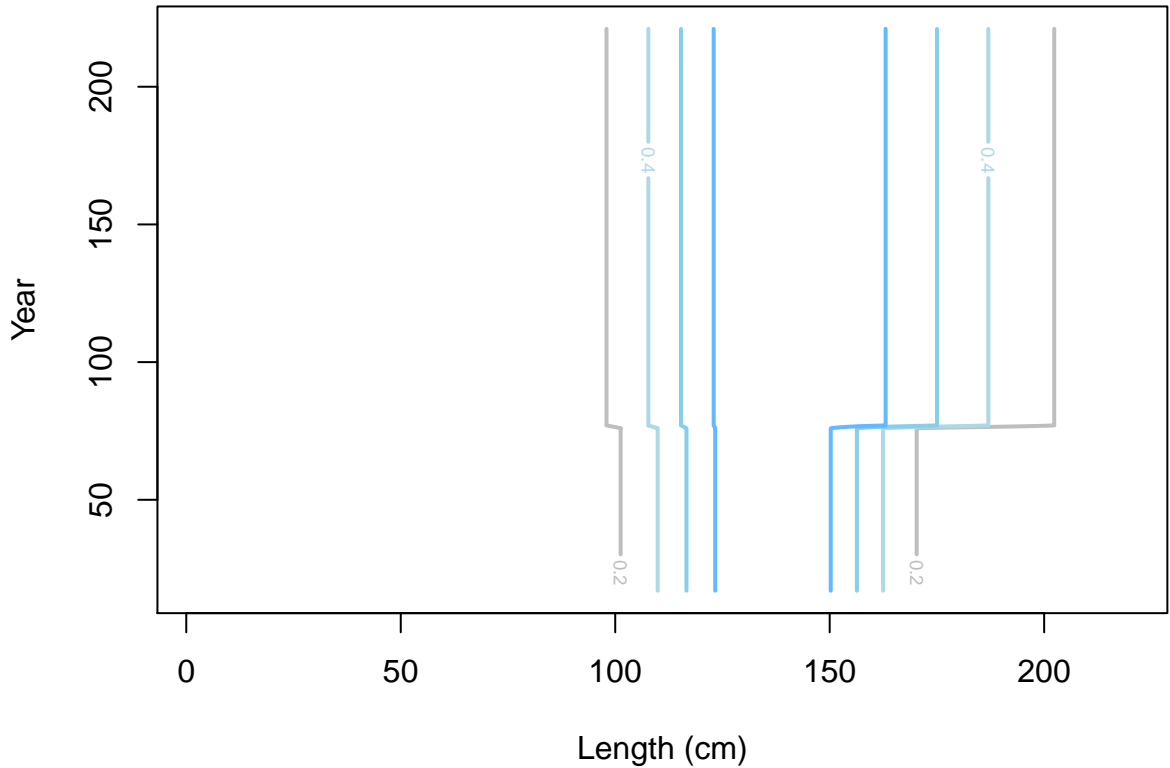
Female ending year selectivity for A5-LL-w



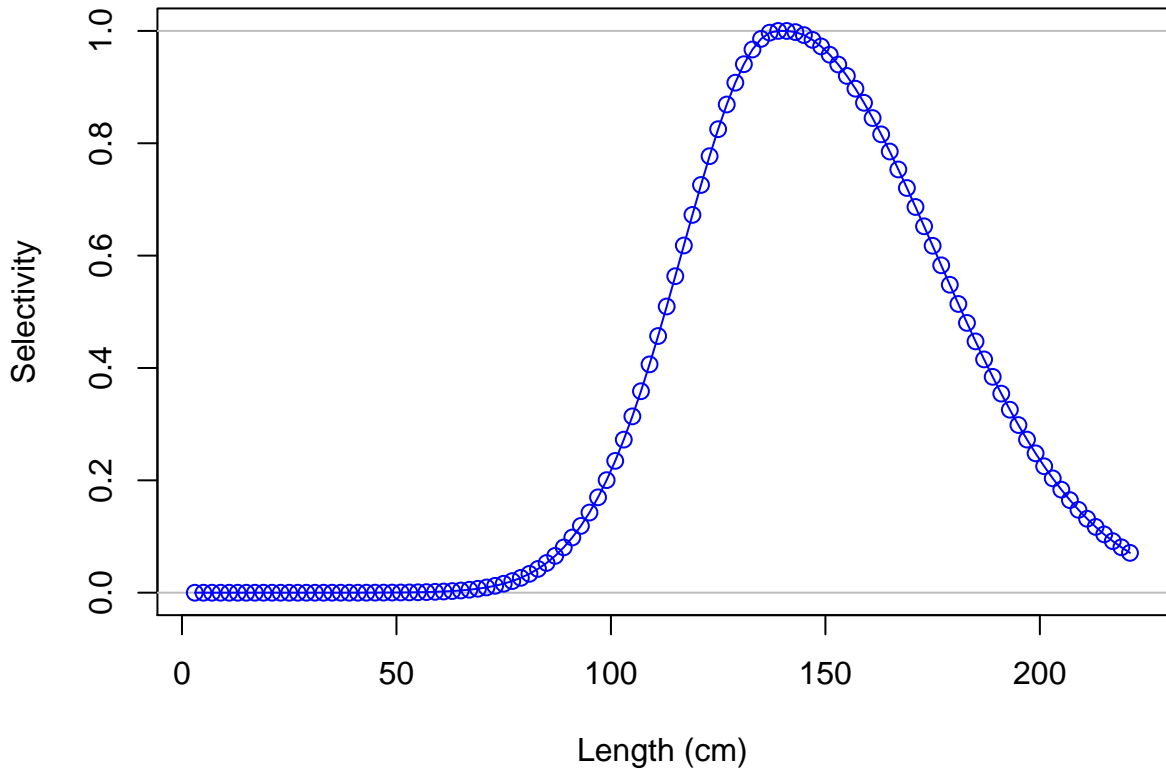
Male time-varying selectivity for A5-LL-w



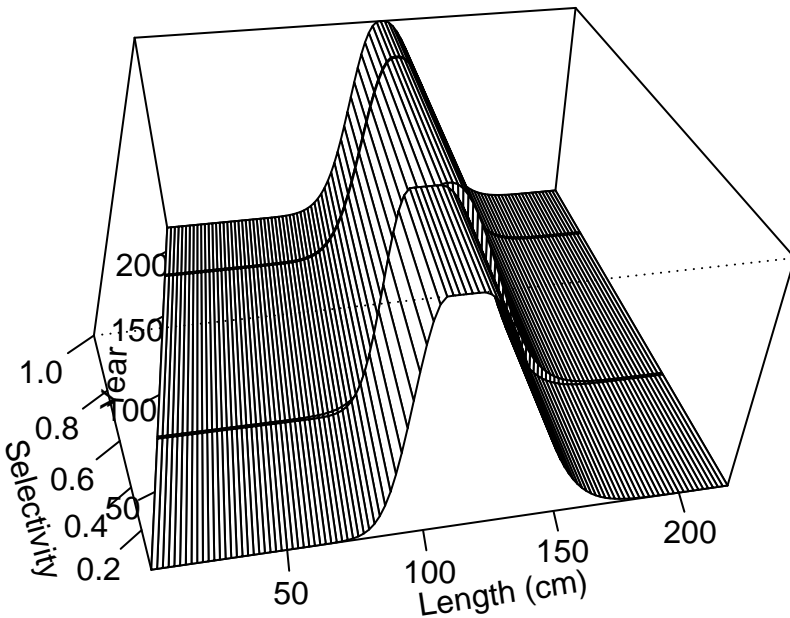
Male time-varying selectivity for A5-LL-w



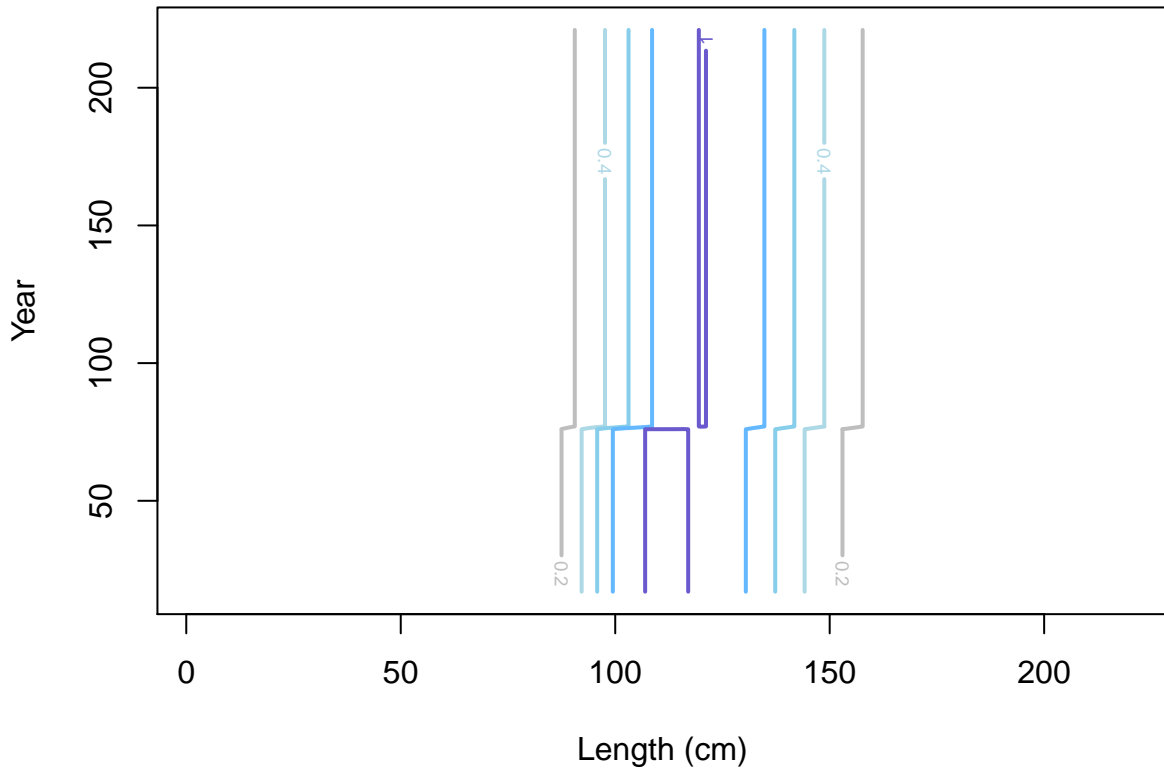
Male ending year selectivity for A5-LL-w



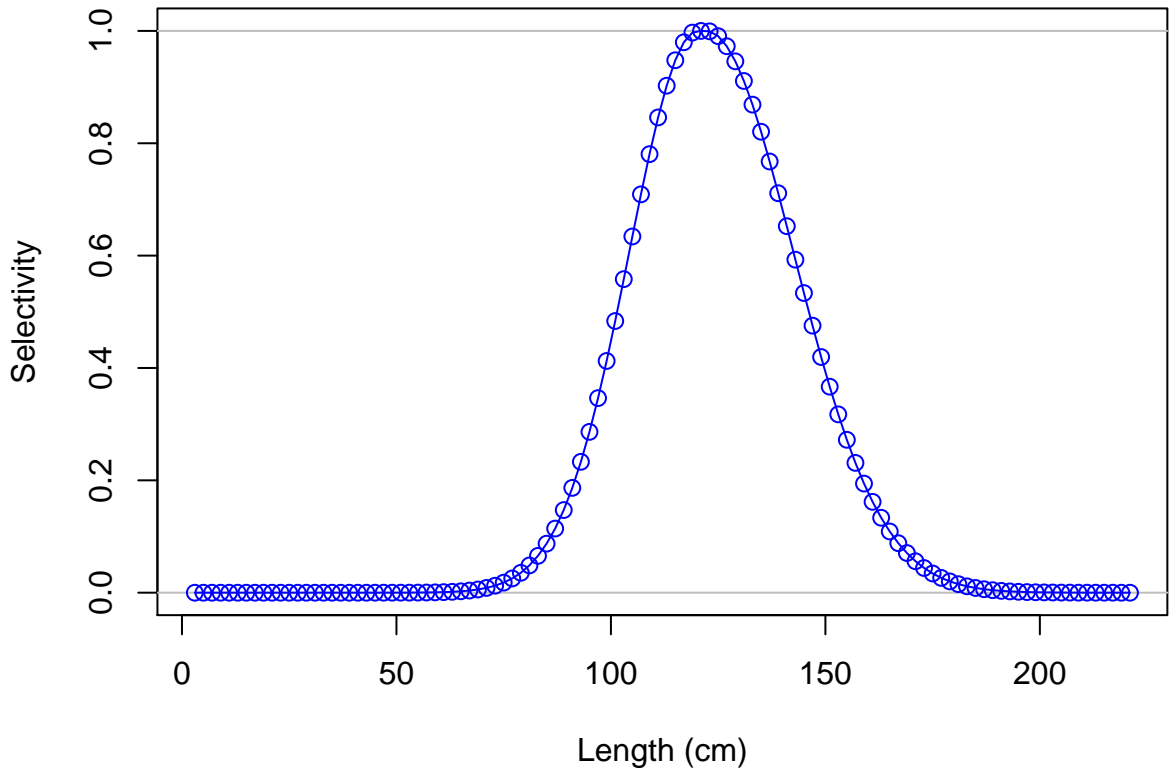
Female time-varying selectivity for A6-LL-w



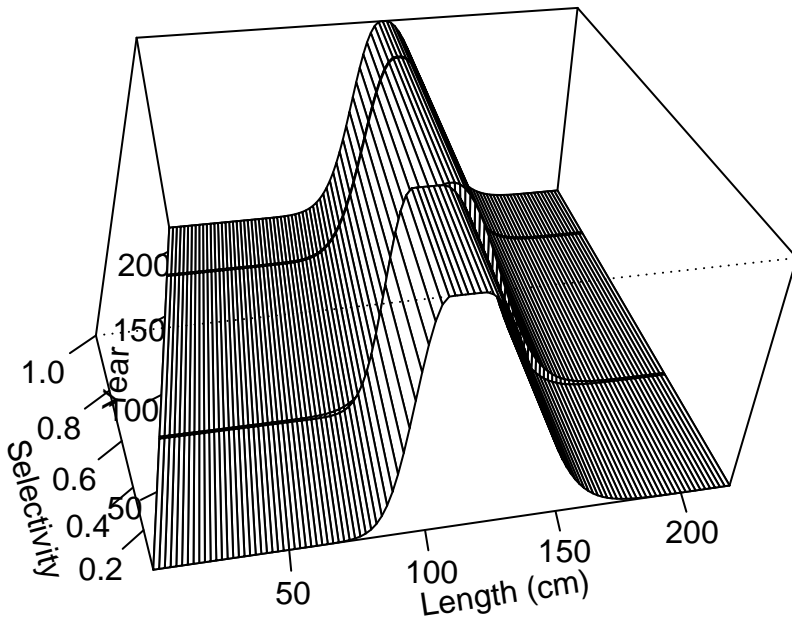
Female time-varying selectivity for A6-LL-w



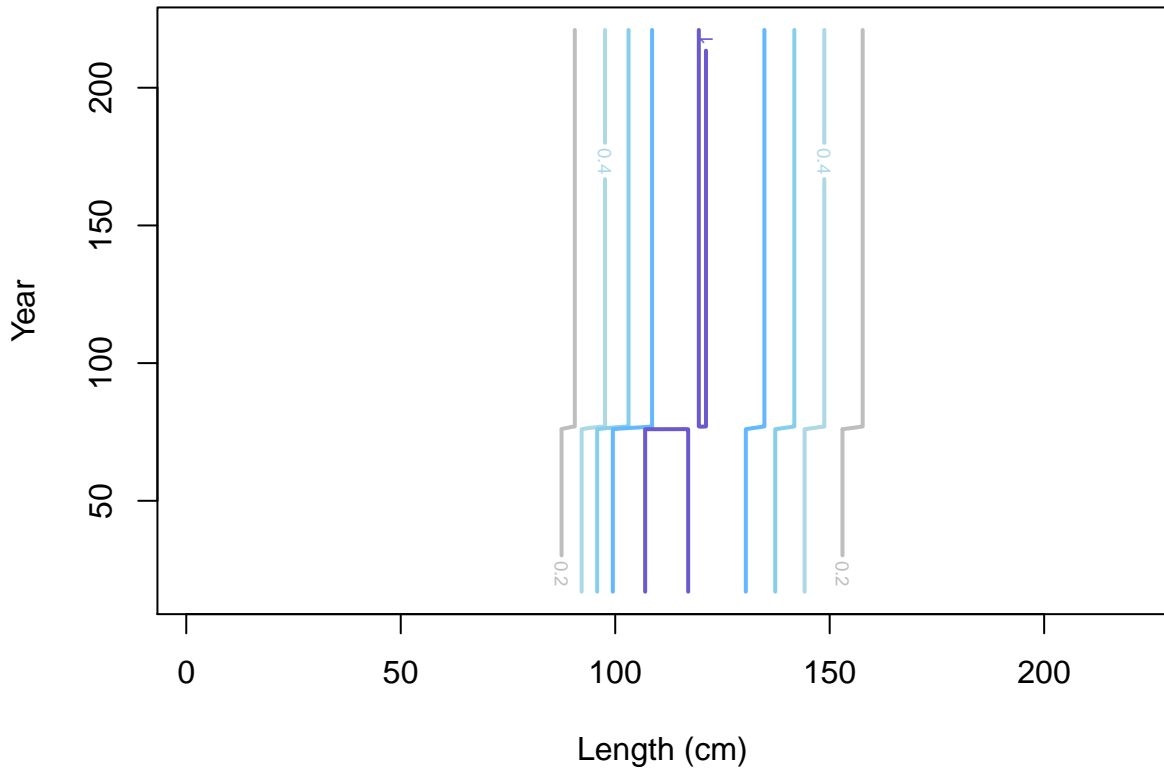
Female ending year selectivity for A6-LL-w



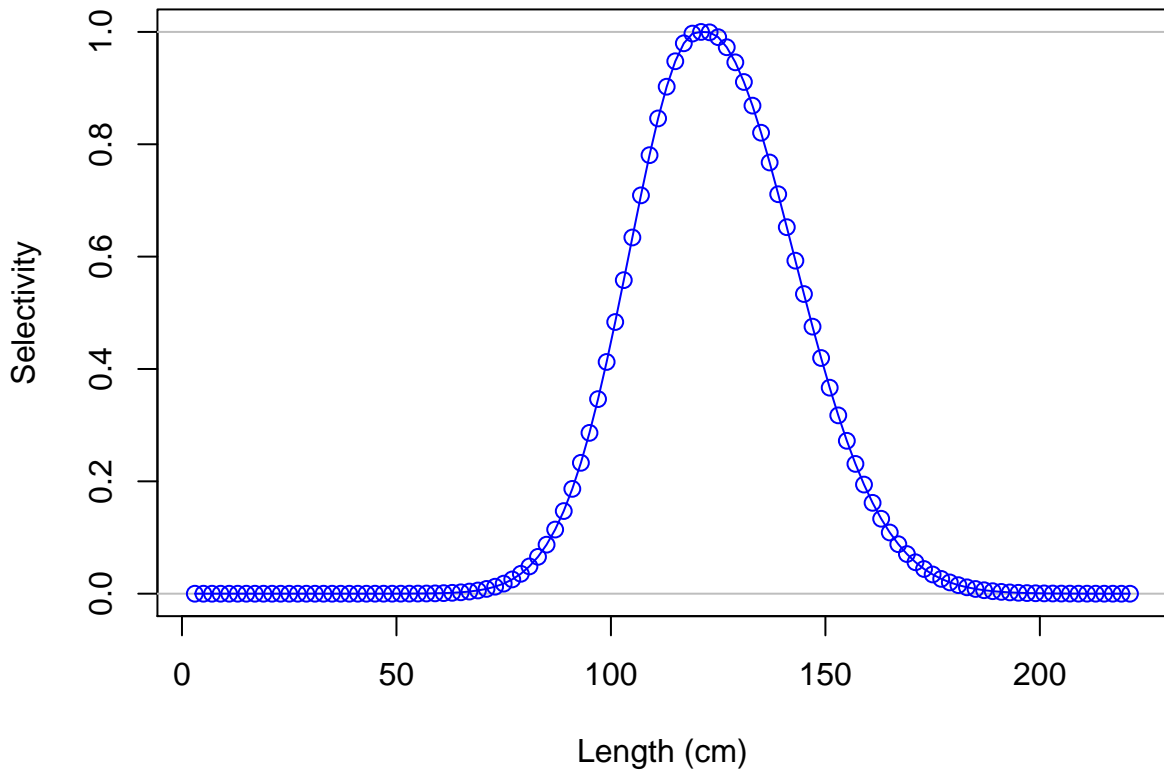
Male time-varying selectivity for A6-LL-w



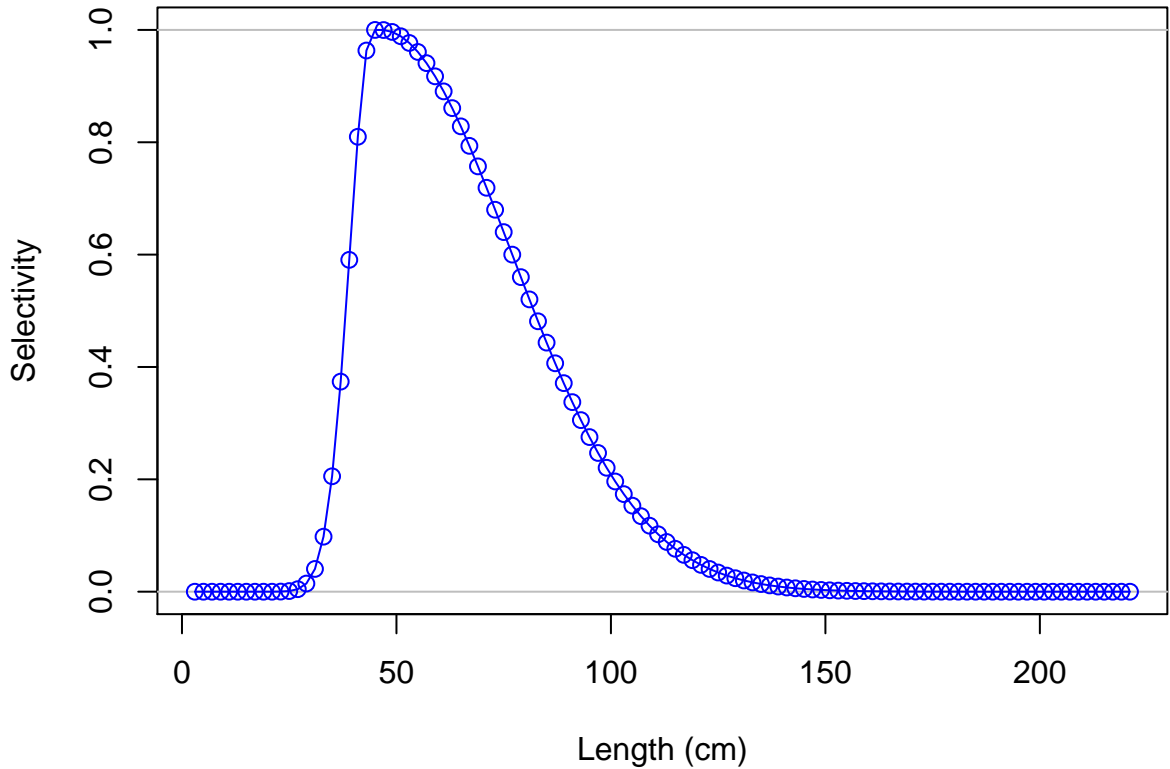
Male time-varying selectivity for A6-LL-w



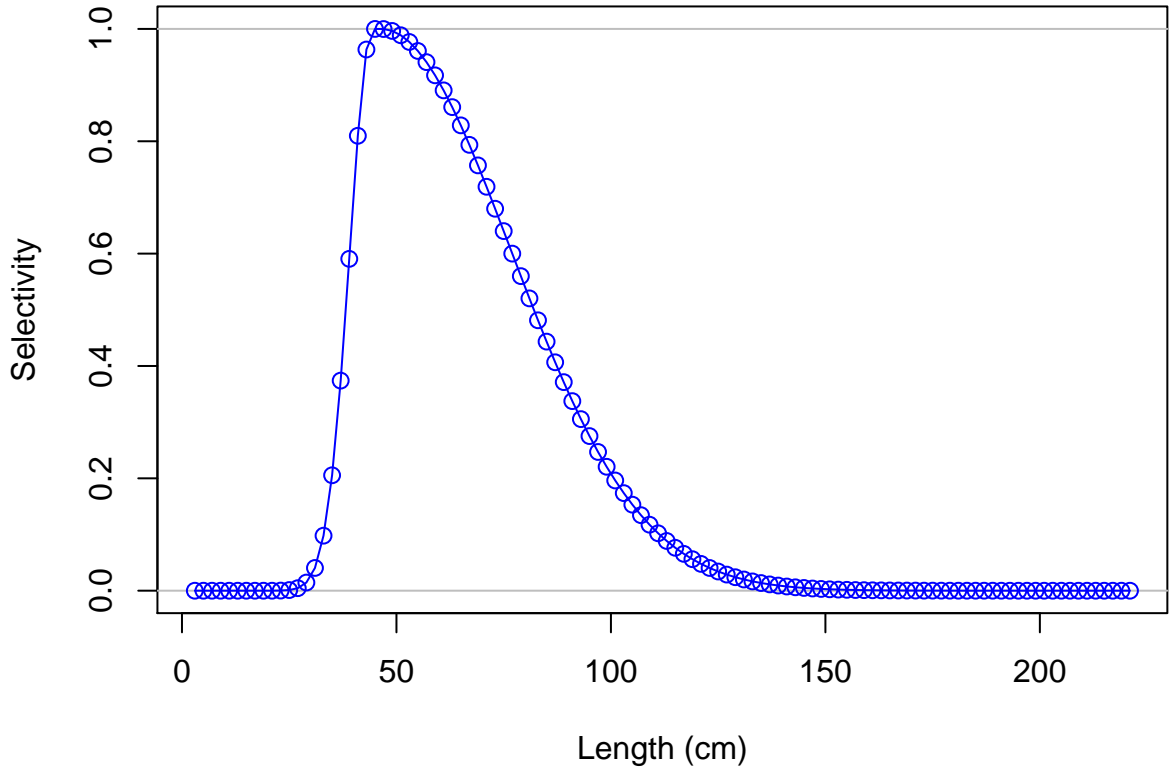
Male ending year selectivity for A6-LL-w



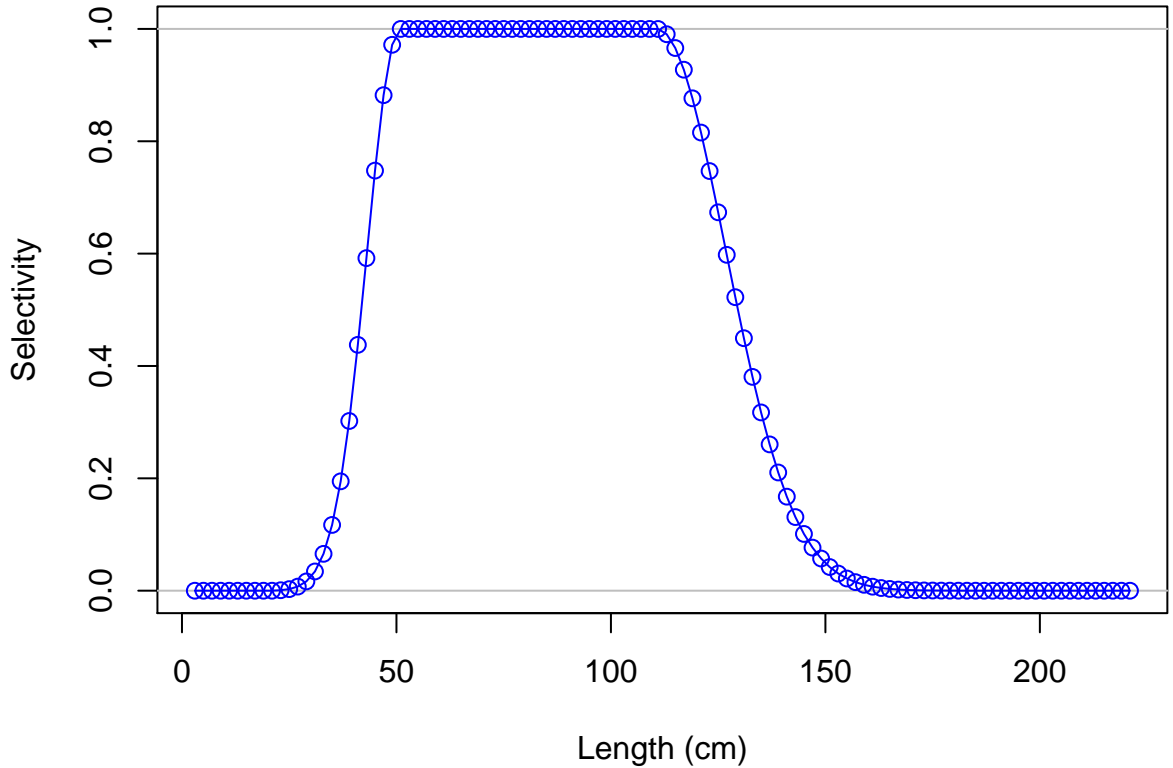
Female ending year selectivity for A2-OBJ



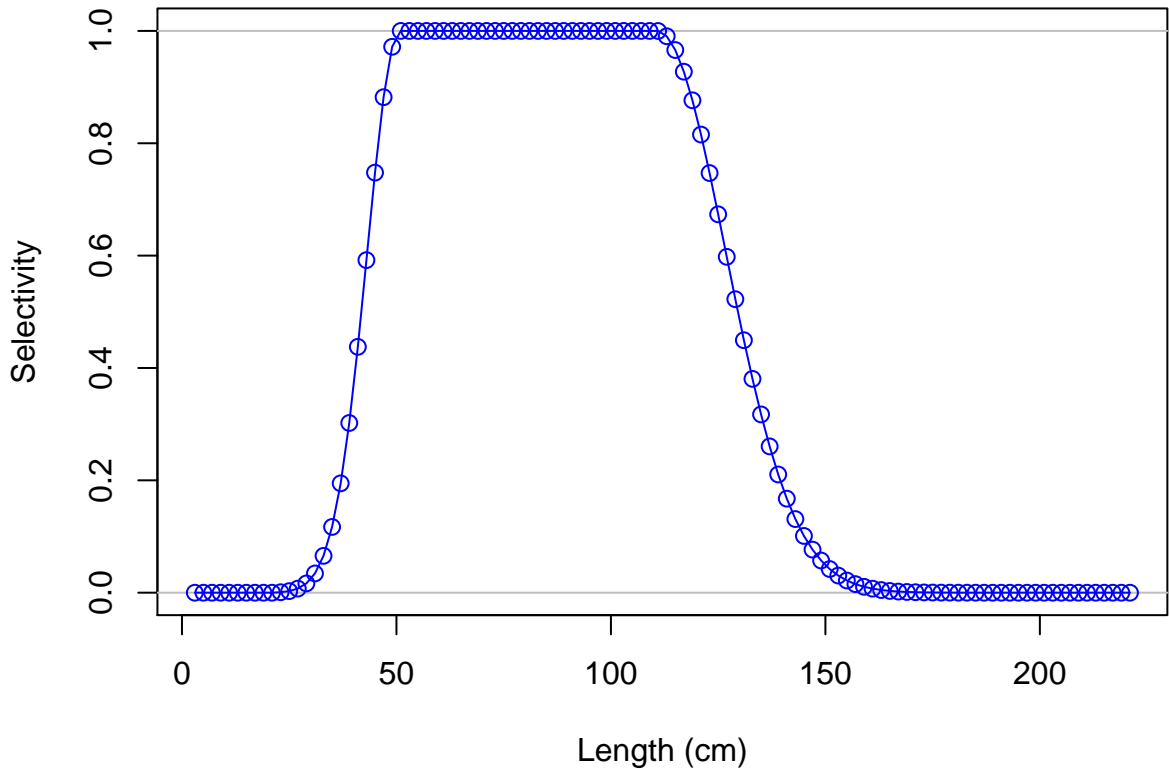
Male ending year selectivity for A2-OBJ



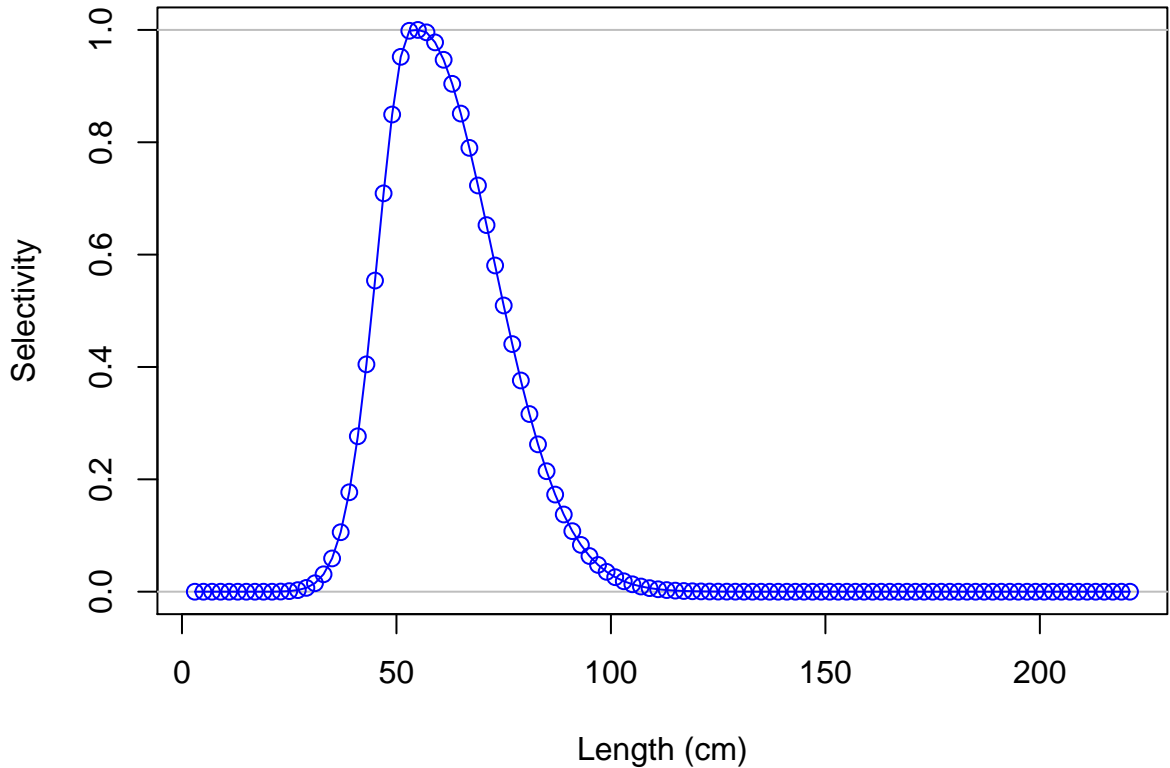
Female ending year selectivity for A3-OBJ



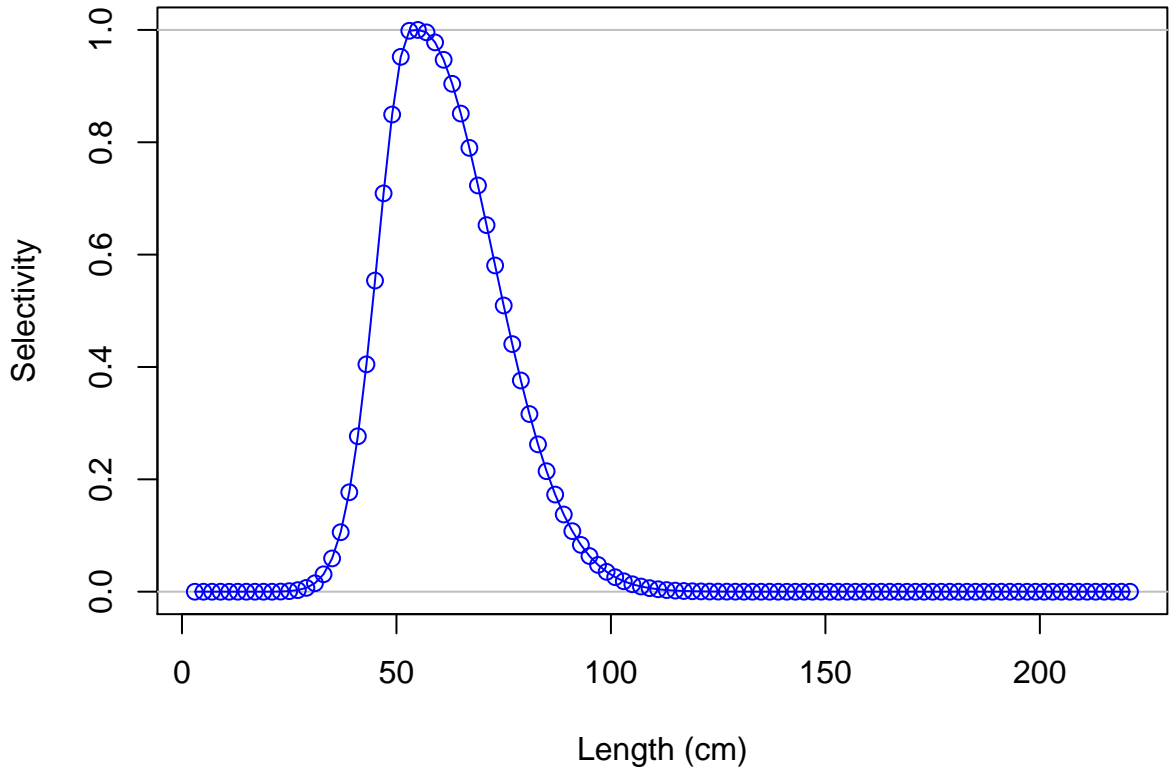
Male ending year selectivity for A3-OBJ



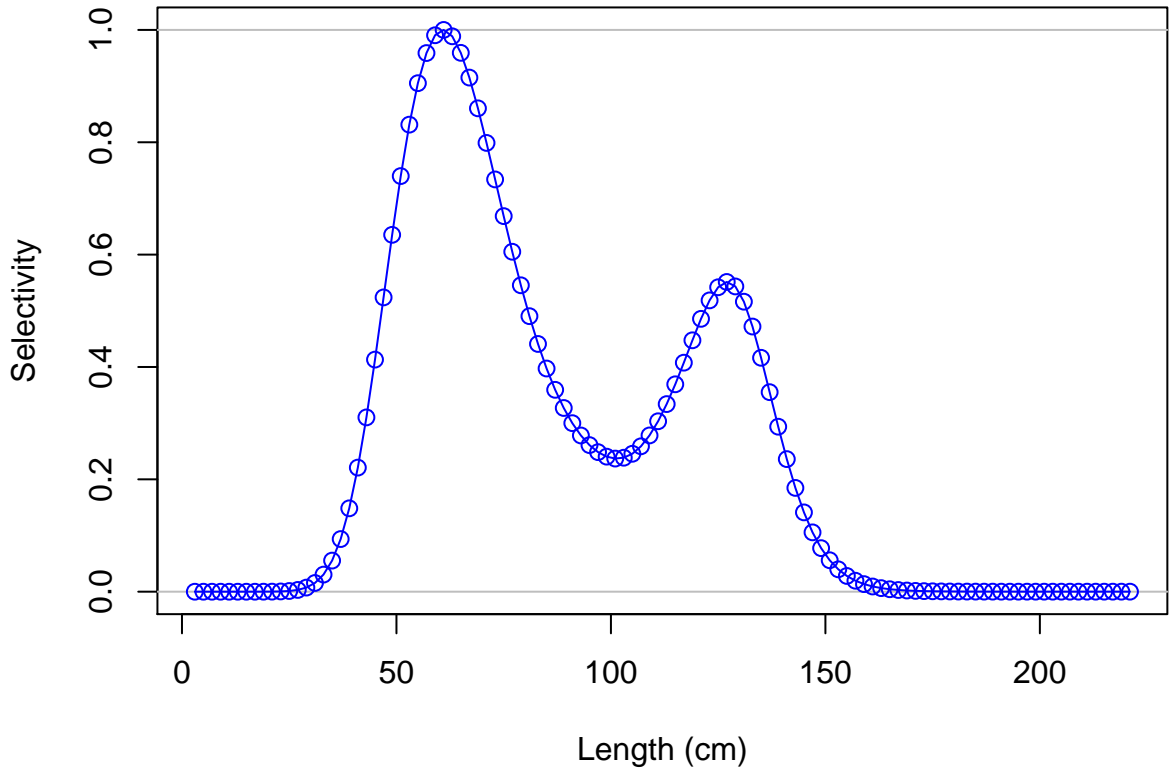
Female ending year selectivity for A4-OBJ



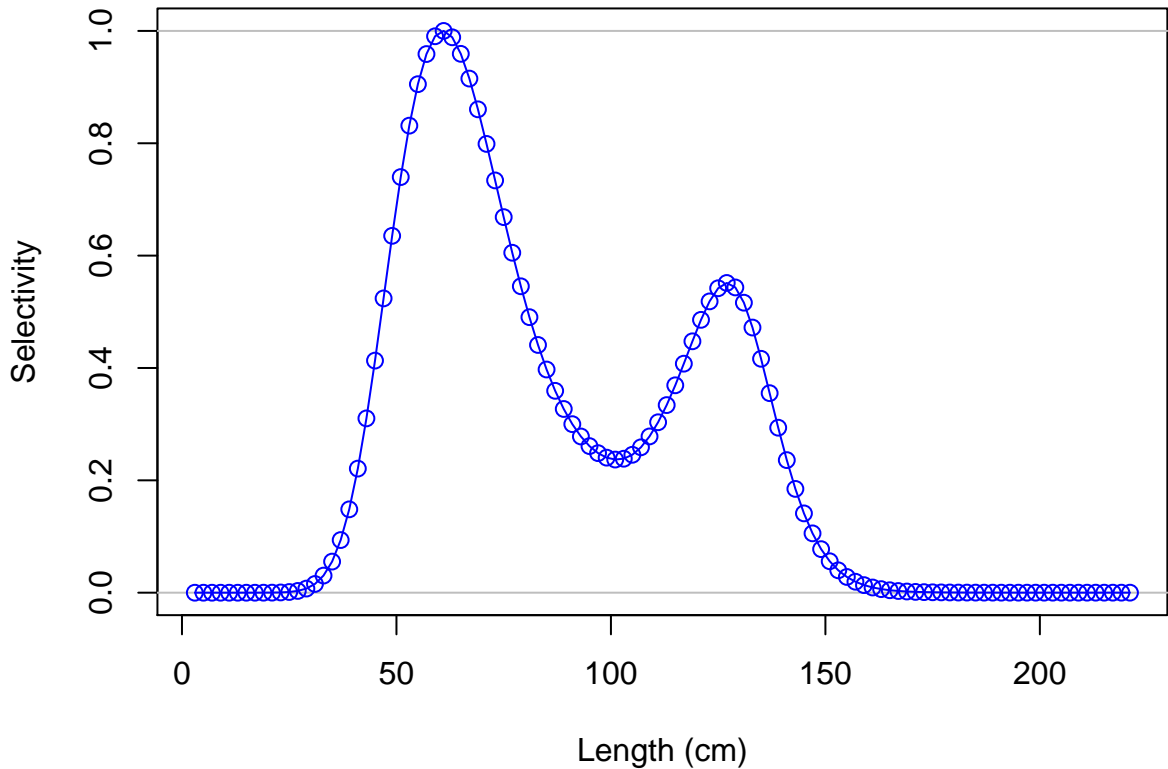
Male ending year selectivity for A4-OBJ



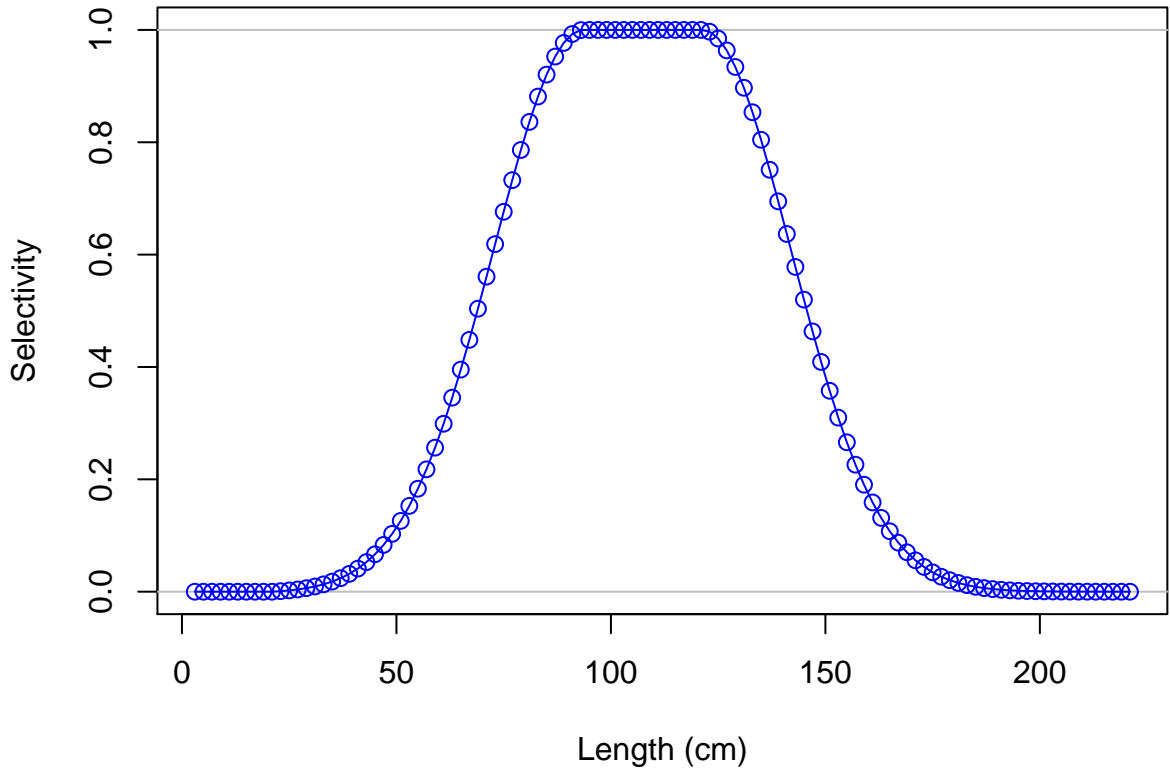
Female ending year selectivity for A5-OBJ



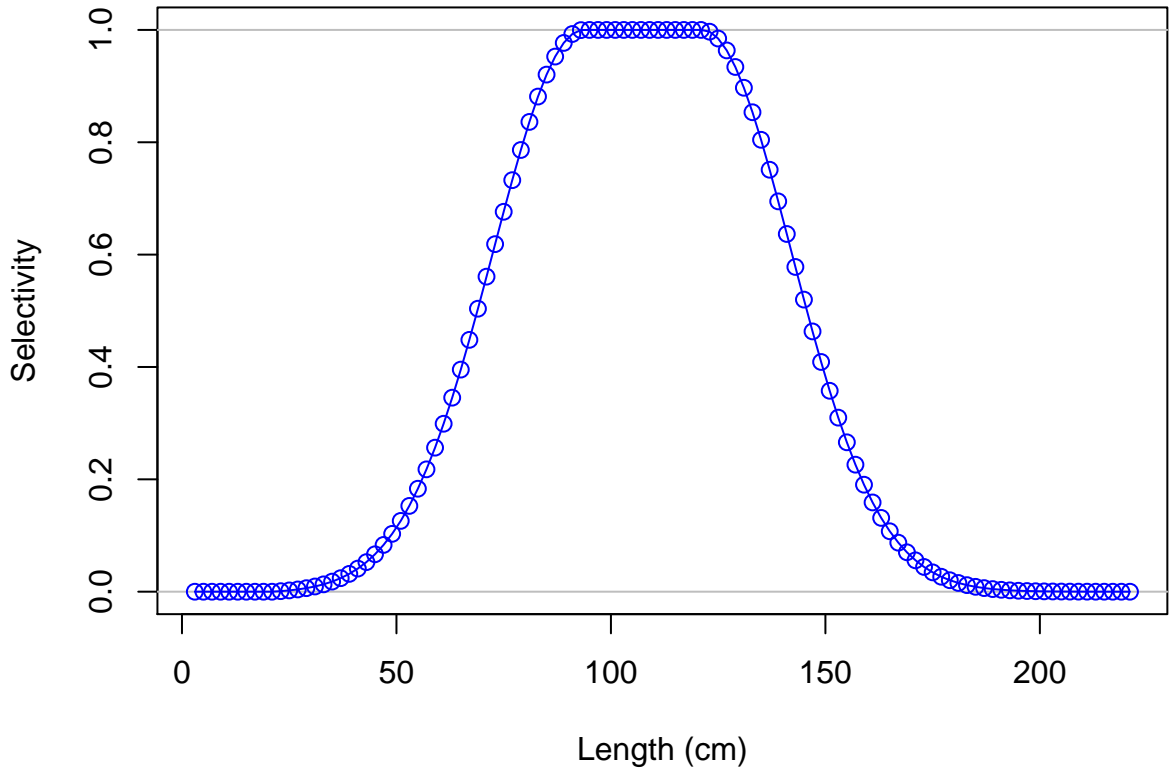
Male ending year selectivity for A5-OBJ



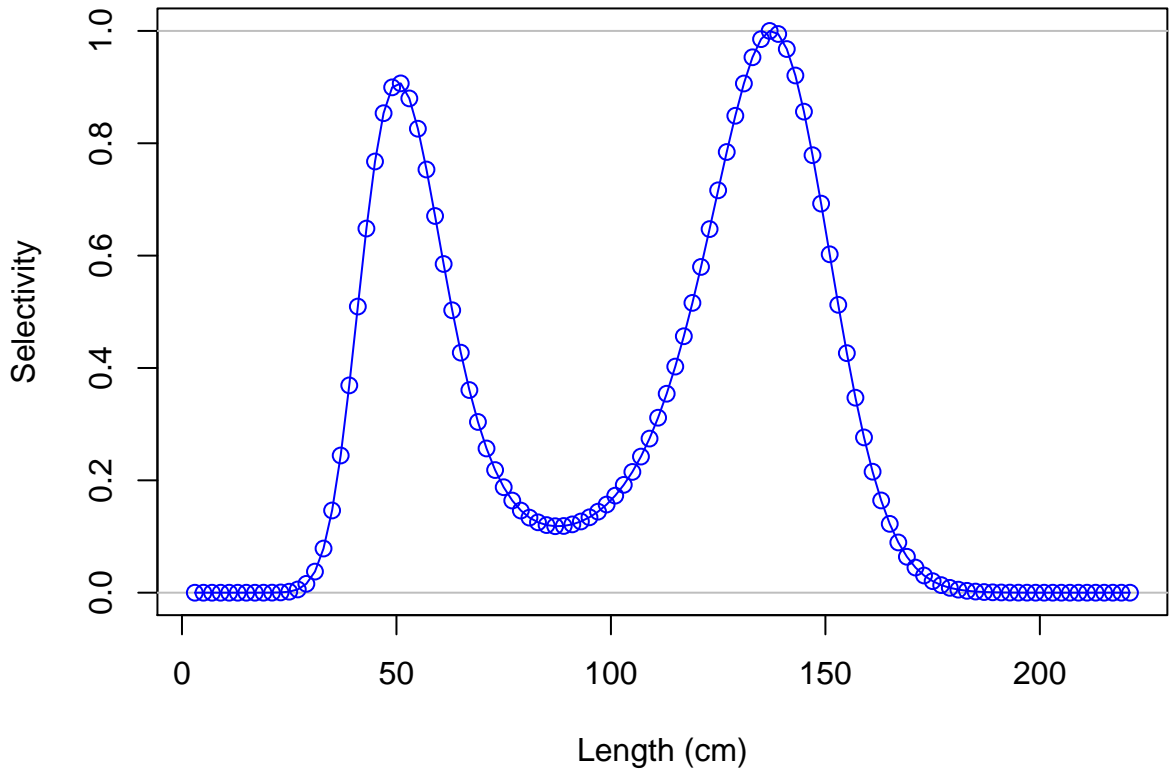
Female ending year selectivity for A6-OBJ



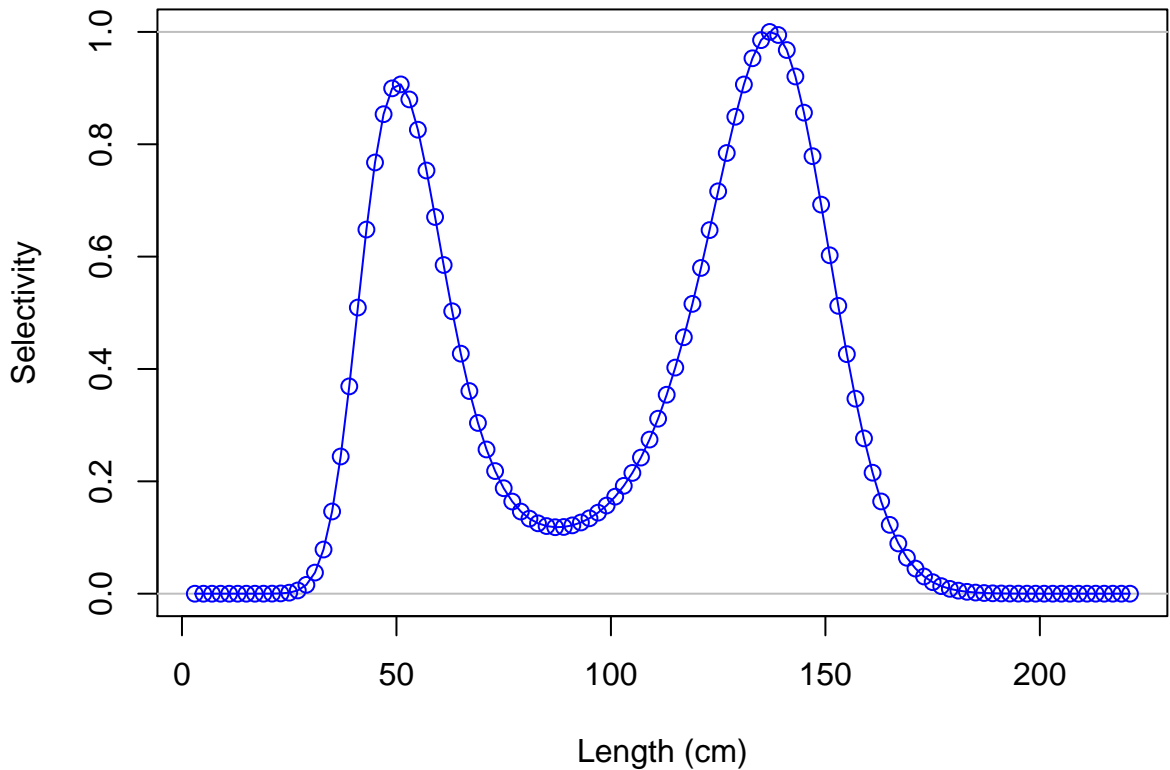
Male ending year selectivity for A6-OBJ



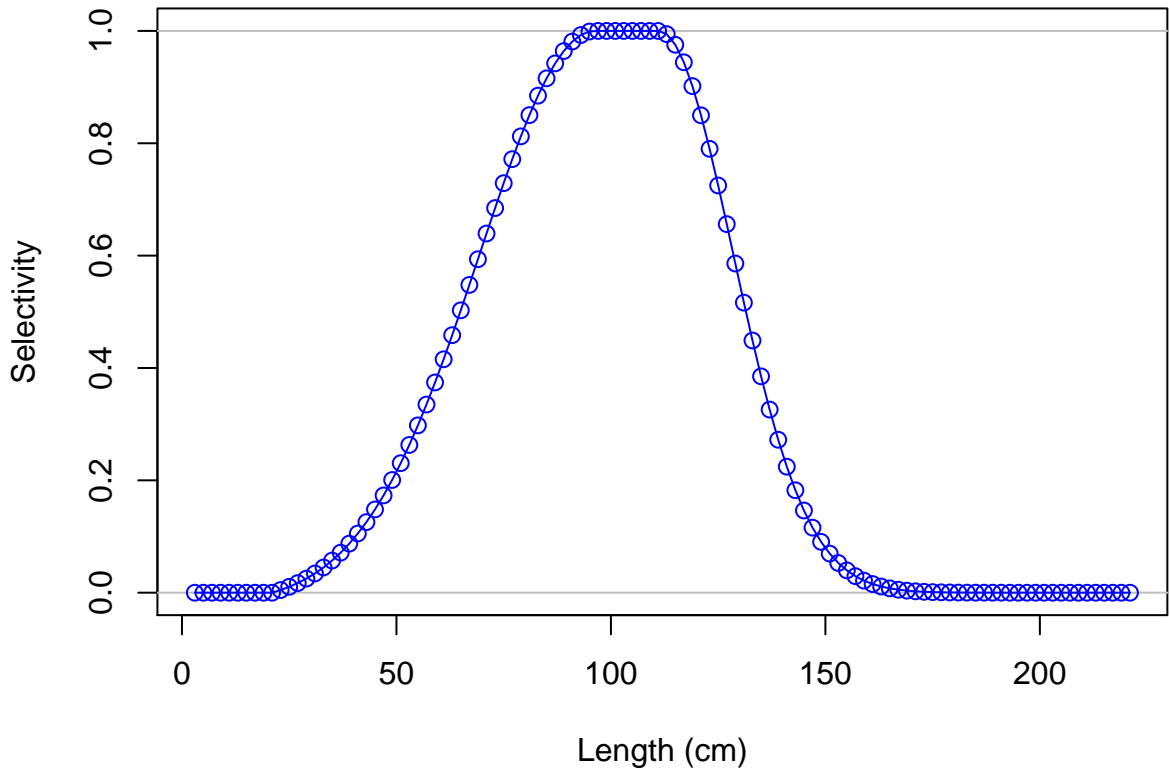
Female ending year selectivity for A2-NOADEL



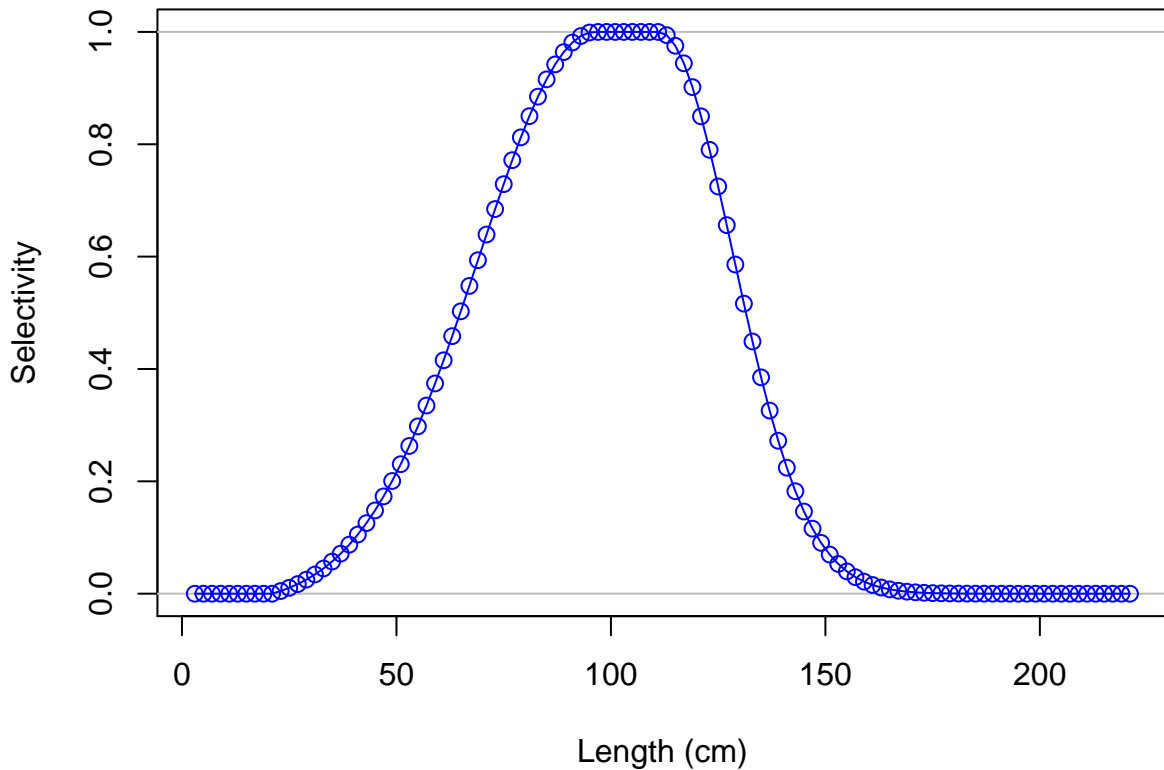
Male ending year selectivity for A2-NOADEL



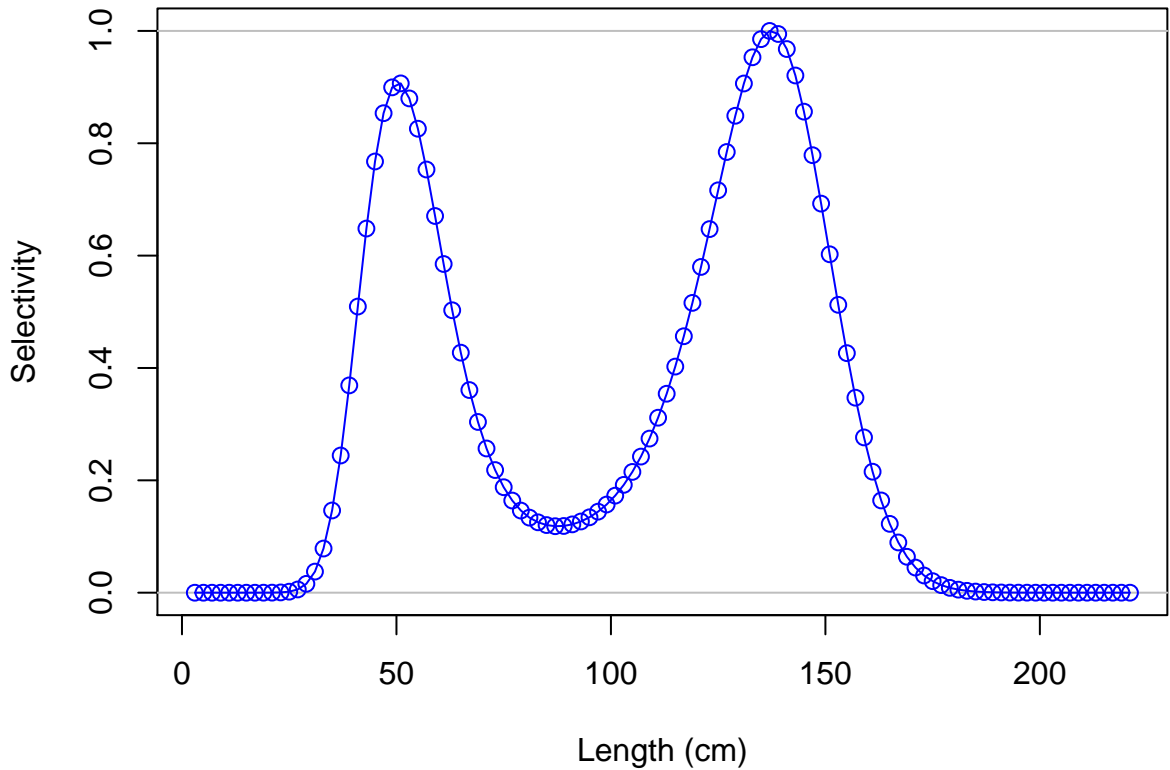
Female ending year selectivity for A3-NOADEL



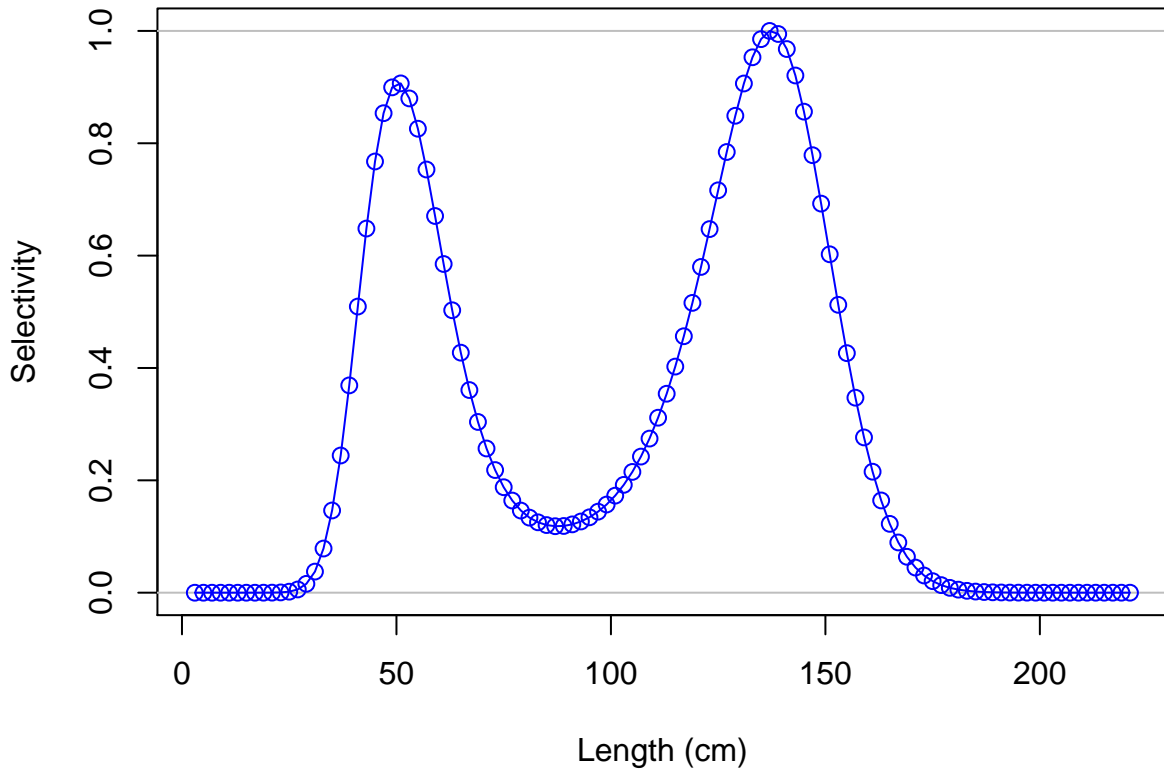
Male ending year selectivity for A3-NOADEL



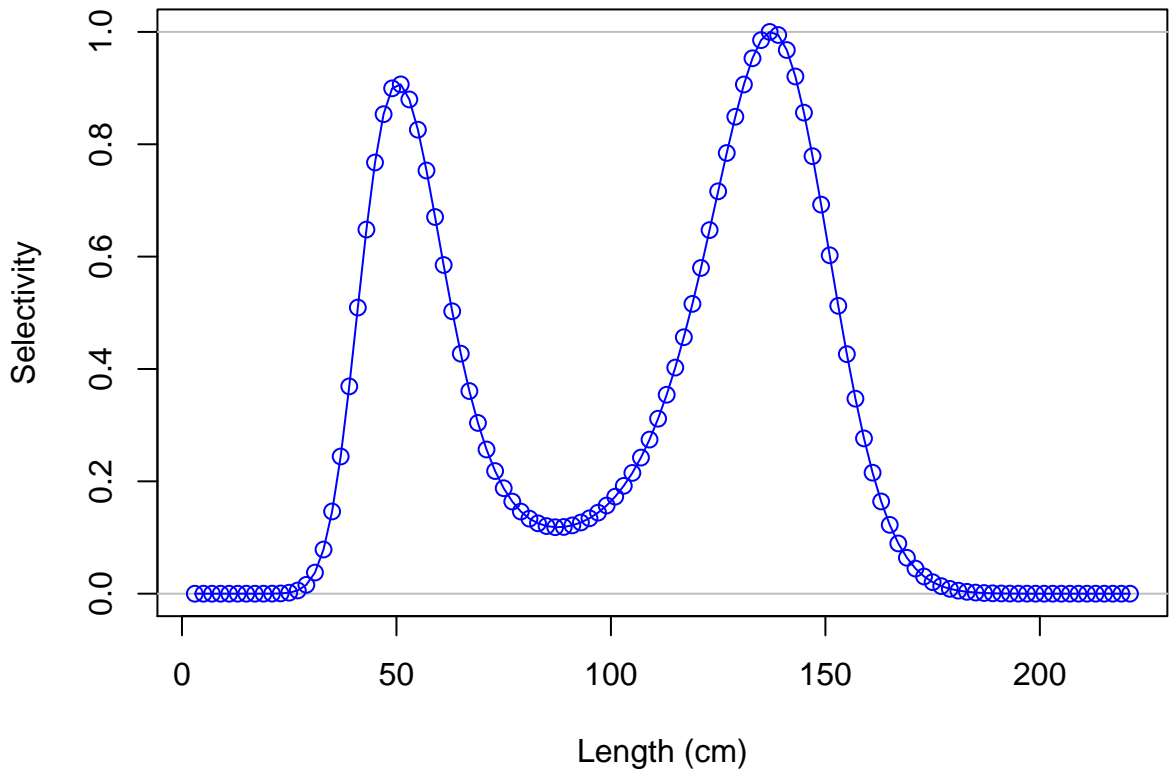
Female ending year selectivity for A4-NOADEL



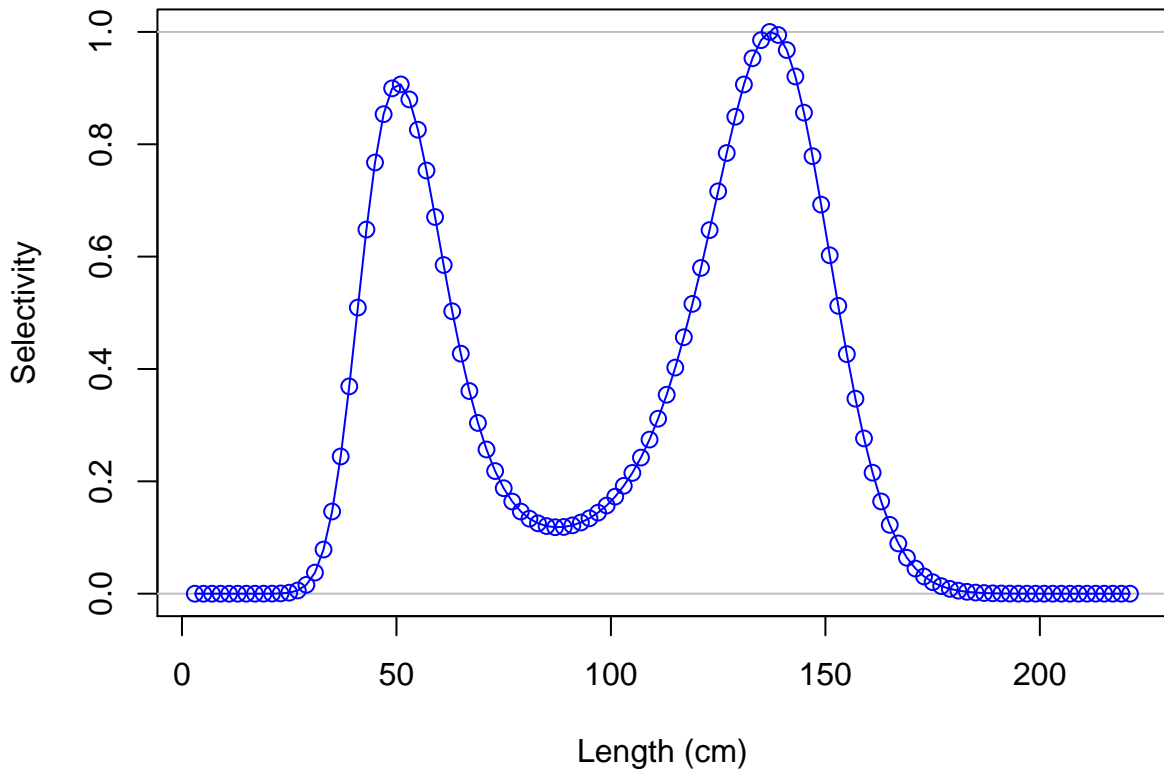
Male ending year selectivity for A4-NOADEL



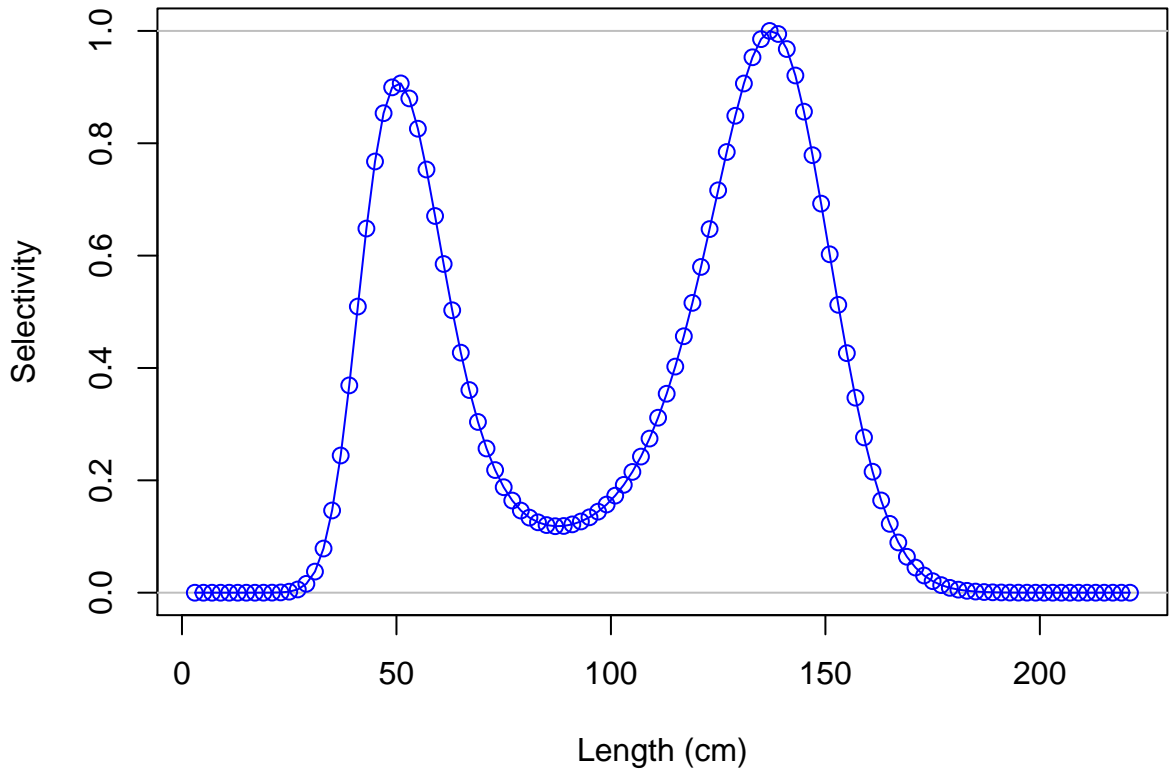
Female ending year selectivity for A5-NOADEL



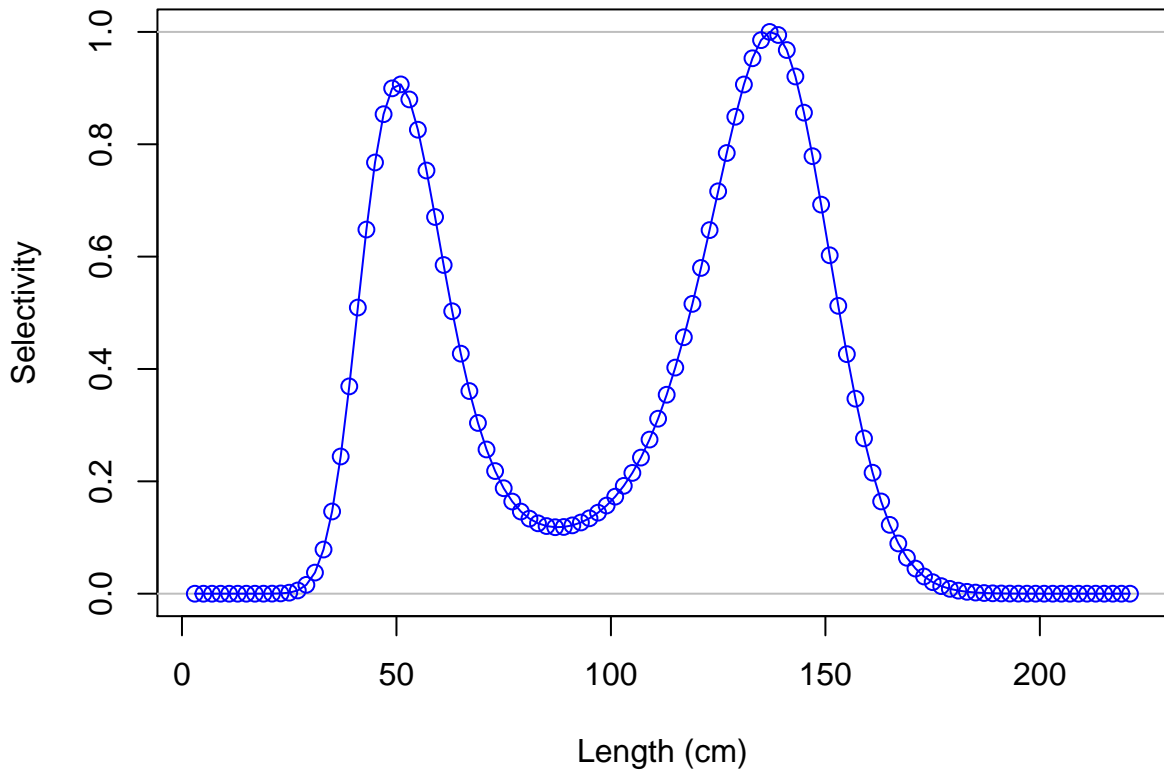
Male ending year selectivity for A5-NOADEL



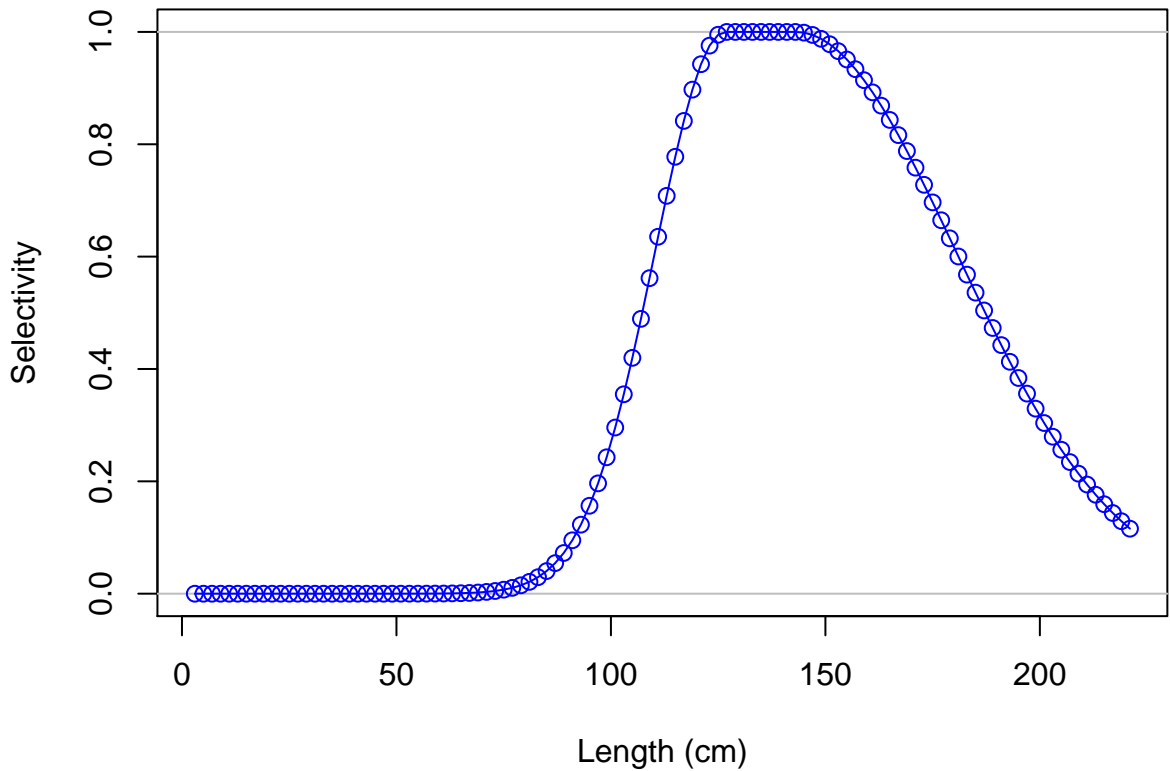
Female ending year selectivity for A6-NOADEL



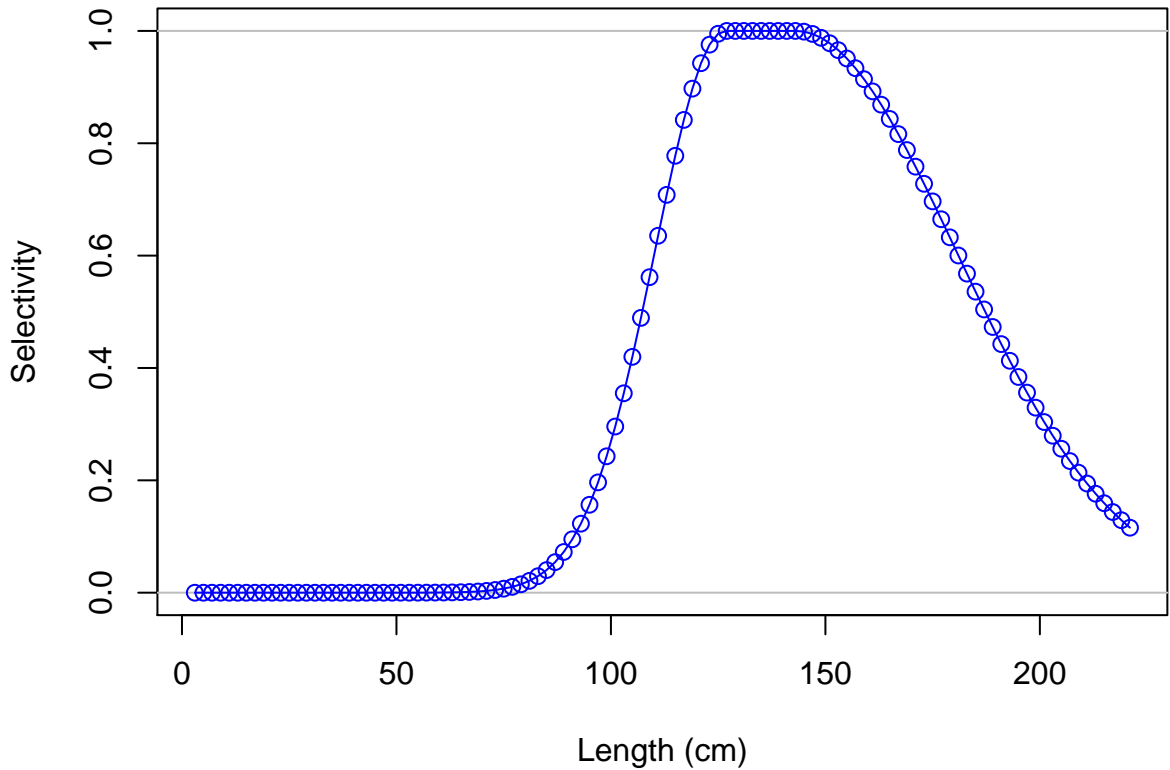
Male ending year selectivity for A6-NOADEL



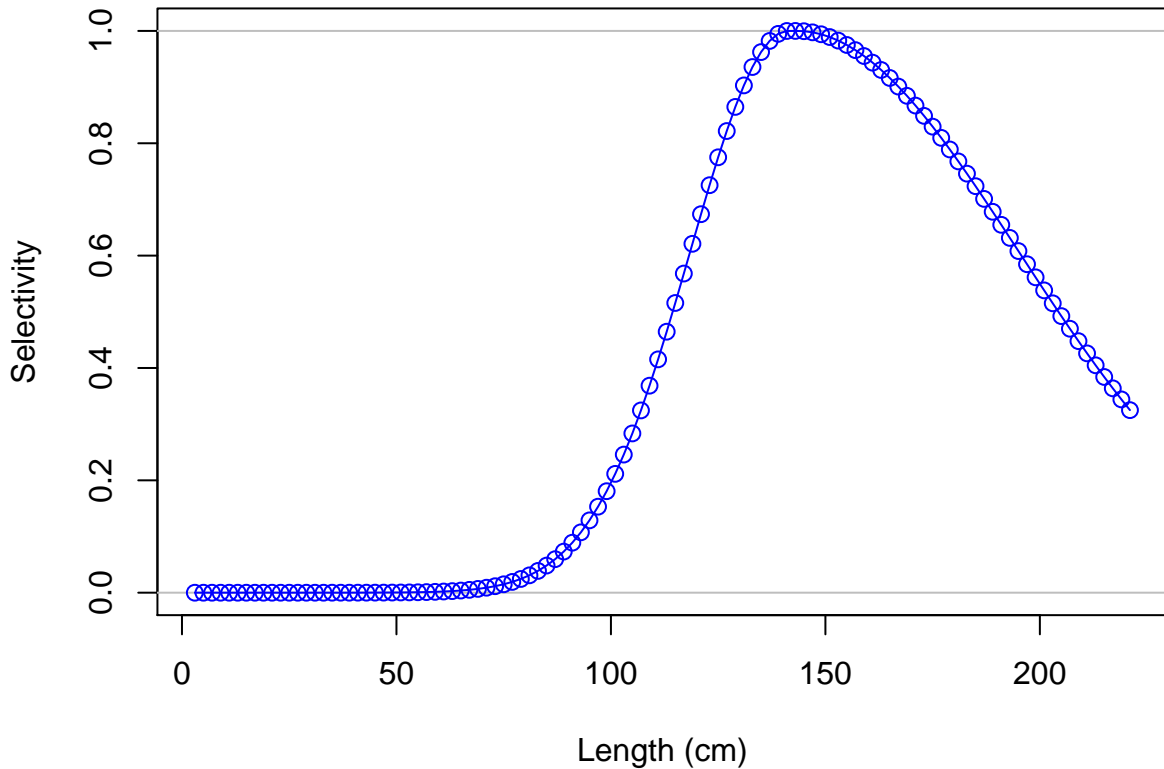
Female ending year selectivity for EPO-LL-survey-early



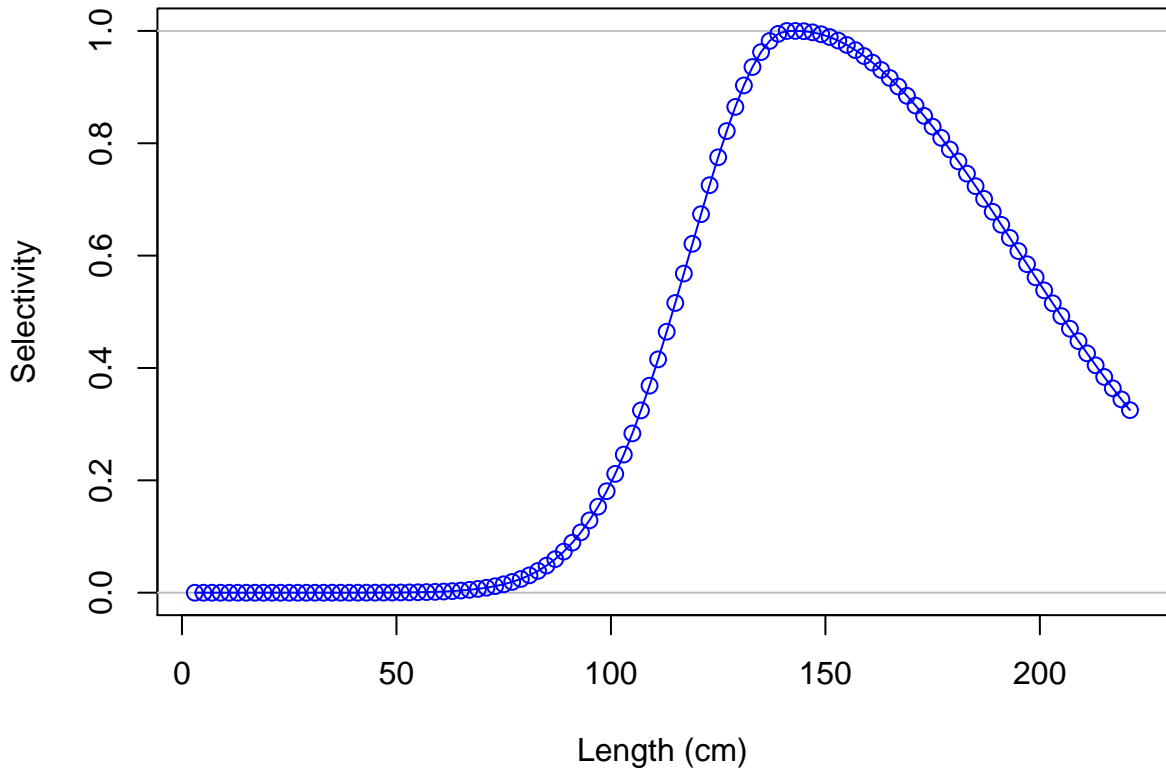
Male ending year selectivity for EPO-LL-survey-early



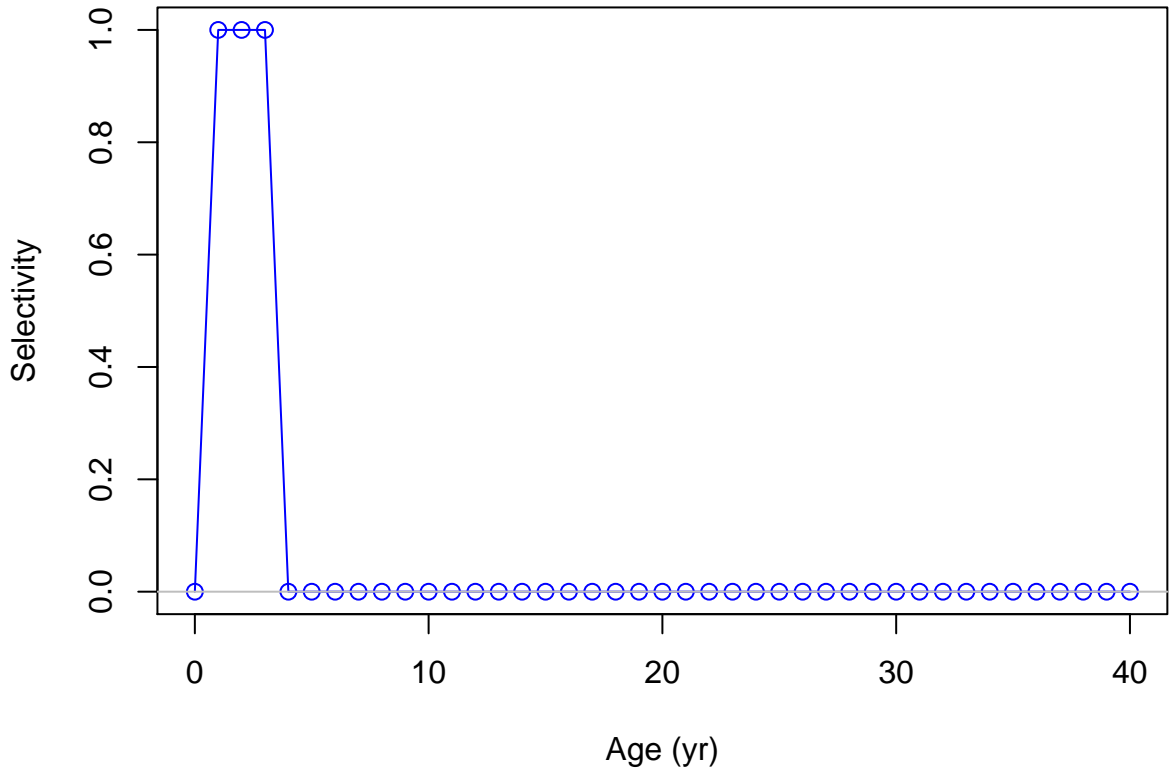
Female ending year selectivity for EPO-LL-survey-late



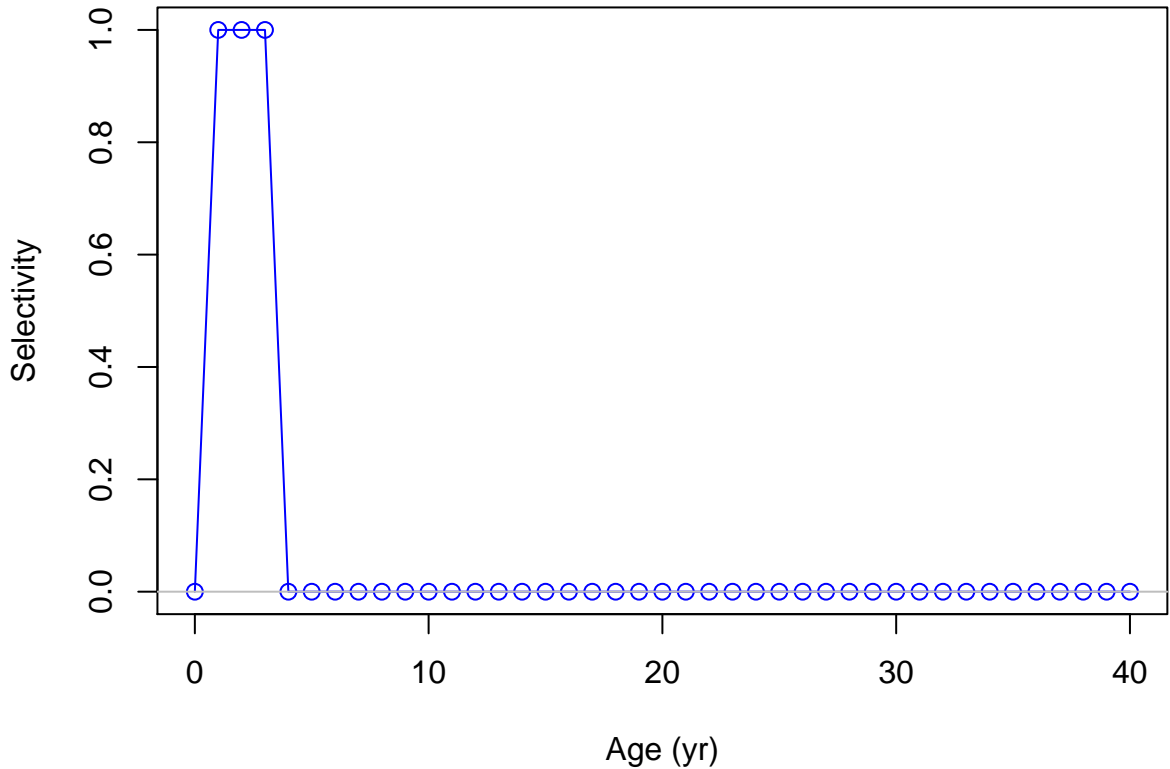
Male ending year selectivity for EPO-LL-survey-late



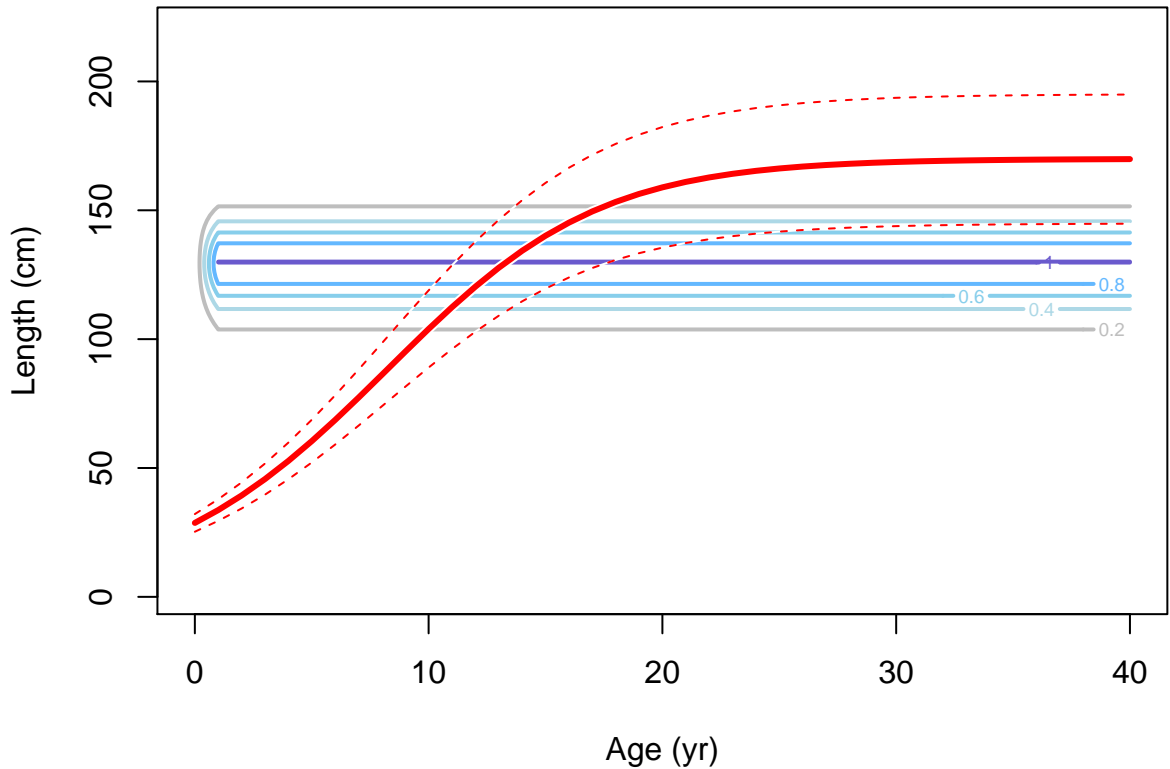
Female ending year selectivity for EPO-Obj-Disc



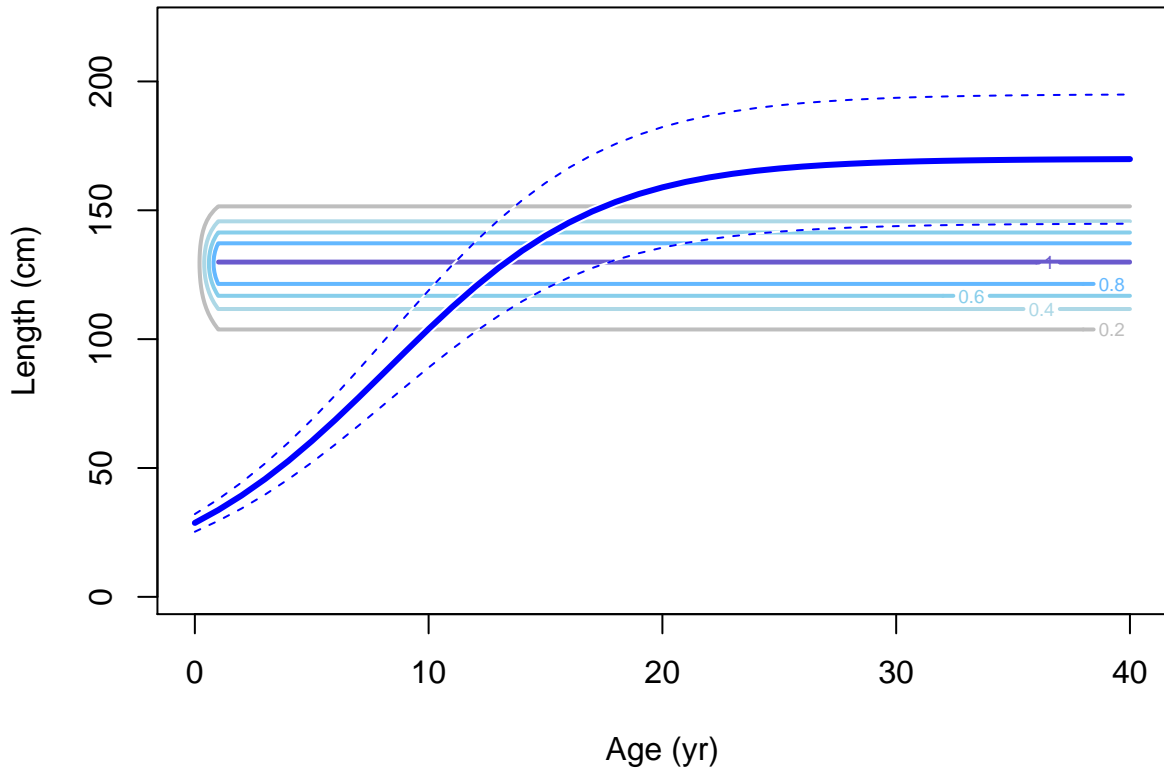
Male ending year selectivity for EPO-OBJ-Disc



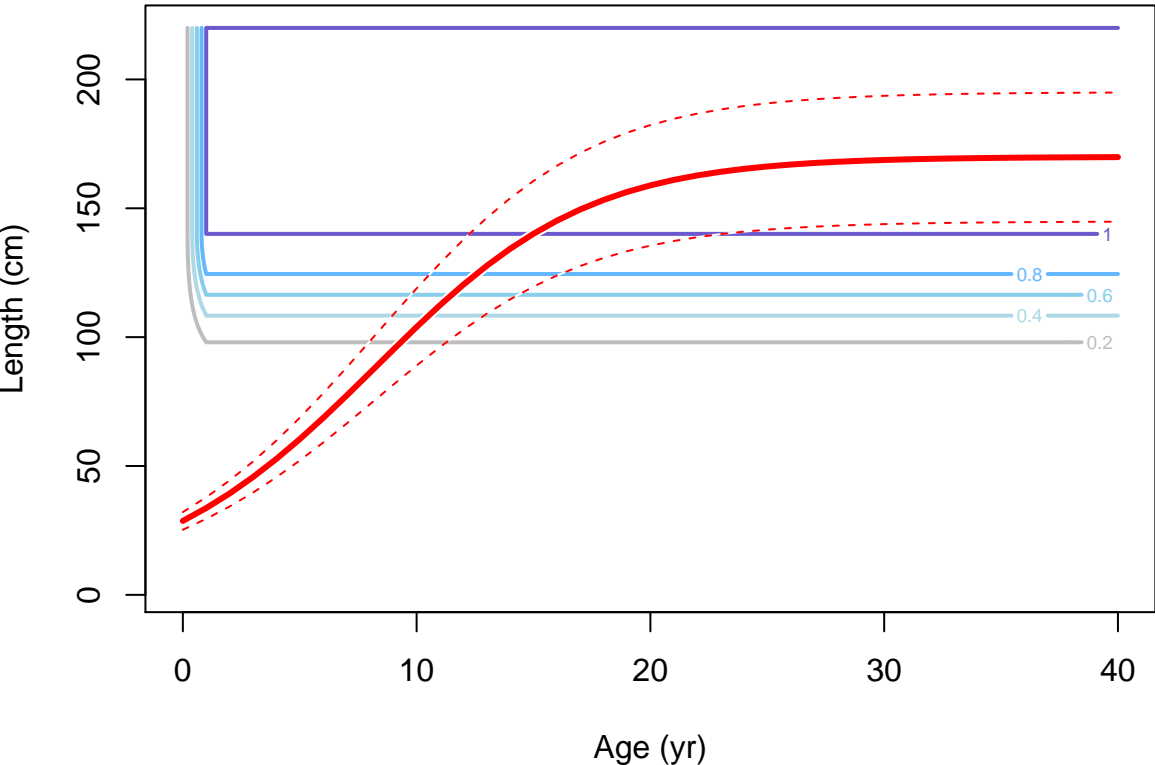
Female ending year selectivity and growth for A1-LL-n



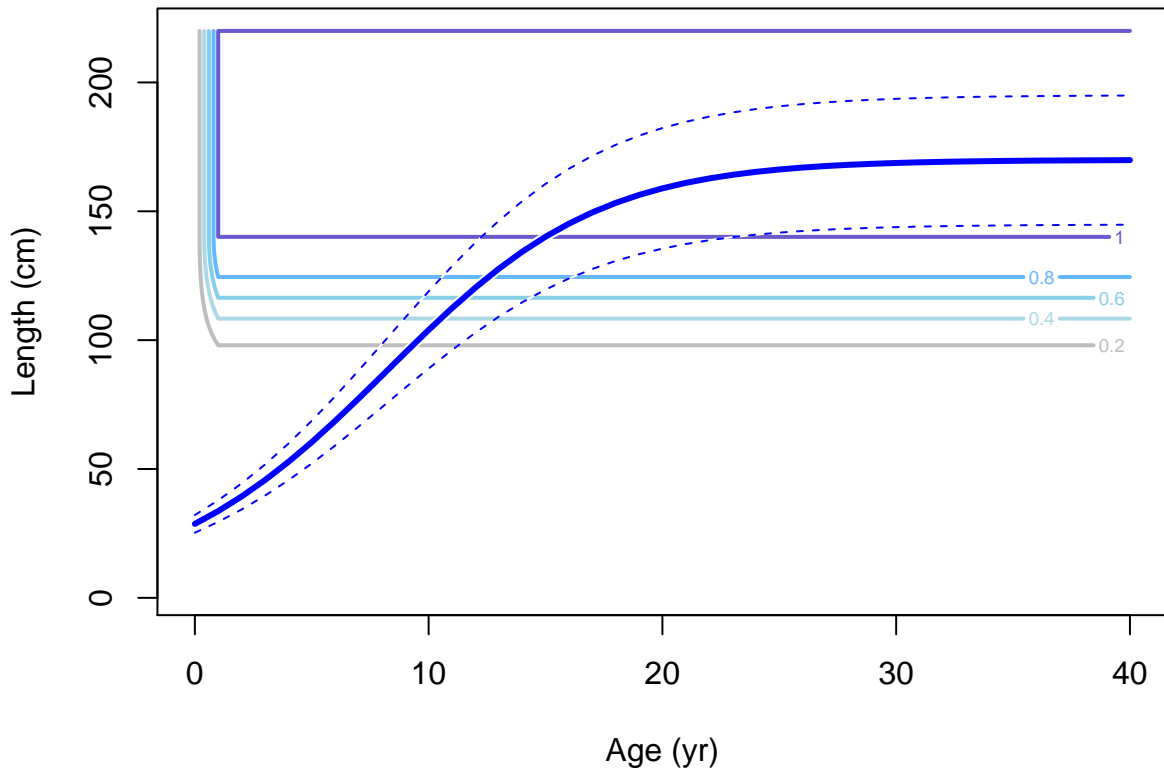
Male ending year selectivity and growth for A1-LL-n



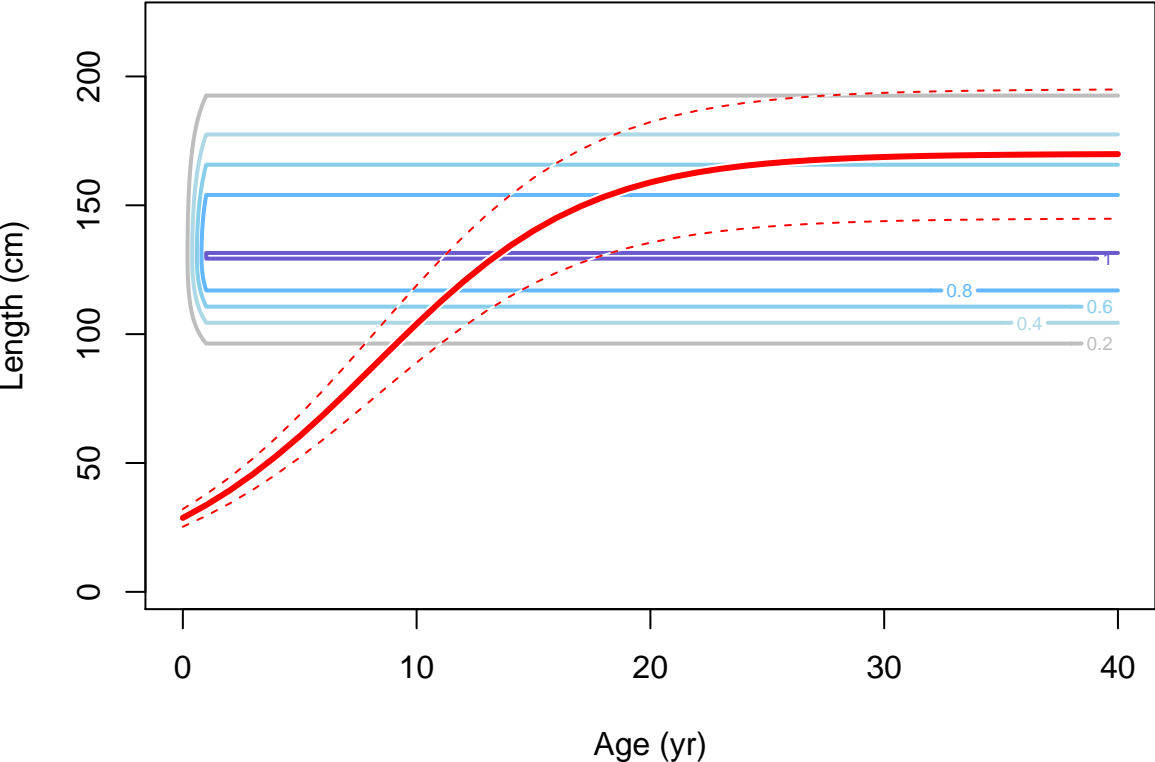
Female ending year selectivity and growth for A2-LL-n



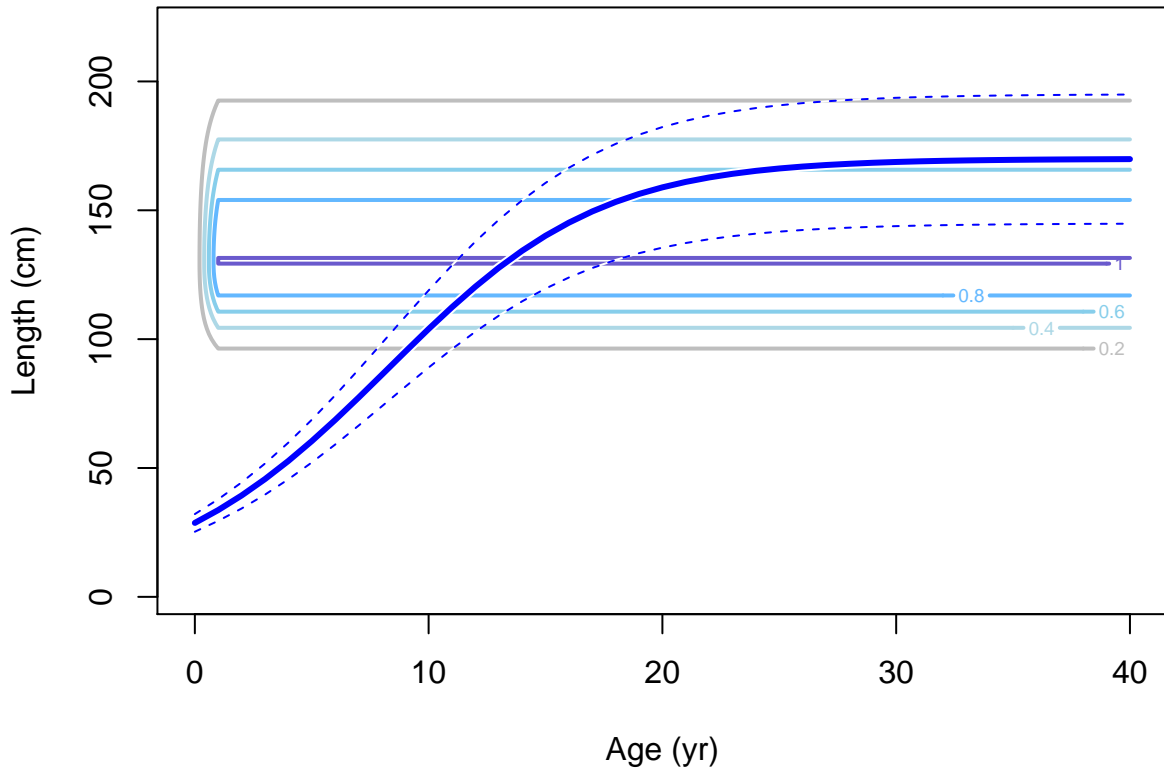
Male ending year selectivity and growth for A2-LL-n



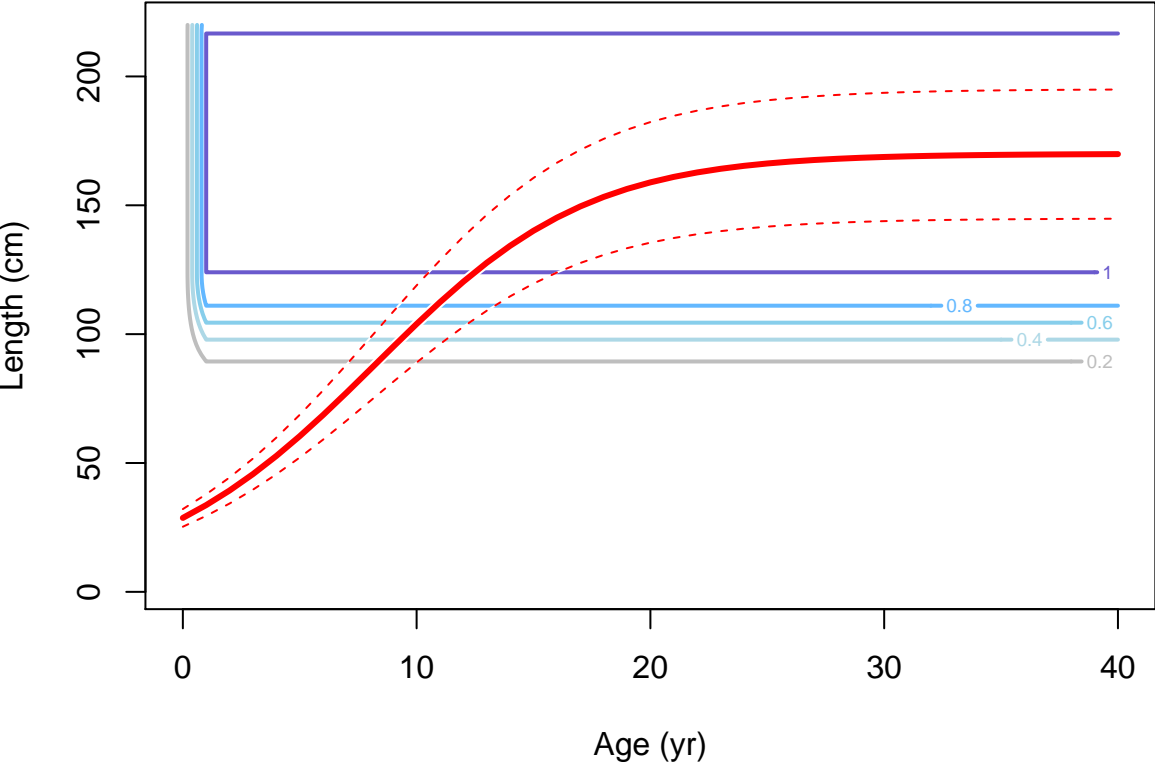
Female ending year selectivity and growth for A3-LL-n



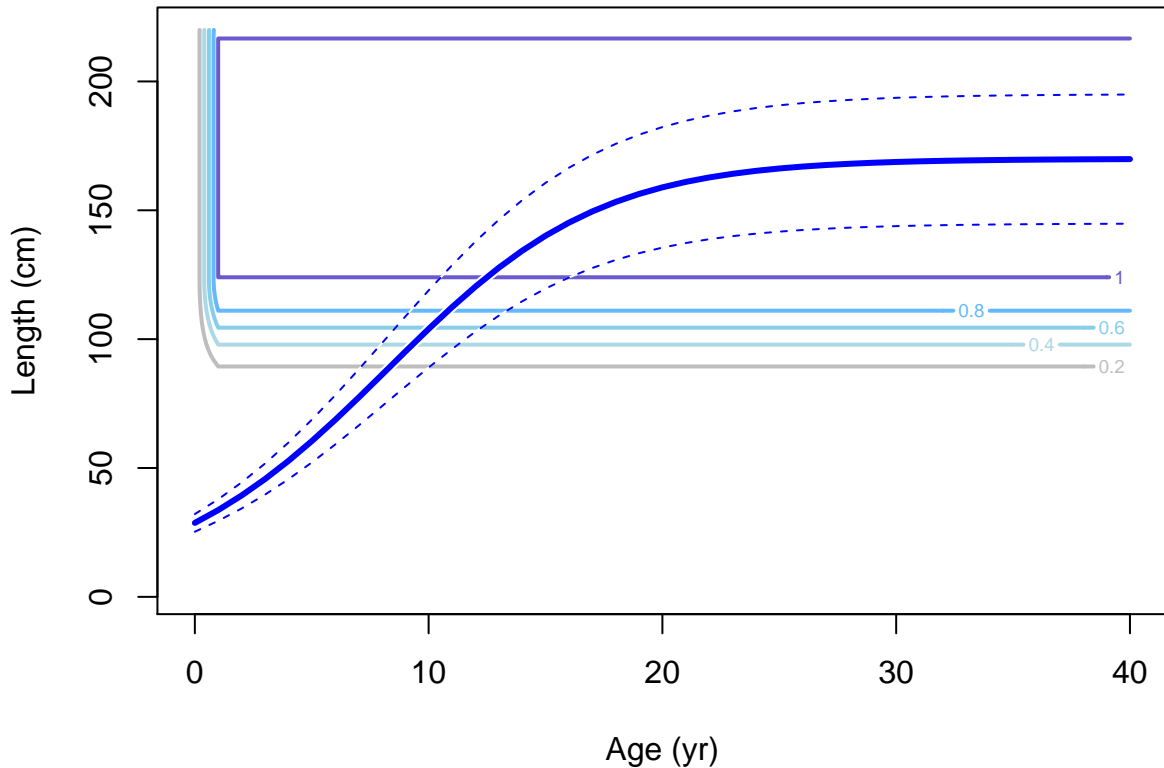
Male ending year selectivity and growth for A3-LL-n



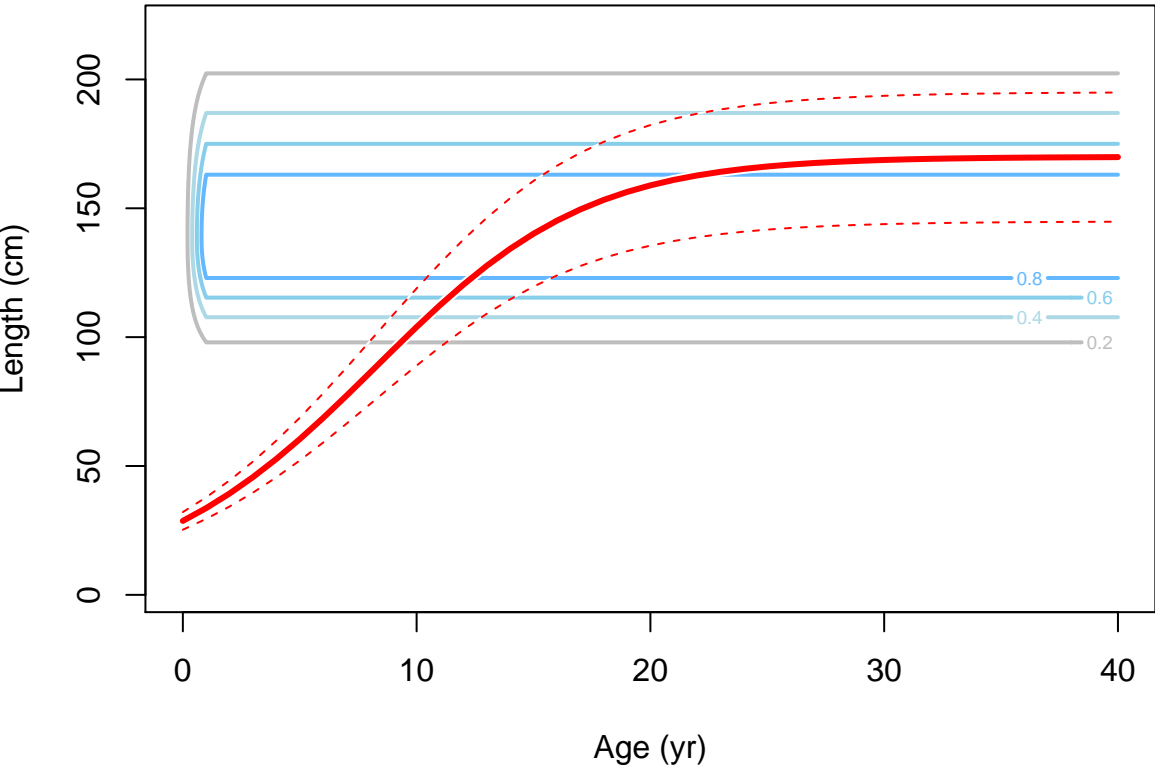
Female ending year selectivity and growth for A4-LL-n



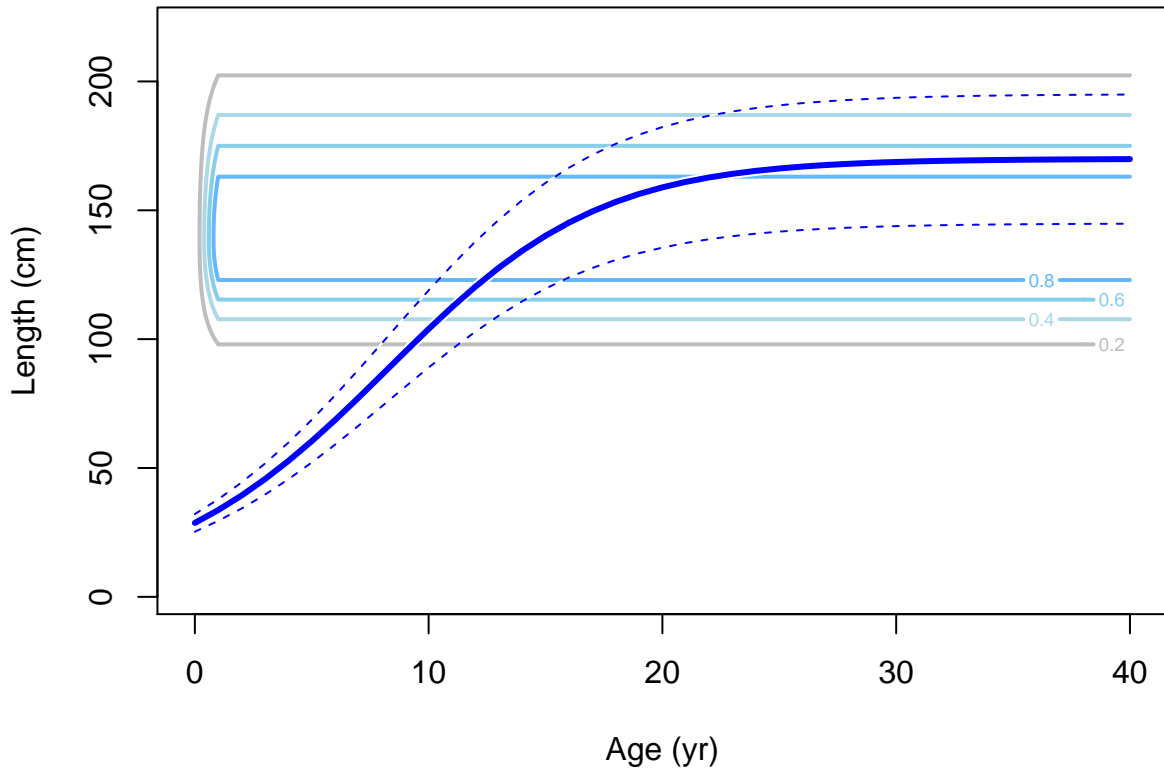
Male ending year selectivity and growth for A4-LL-n



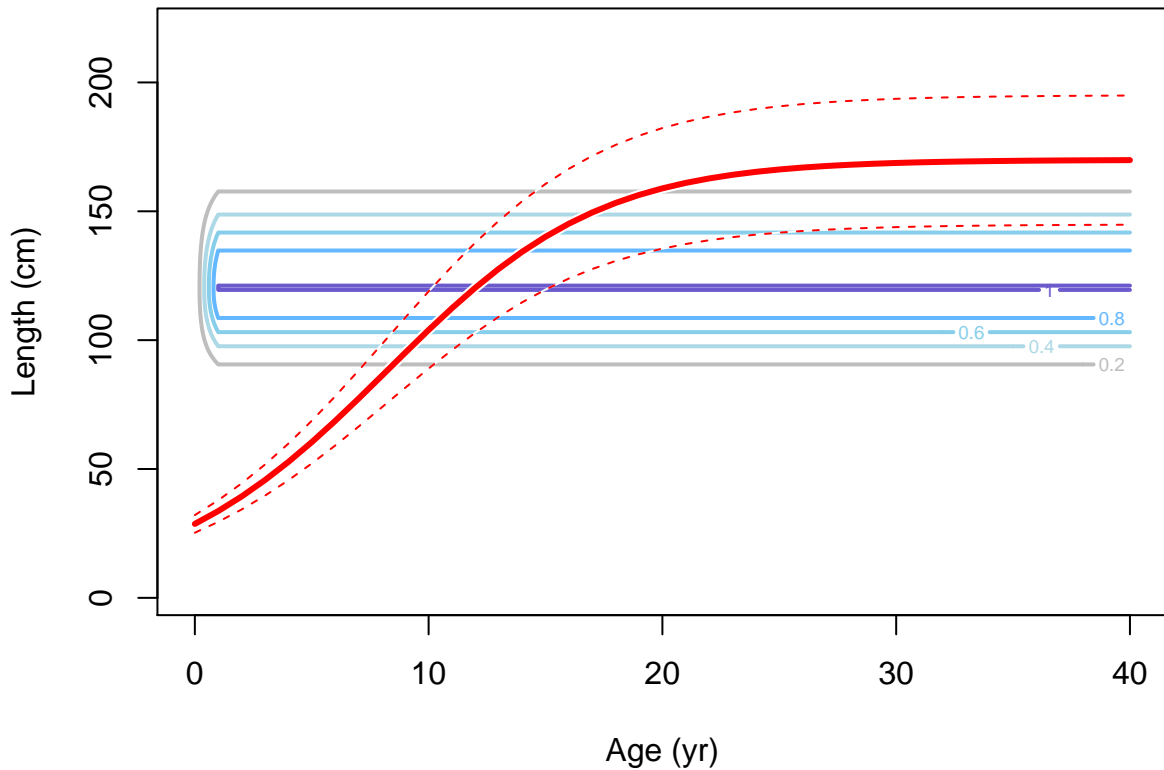
Female ending year selectivity and growth for A5-LL-n



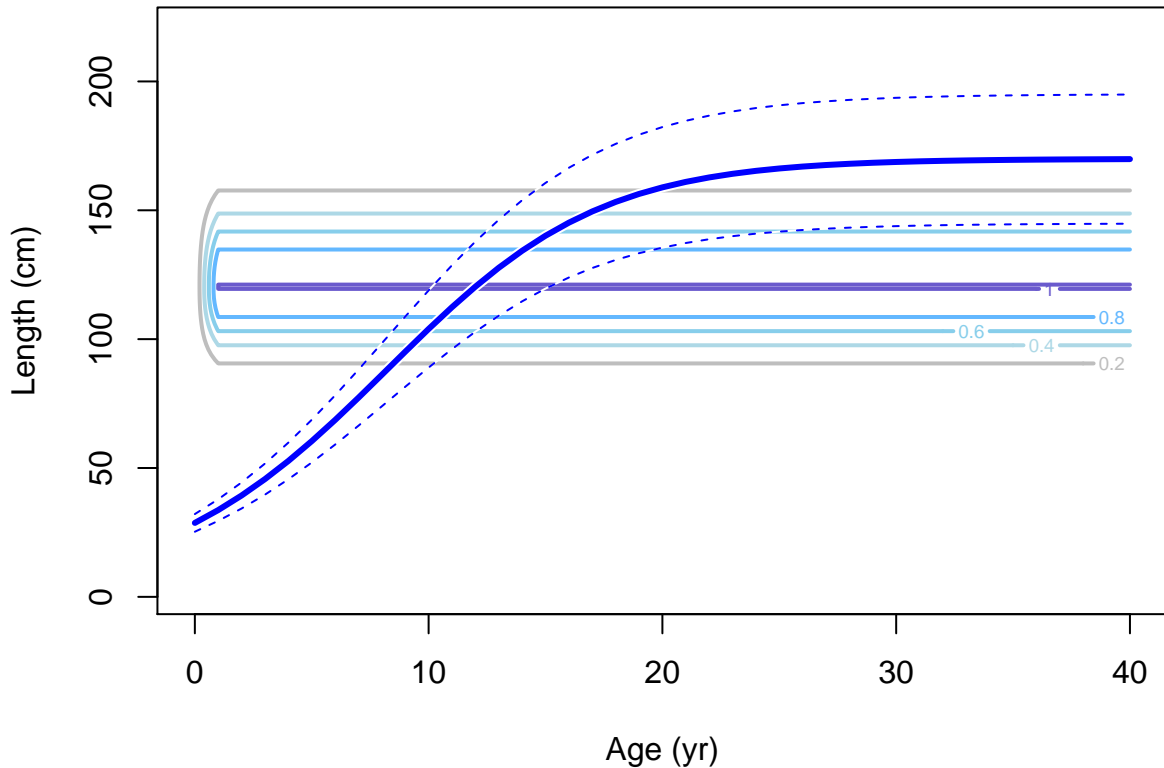
Male ending year selectivity and growth for A5-LL-n



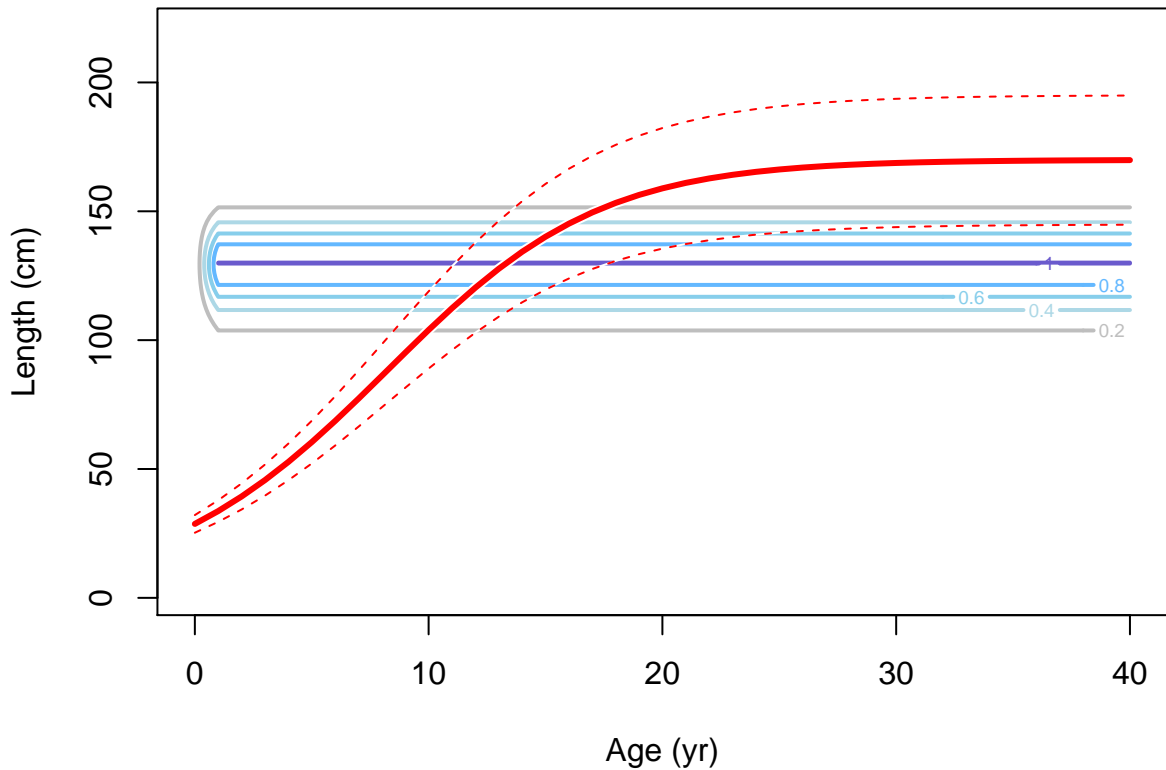
Female ending year selectivity and growth for A6-LL-n



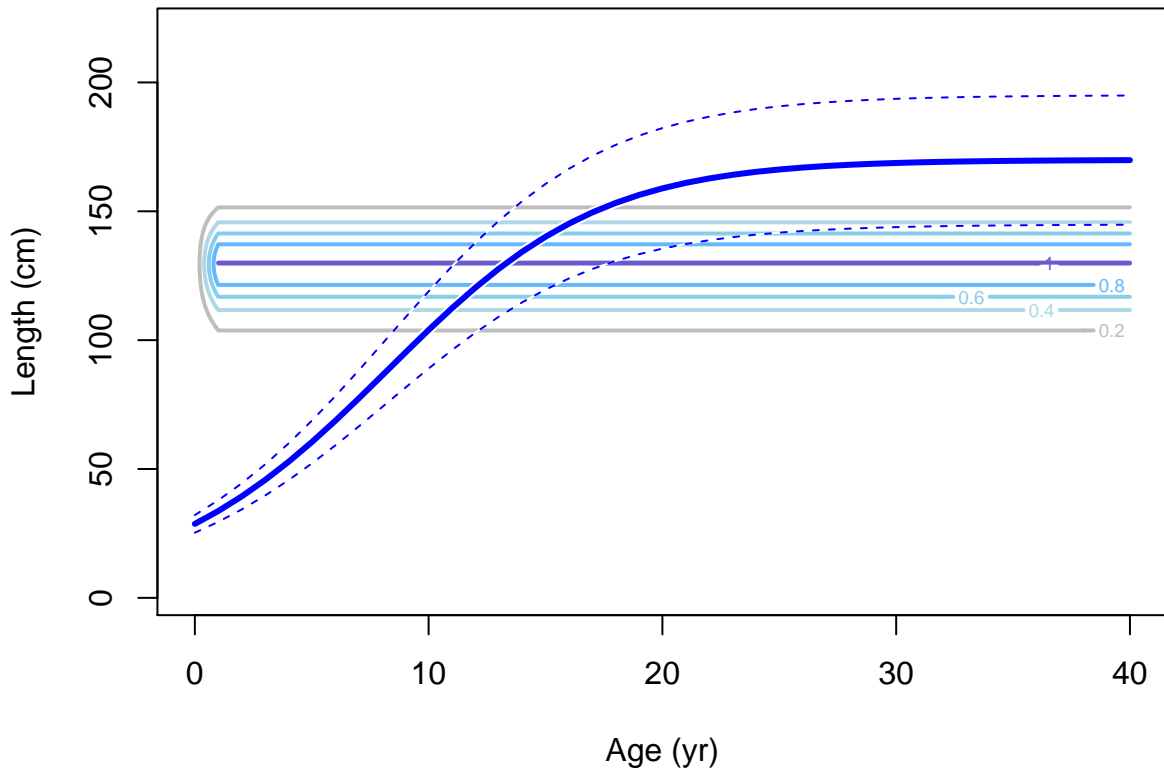
Male ending year selectivity and growth for A6-LL-n



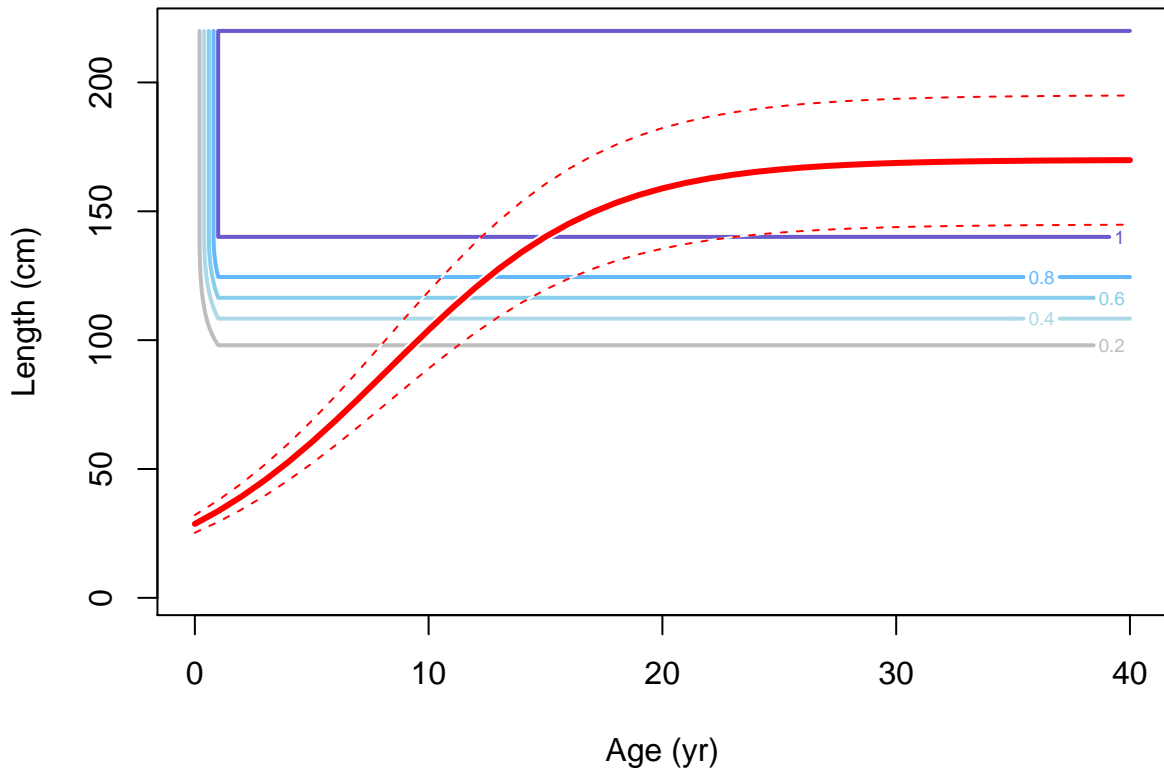
Female ending year selectivity and growth for A1-LL-w



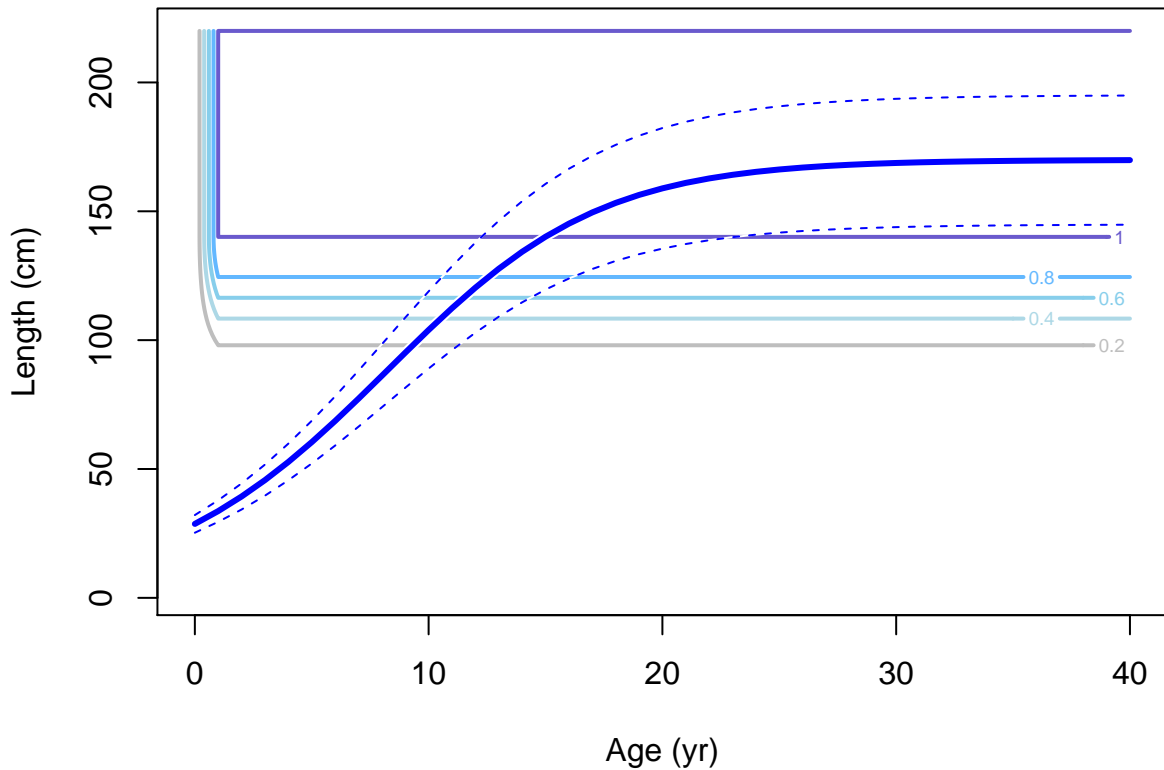
Male ending year selectivity and growth for A1-LL-w



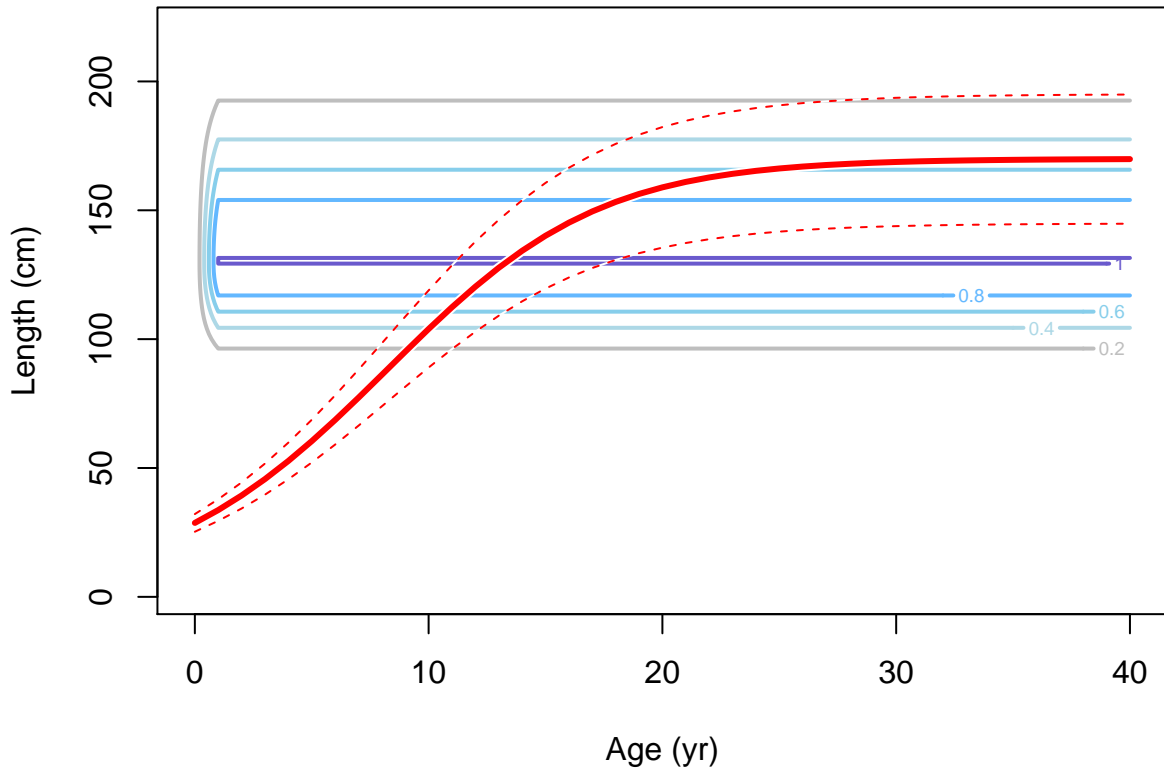
Female ending year selectivity and growth for A2-LL-w



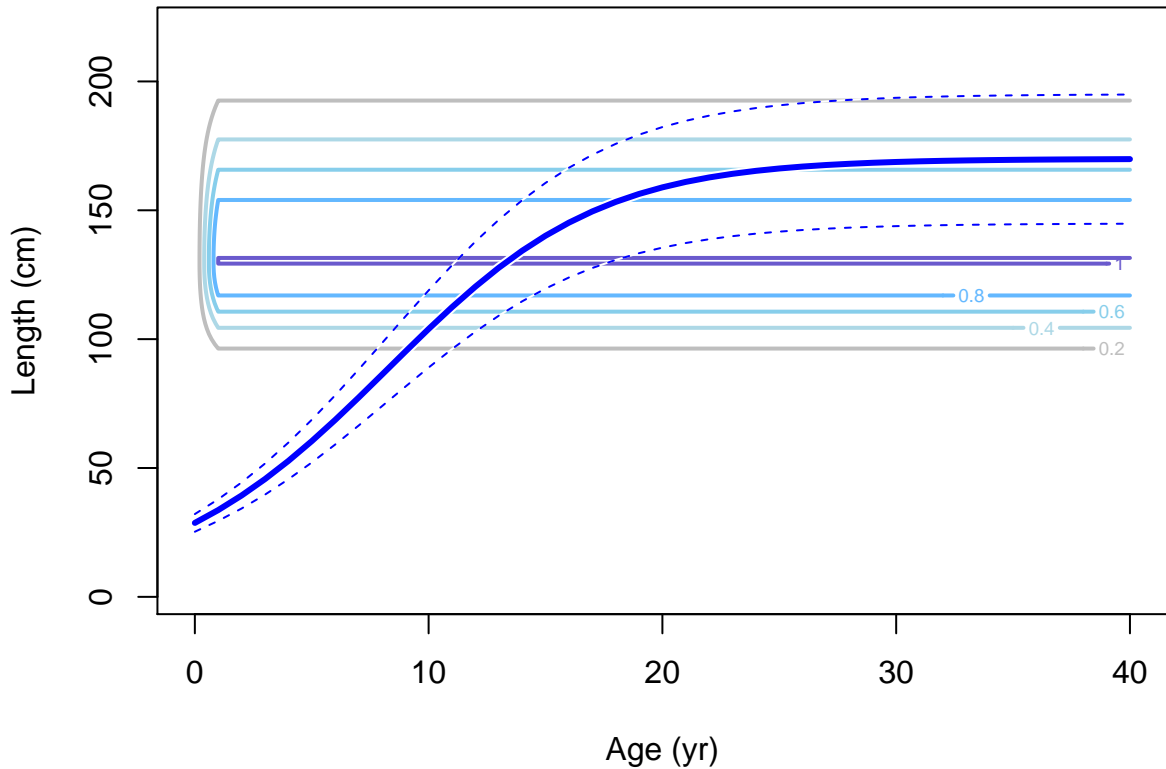
Male ending year selectivity and growth for A2-LL-w



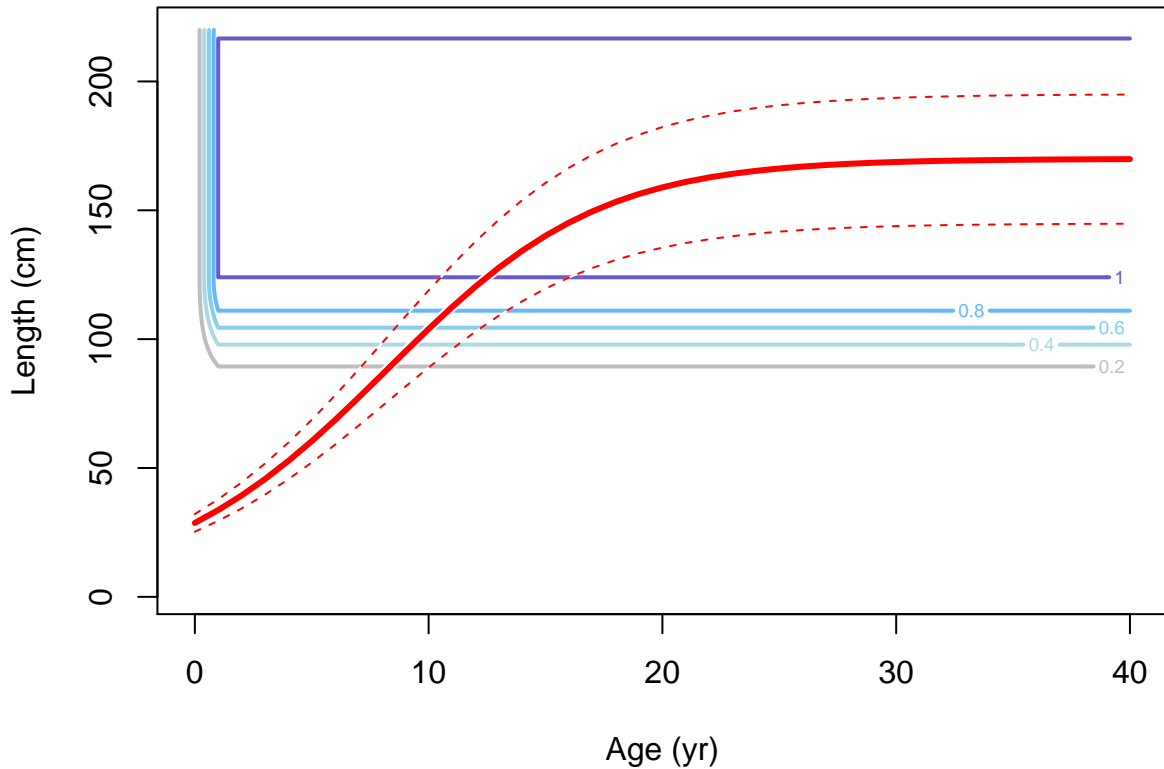
Female ending year selectivity and growth for A3-LL-w



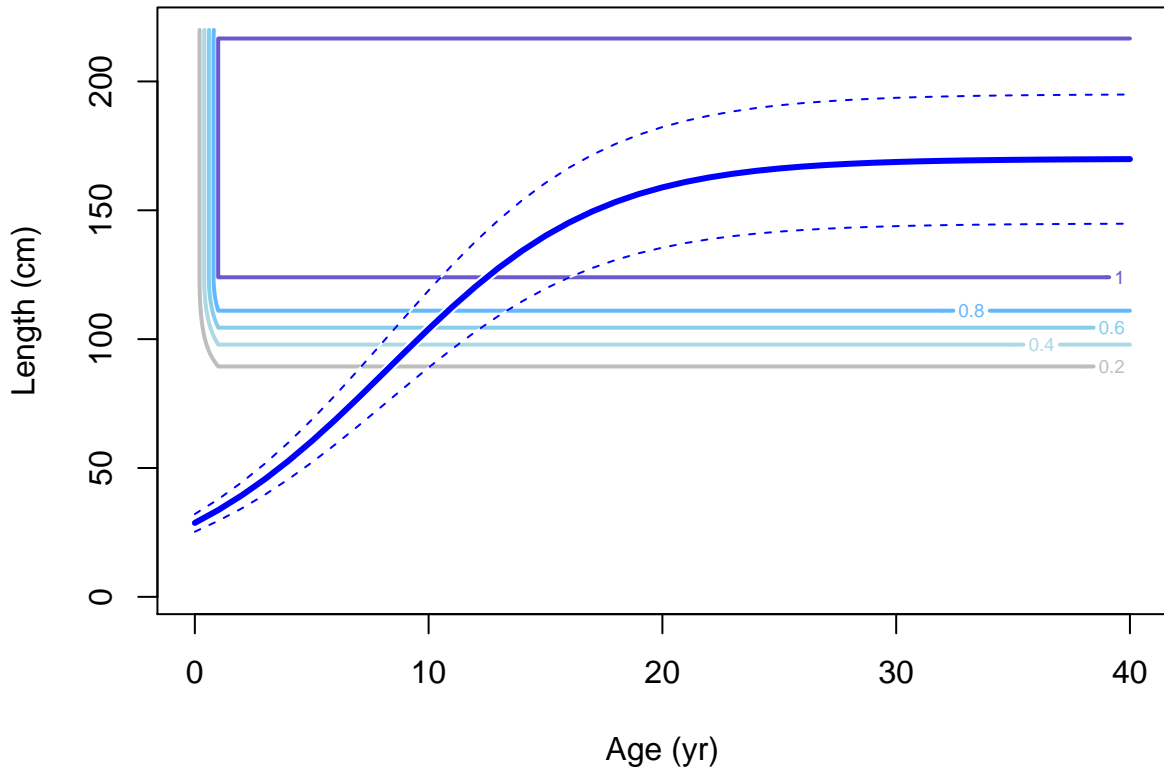
Male ending year selectivity and growth for A3-LL-w



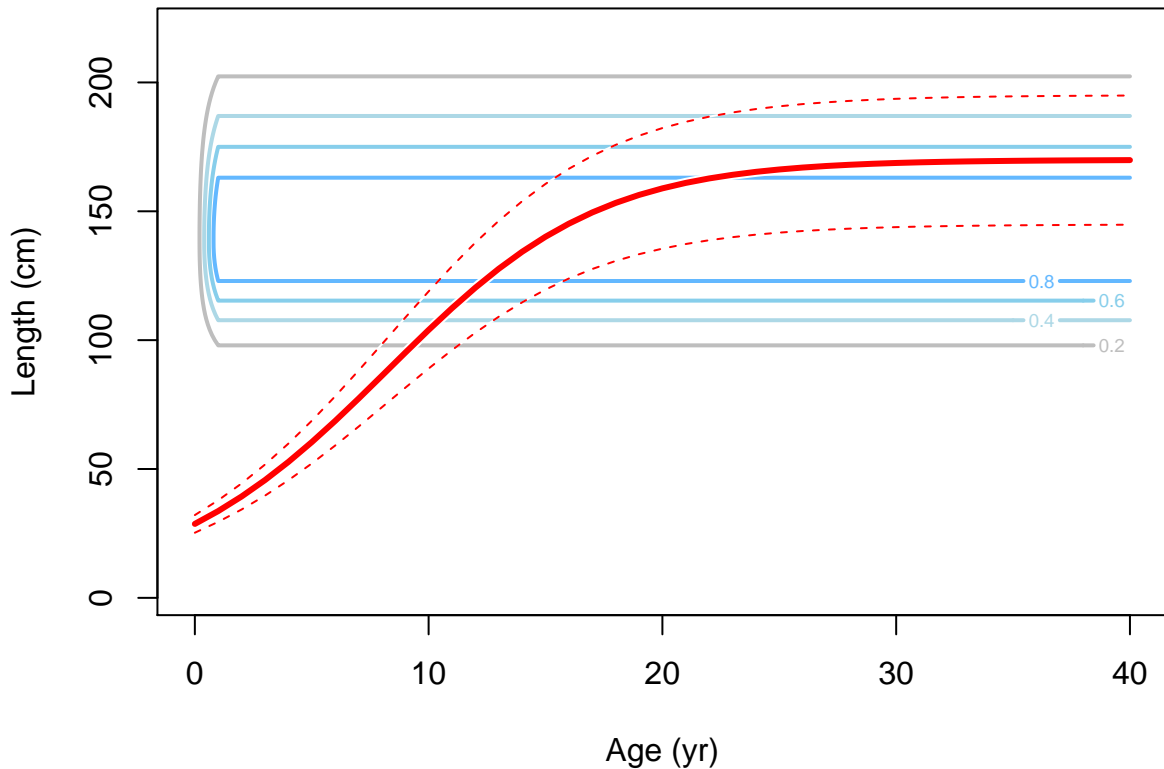
Female ending year selectivity and growth for A4-LL-w



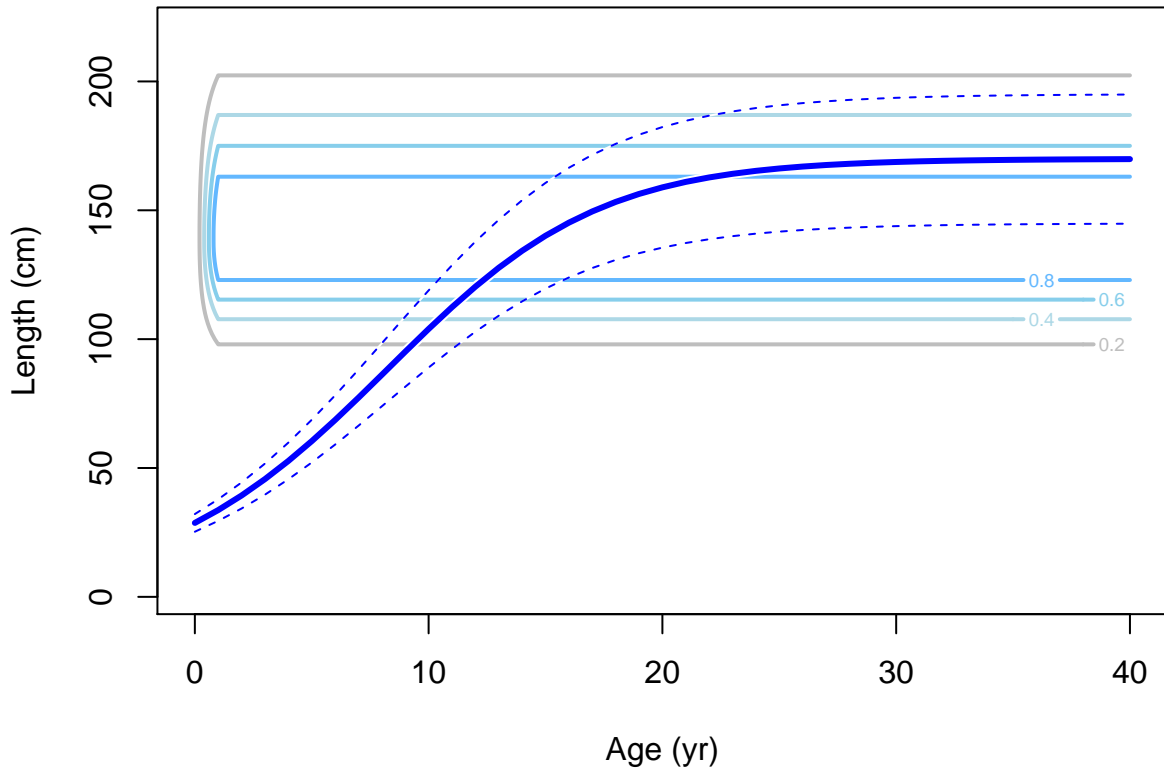
Male ending year selectivity and growth for A4-LL-w



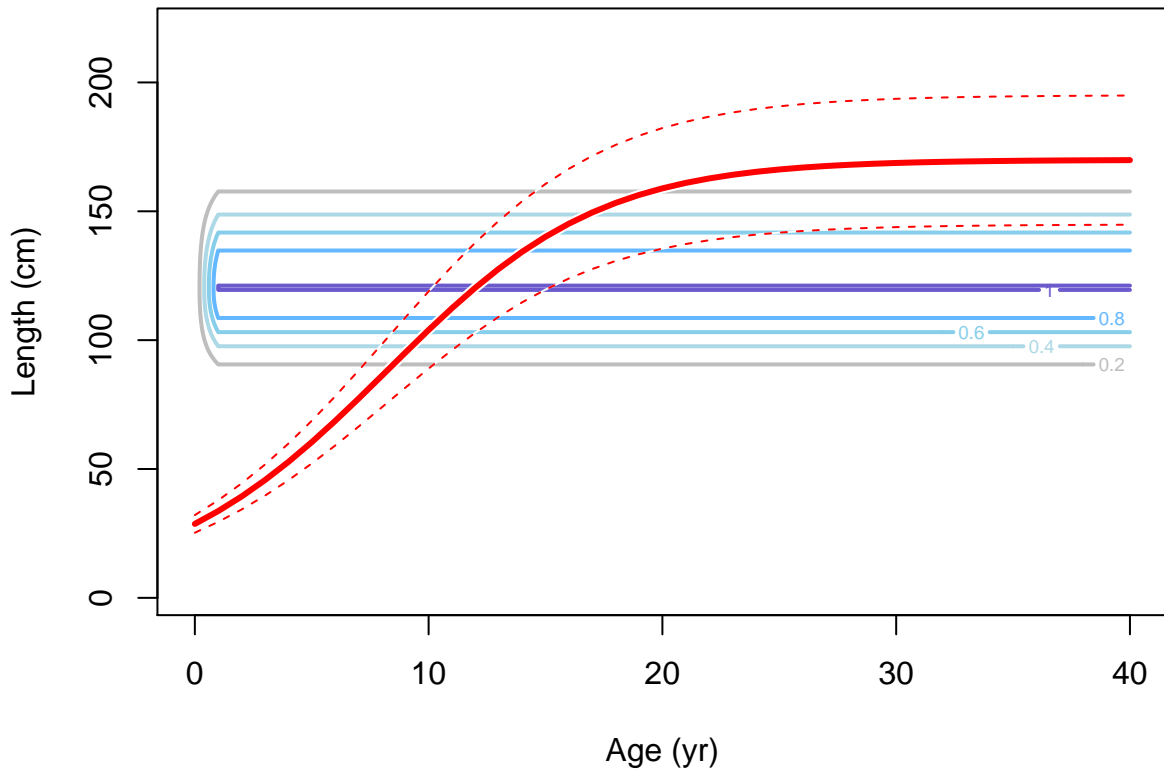
Female ending year selectivity and growth for A5-LL-w



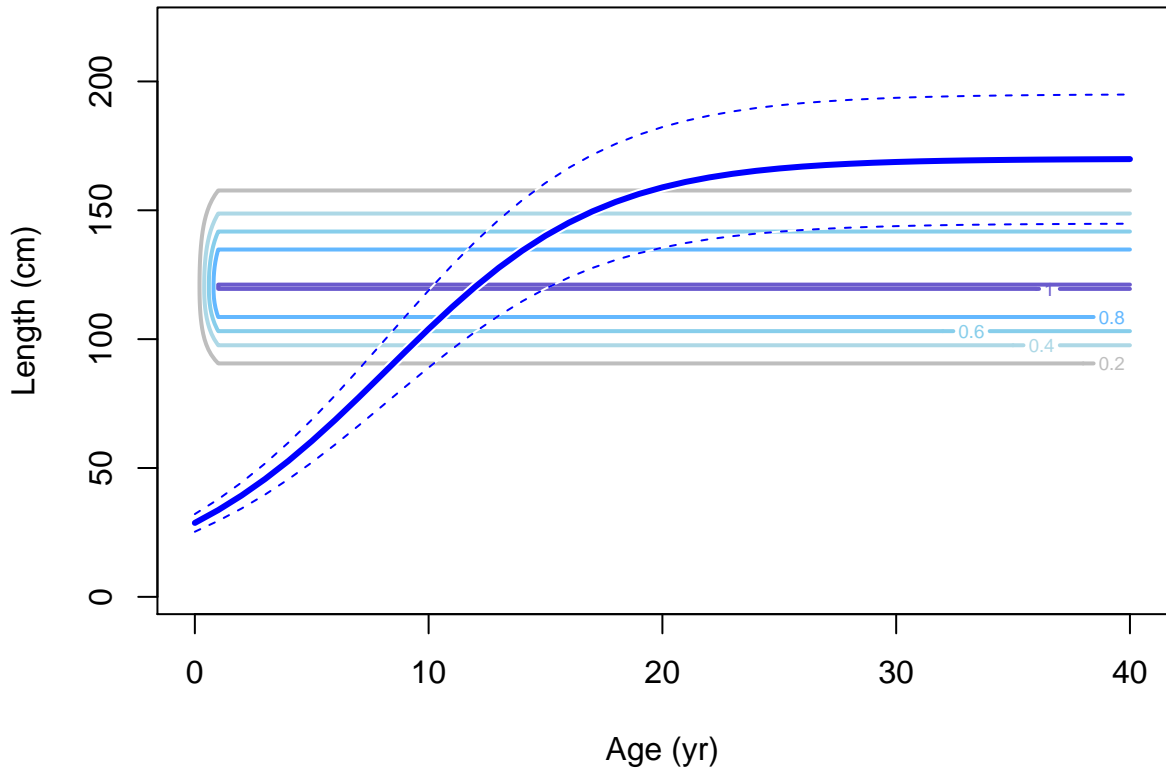
Male ending year selectivity and growth for A5-LL-w



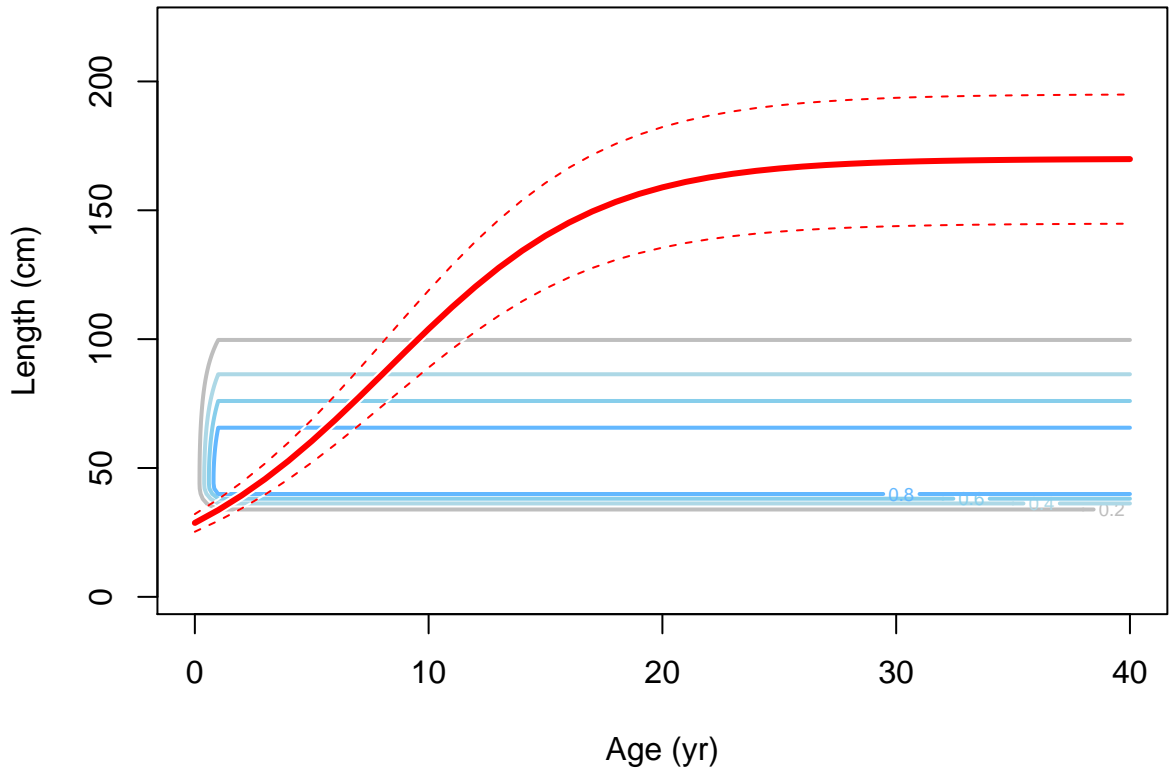
Female ending year selectivity and growth for A6-LL-w



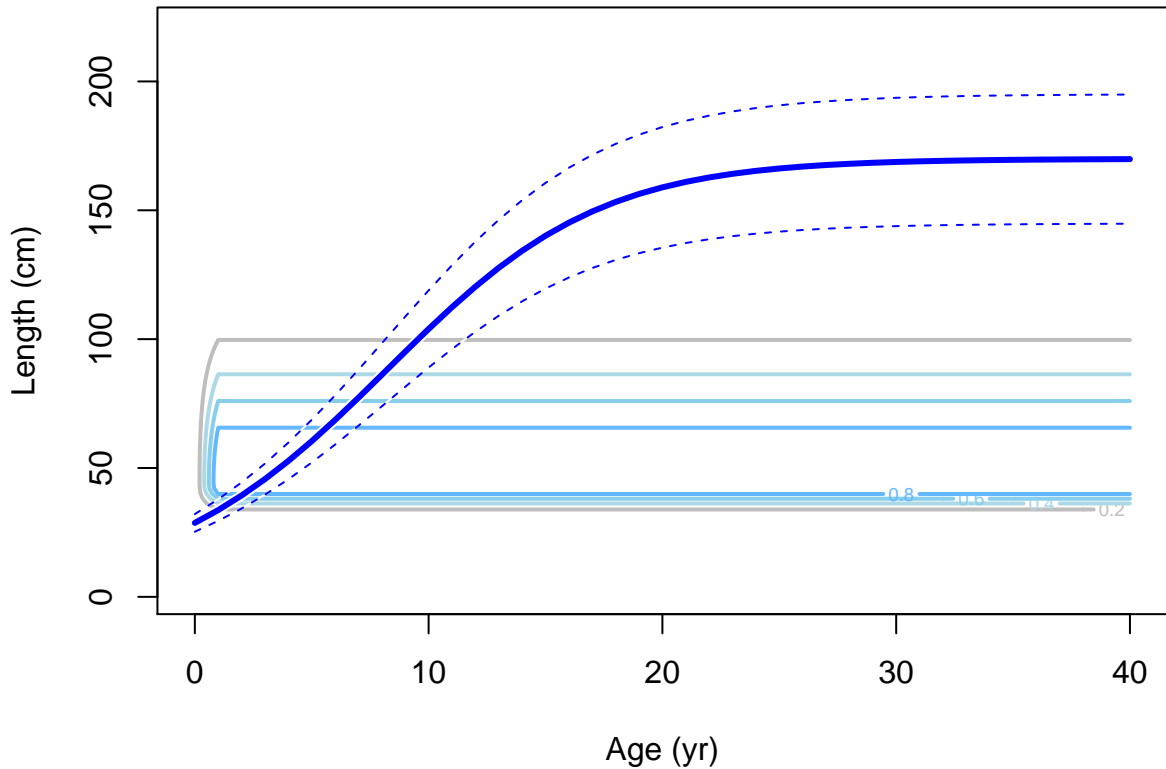
Male ending year selectivity and growth for A6-LL-w



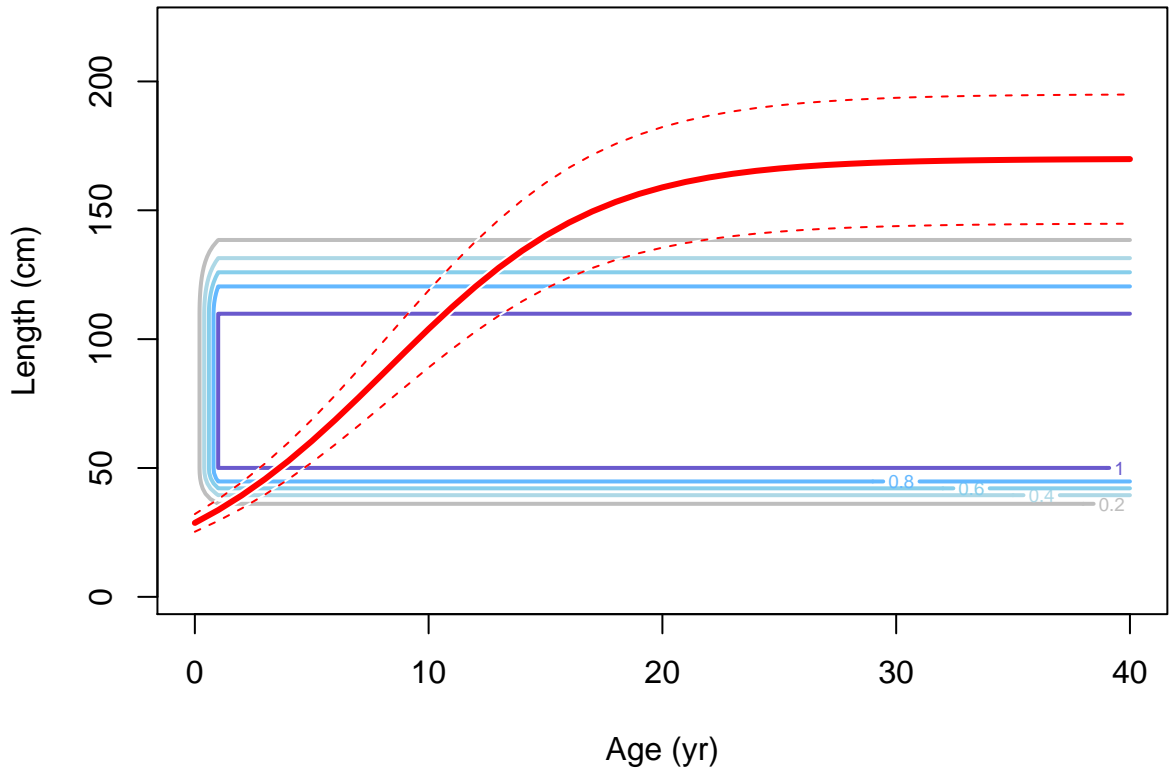
Female ending year selectivity and growth for A2-OBJ



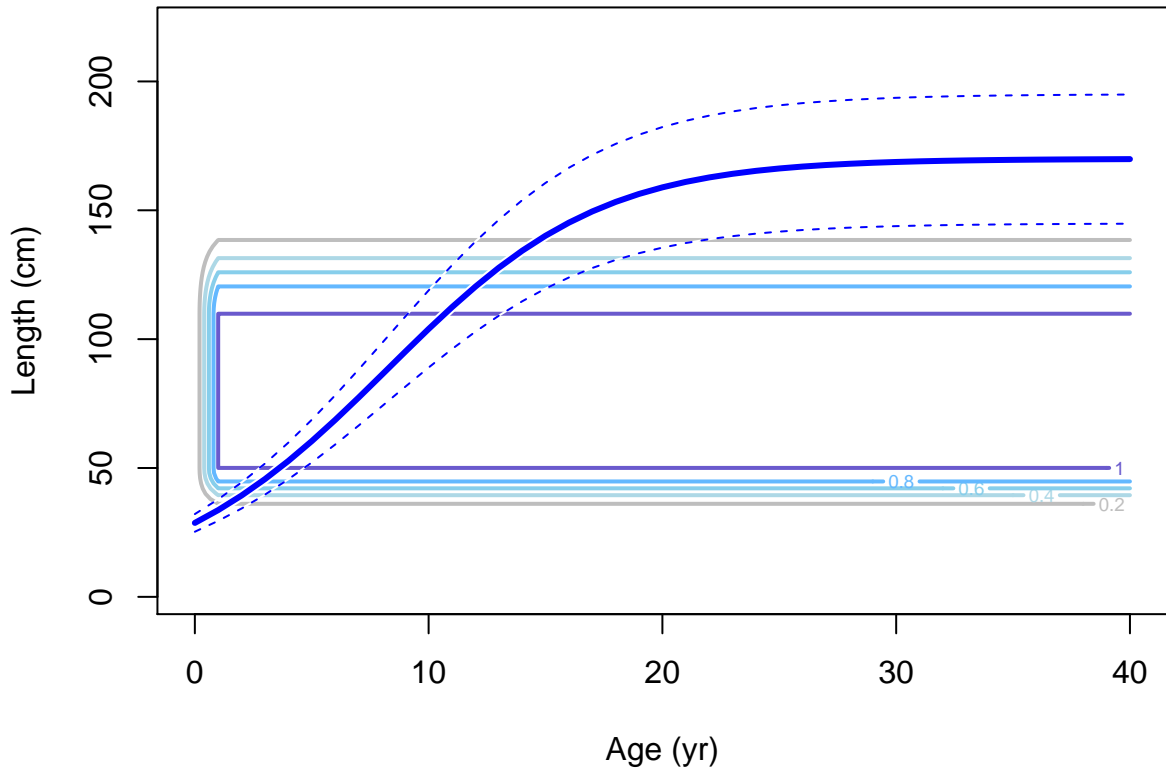
Male ending year selectivity and growth for A2-OBJ



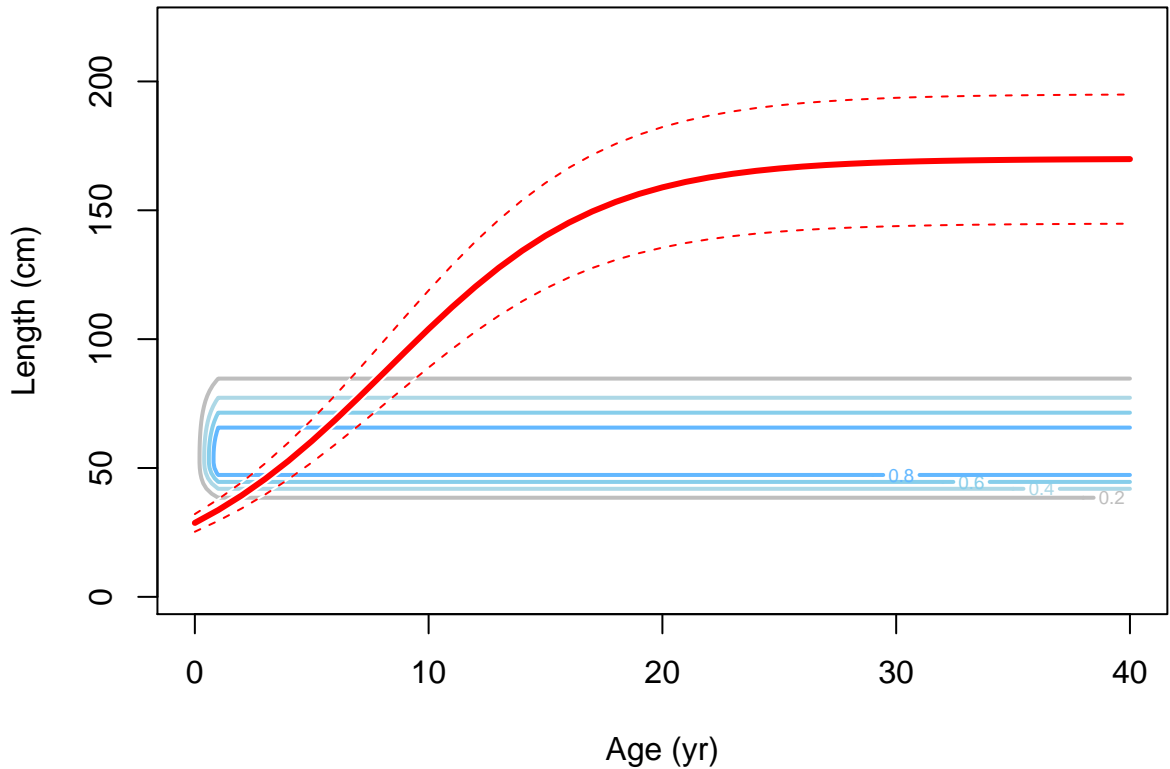
Female ending year selectivity and growth for A3-OBJ



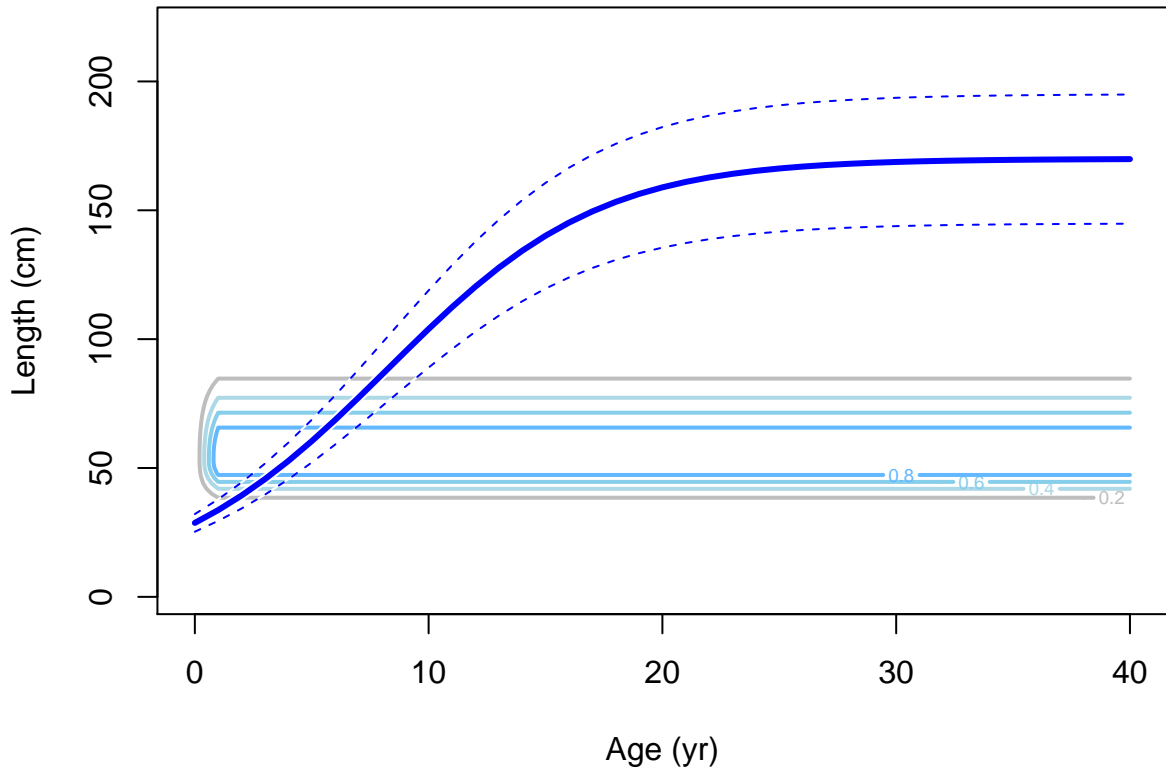
Male ending year selectivity and growth for A3-OBJ



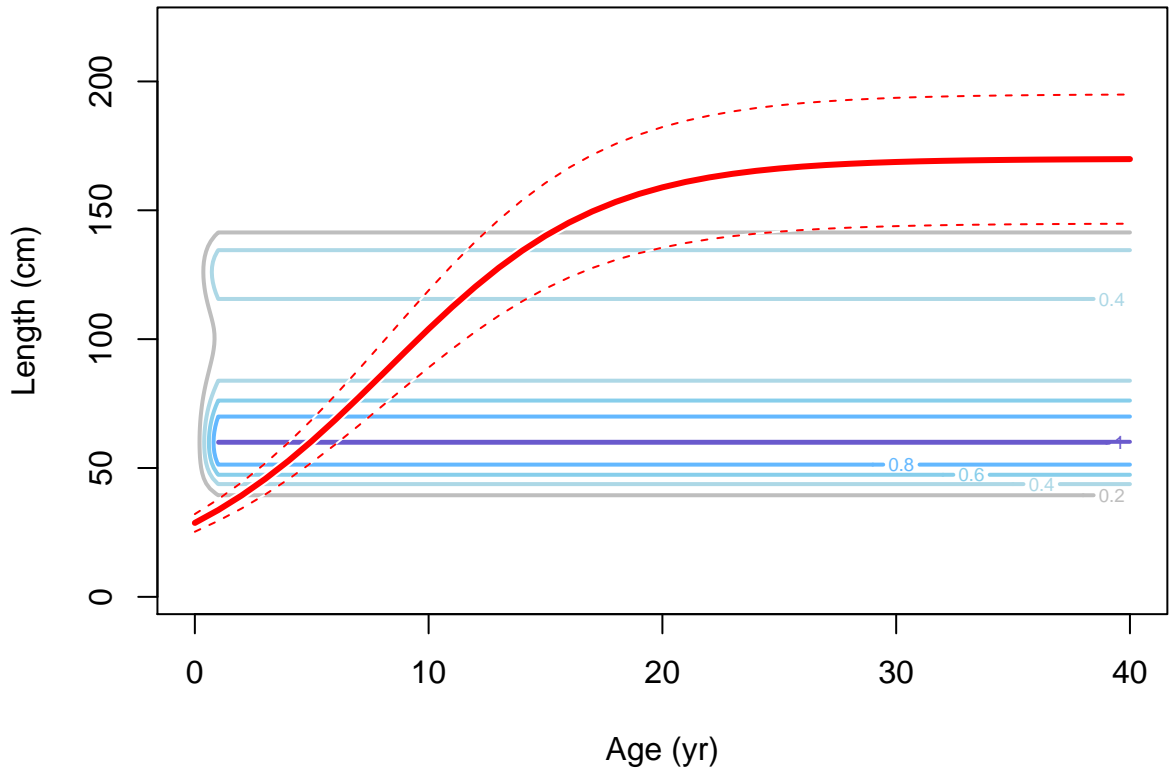
Female ending year selectivity and growth for A4-OBJ



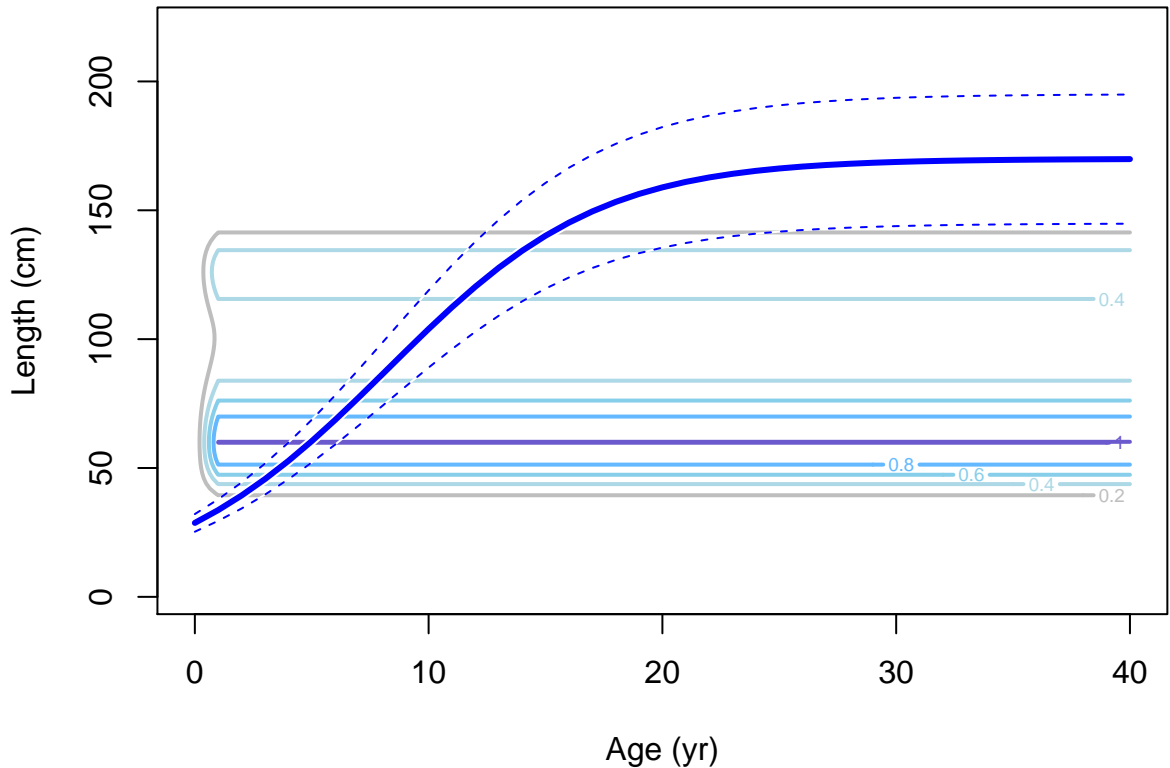
Male ending year selectivity and growth for A4-OBJ



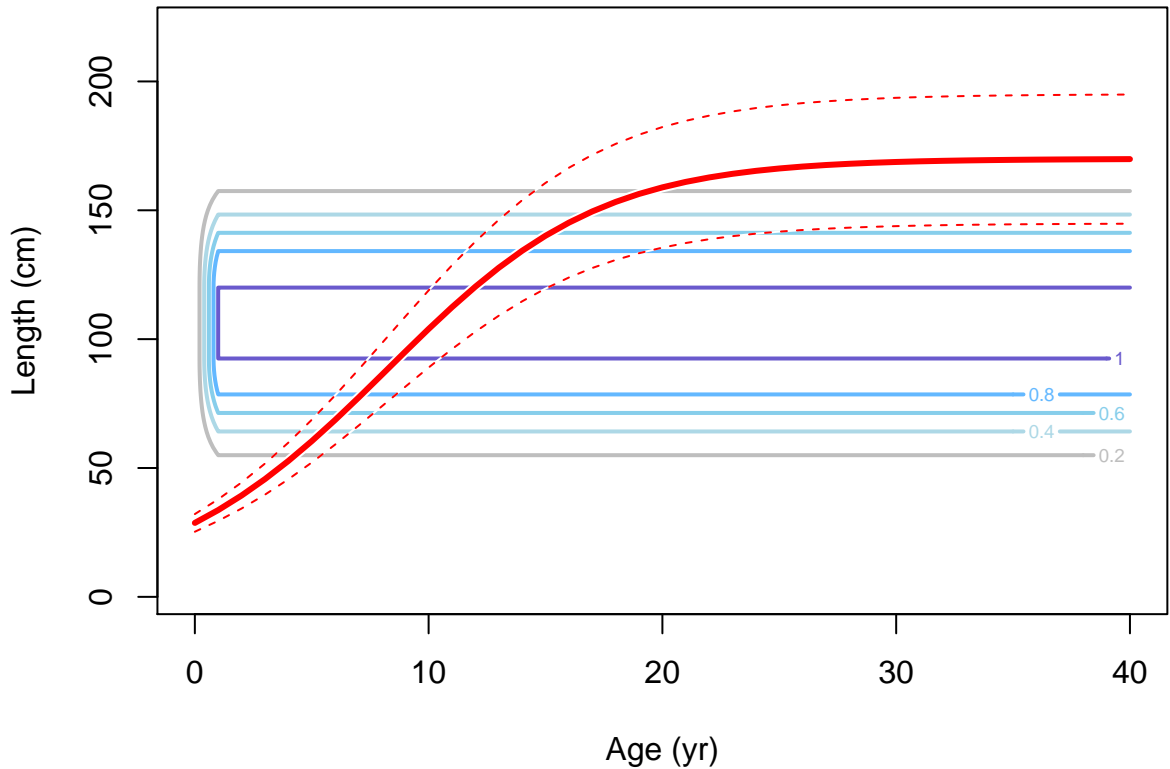
Female ending year selectivity and growth for A5-OBJ



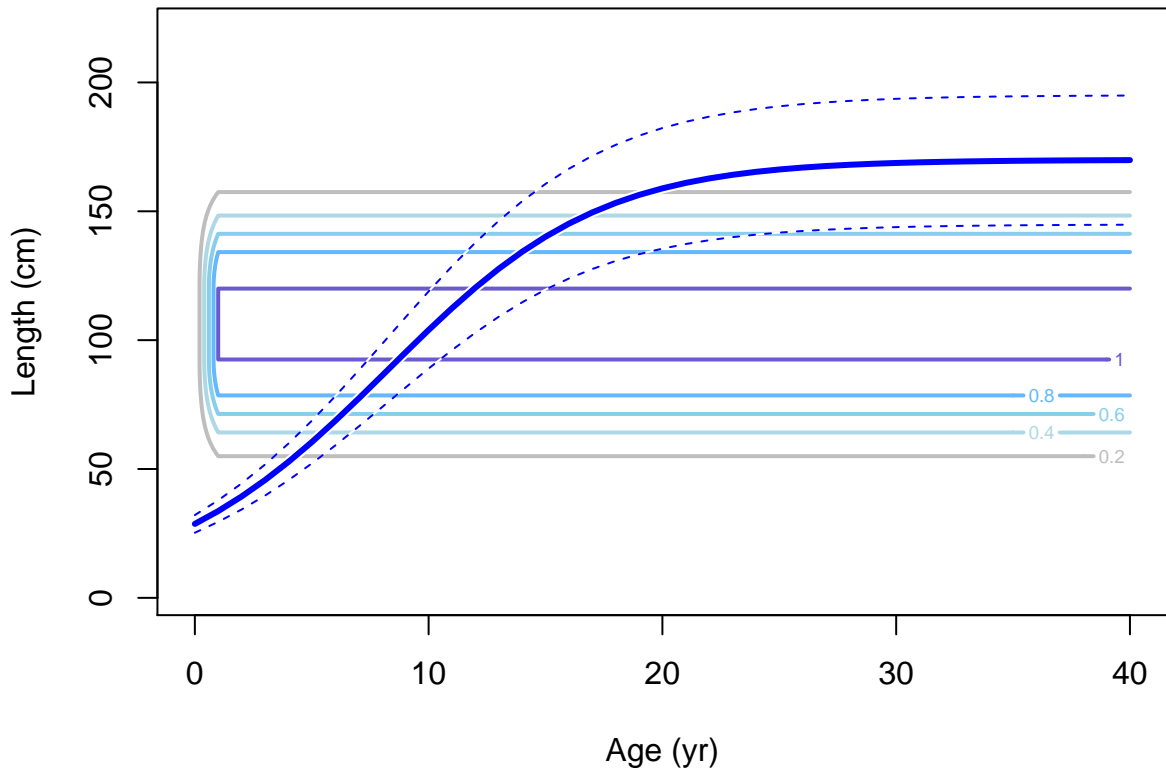
Male ending year selectivity and growth for A5-OBJ



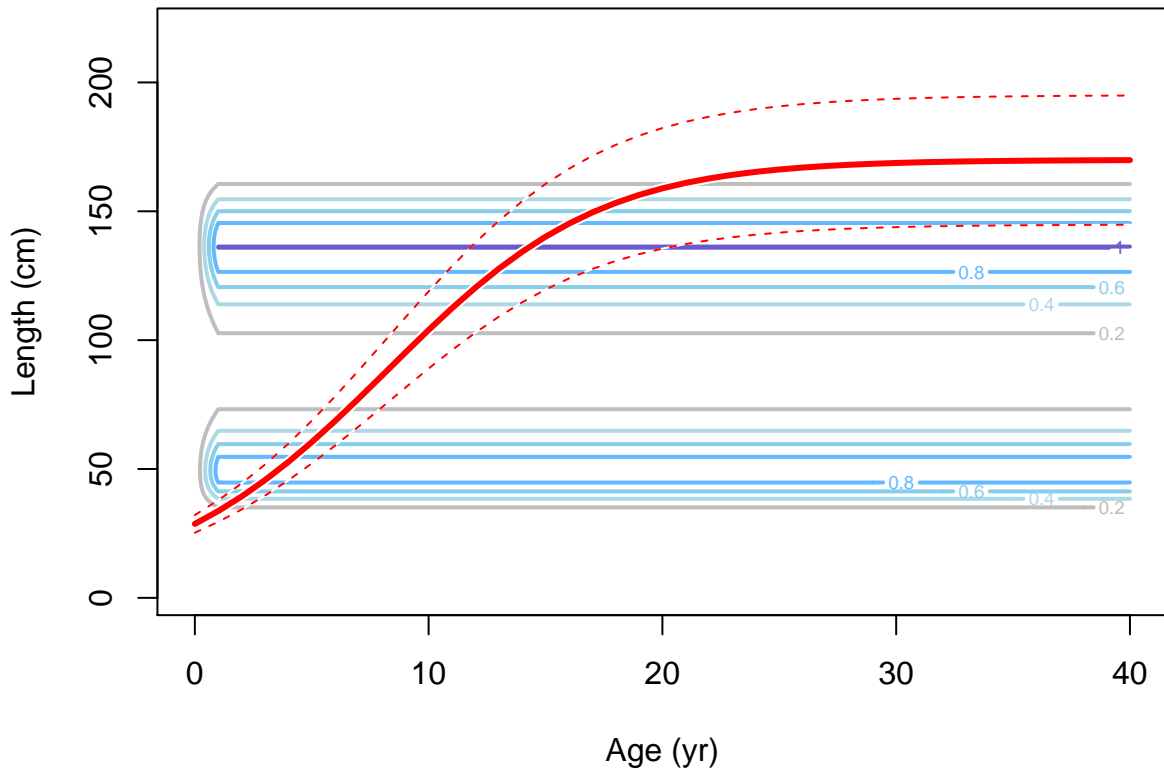
Female ending year selectivity and growth for A6-OBJ



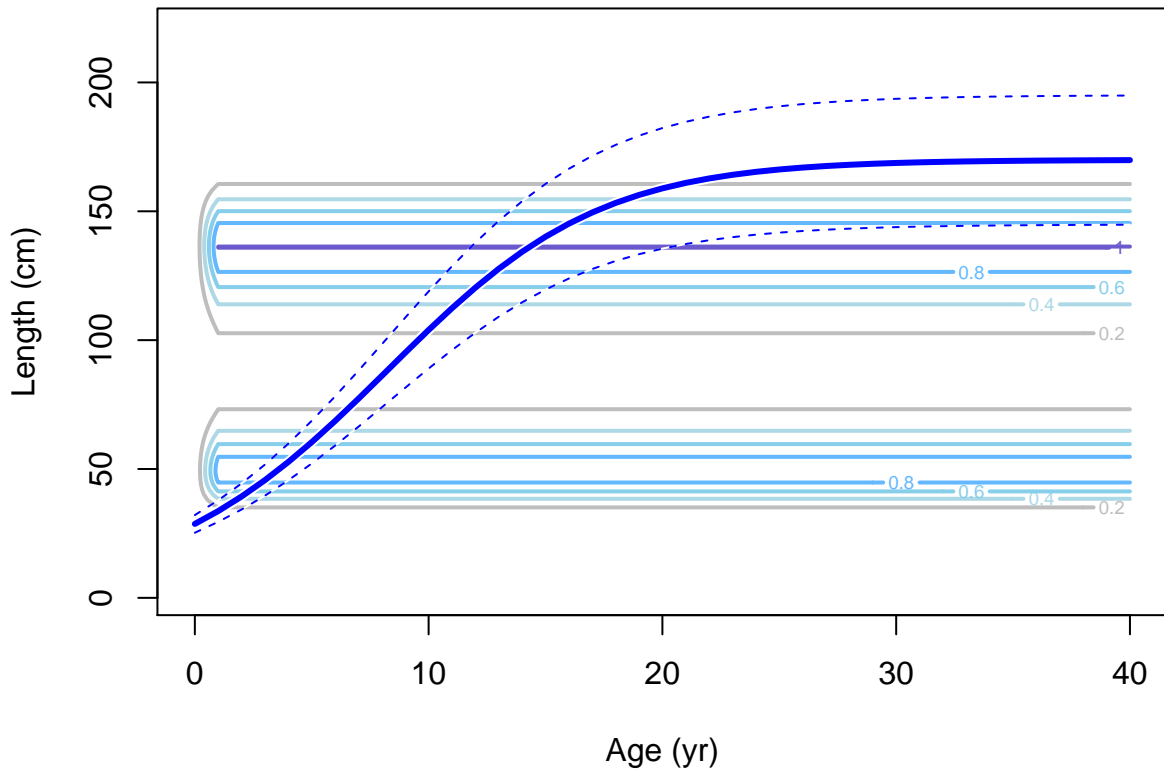
Male ending year selectivity and growth for A6-OBJ



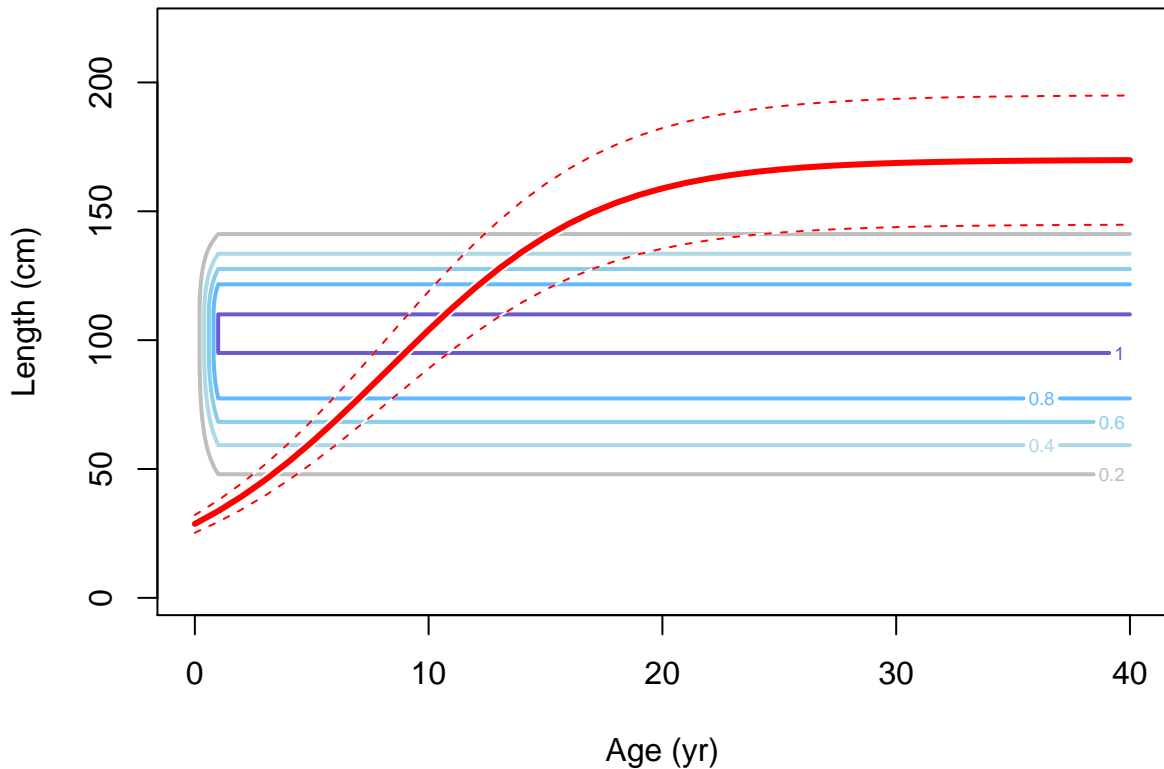
Female ending year selectivity and growth for A2-NOADEL



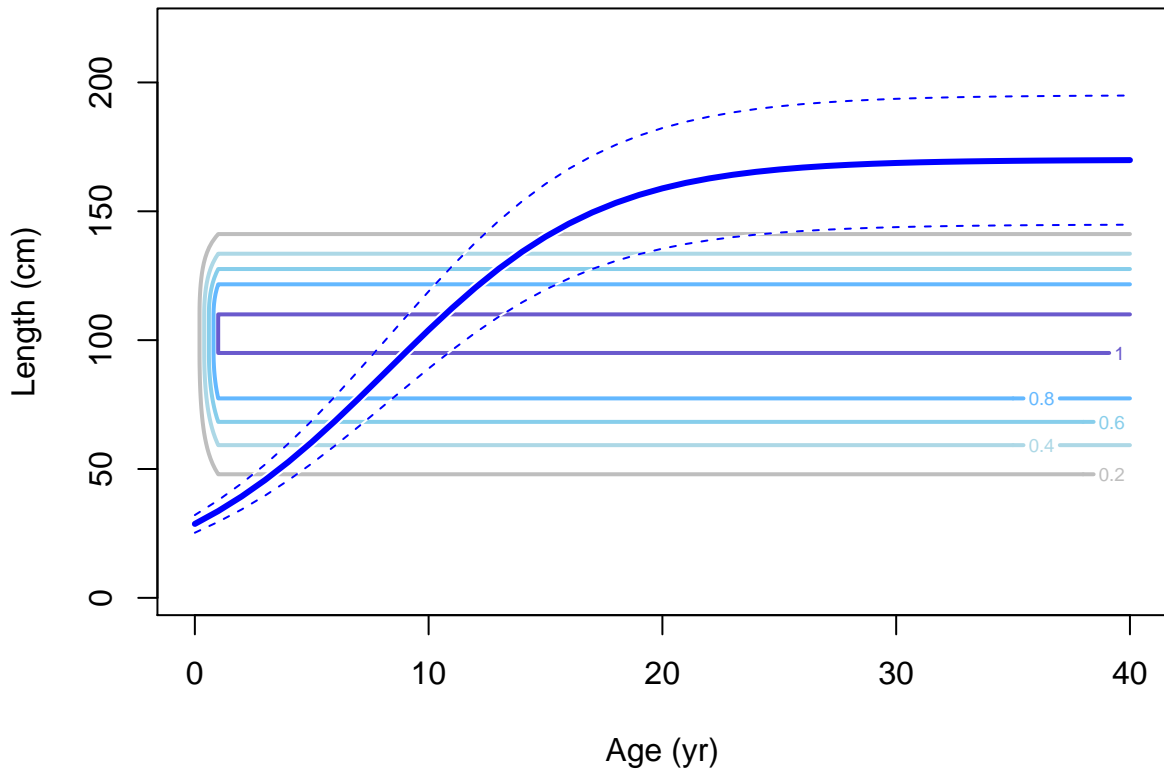
Male ending year selectivity and growth for A2-NOADEL



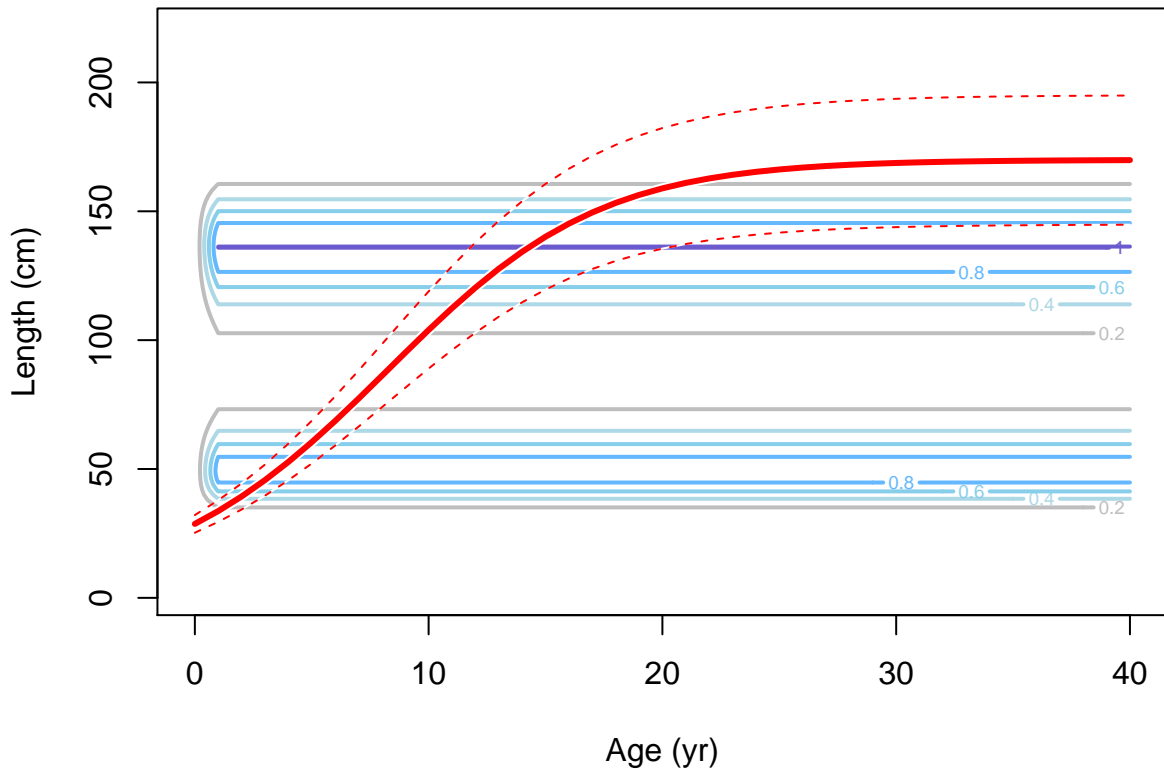
Female ending year selectivity and growth for A3-NOADEL



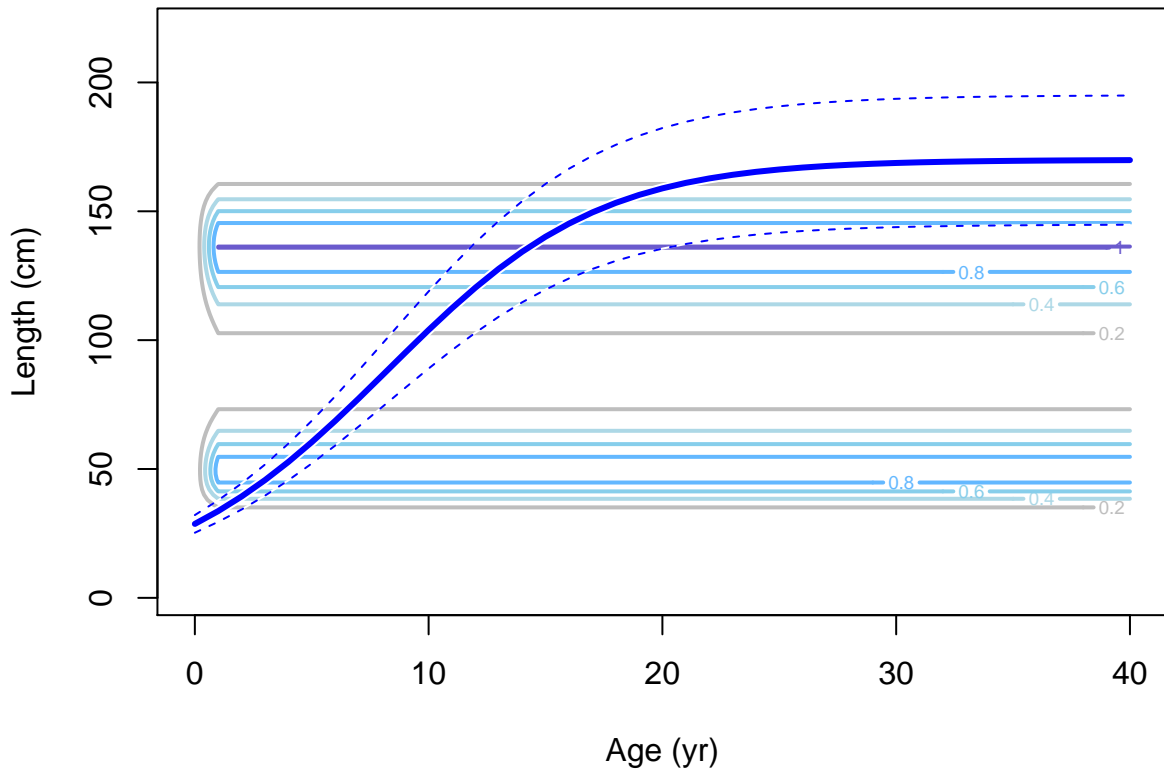
Male ending year selectivity and growth for A3-NOADEL



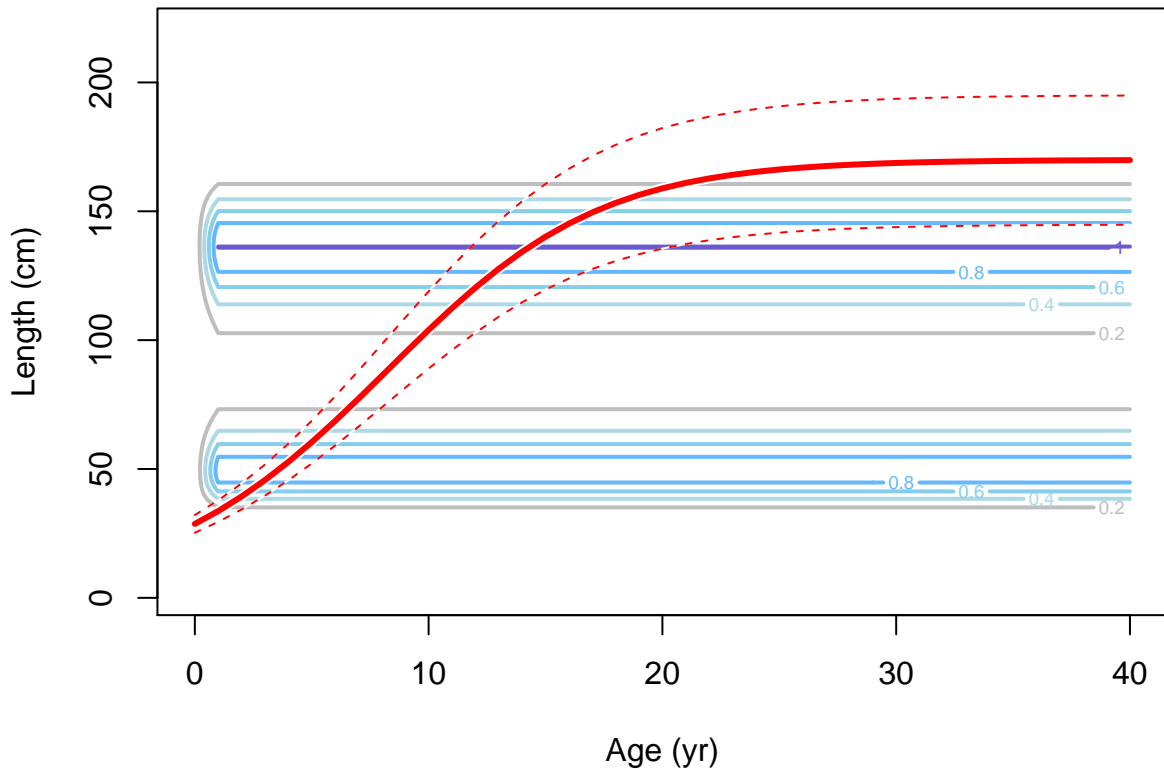
Female ending year selectivity and growth for A4-NOADEL



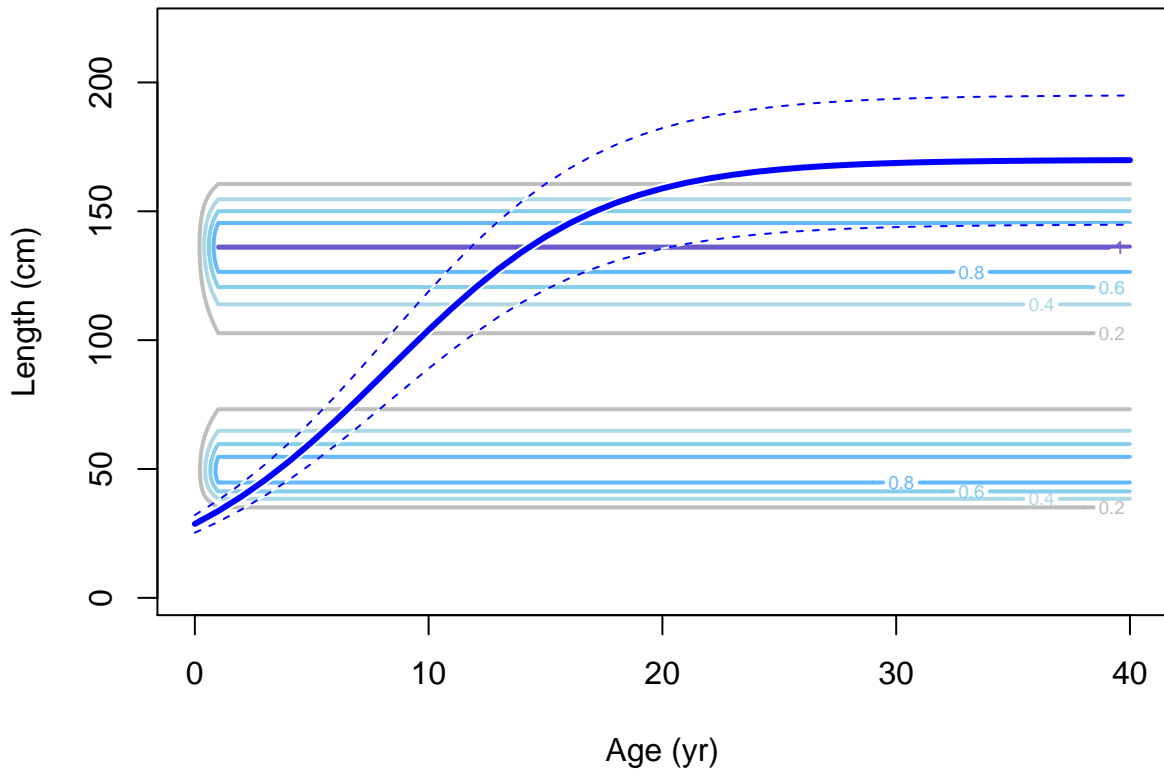
Male ending year selectivity and growth for A4-NOADEL



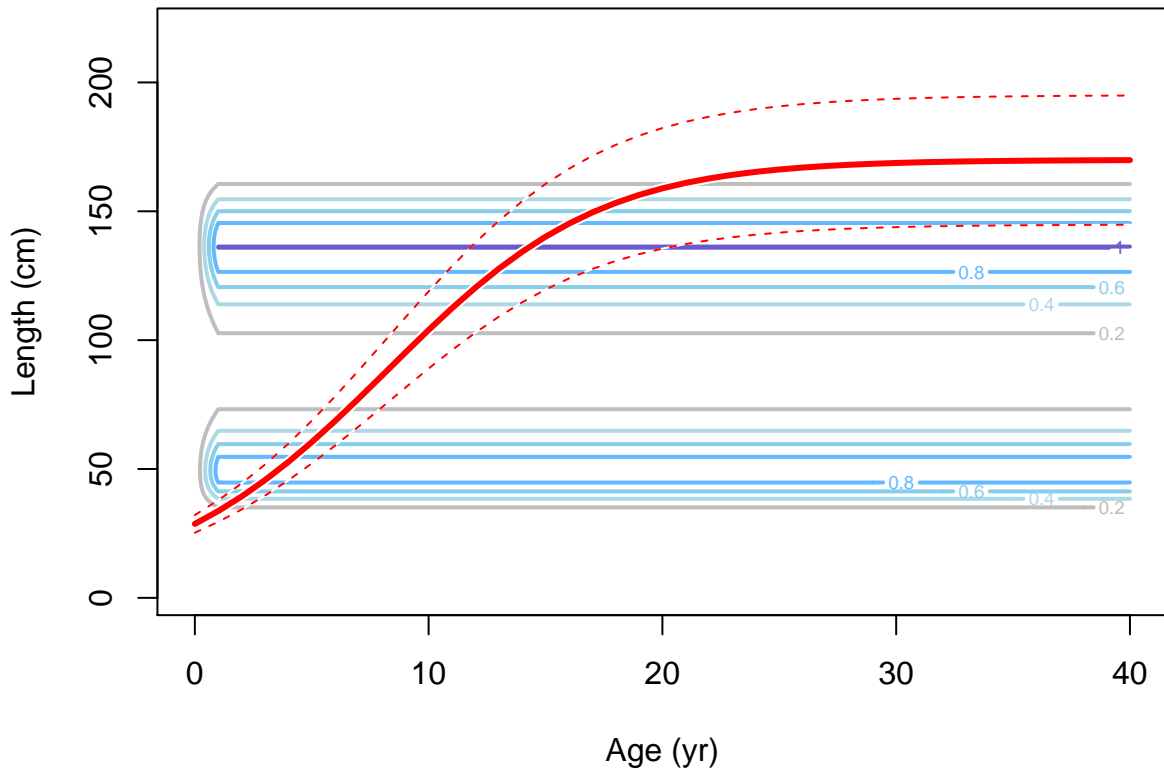
Female ending year selectivity and growth for A5-NOADEL



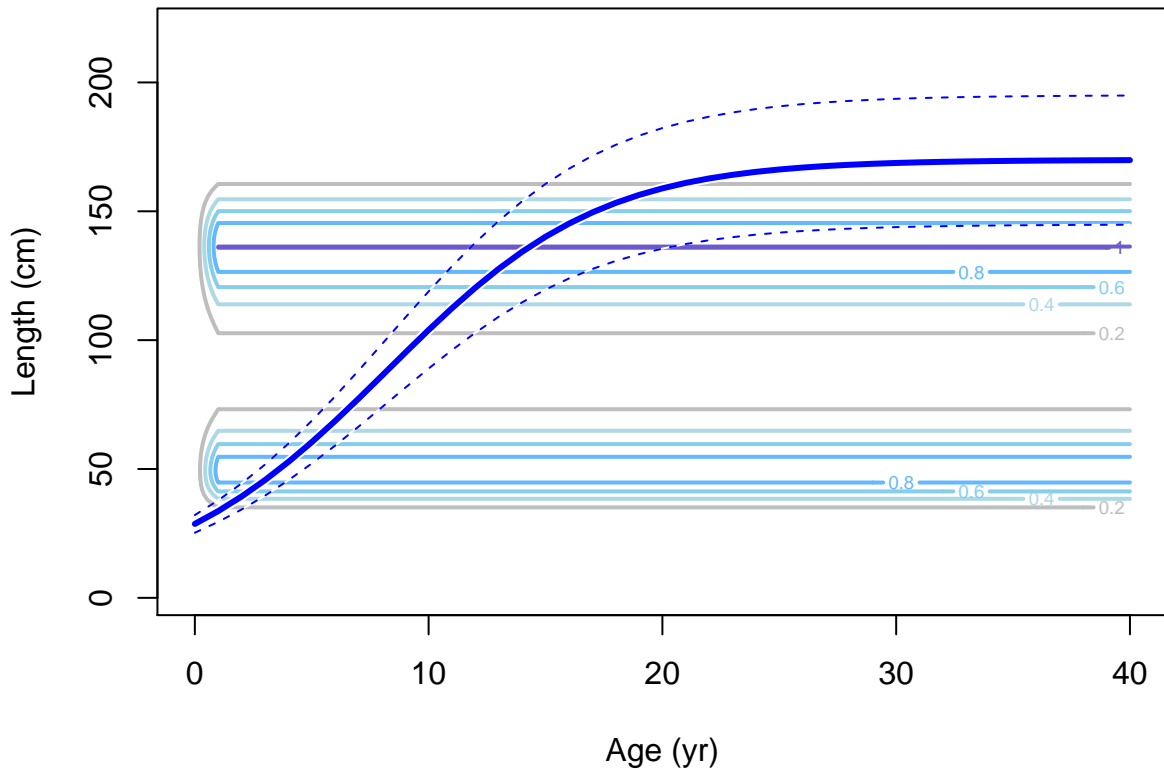
Male ending year selectivity and growth for A5-NOADEL



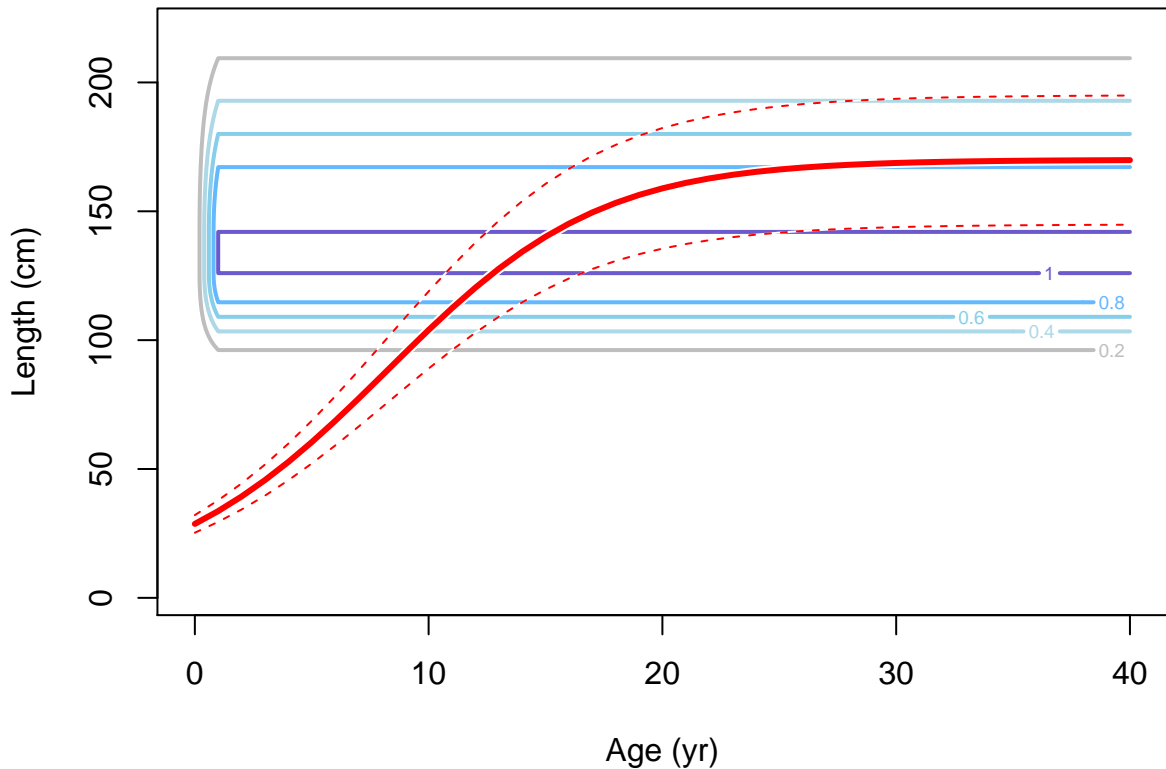
Female ending year selectivity and growth for A6-NOADEL



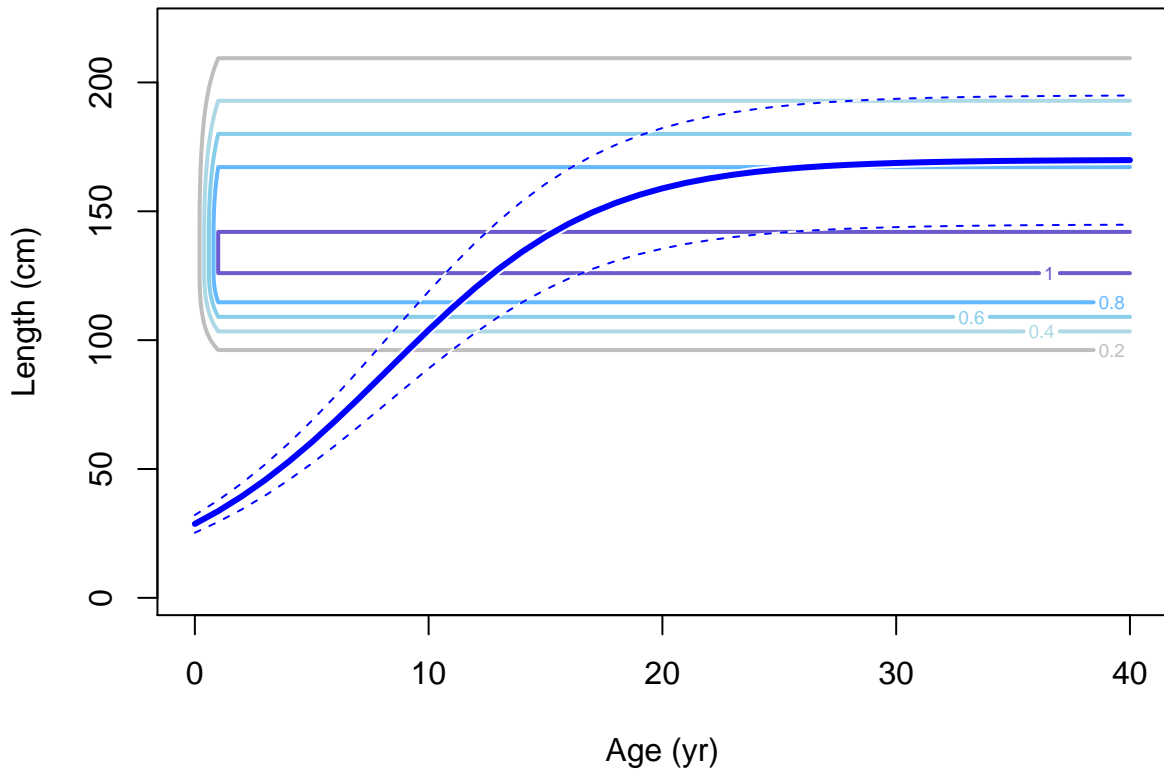
Male ending year selectivity and growth for A6-NOADEL



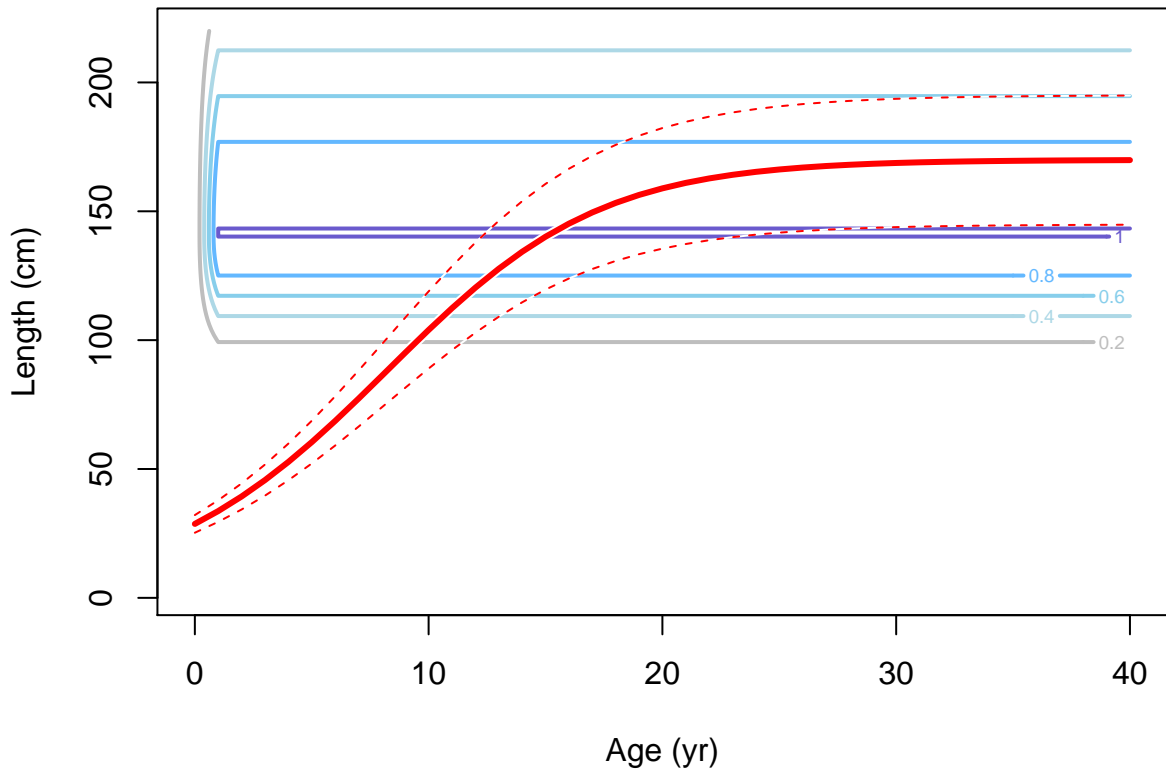
Female ending year selectivity and growth for EPO-LL-survey-early



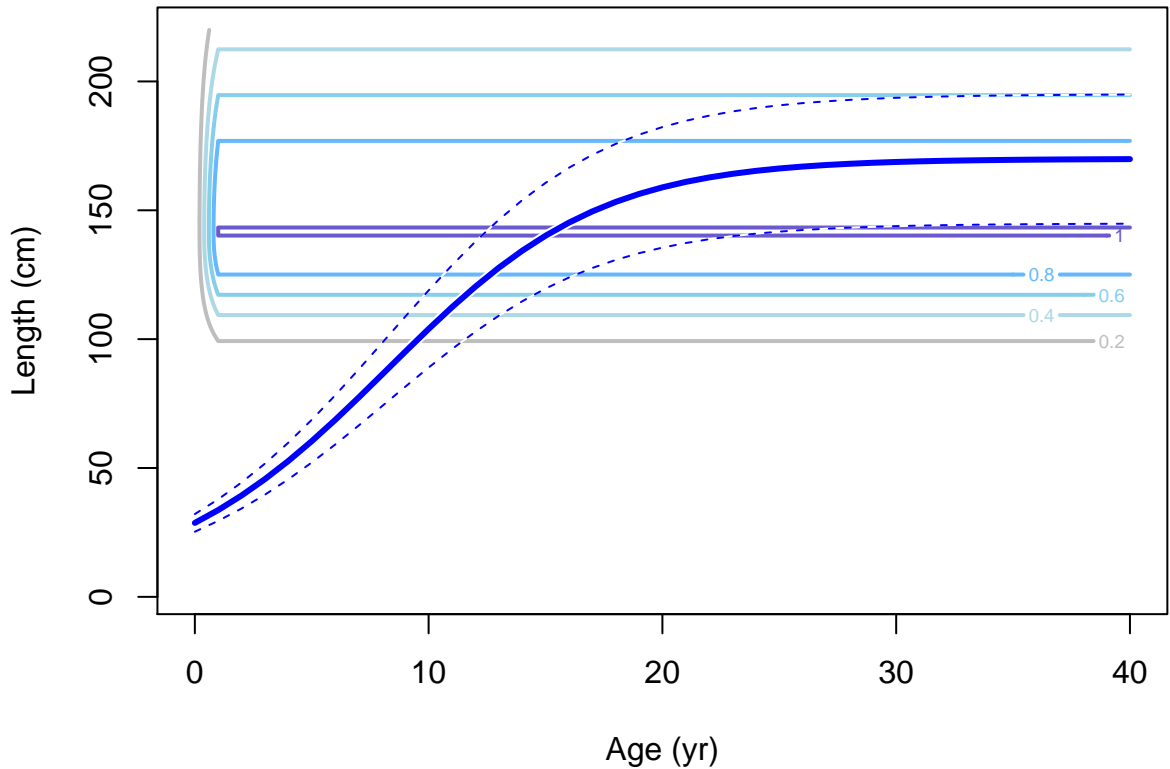
Male ending year selectivity and growth for EPO-LL-survey-early



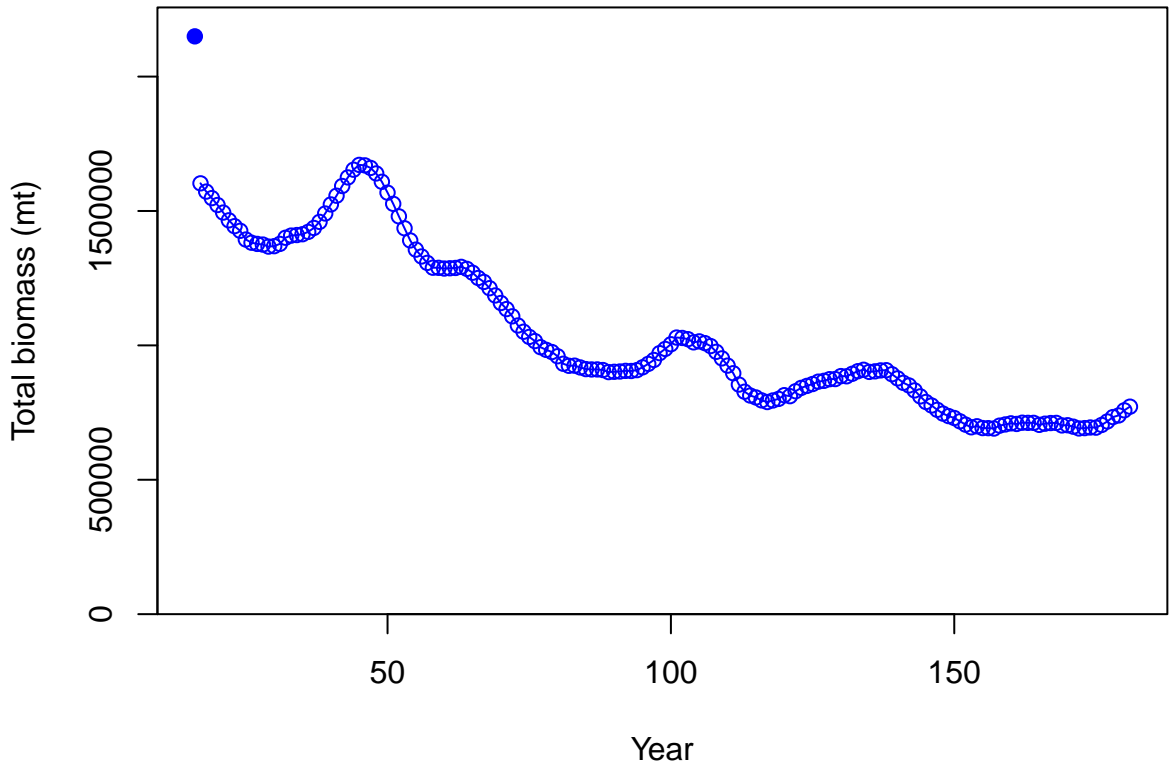
Female ending year selectivity and growth for EPO-LL-survey-late



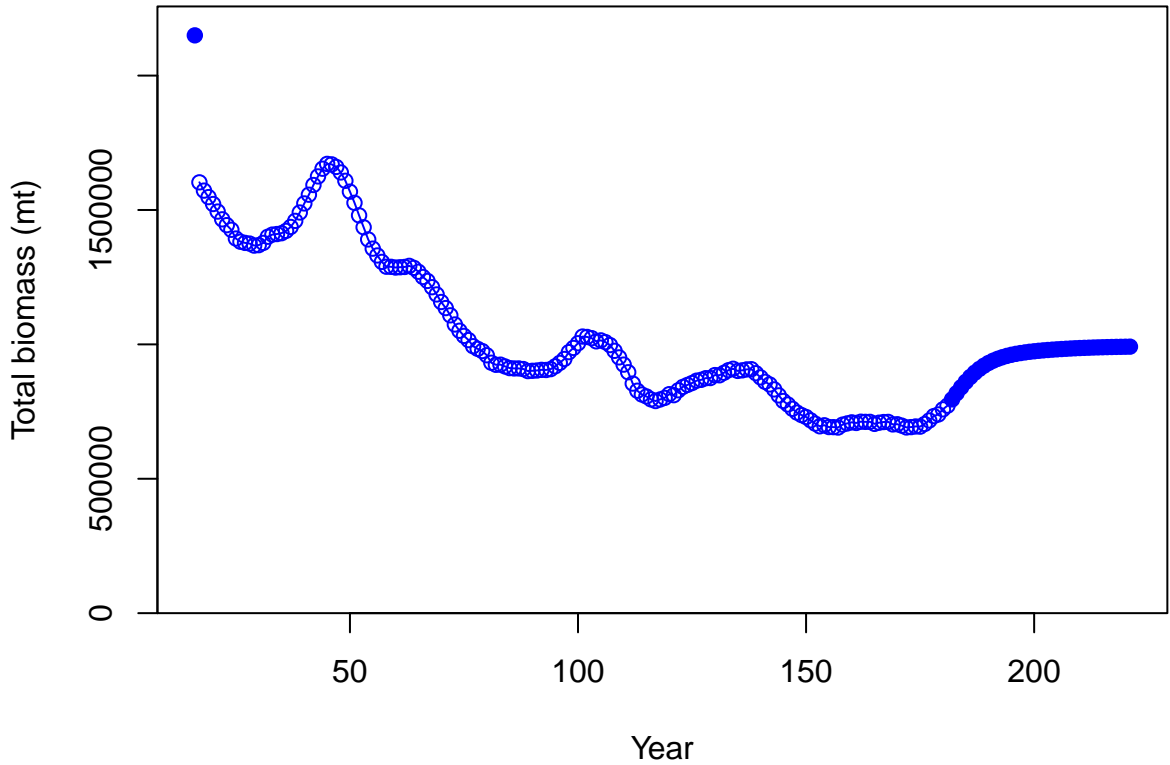
Male ending year selectivity and growth for EPO-LL-survey-late



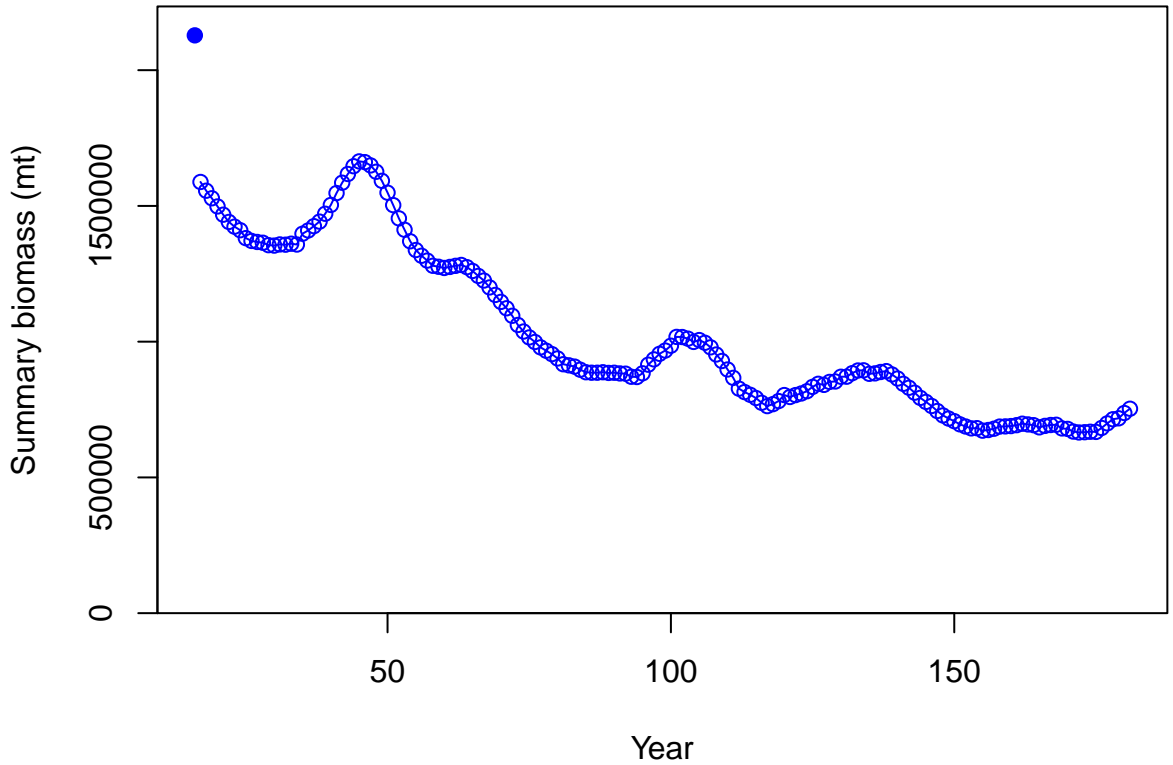
Total biomass (mt)



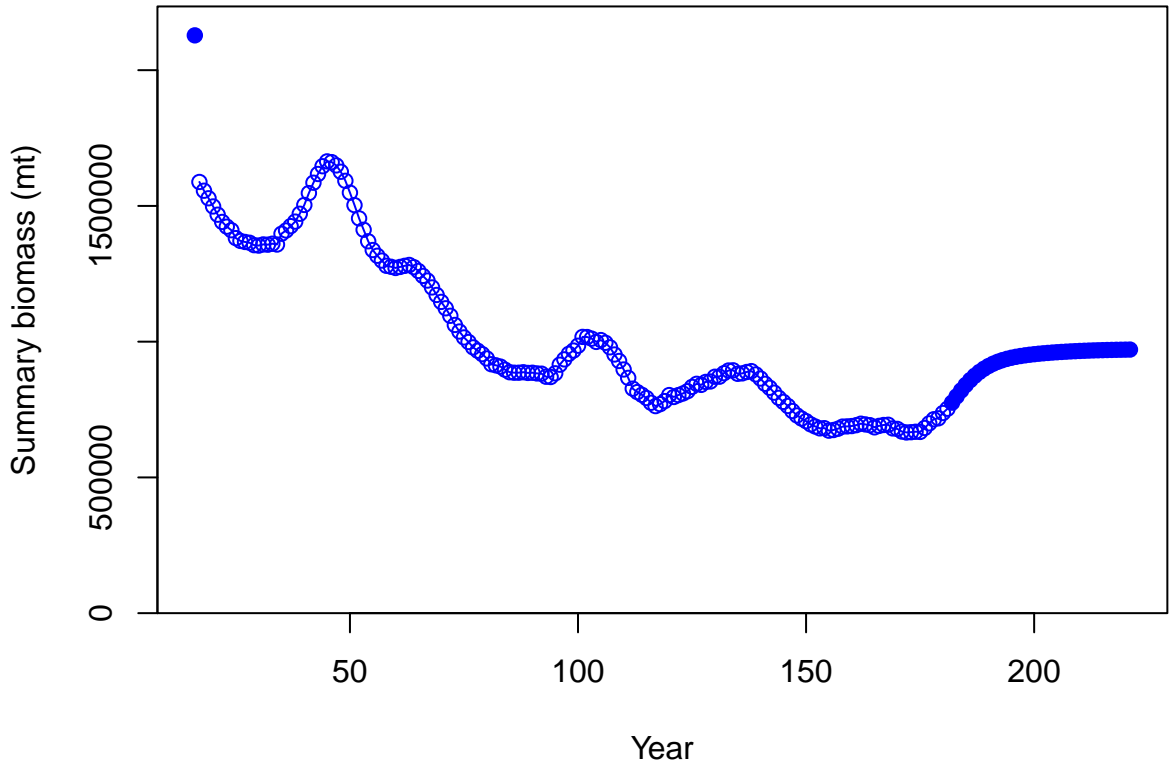
Total biomass (mt) with forecast



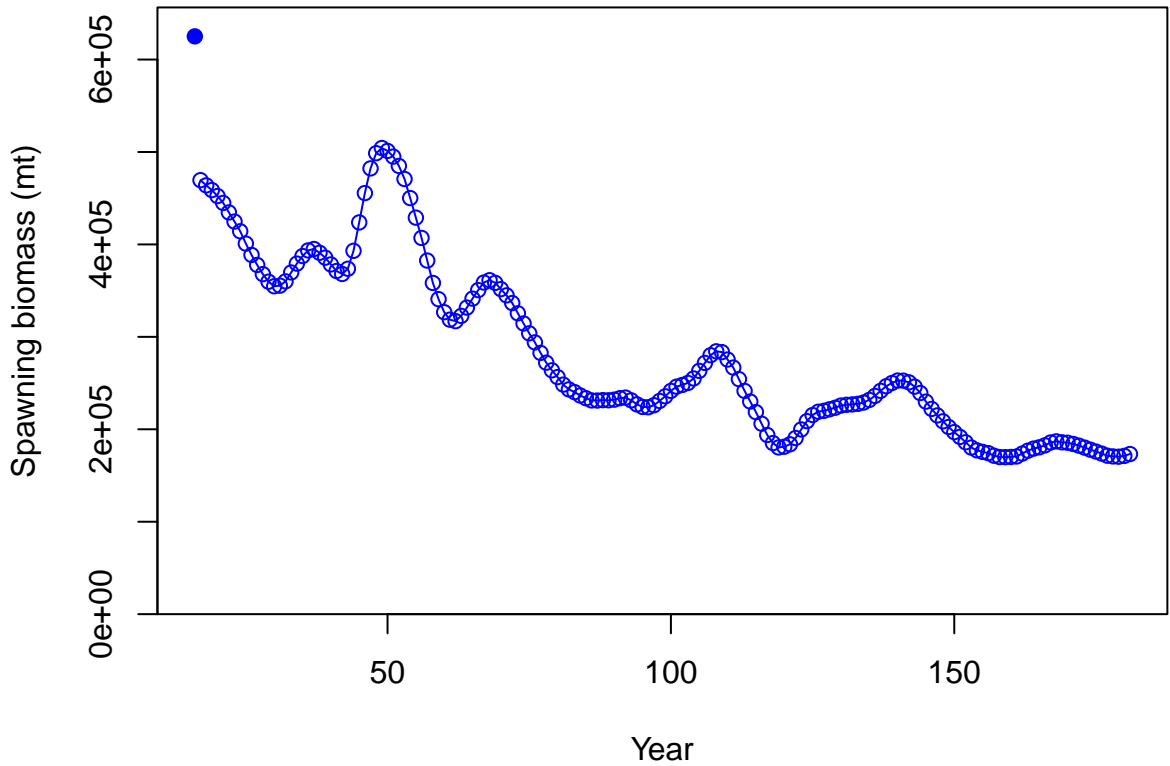
Summary biomass (mt)



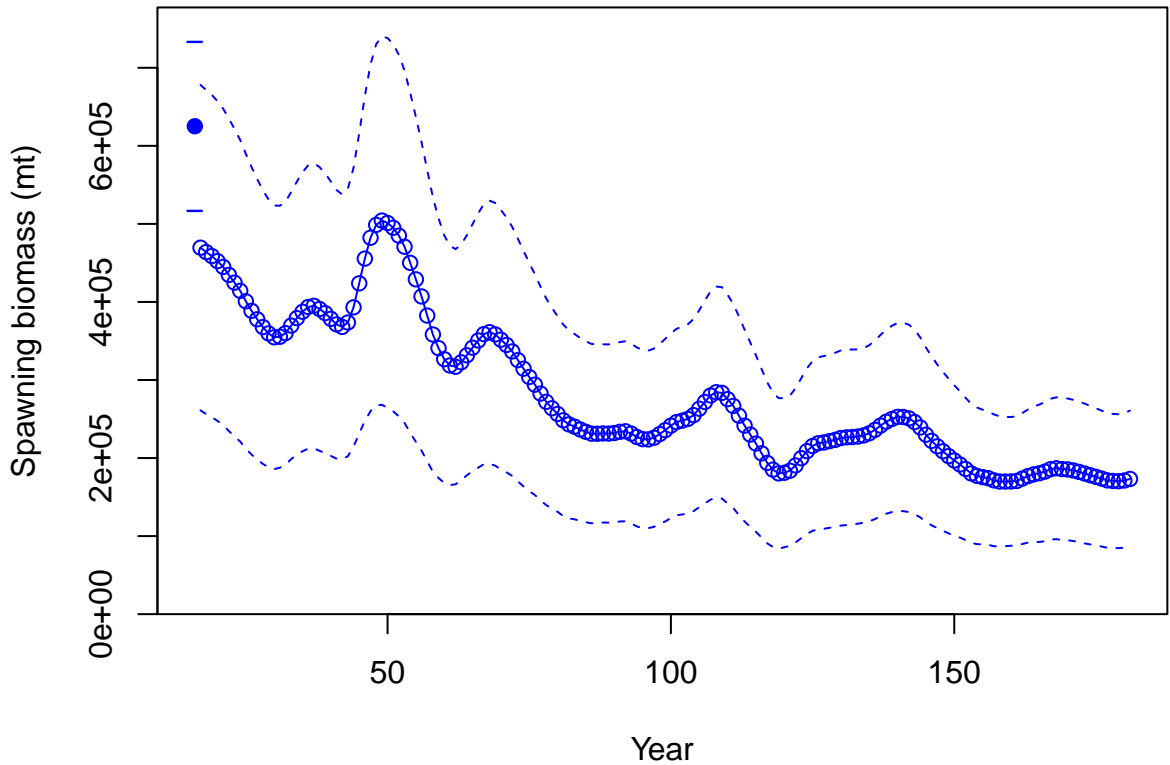
Summary biomass (mt) with forecast



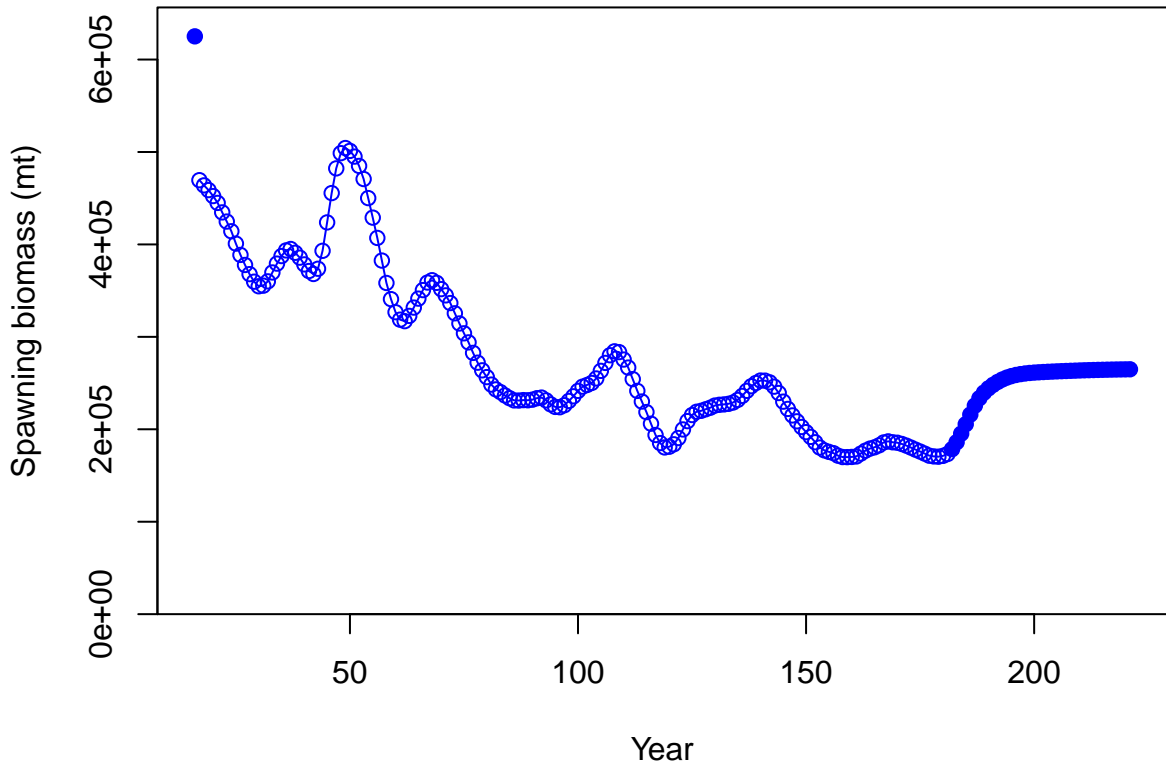
Spawning biomass (mt)



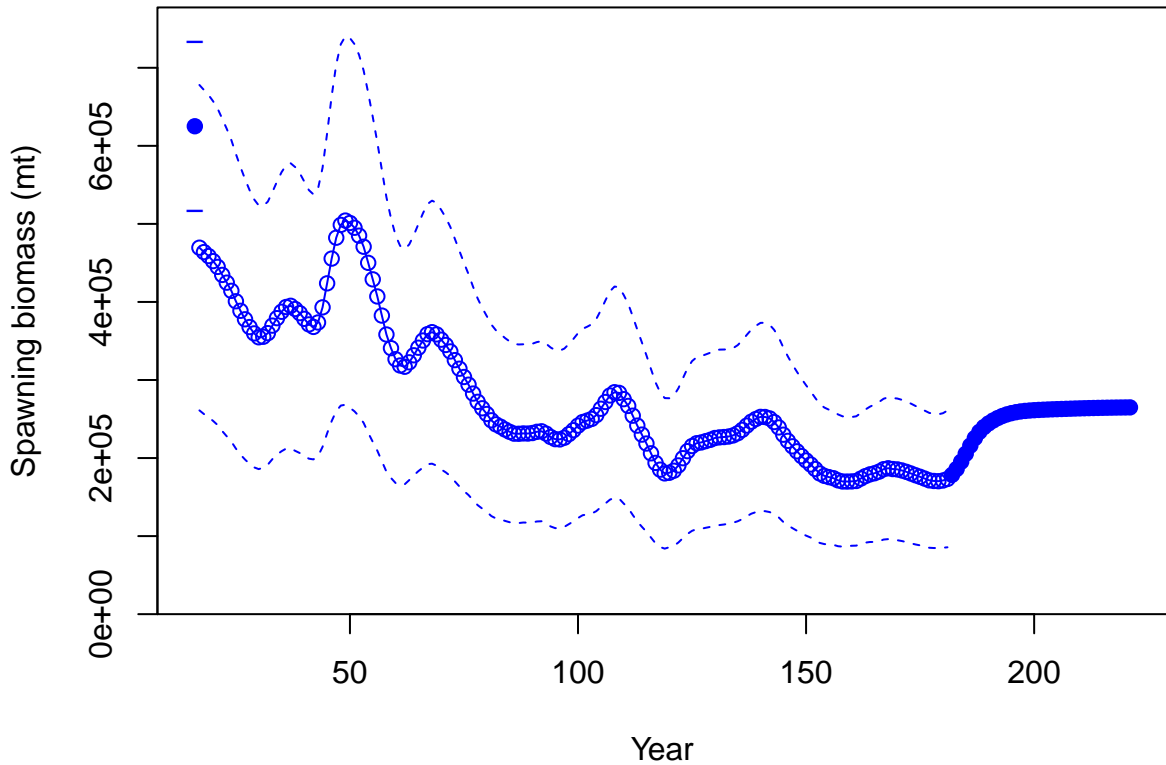
Spawning biomass (mt) with ~95% asymptotic intervals



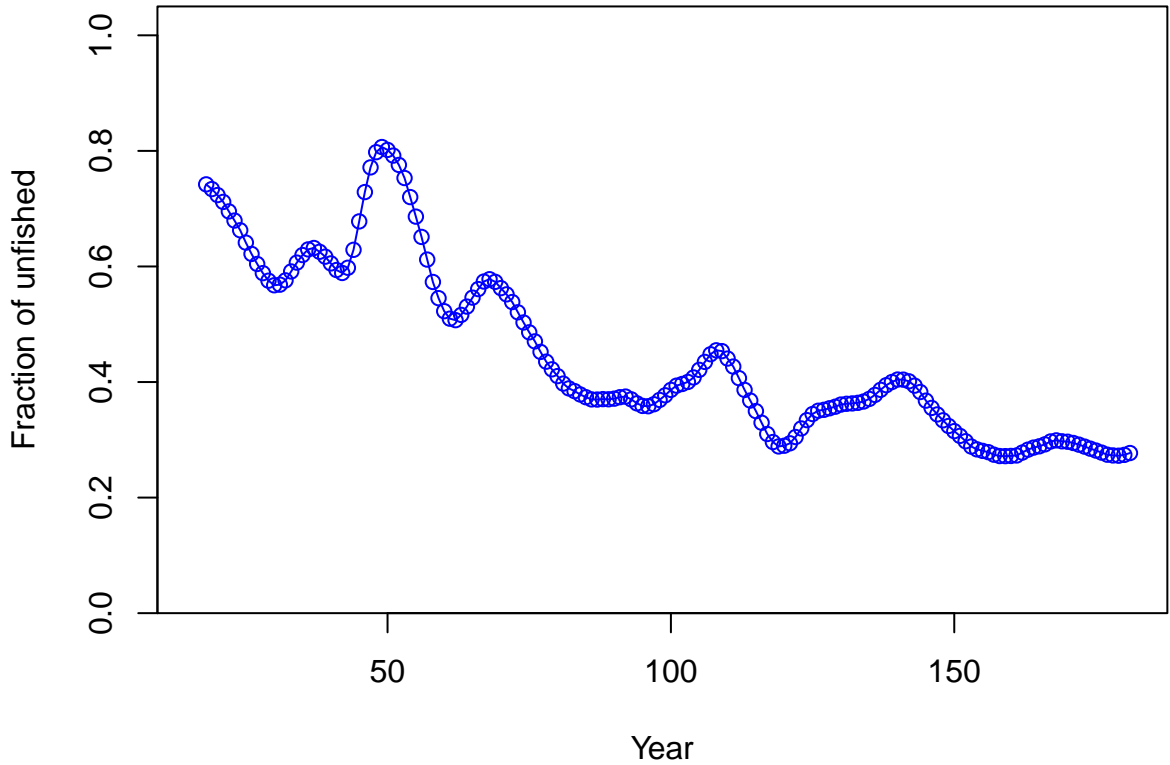
Spawning biomass (mt) with forecast



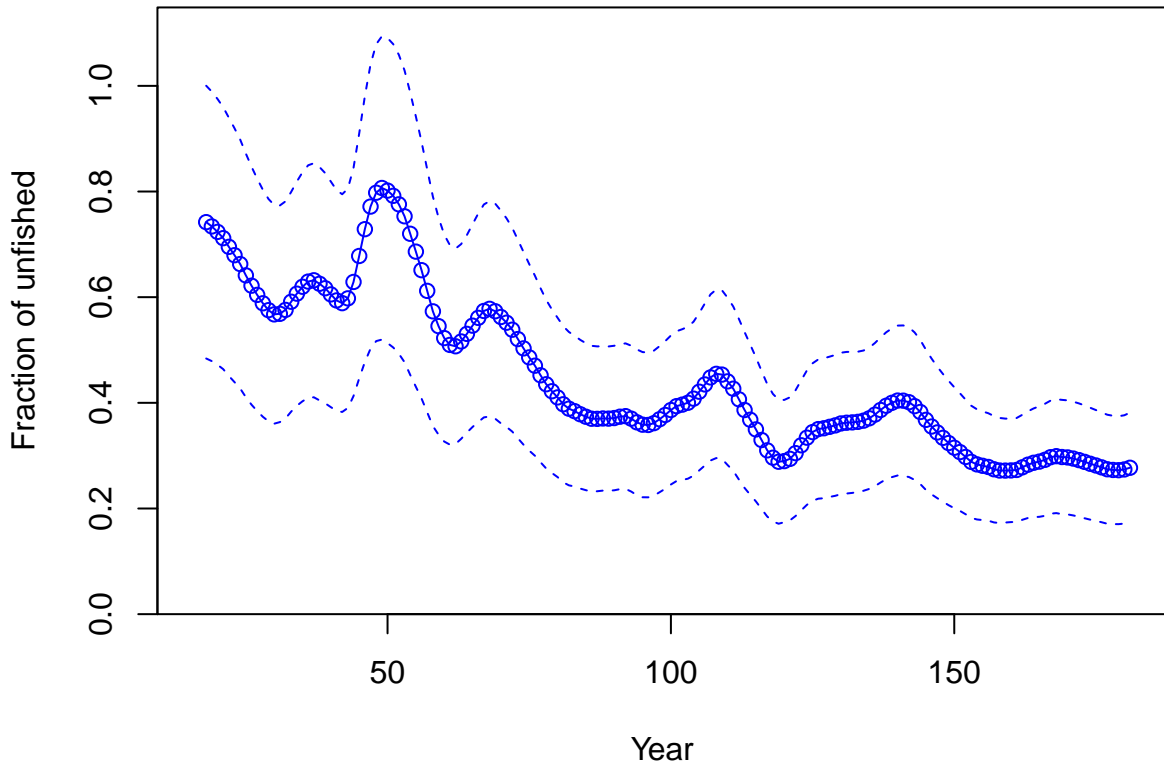
Spawning biomass (mt) with forecast with ~95% asymptotic intervals



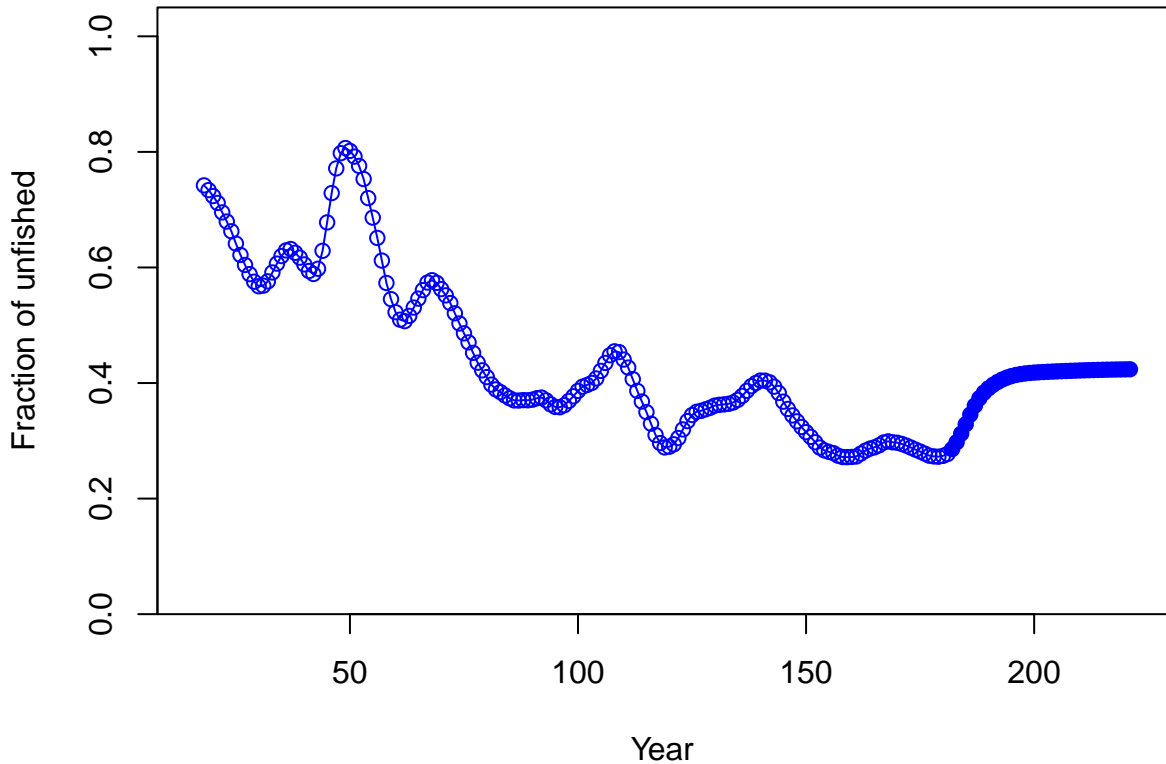
Fraction of unfished



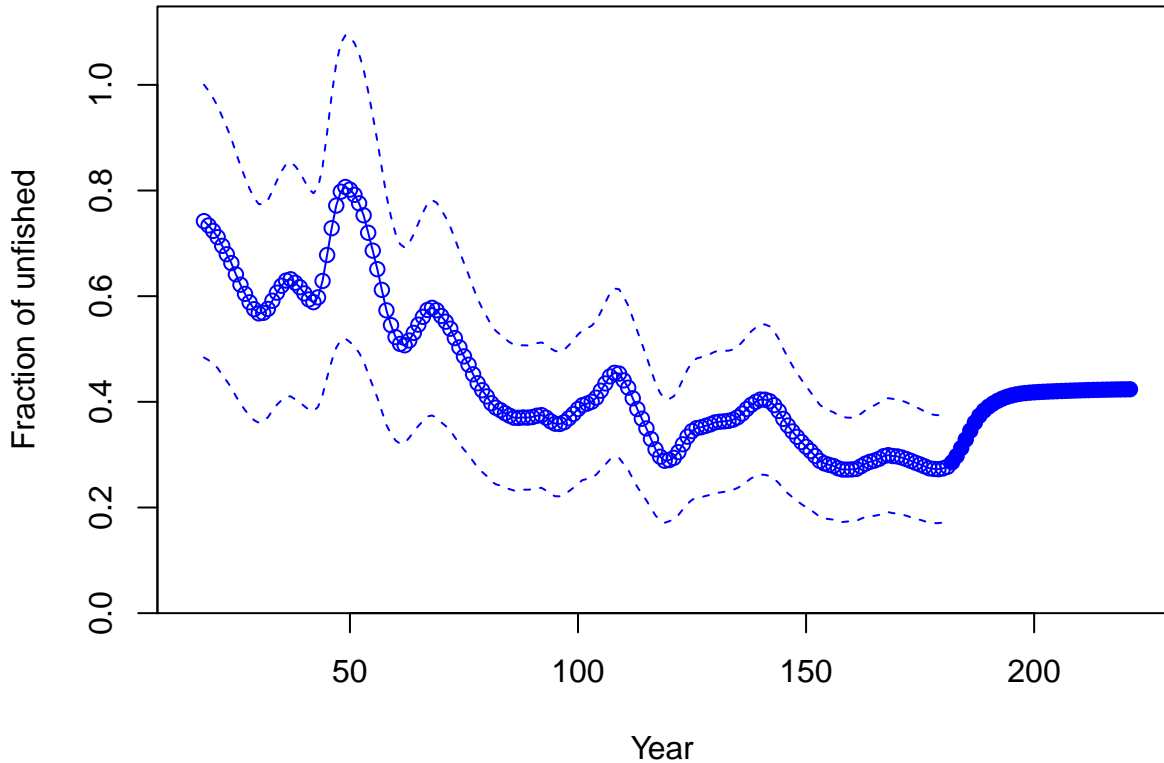
Fraction of unfished with ~95% asymptotic intervals



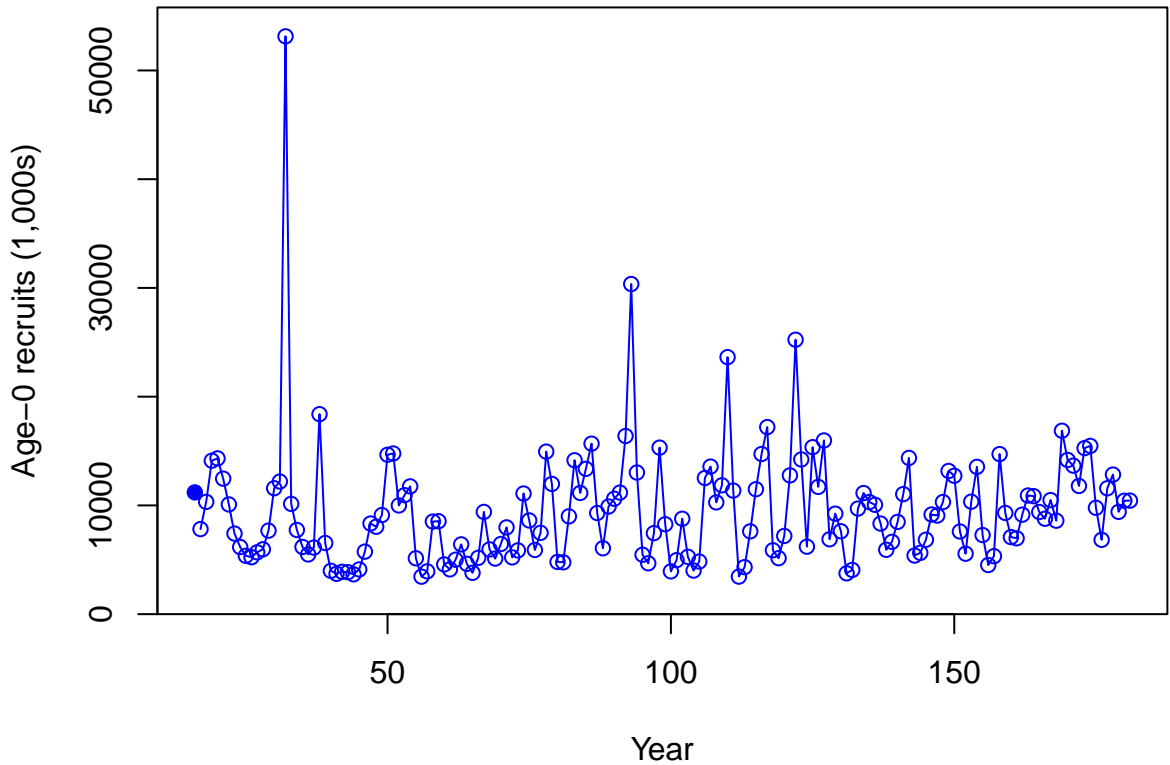
Fraction of unfished with forecast



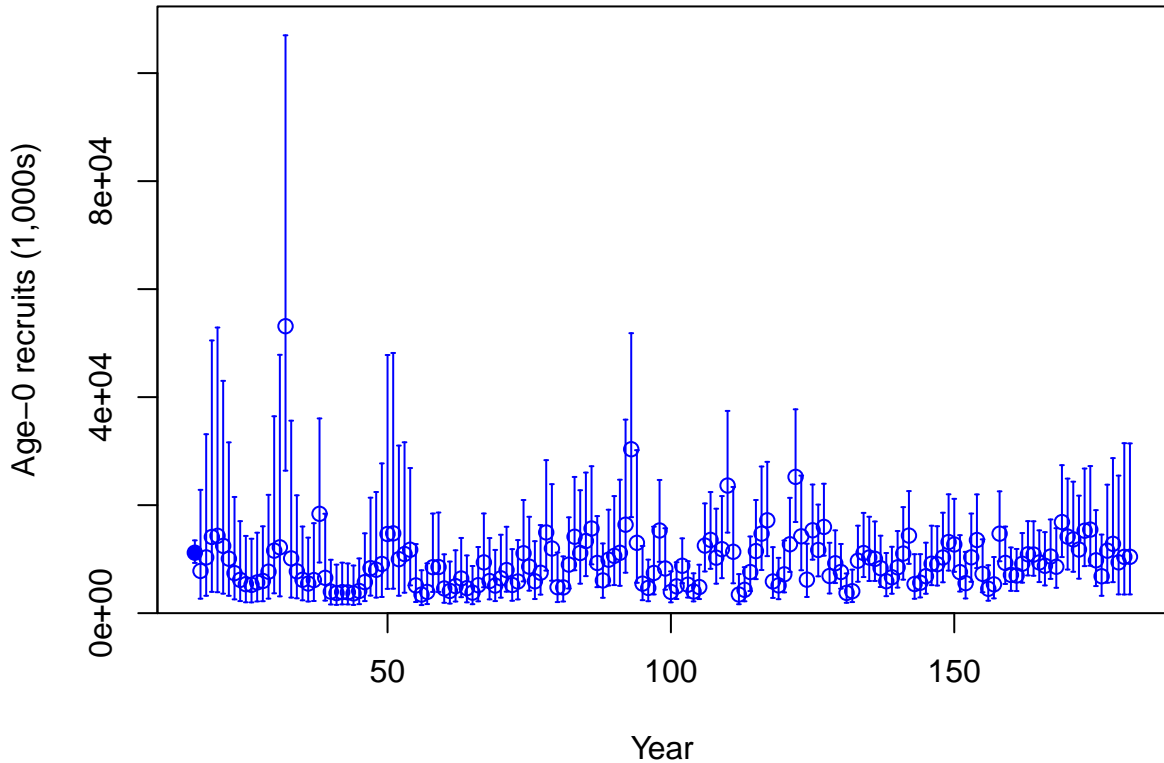
Fraction of unfished with forecast with ~95% asymptotic intervals



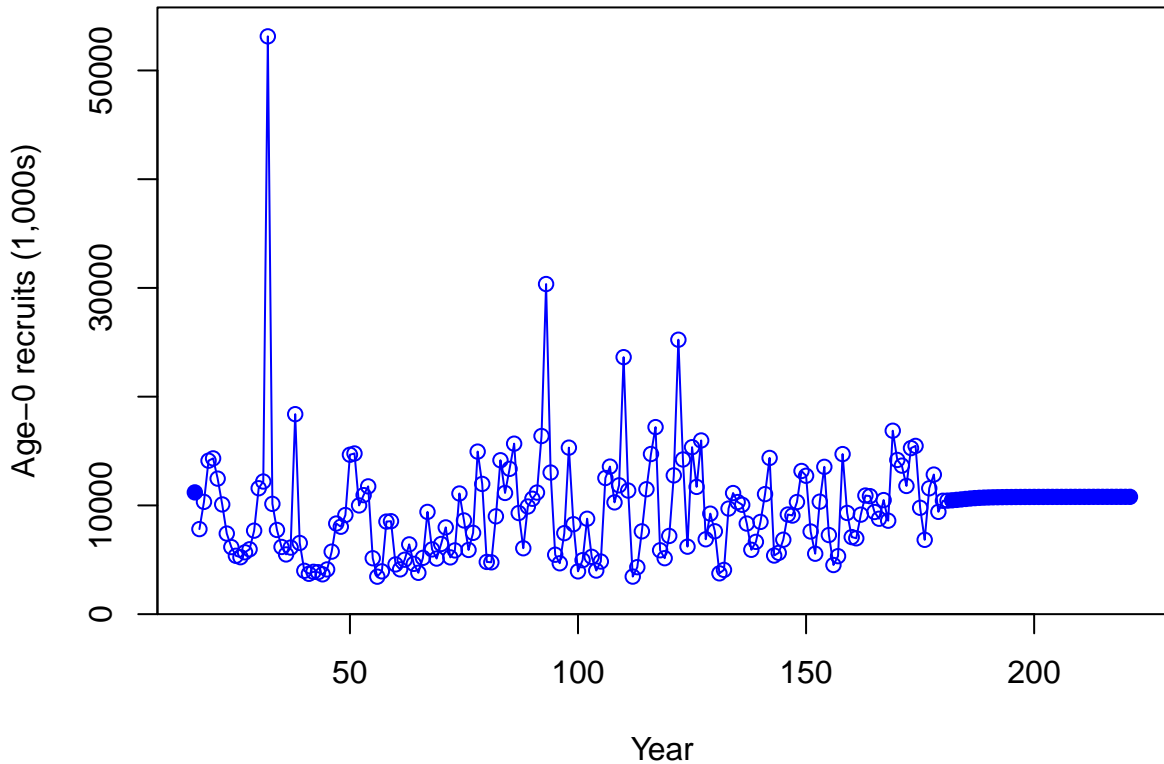
Age-0 recruits (1,000s)



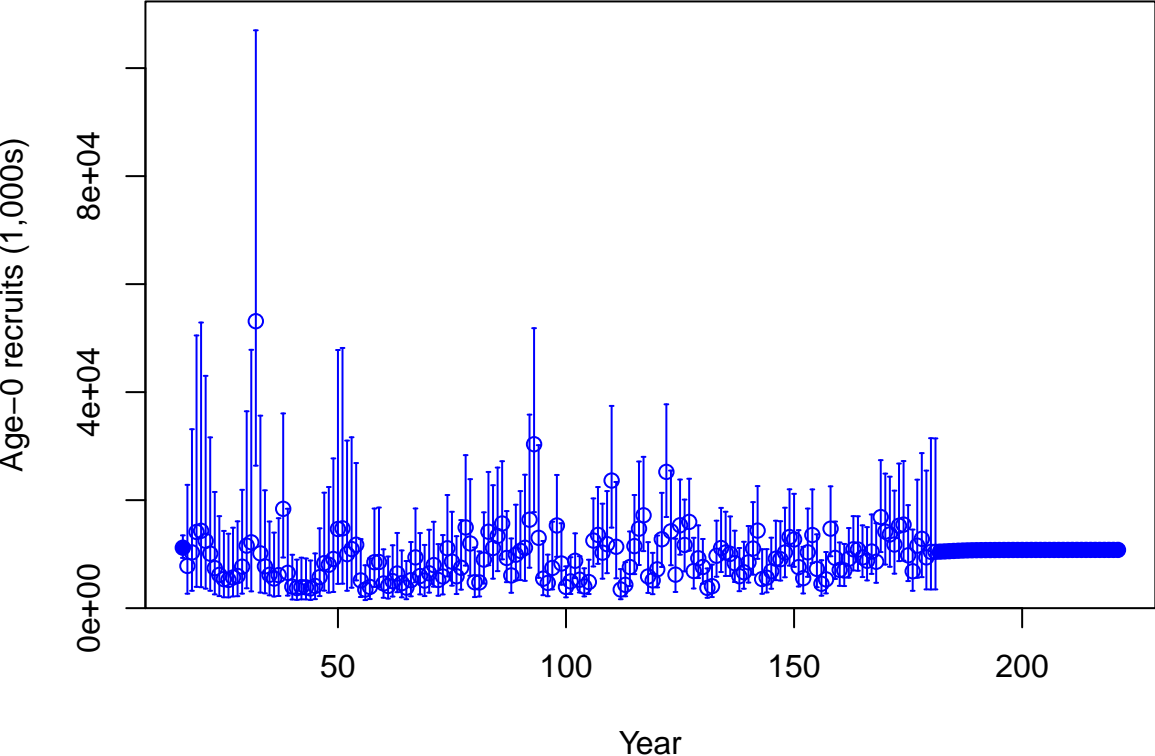
Age-0 recruits (1,000s) with ~95% asymptotic intervals



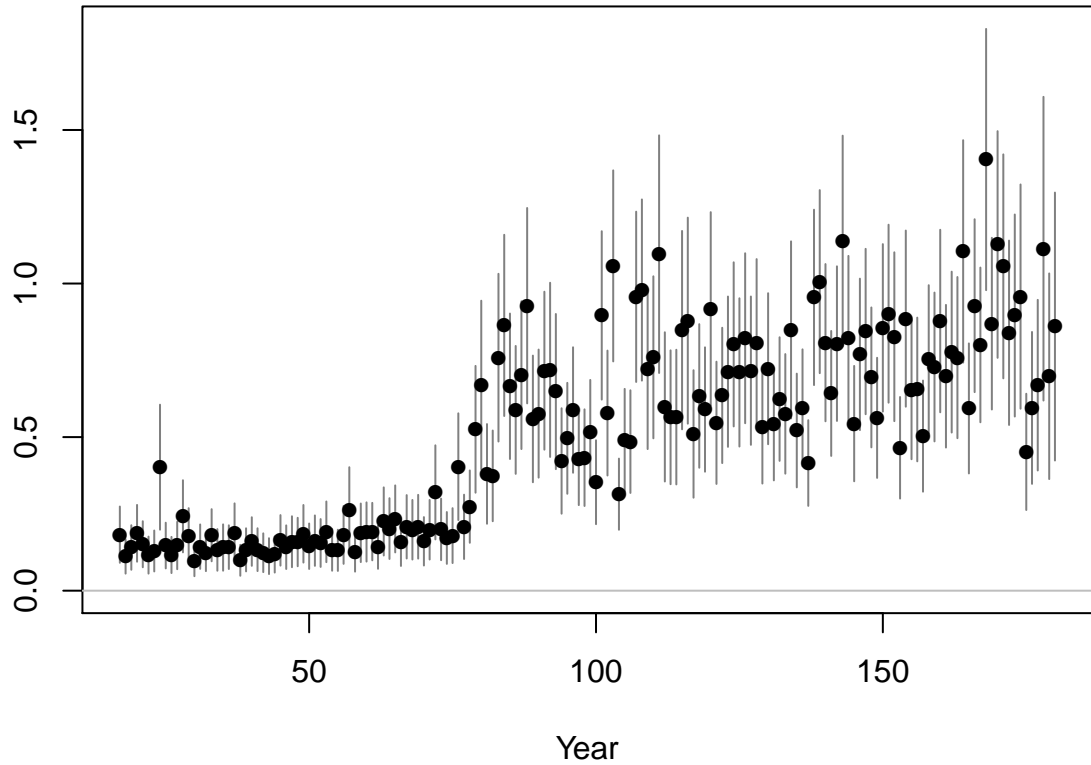
Age-0 recruits (1,000s) with forecast

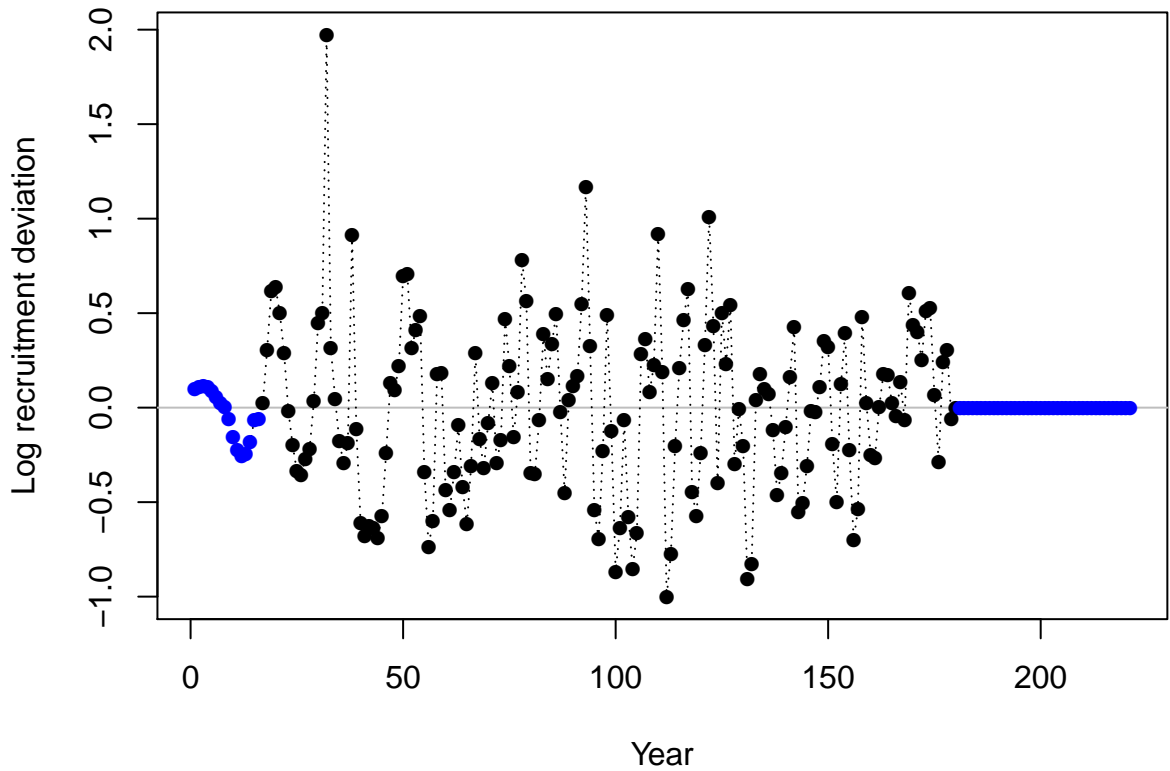


Age-0 recruits (1,000s) with forecast with ~95% asymptotic intervals

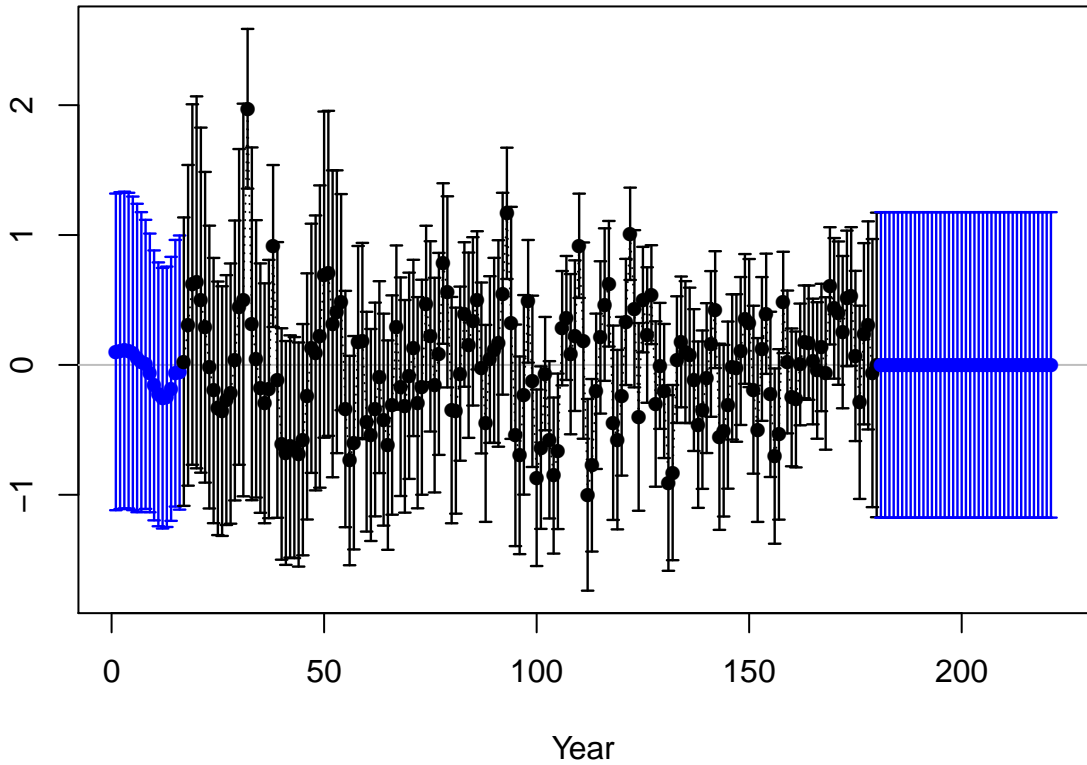


Summary Fishing Mortality

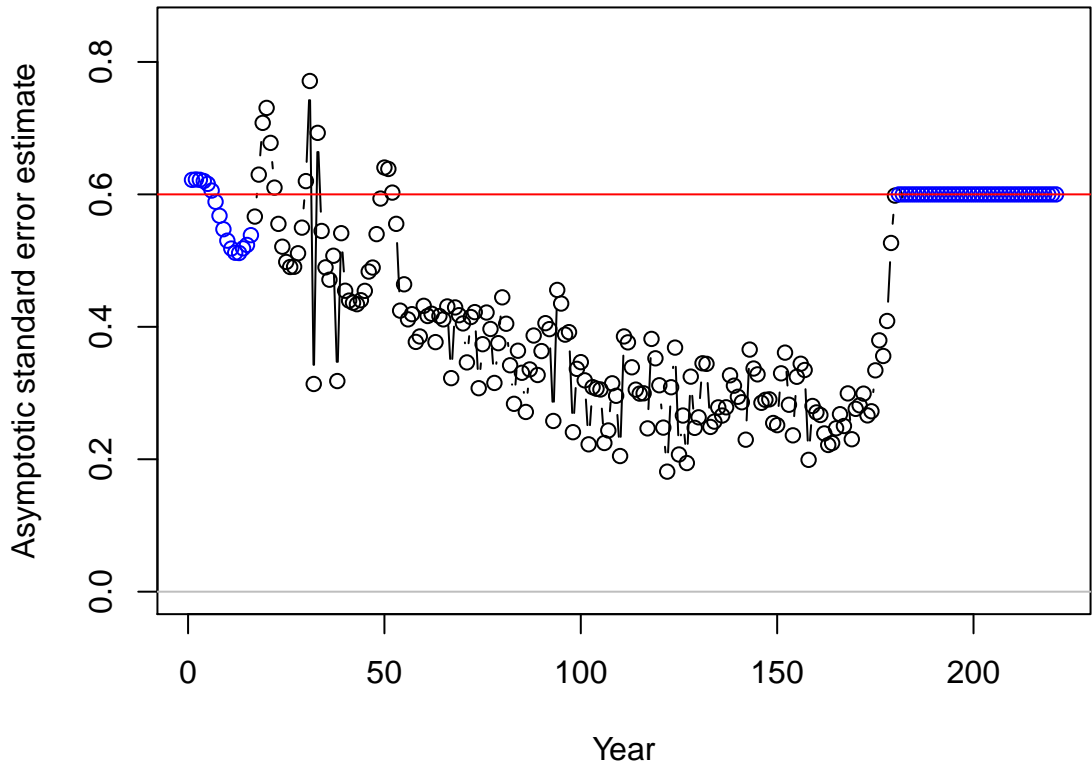


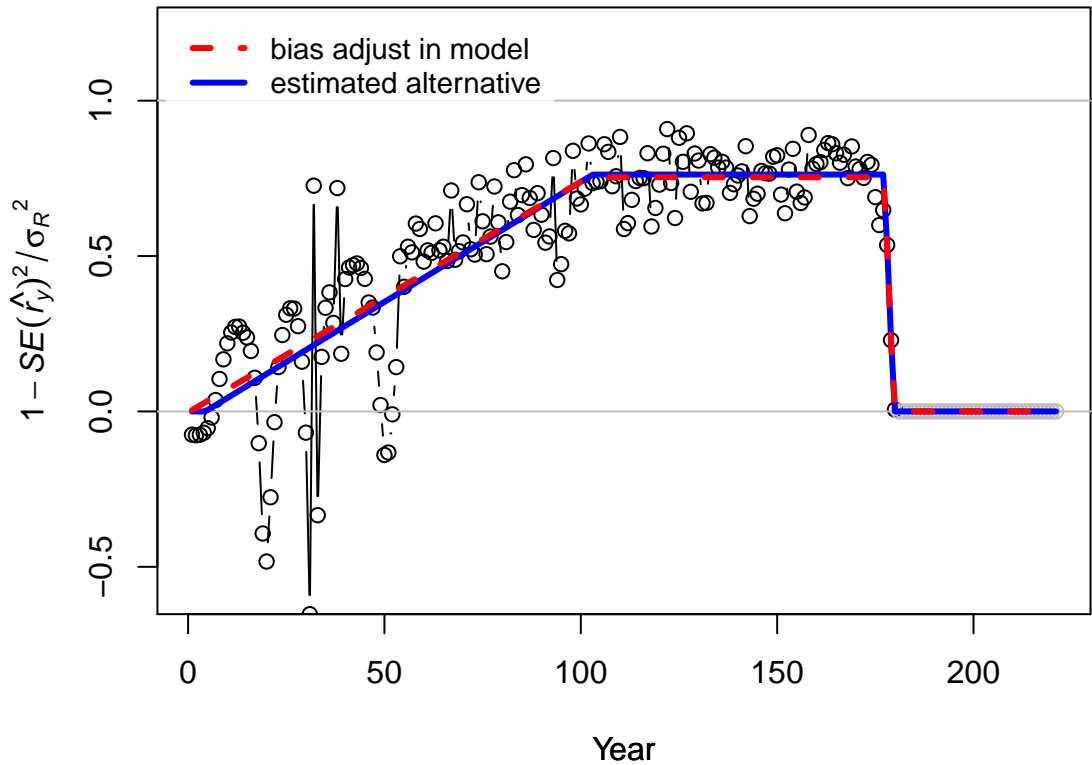


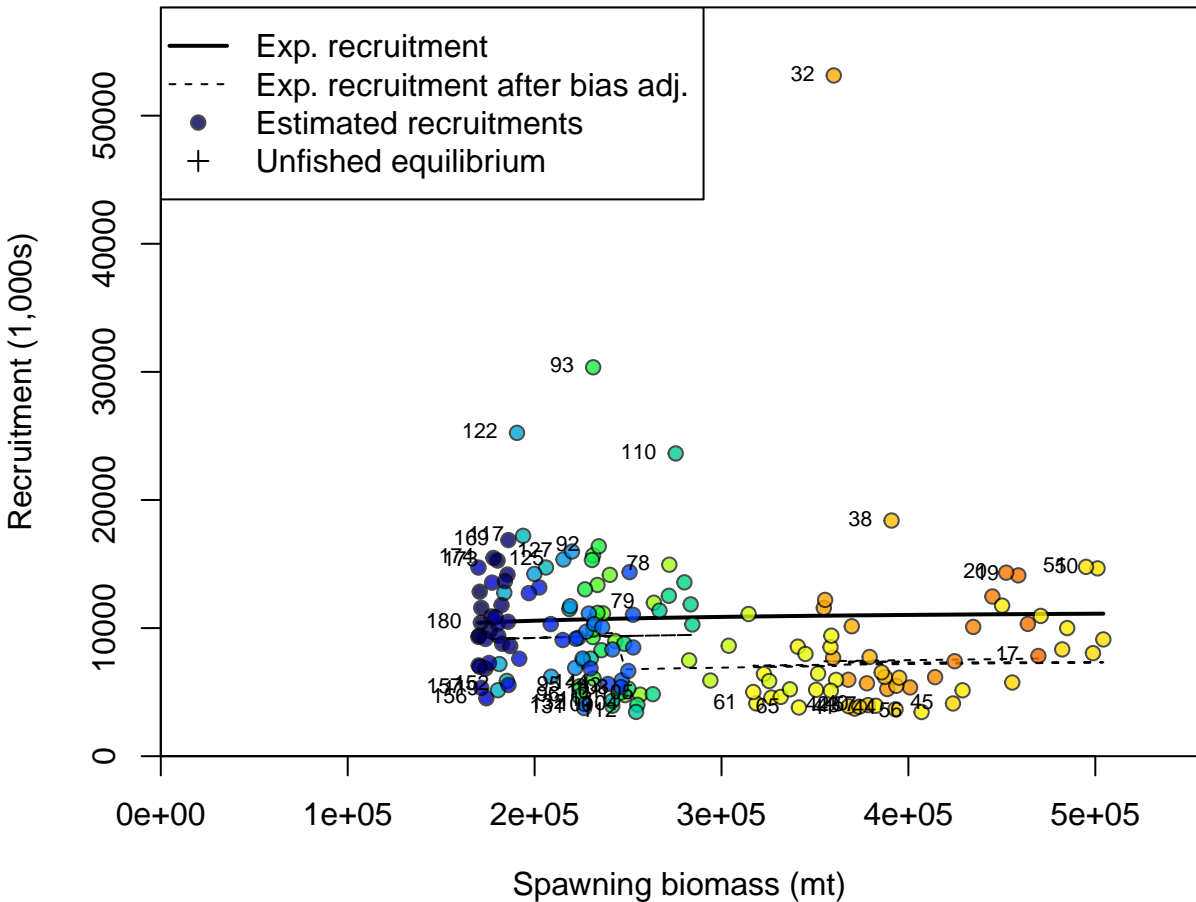
Log recruitment deviation



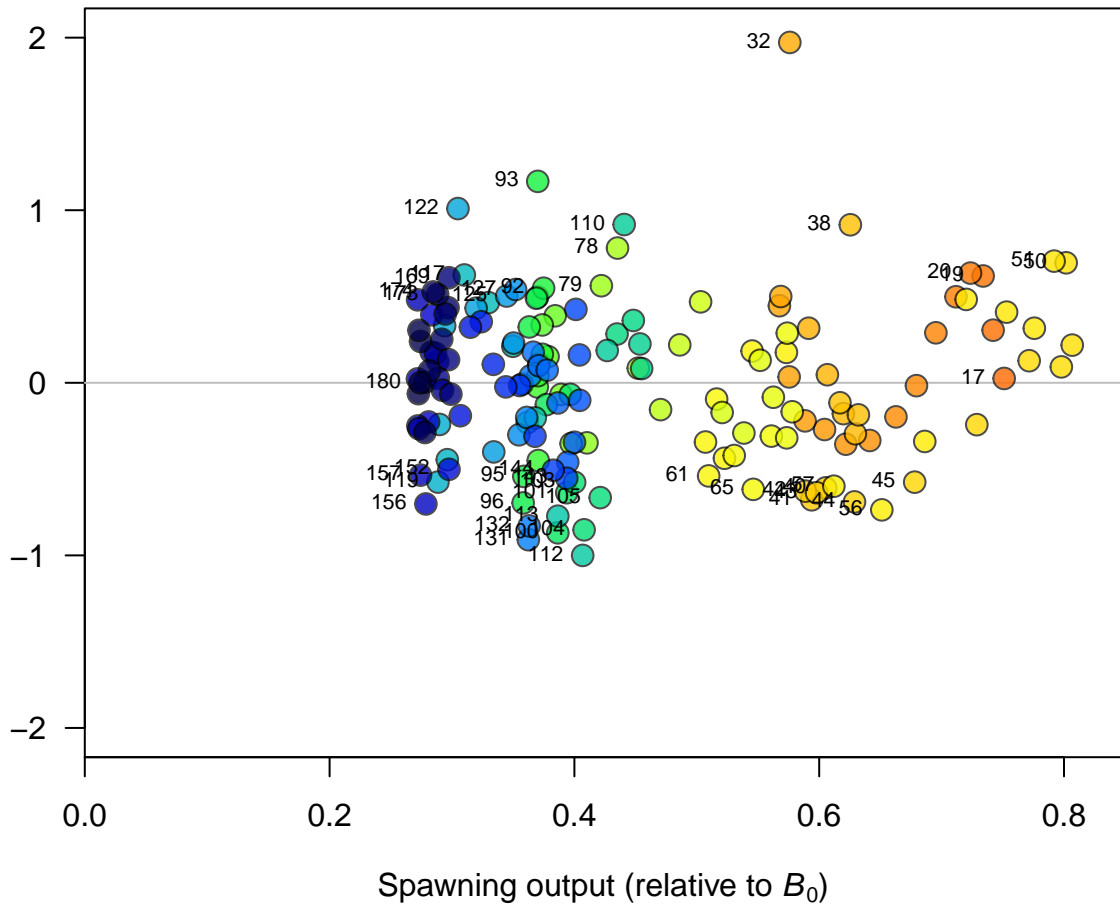
Recruitment deviation variance

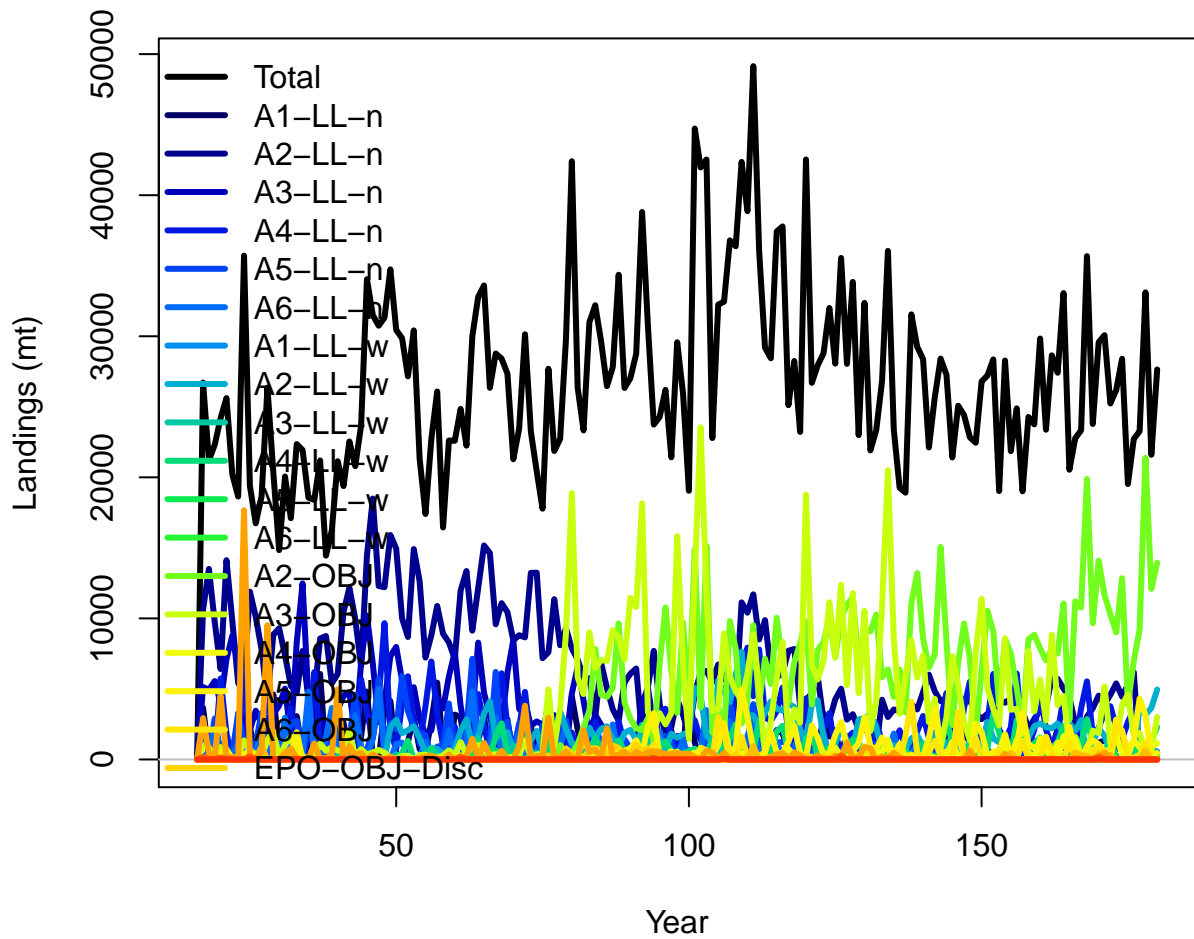


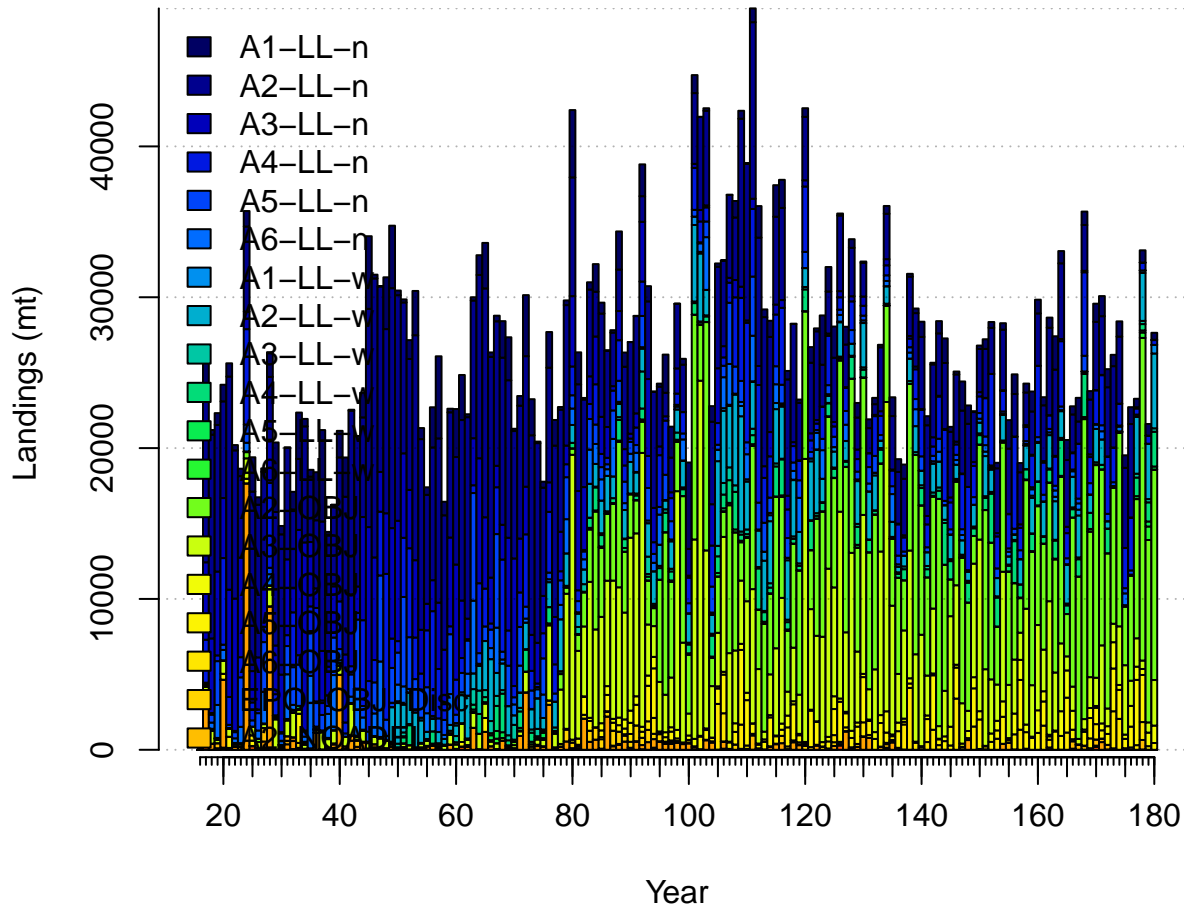




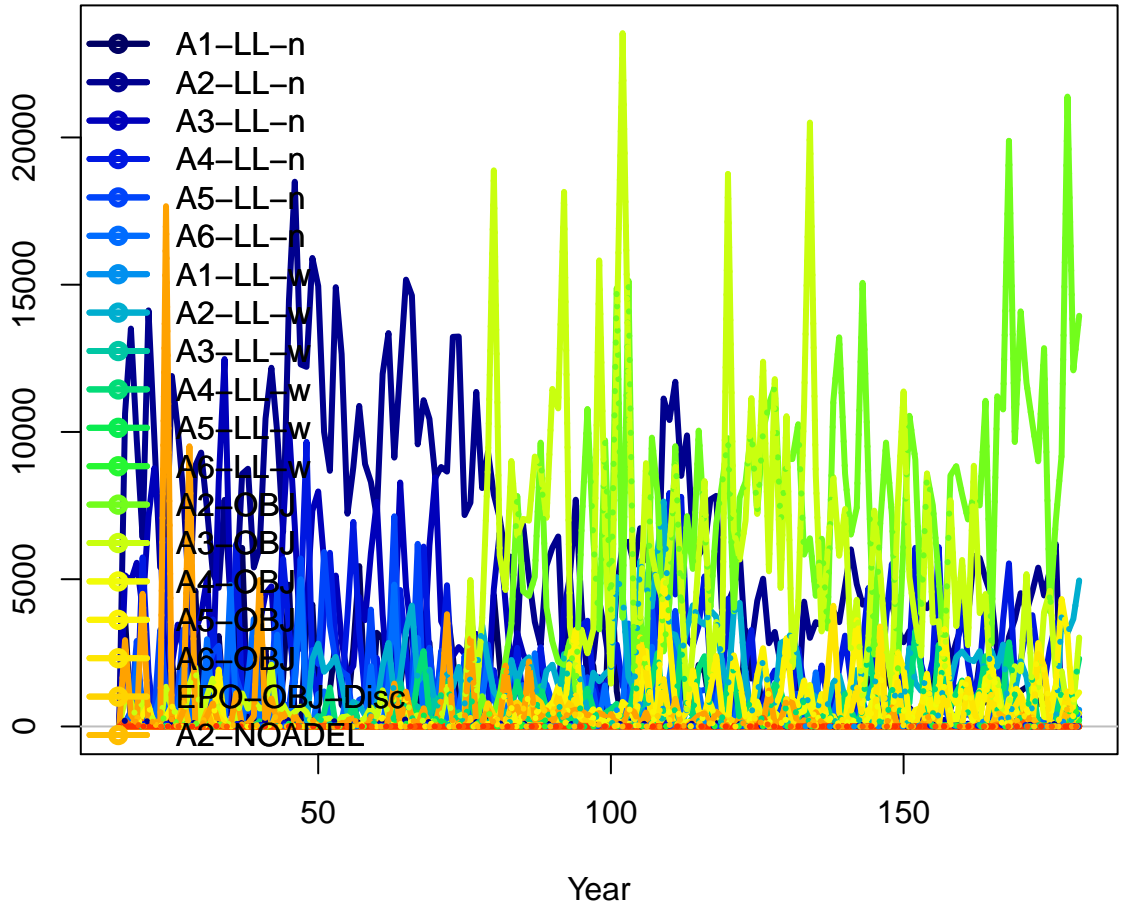
Log recruitment deviation



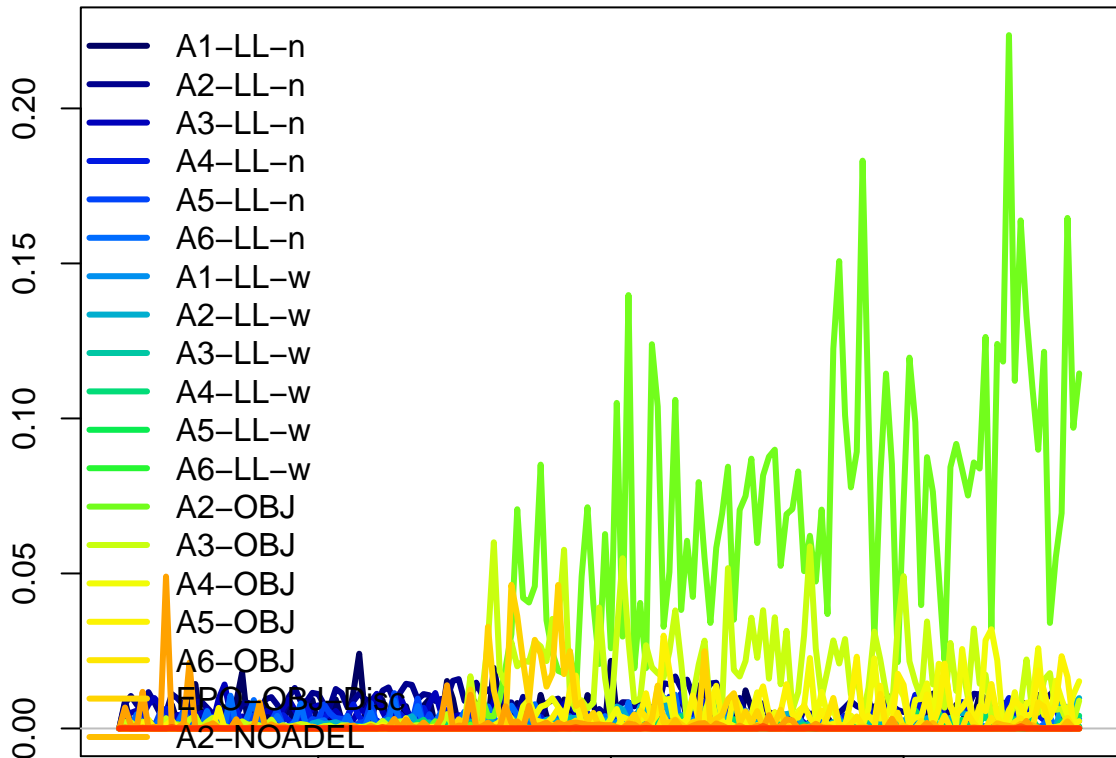




Observed and expected Landings (mt)



Continuous F



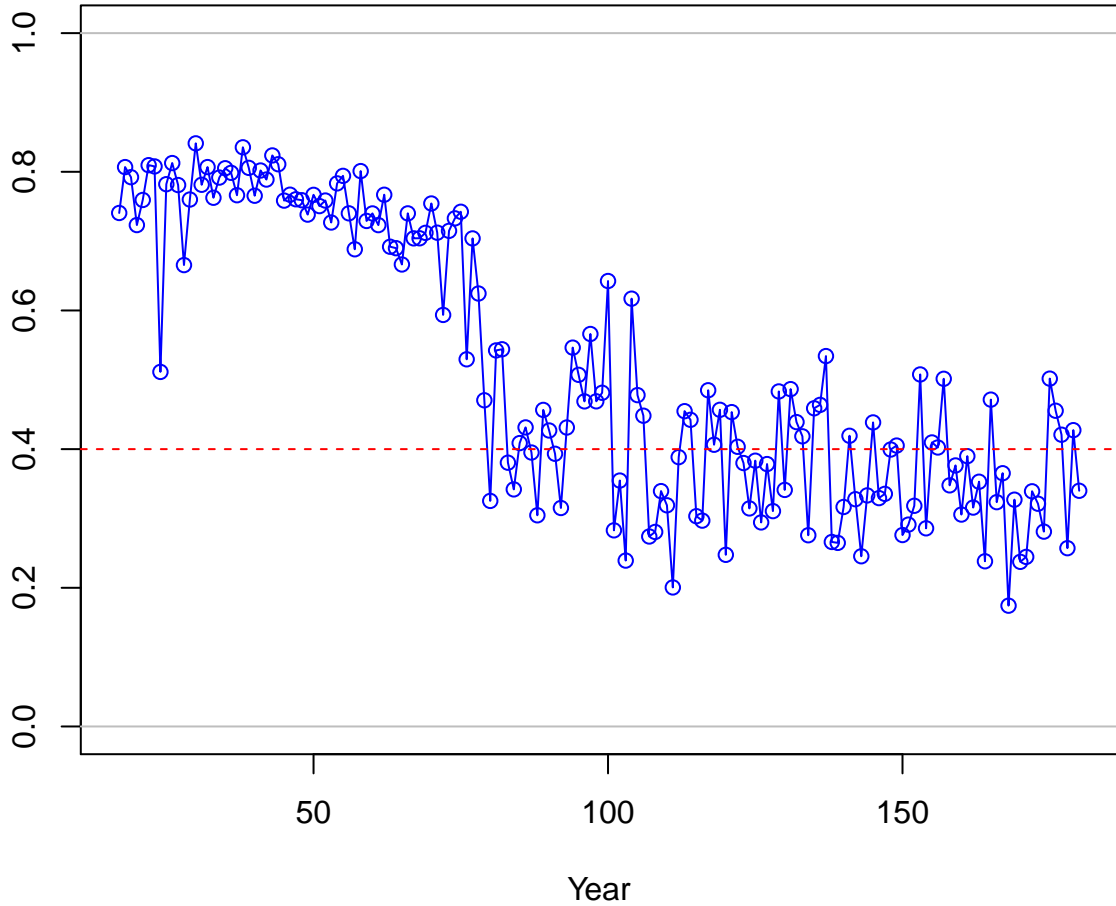
50

100

150

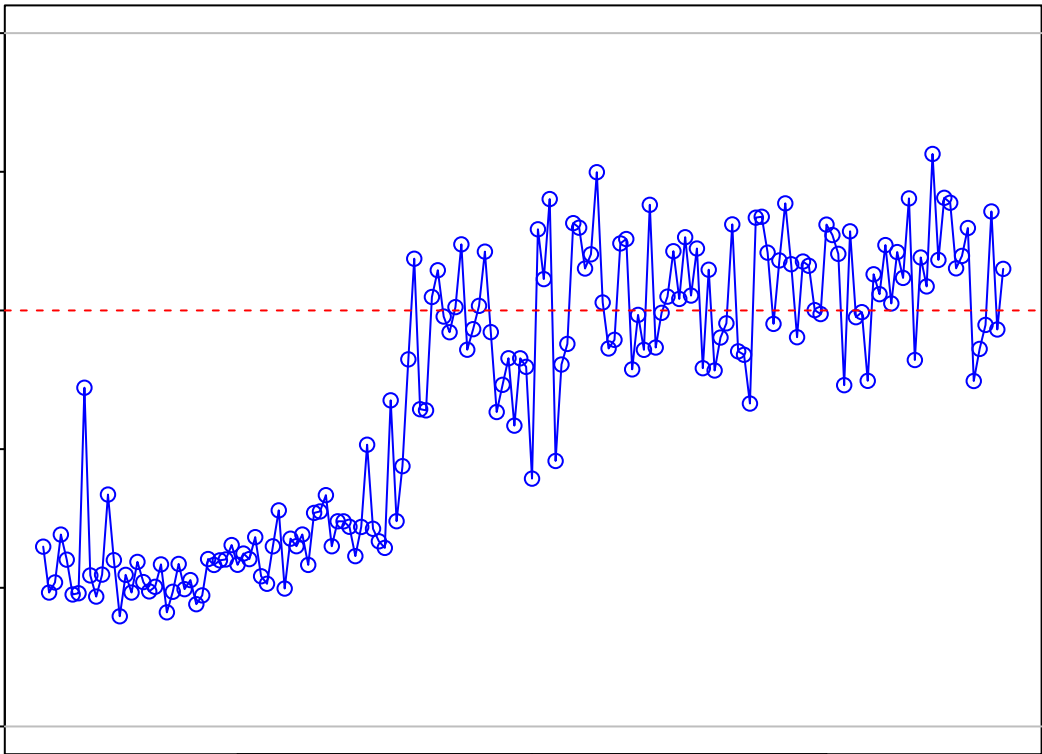
Year

SPR



1-SPR

1.0
0.8
0.6
0.4
0.2
0.0

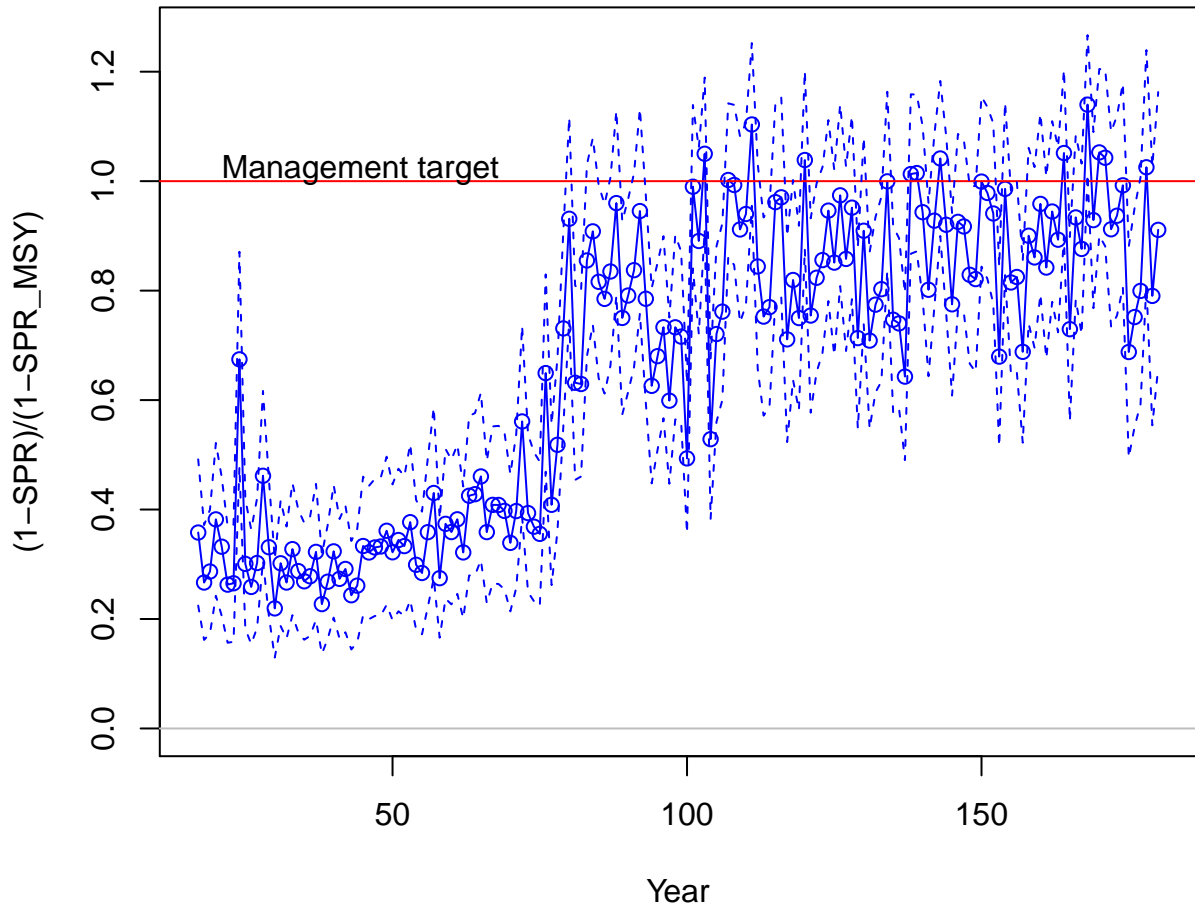


Year

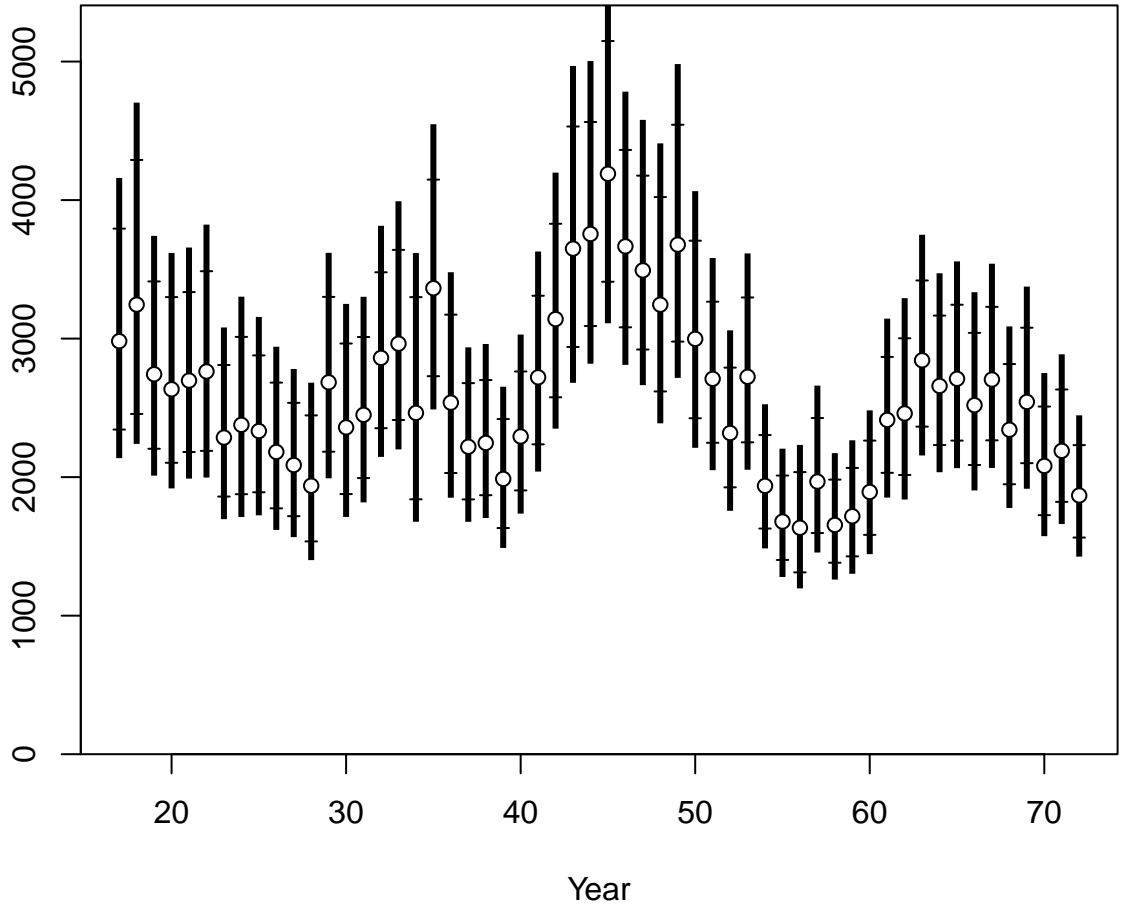
50

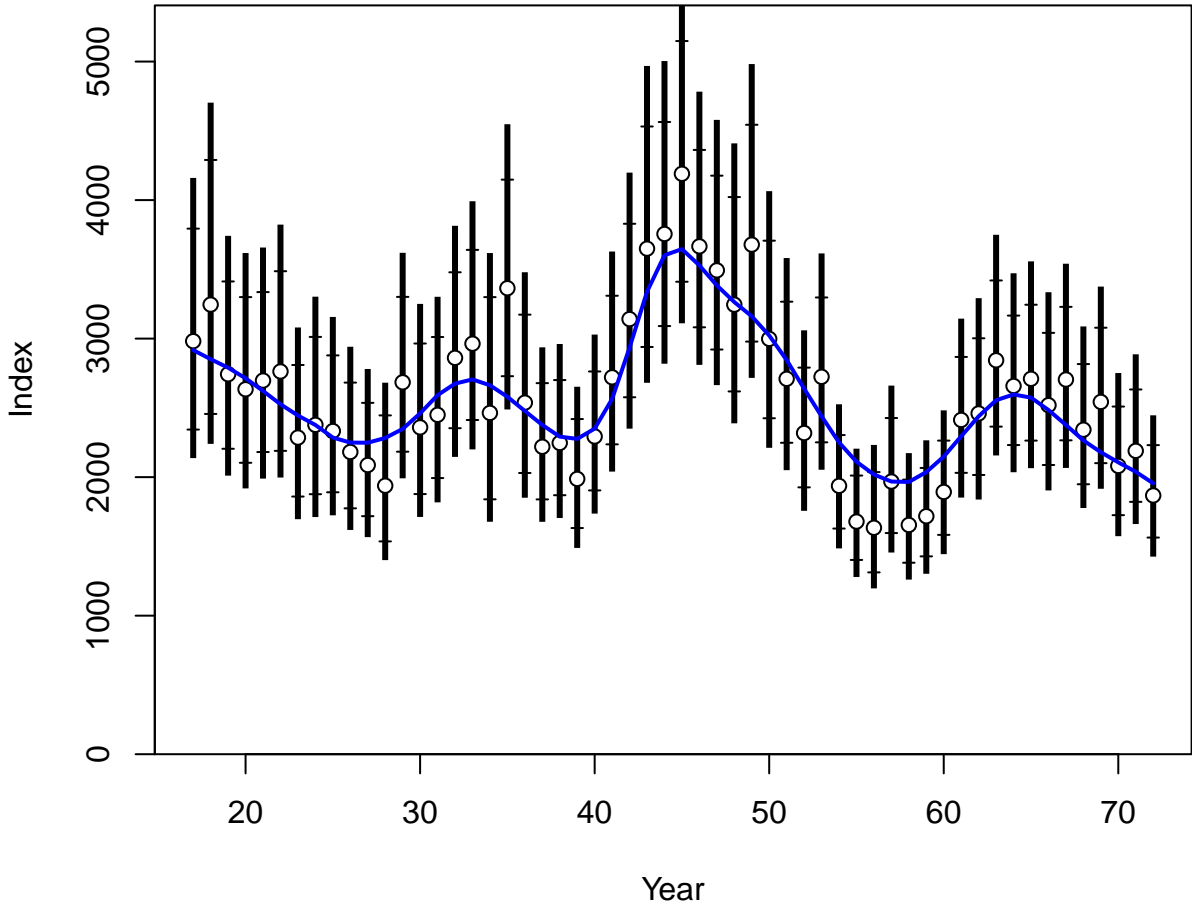
100

150

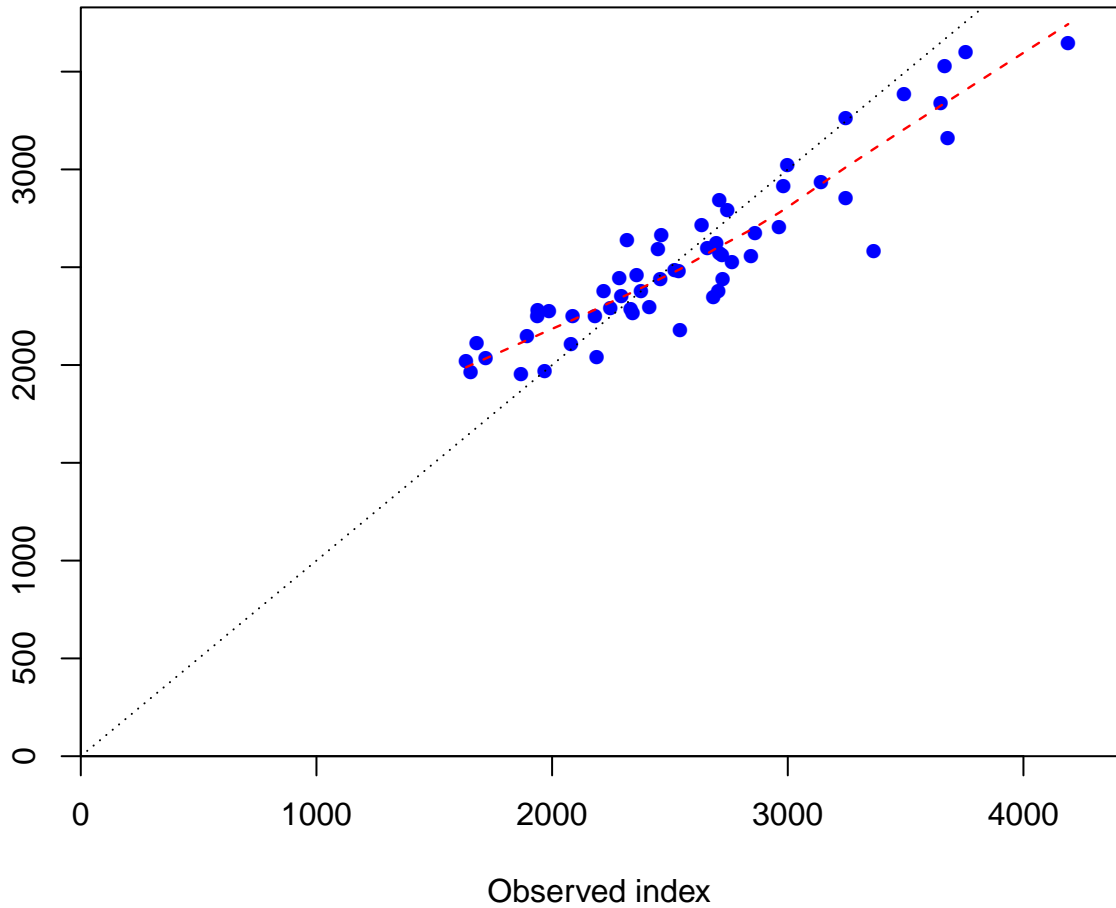


Index

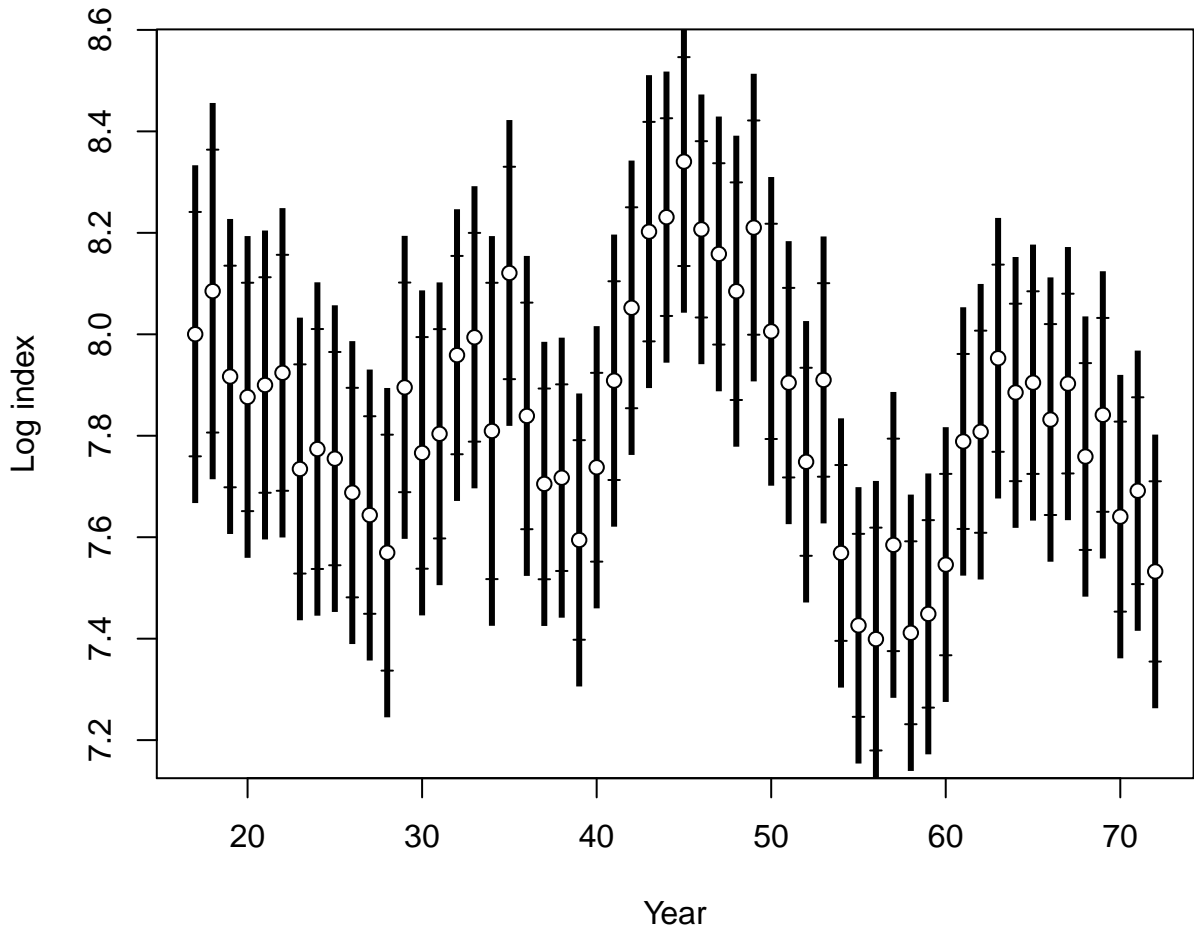


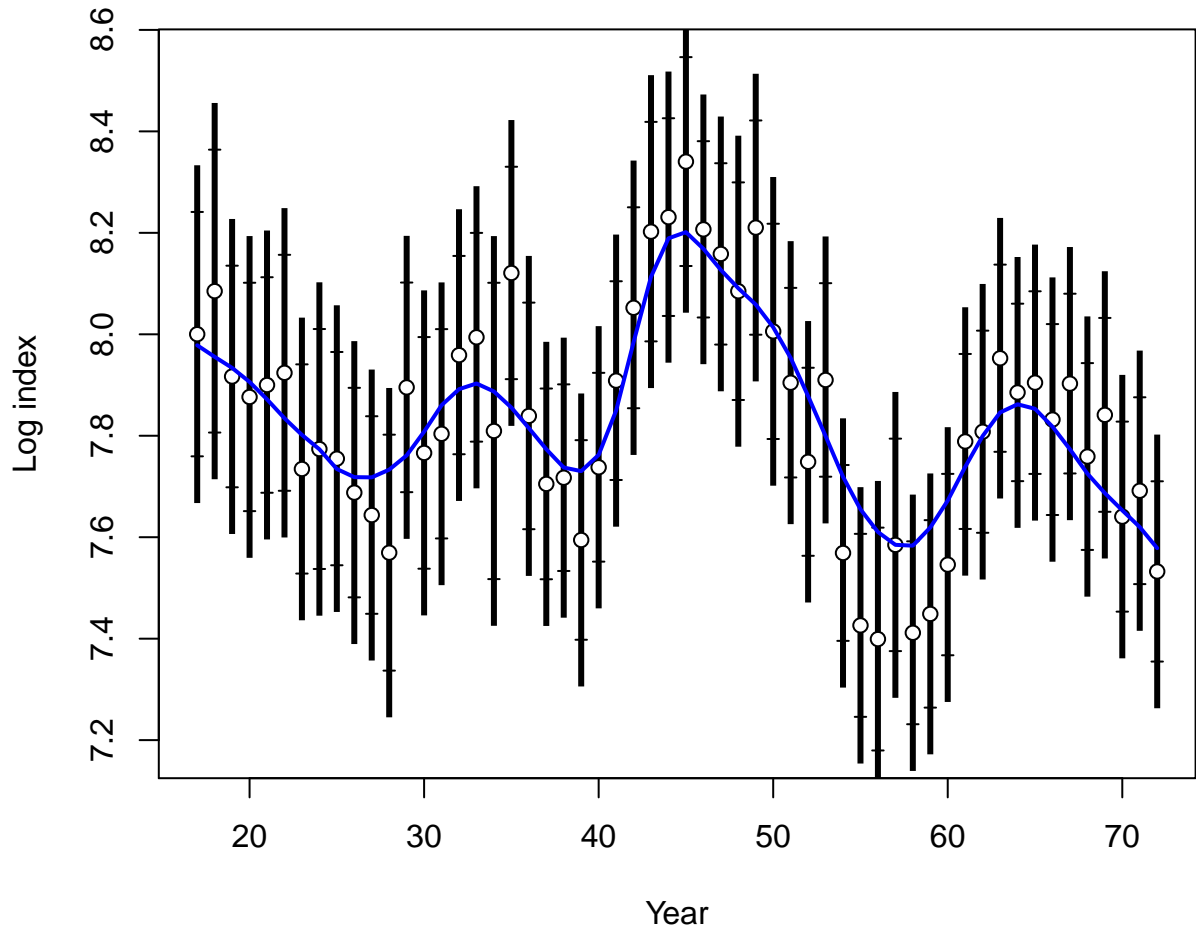


Expected index

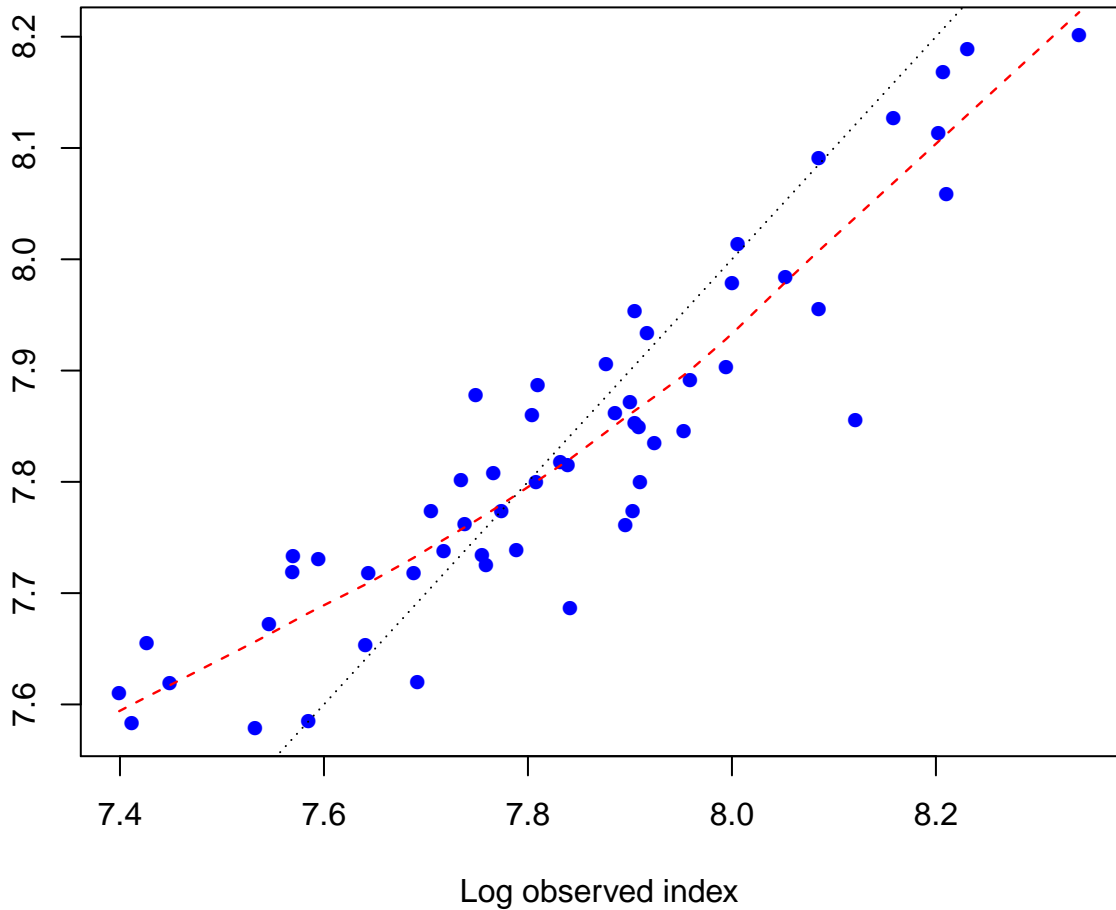


Observed index





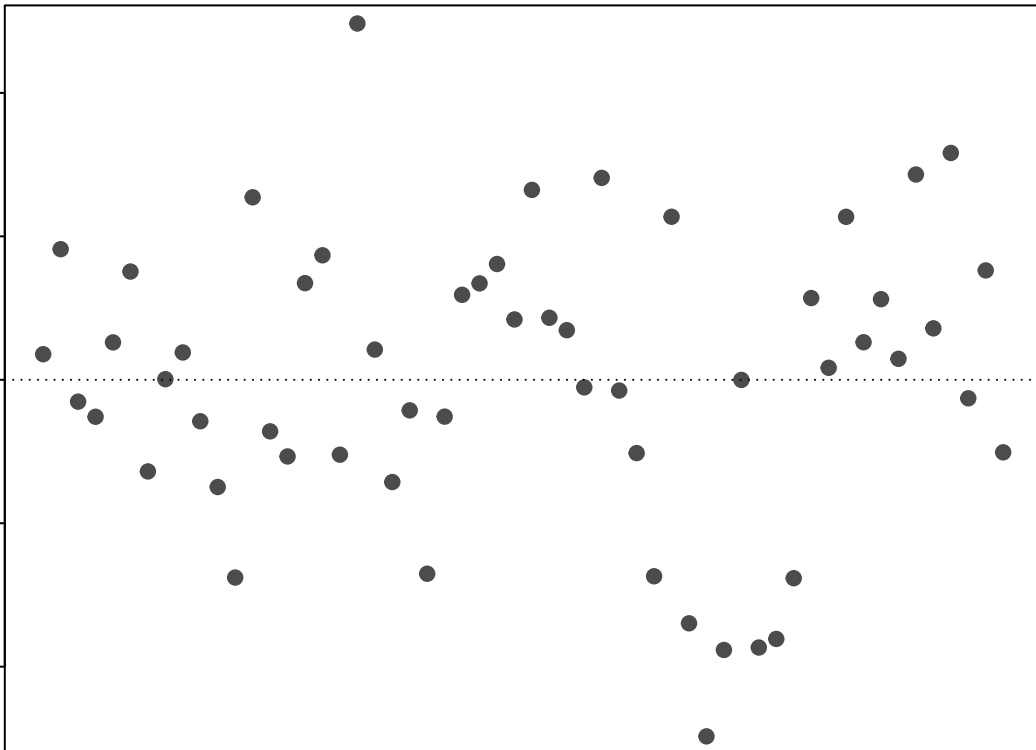
Log expected index



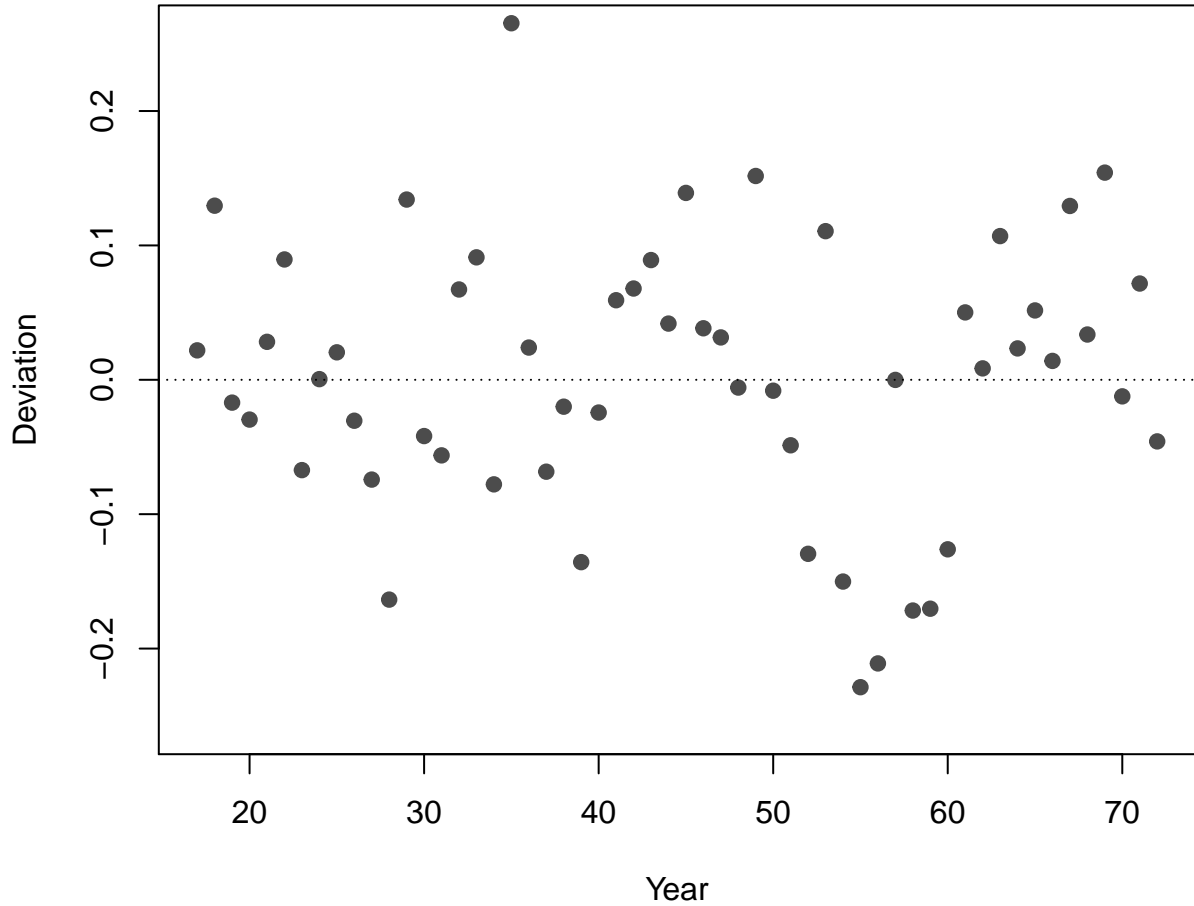
Log observed index

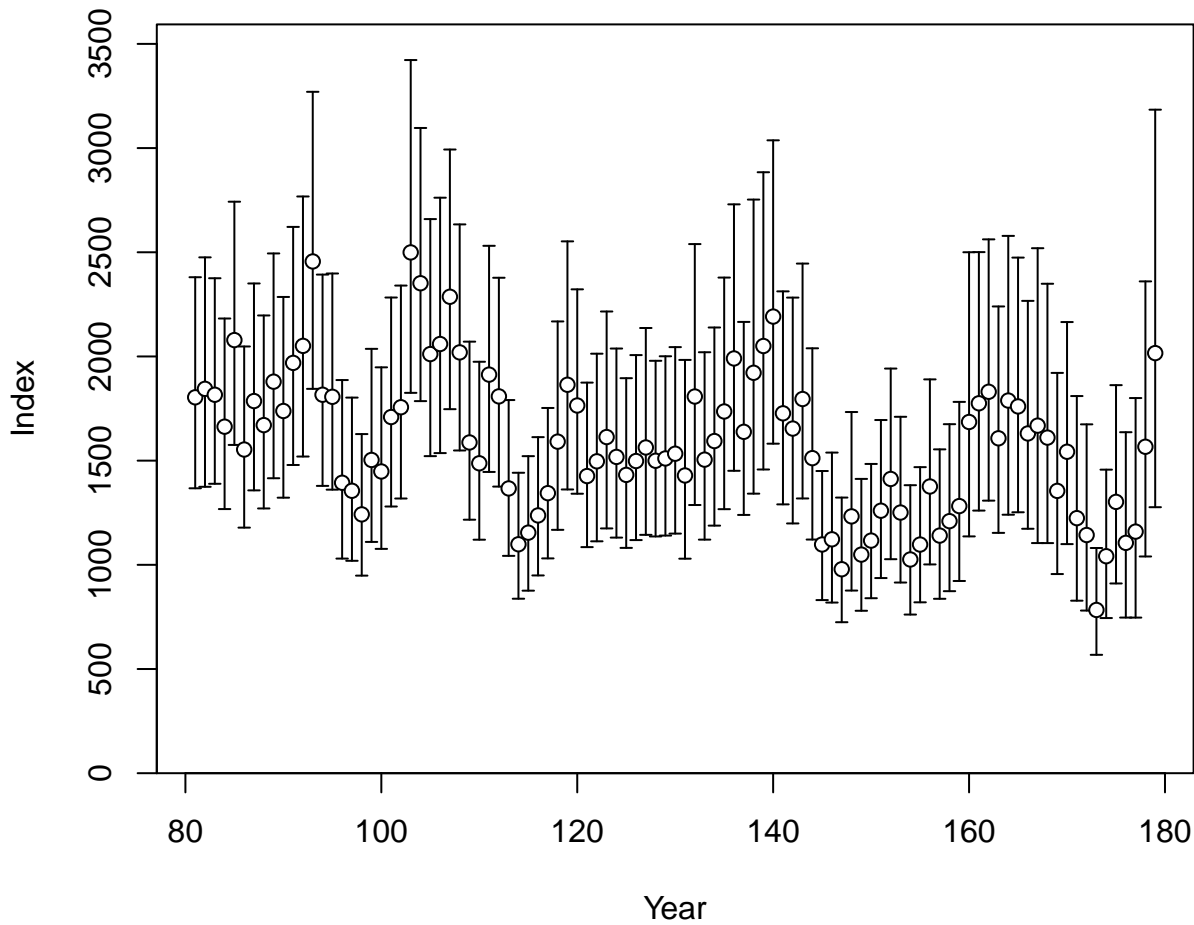
Residual

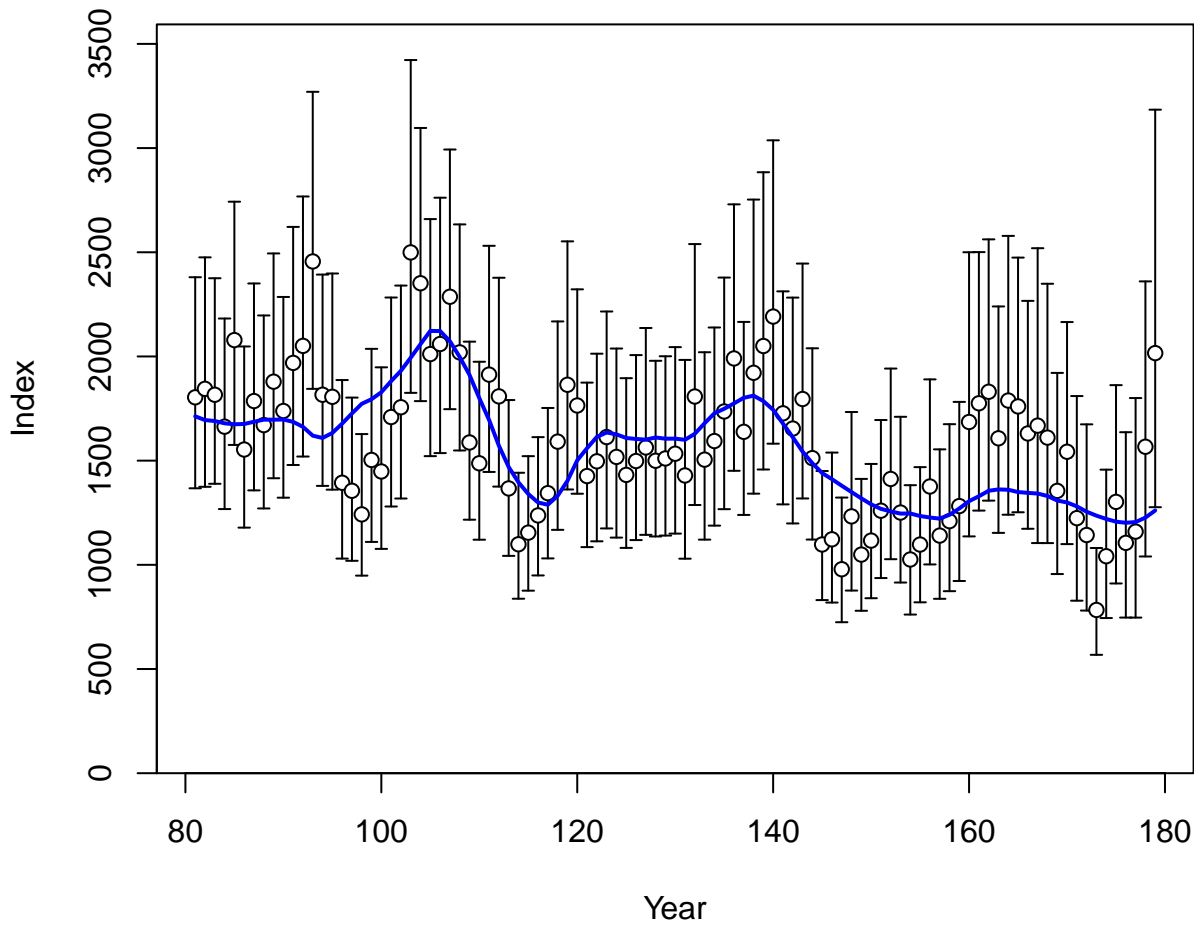
2
1
0
-1
-2



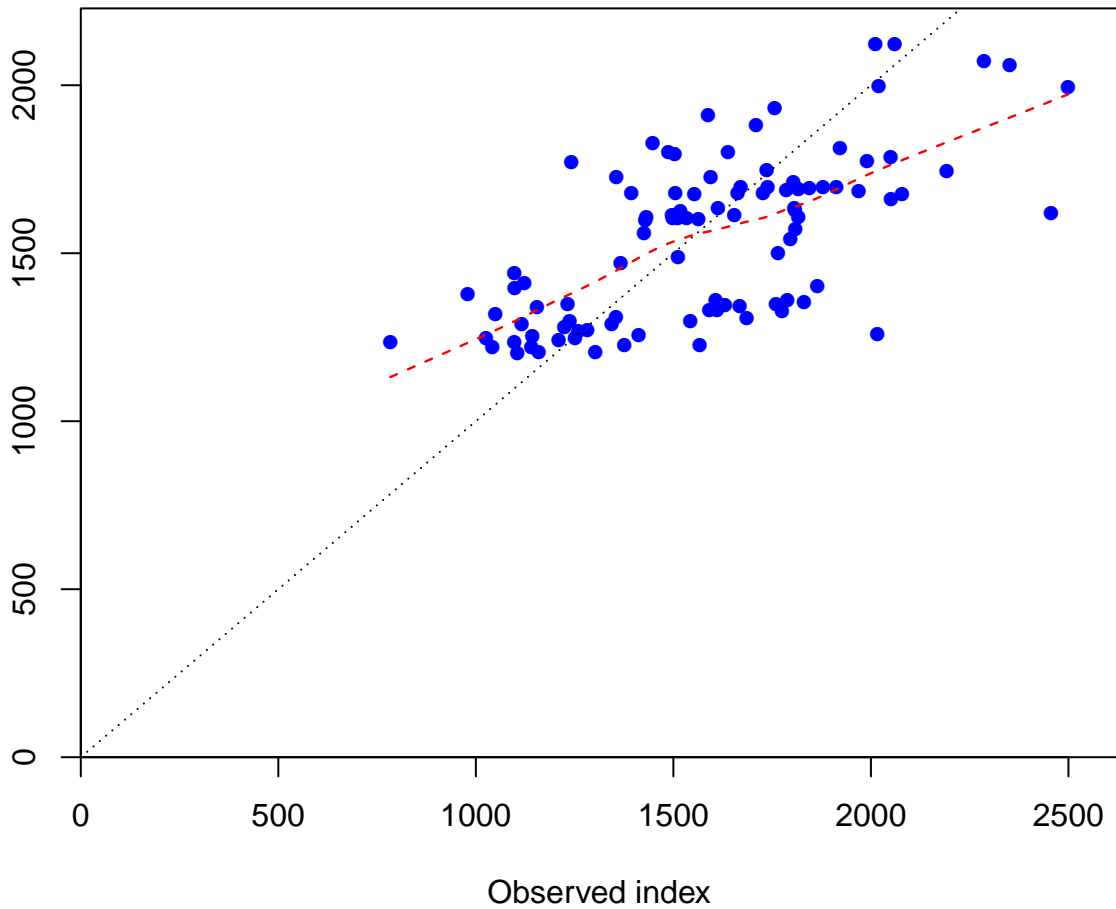
Year







Expected index



Observed index

Log index

8.0
7.5
7.0
6.5

80

100

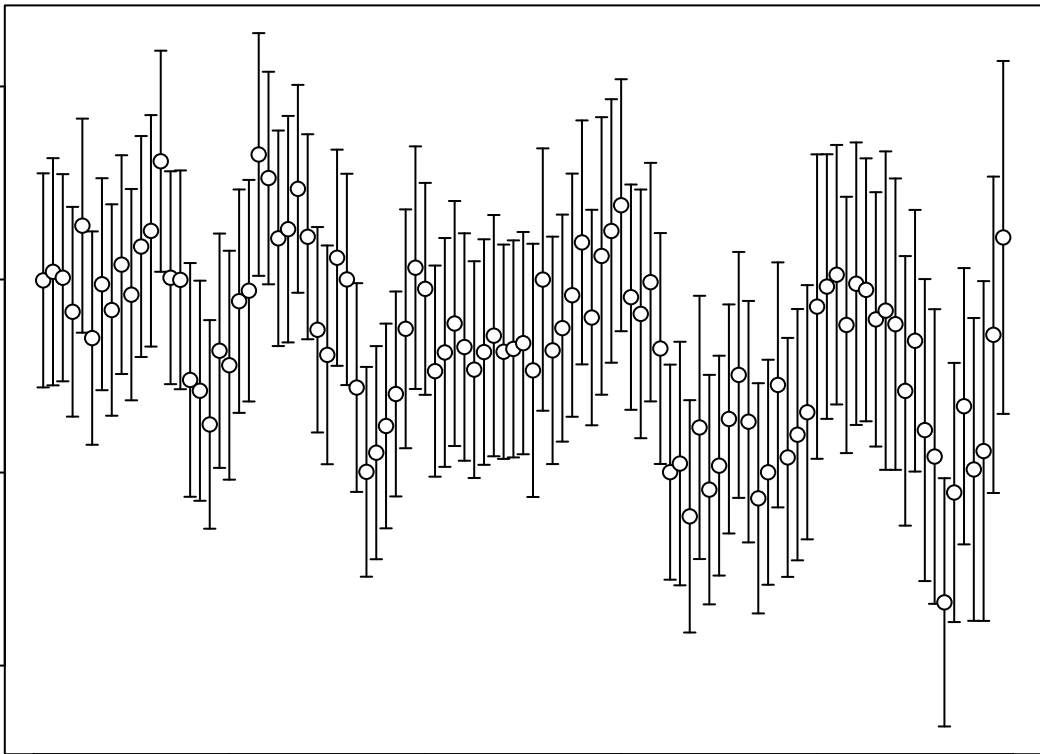
120

140

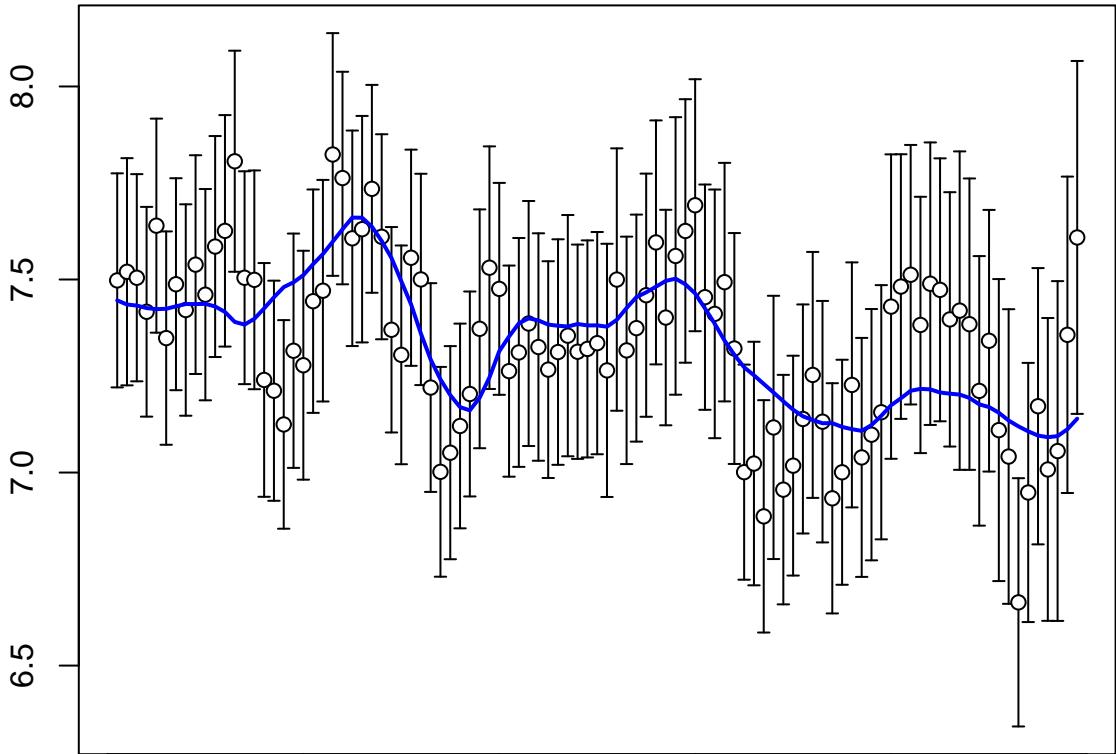
160

180

Year

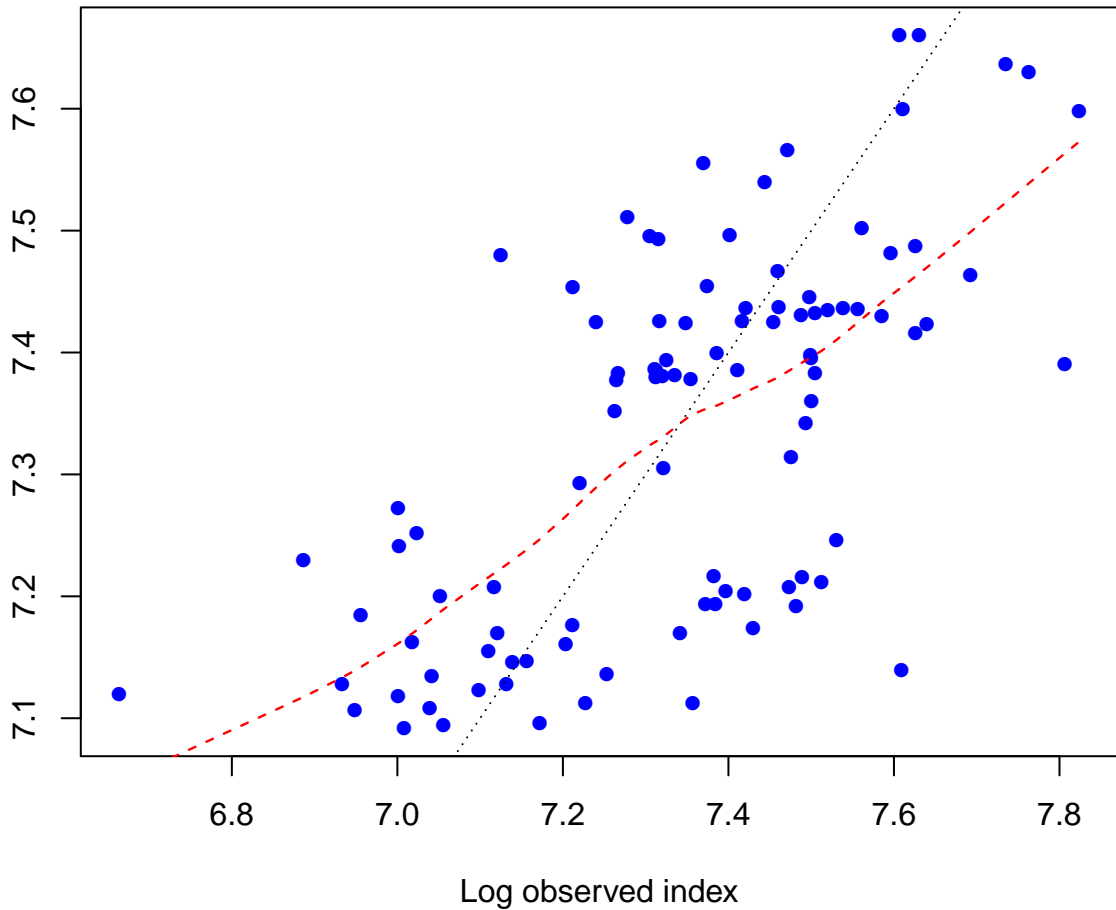


Log index

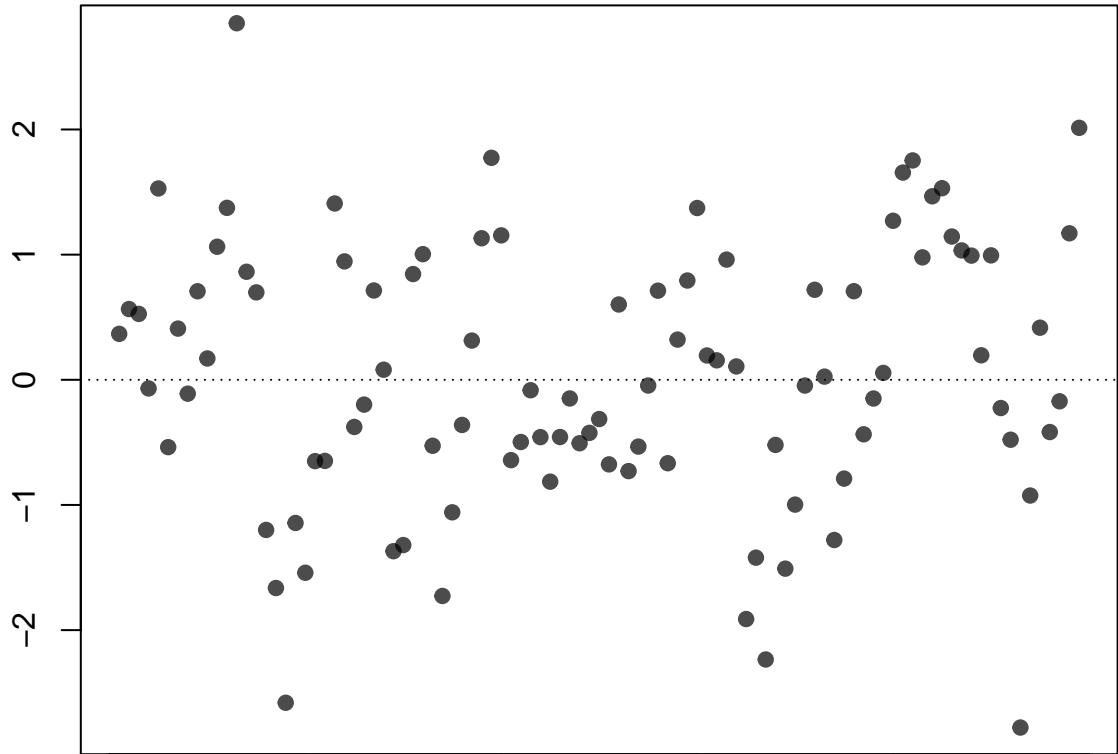


Year

Log expected index



Residual



2

1

0

-1

-2

80

100

120

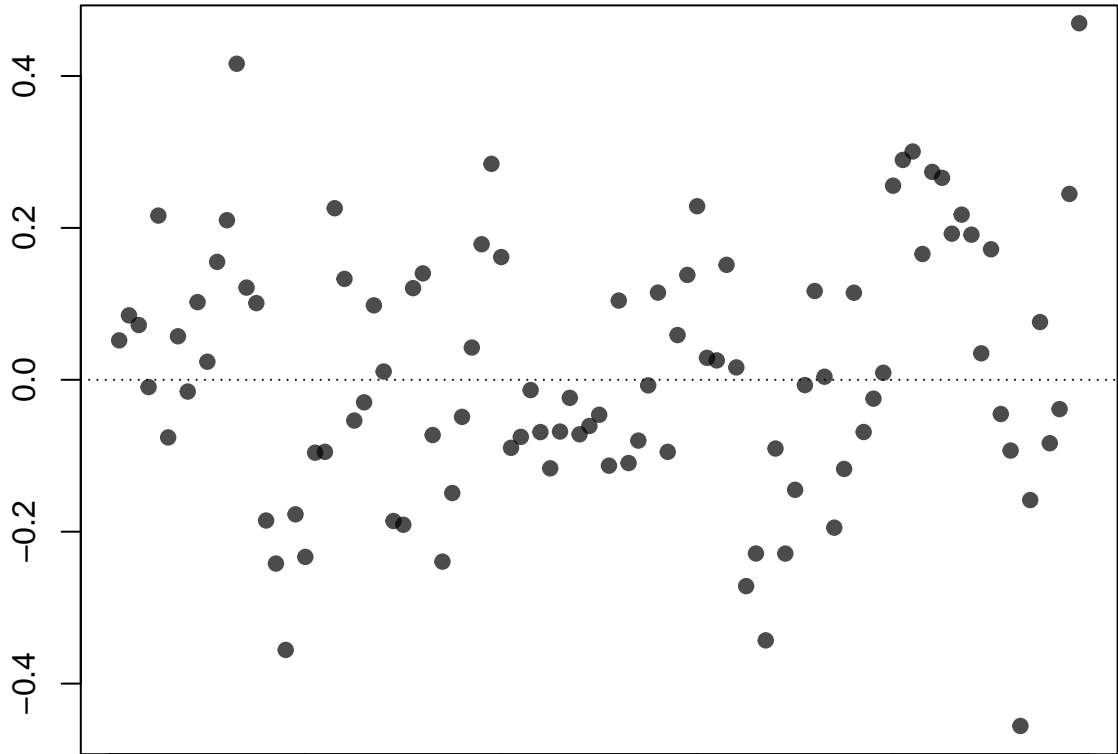
140

160

180

Year

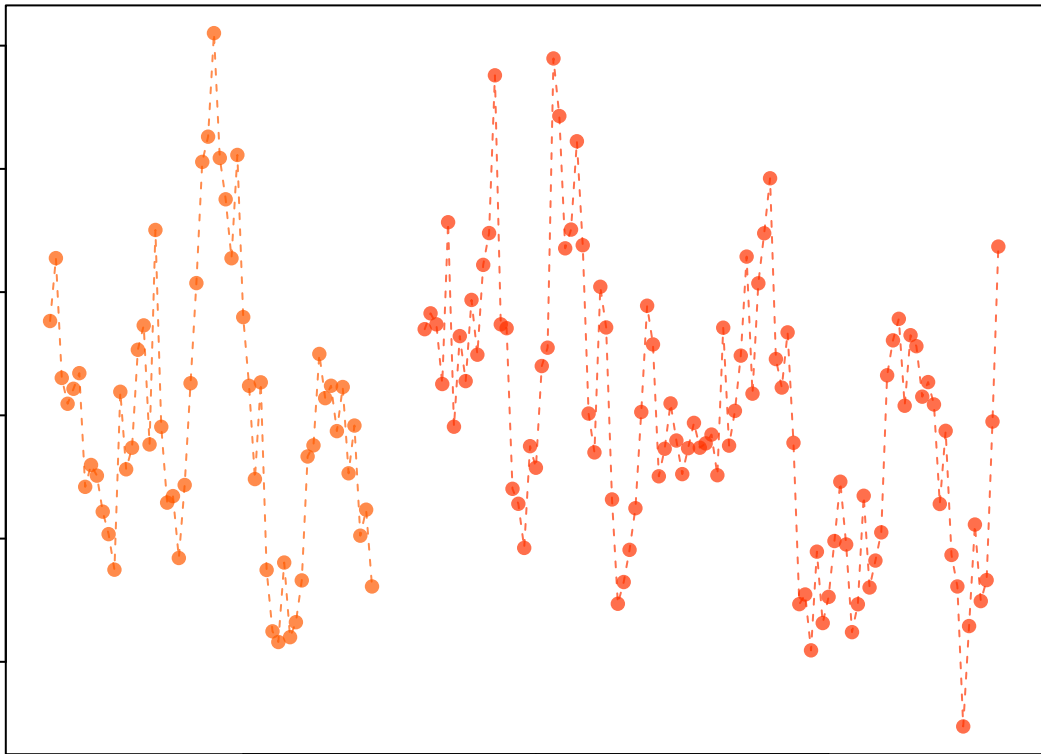
Deviation



Year

Standardized index

1.6
1.4
1.2
1.0
0.8
0.6



50

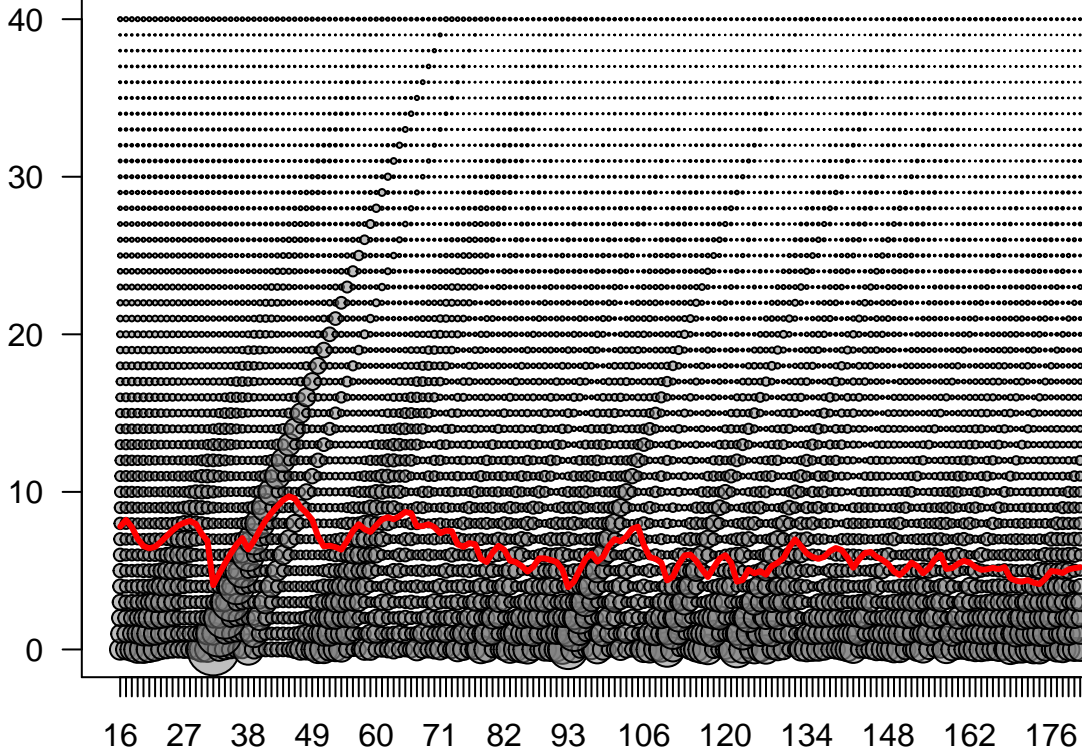
100

150

Year

Age

○ 5 ○ 15 ○ 25



Year

Age

40

30

20

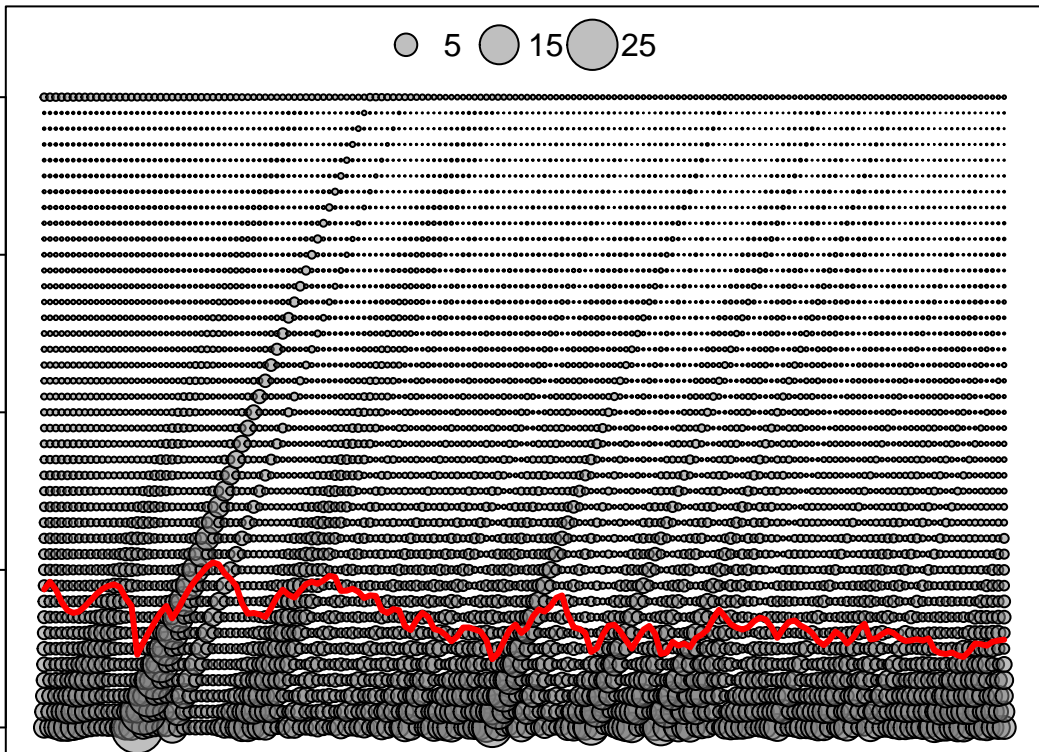
10

0

○ 5 ○ 15 ○ 25

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

Year



Mean age (yr)

10

8

6

4

2

0

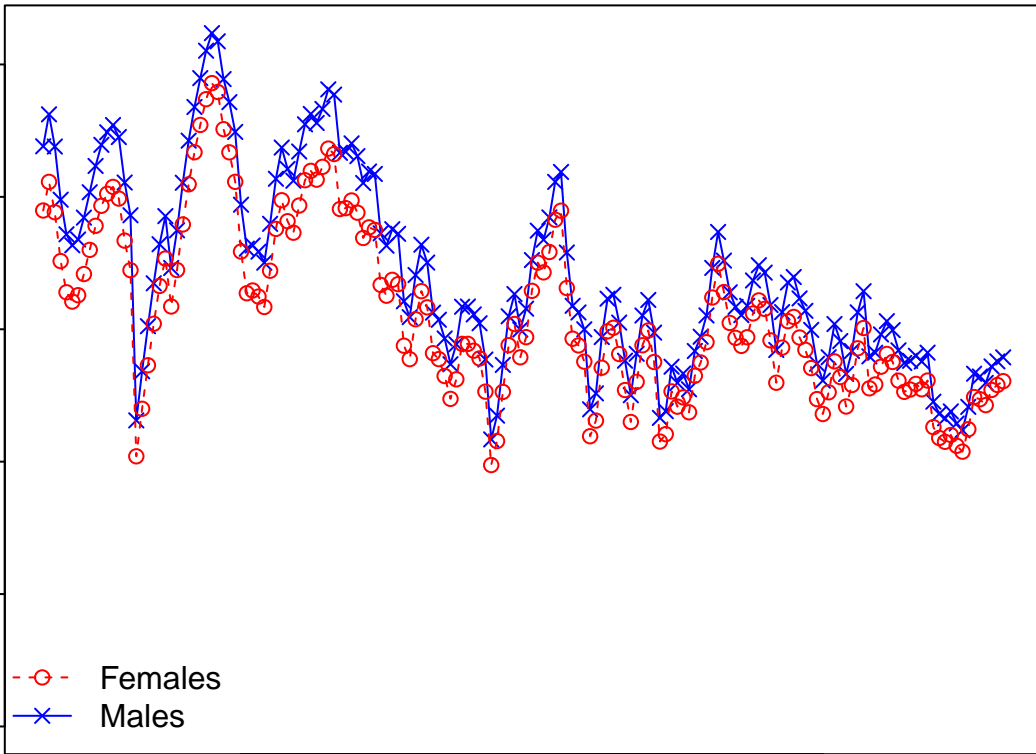
- - ○ - Females
- - × - Males

50

100

150

Year



Age

40

30

20

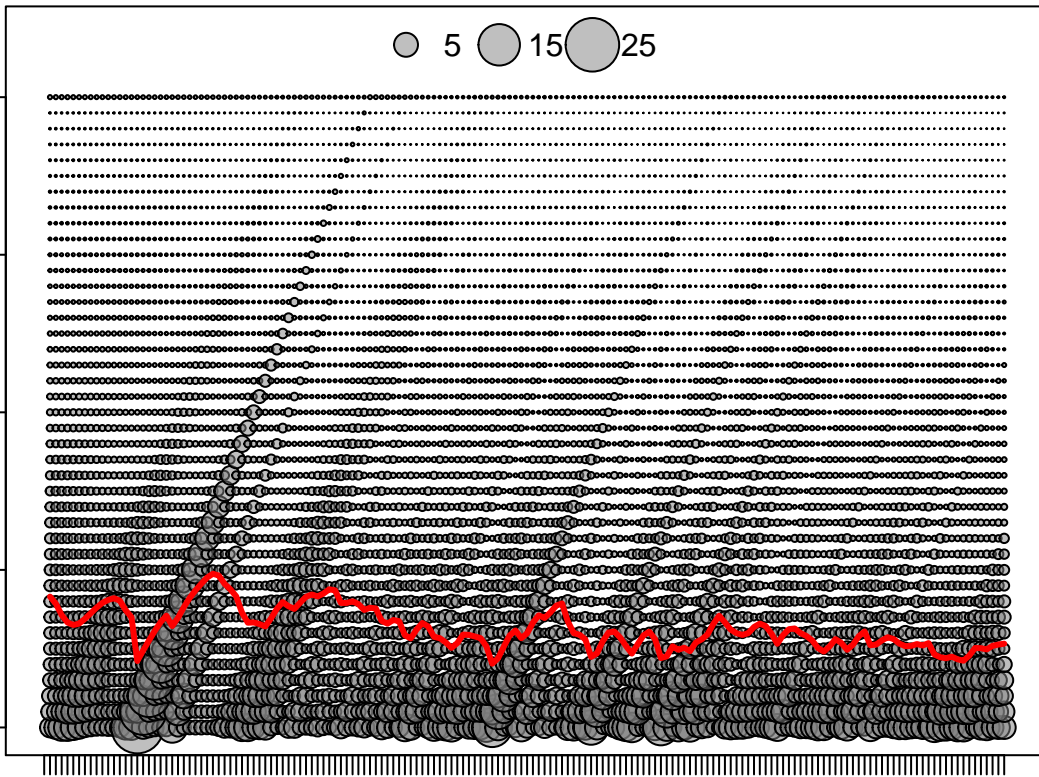
10

0

○ 5 ○ 15 ○ 25

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

Year



Age

40

30

20

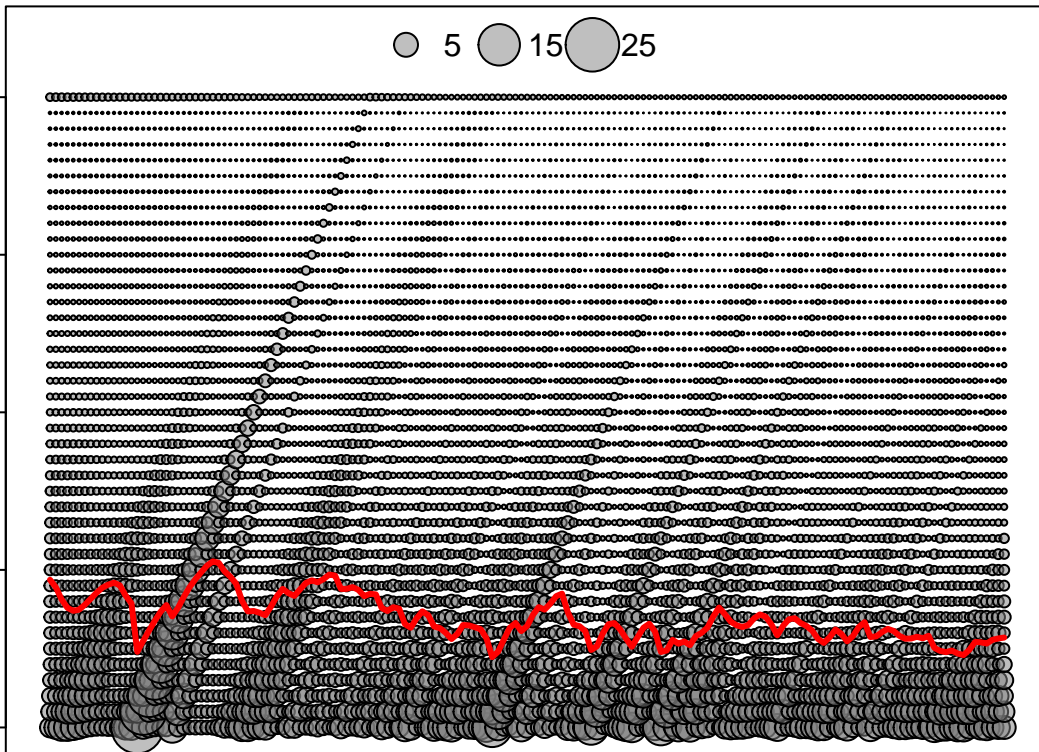
10

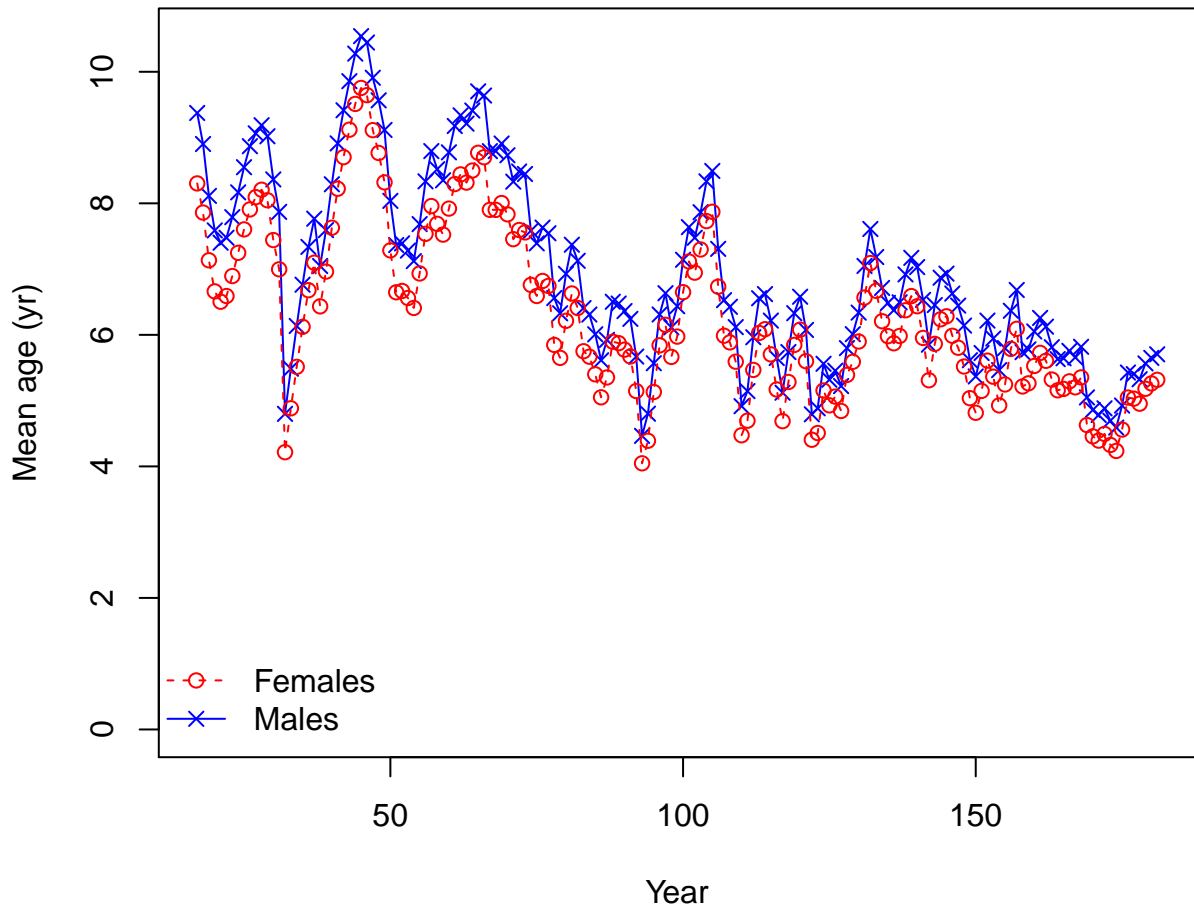
0

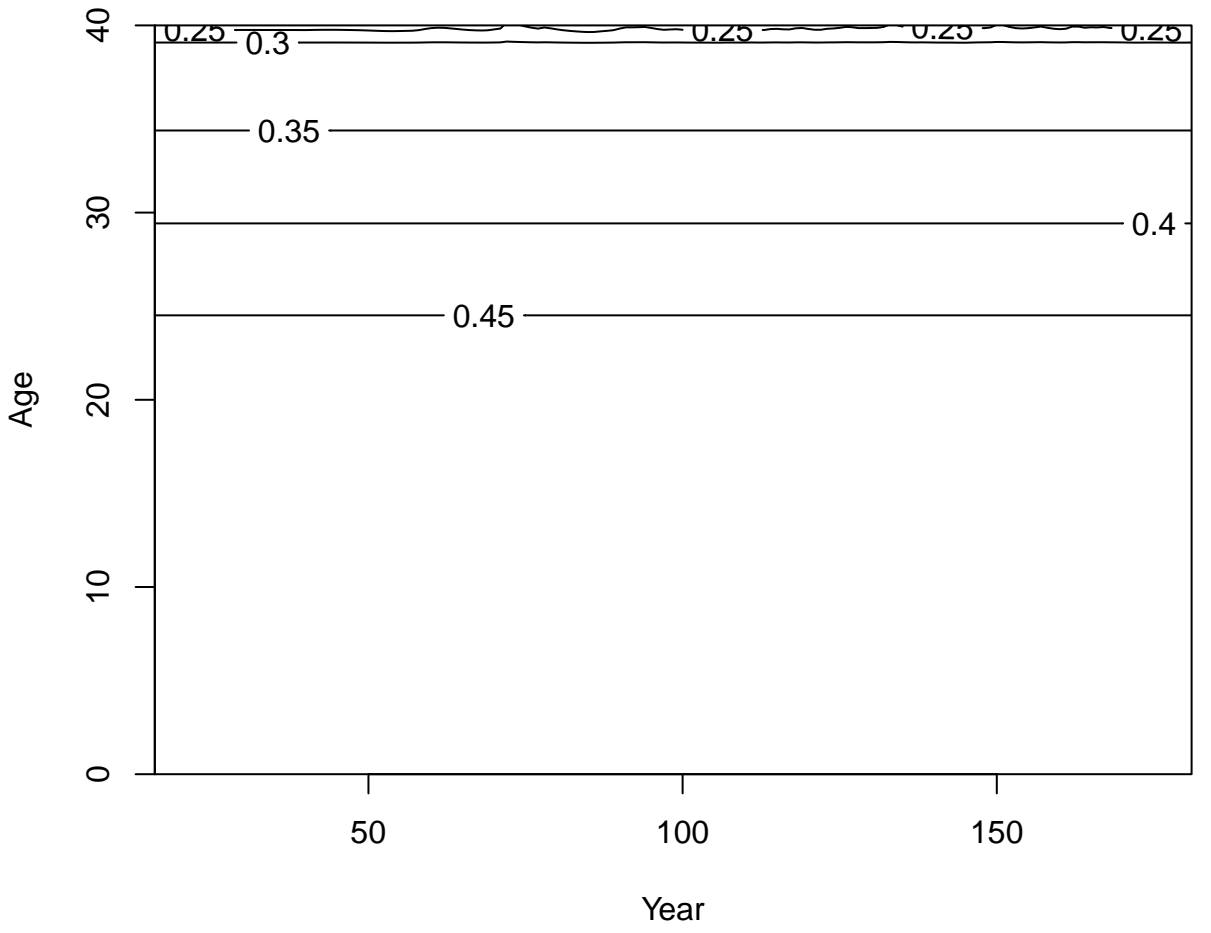
○ 5 ○ 15 ○ 25

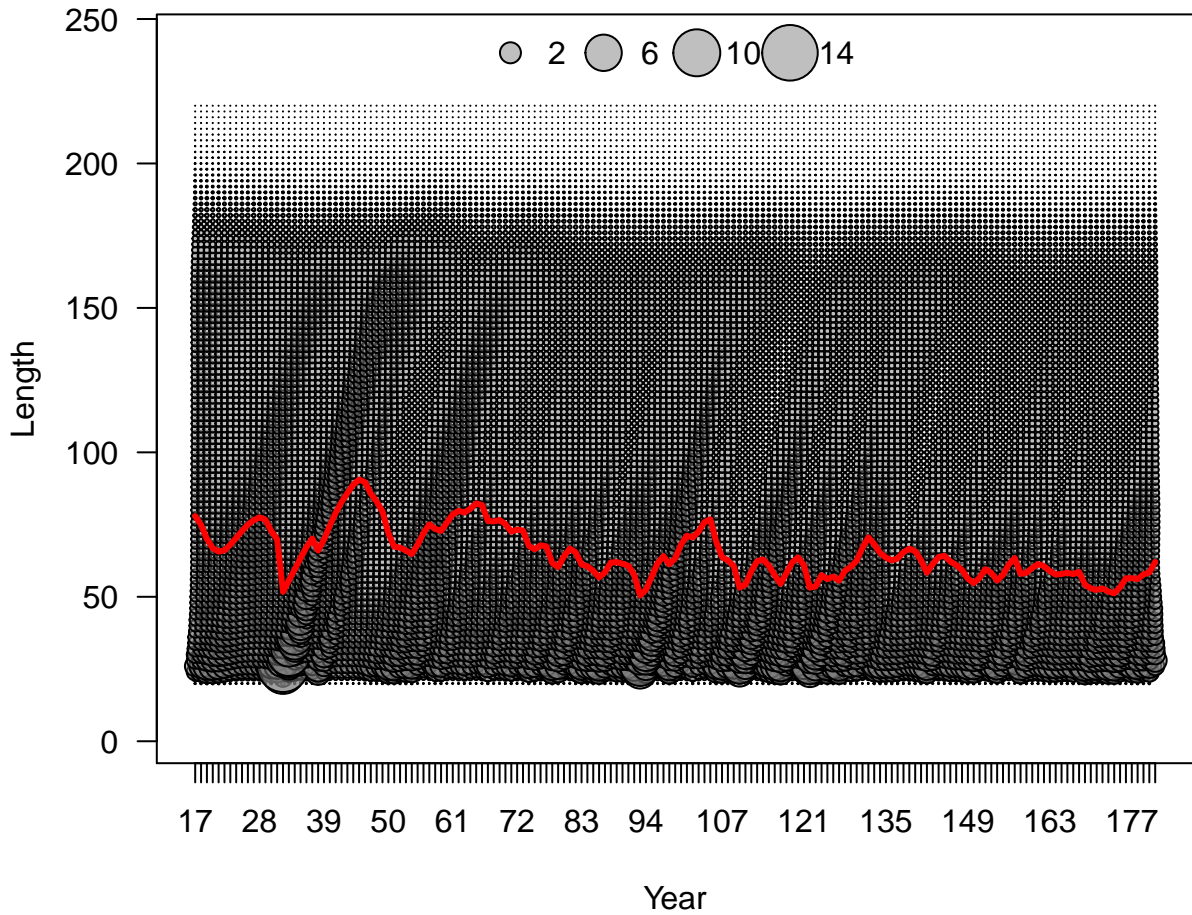
16 27 38 49 60 71 82 93 106 120 134 148 162 176

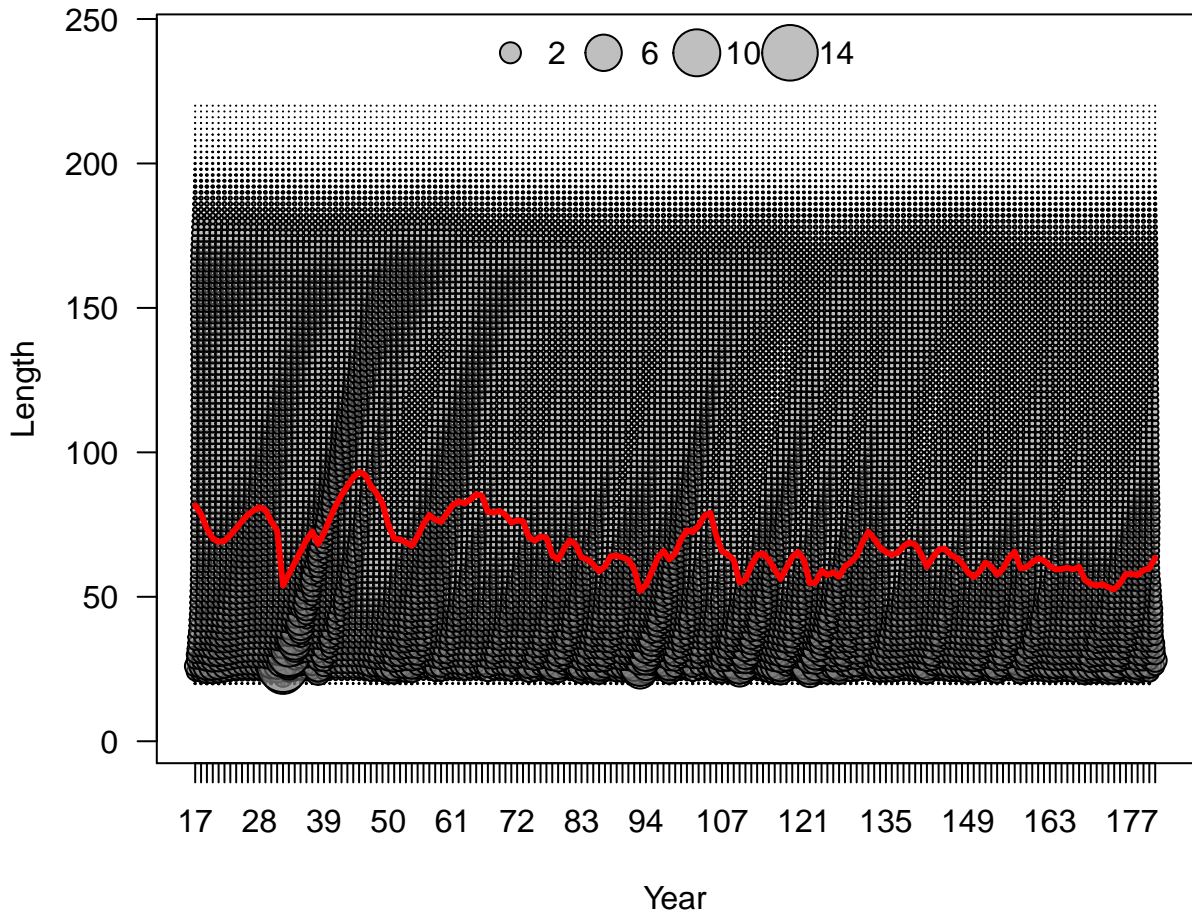
Year

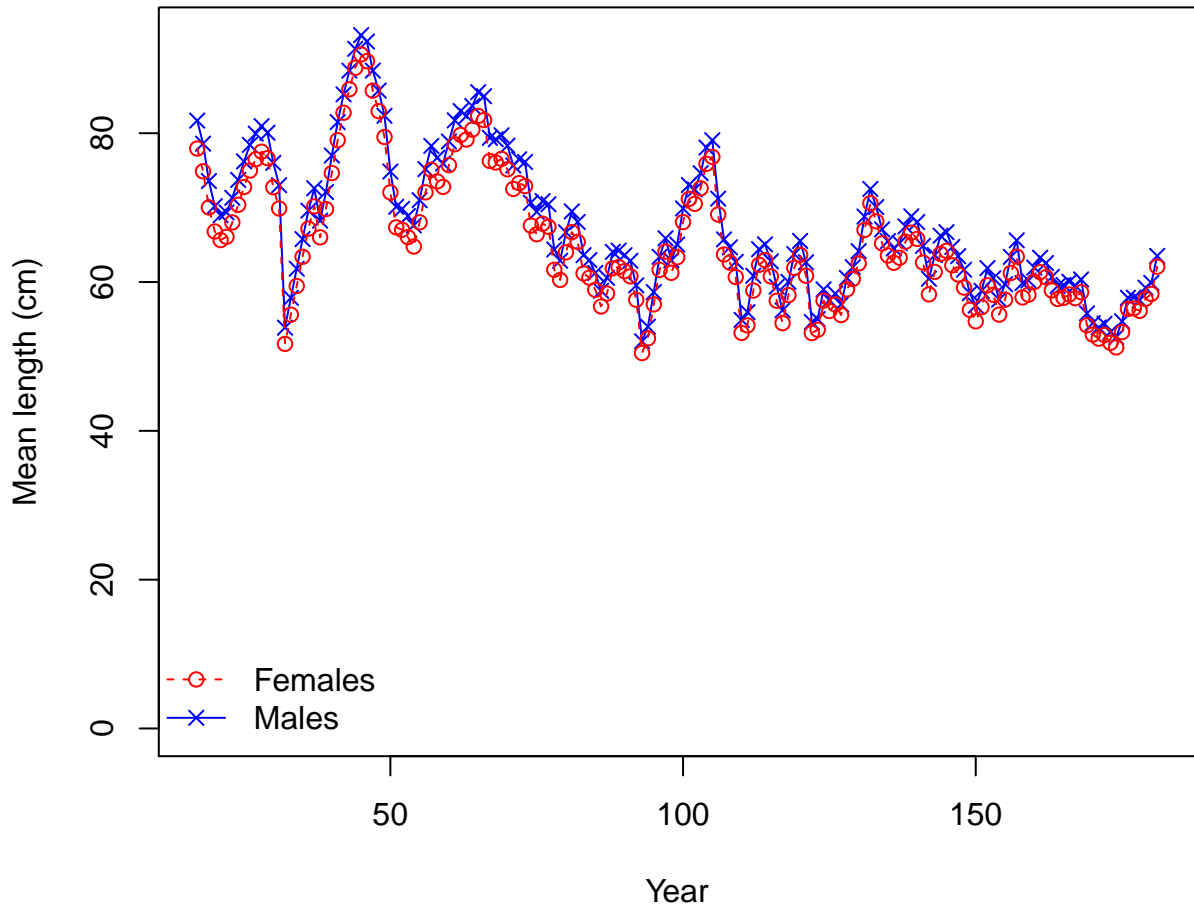


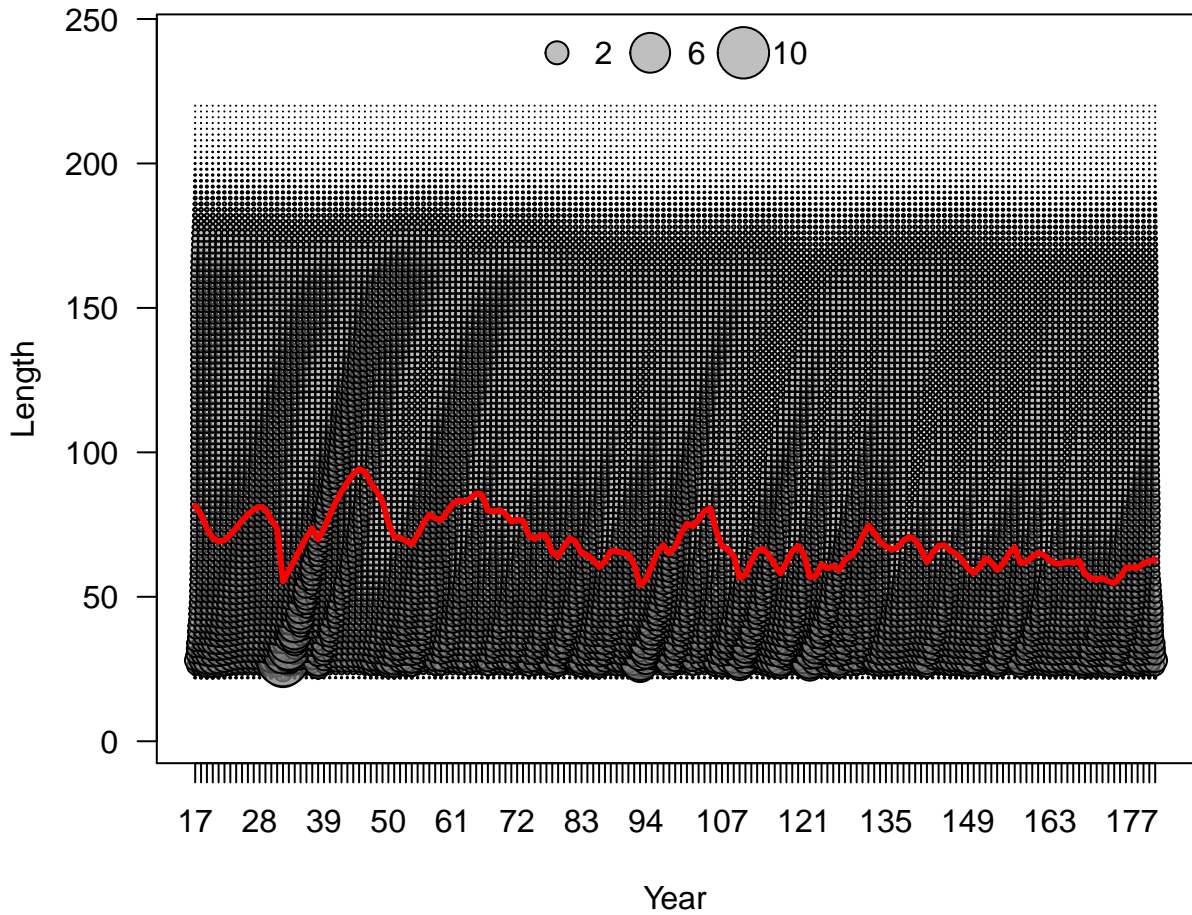


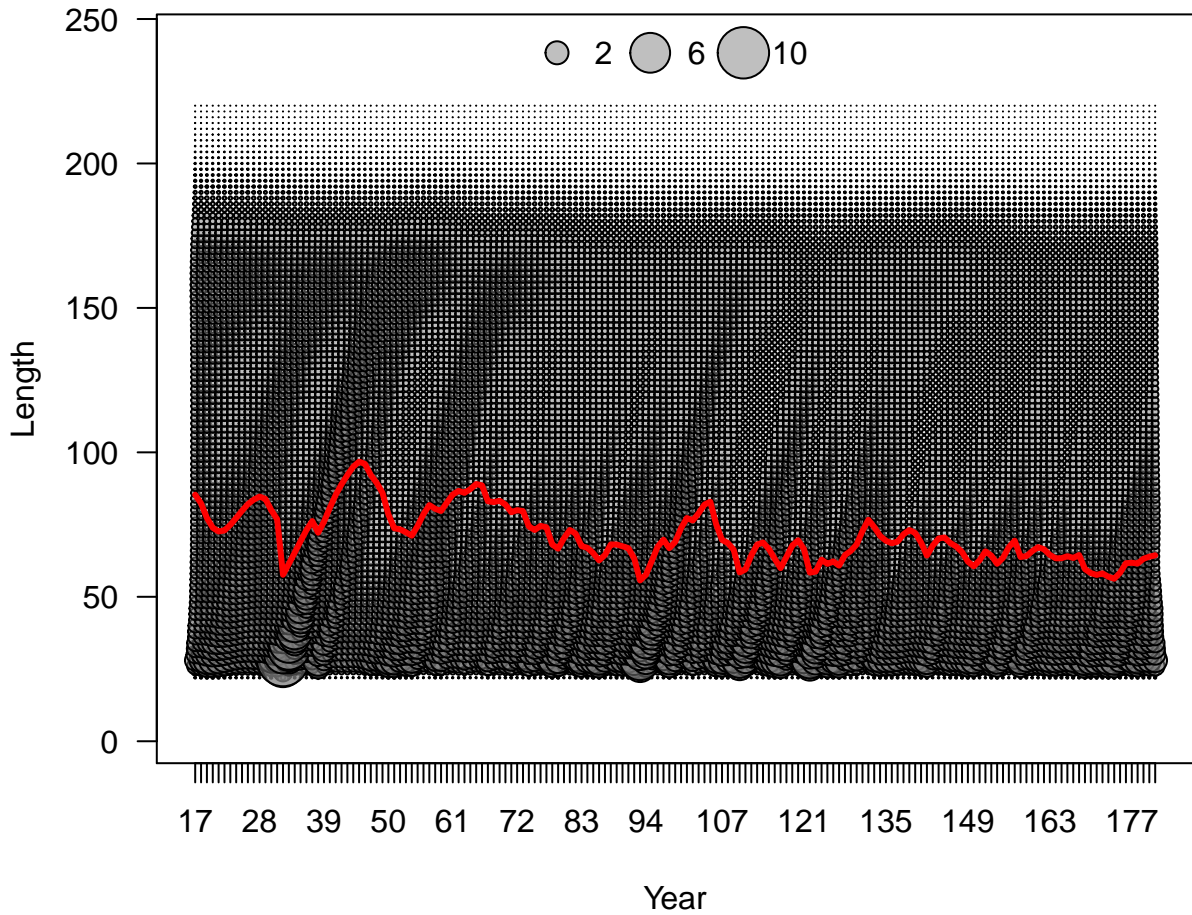


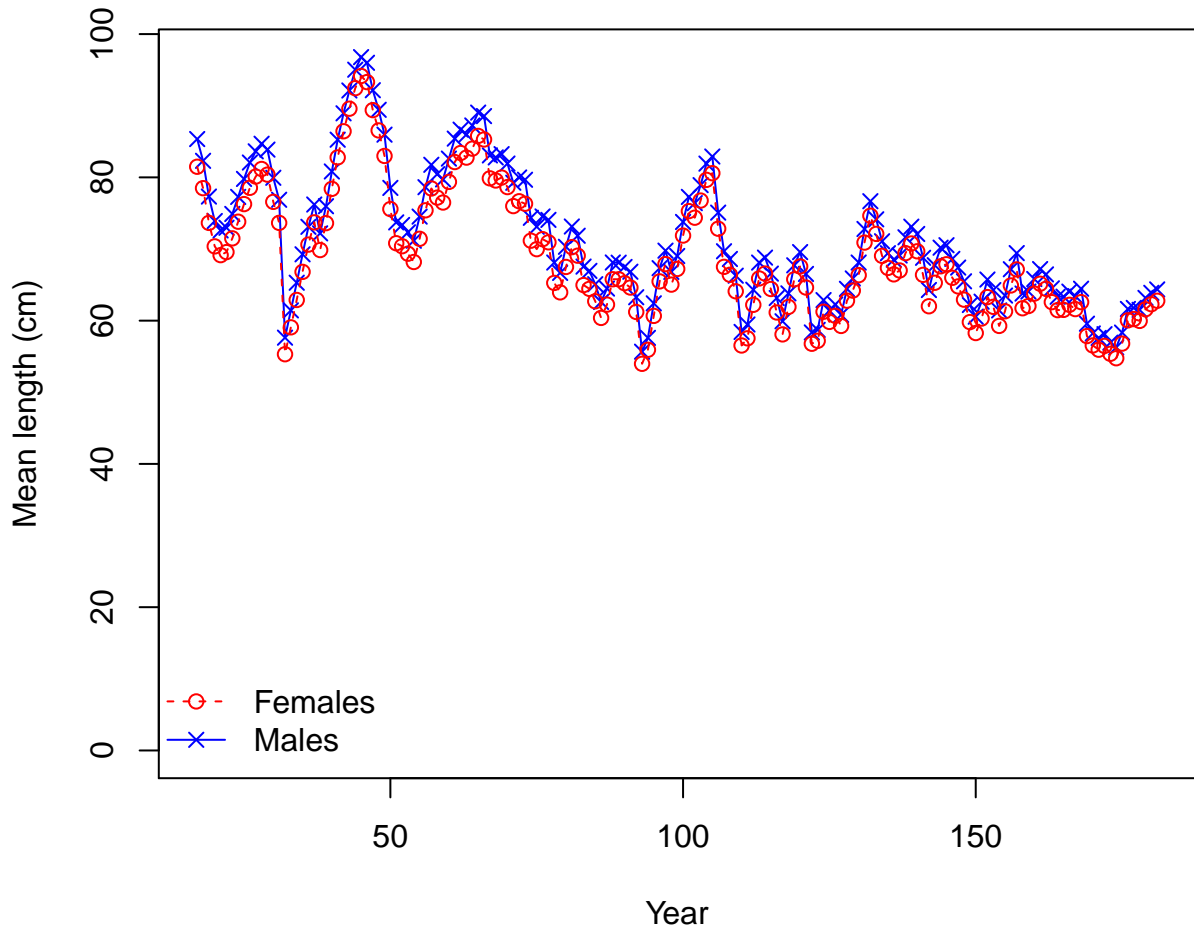


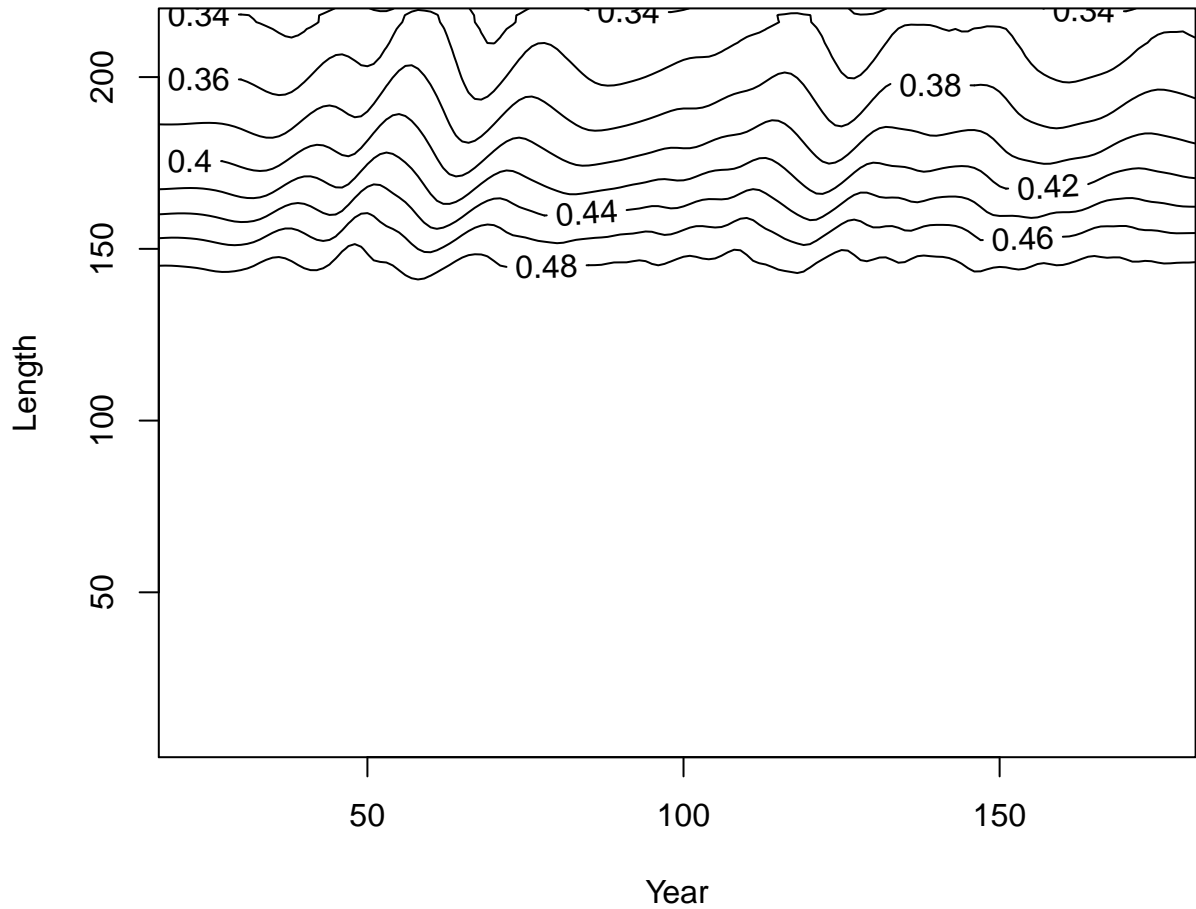


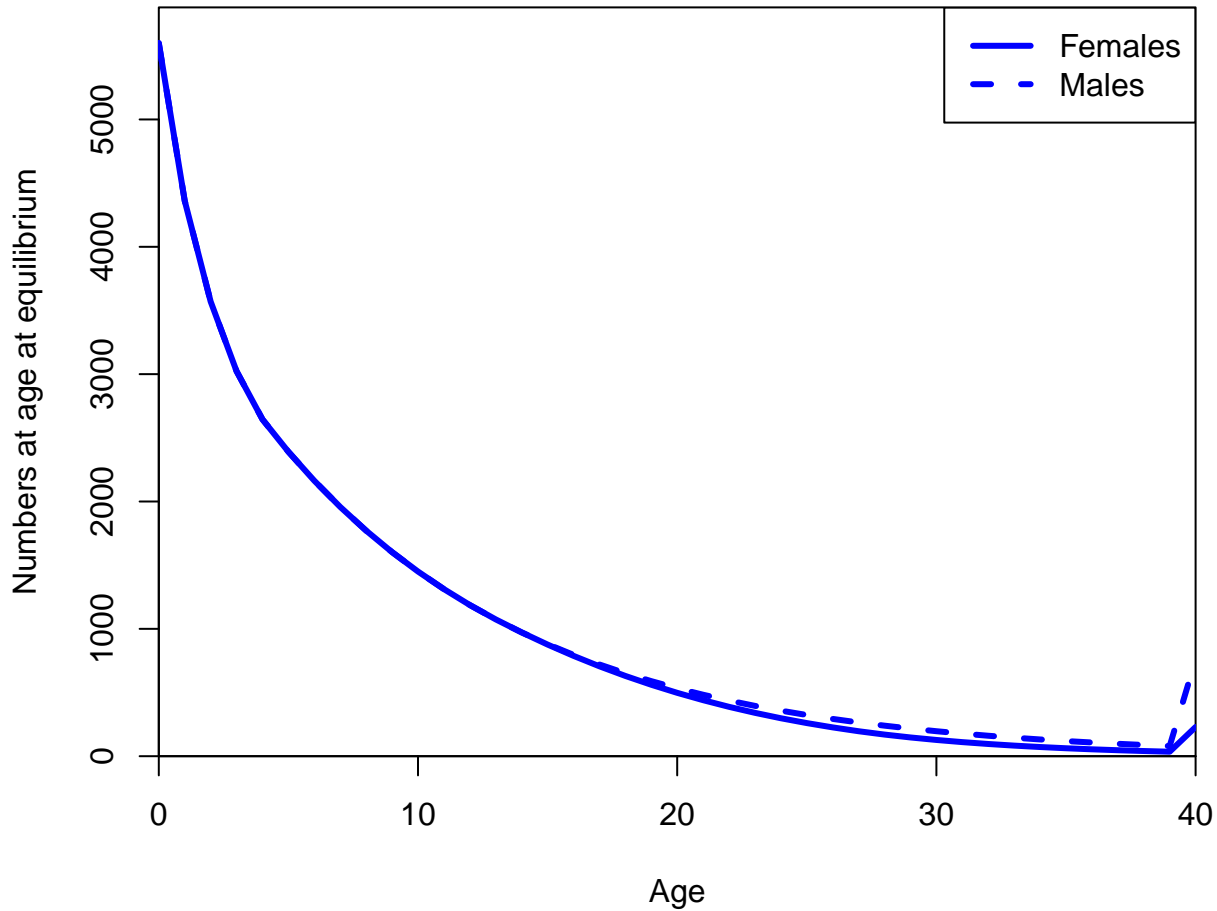


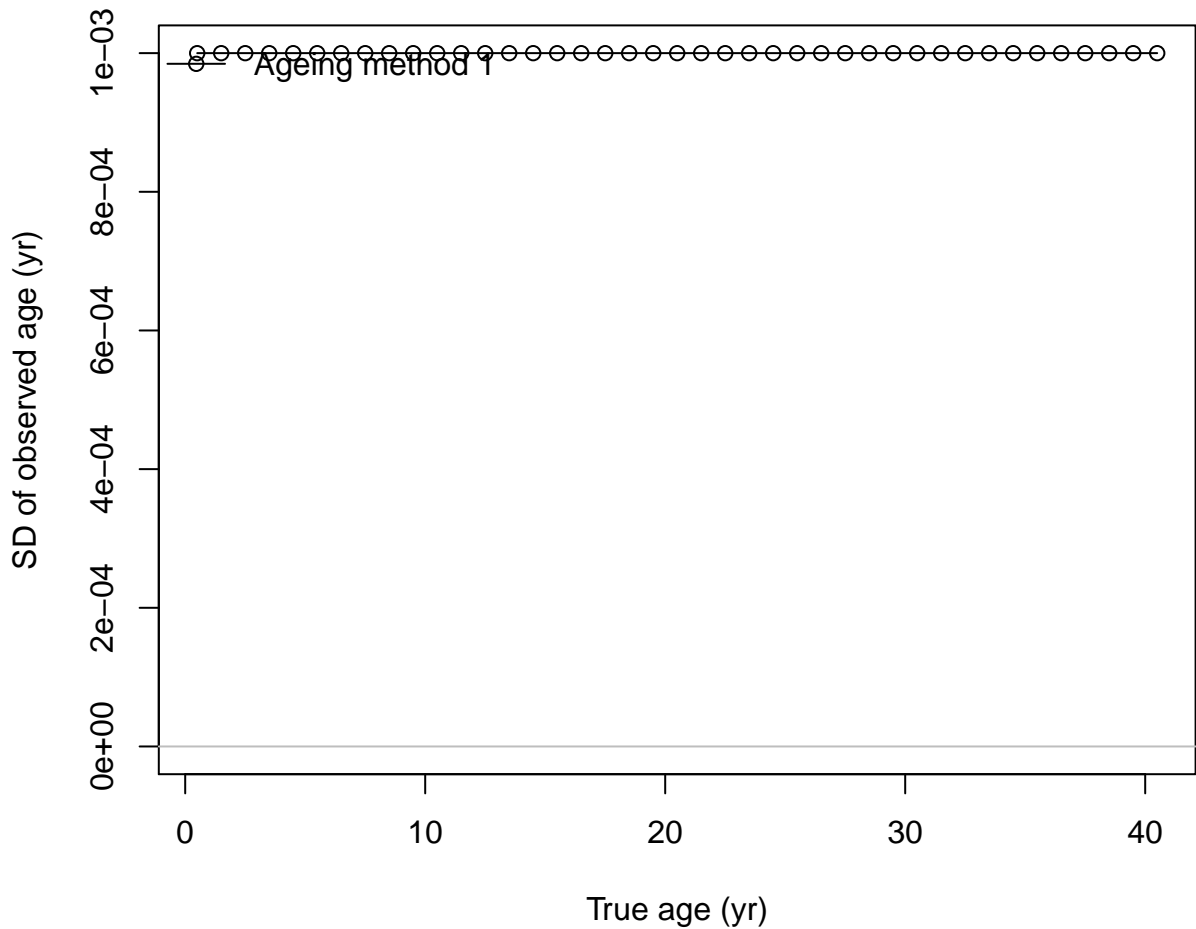




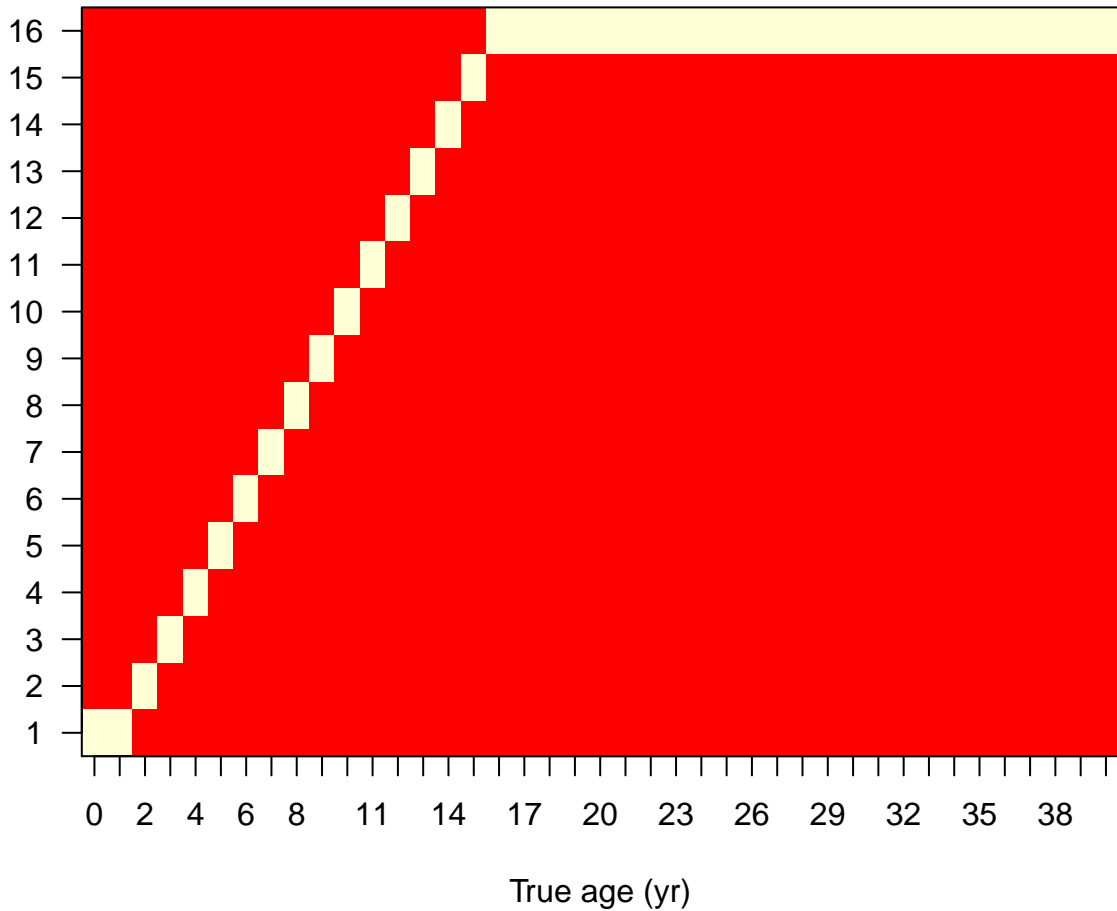






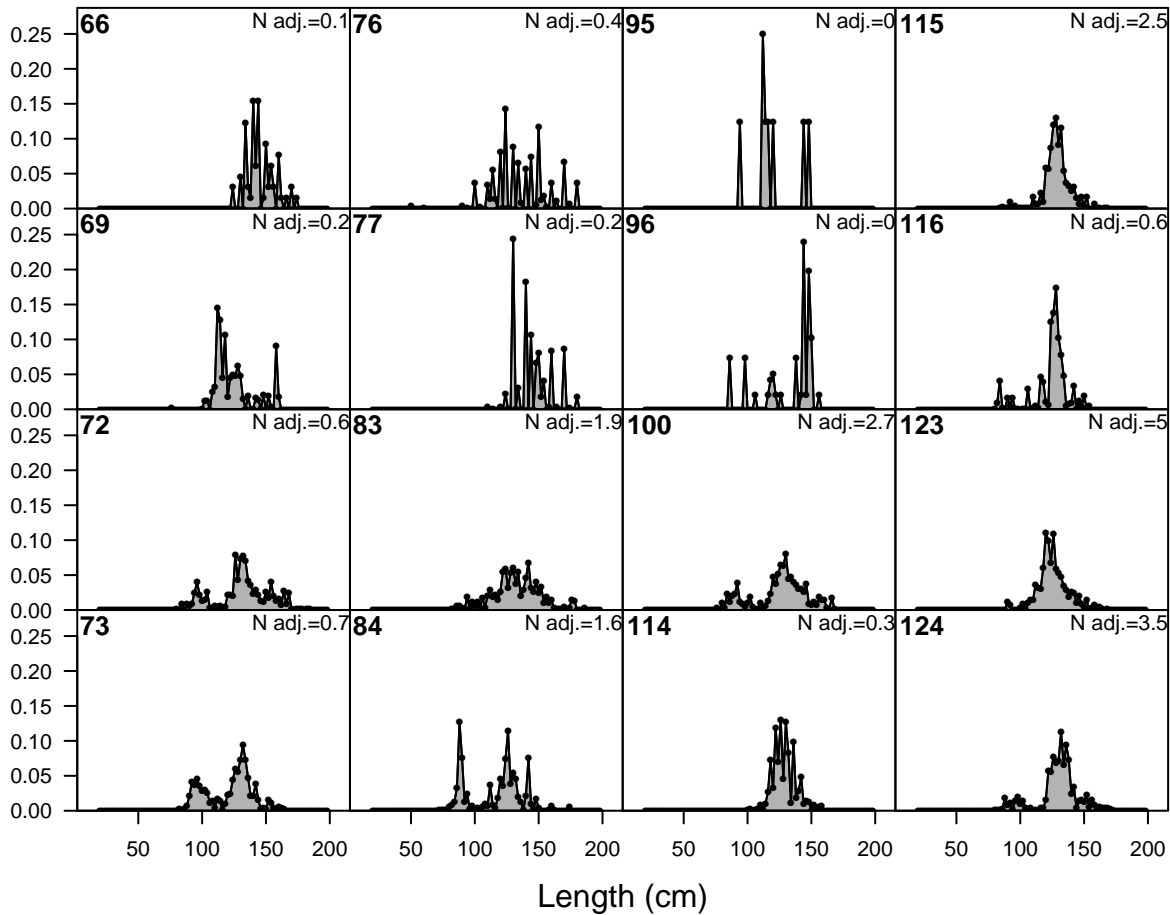


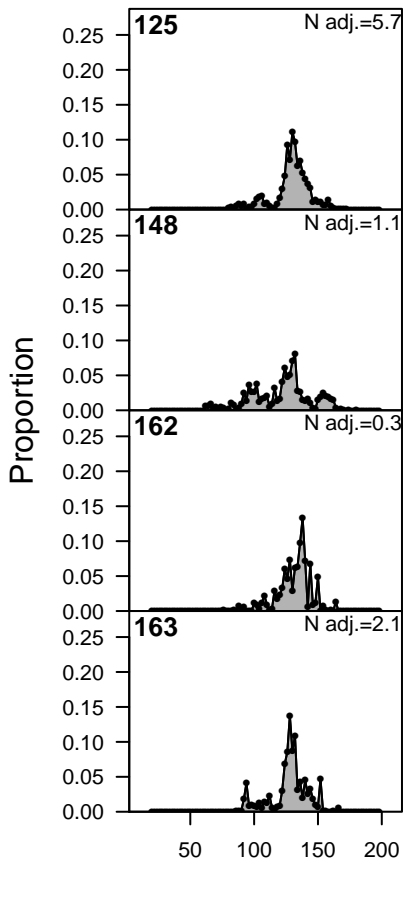
Observed age (yr)



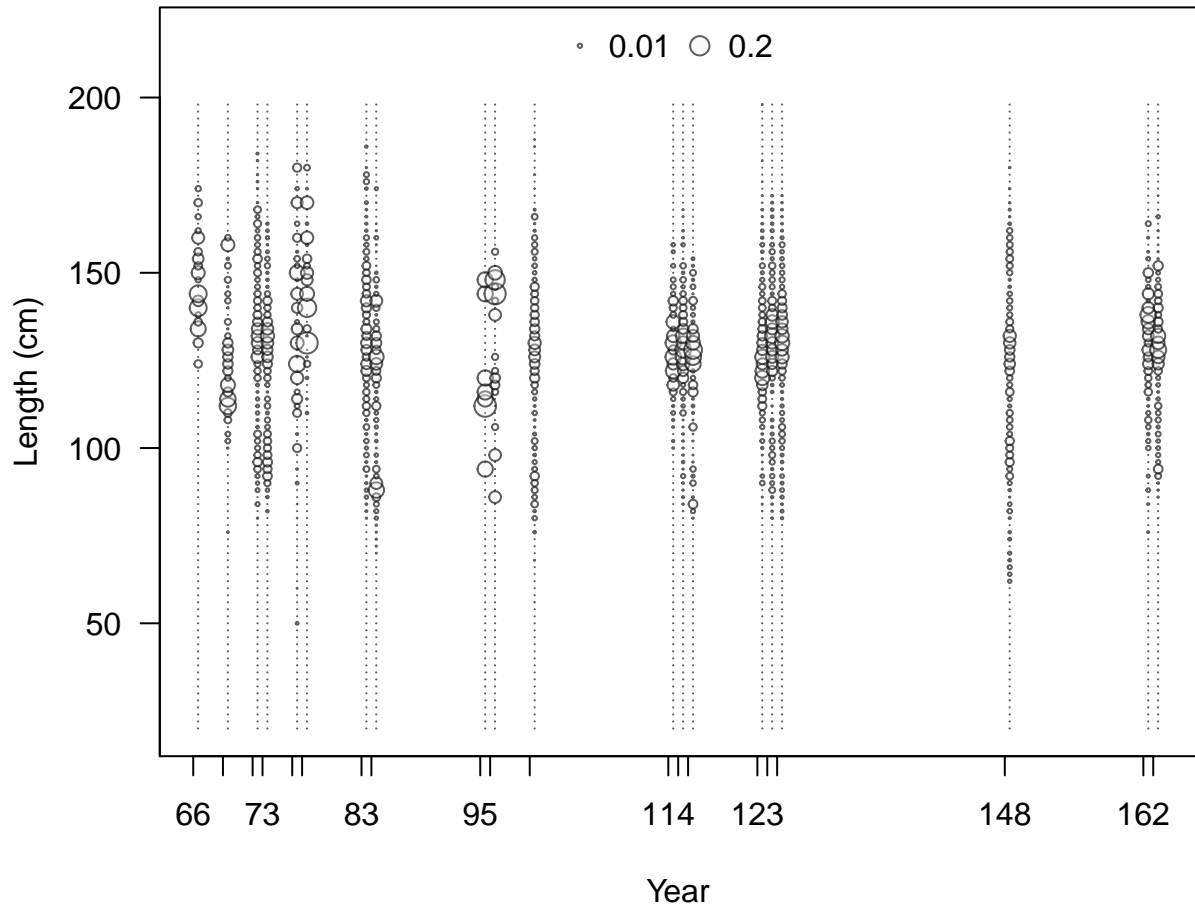
True age (yr)

Proportion

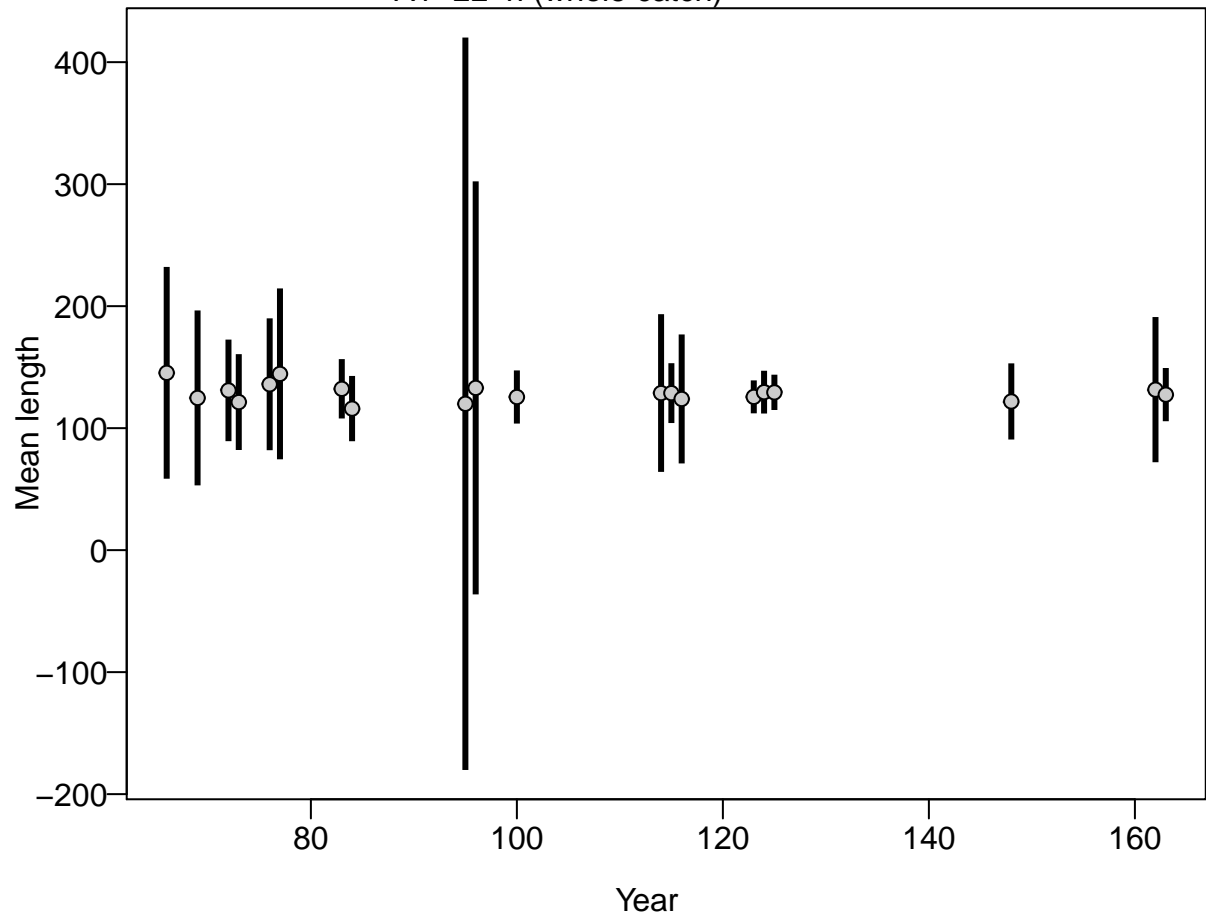




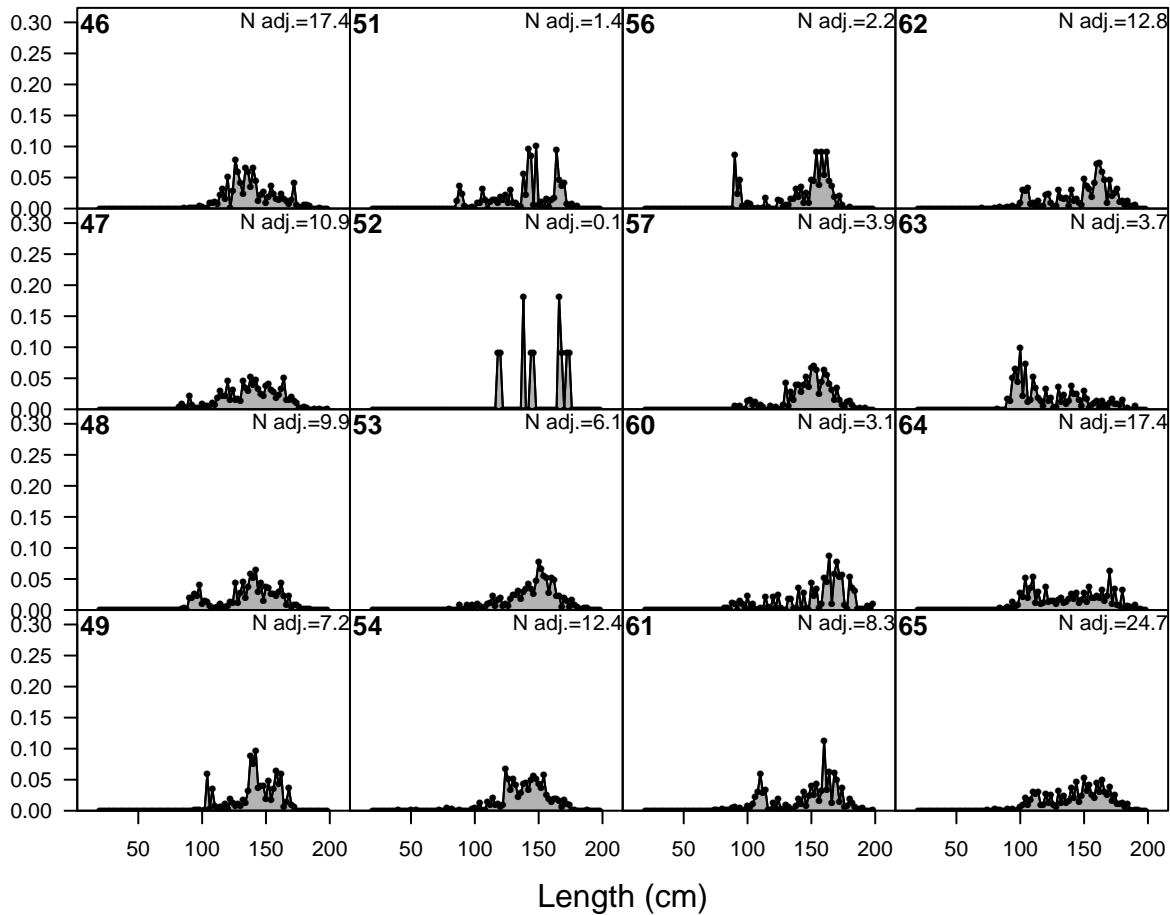
Length (cm)



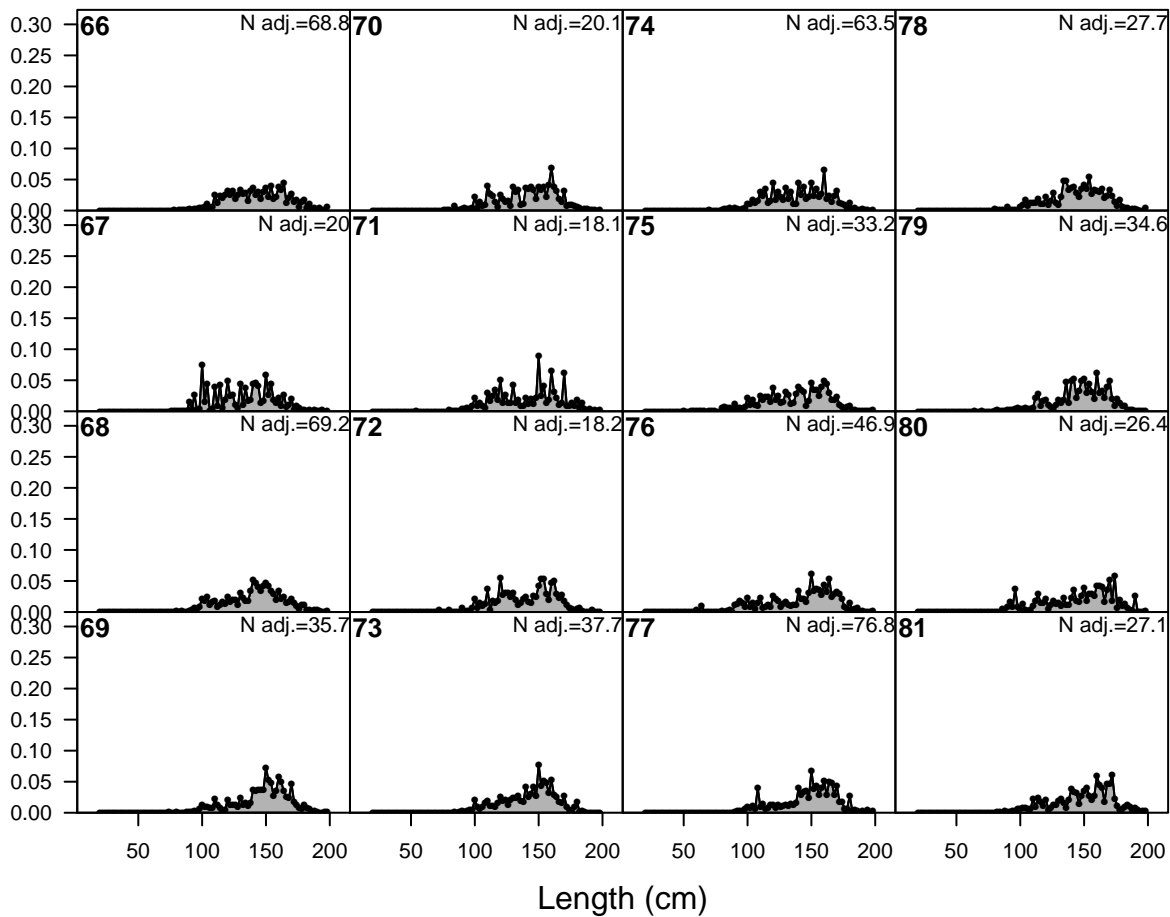
A1-LL-n (whole catch)



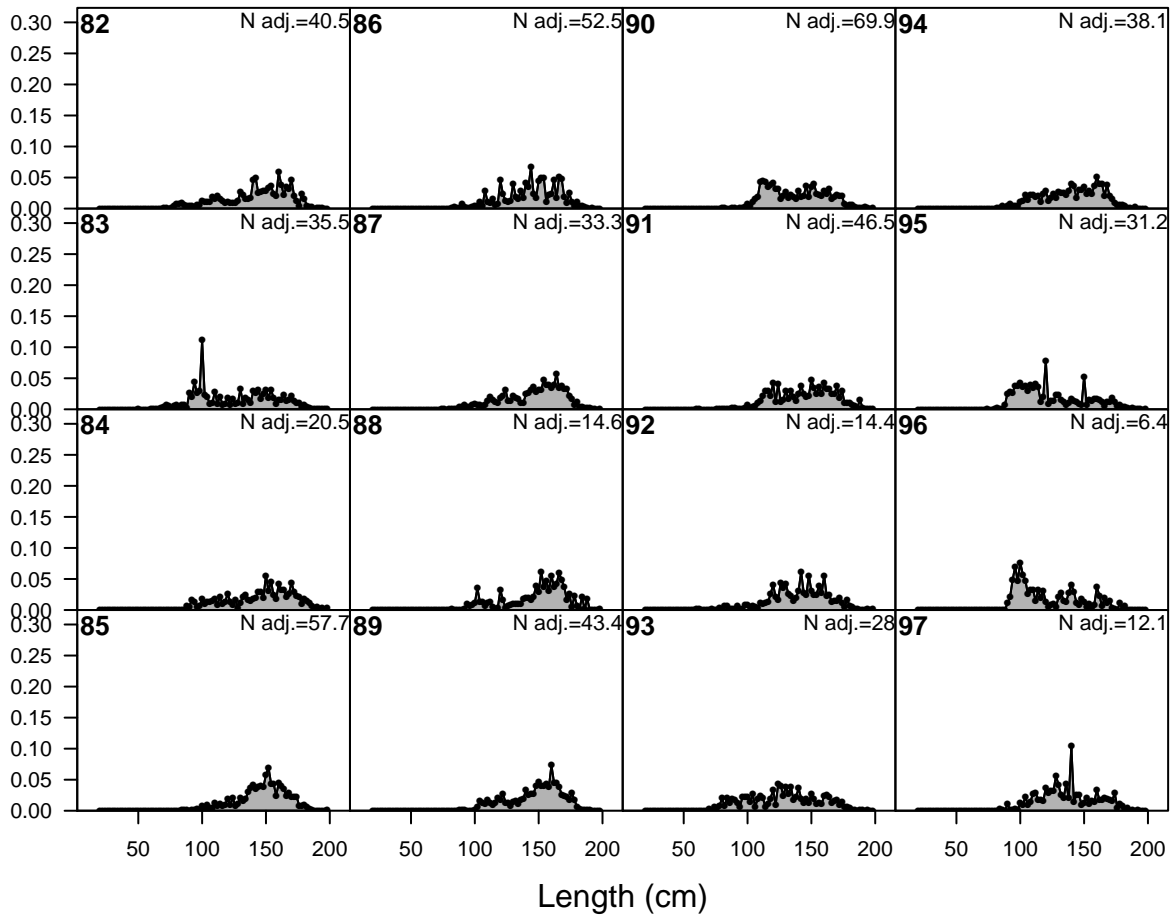
Proportion



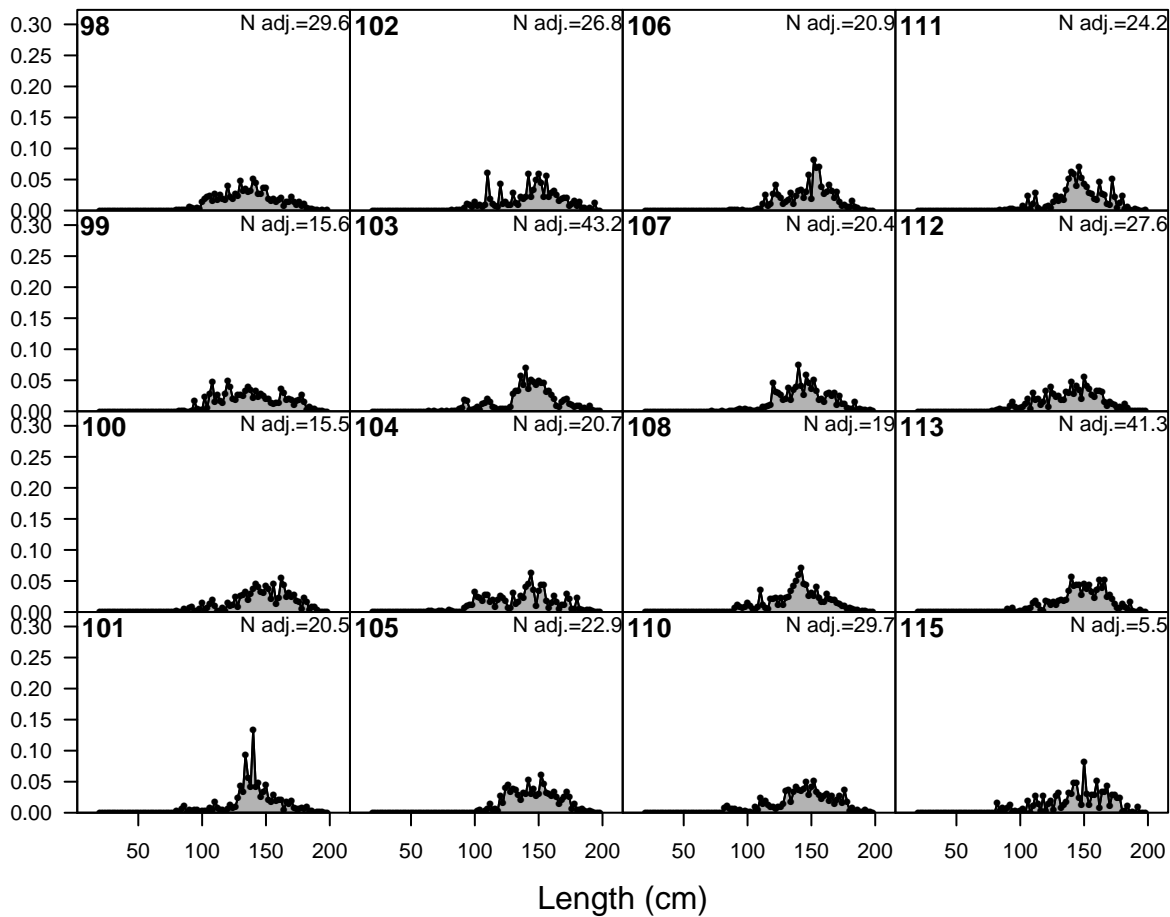
Proportion



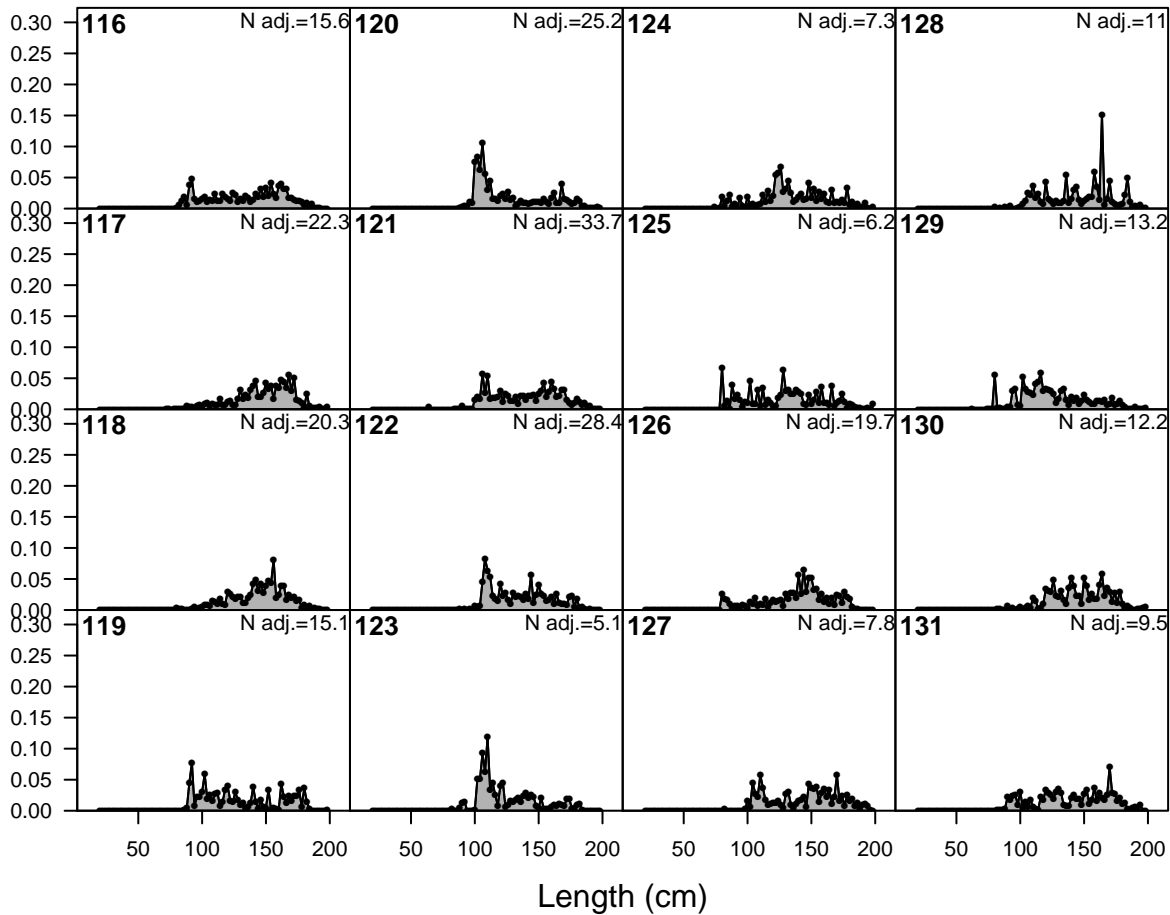
Proportion



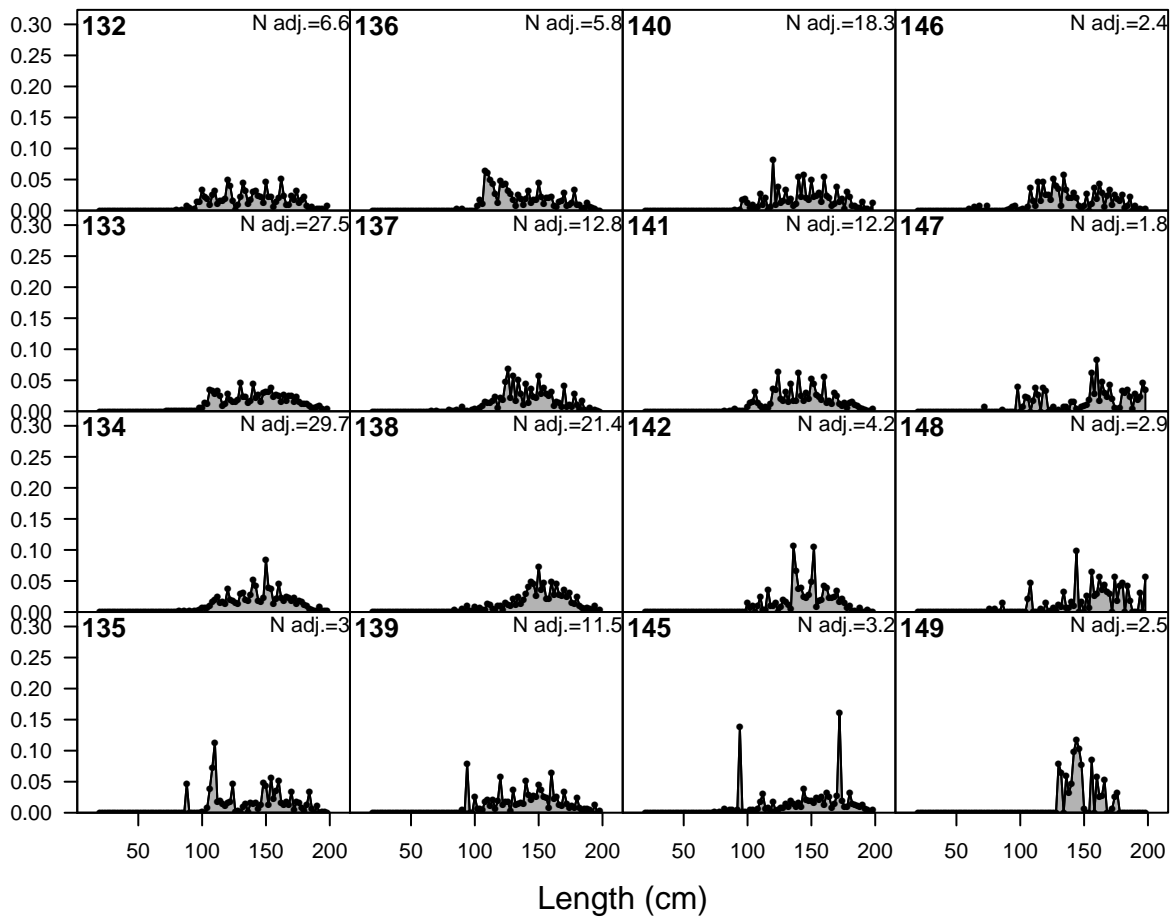
Proportion



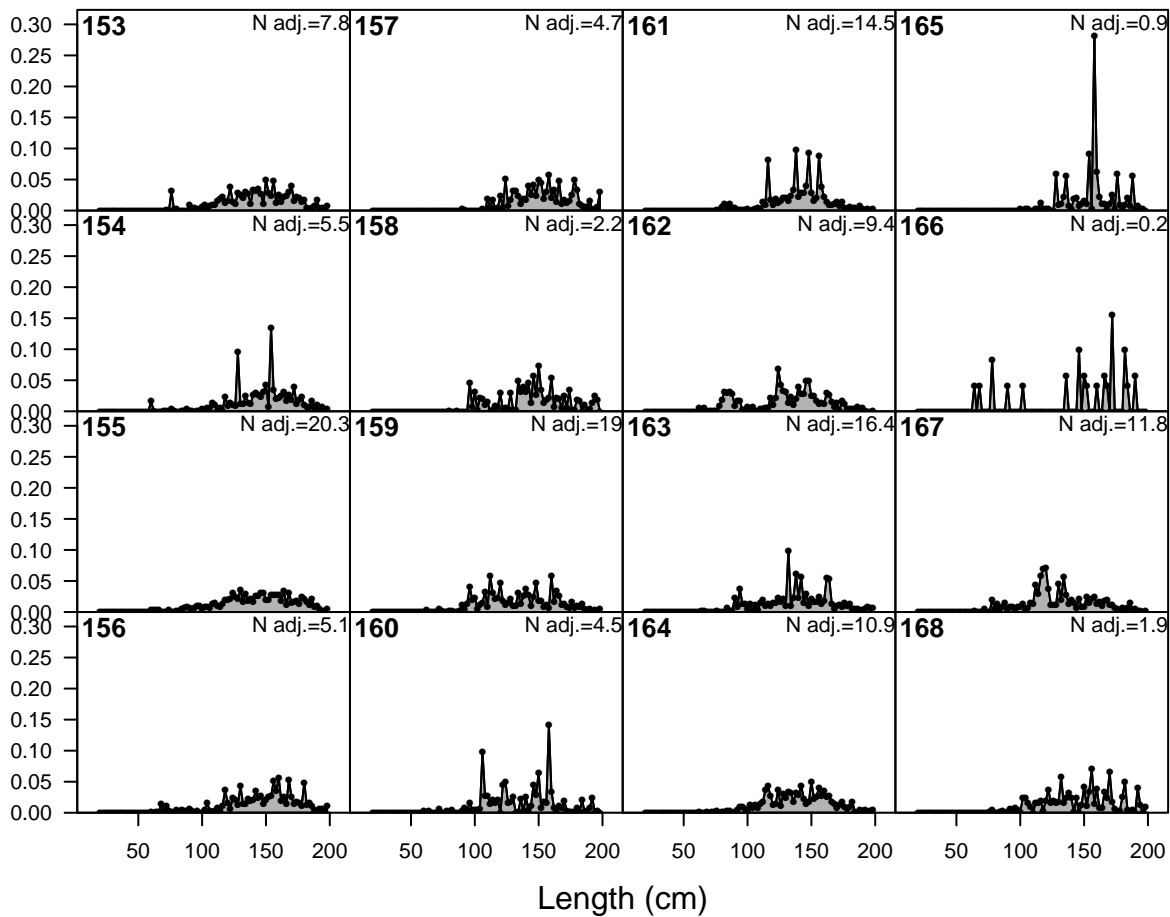
Proportion



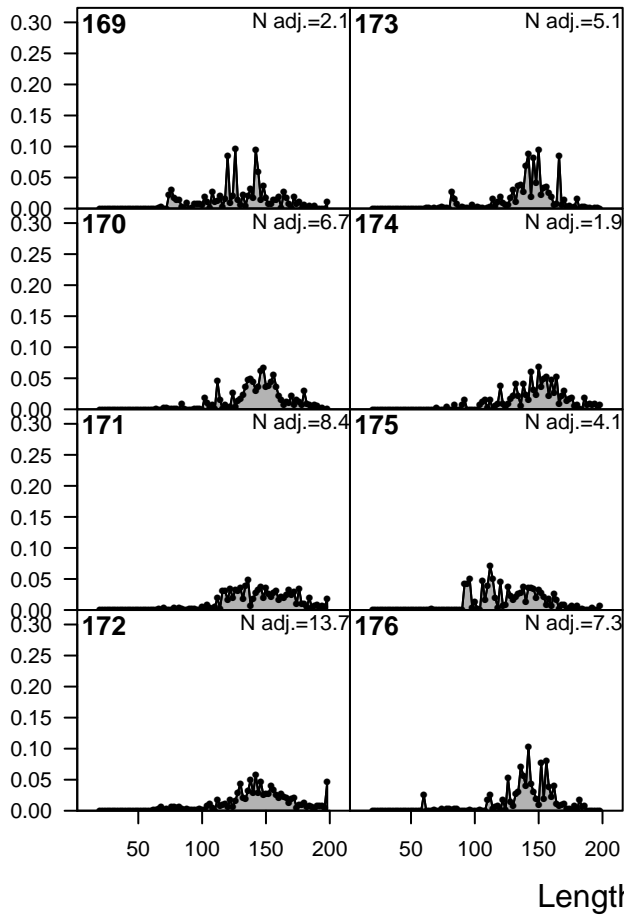
Proportion

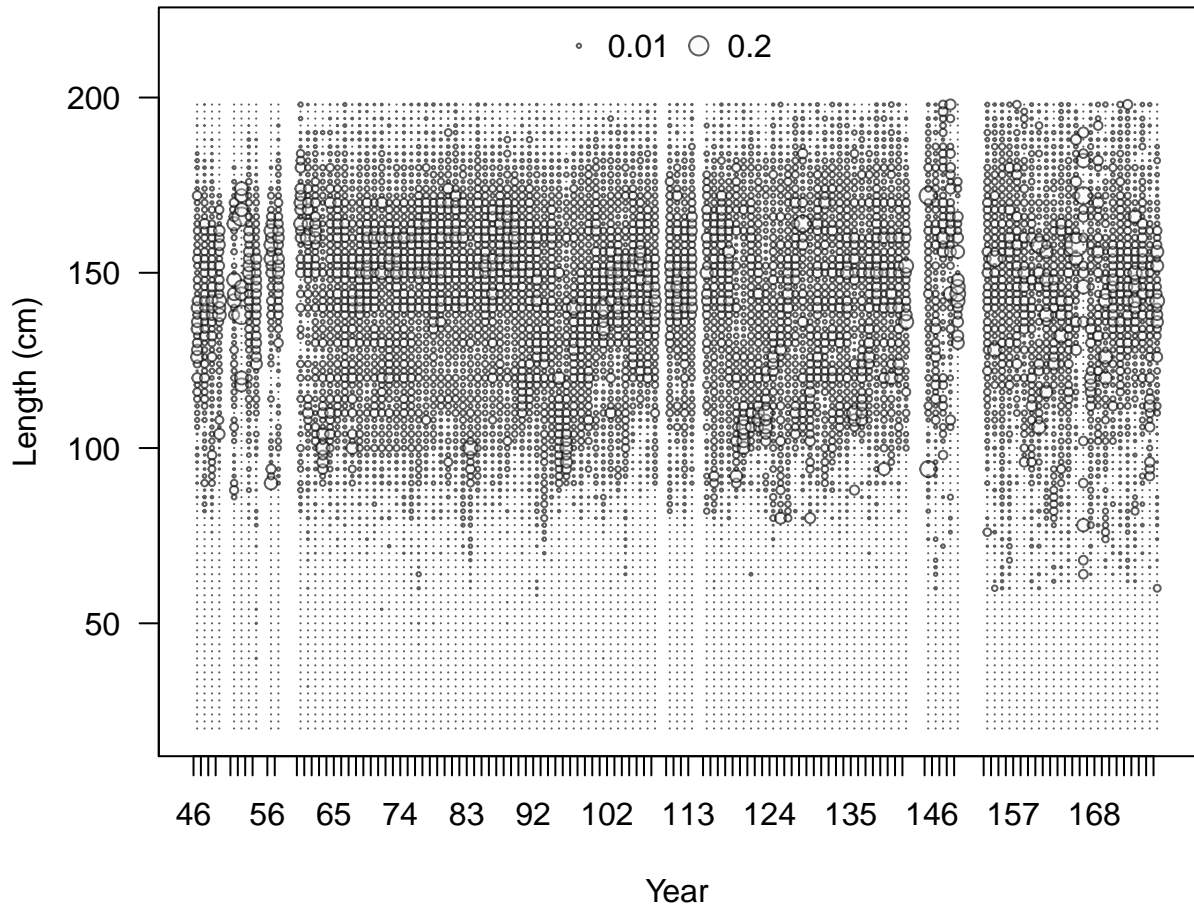


Proportion

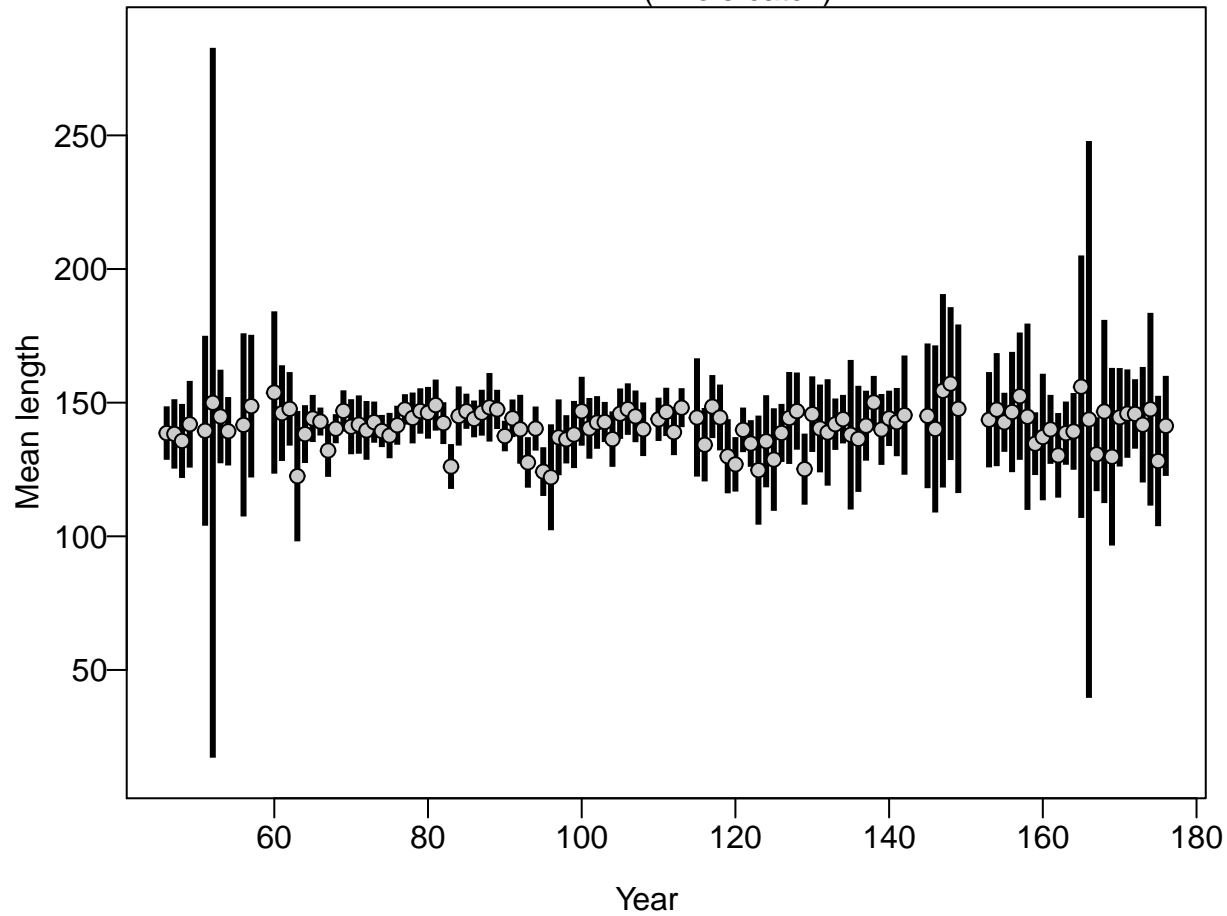


Proportion

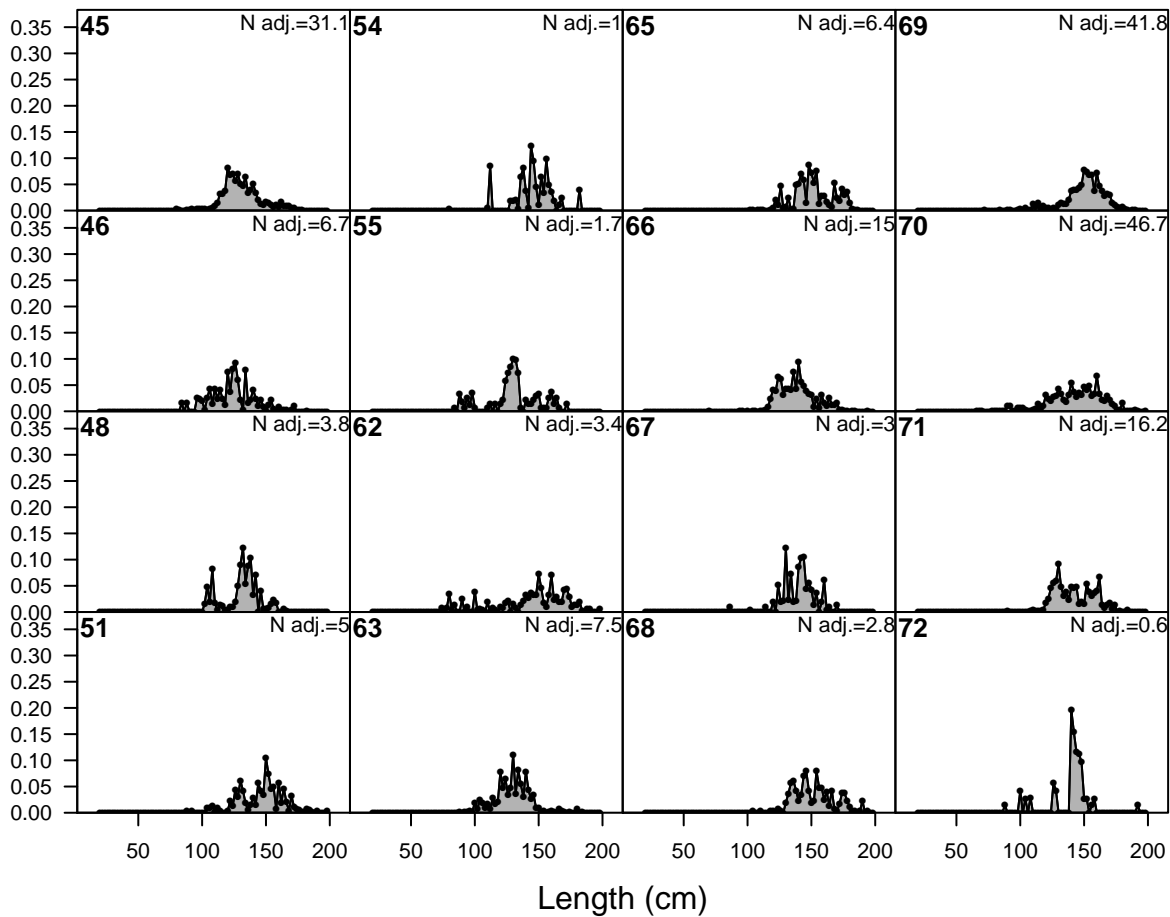




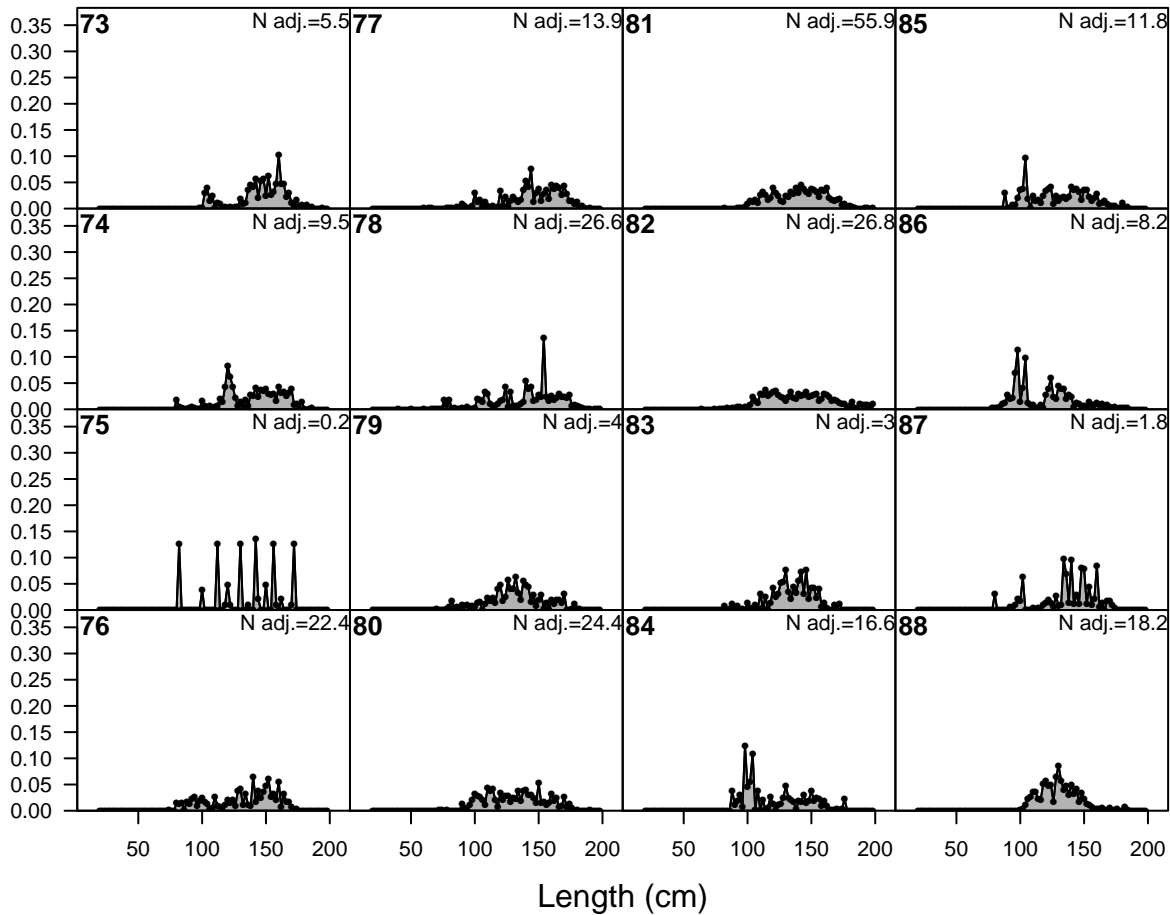
A2-LL-n (whole catch)



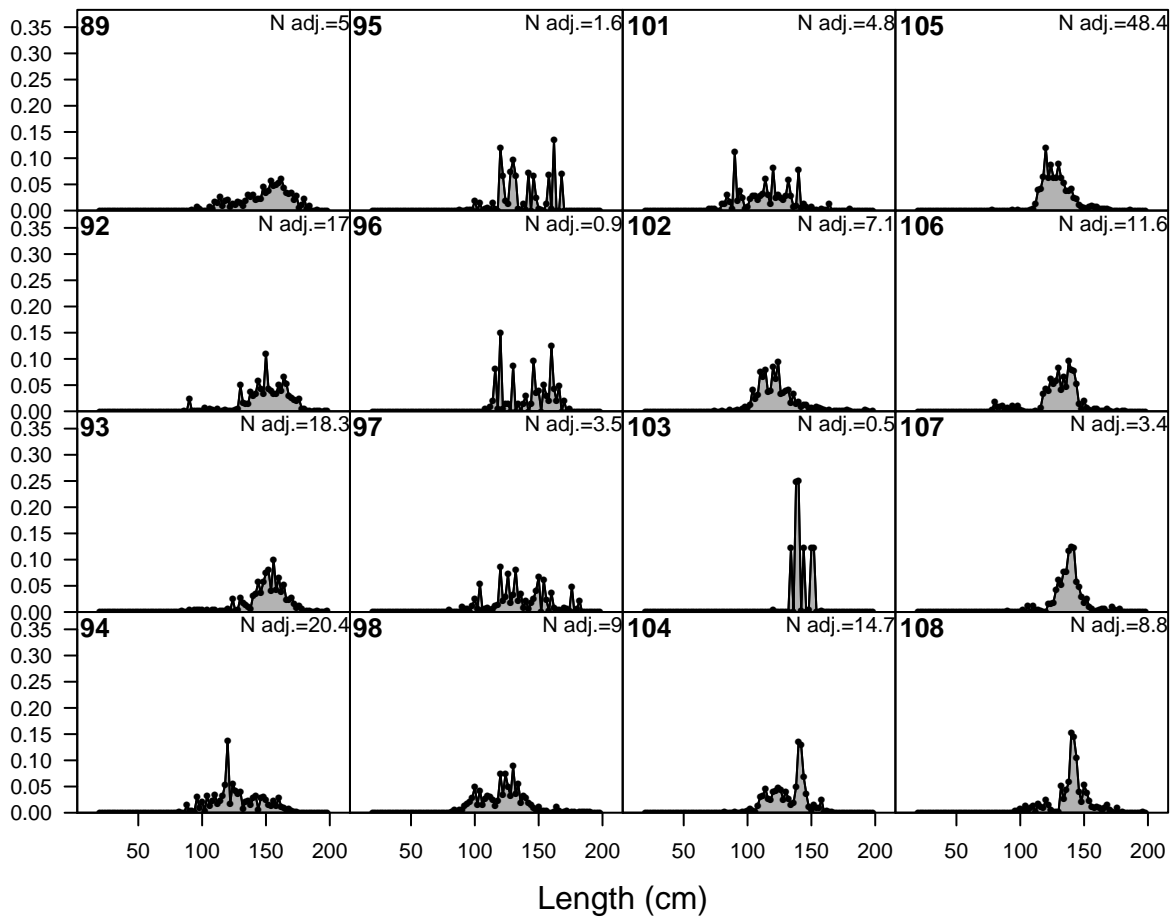
Proportion



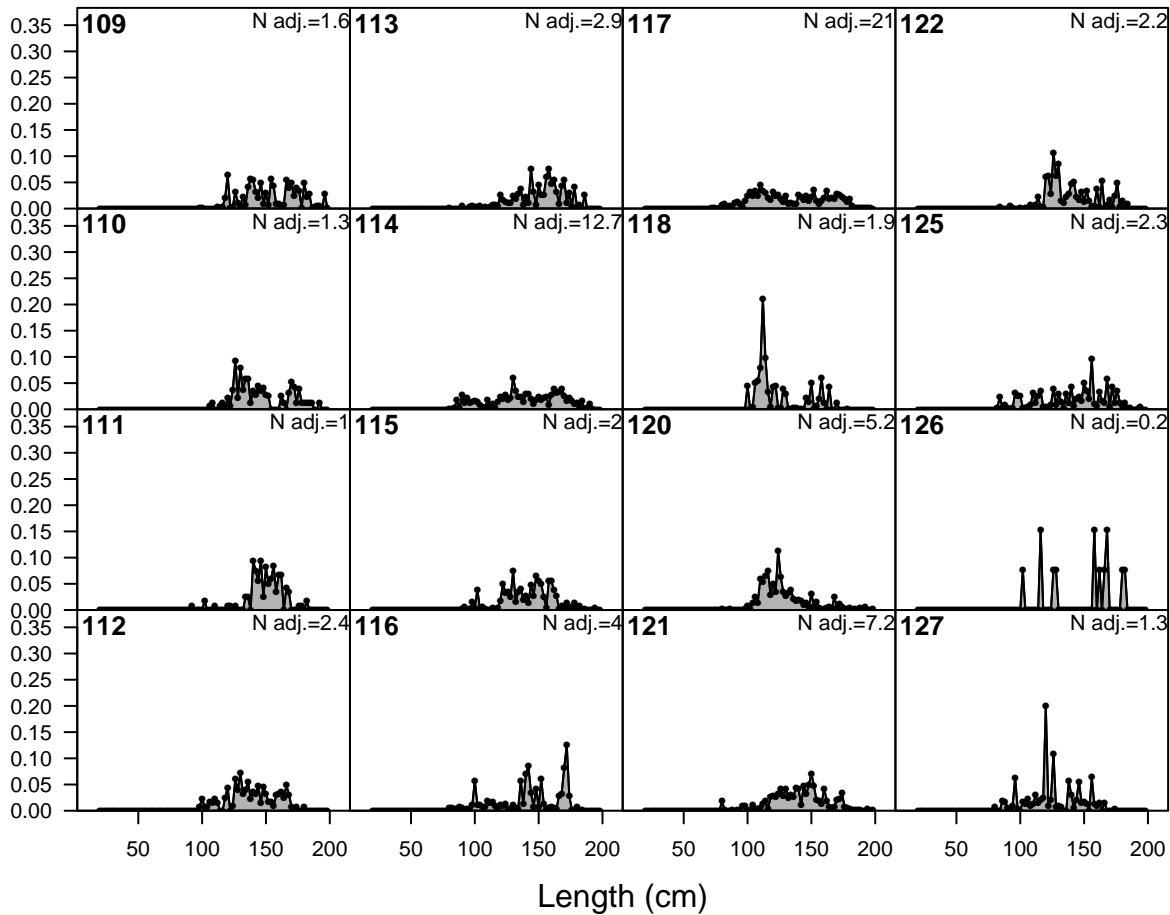
Proportion



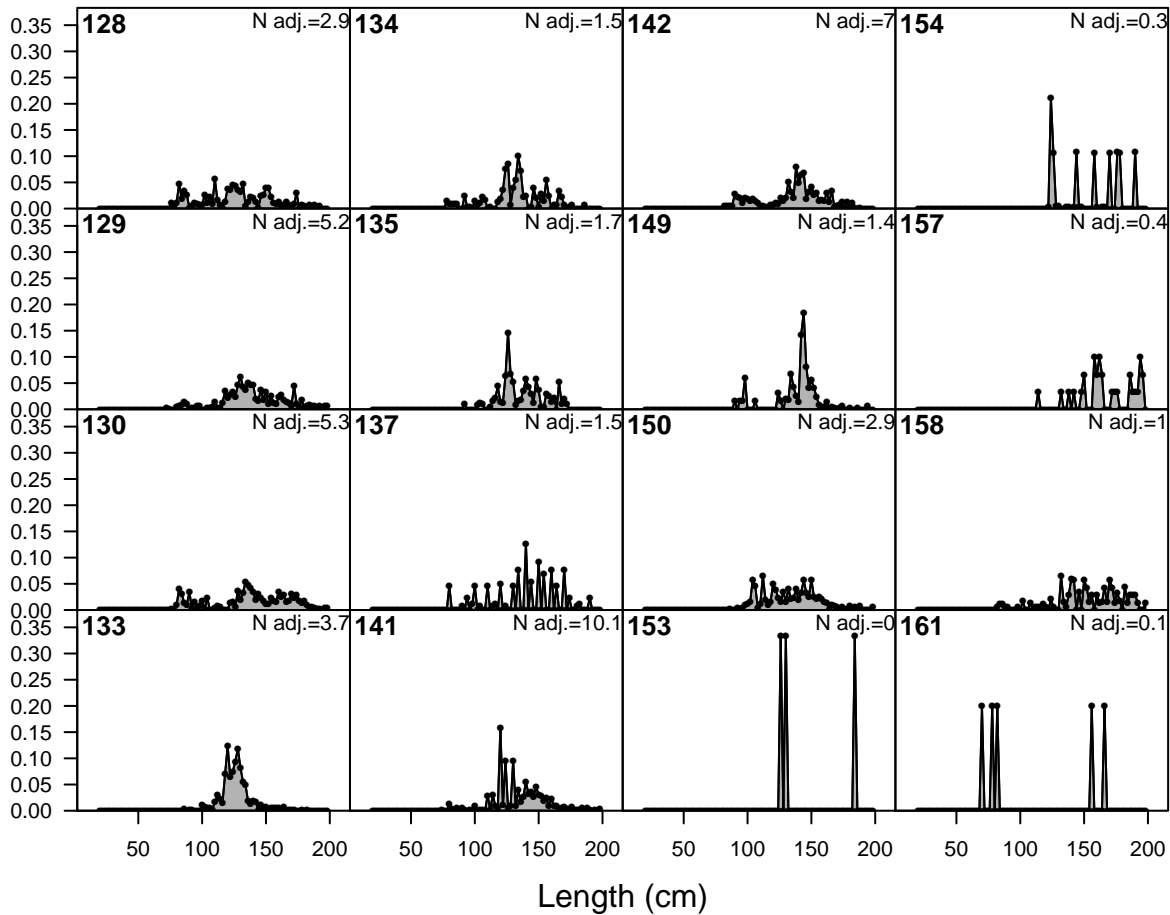
Proportion



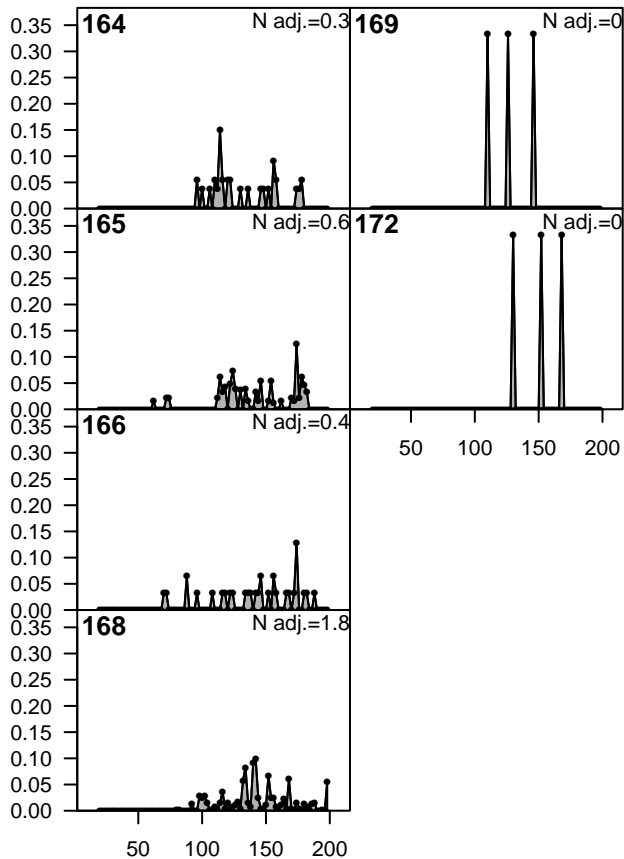
Proportion



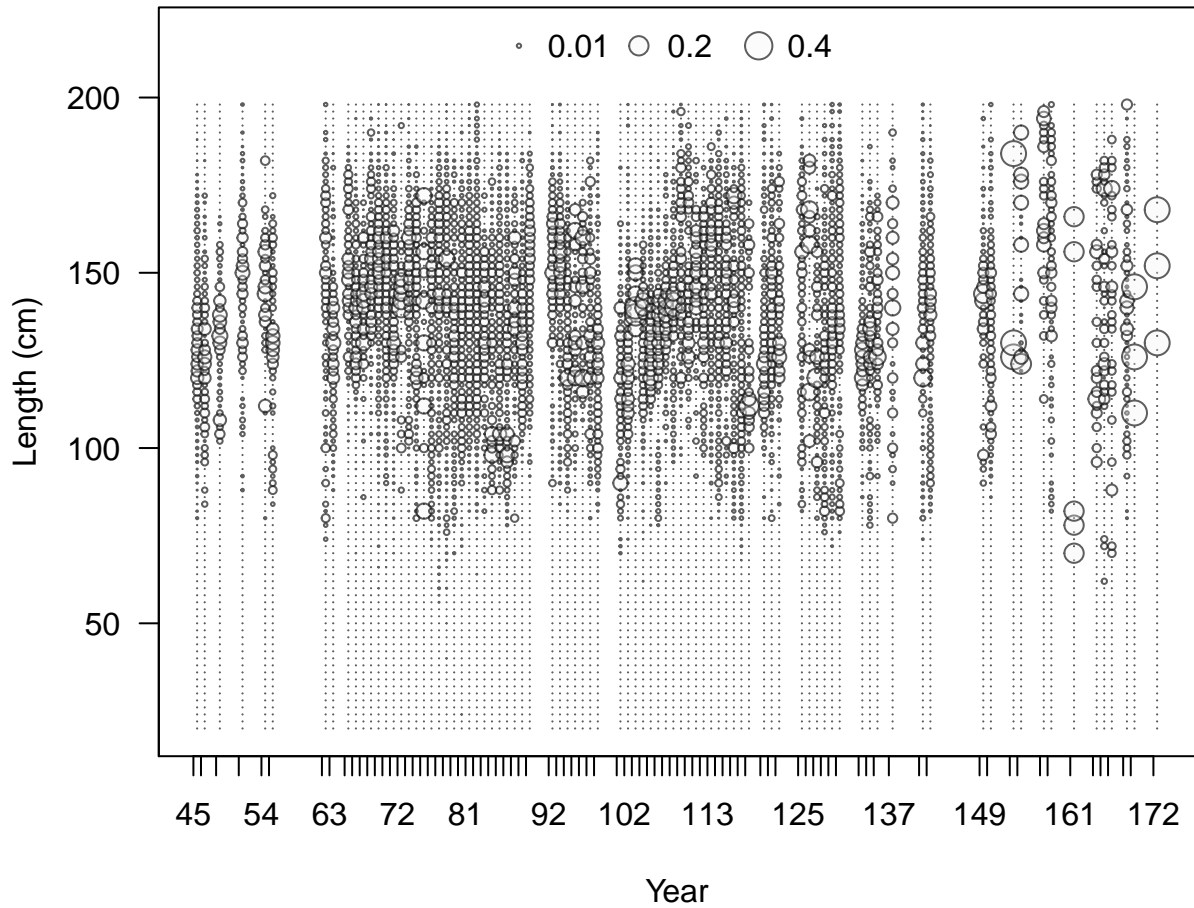
Proportion



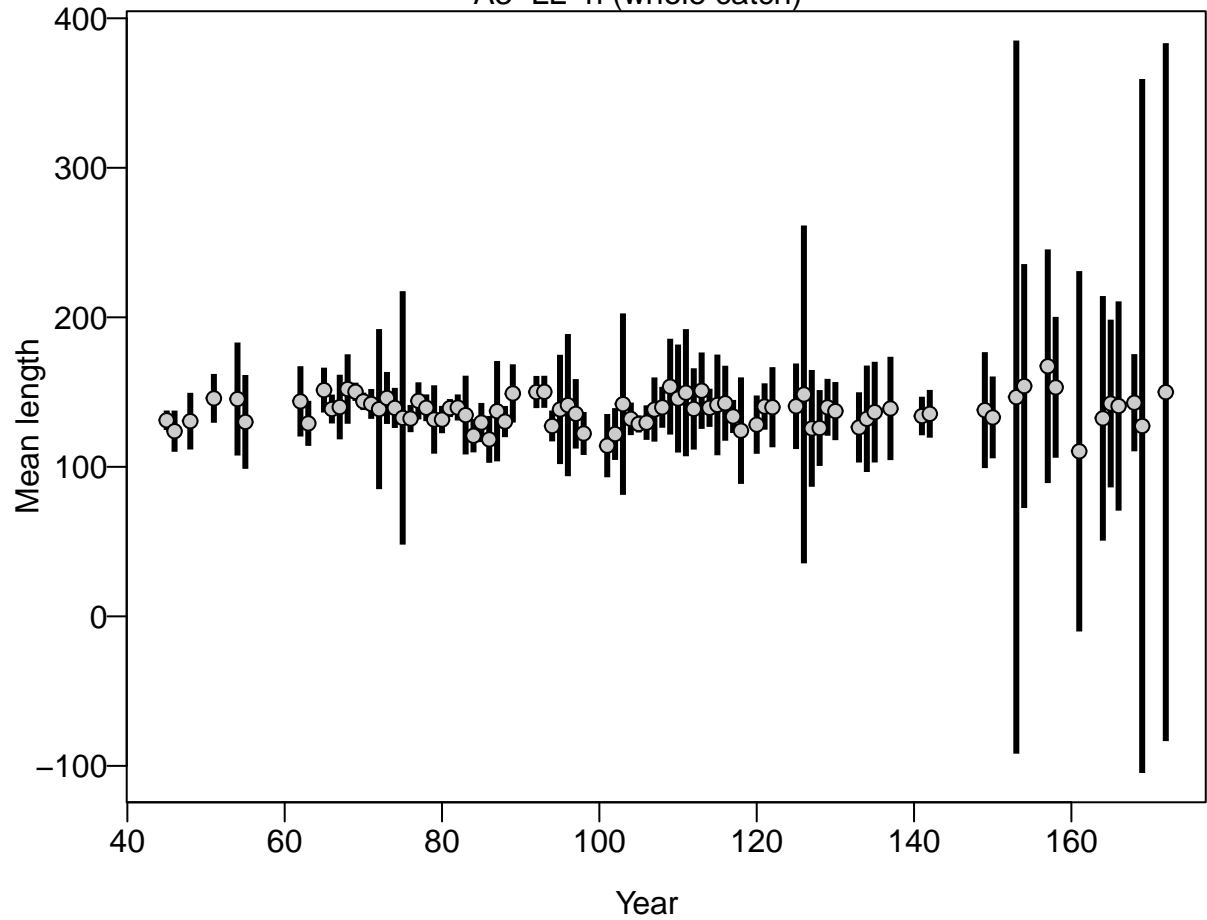
Proportion



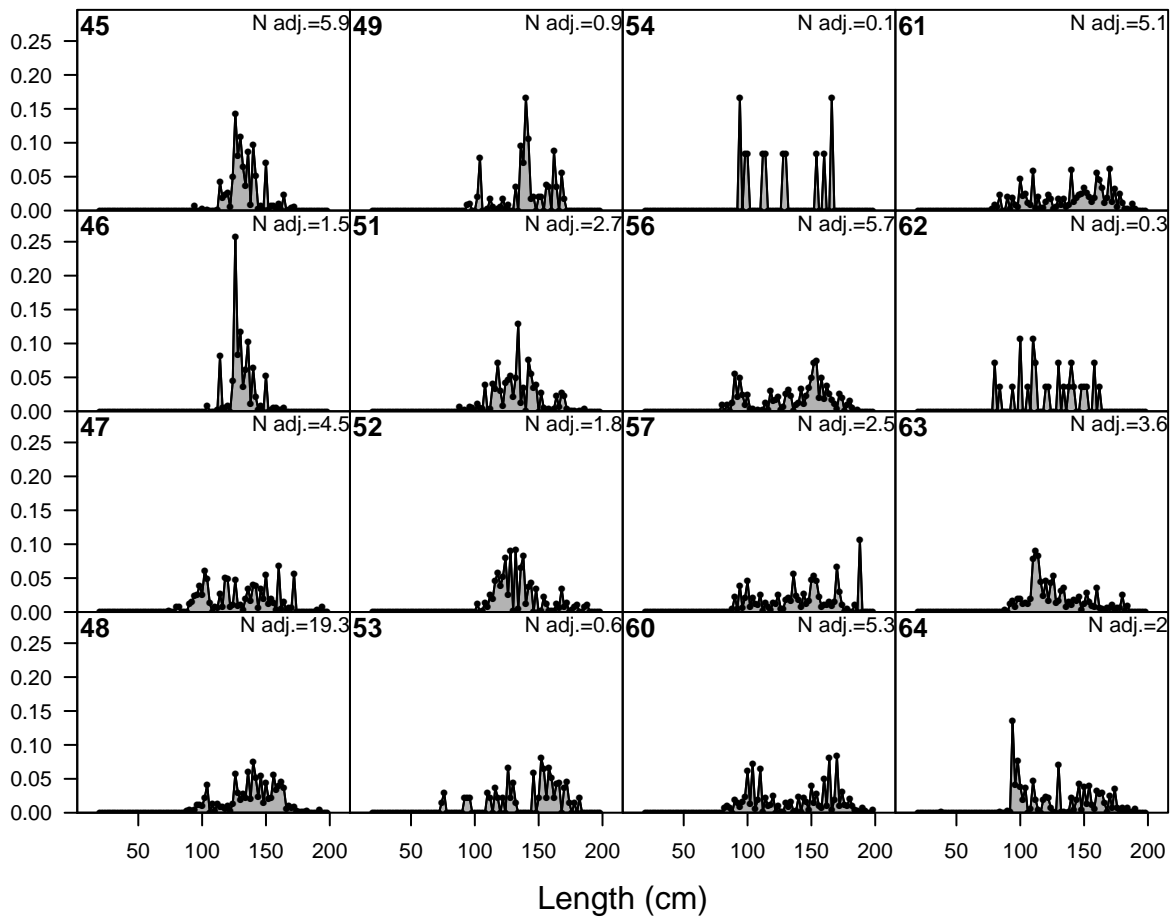
Length (cm)



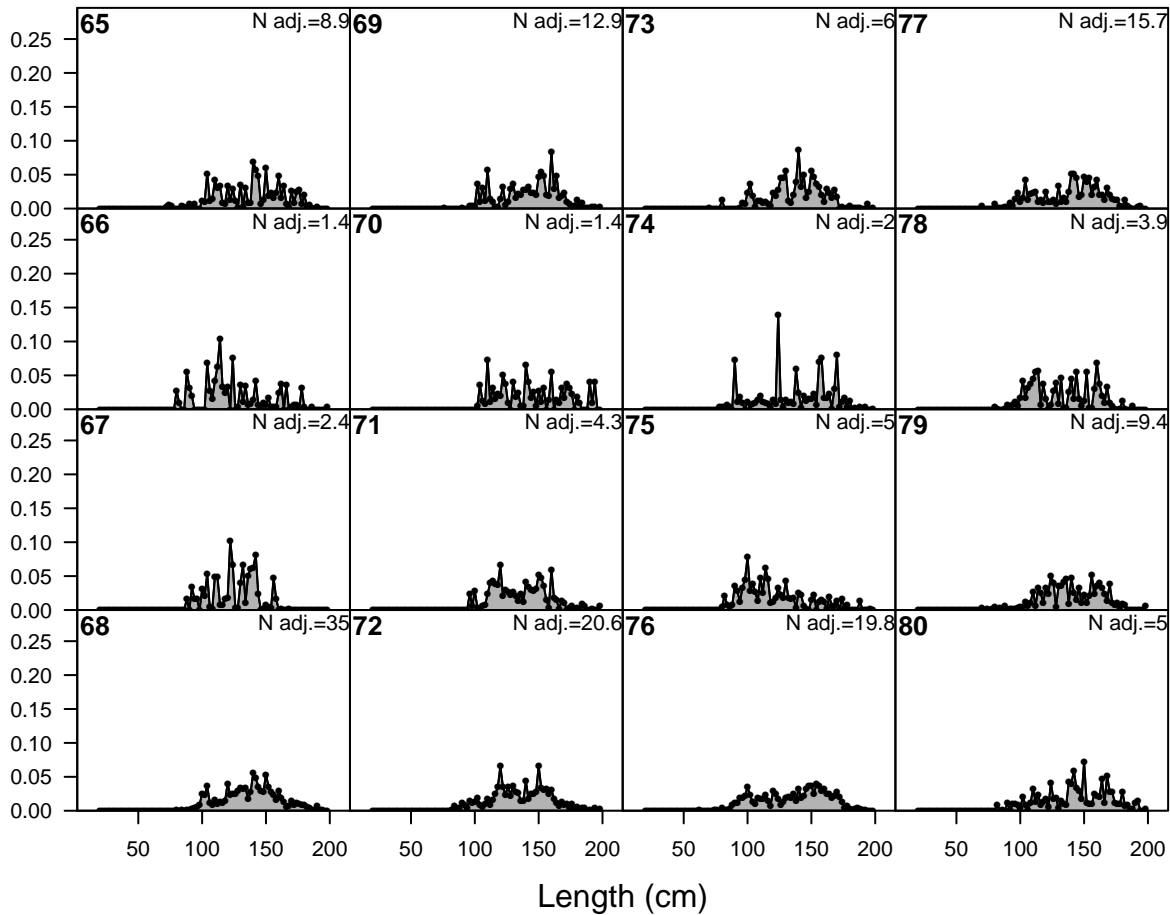
A3-LL-n (whole catch)



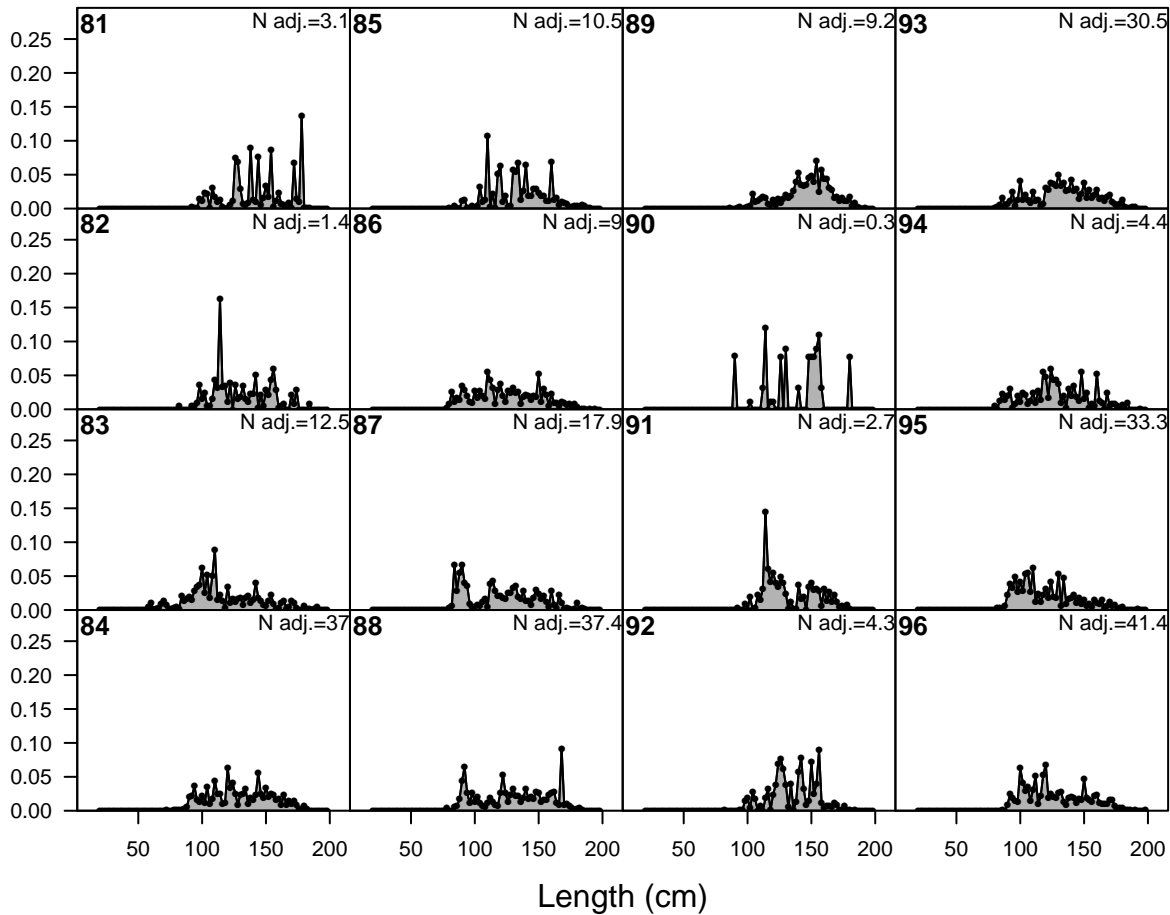
Proportion



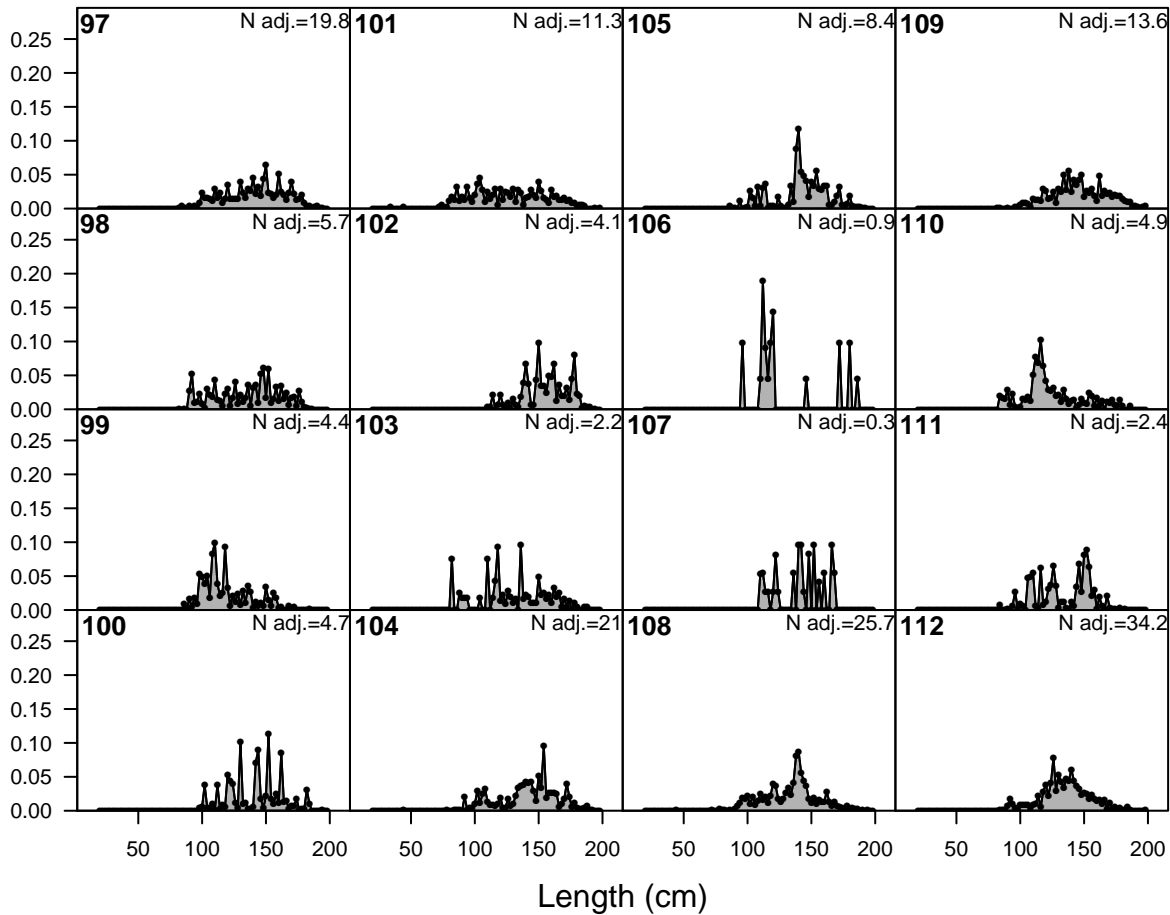
Proportion



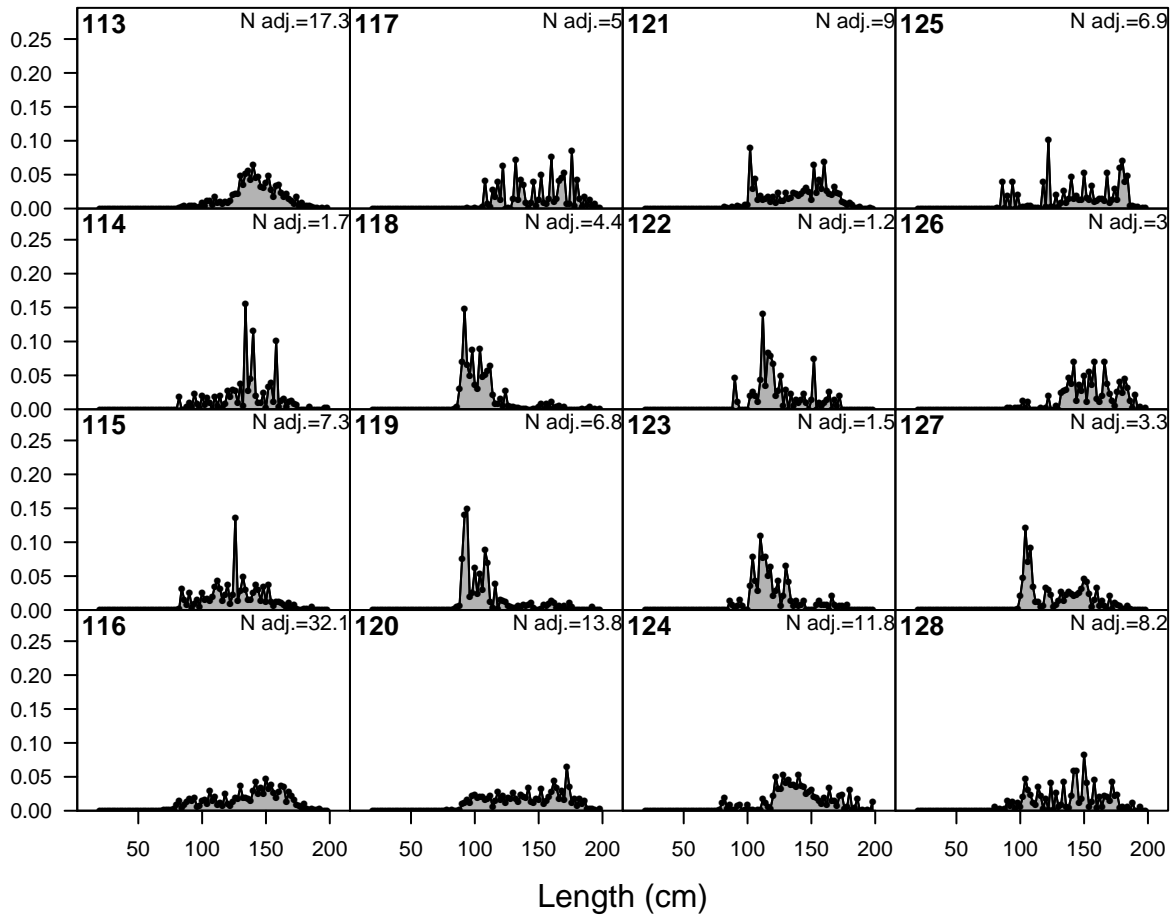
Proportion



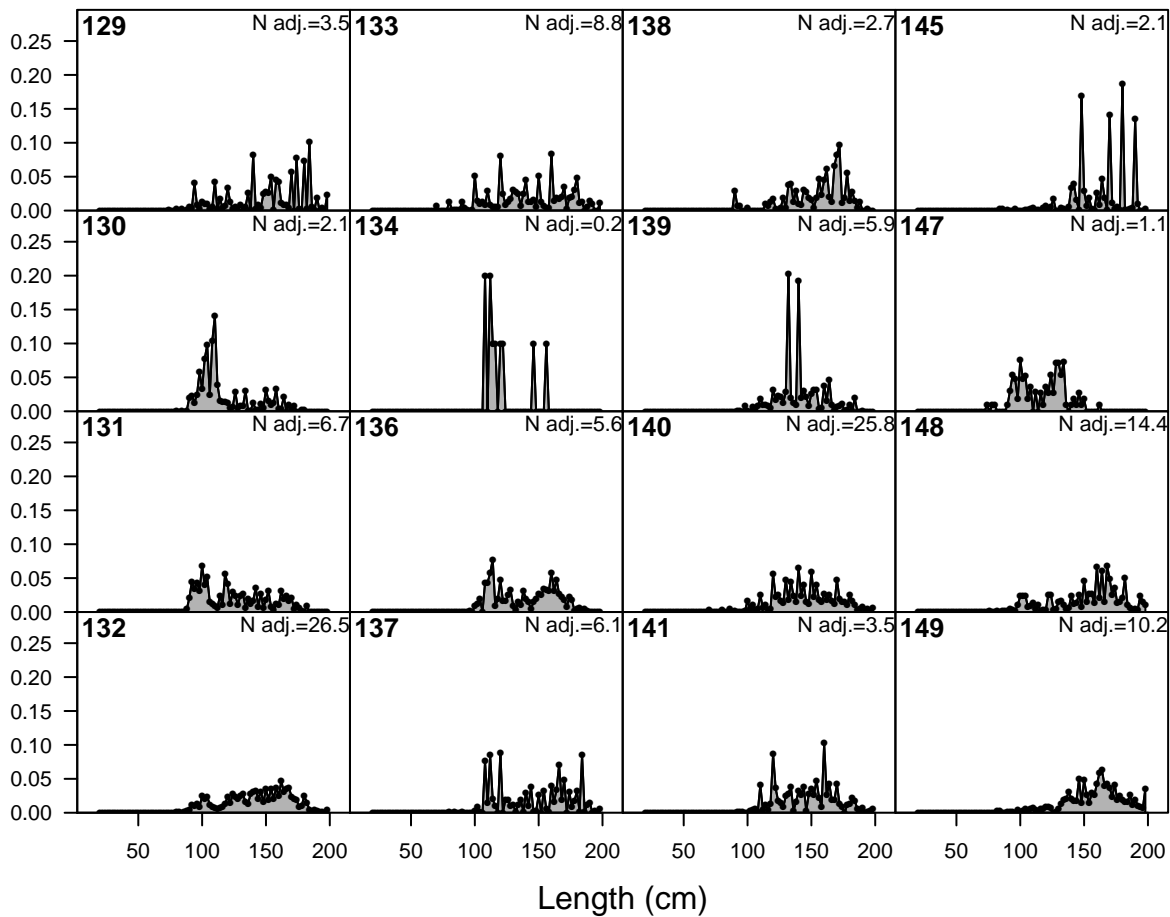
Proportion



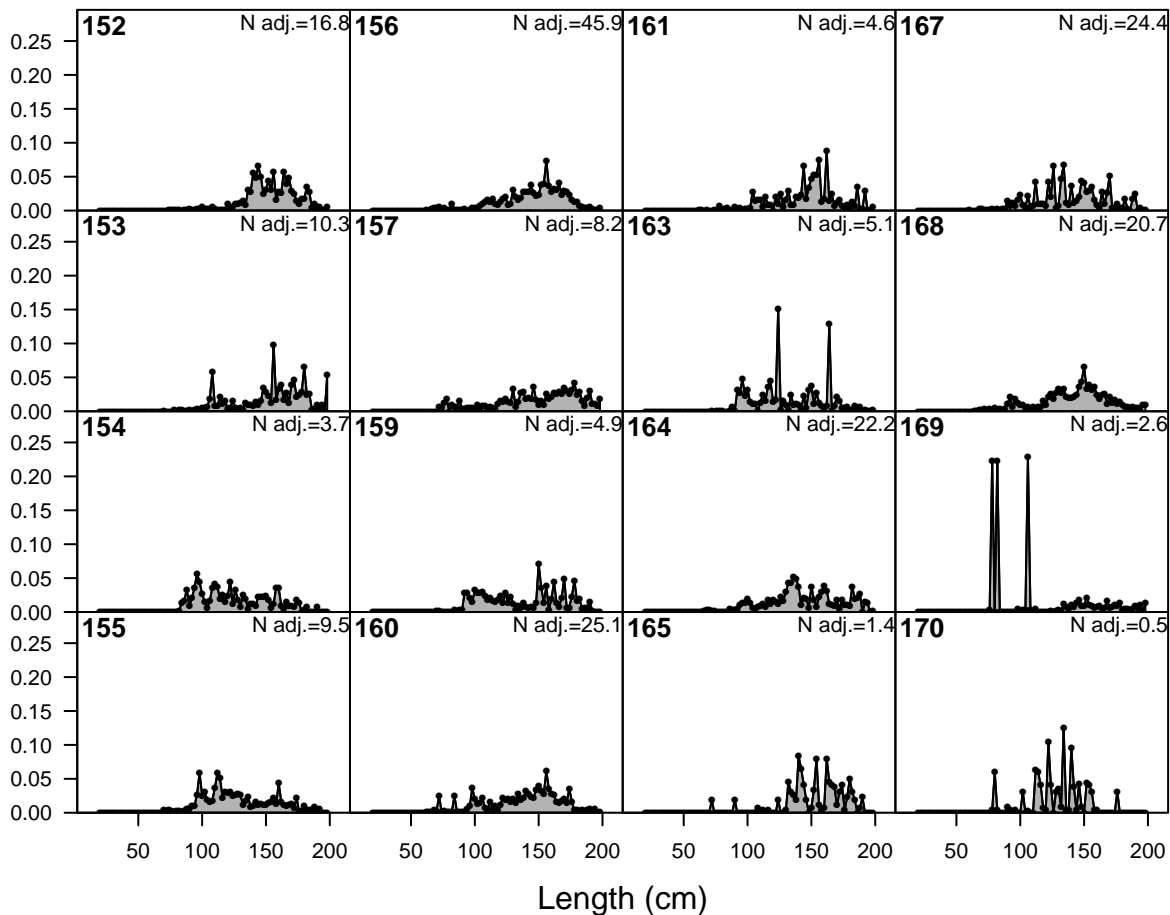
Proportion



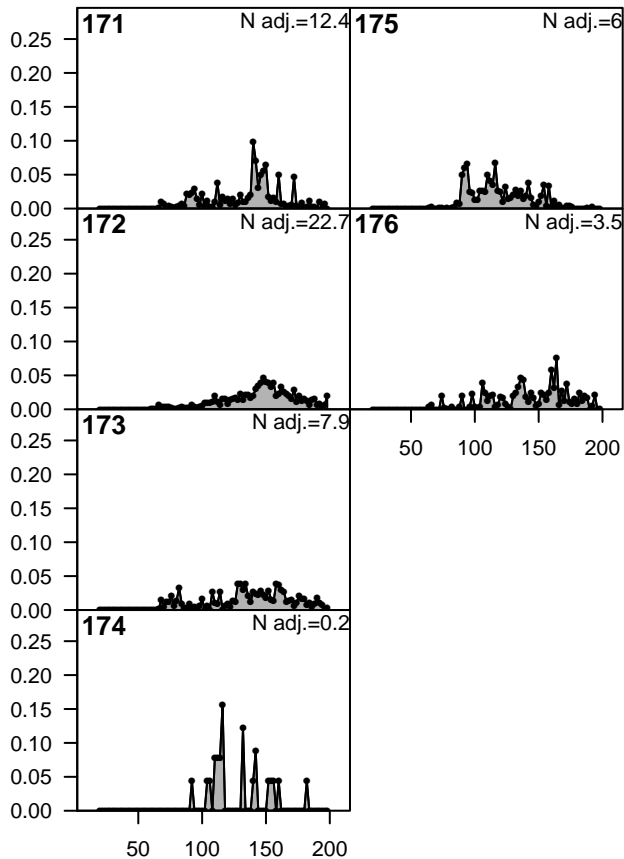
Proportion



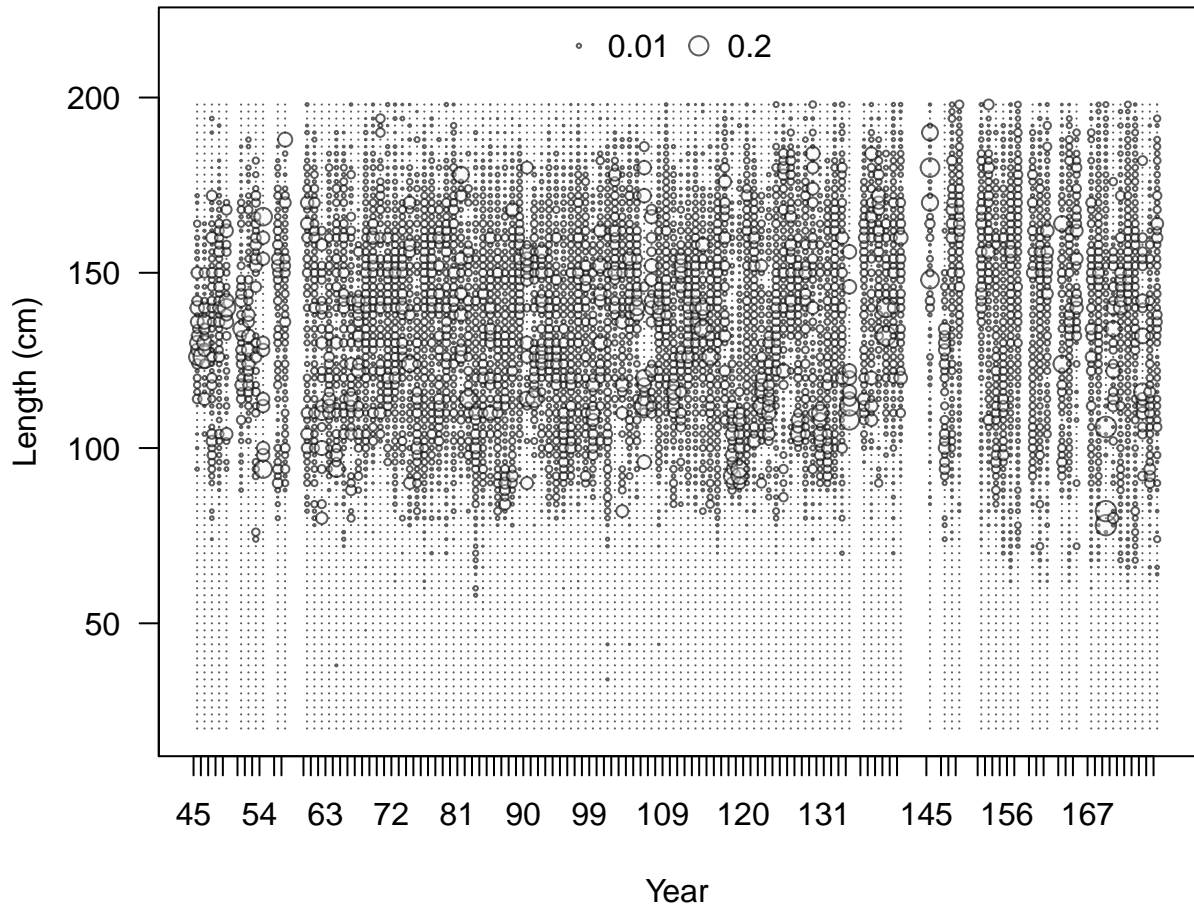
Proportion



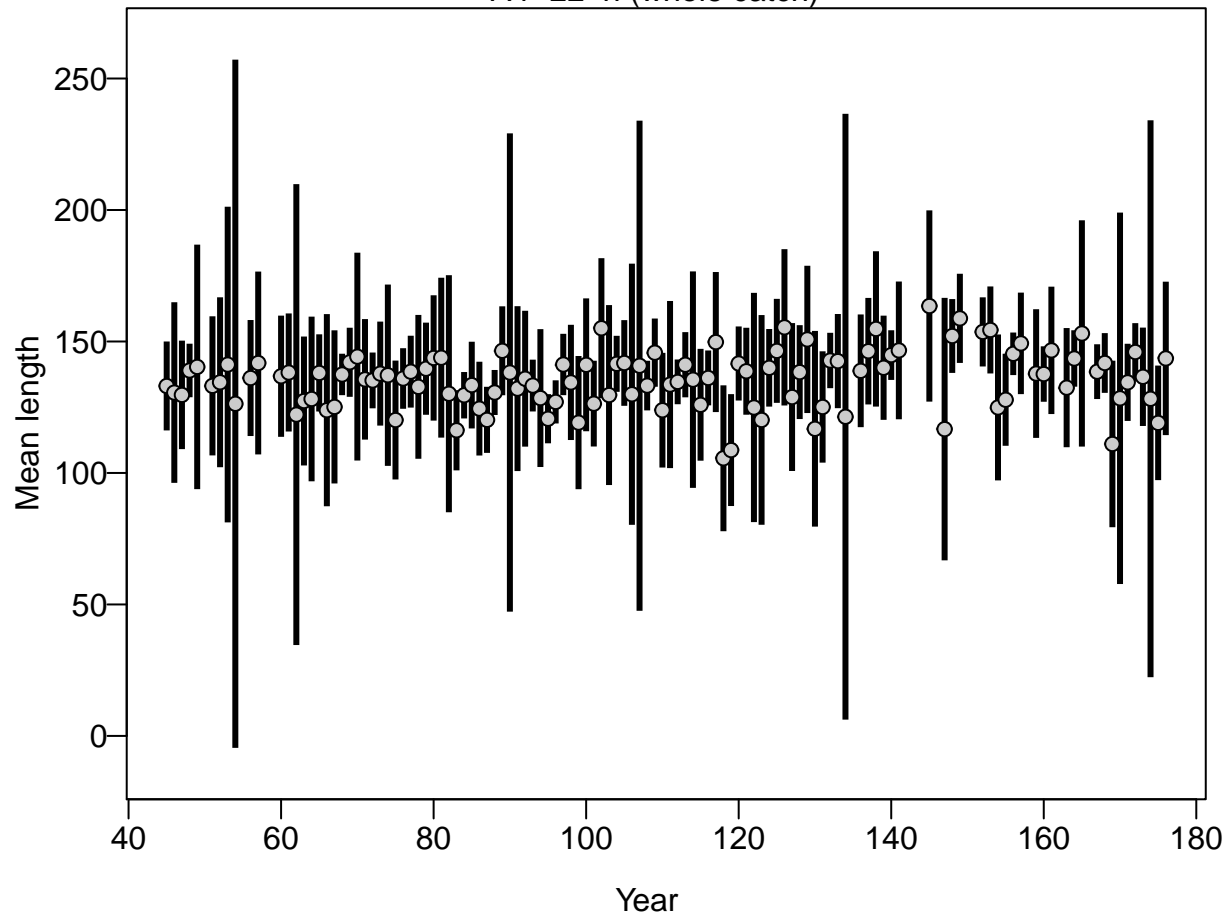
Proportion



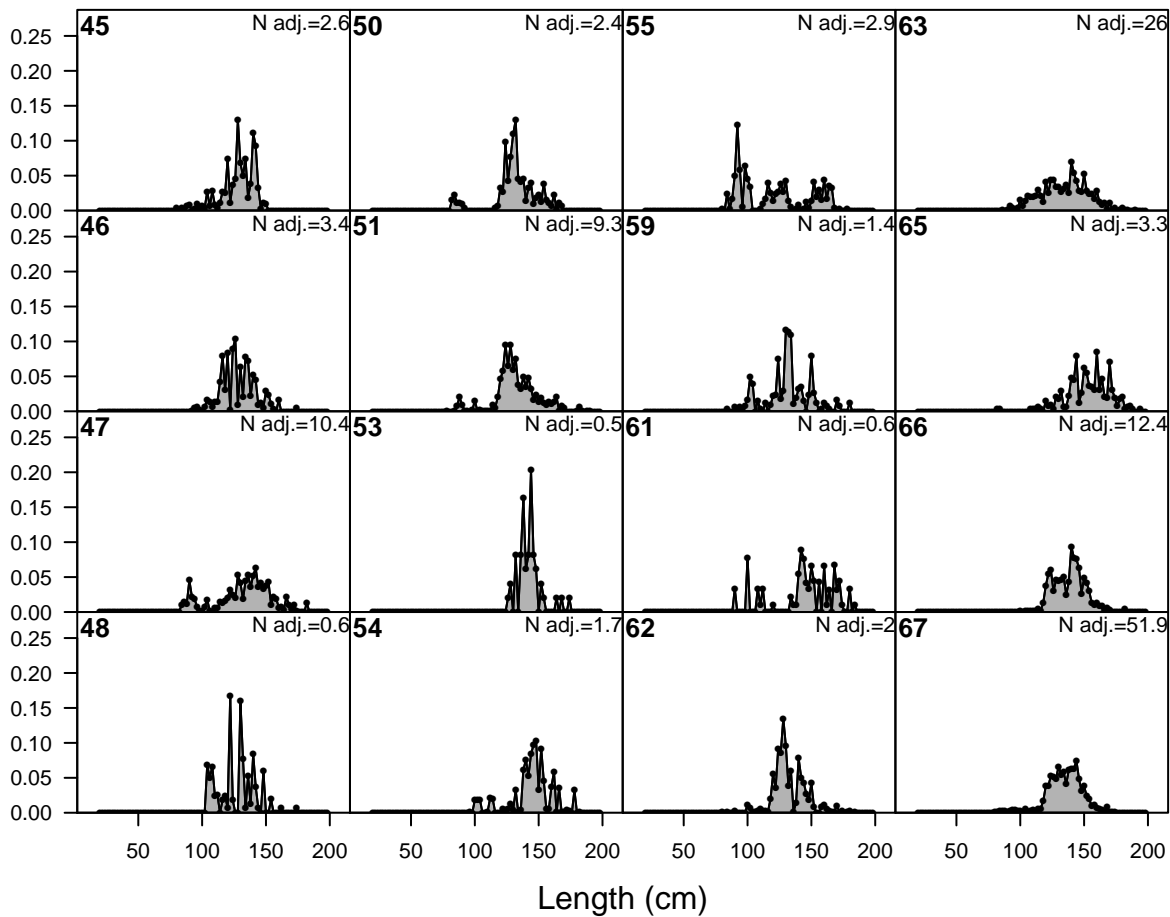
Length (cm)



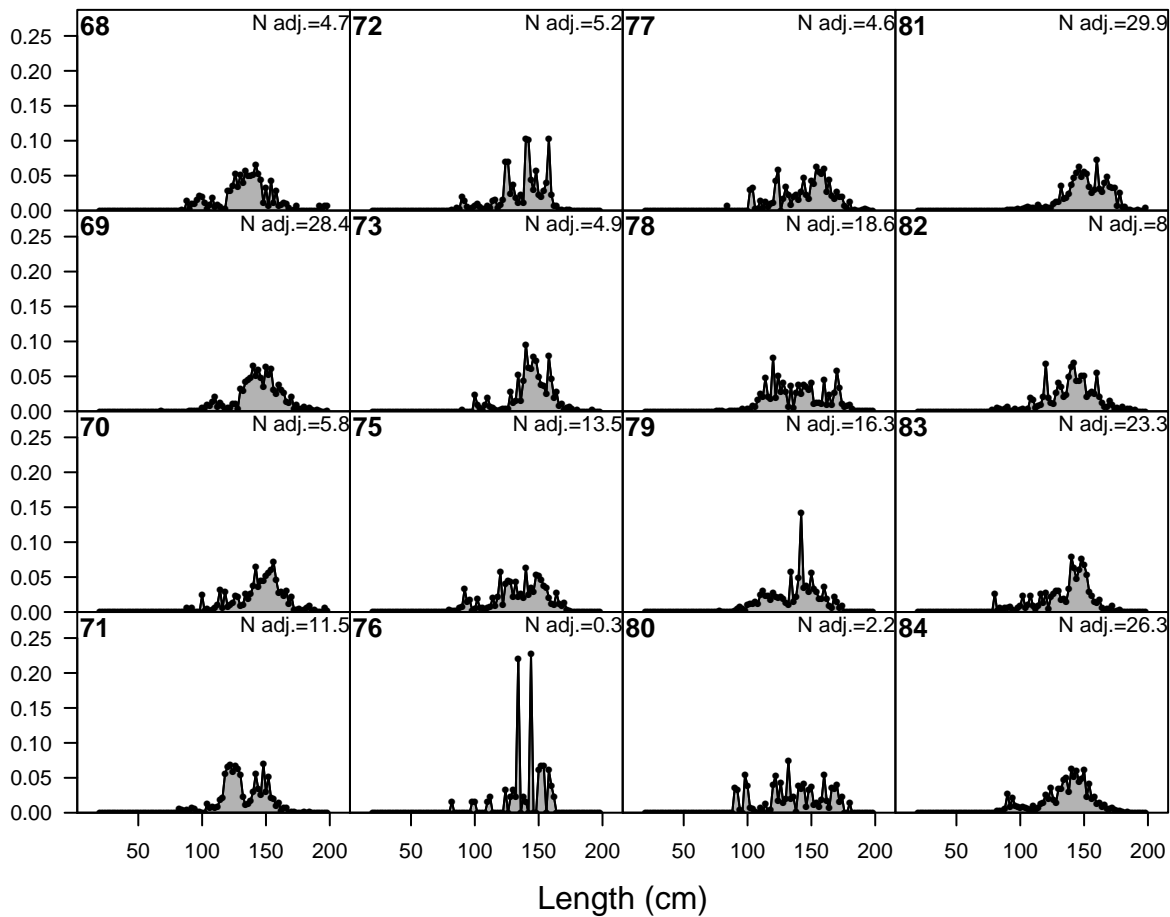
A4-LL-n (whole catch)



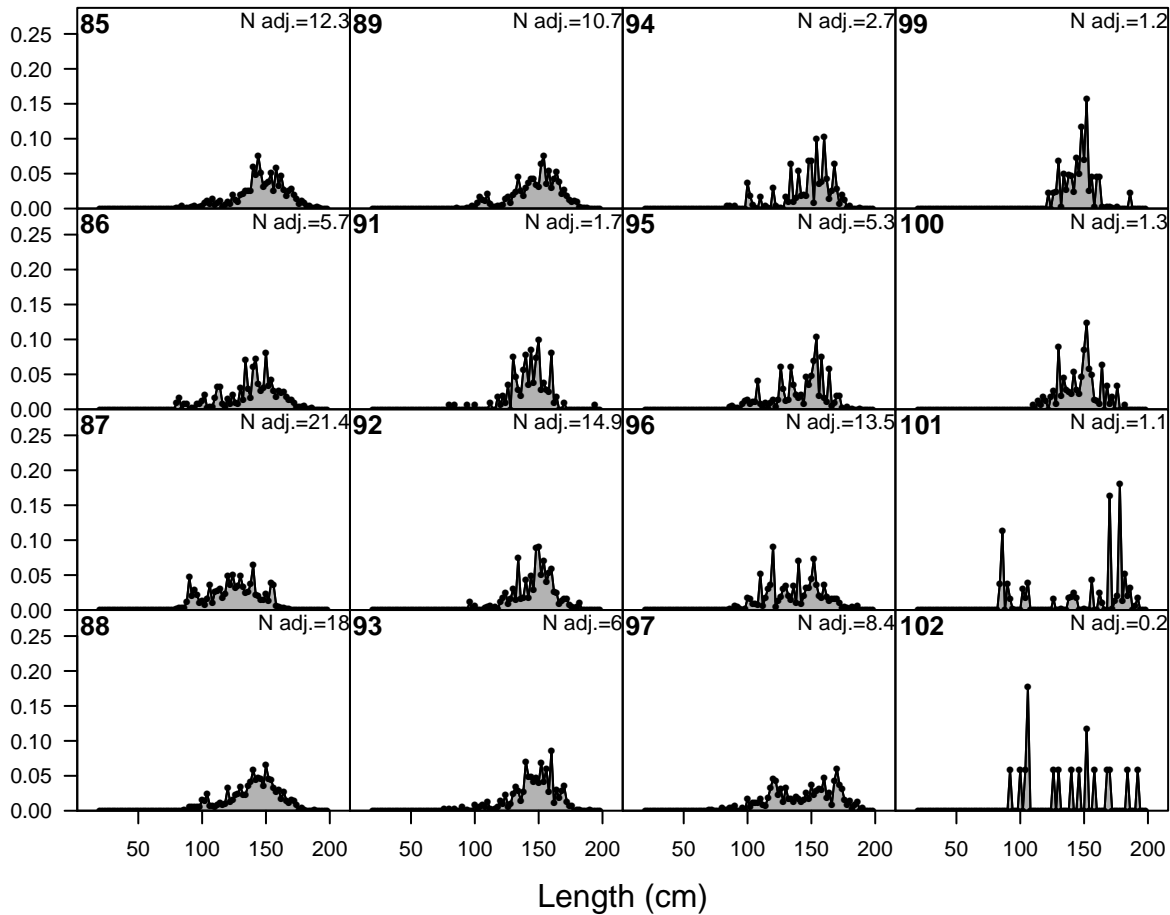
Proportion



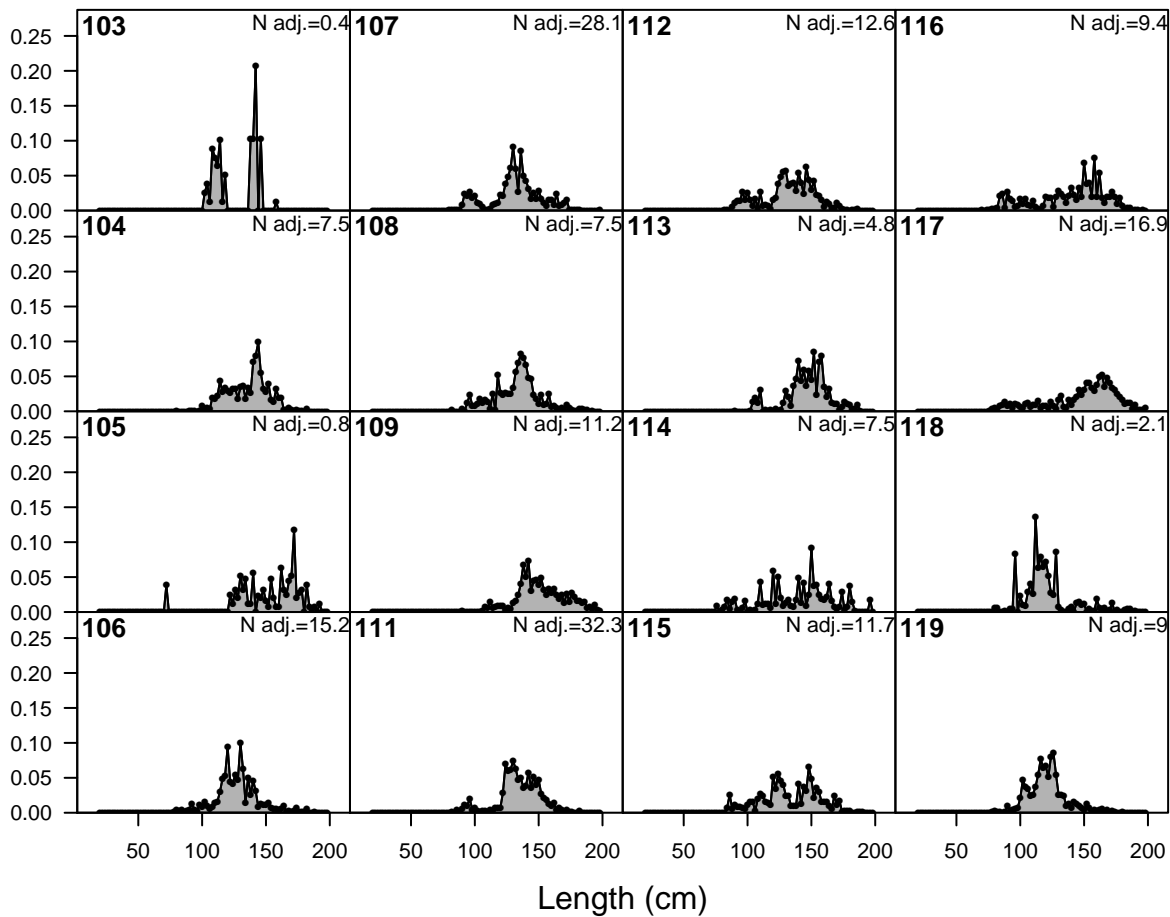
Proportion



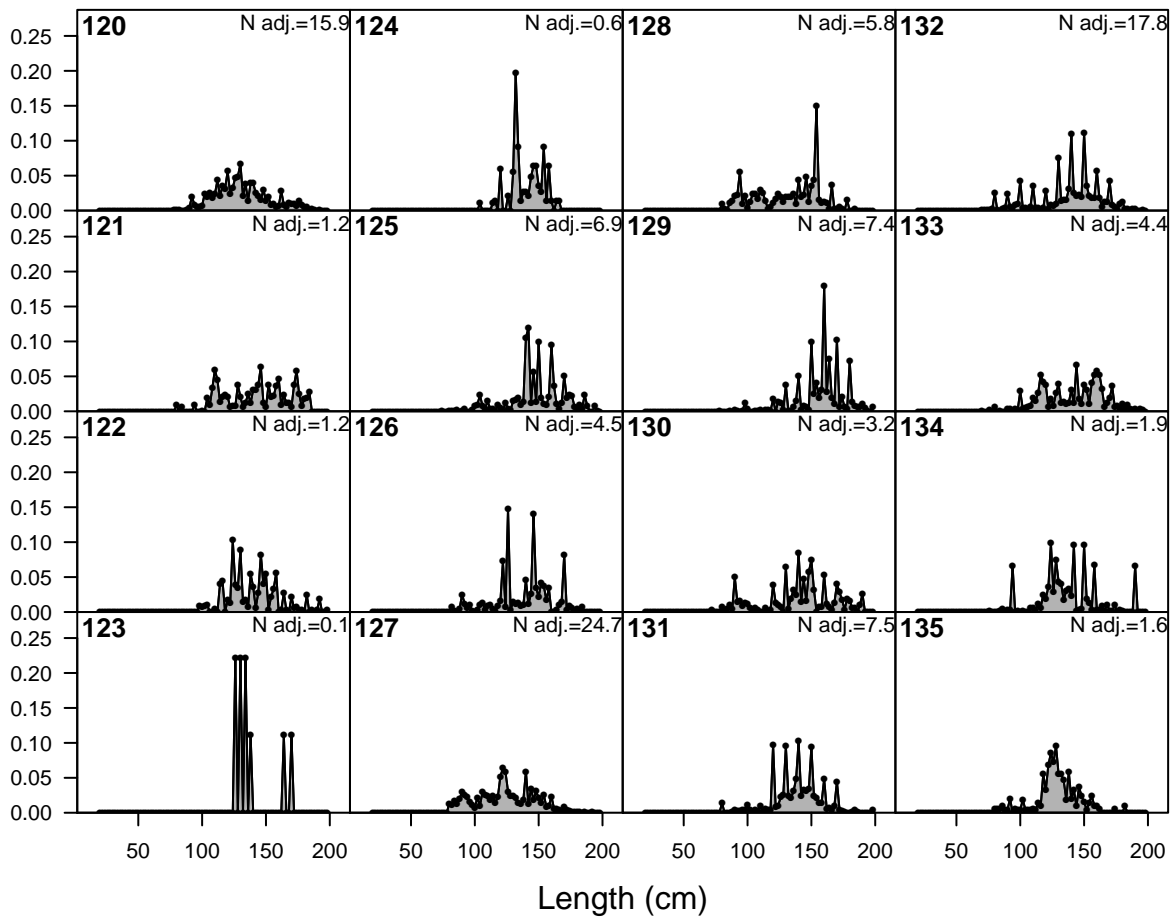
Proportion



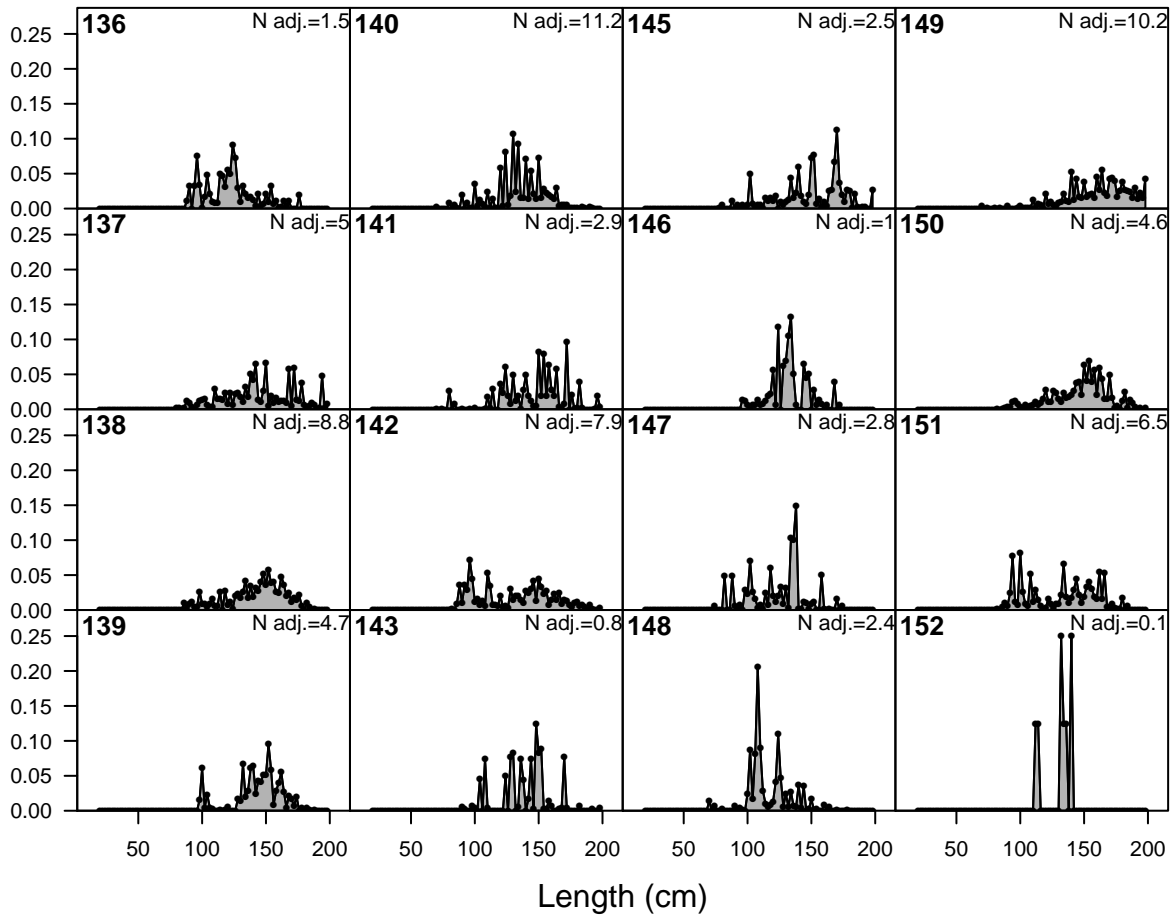
Proportion



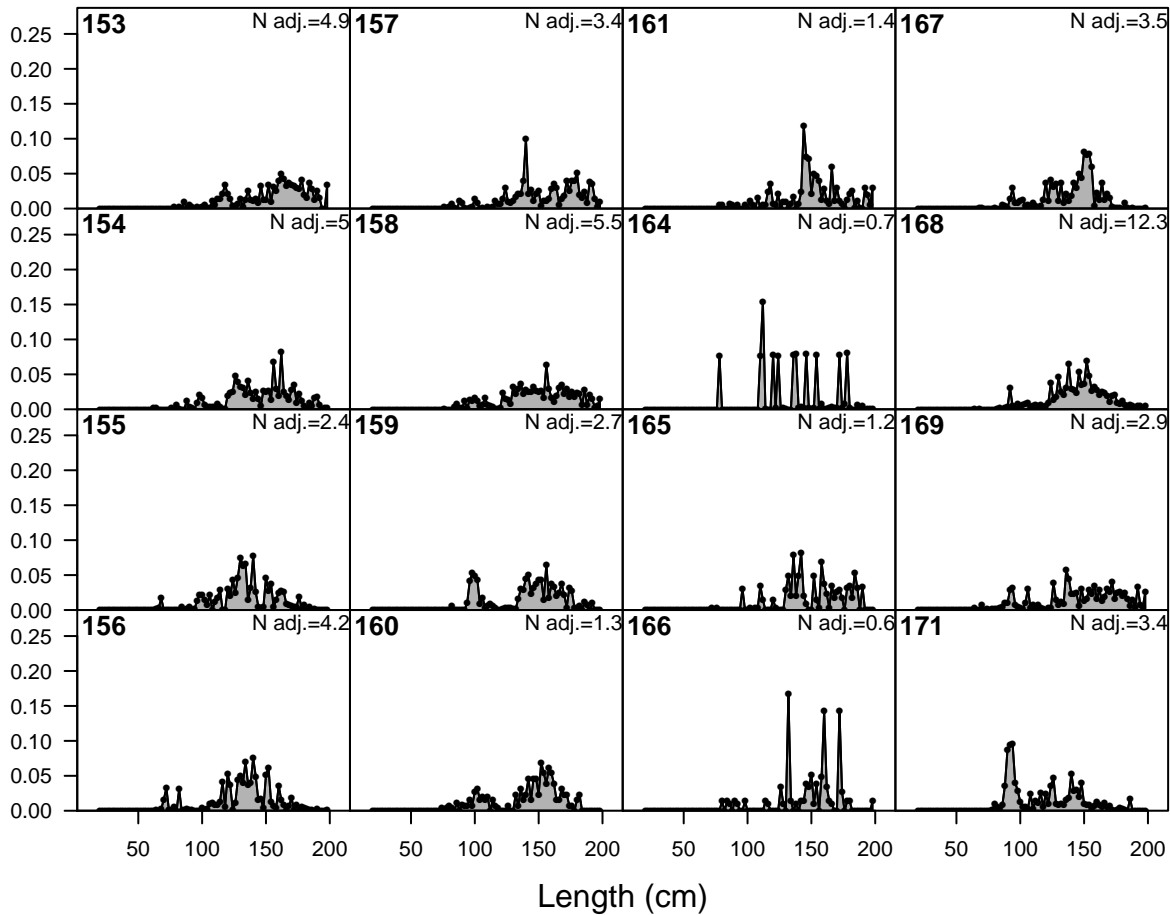
Proportion

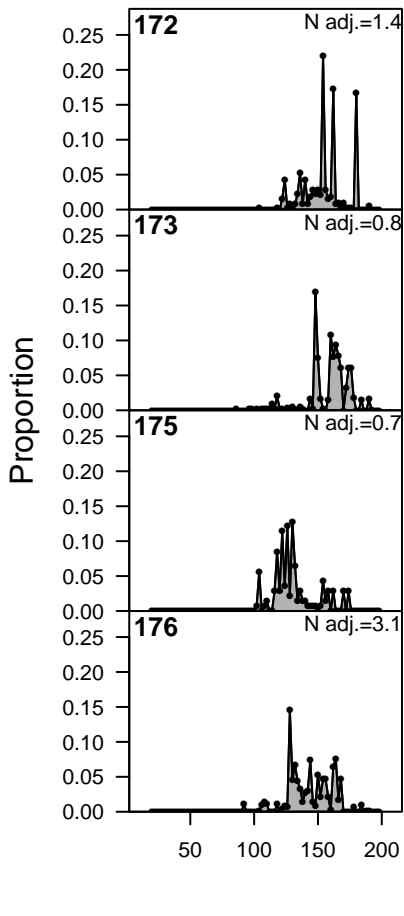


Proportion

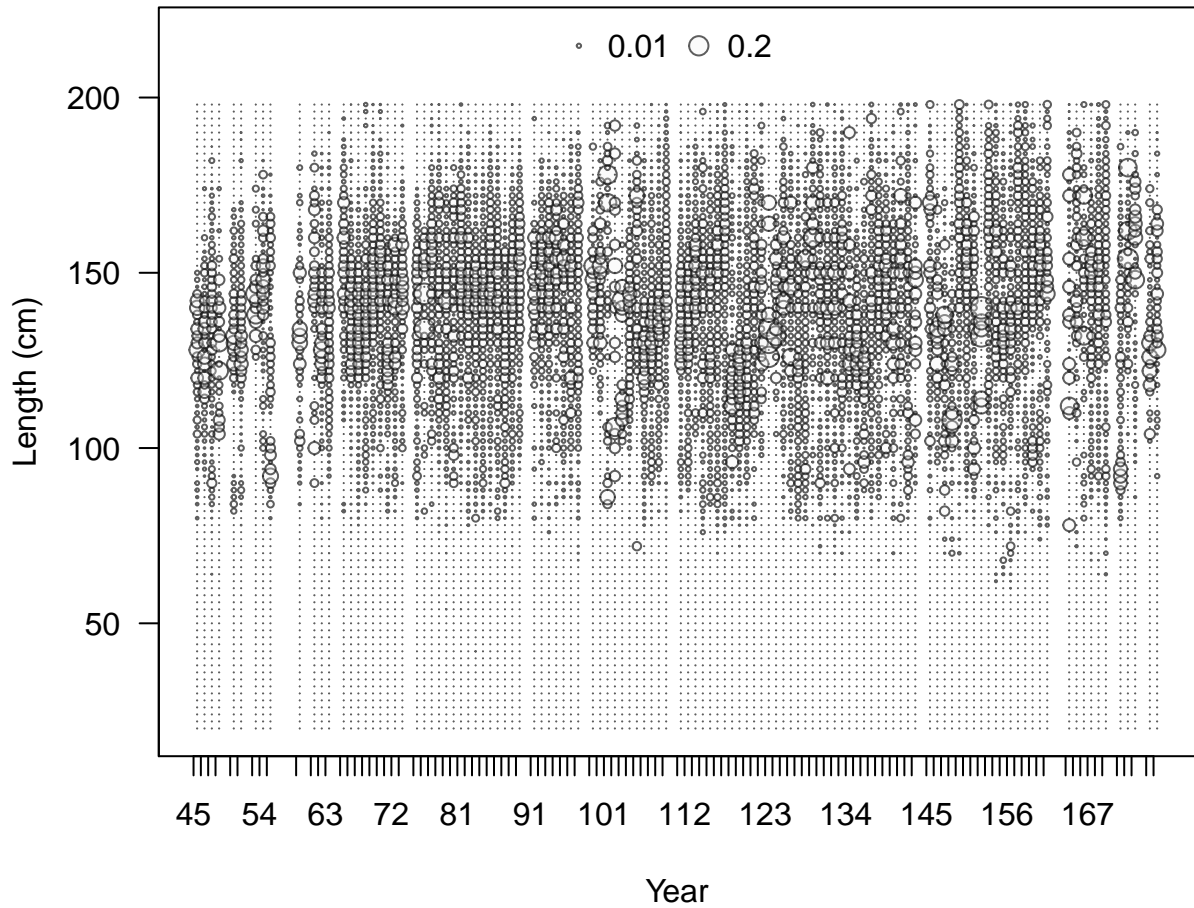


Proportion

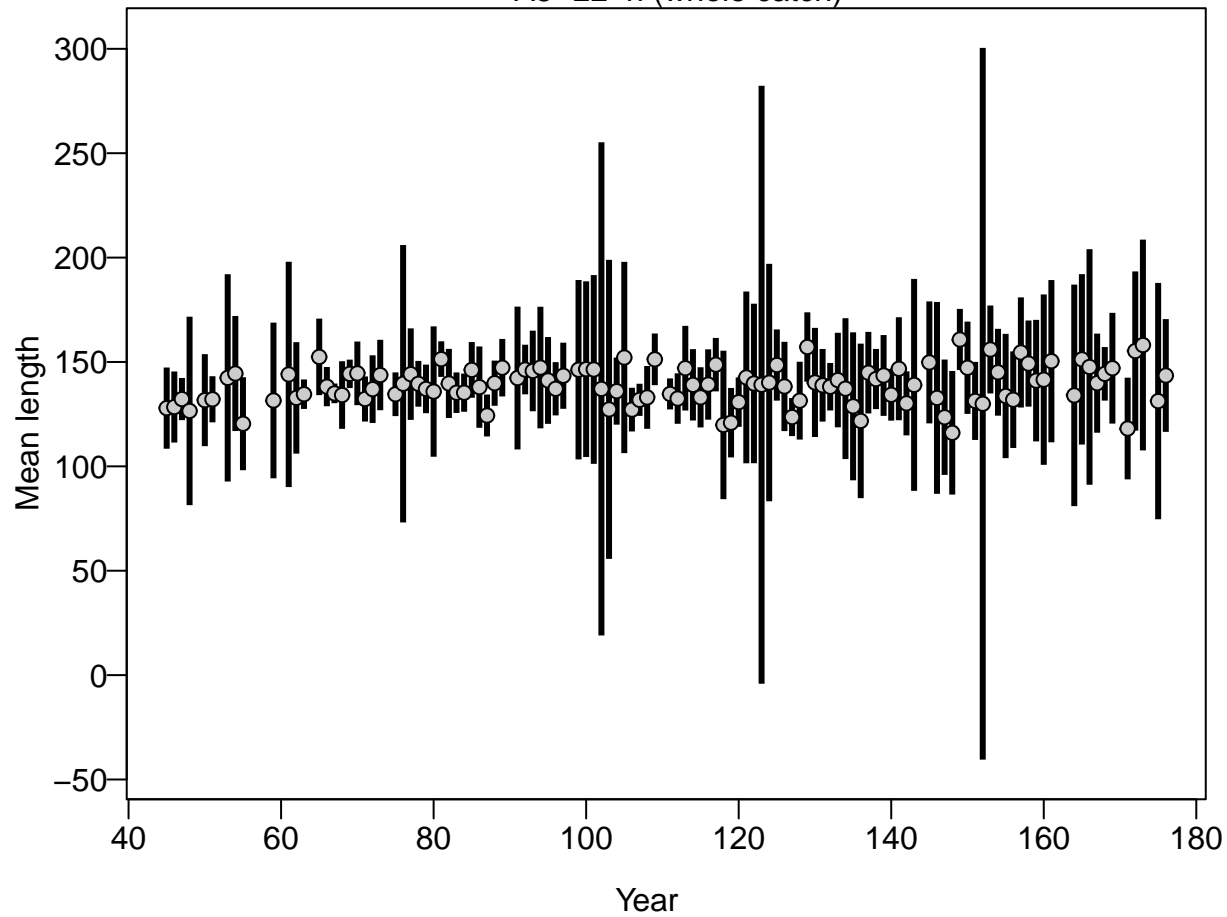


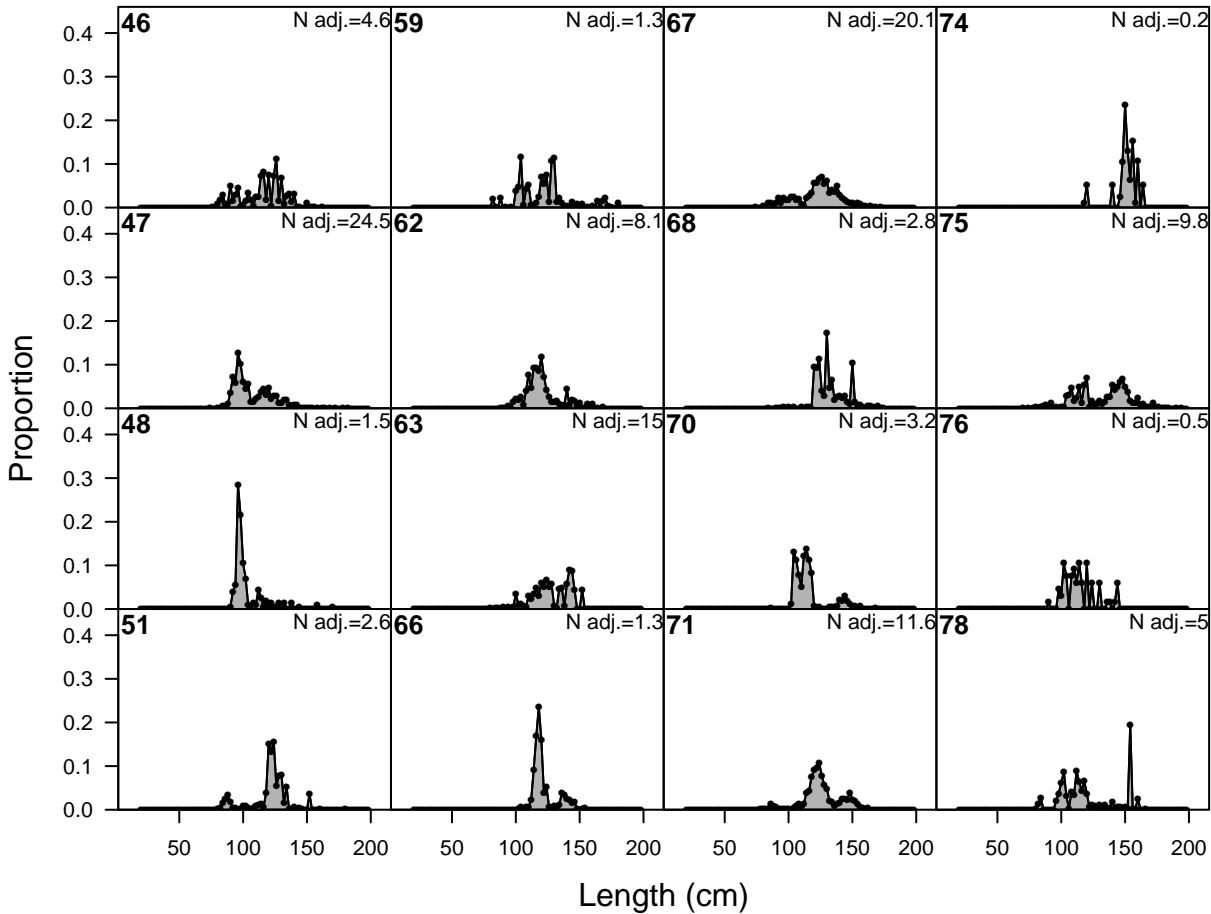


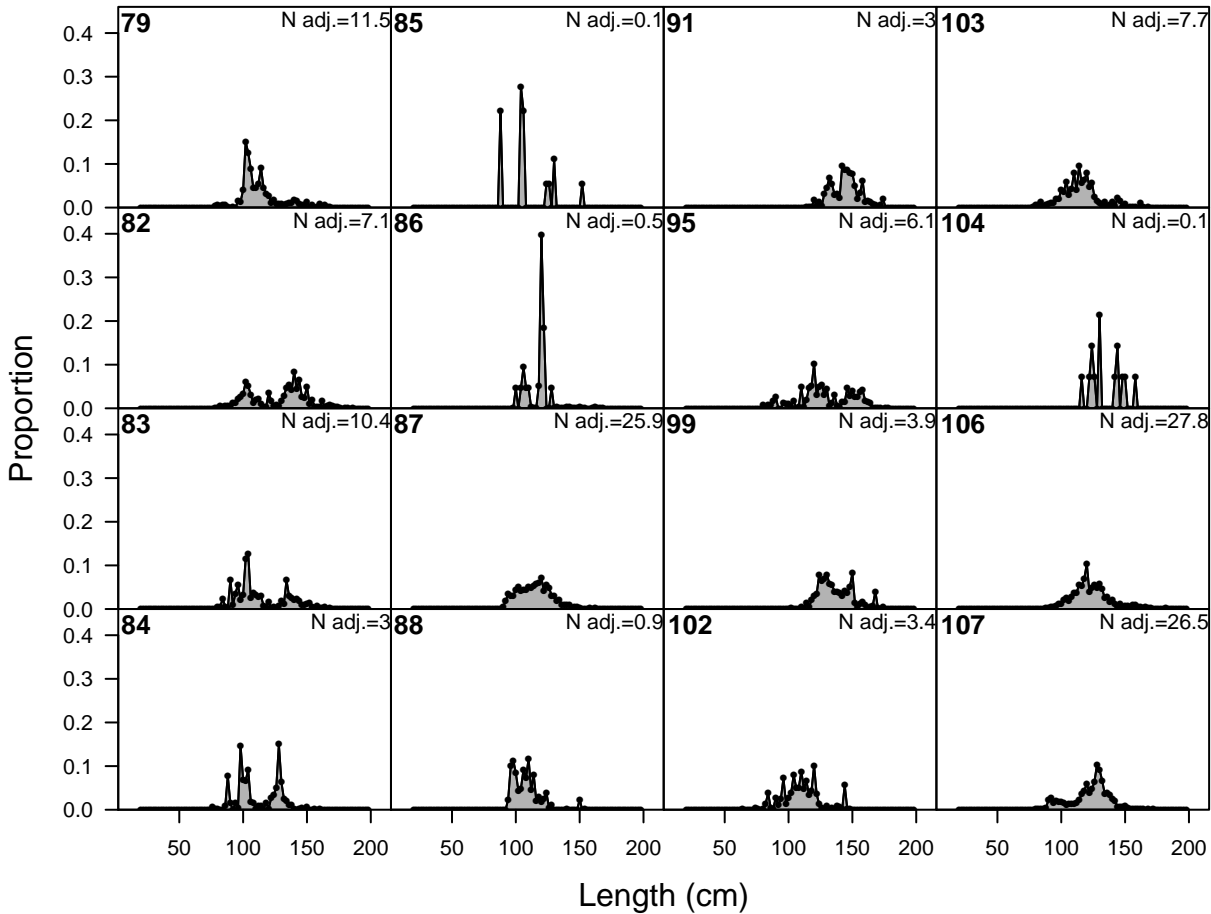
Length (cm)

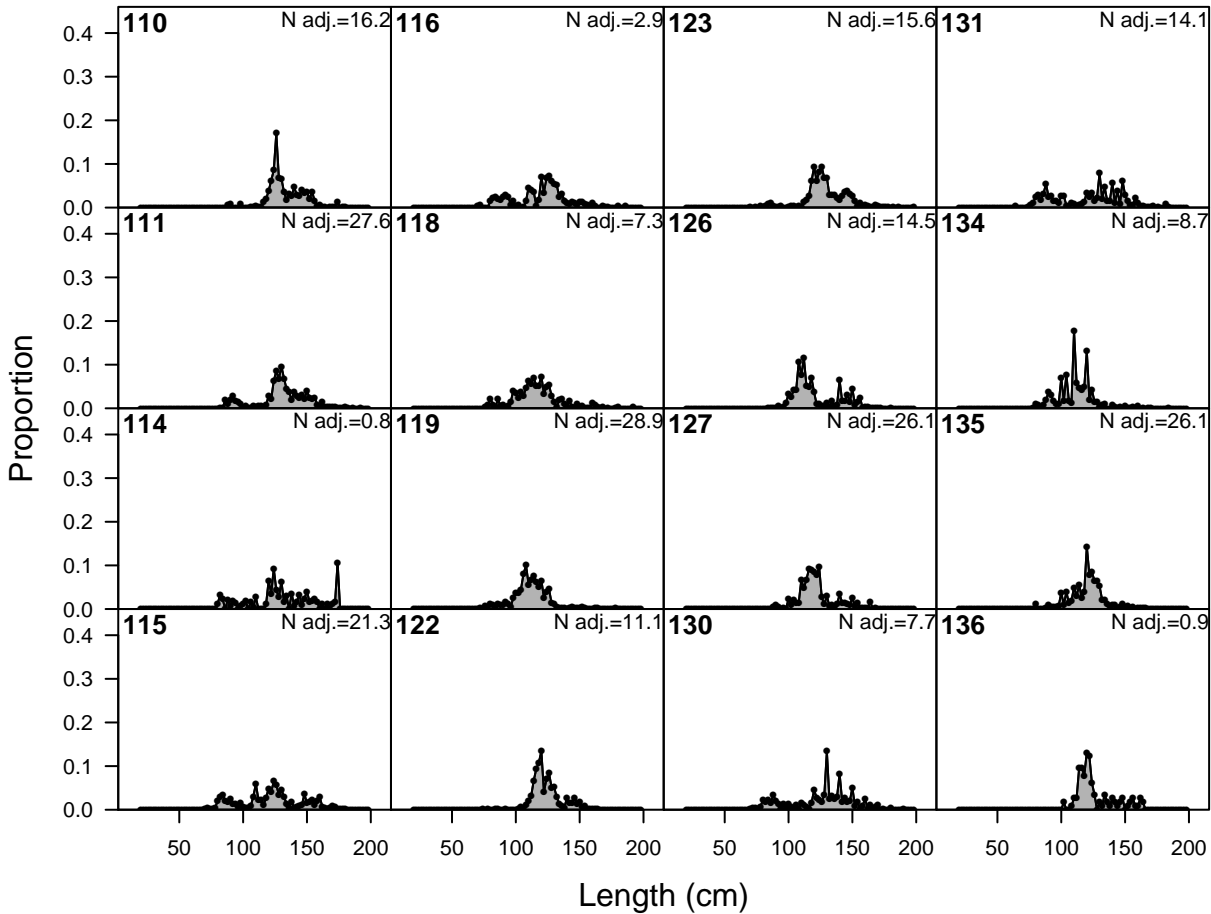


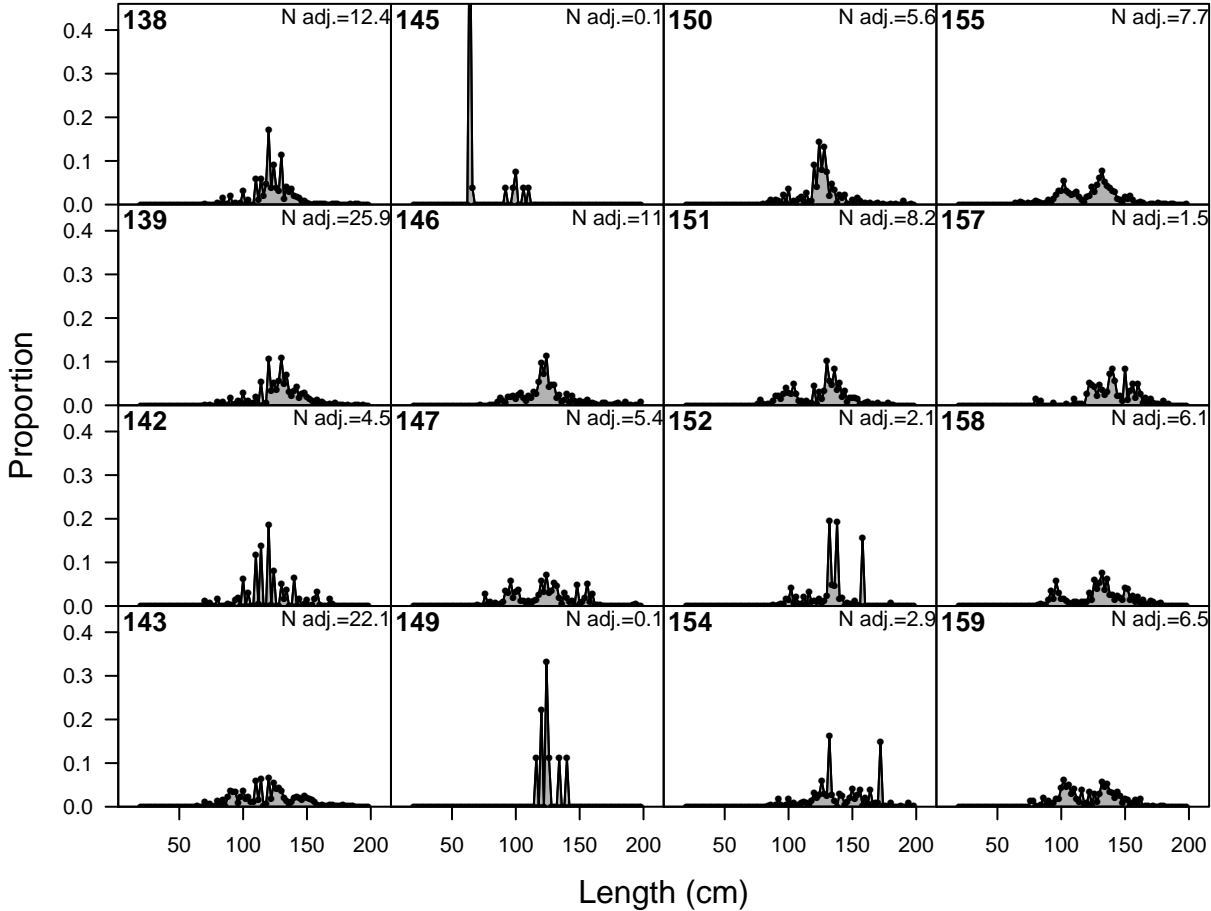
A5-LL-n (whole catch)

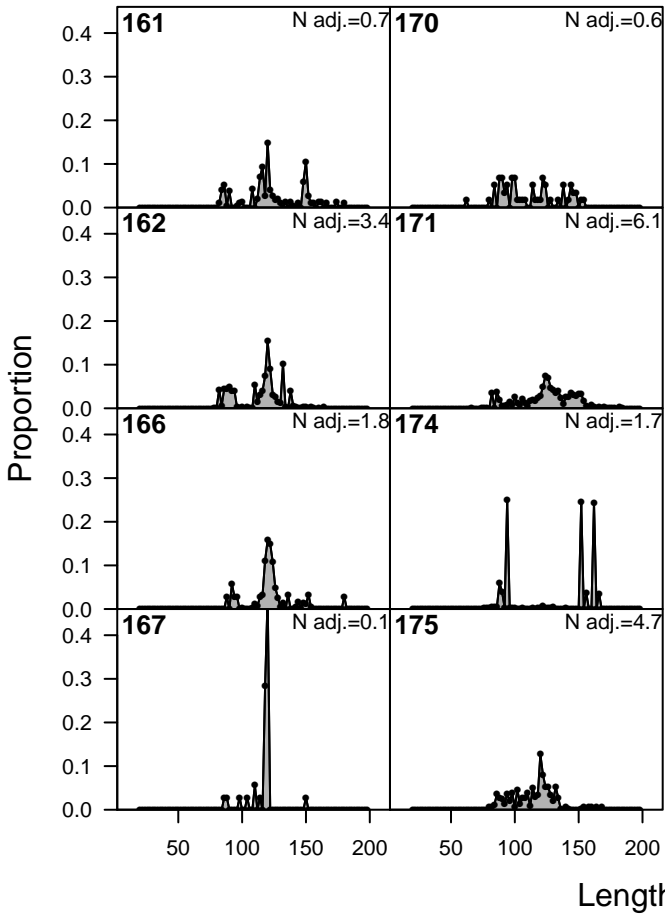


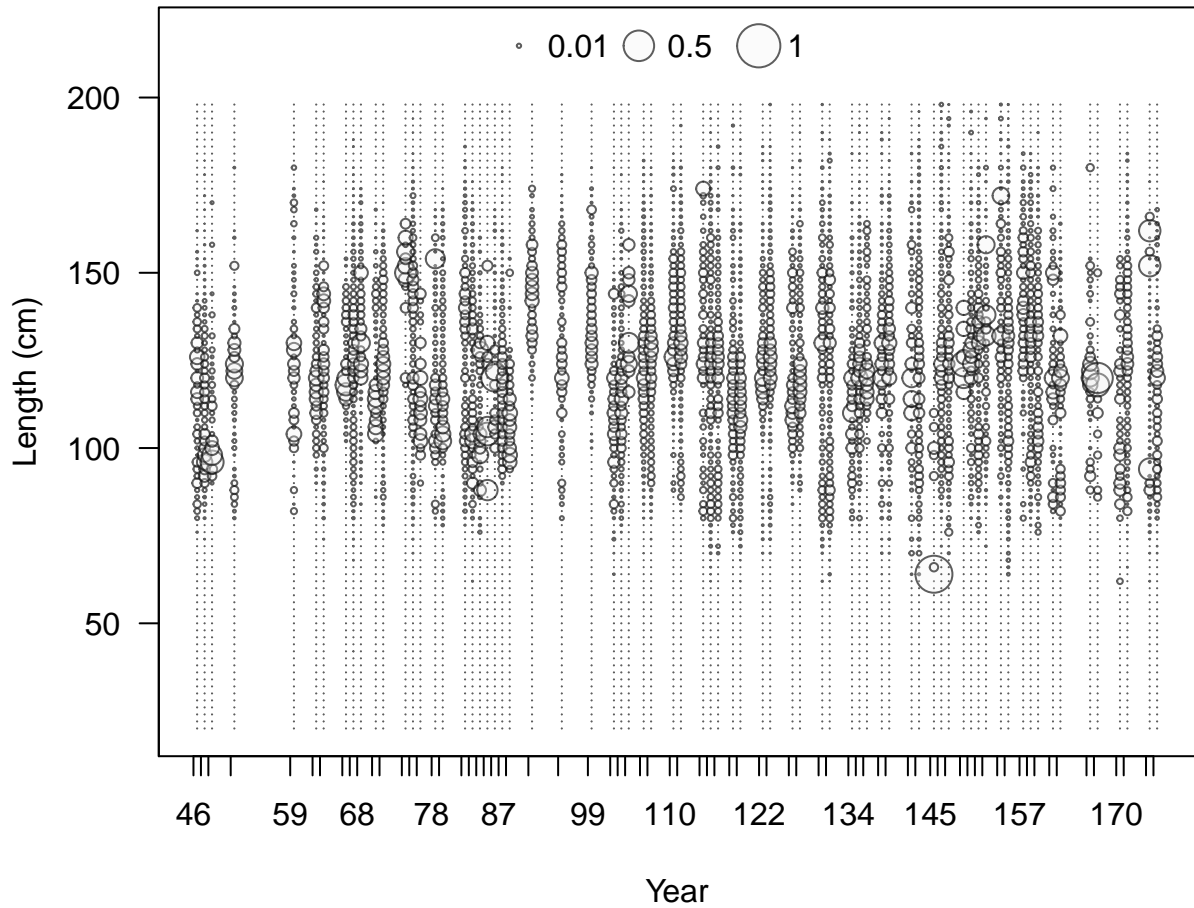




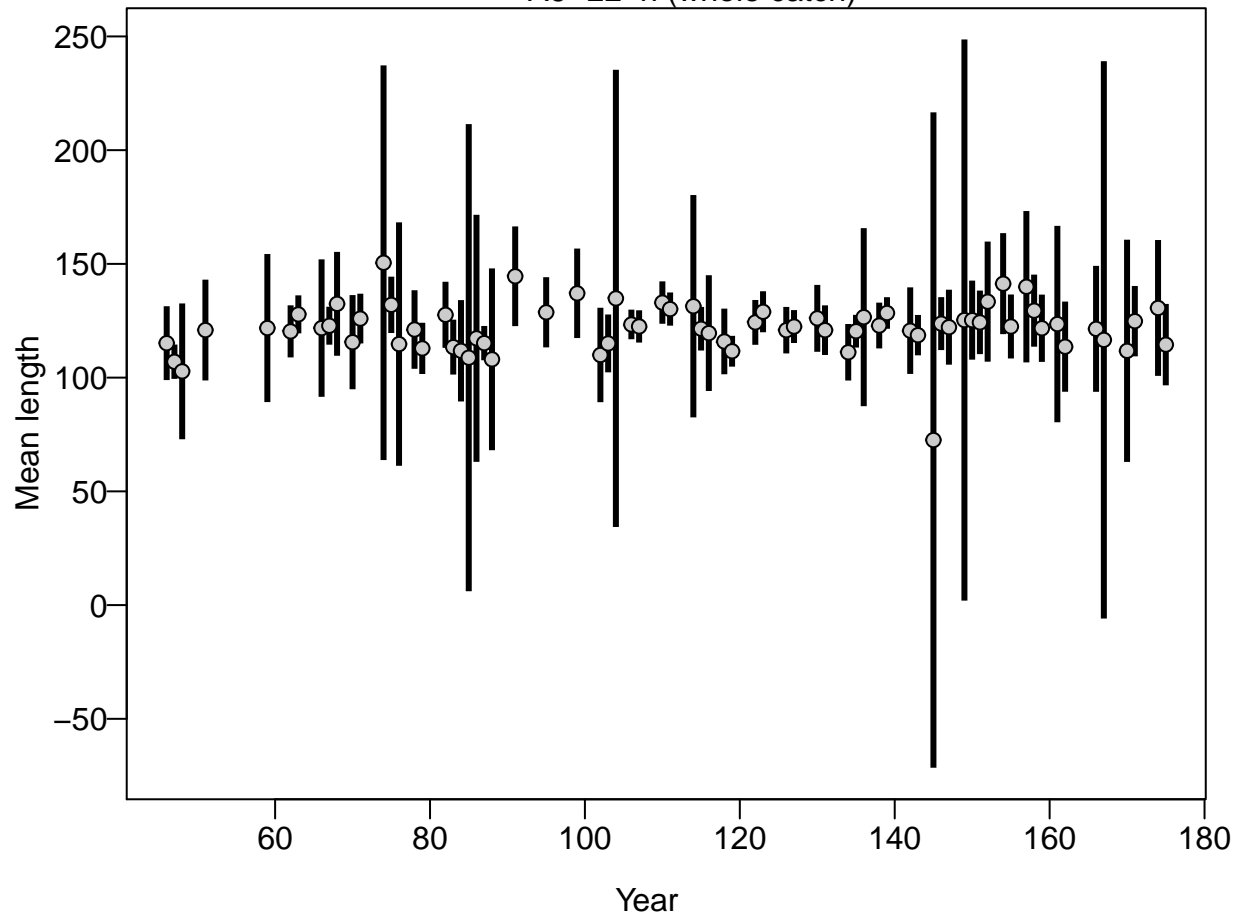


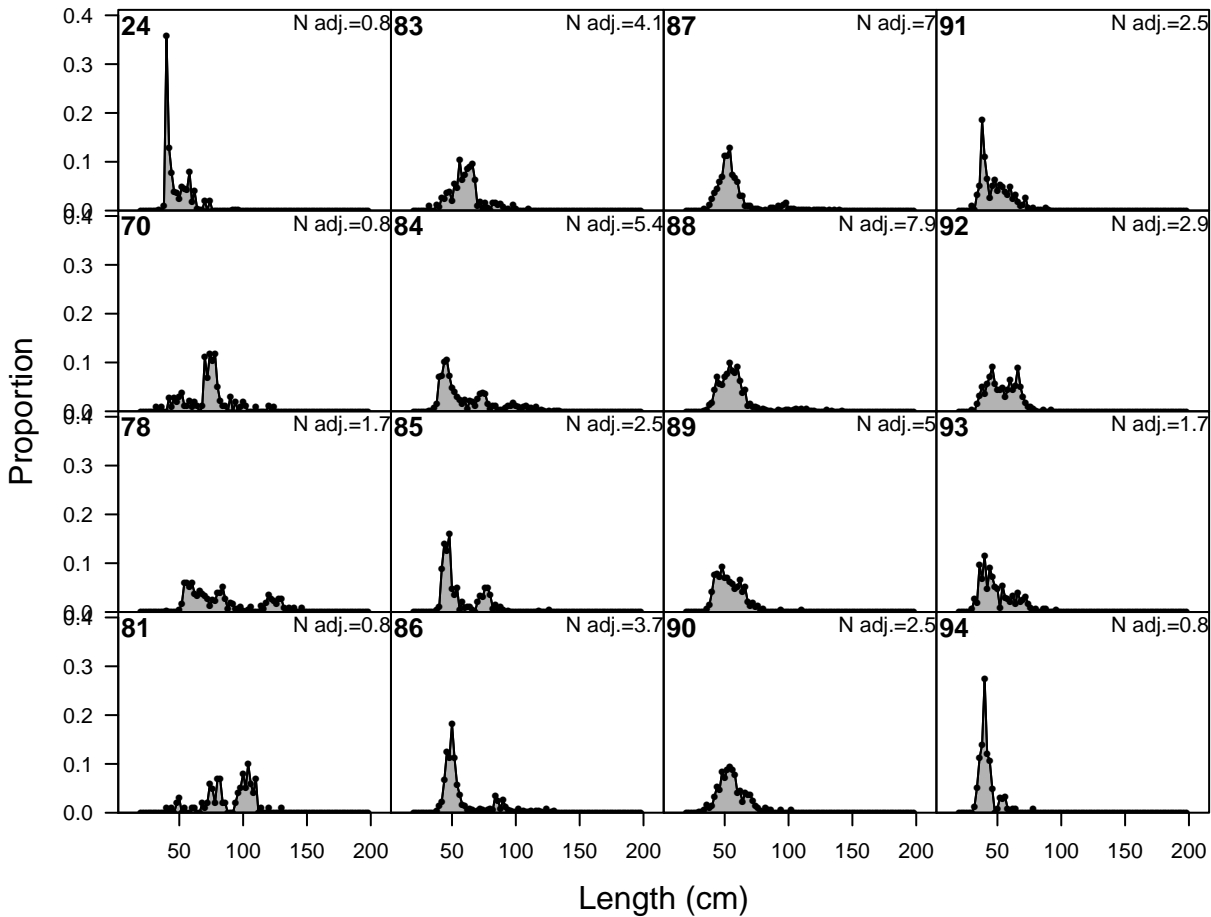


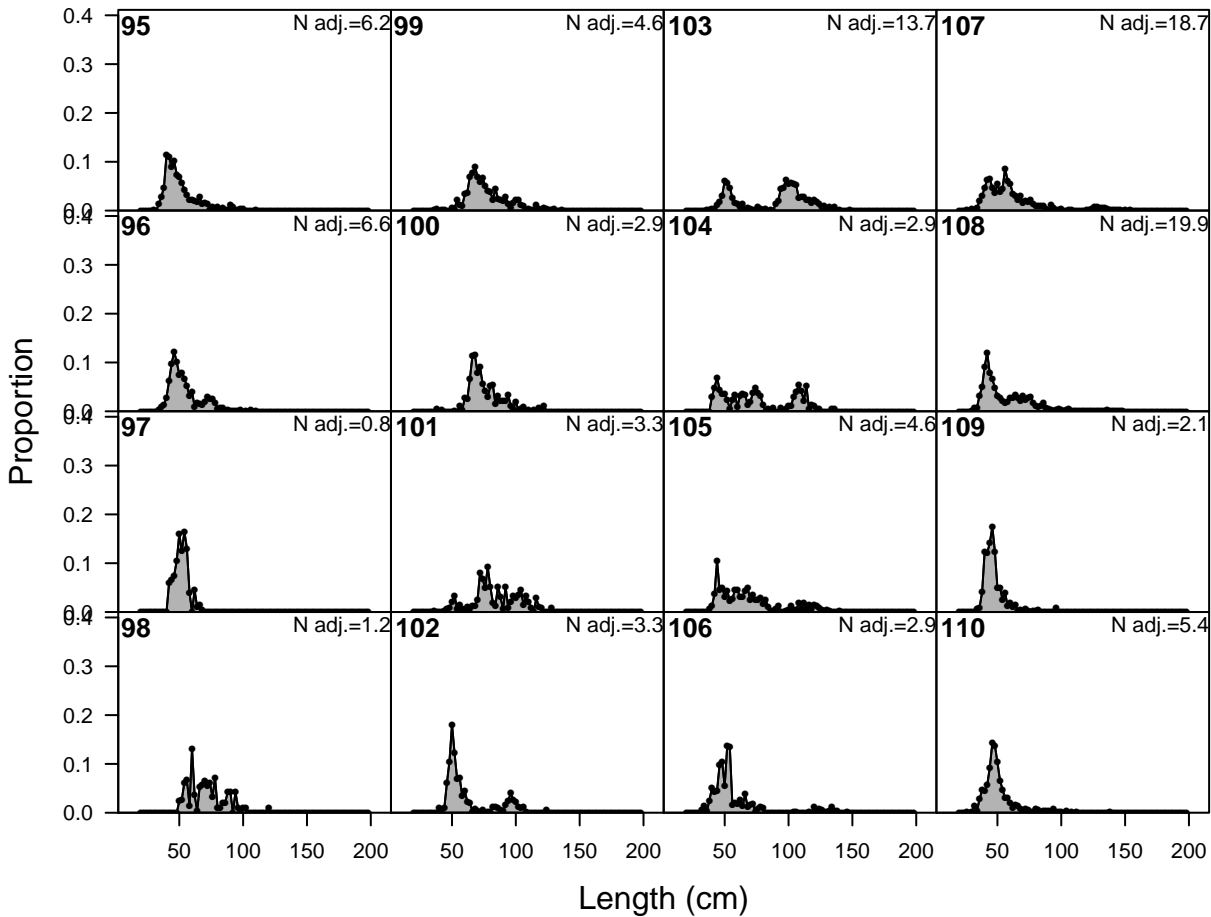


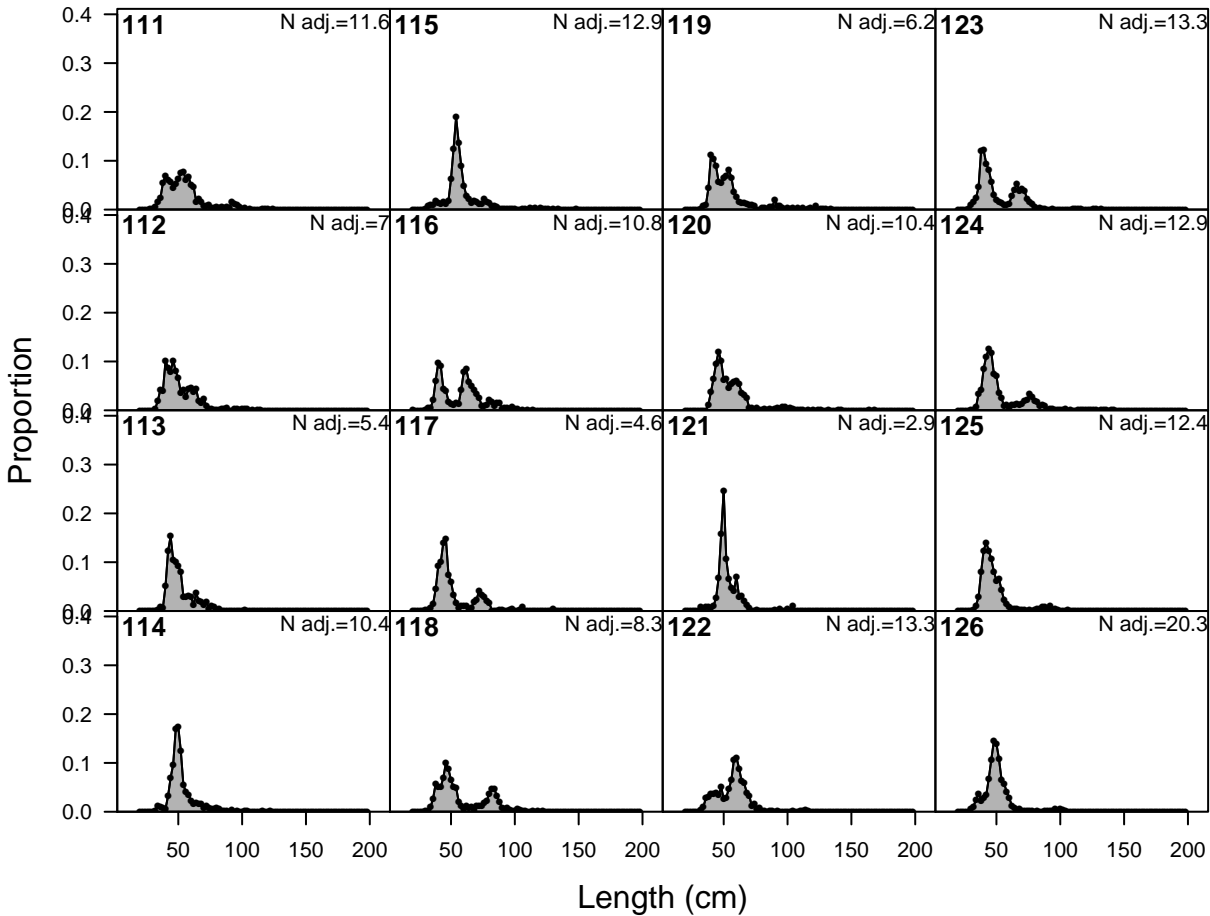


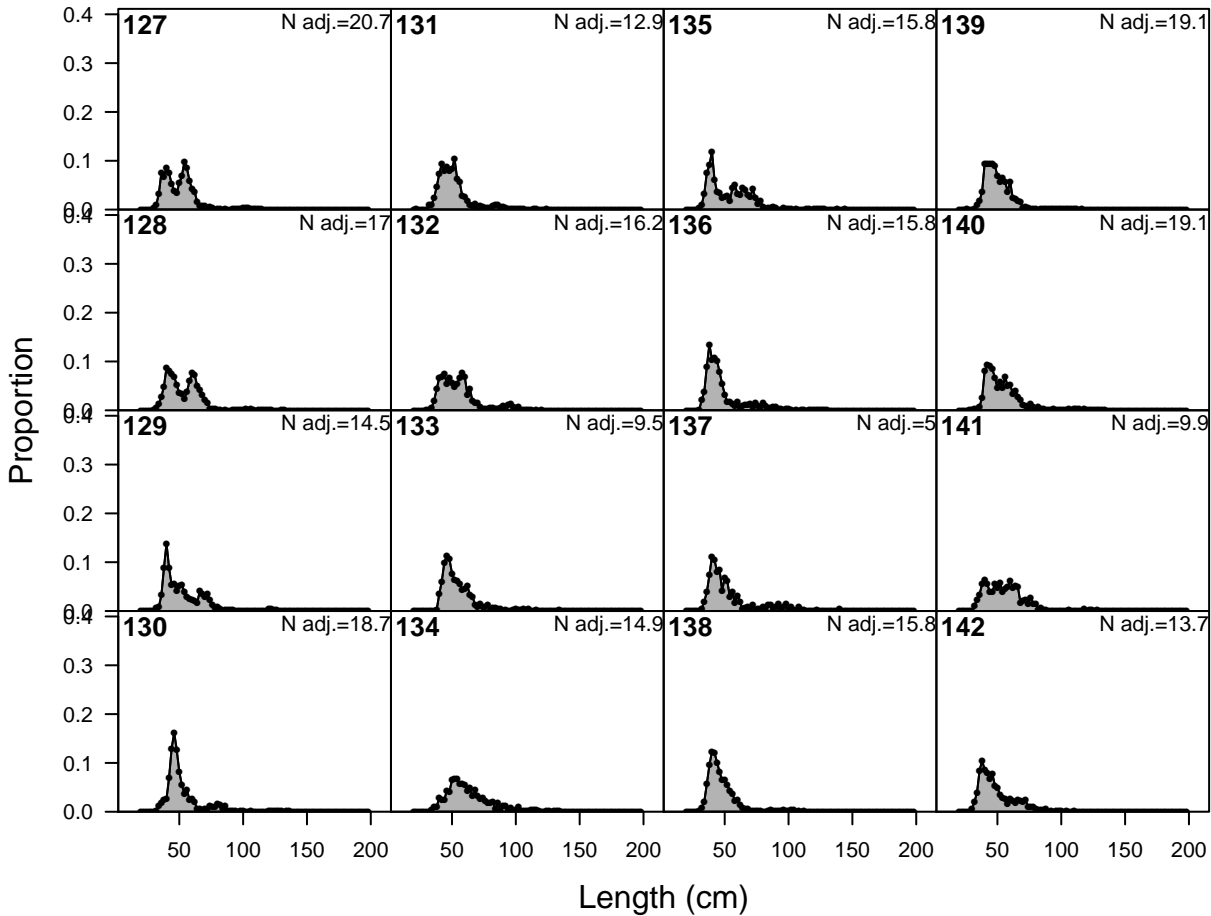
A6-LL-n (whole catch)

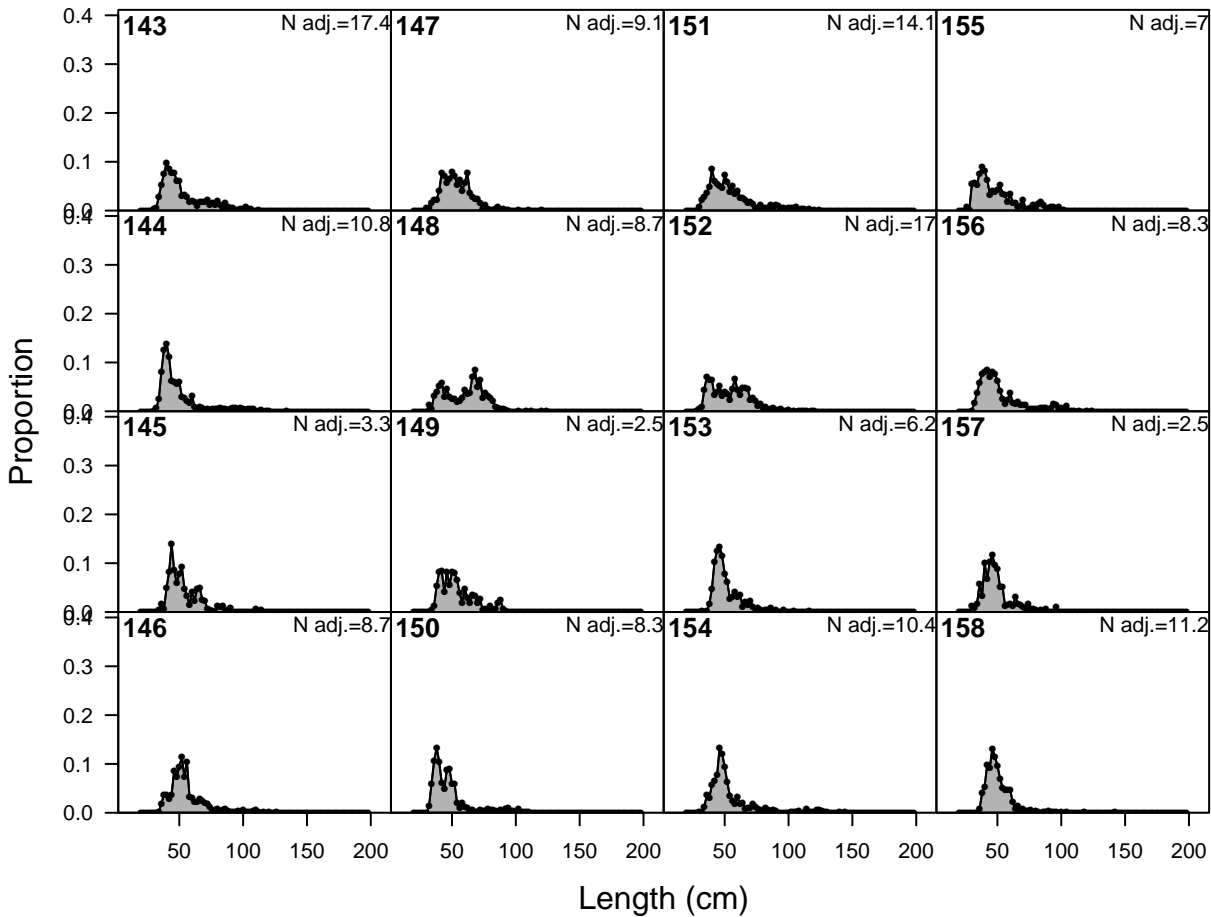


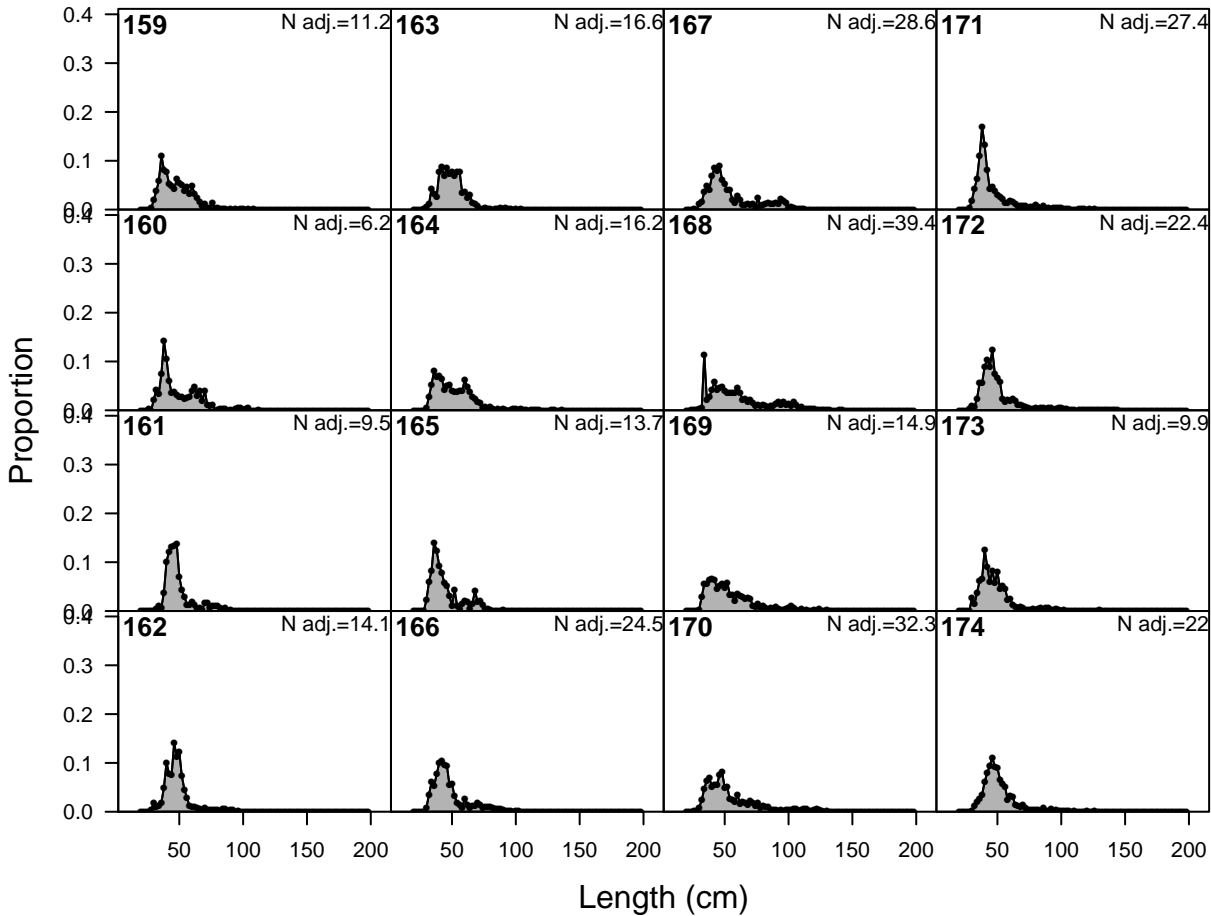


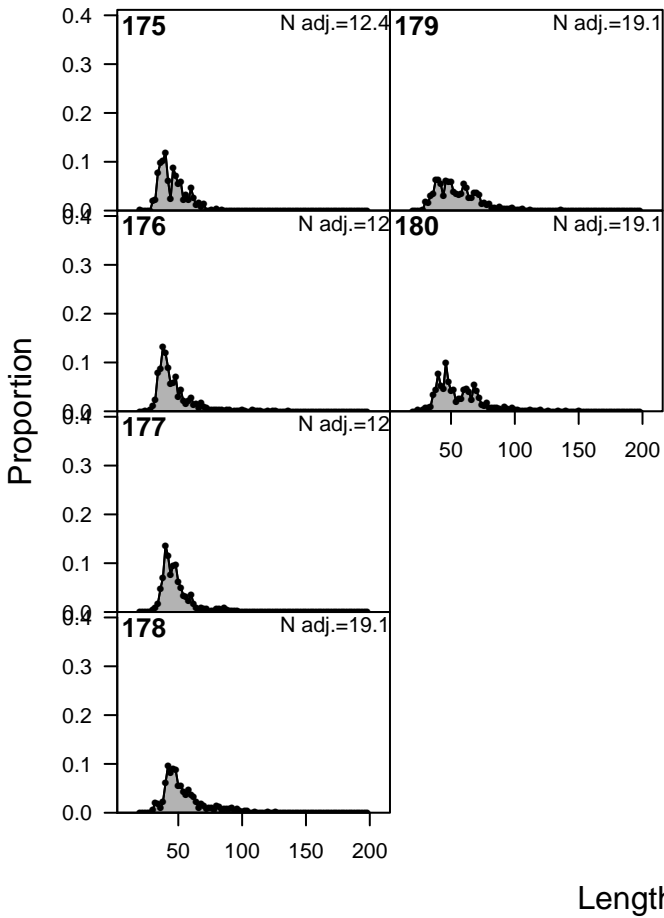


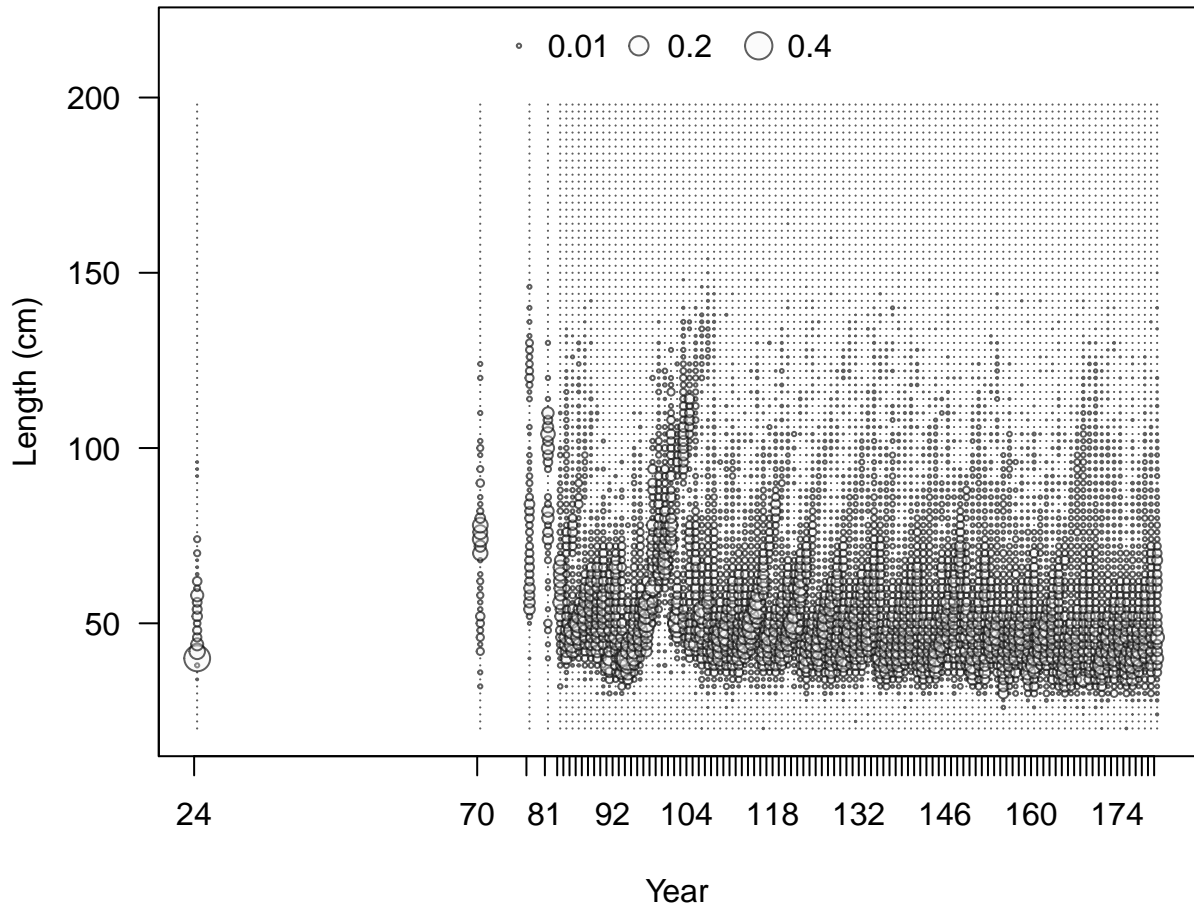




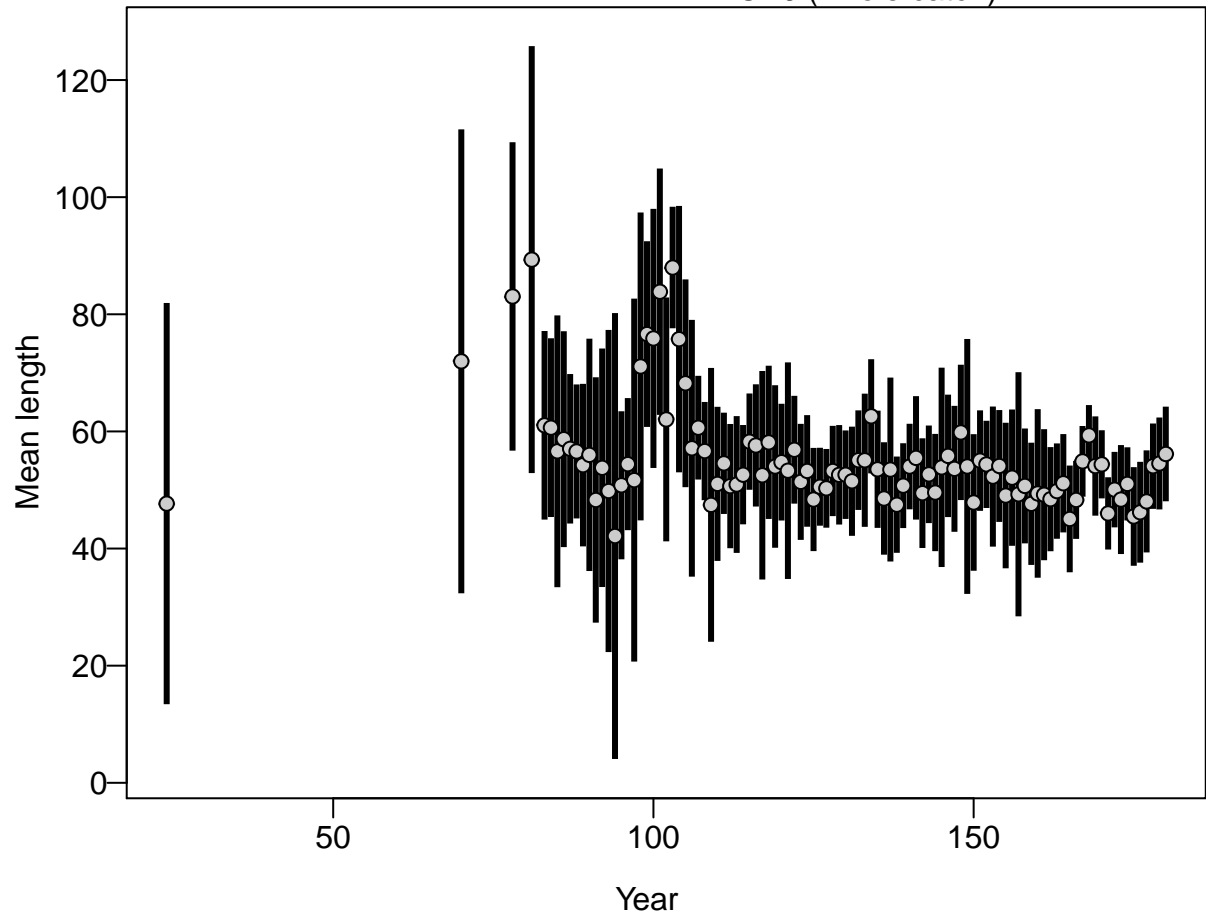


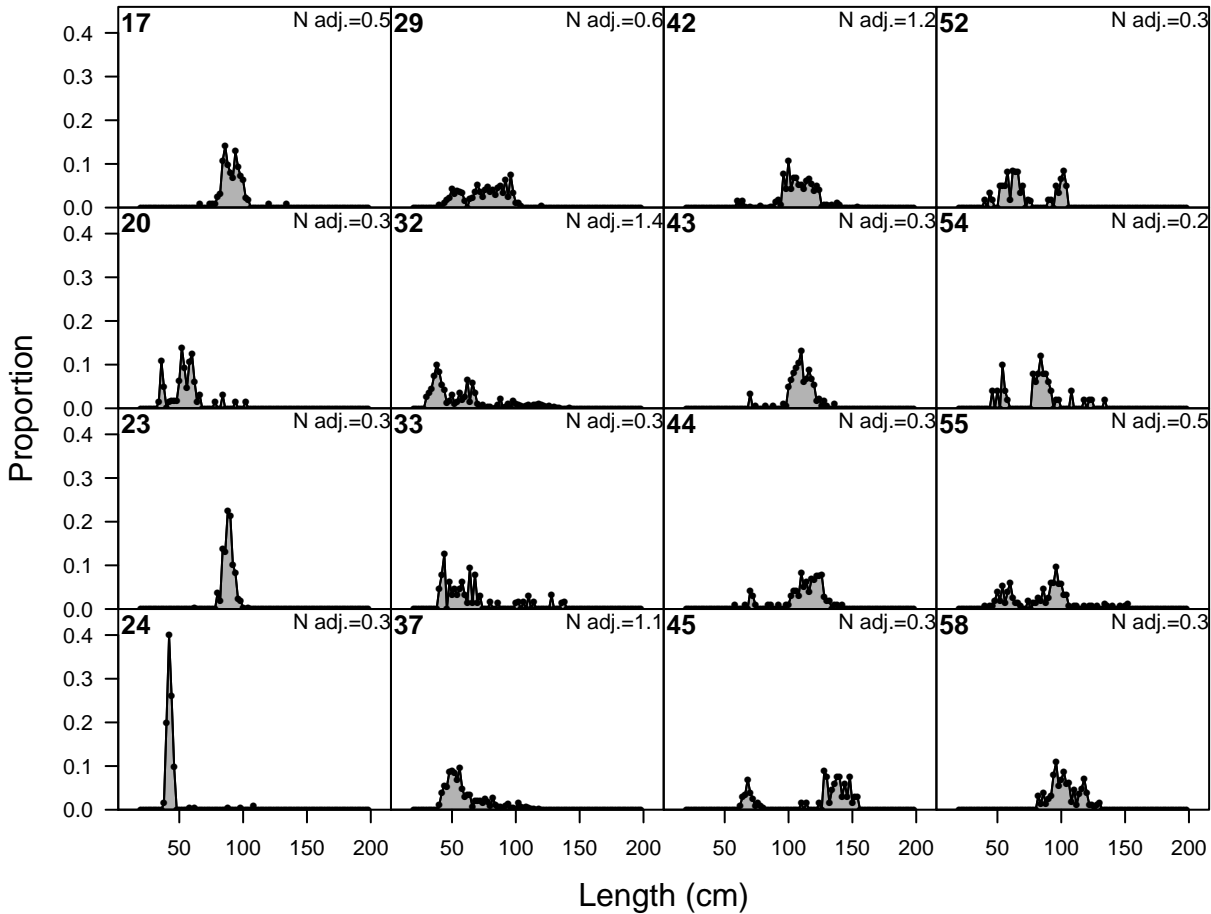


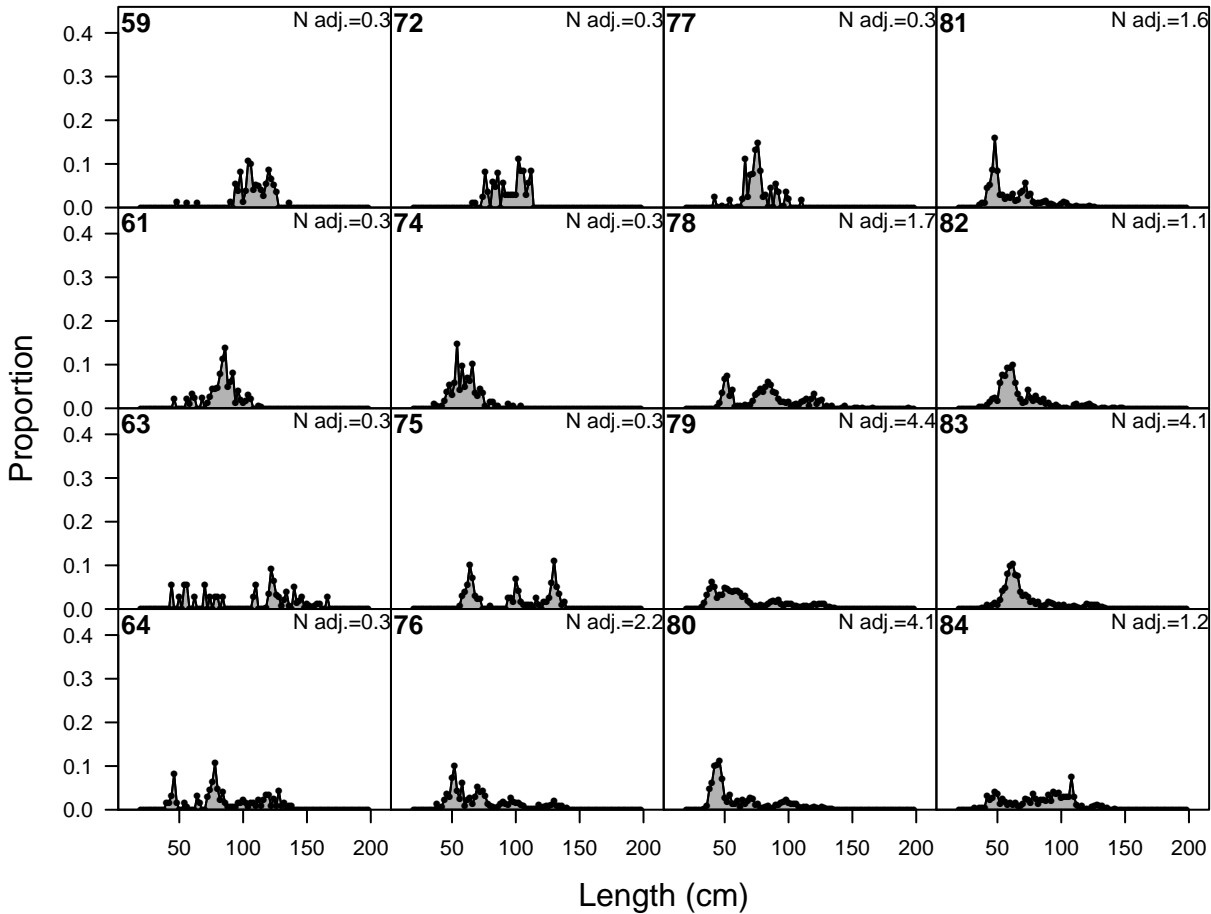


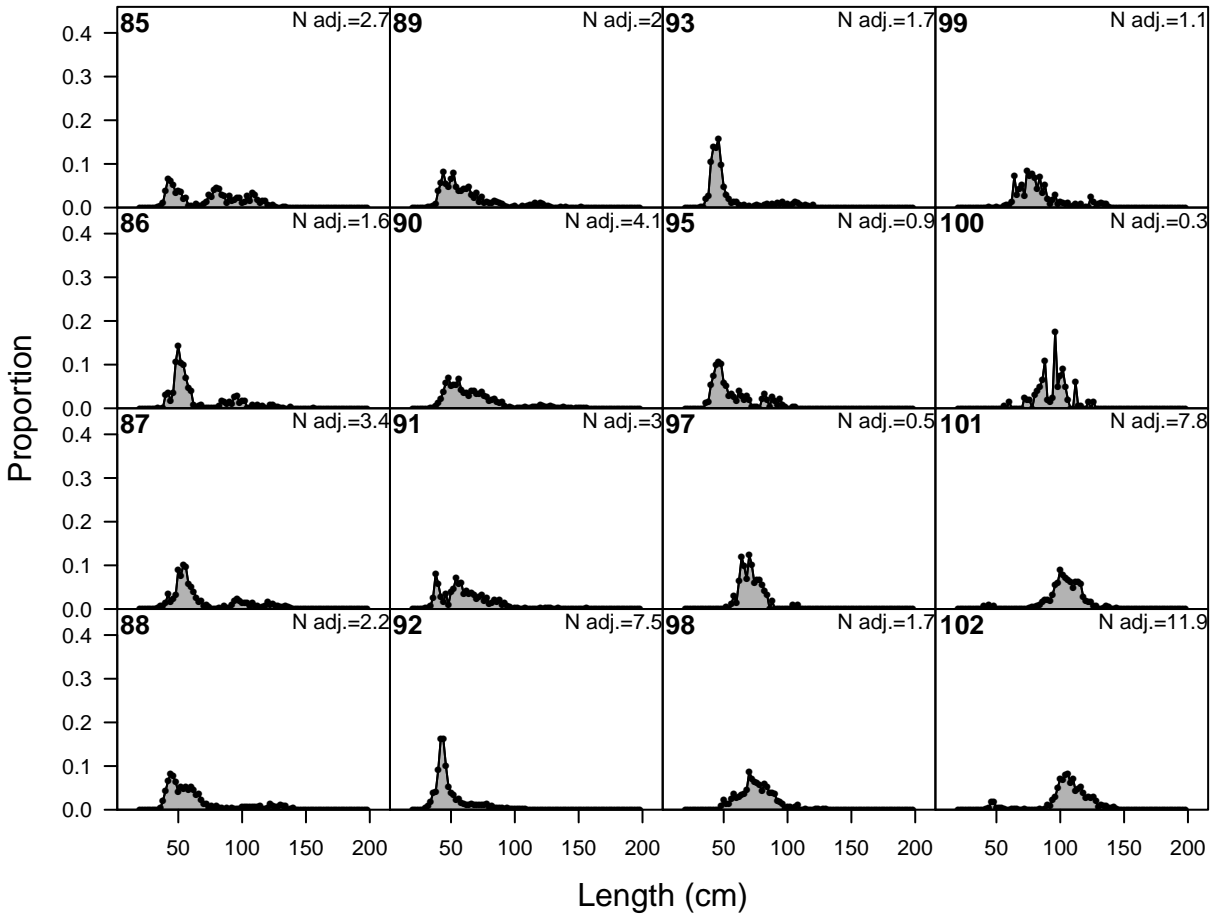


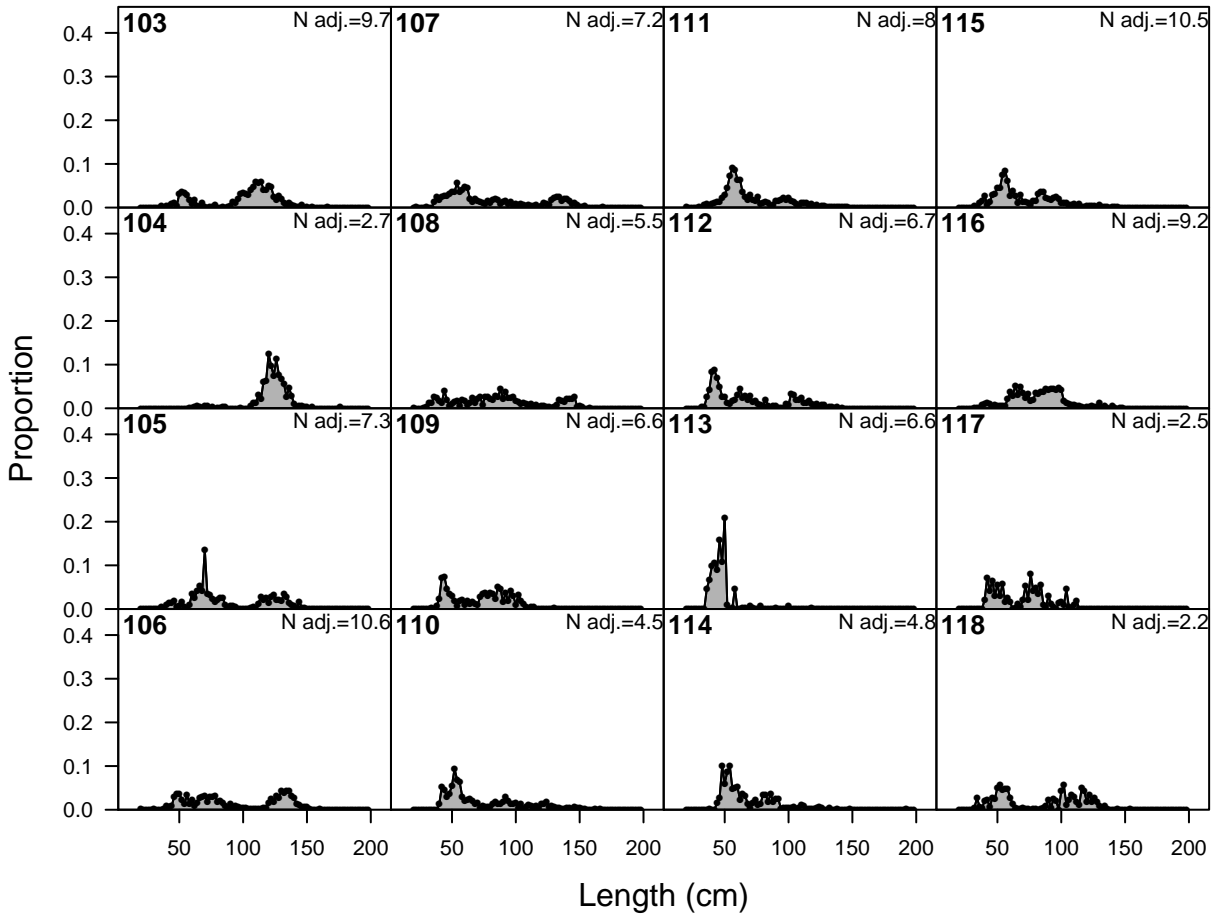
A2-OBJ (whole catch)

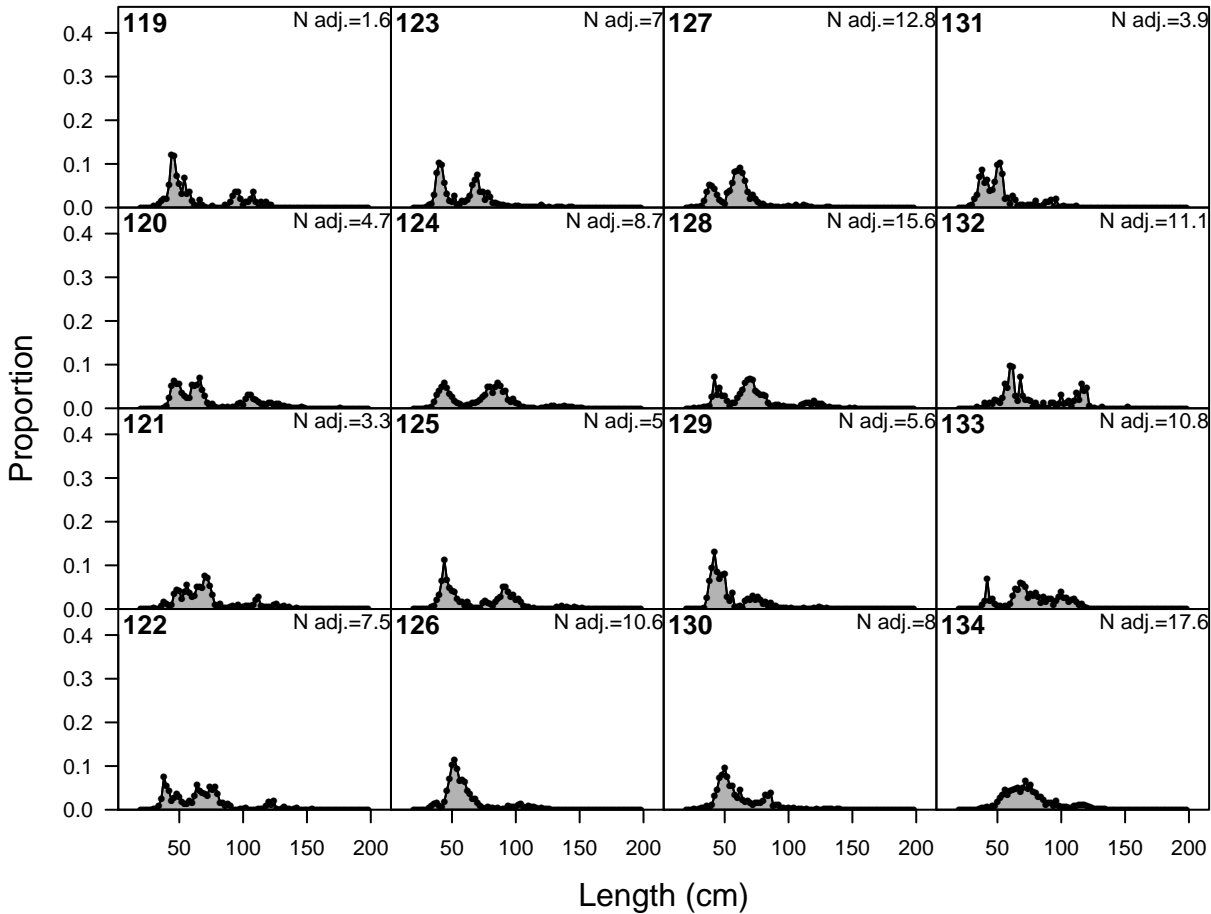


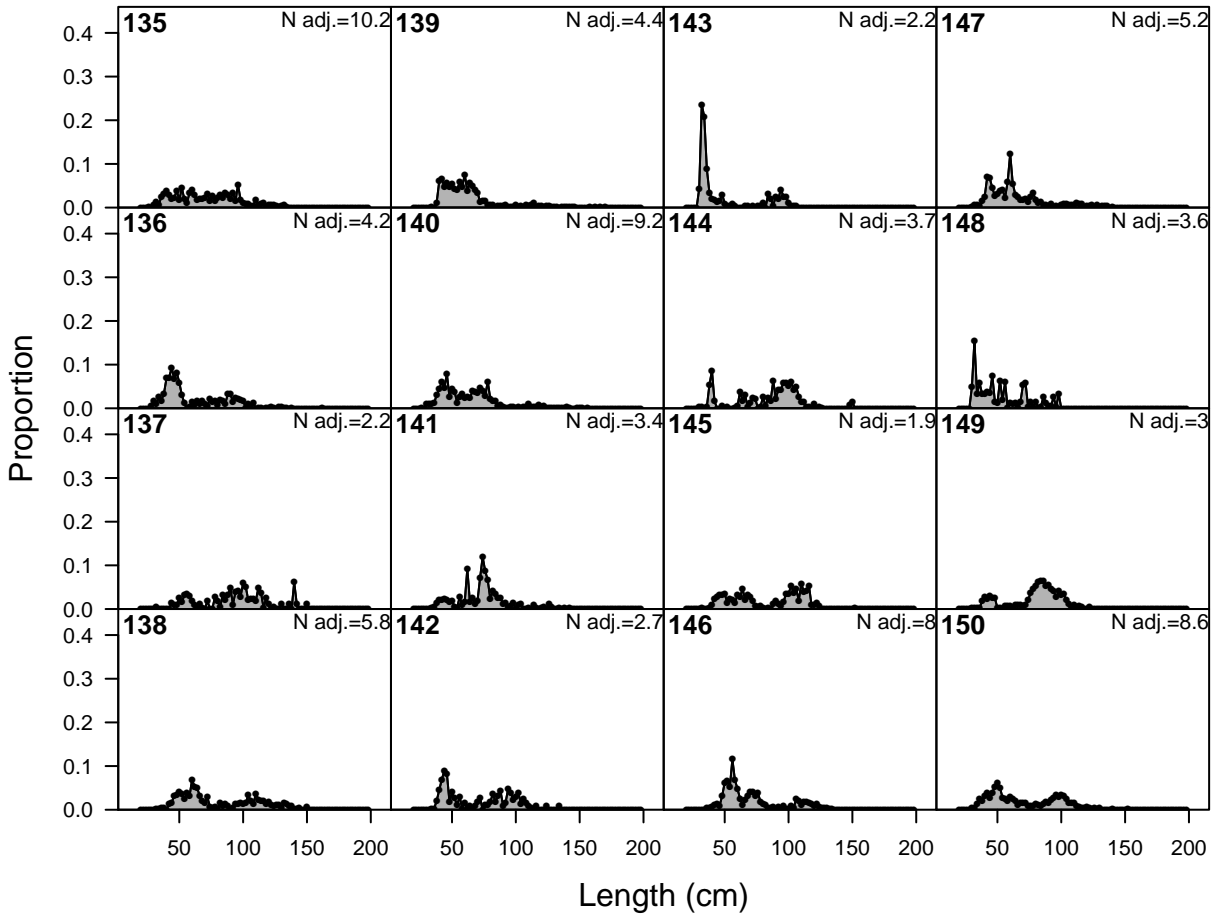


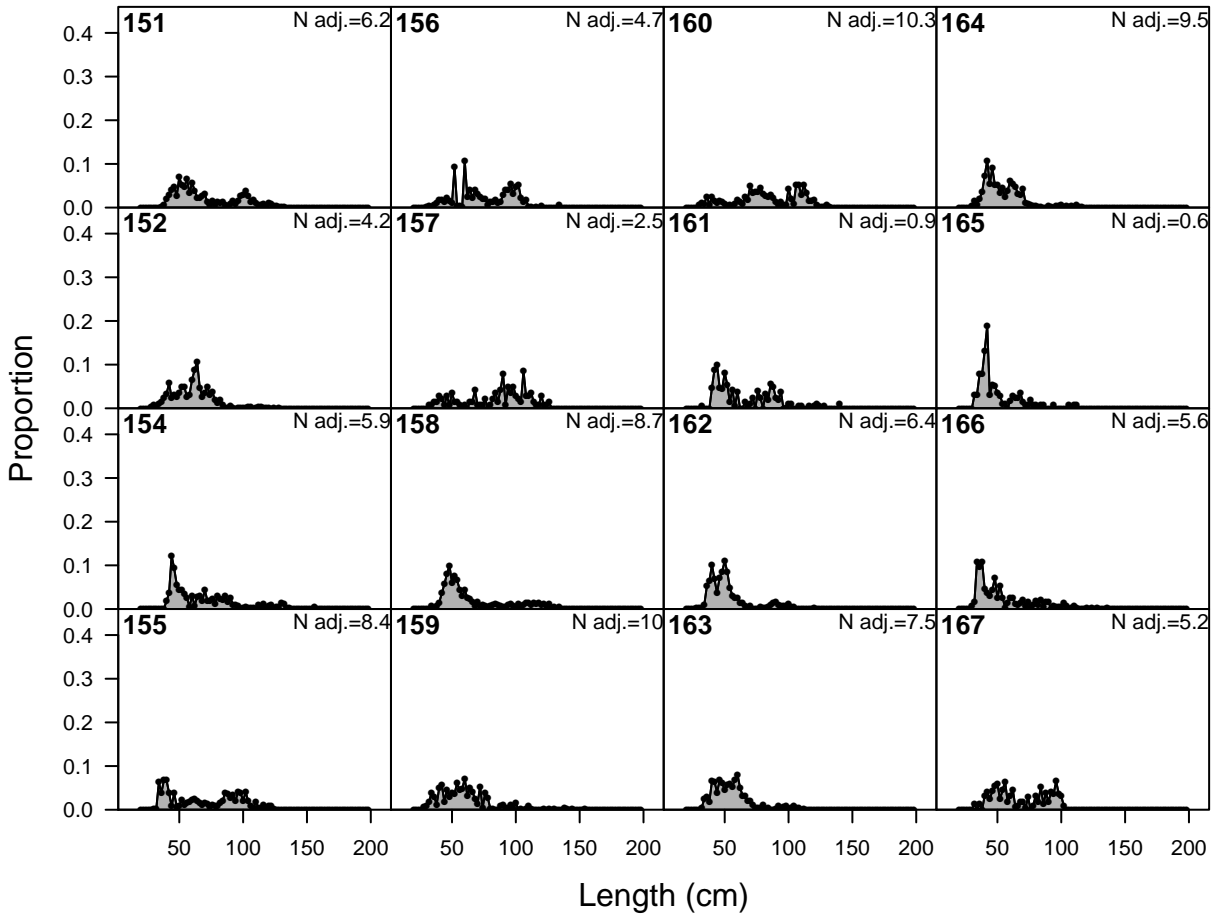


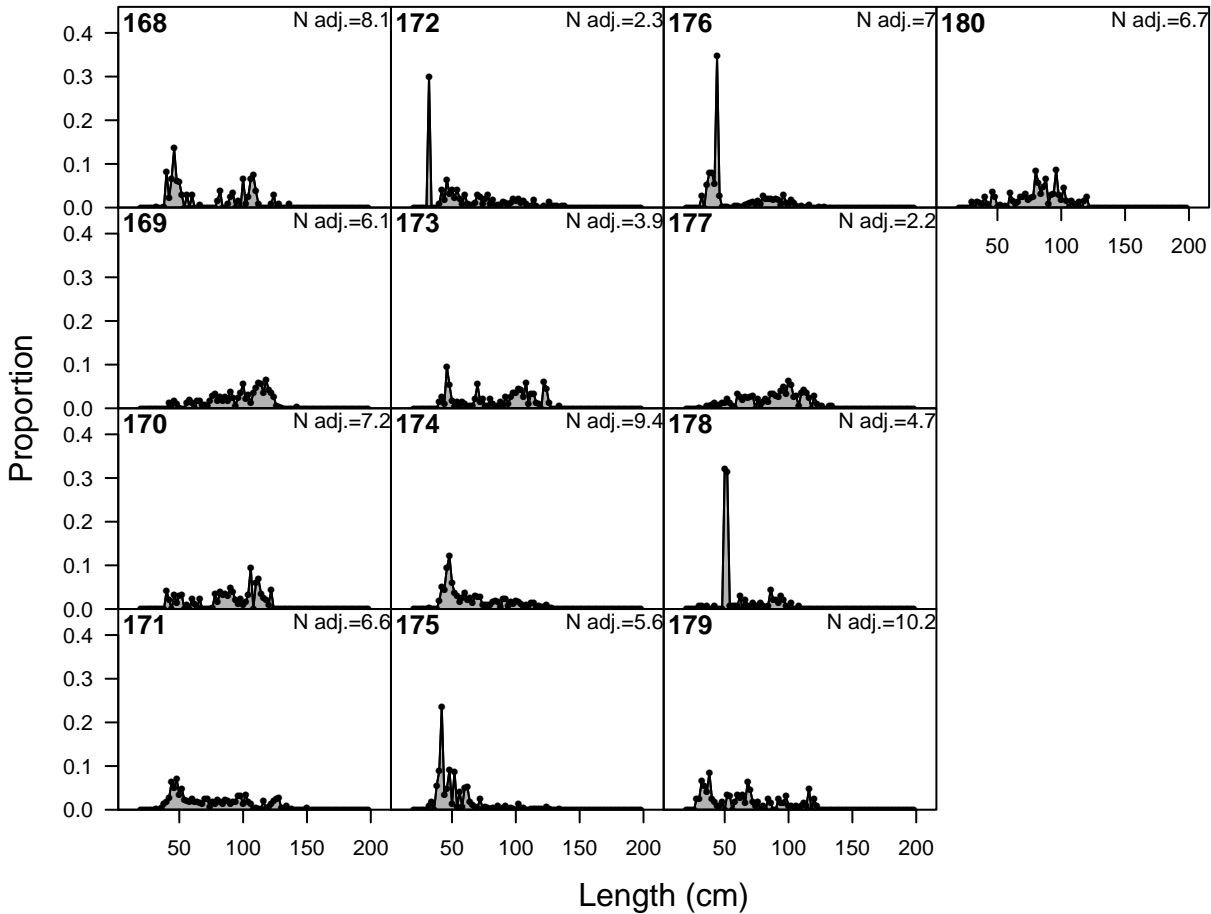


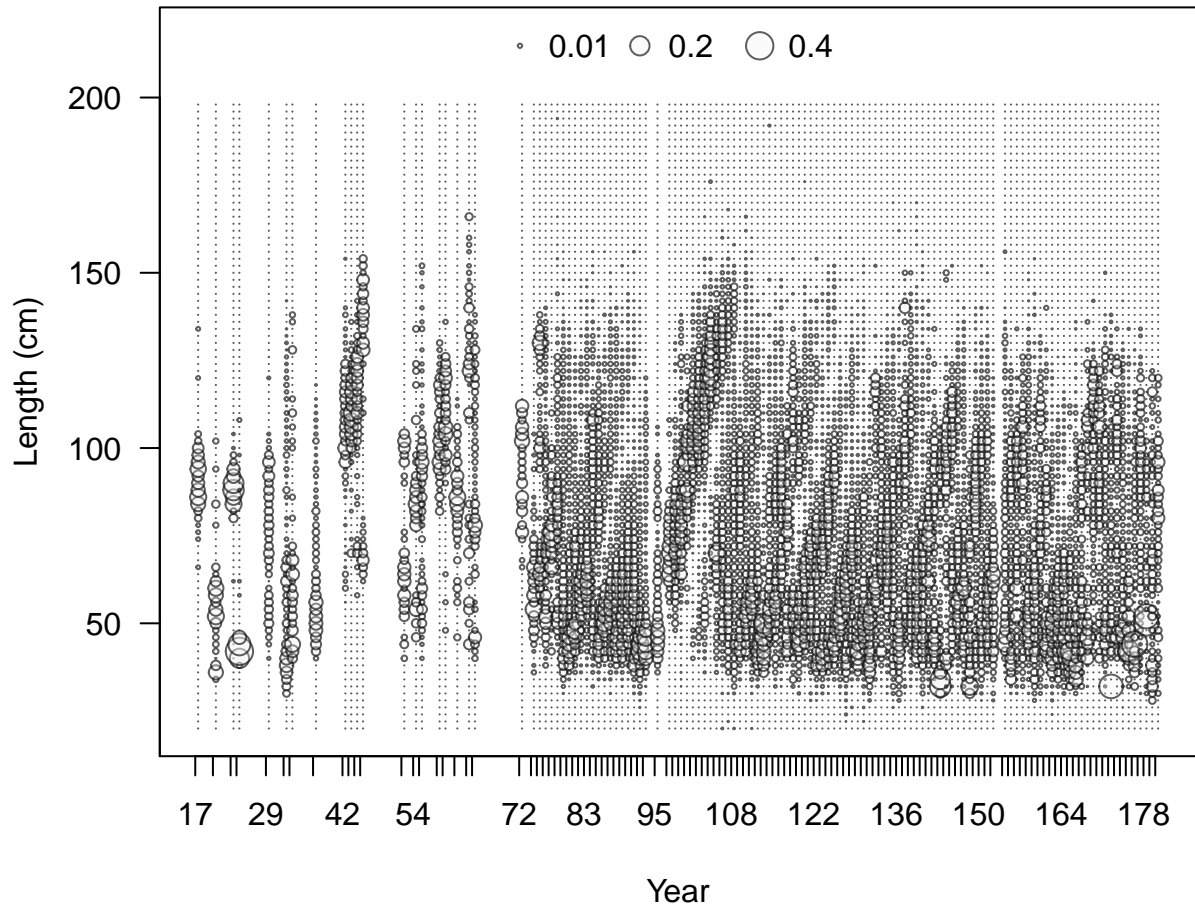




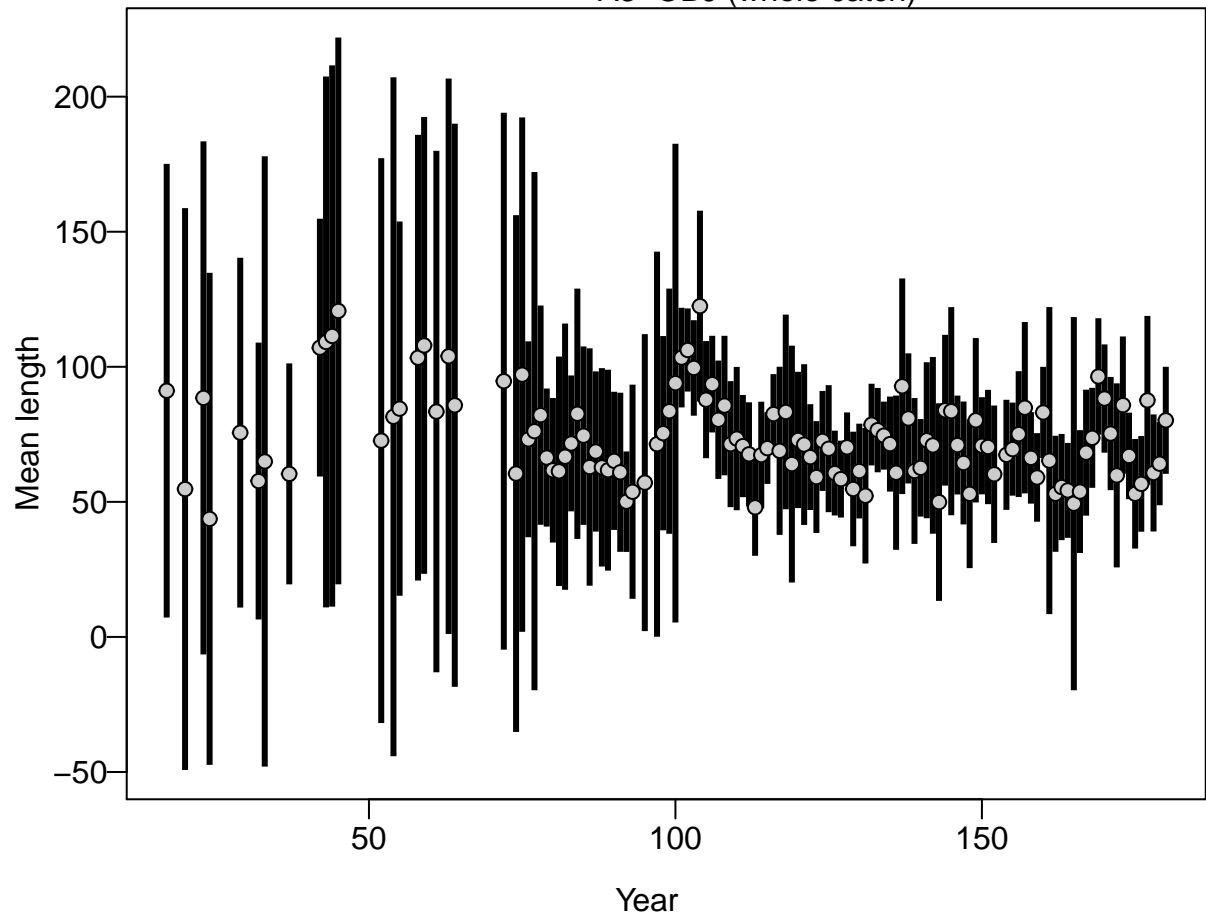




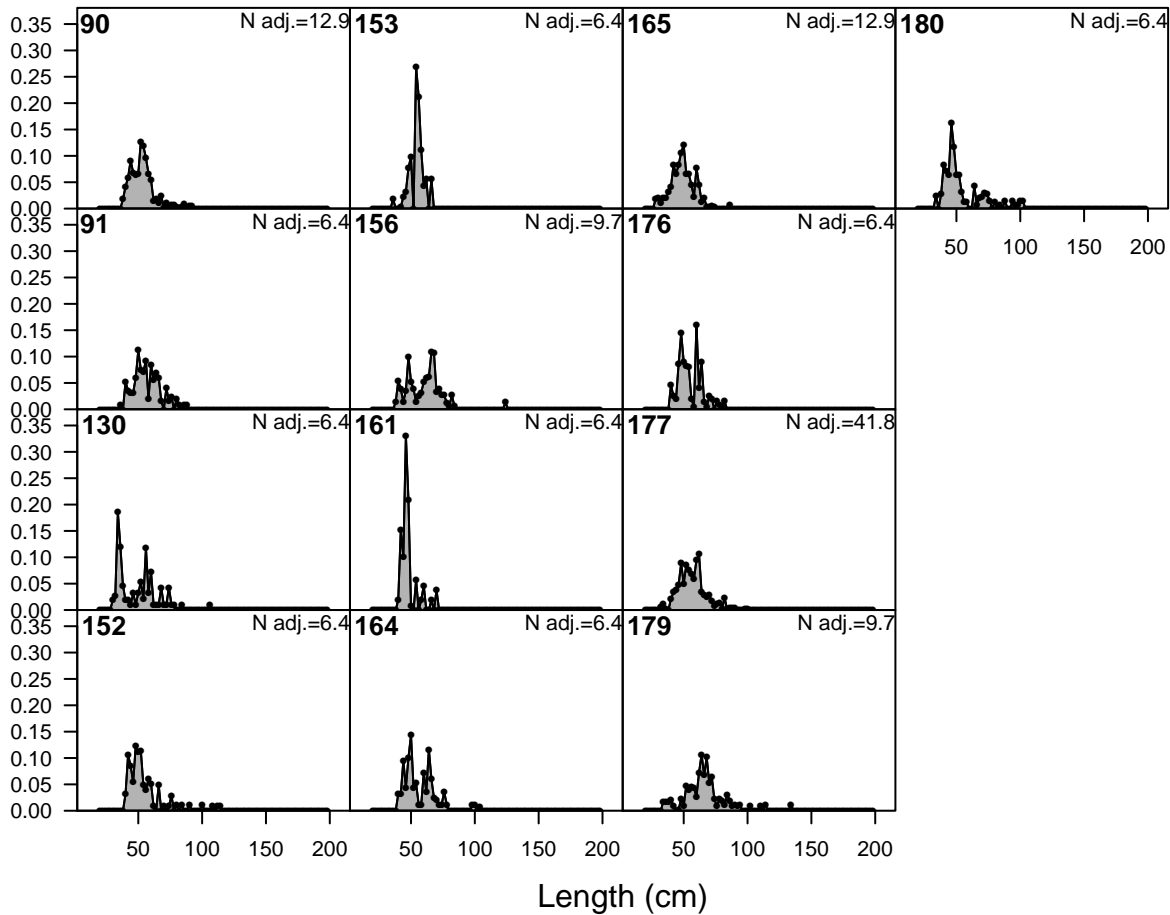


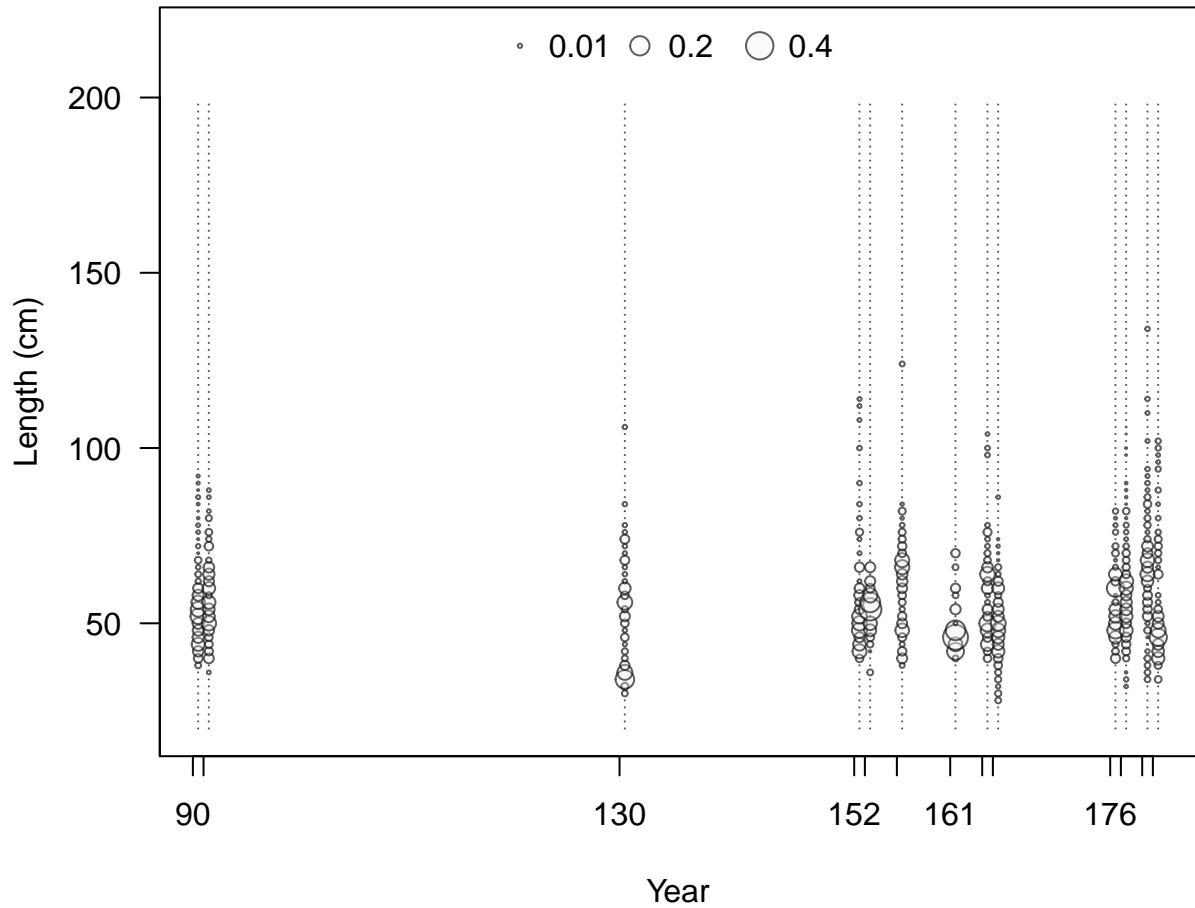


A3-OBJ (whole catch)

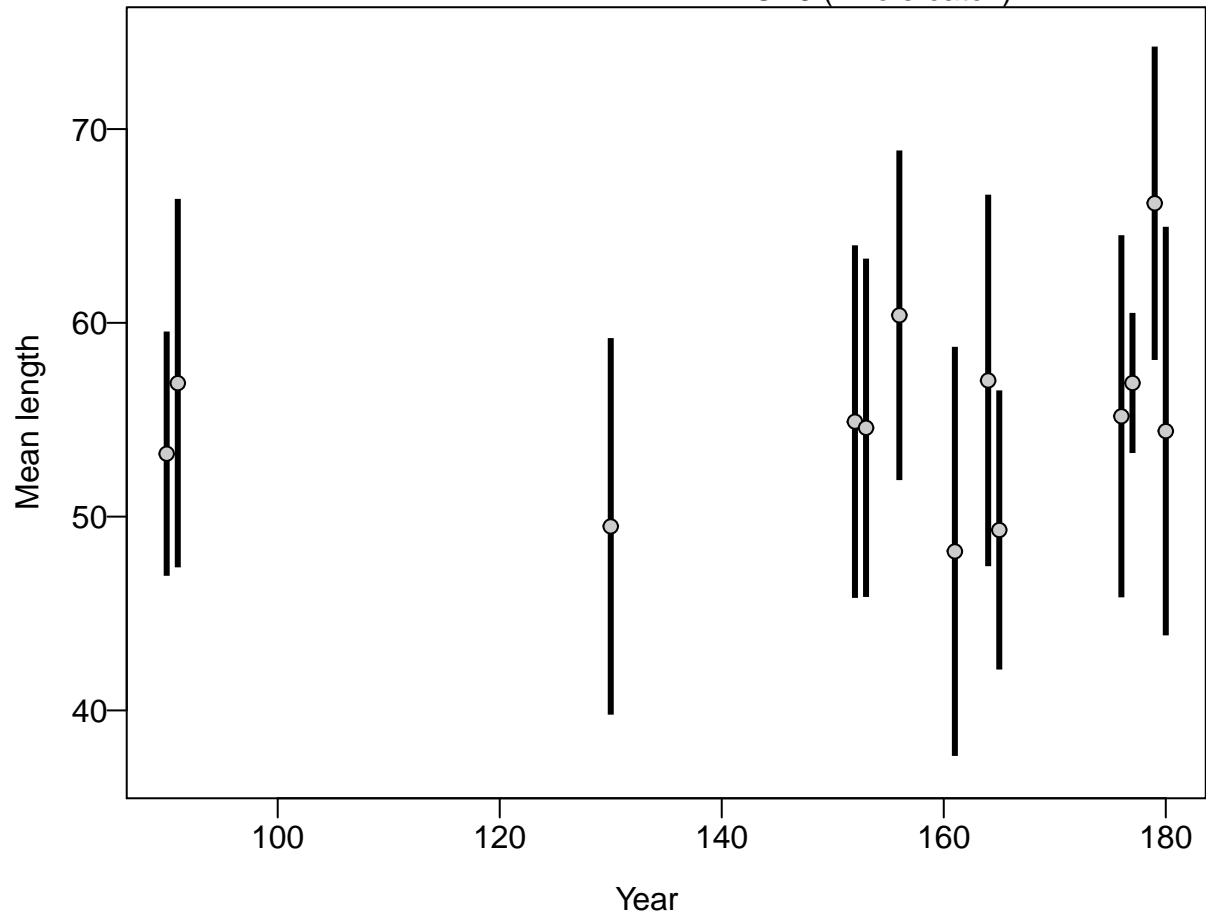


Proportion

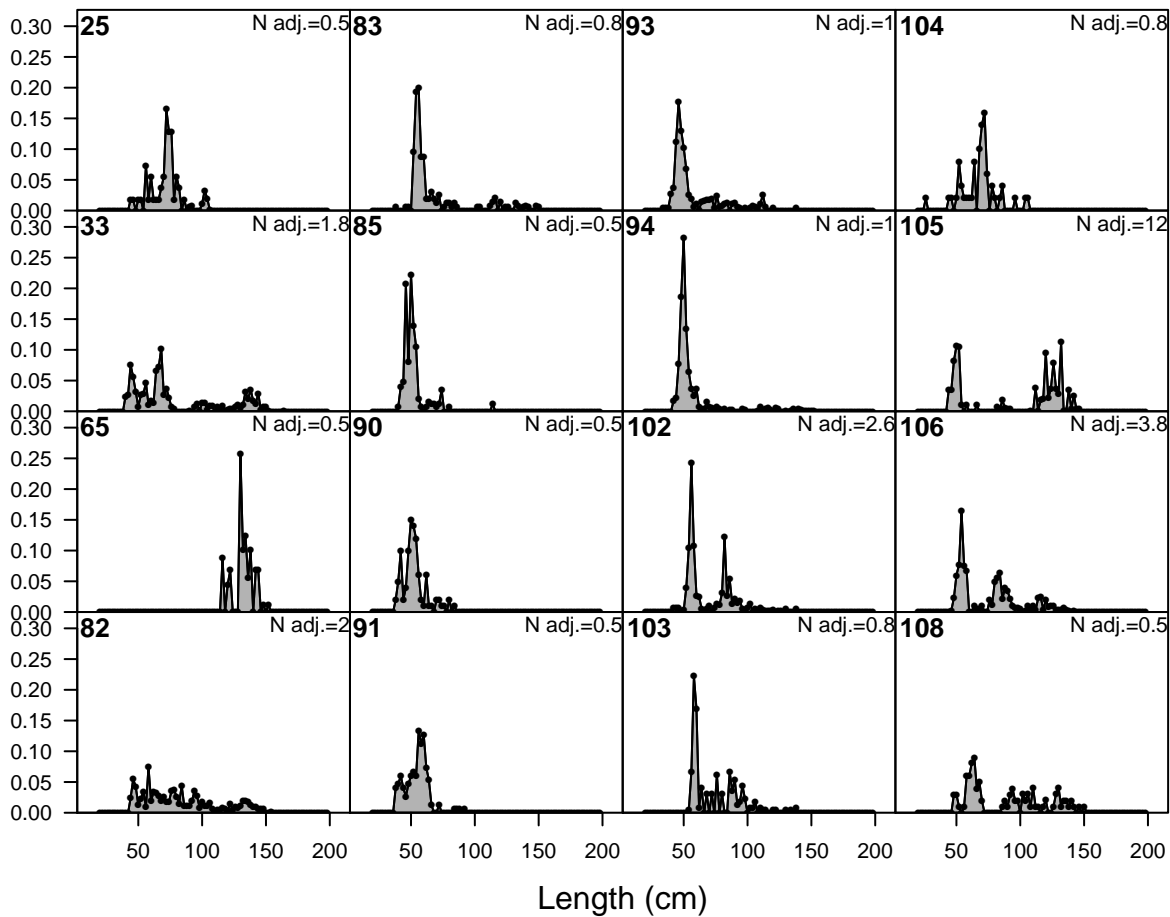




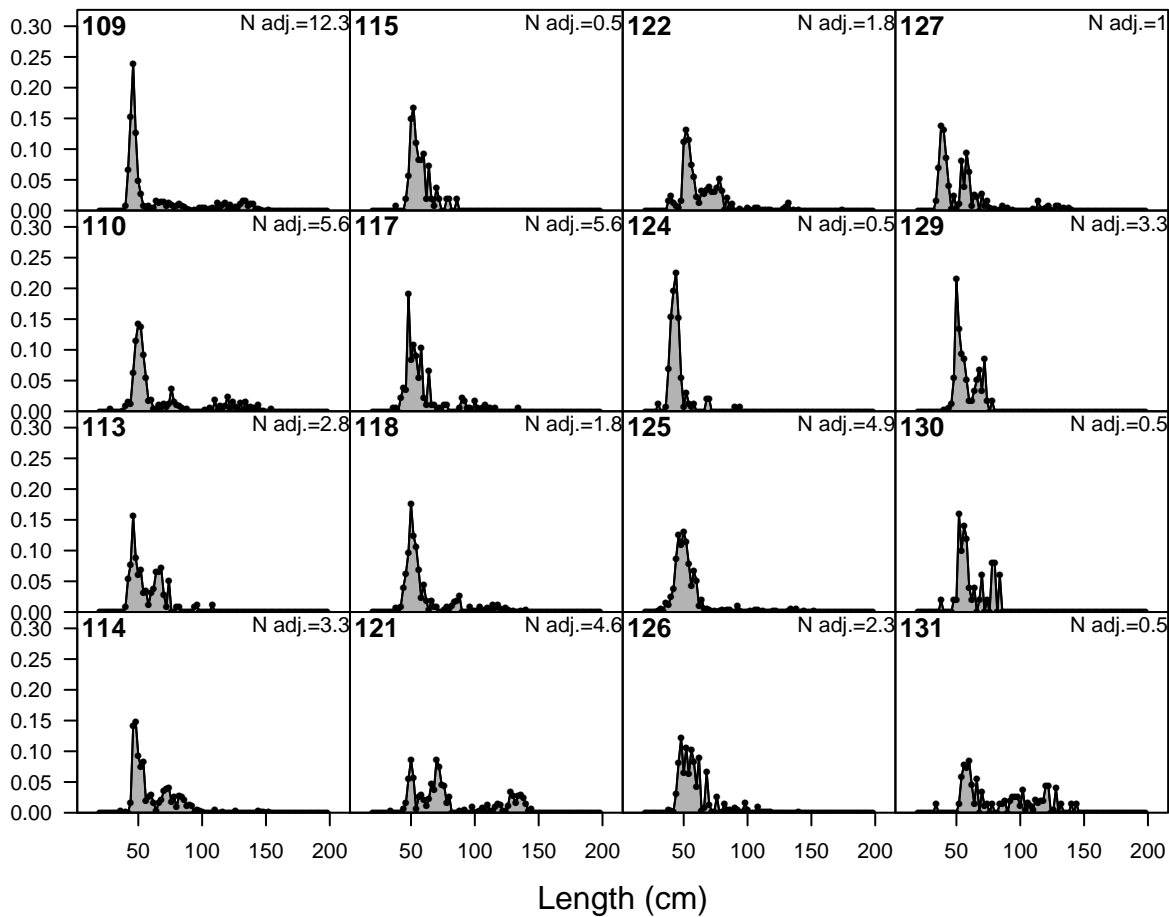
A4-OBJ (whole catch)



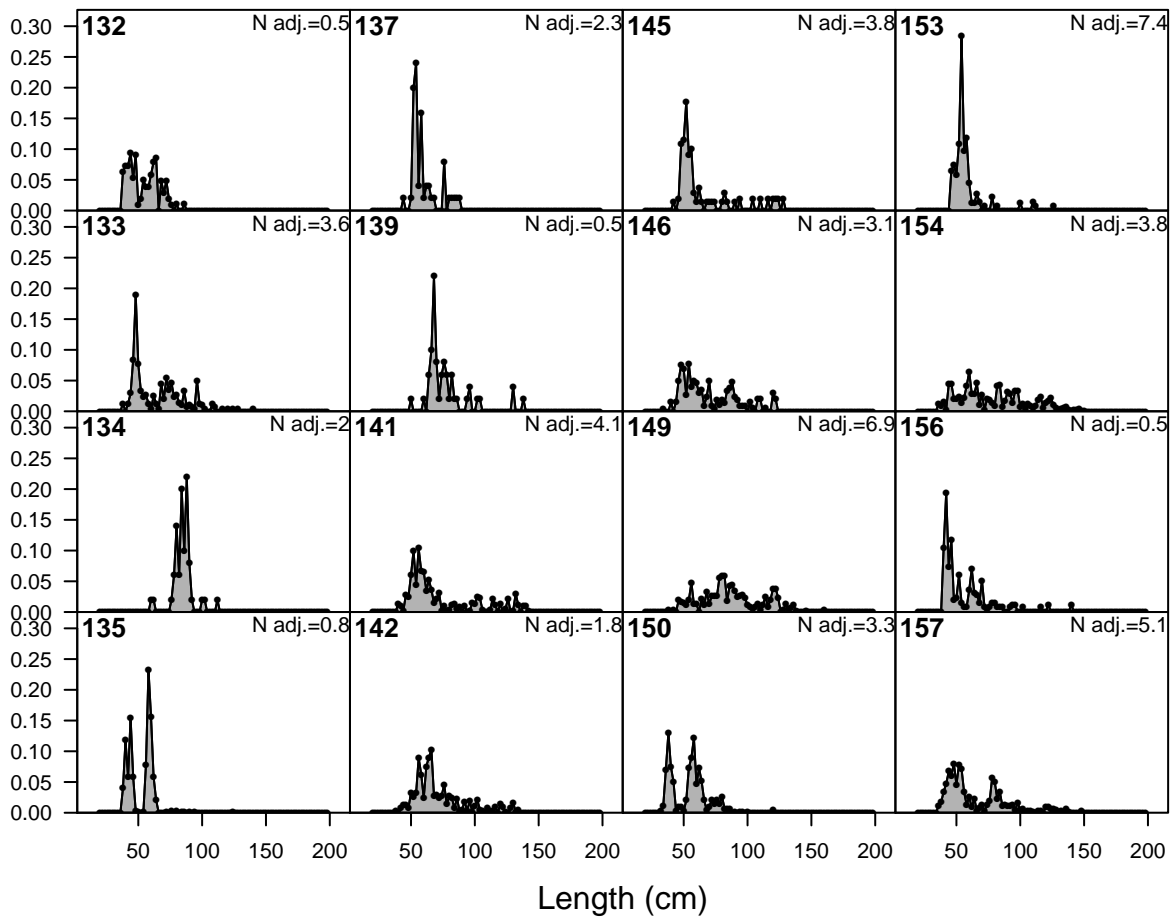
Proportion



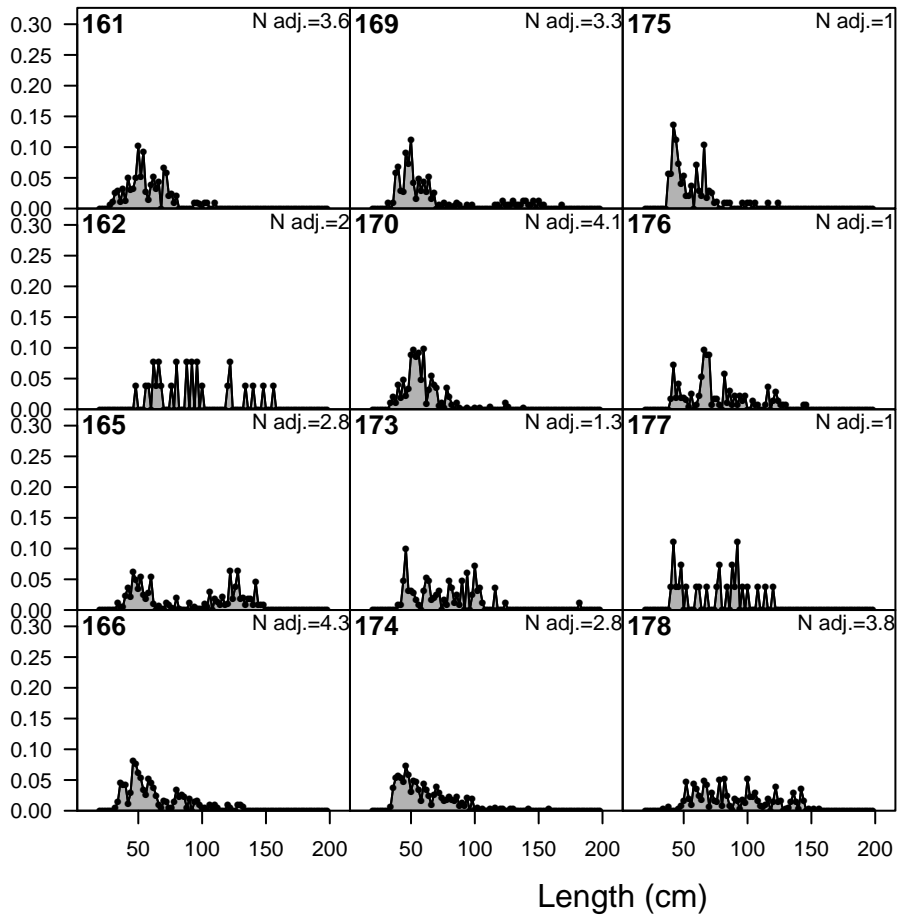
Proportion

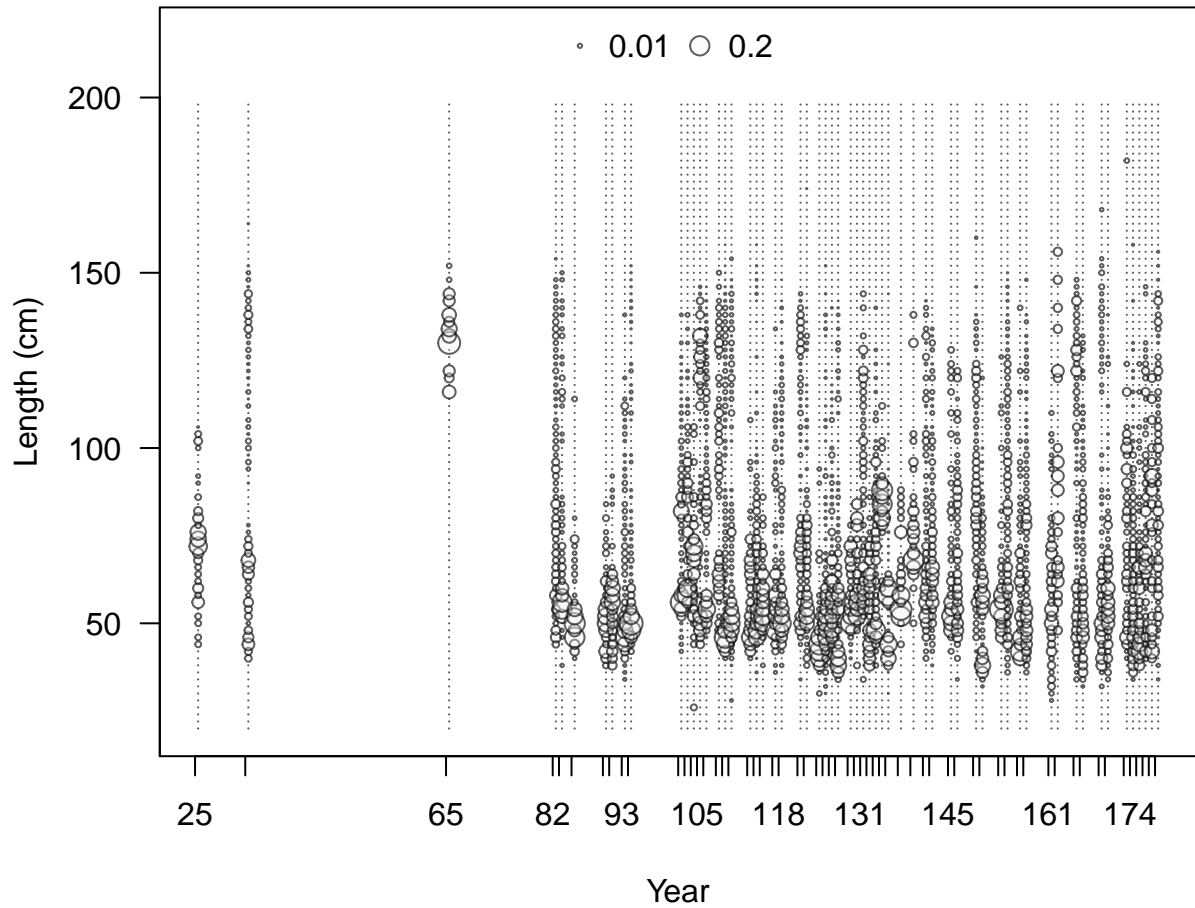


Proportion

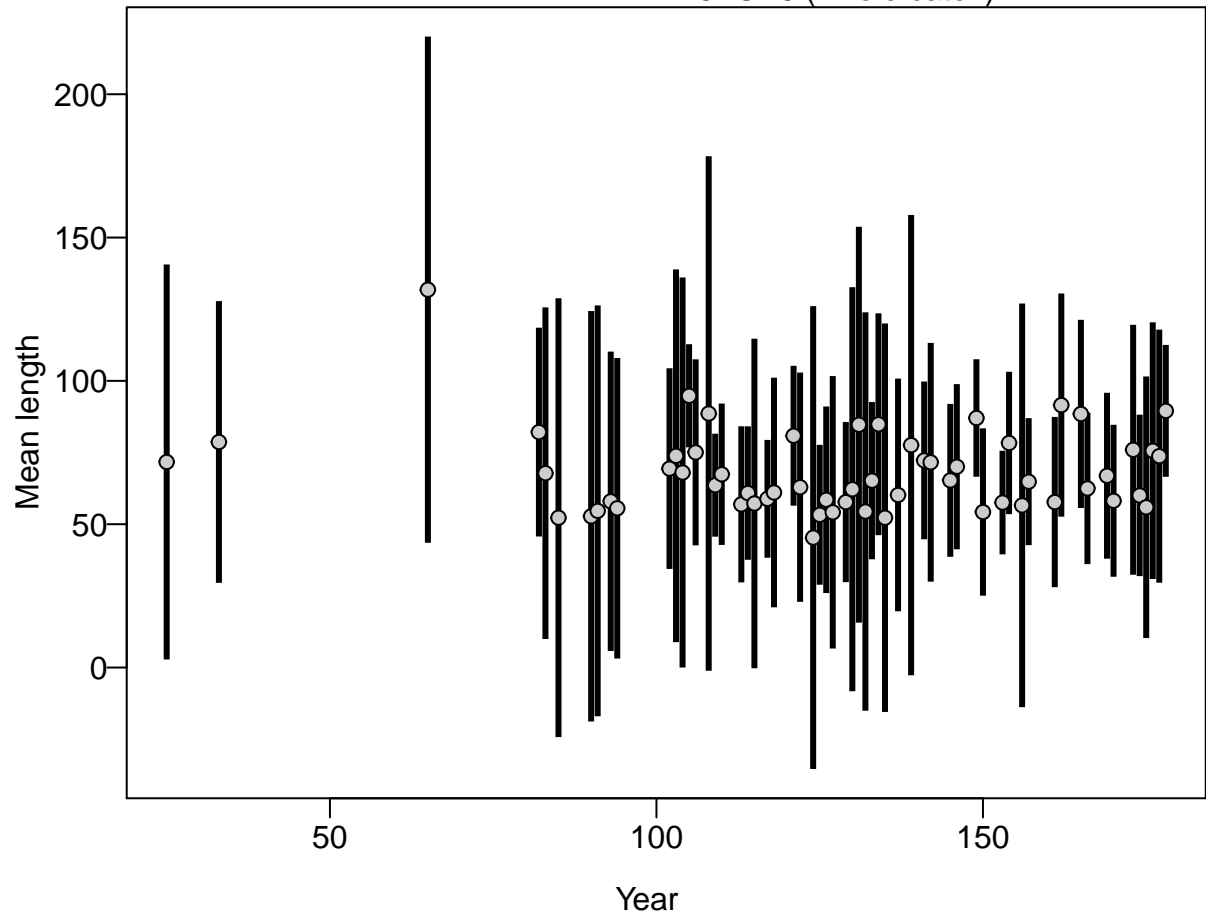


Proportion

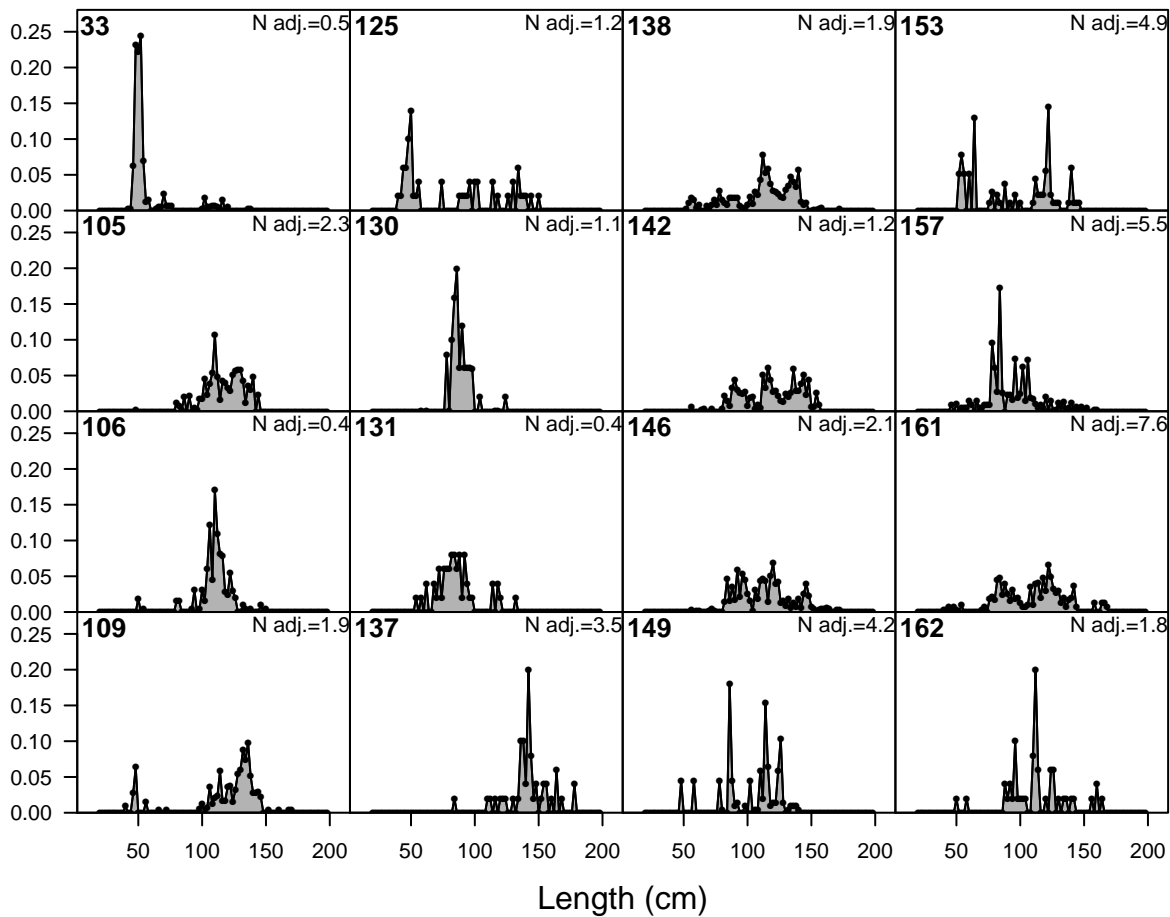




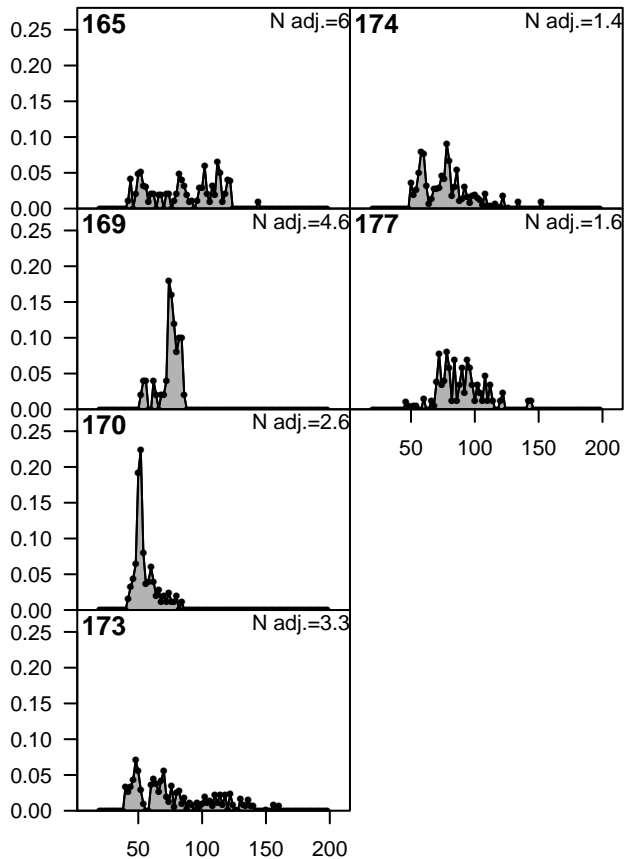
A5-OBJ (whole catch)



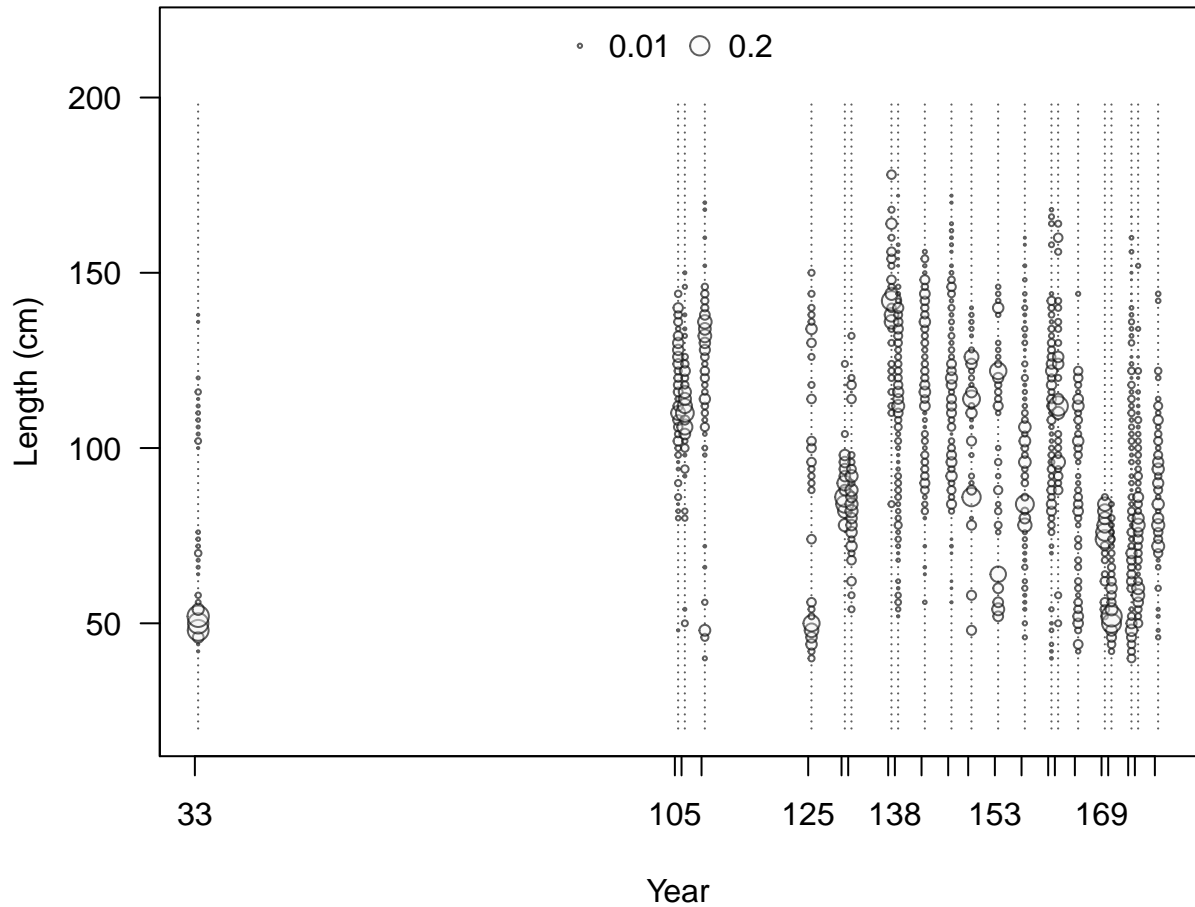
Proportion



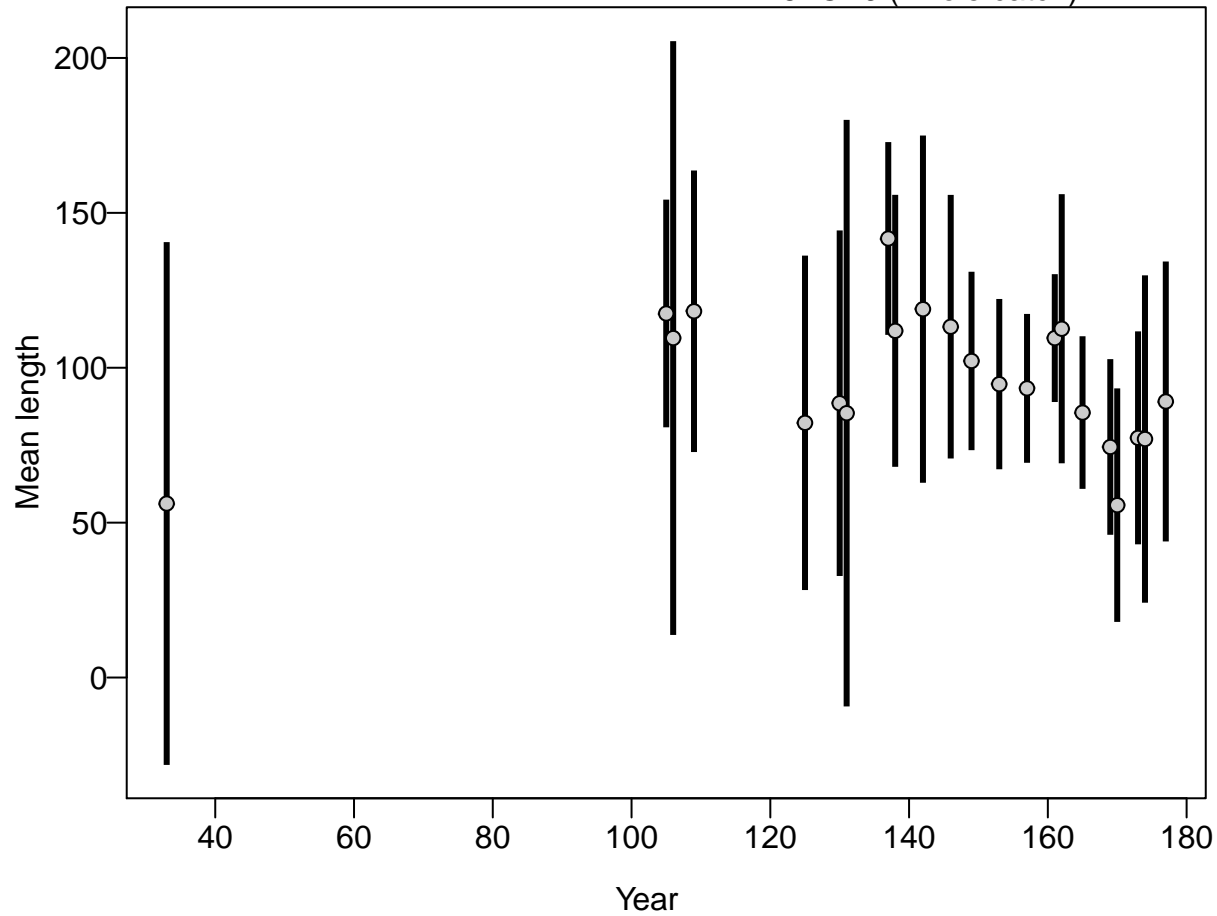
Proportion

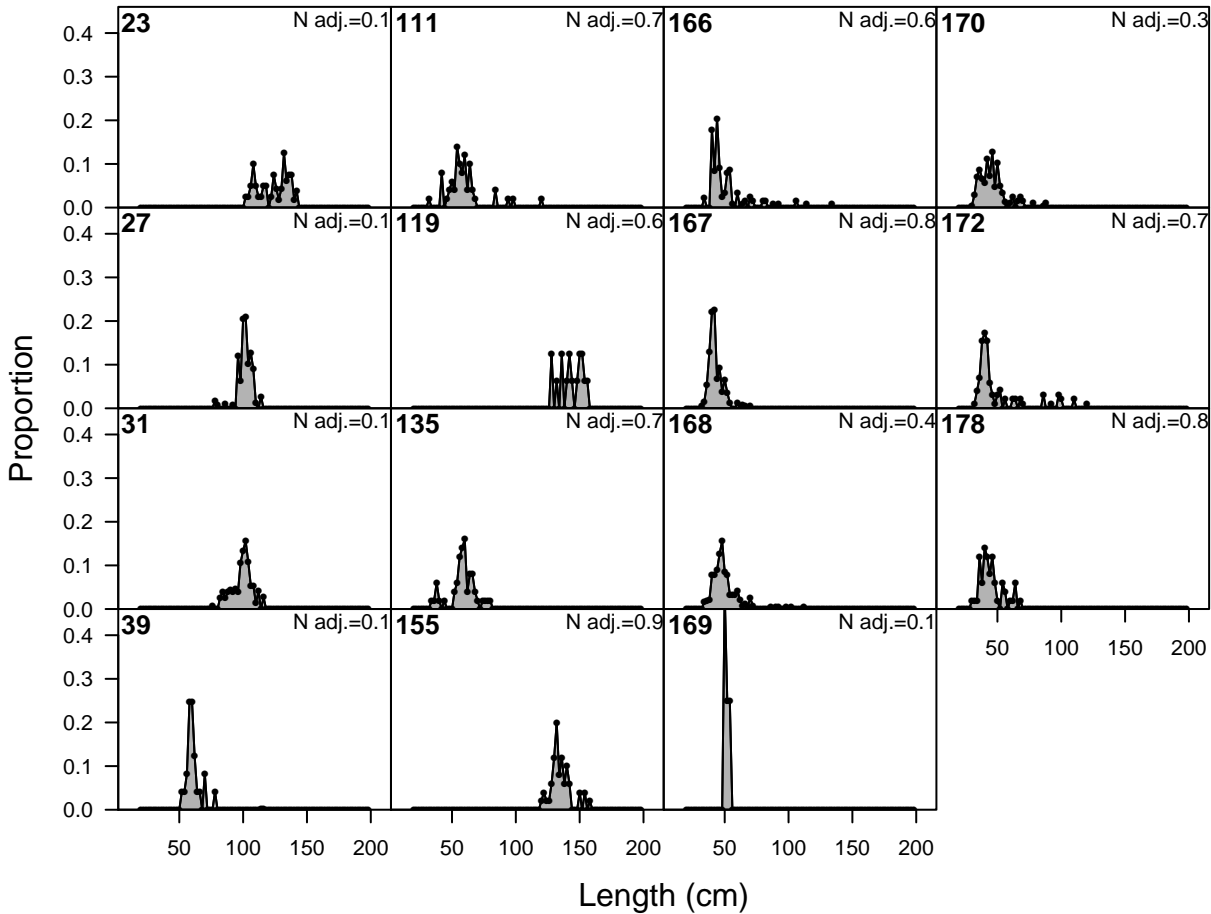


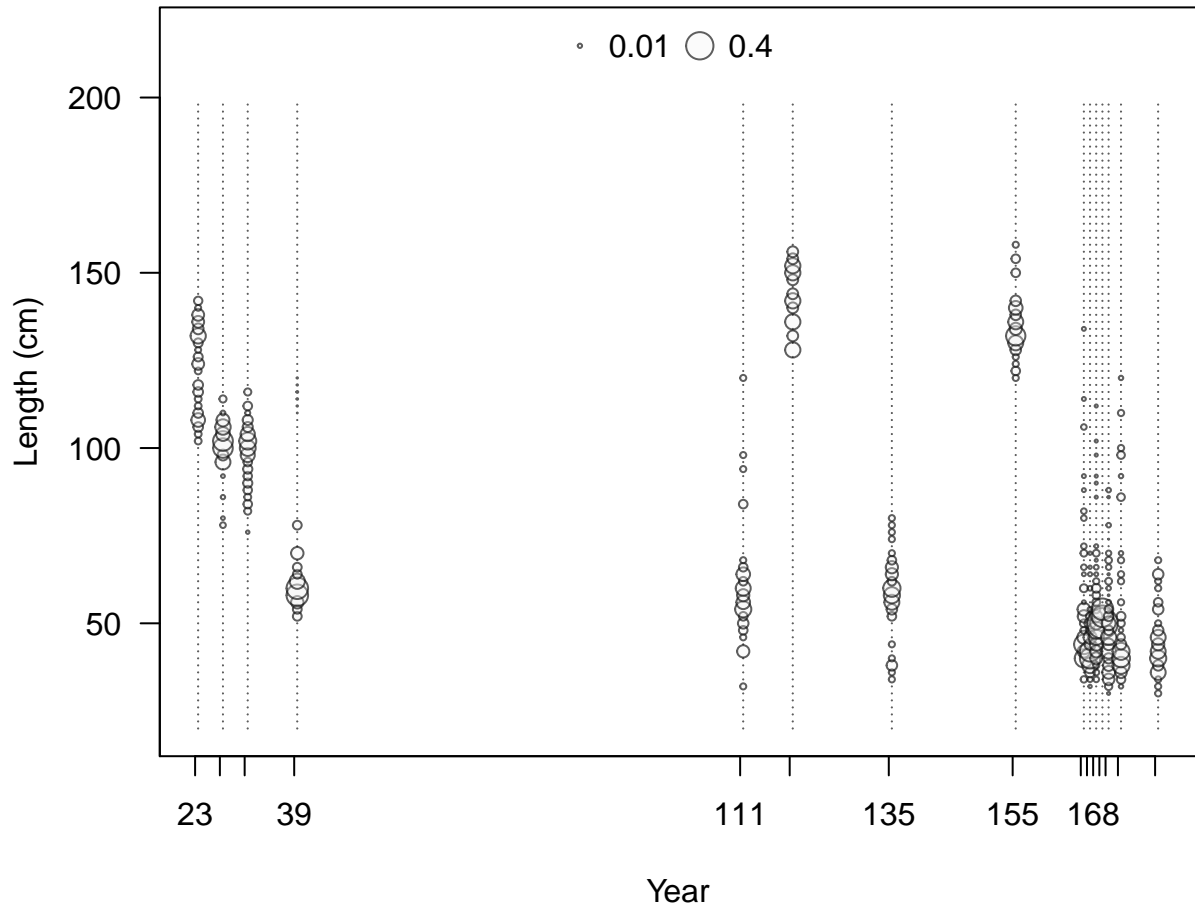
Length (cm)



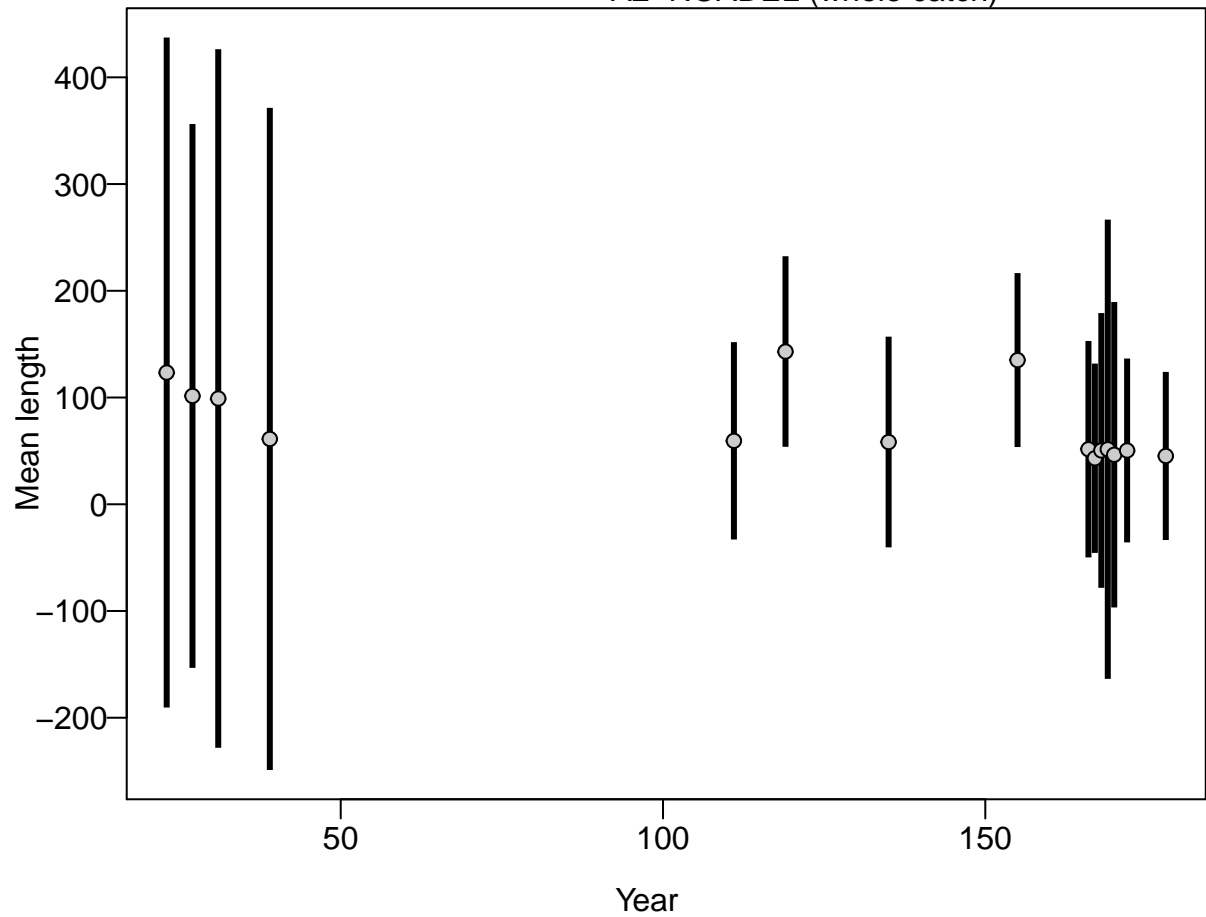
A6-OBJ (whole catch)

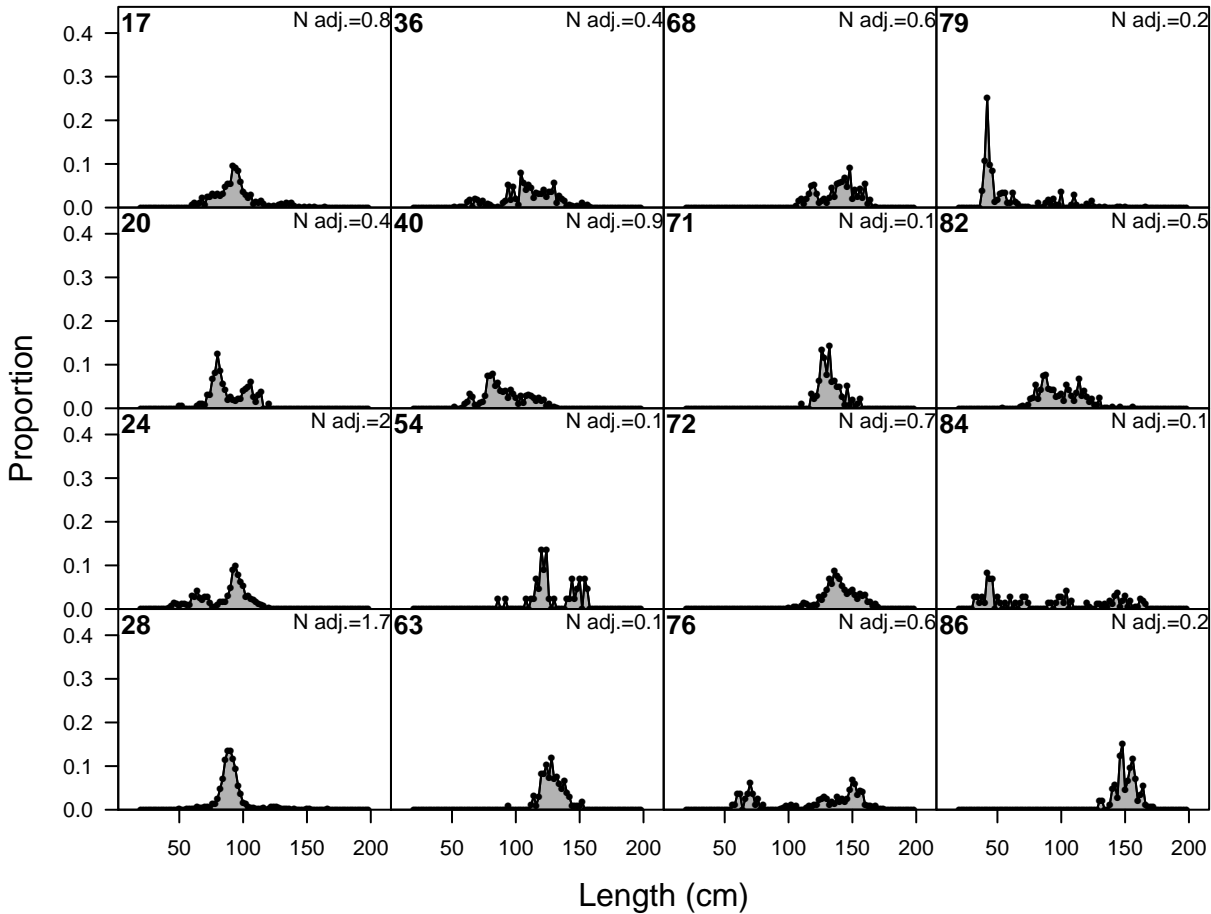


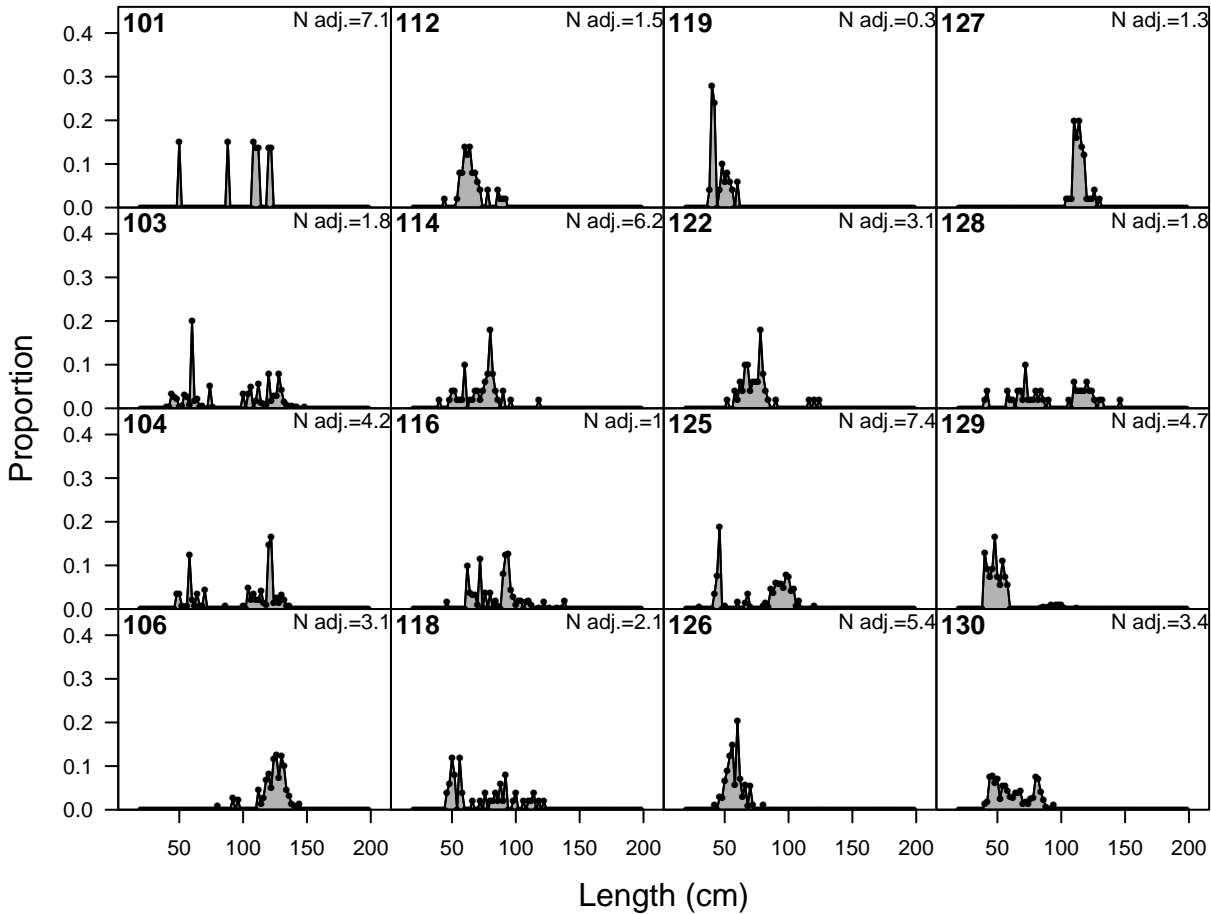




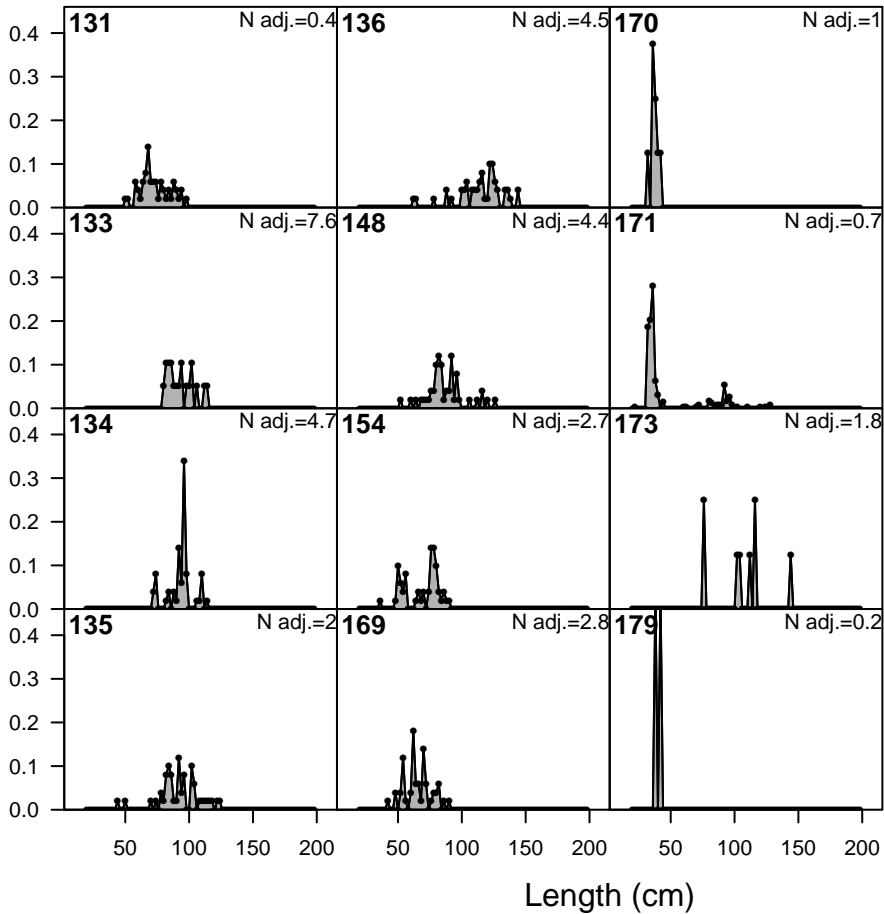
A2-NOADEL (whole catch)

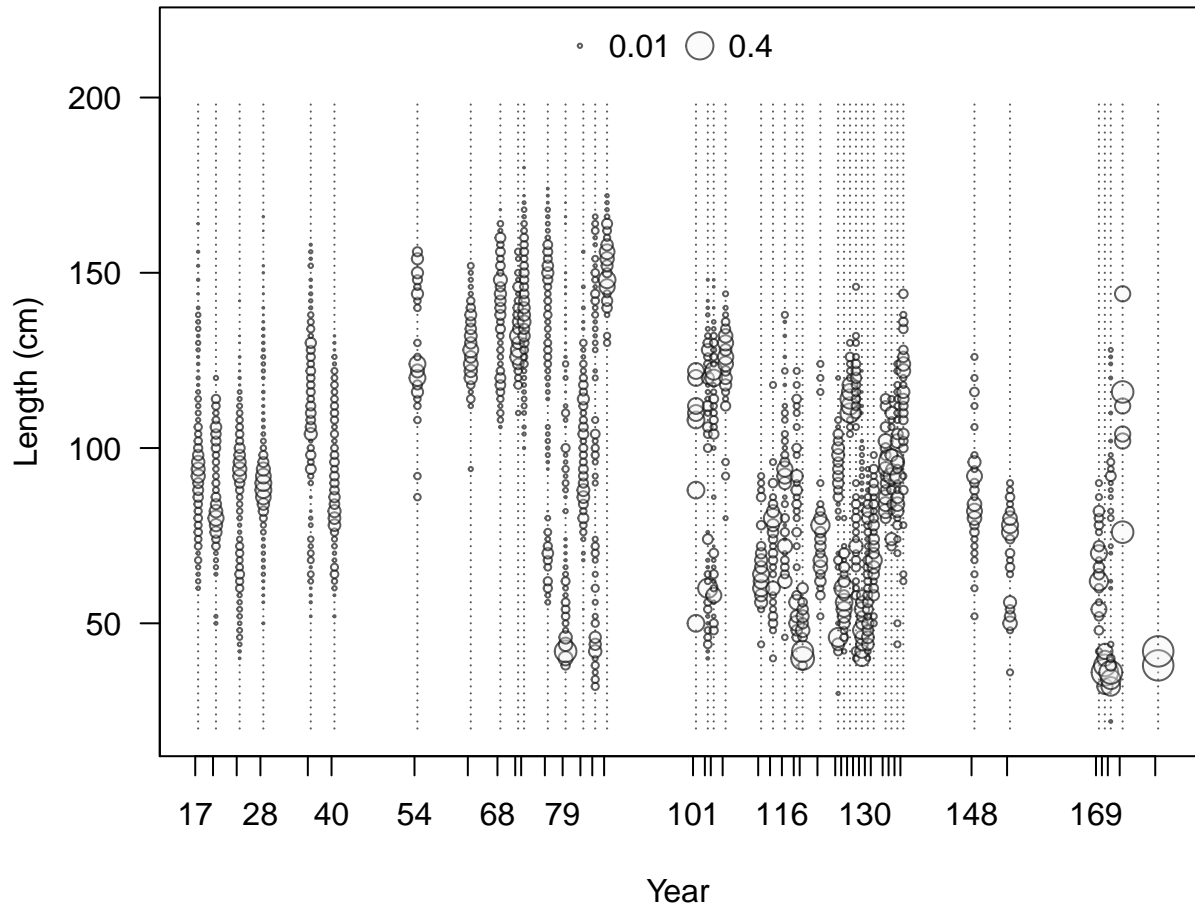




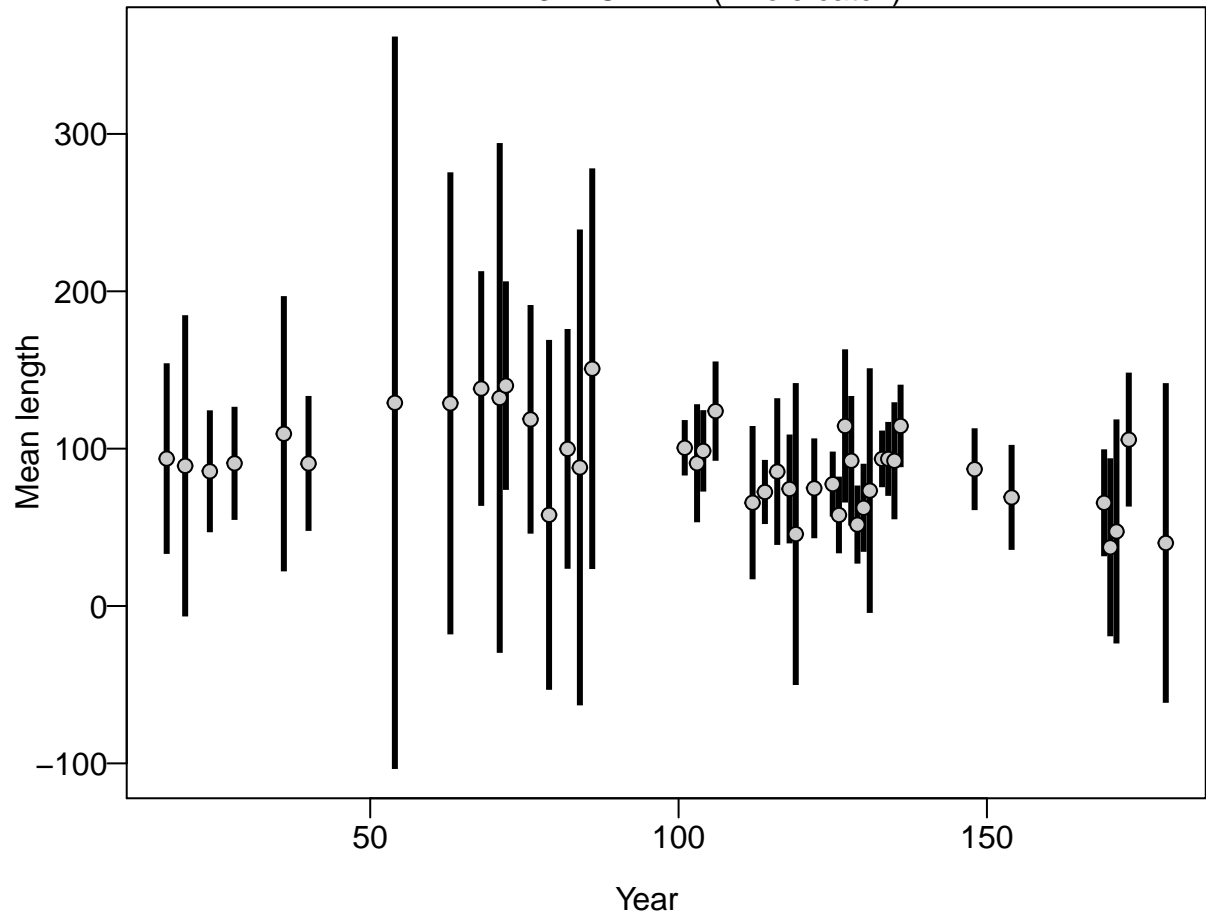


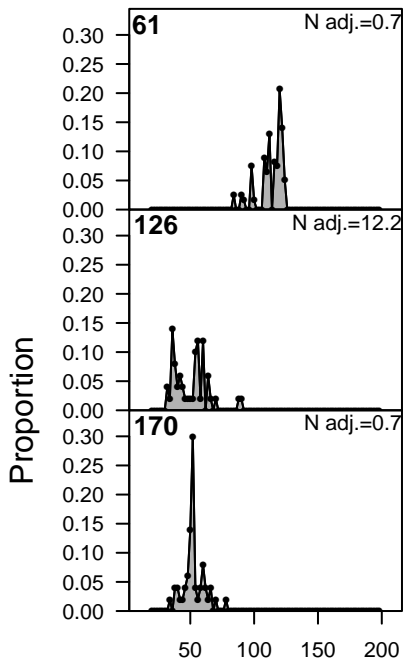
Proportion



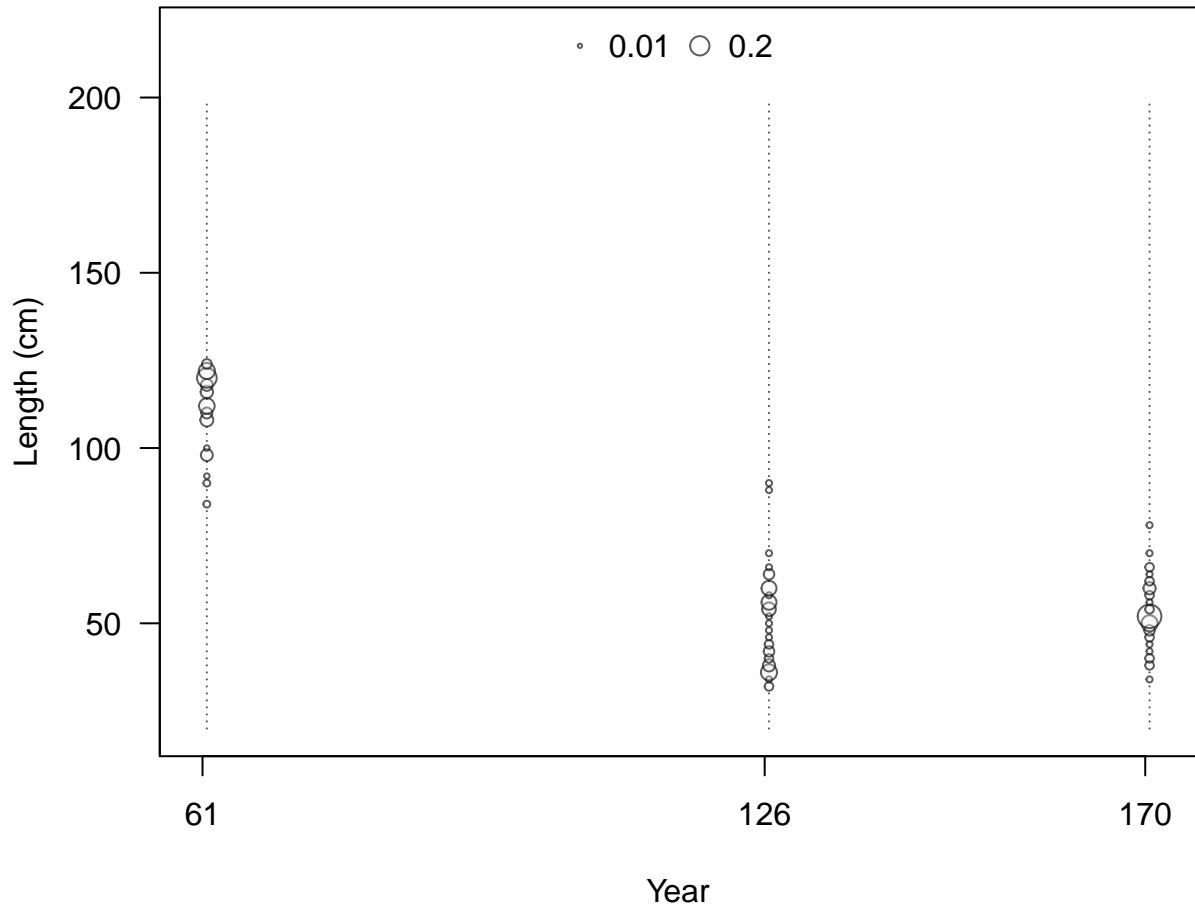


A3-NOADEL (whole catch)

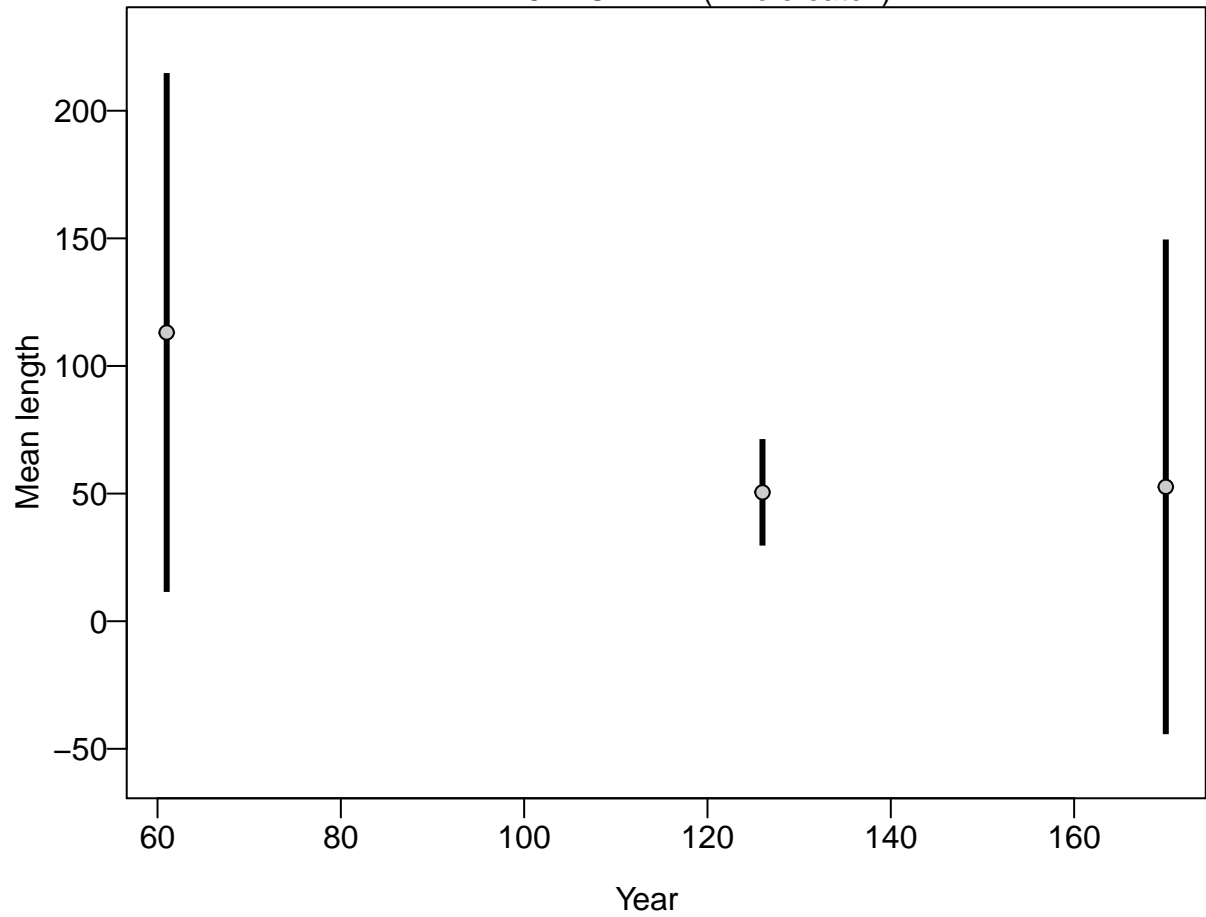




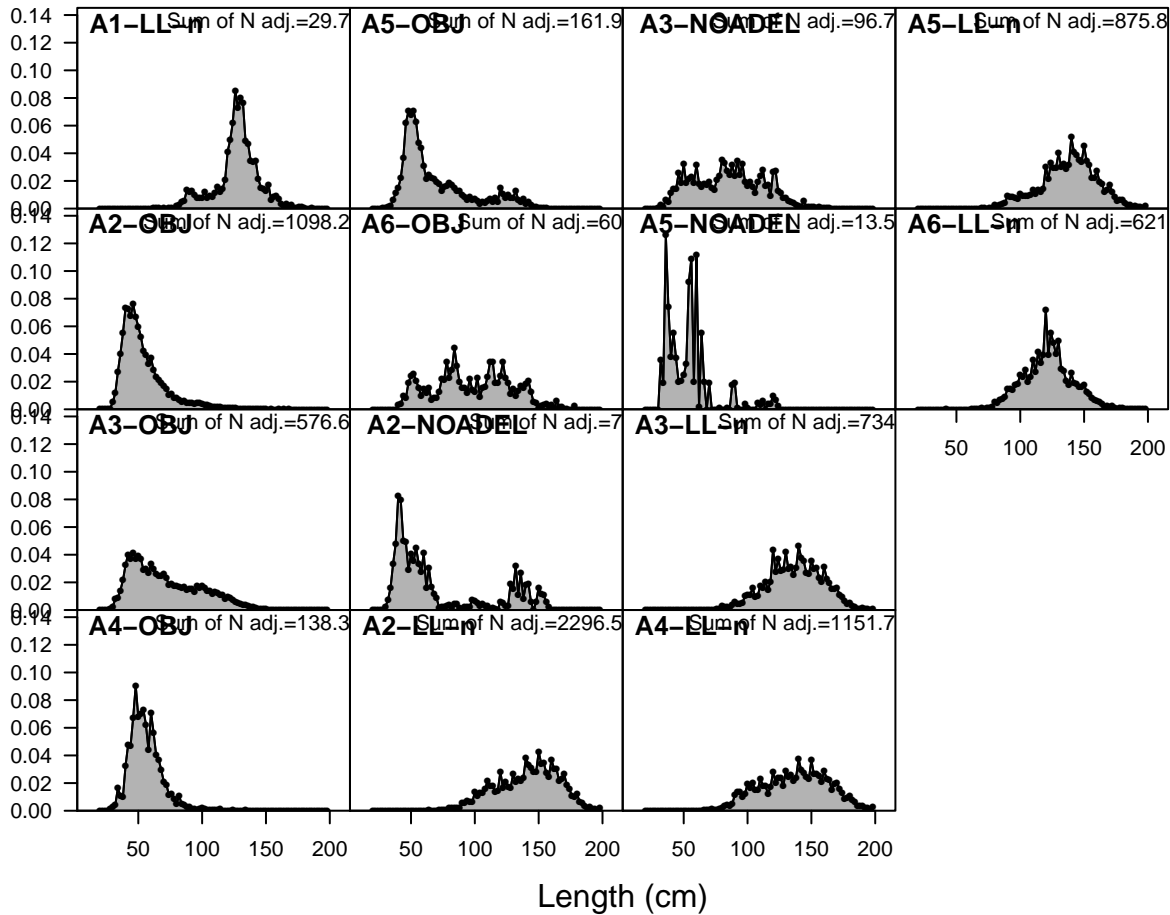
Length (cm)

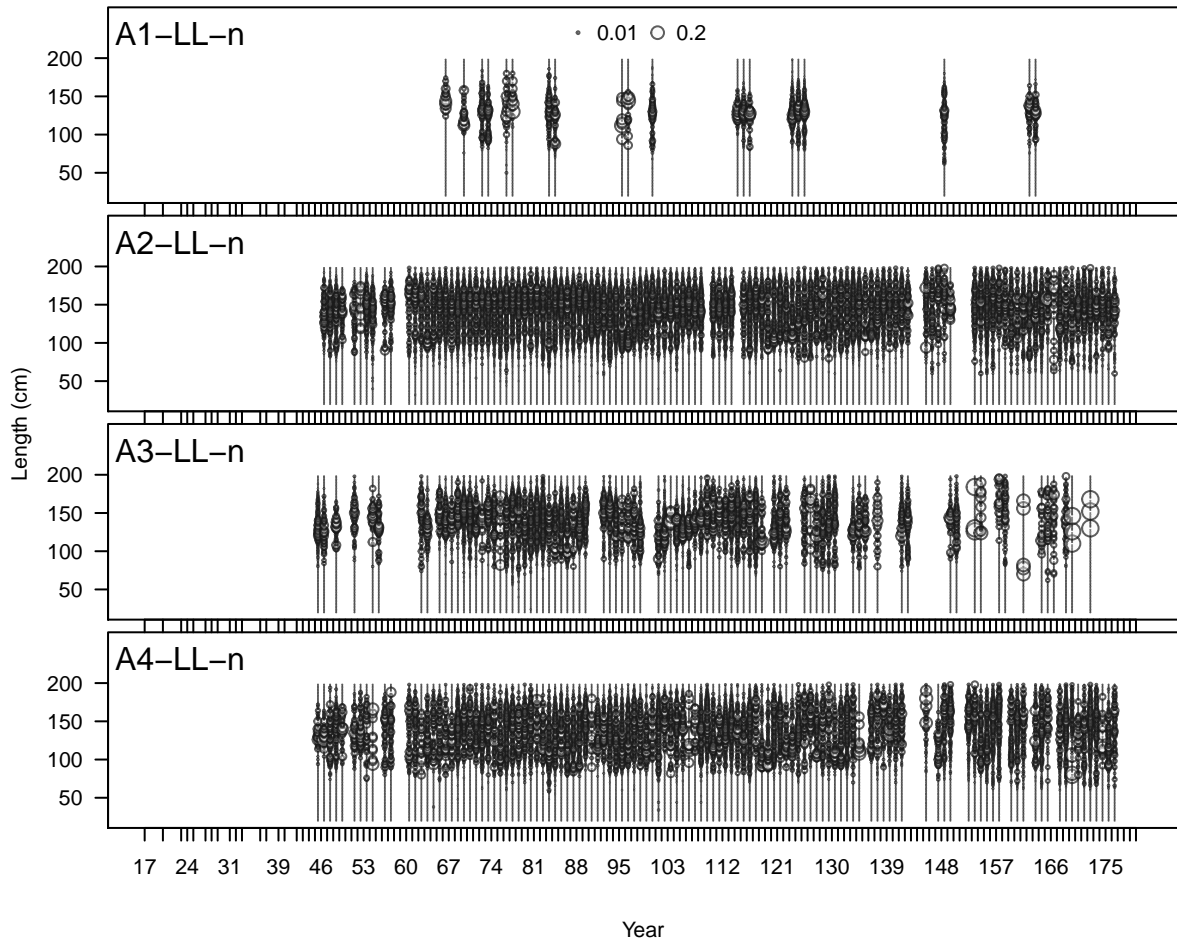


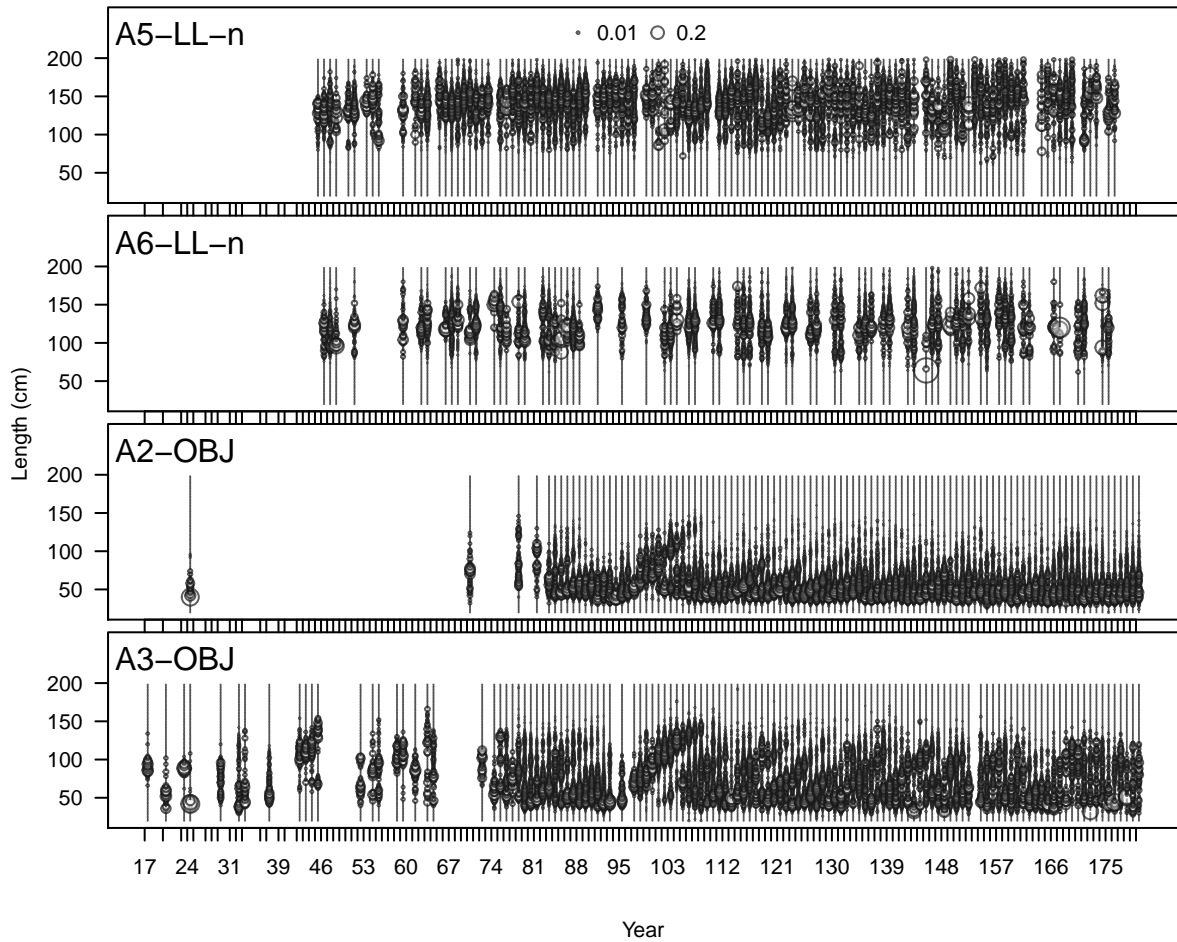
A5-NOADEL (whole catch)

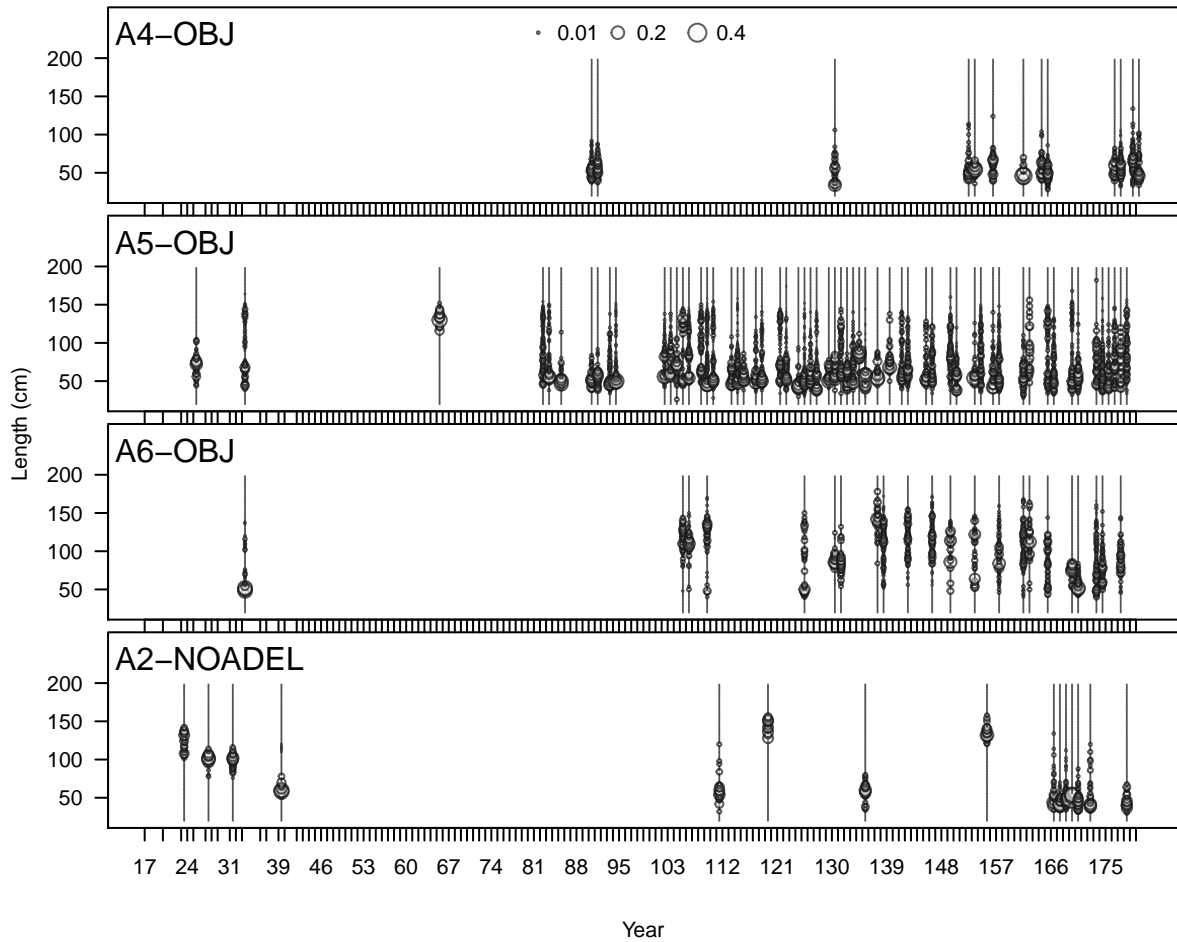


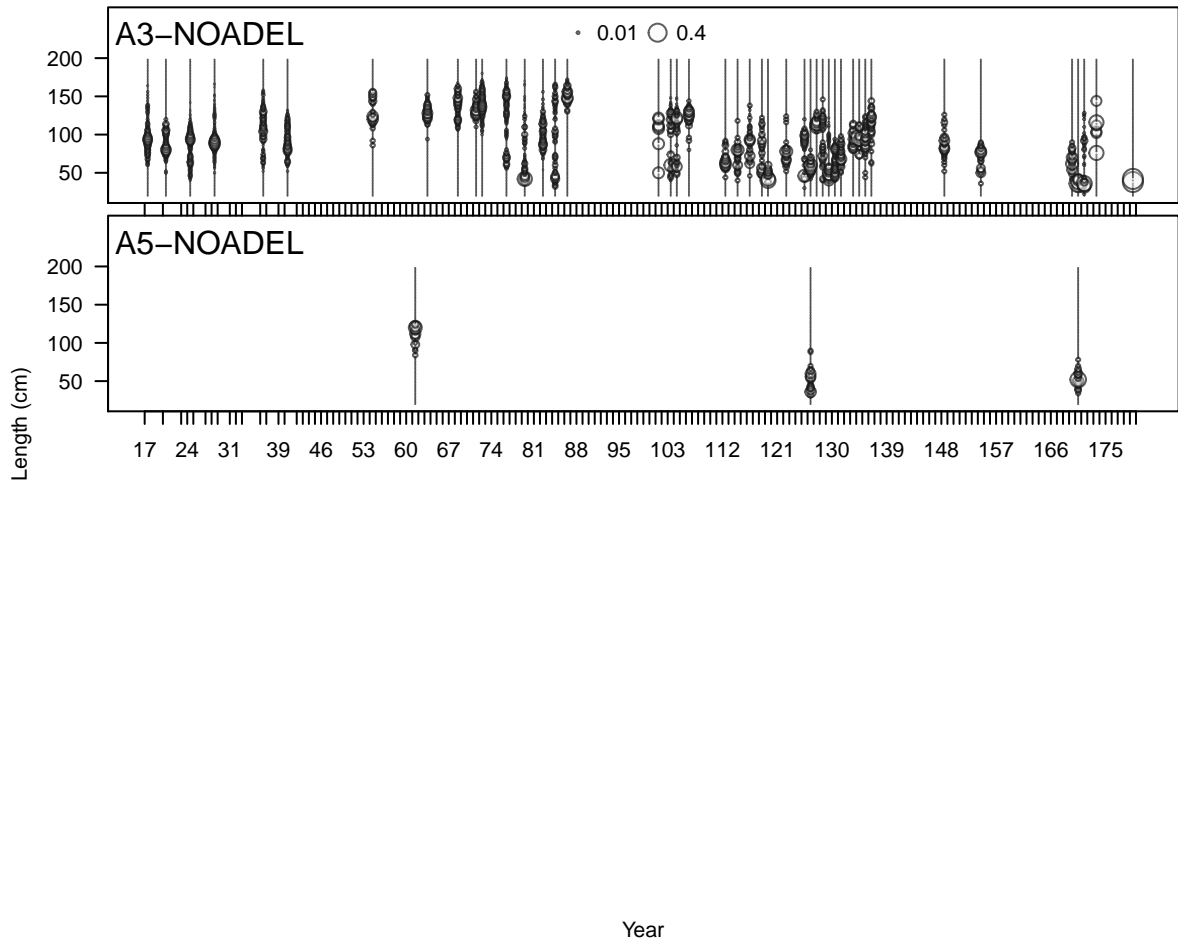
Proportion



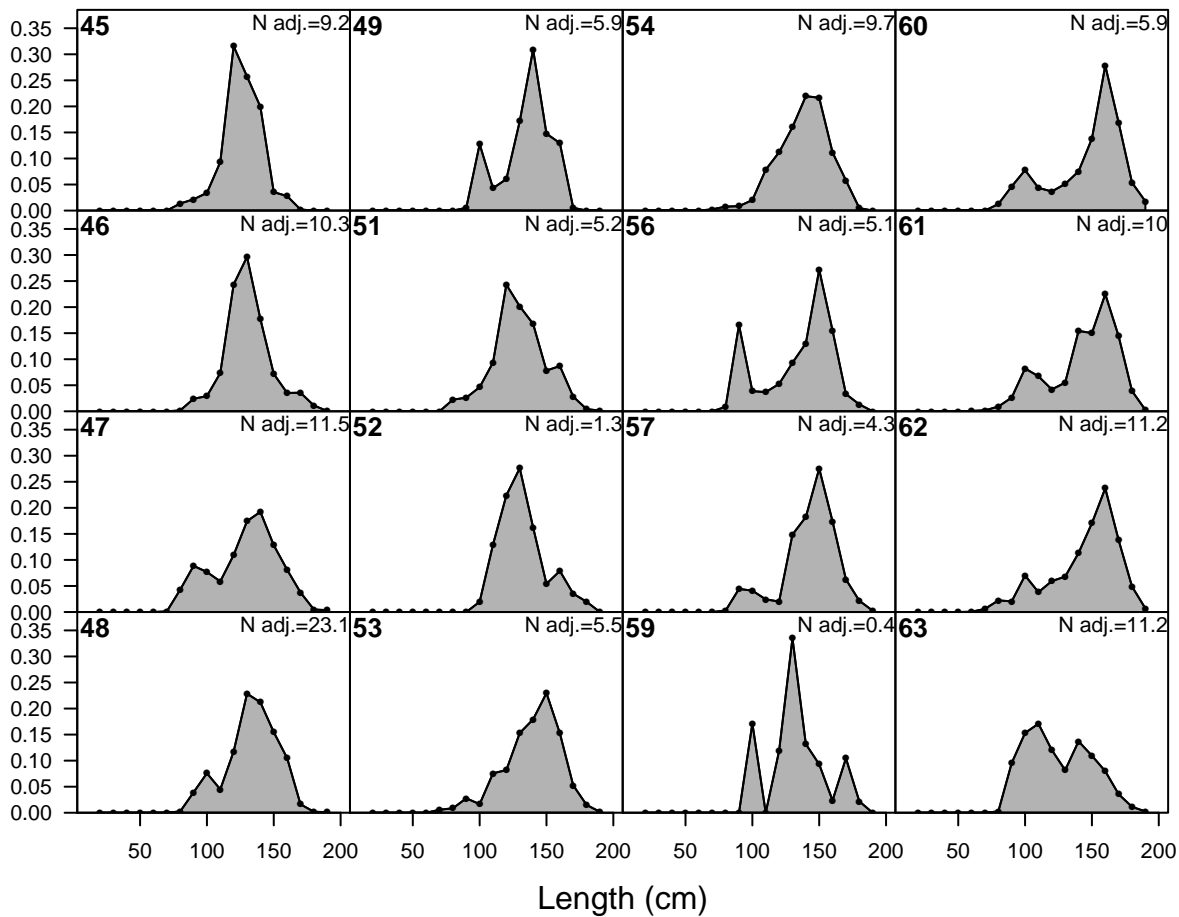




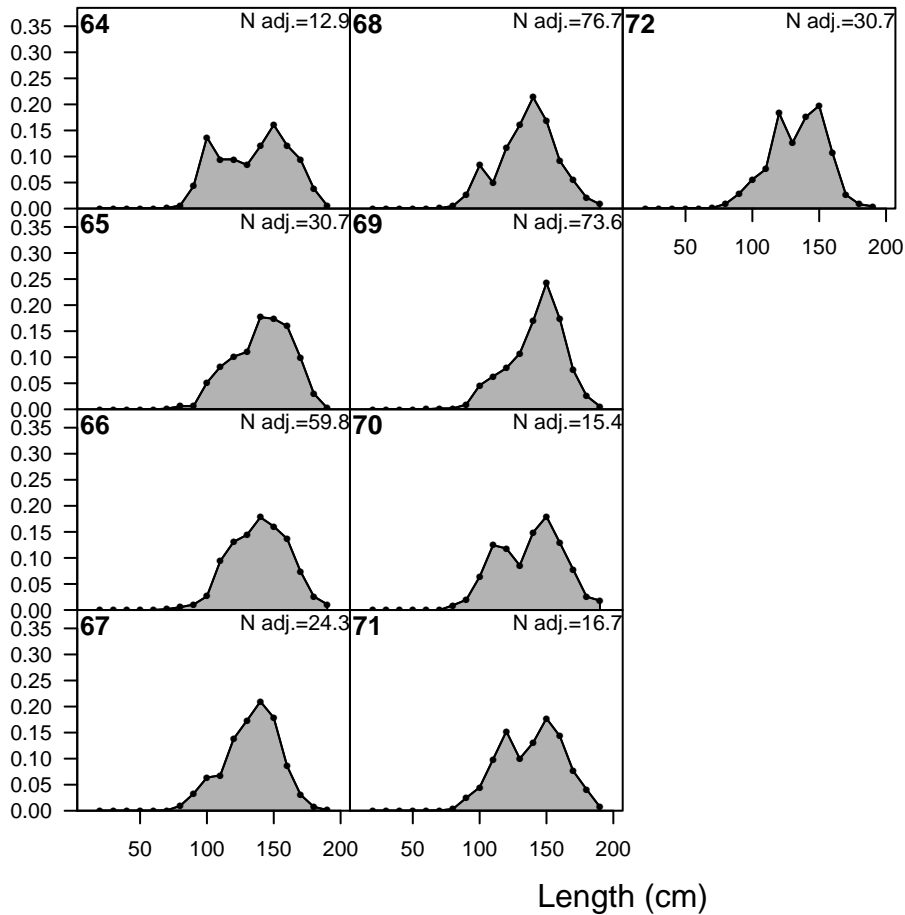


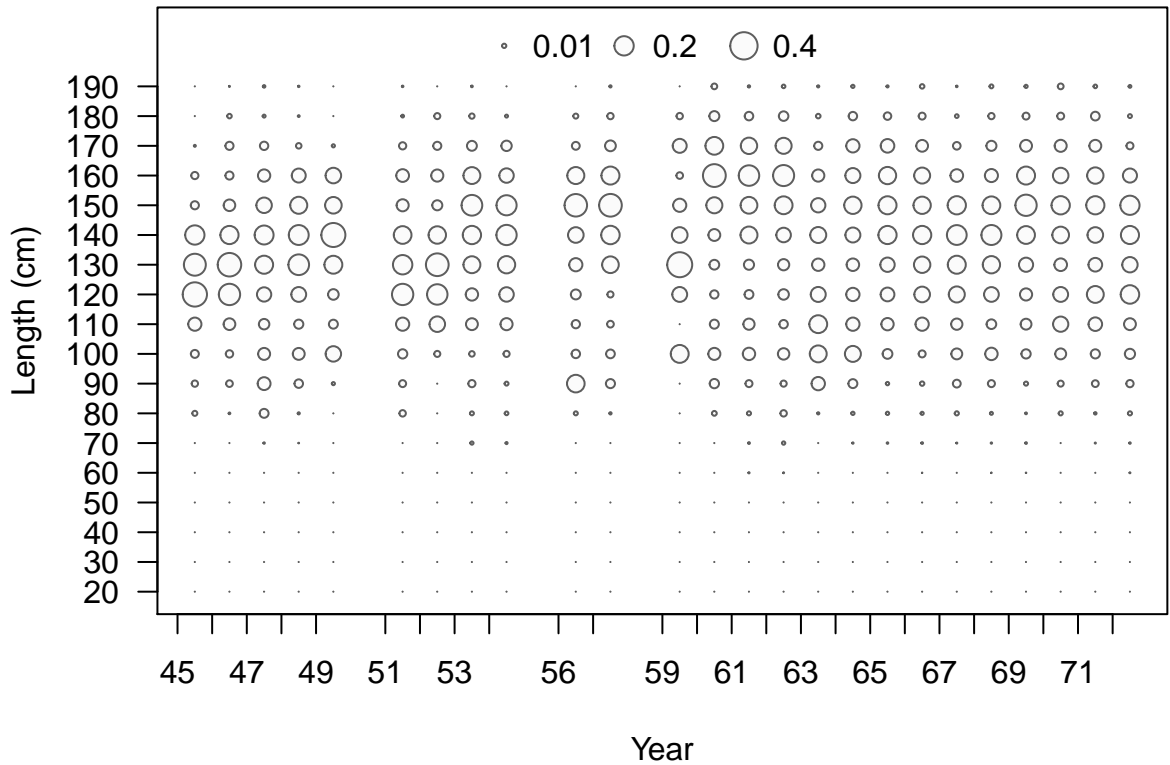


Proportion

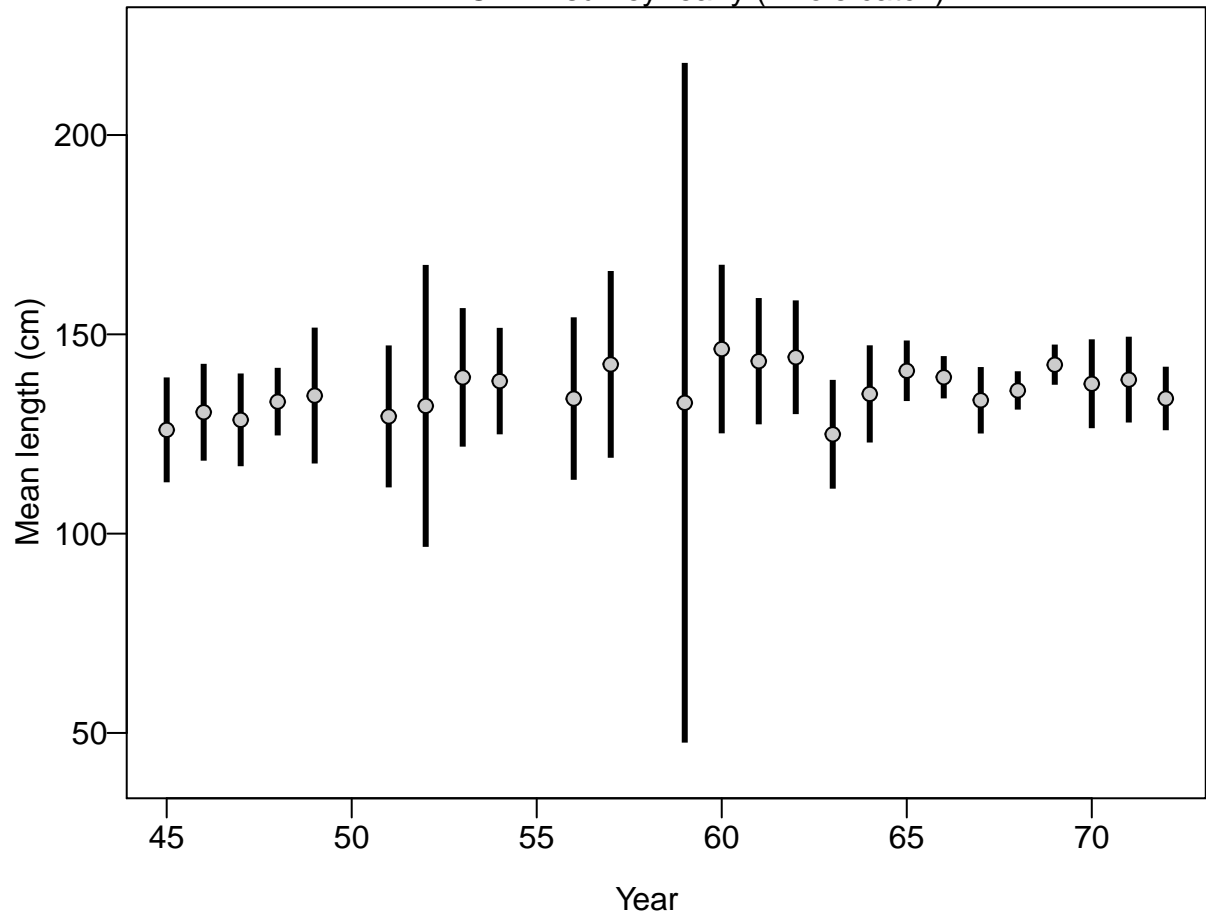


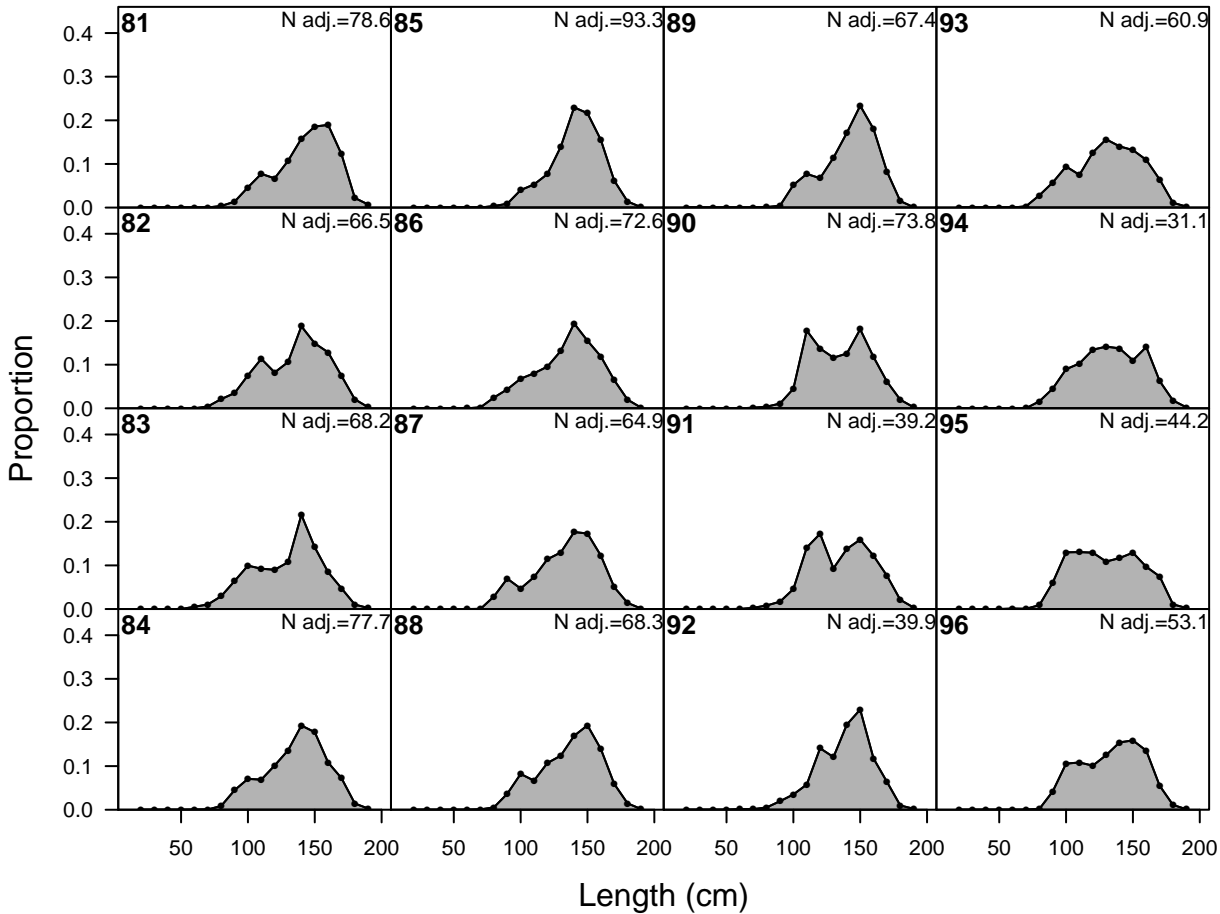
Proportion

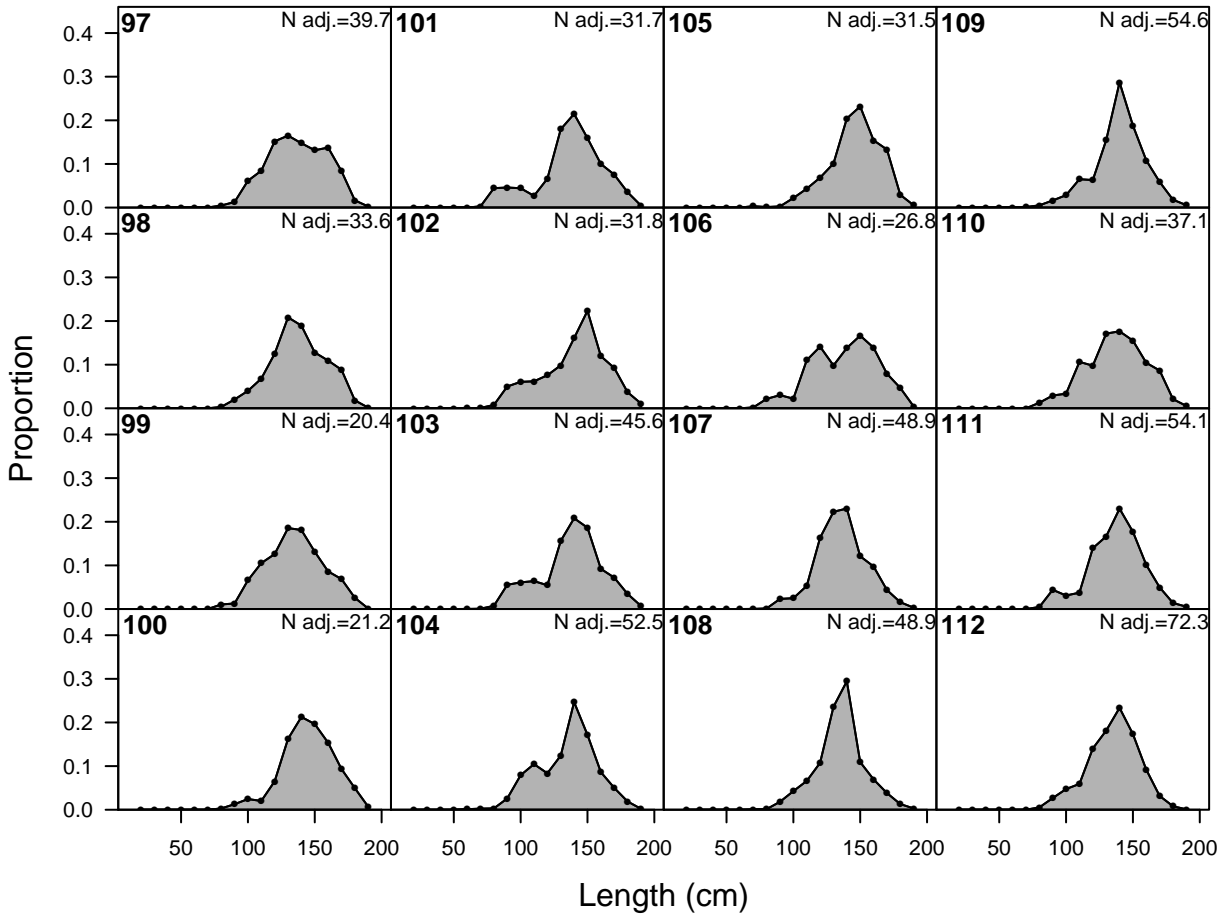


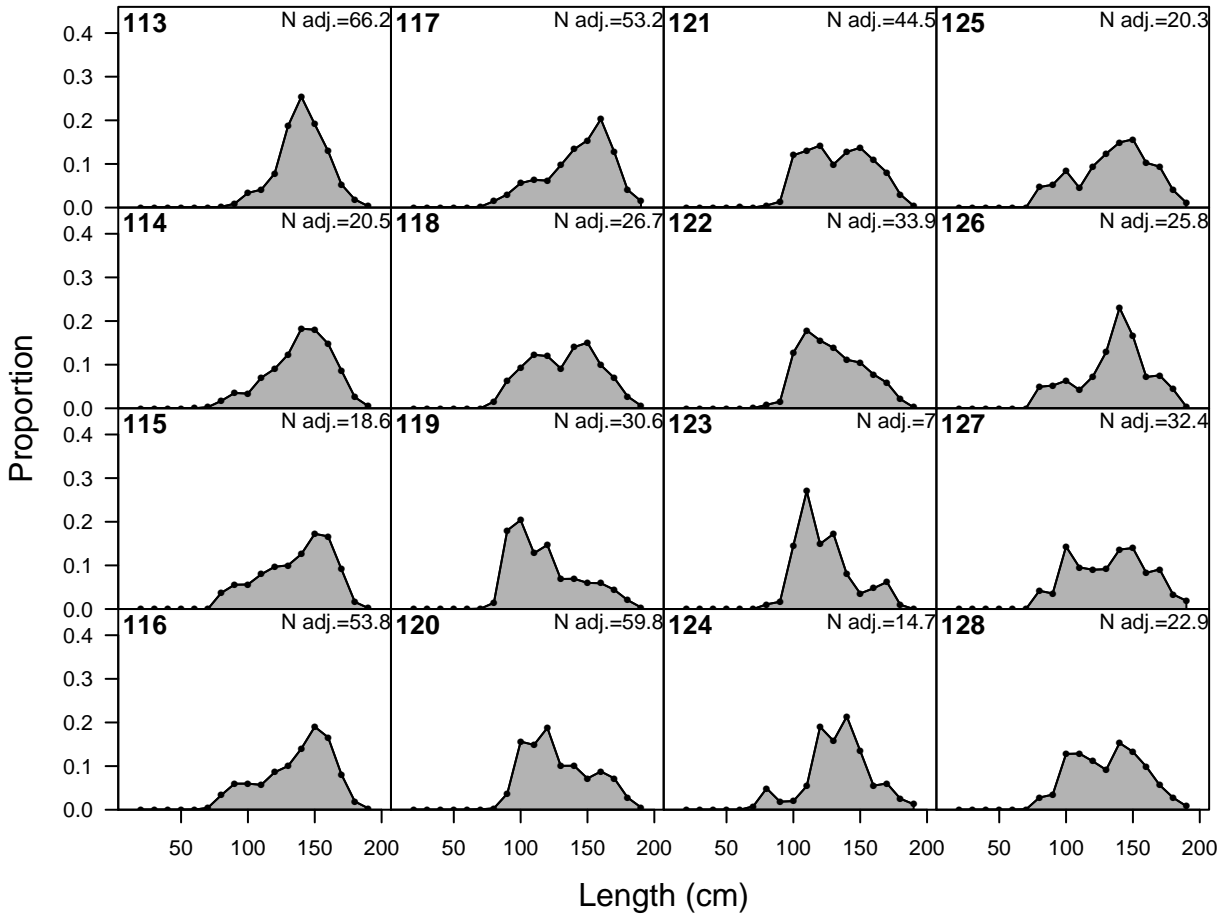


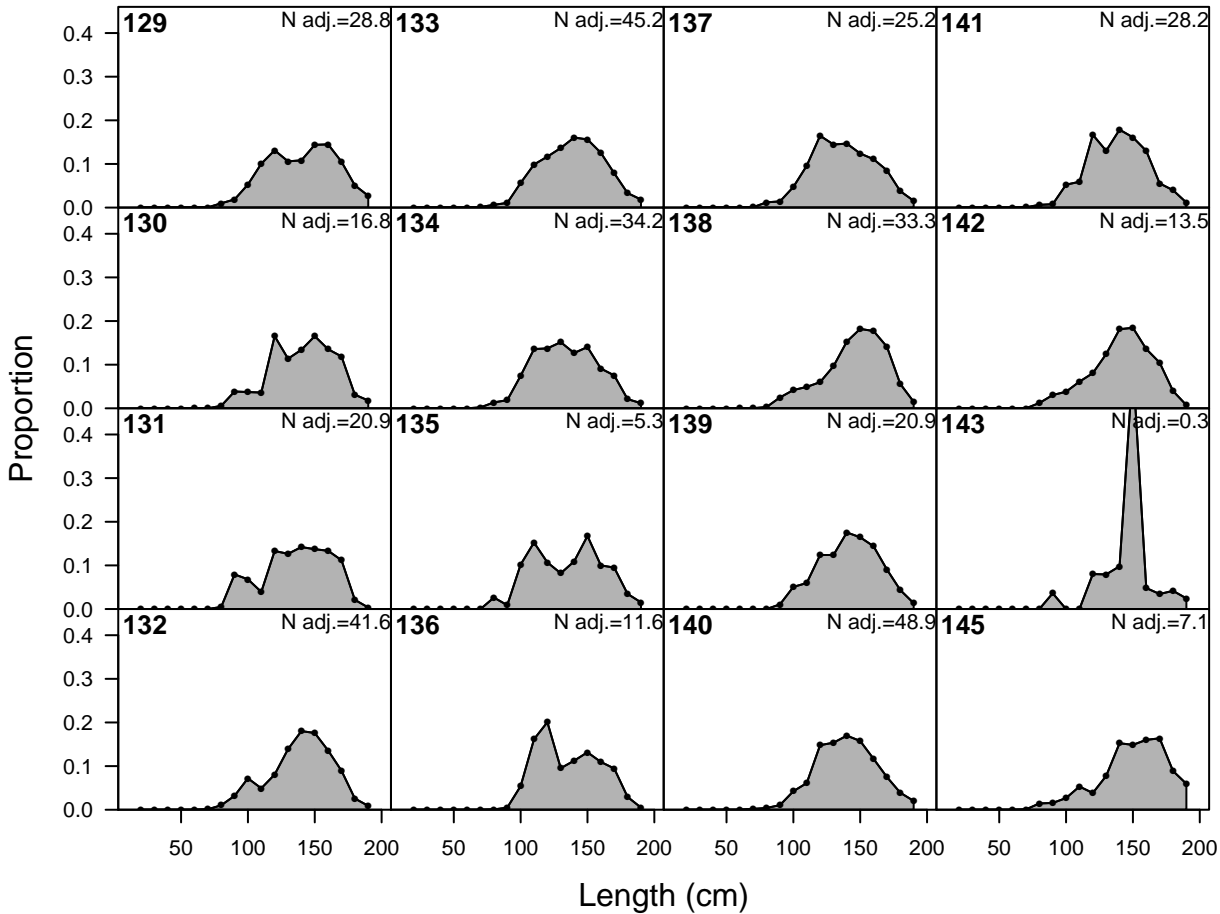
EPO-LL-survey-early (whole catch)

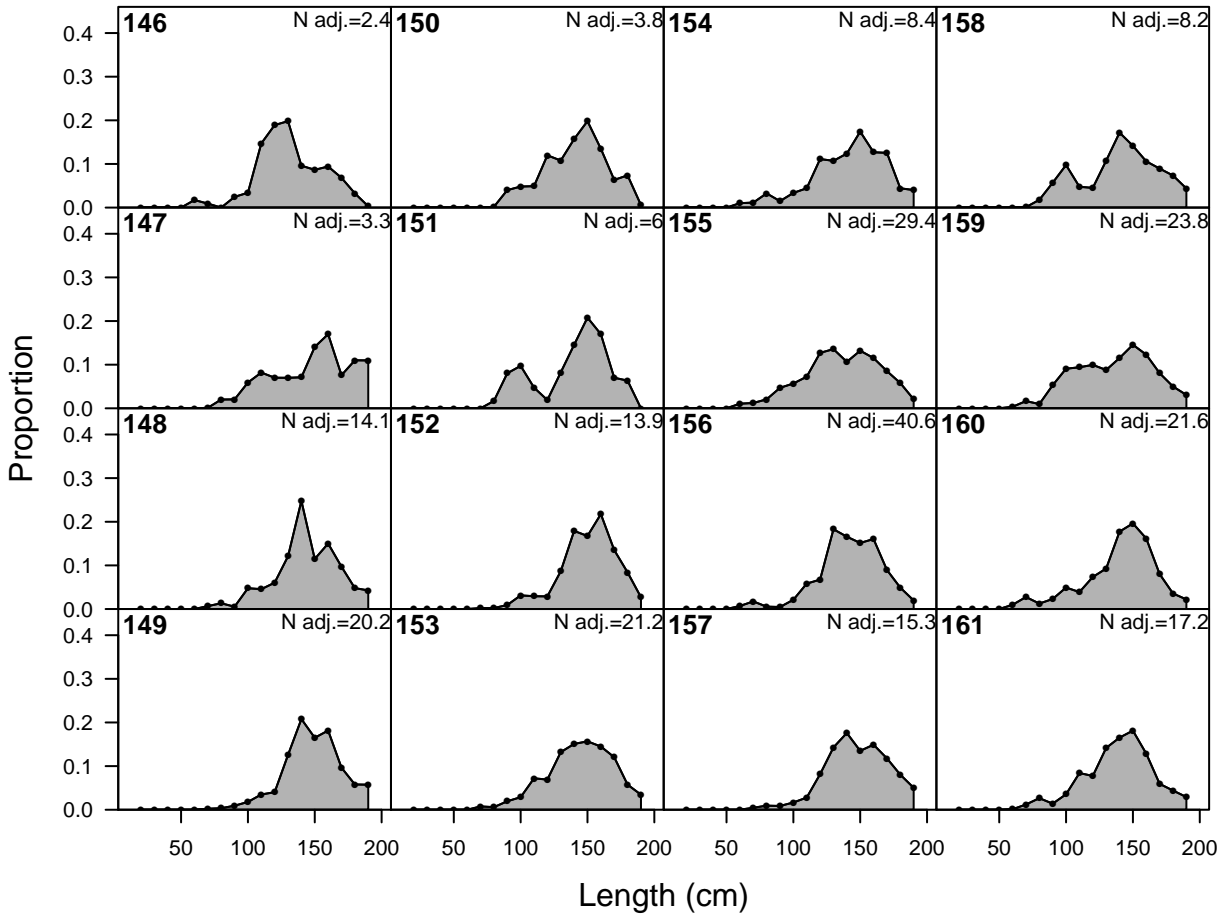


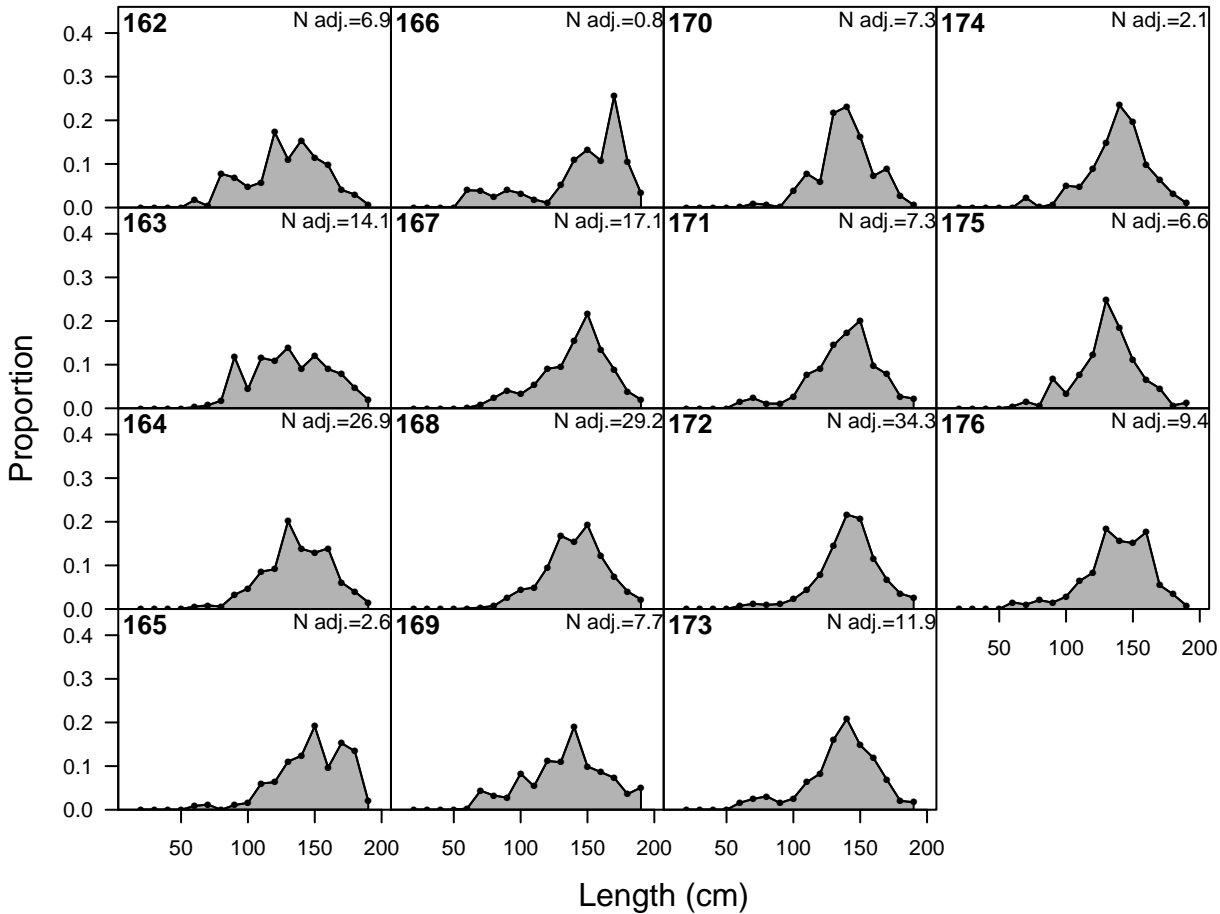


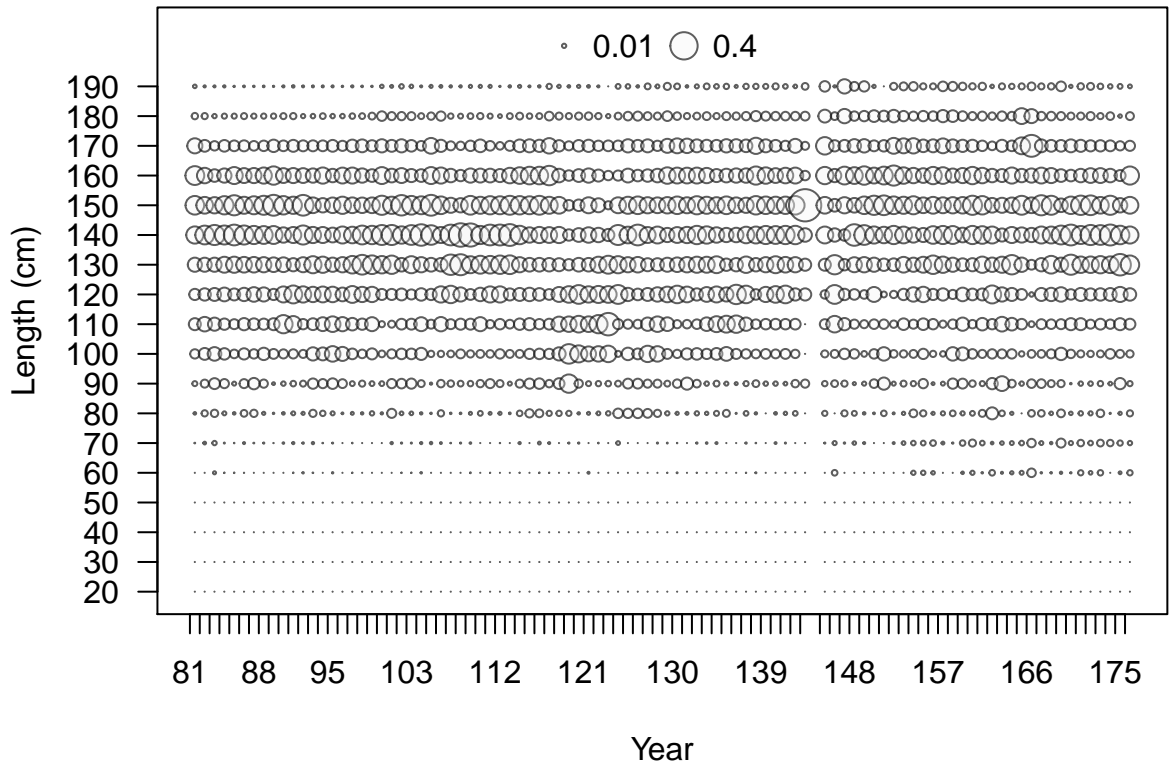




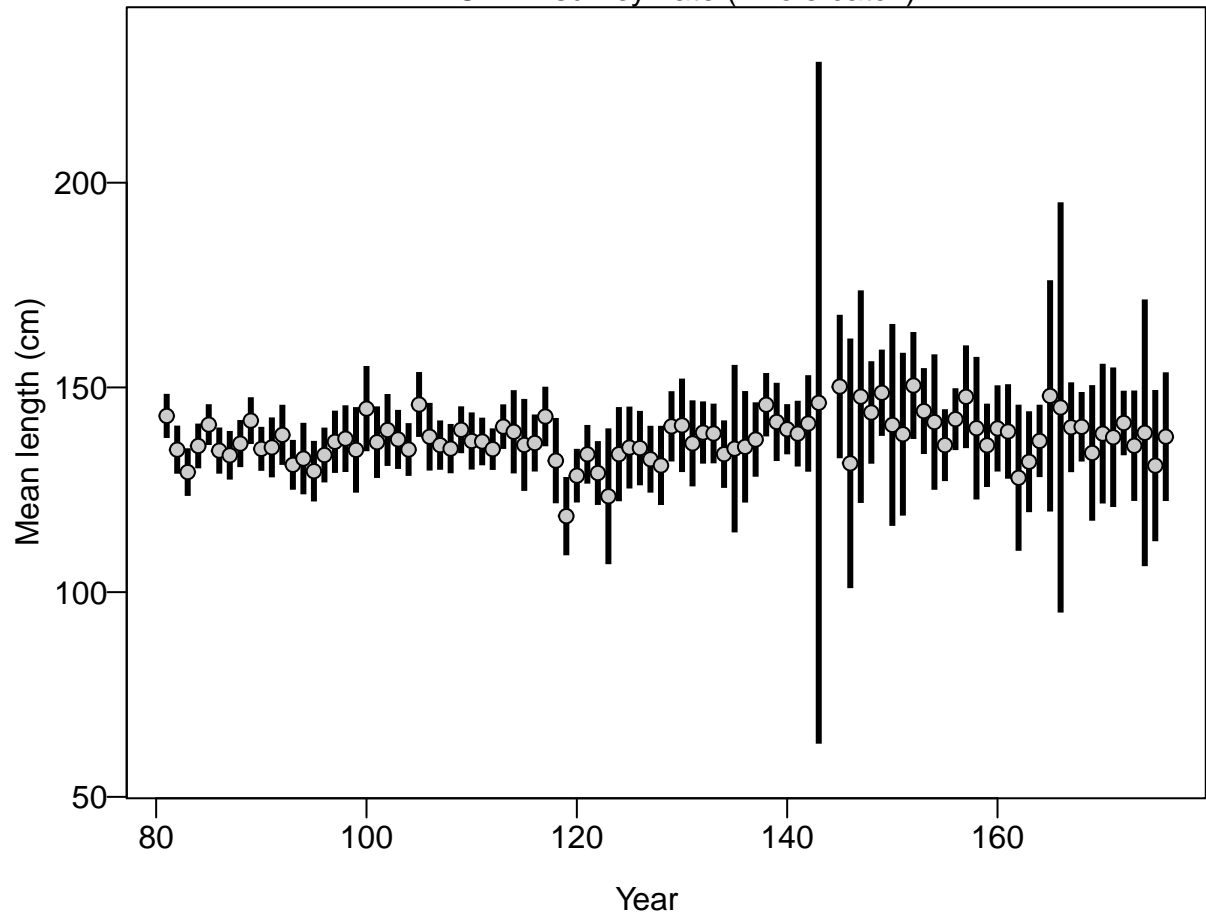




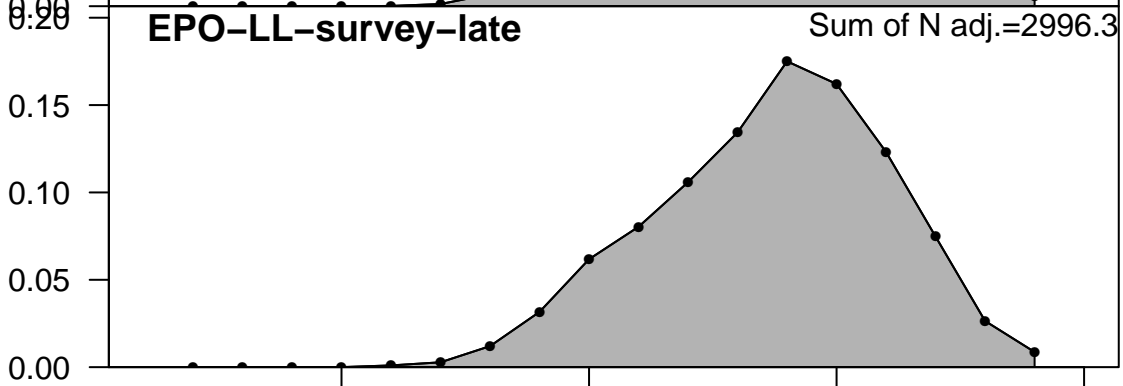
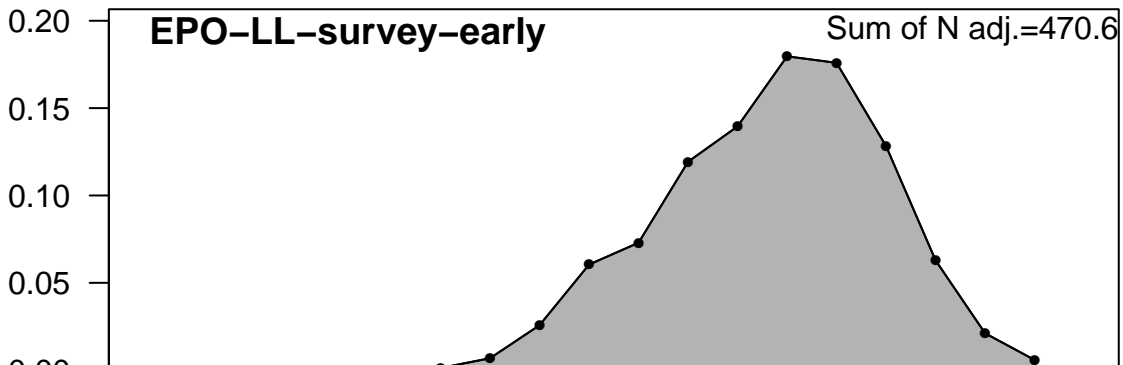




EPO-LL-survey-late (whole catch)



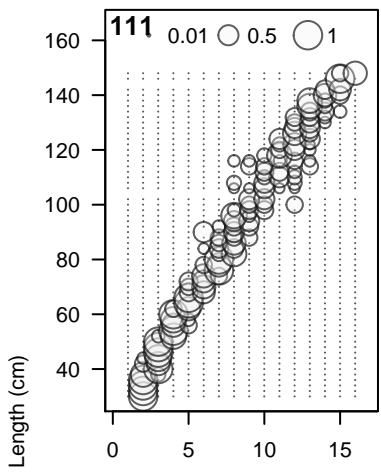
Proportion



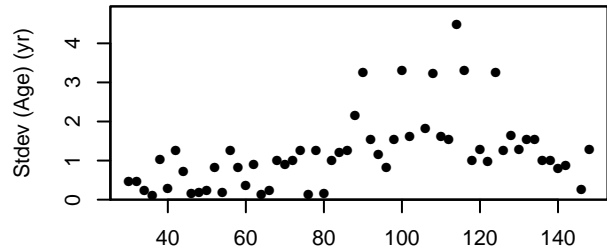
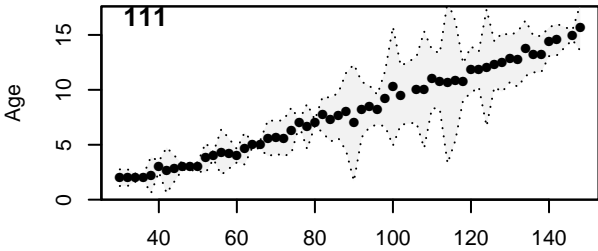
Length (cm)

111

0.01 0.5 1

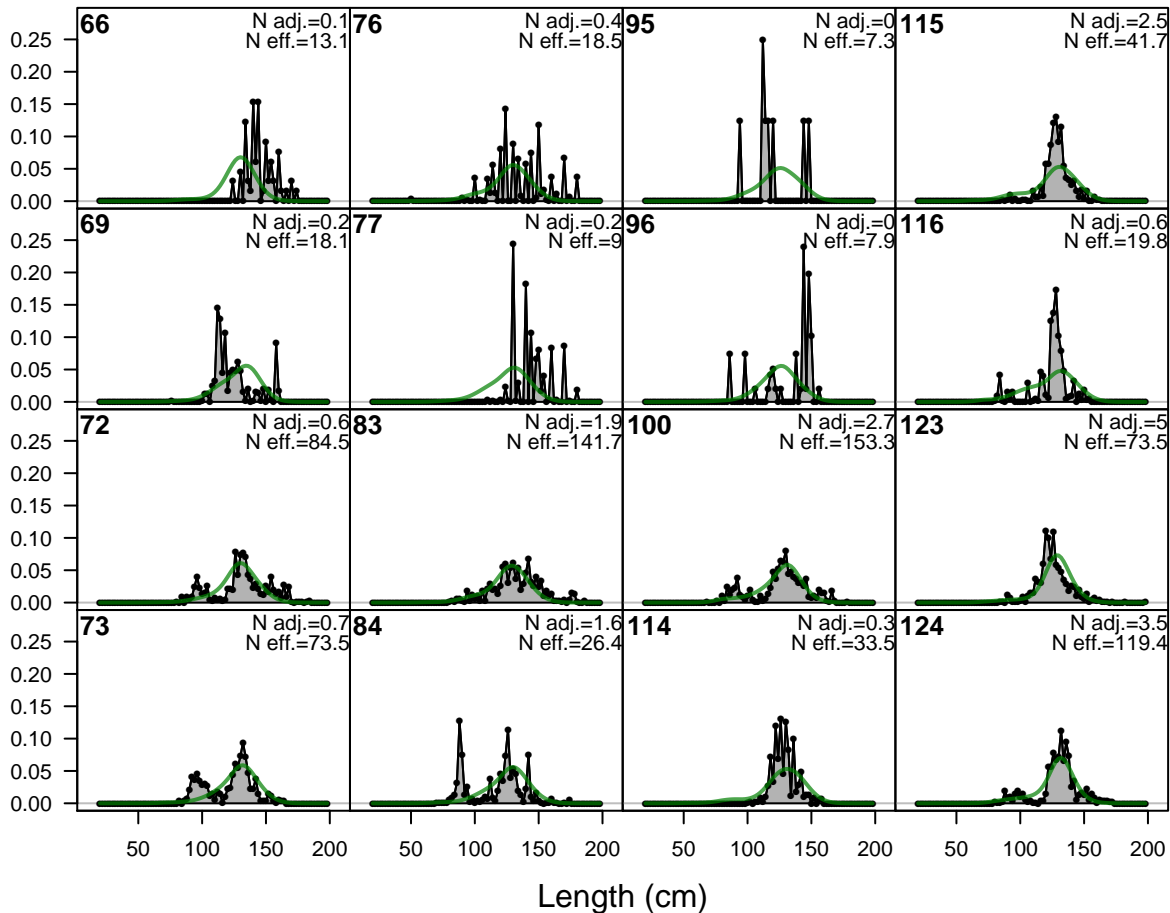


Age (yr)

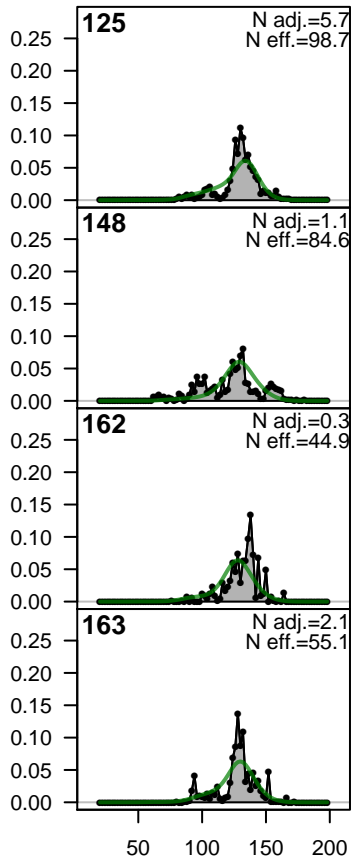


Length (cm)

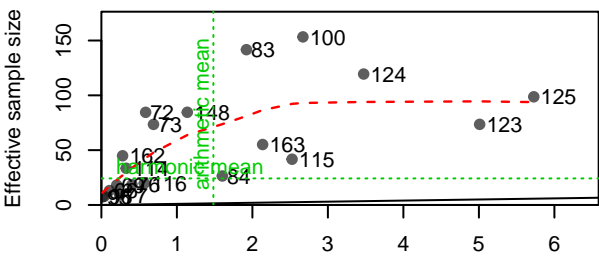
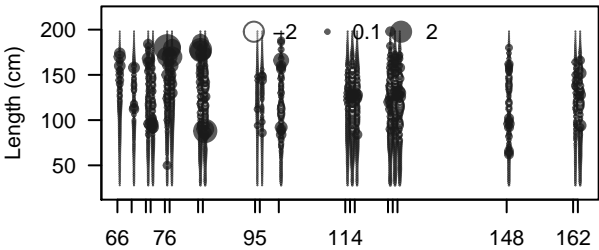
Proportion



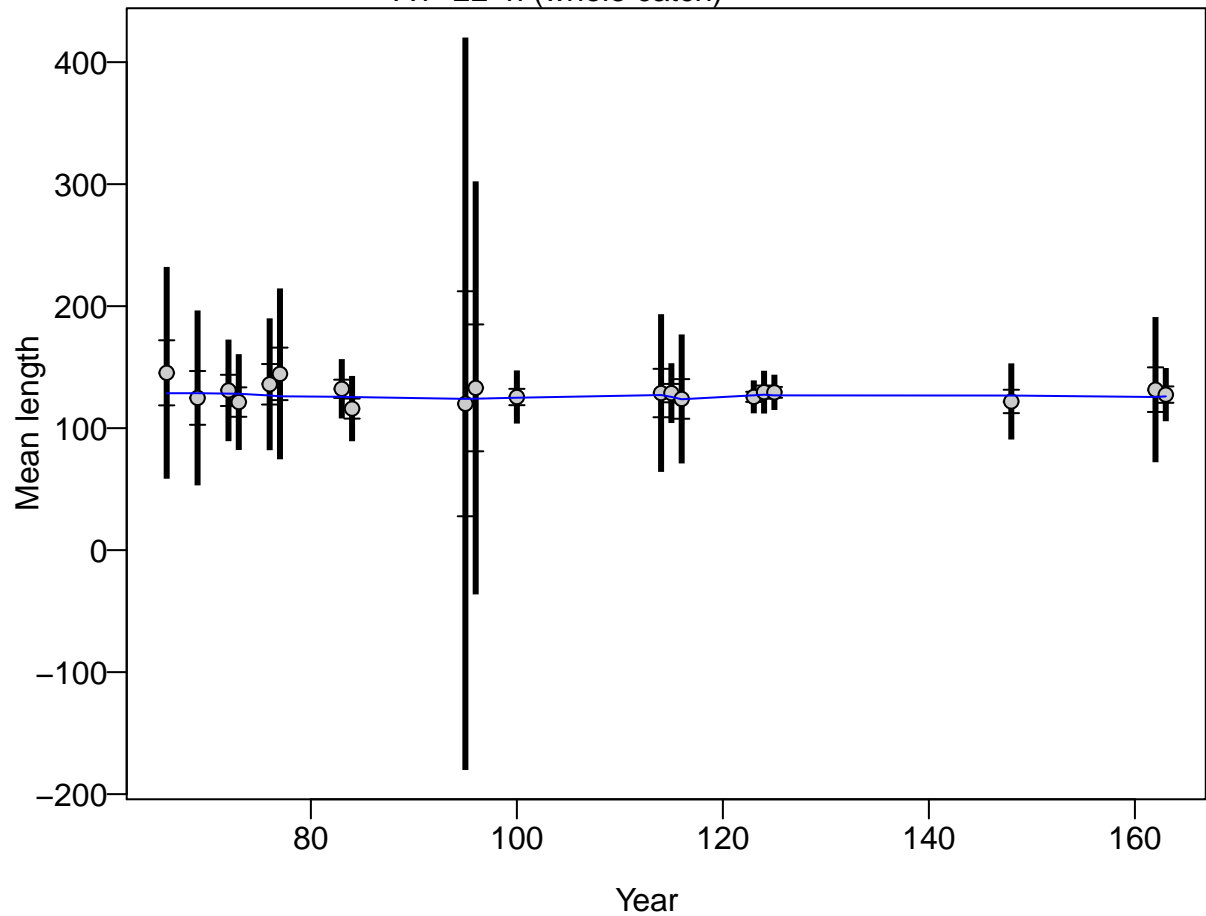
Proportion



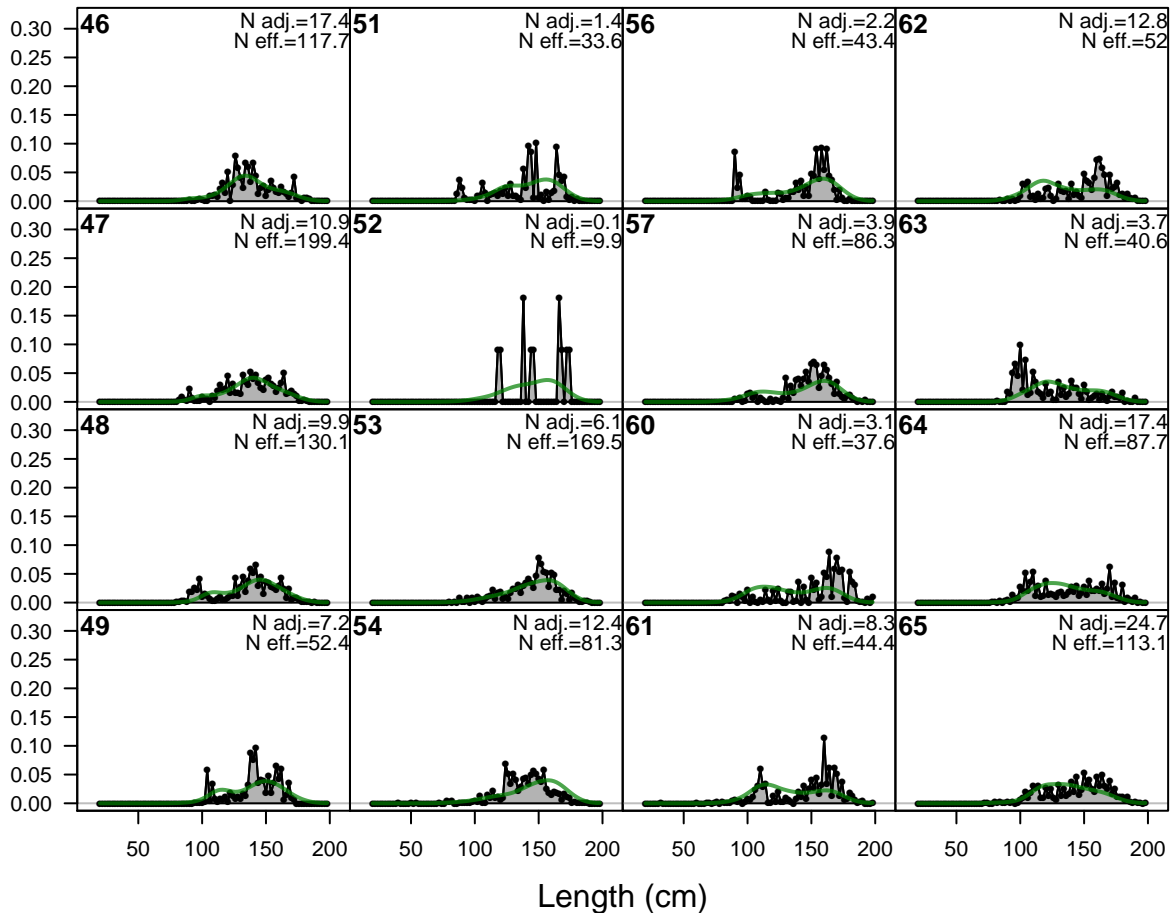
Length (cm)



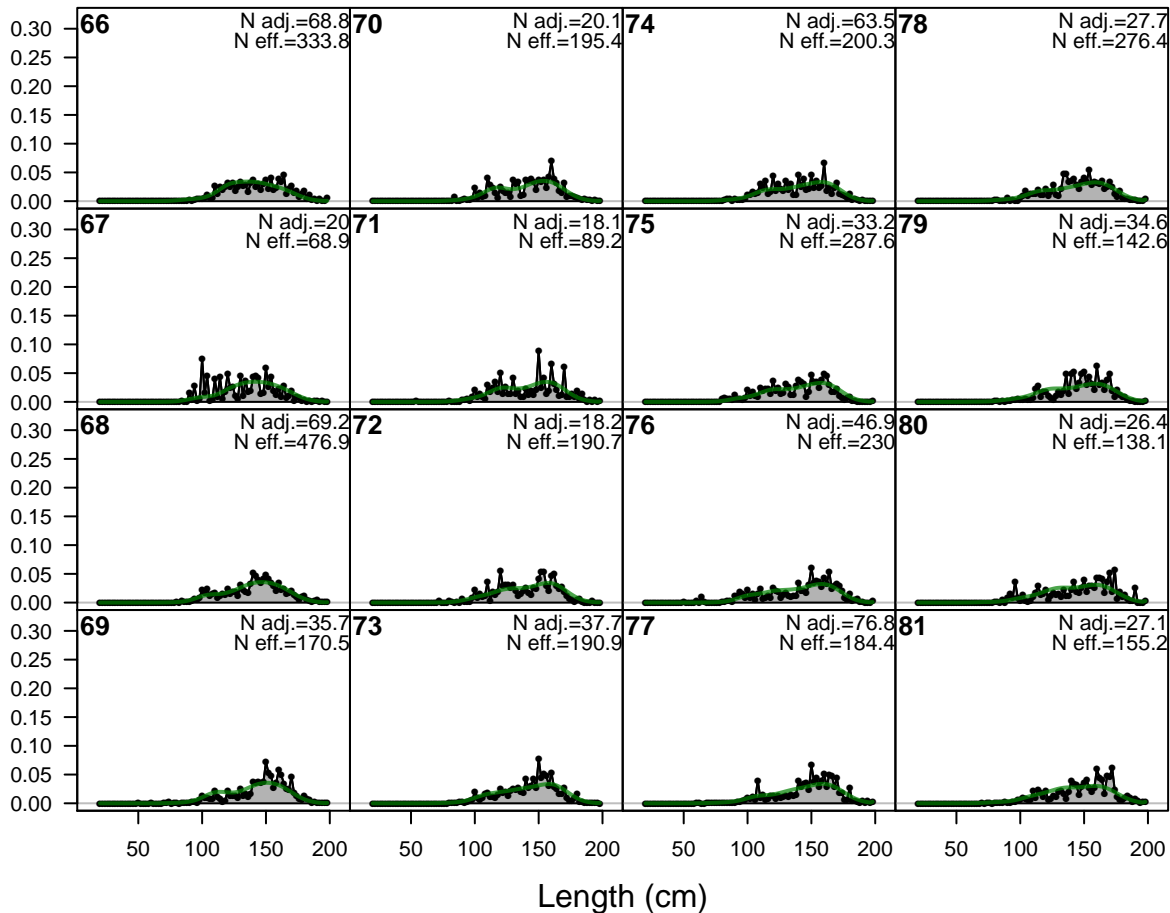
A1-LL-n (whole catch)



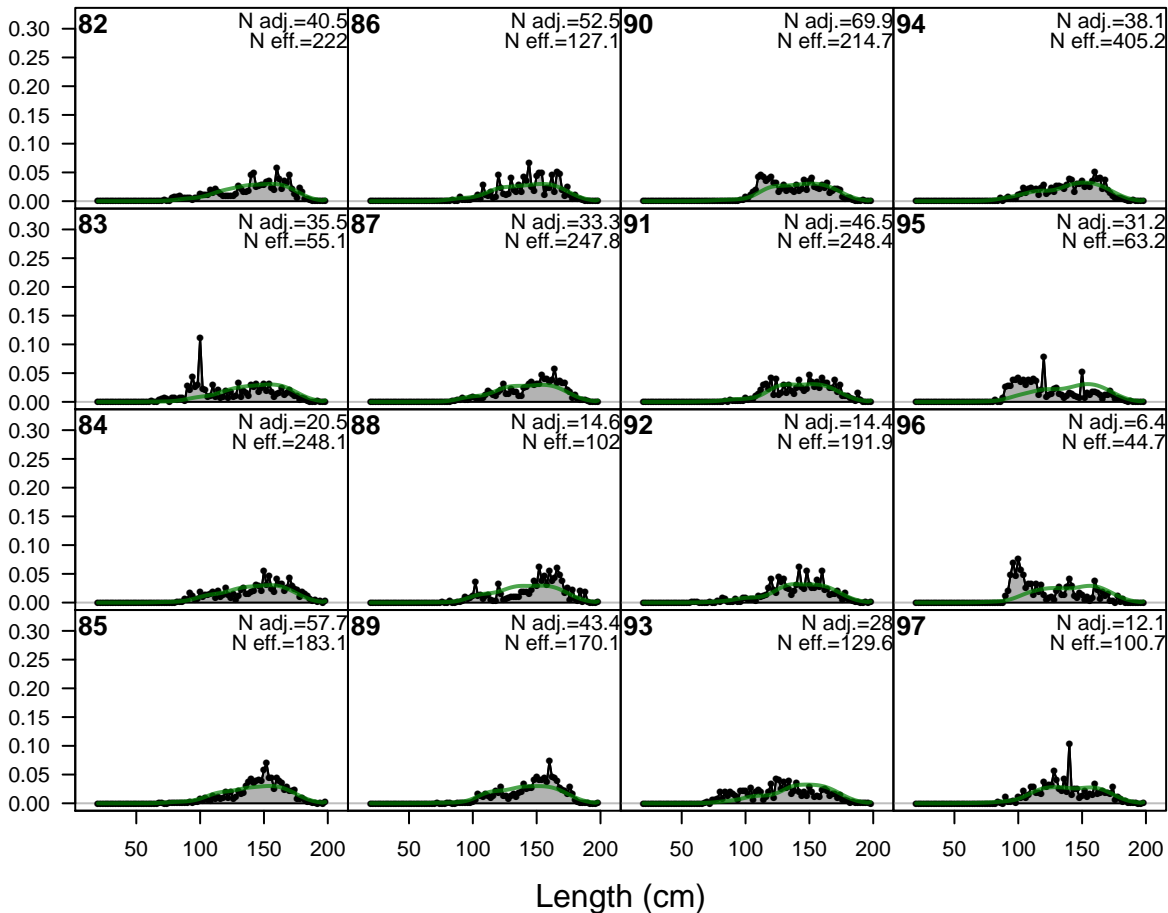
Proportion



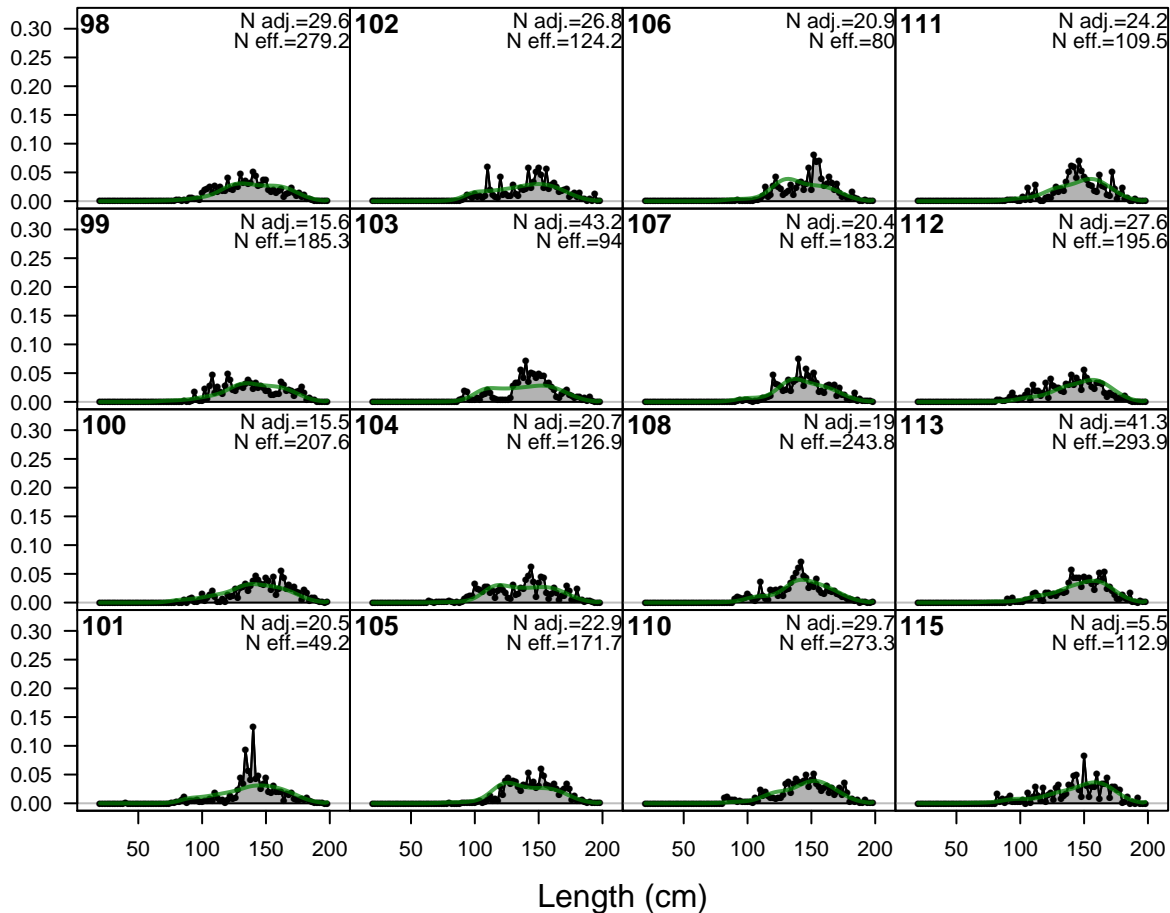
Proportion



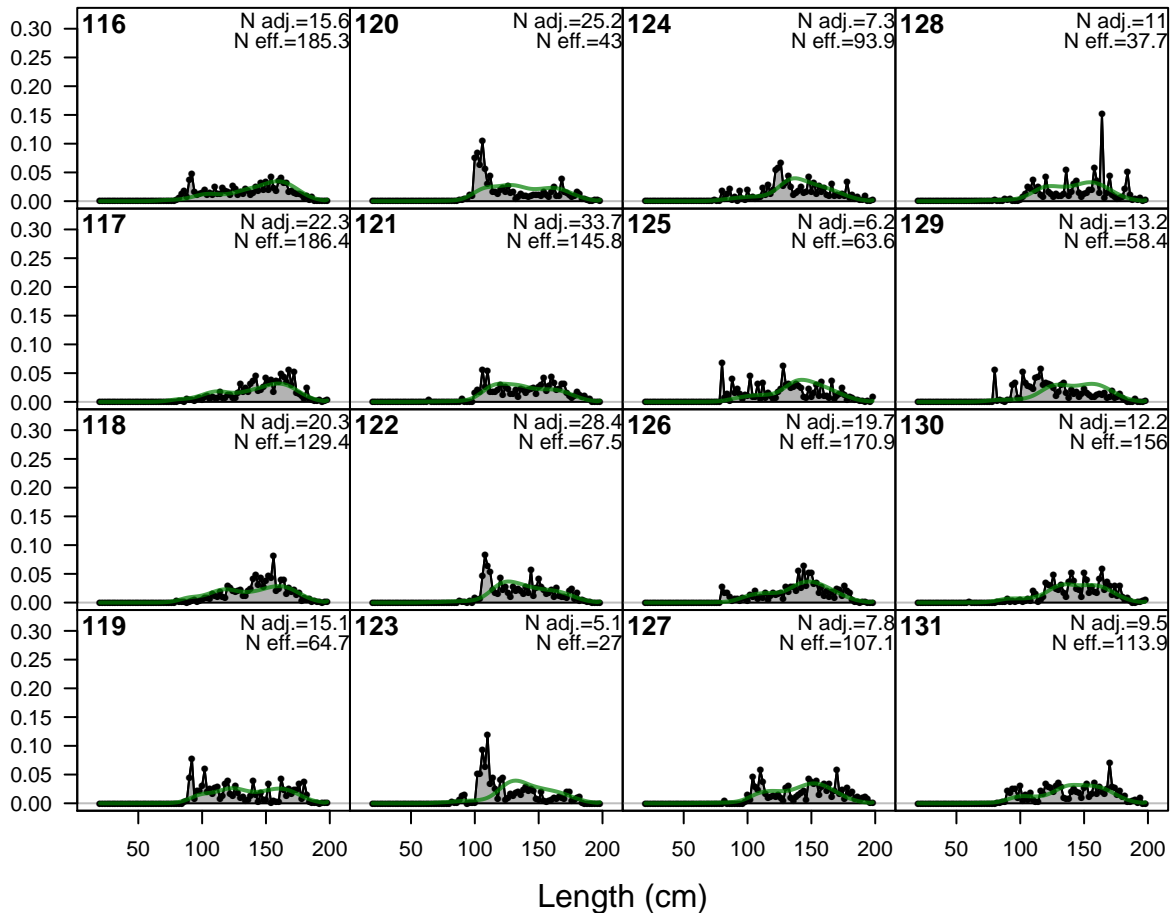
Proportion



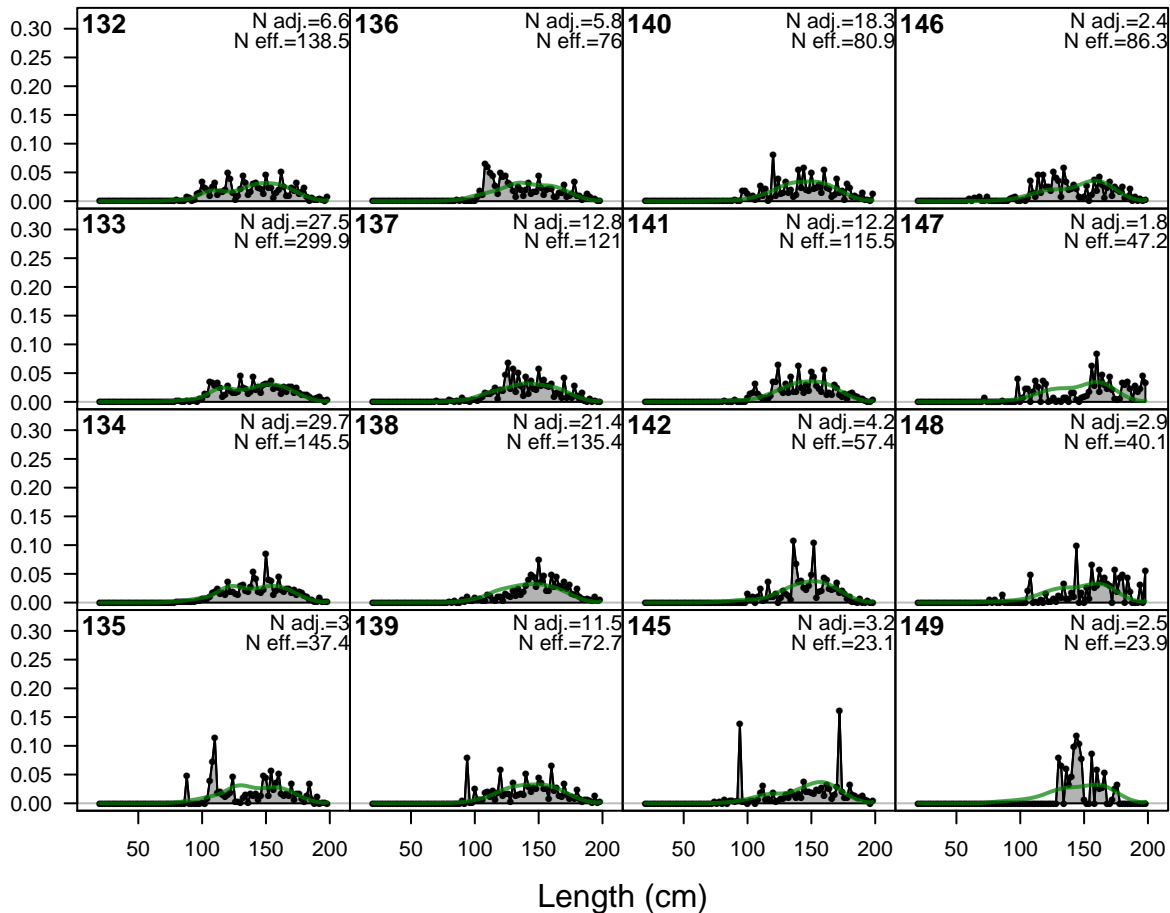
Proportion



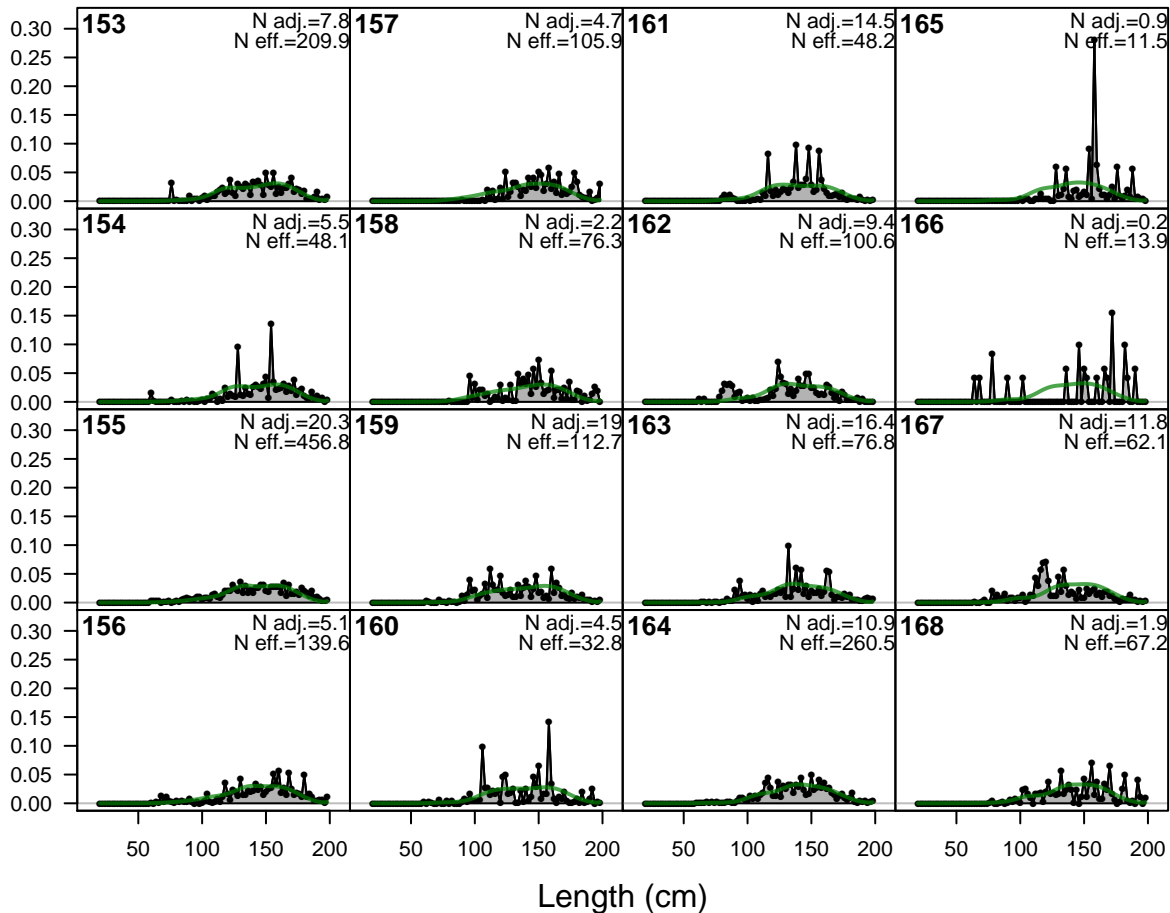
Proportion



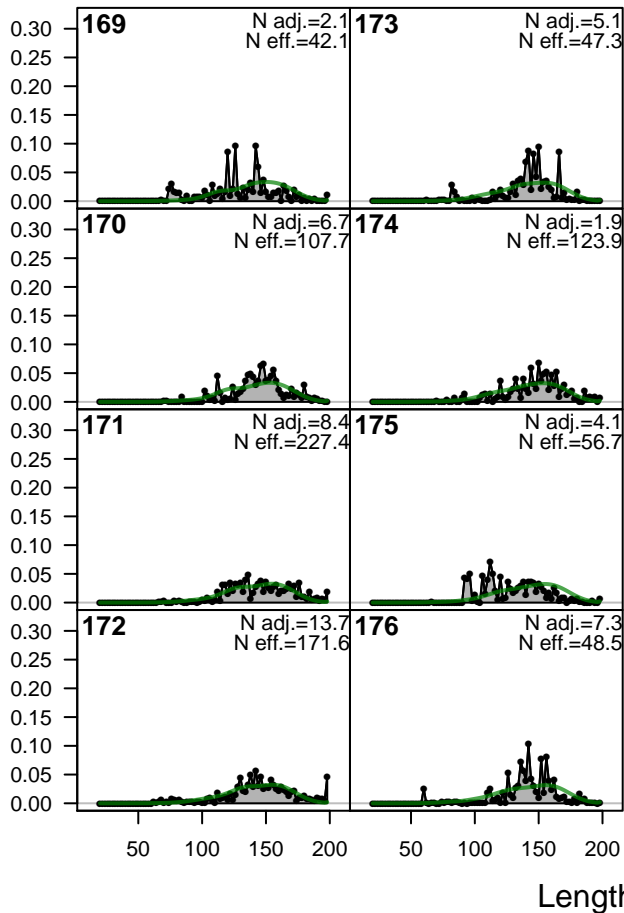
Proportion

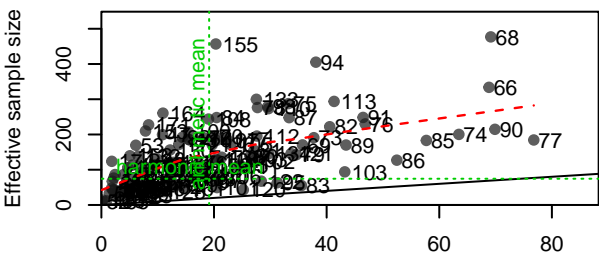
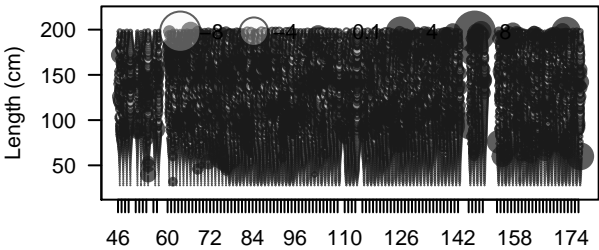


Proportion

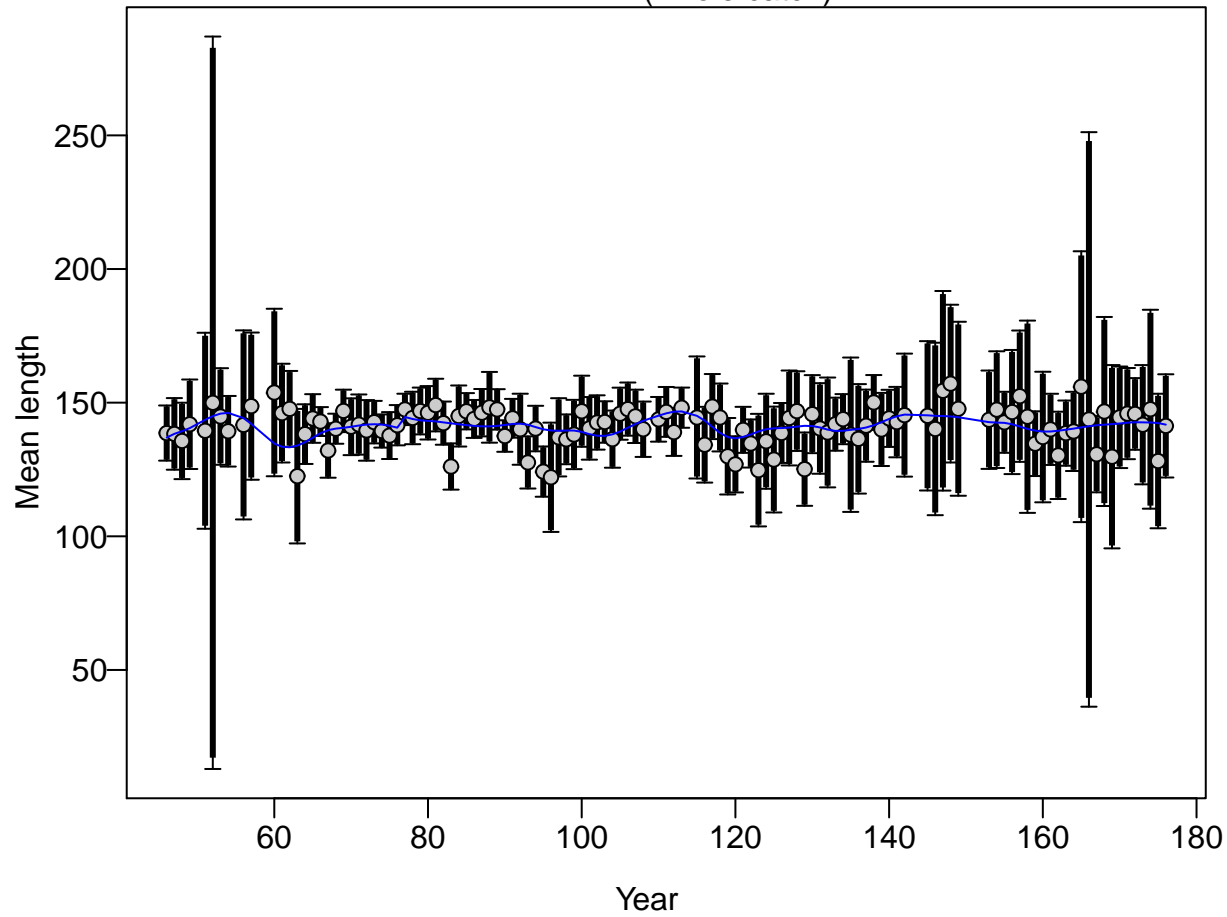


Proportion

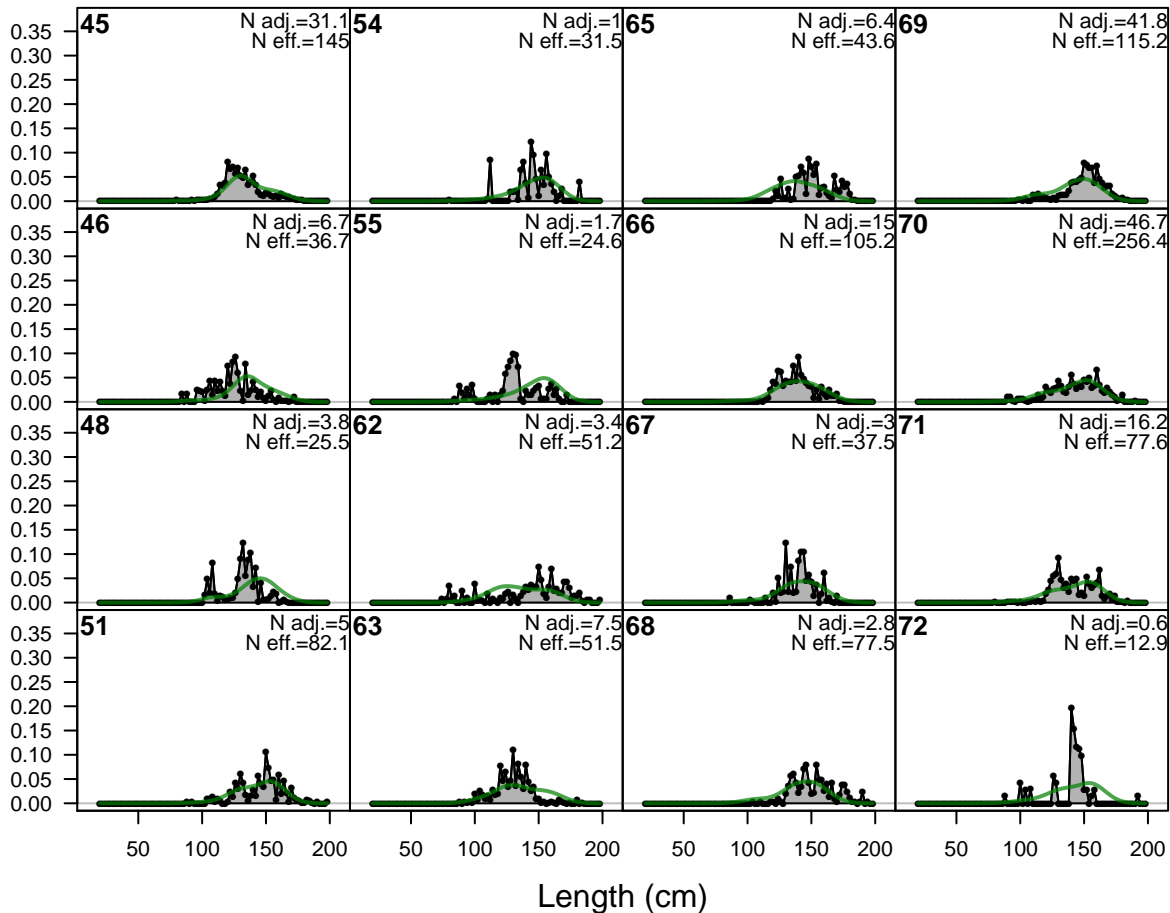




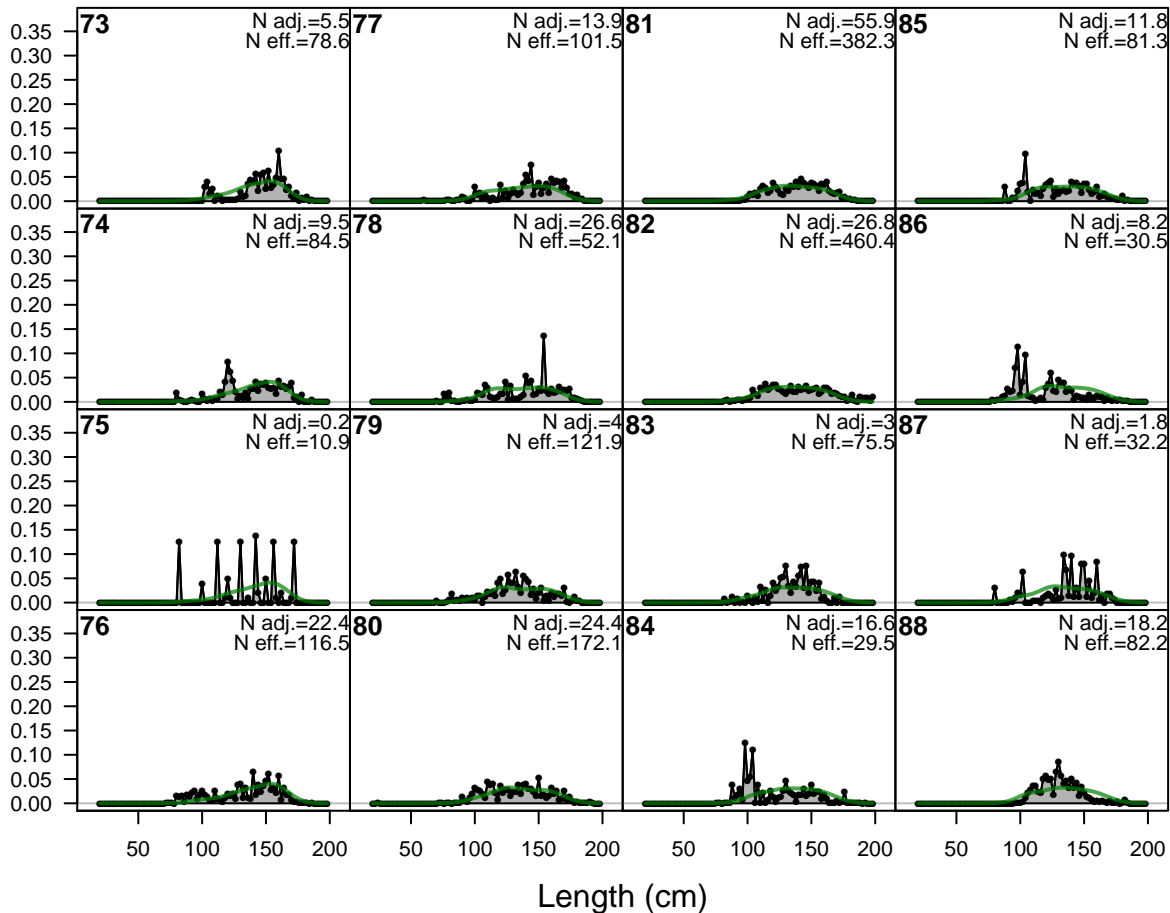
A2-LL-n (whole catch)



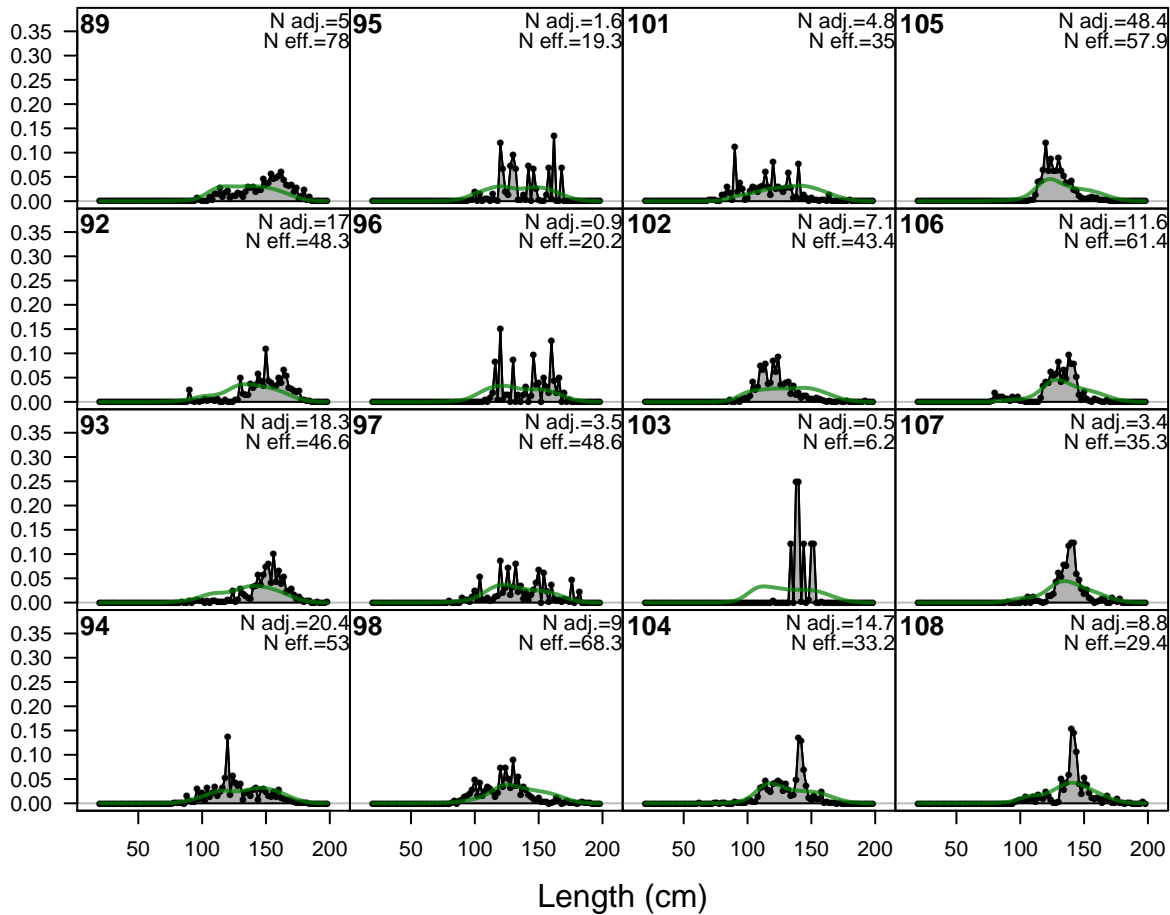
Proportion



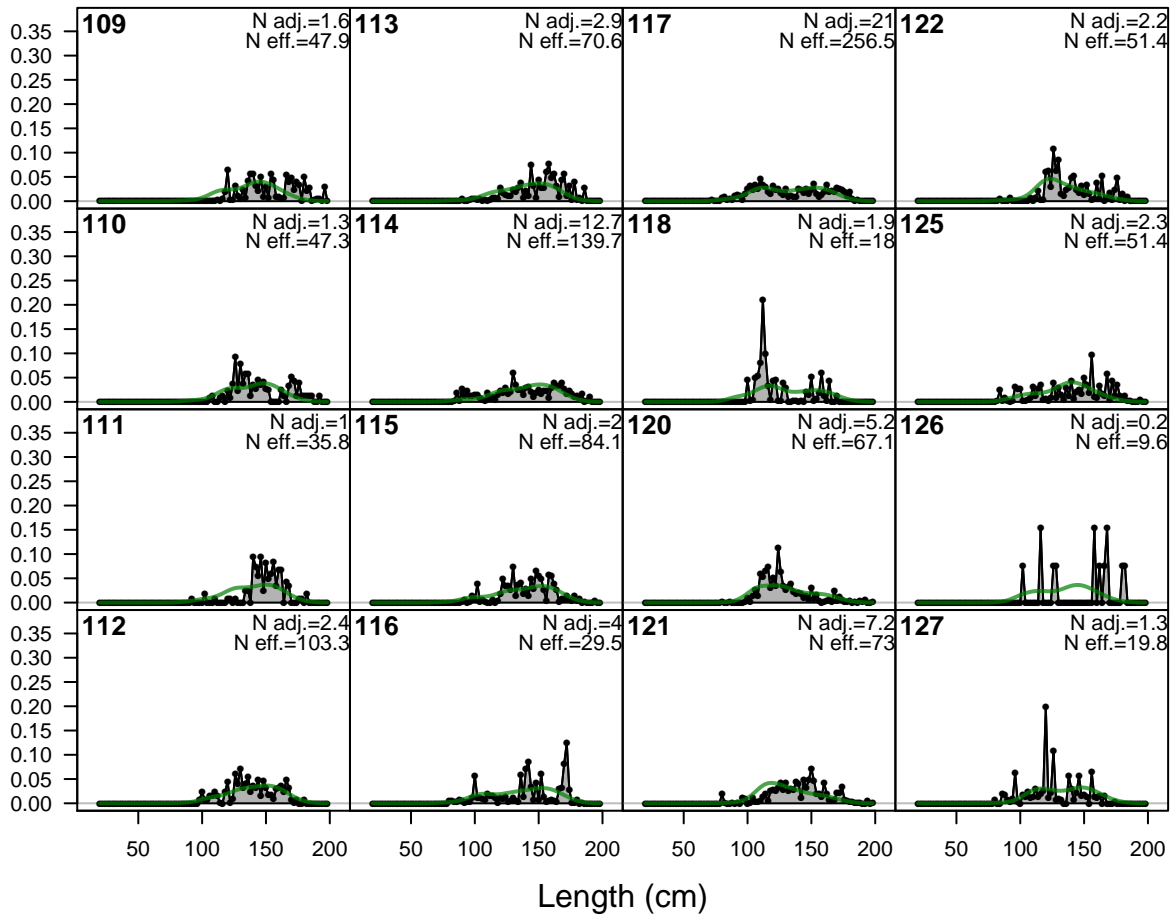
Proportion



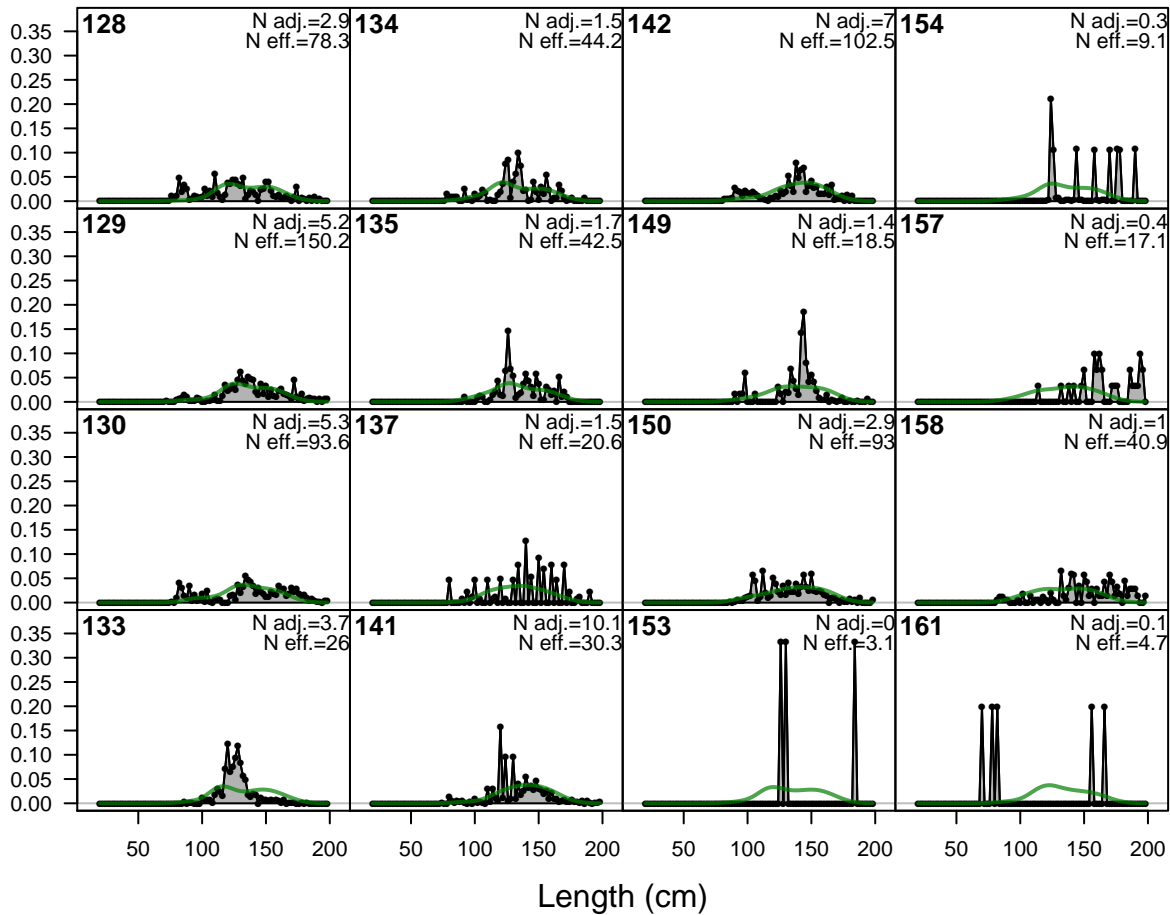
Proportion



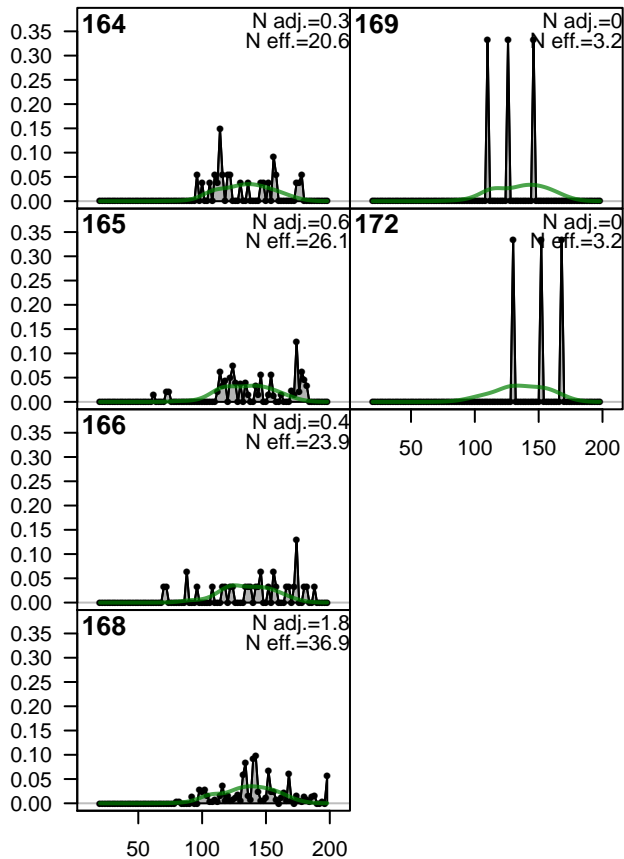
Proportion



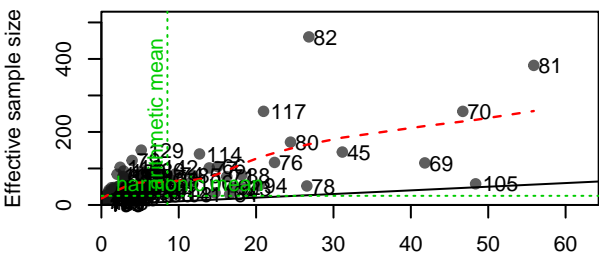
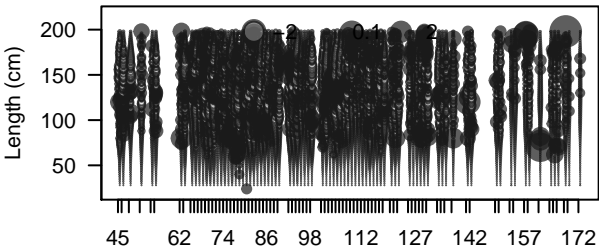
Proportion



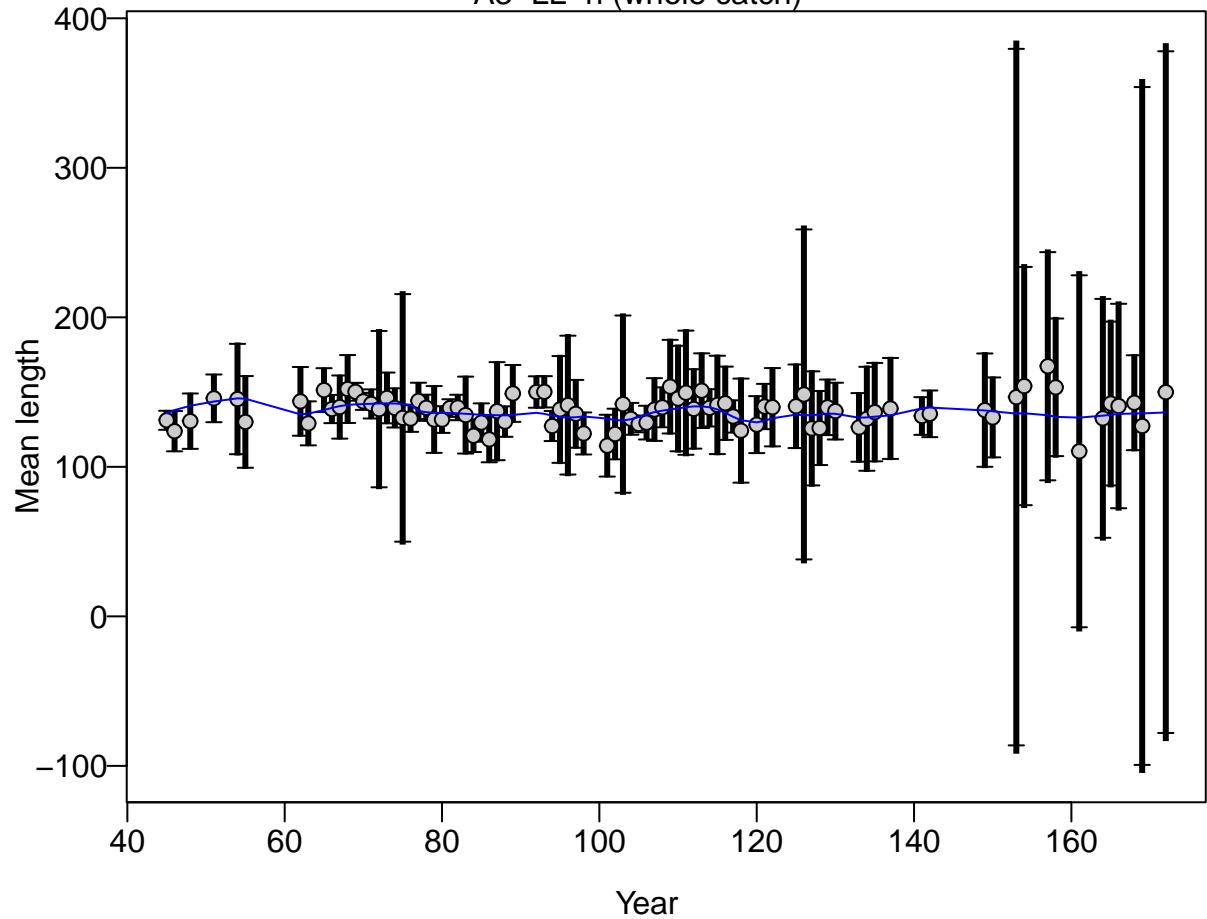
Proportion



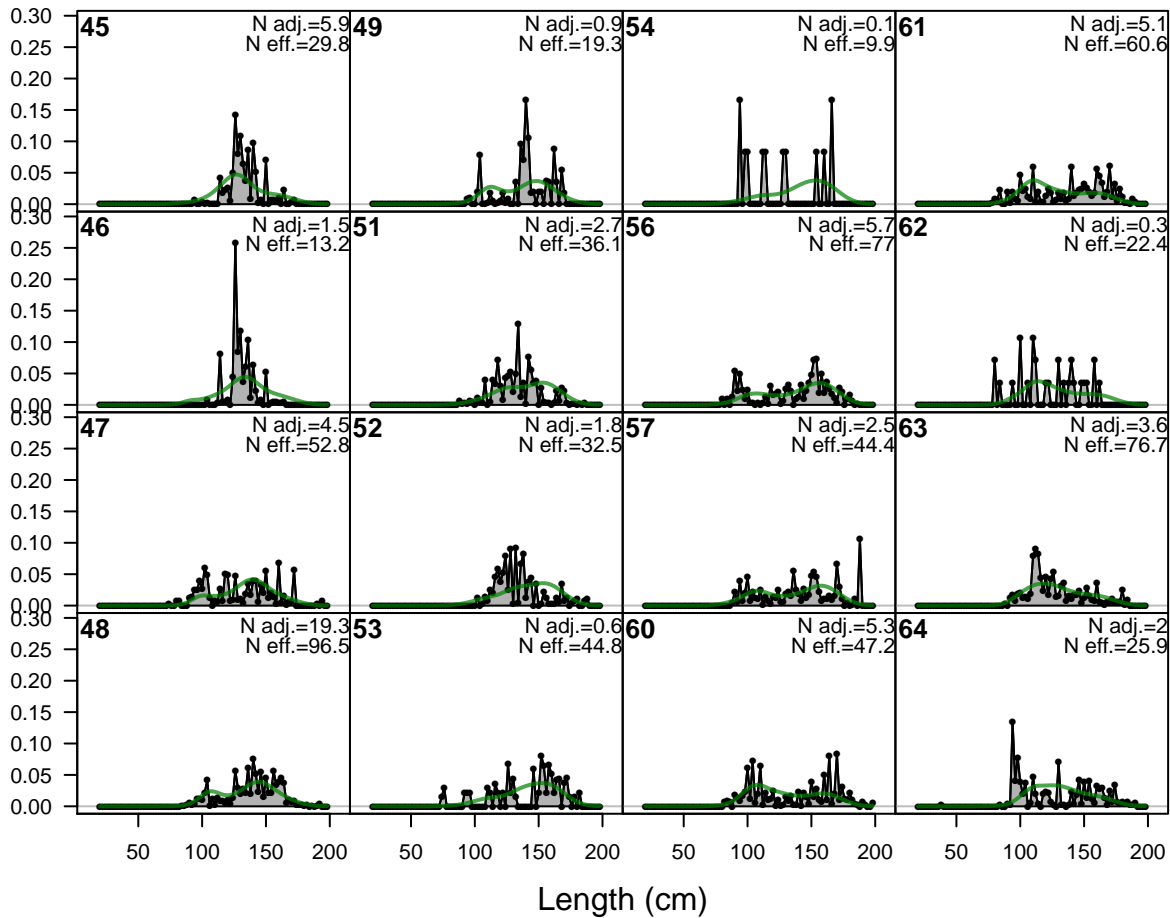
Length (cm)



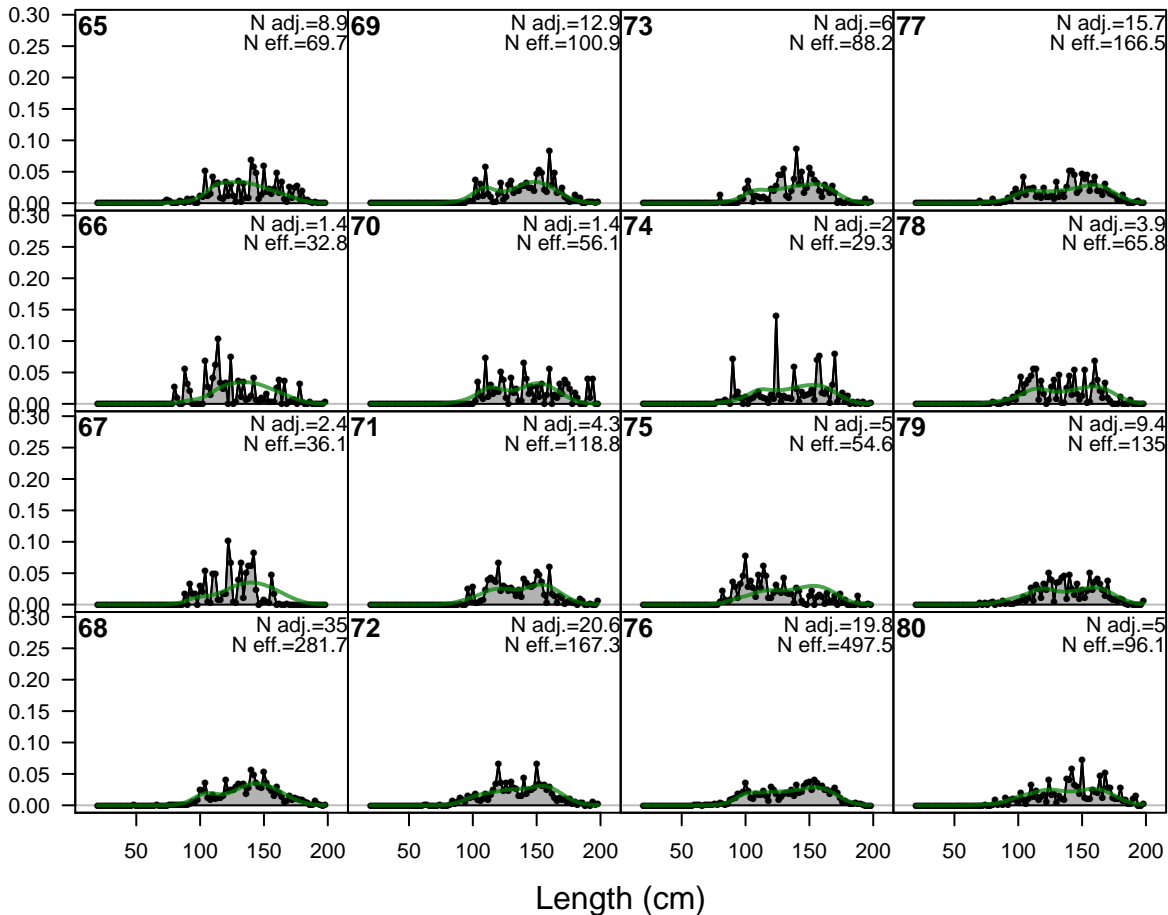
A3-LL-n (whole catch)



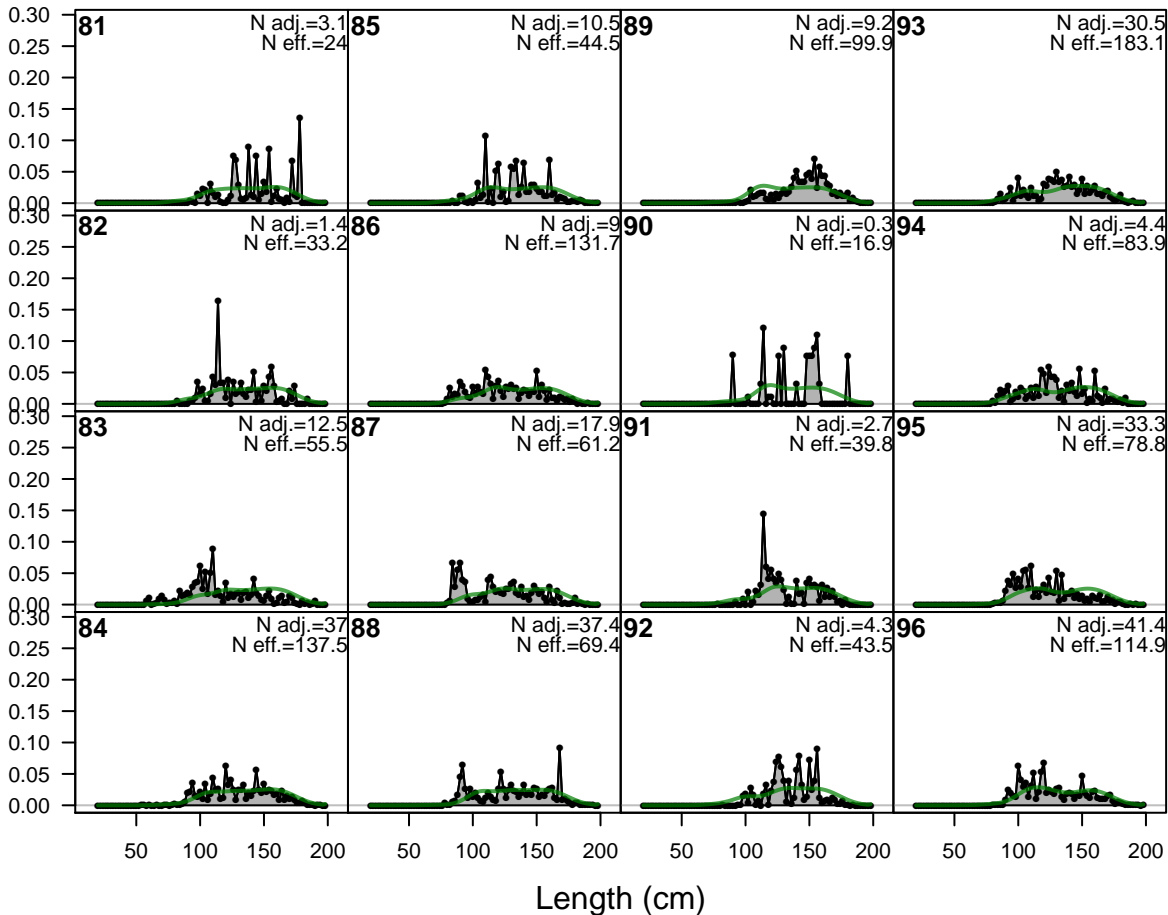
Proportion



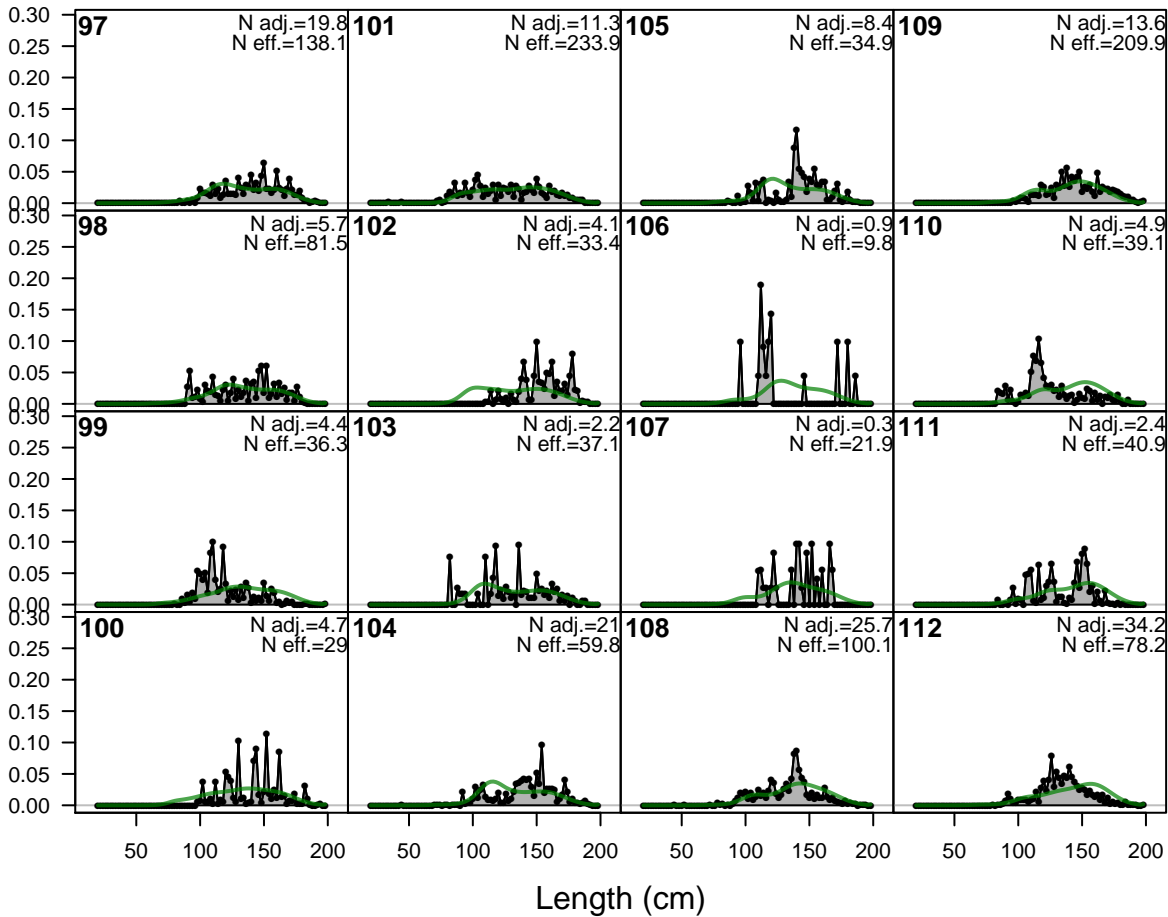
Proportion



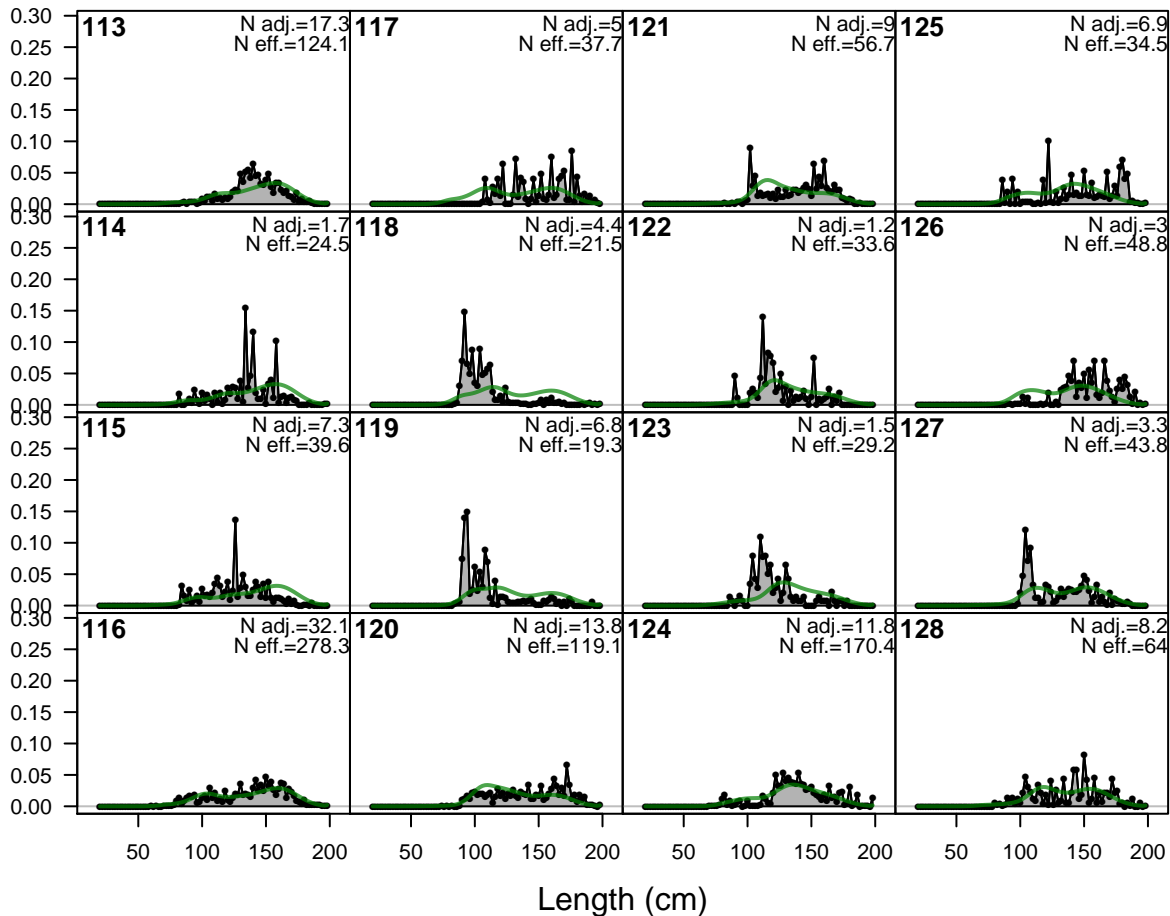
Proportion



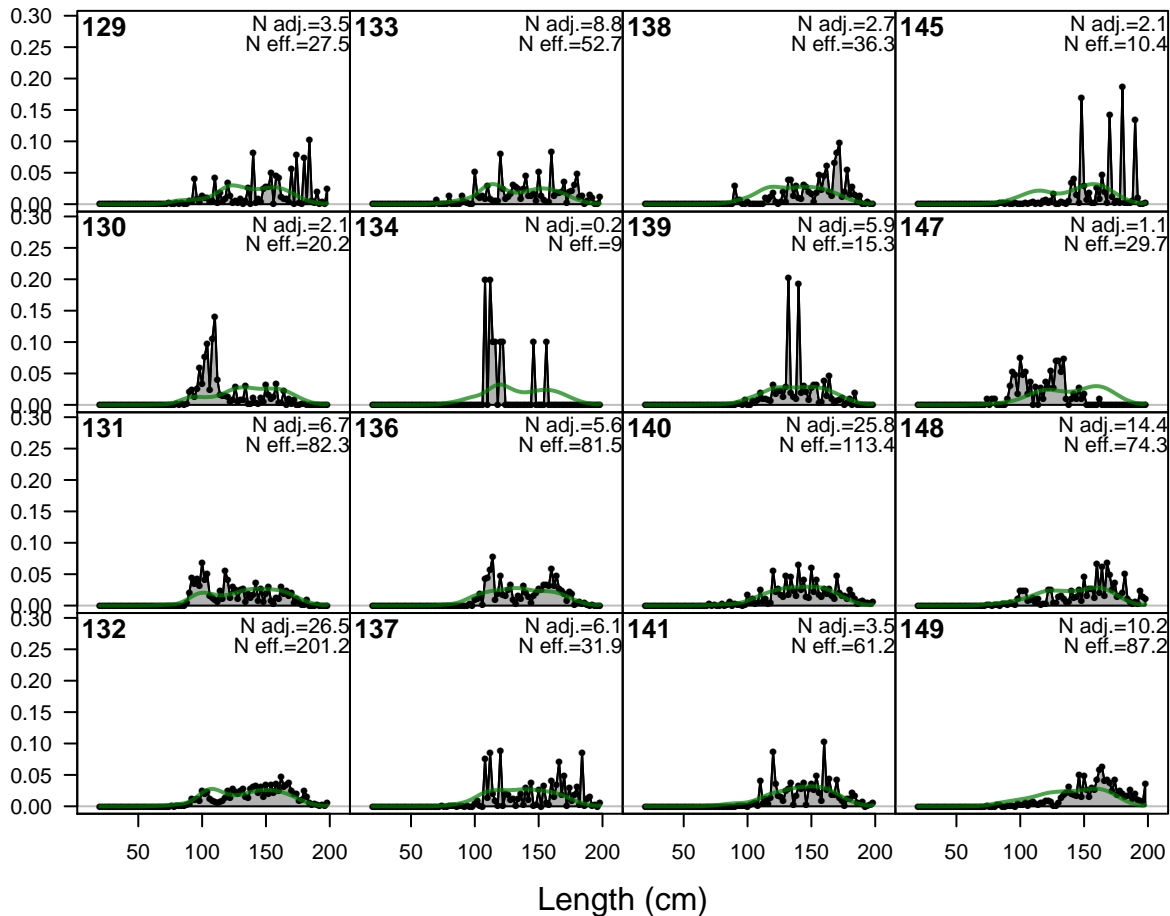
Proportion



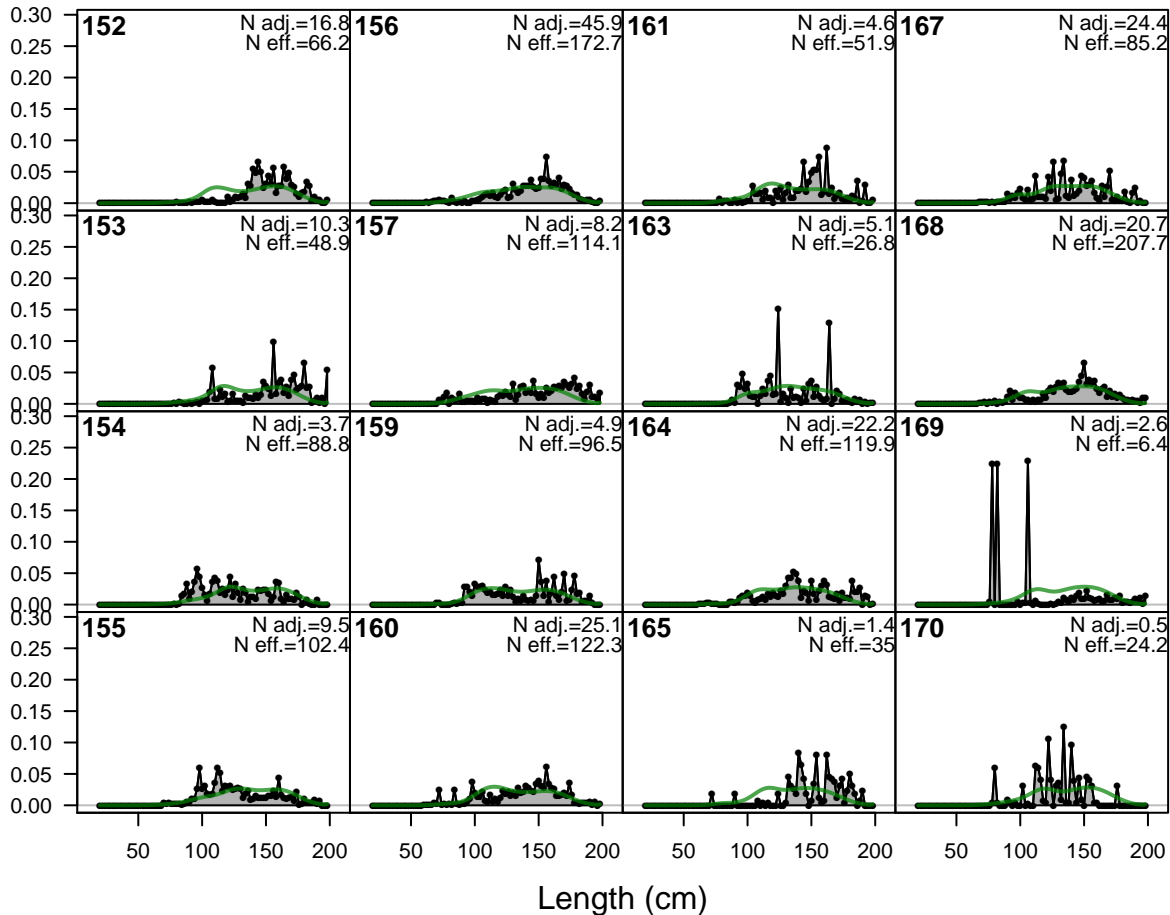
Proportion



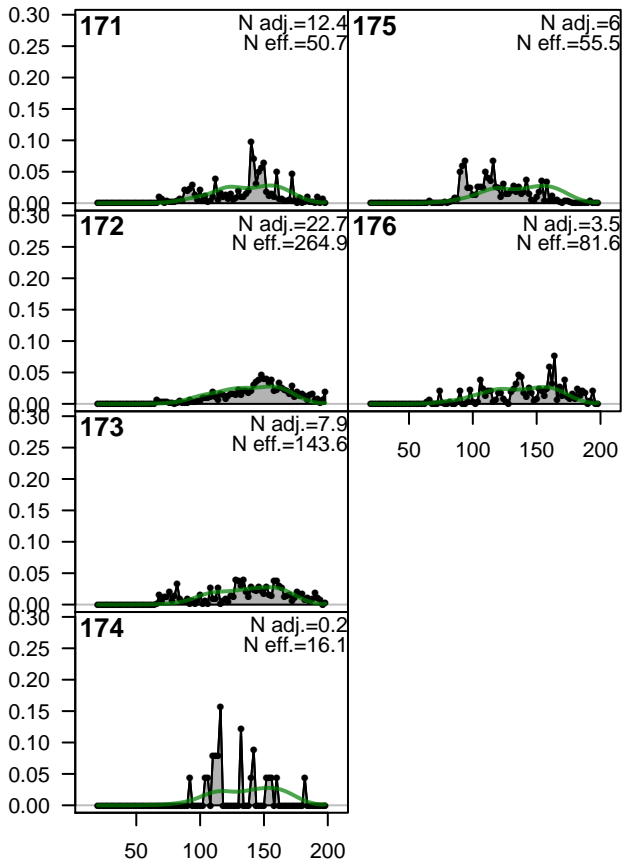
Proportion



Proportion

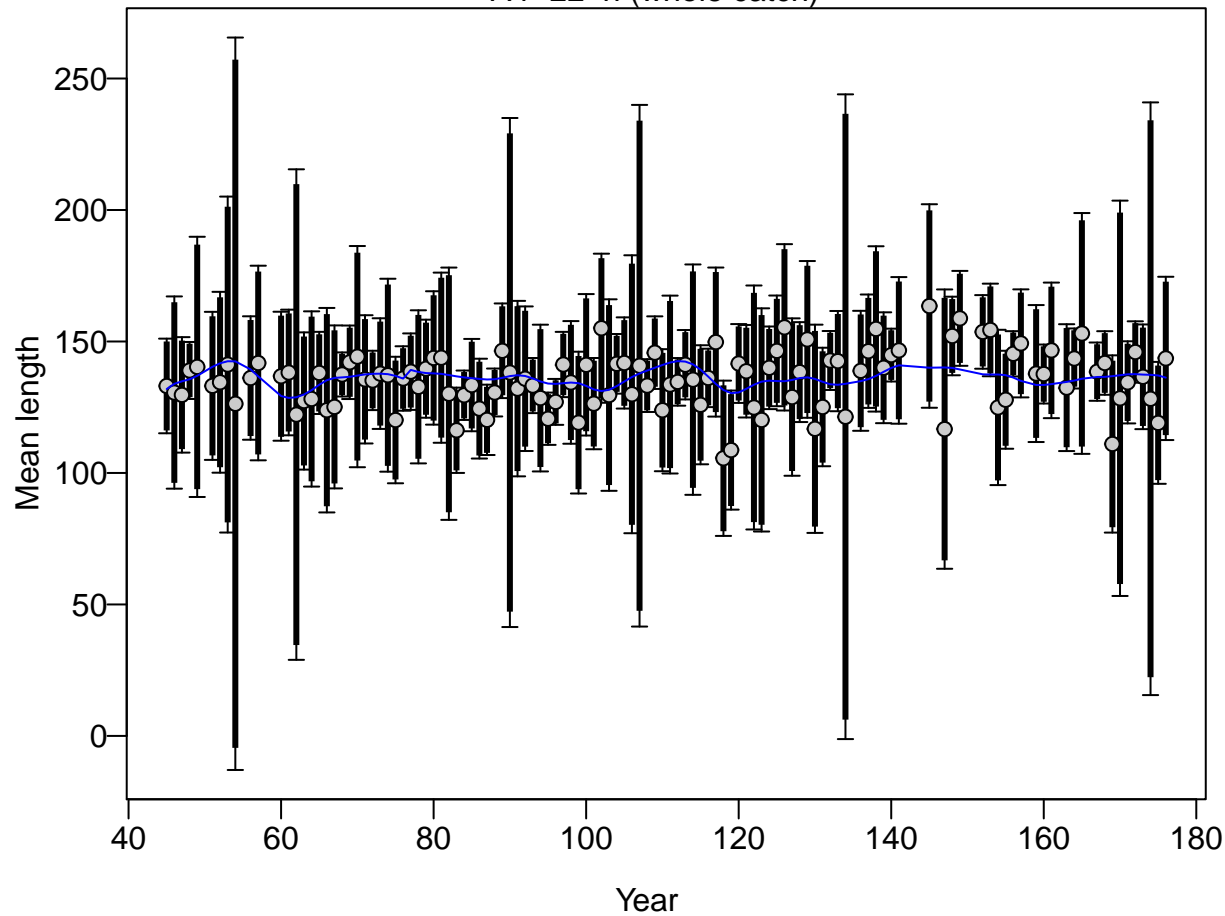


Proportion

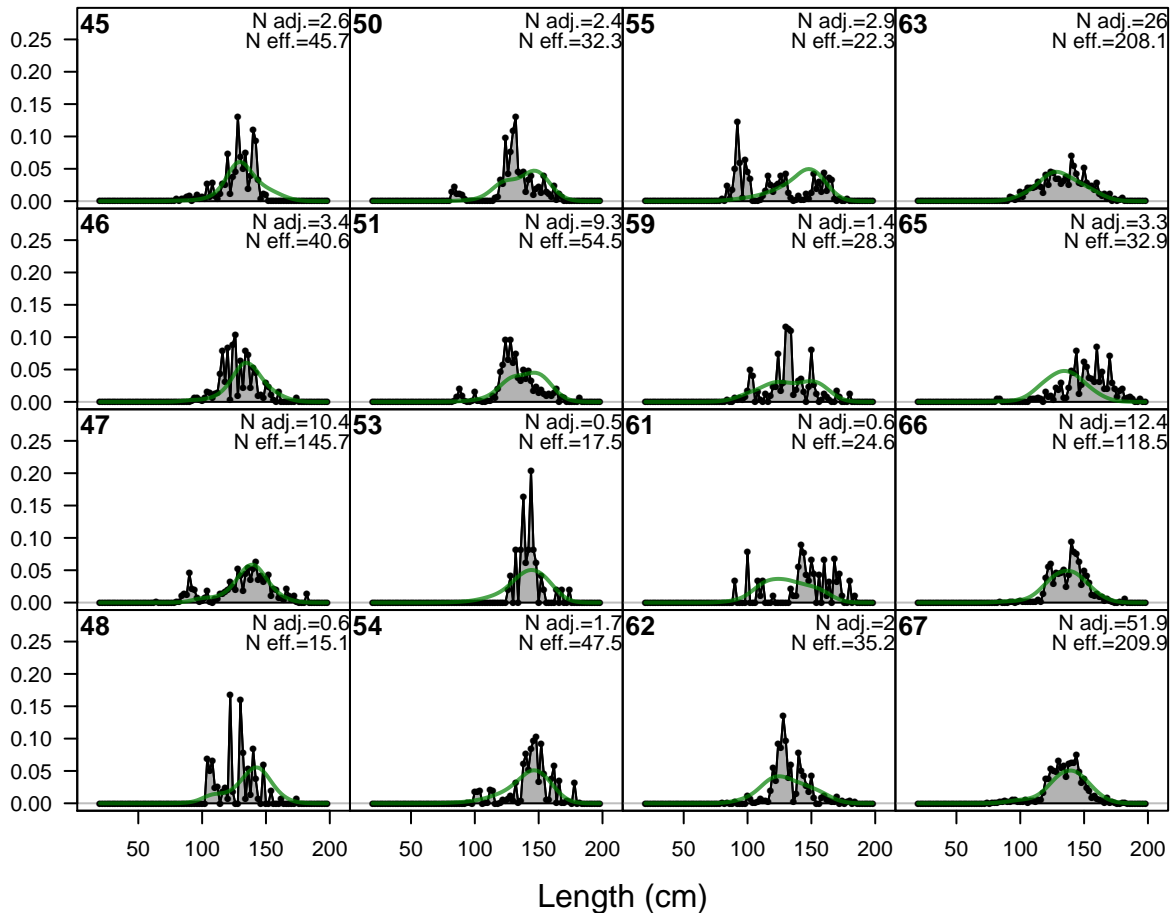


Length (cm)

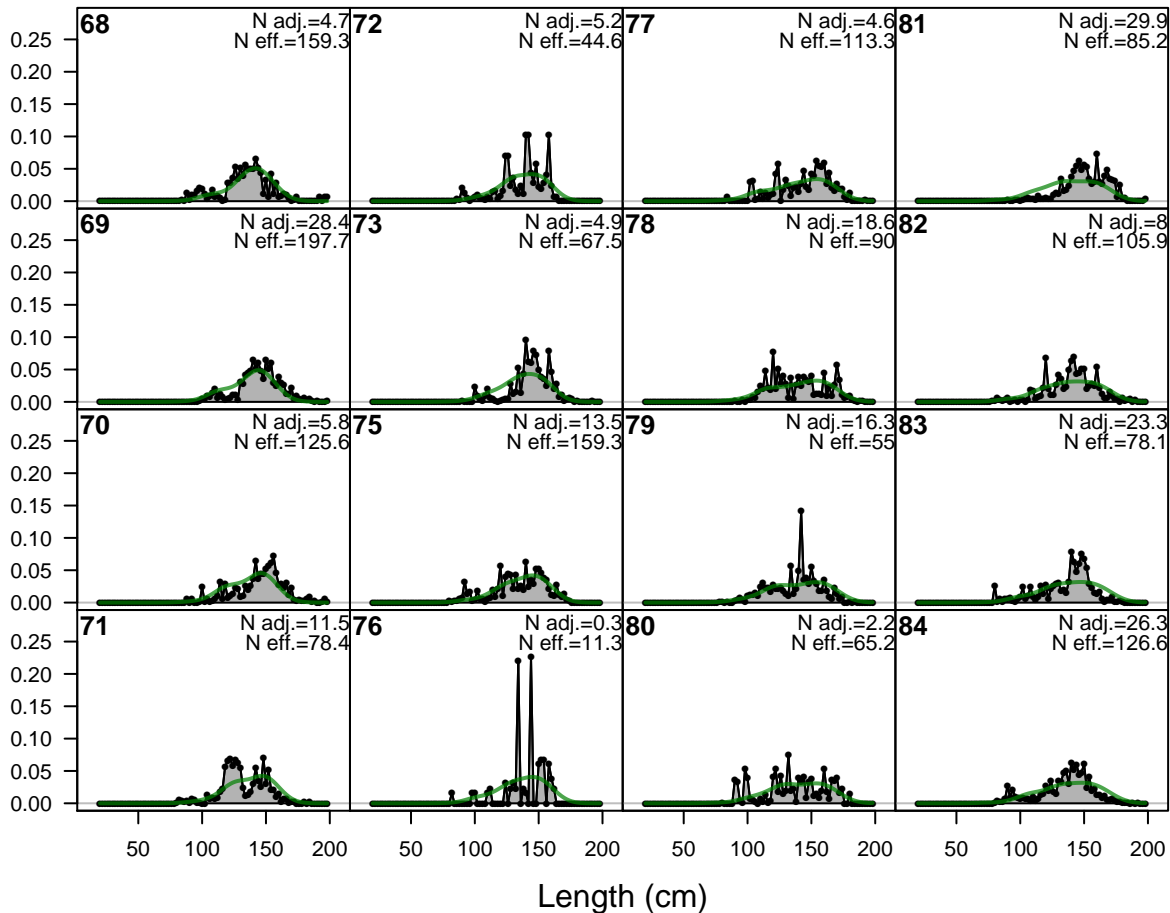
A4-LL-n (whole catch)



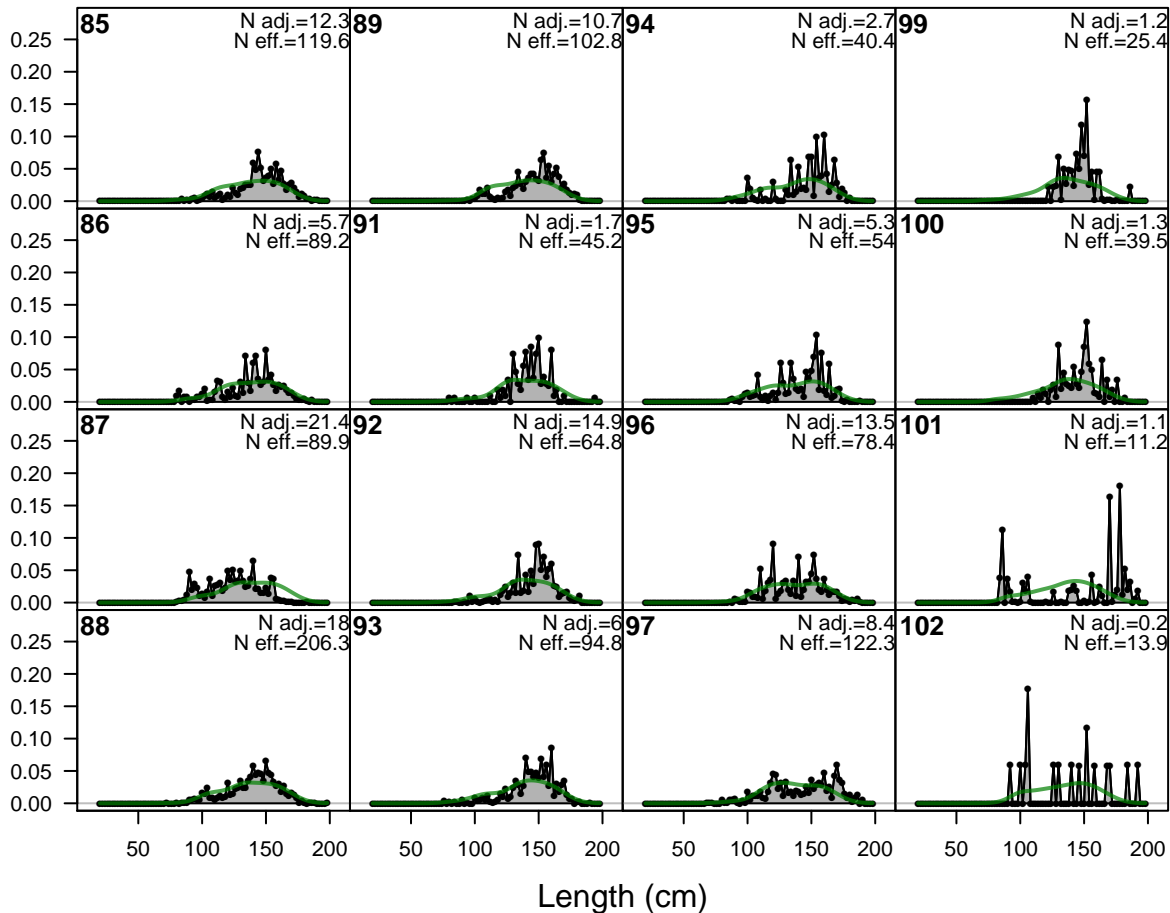
Proportion



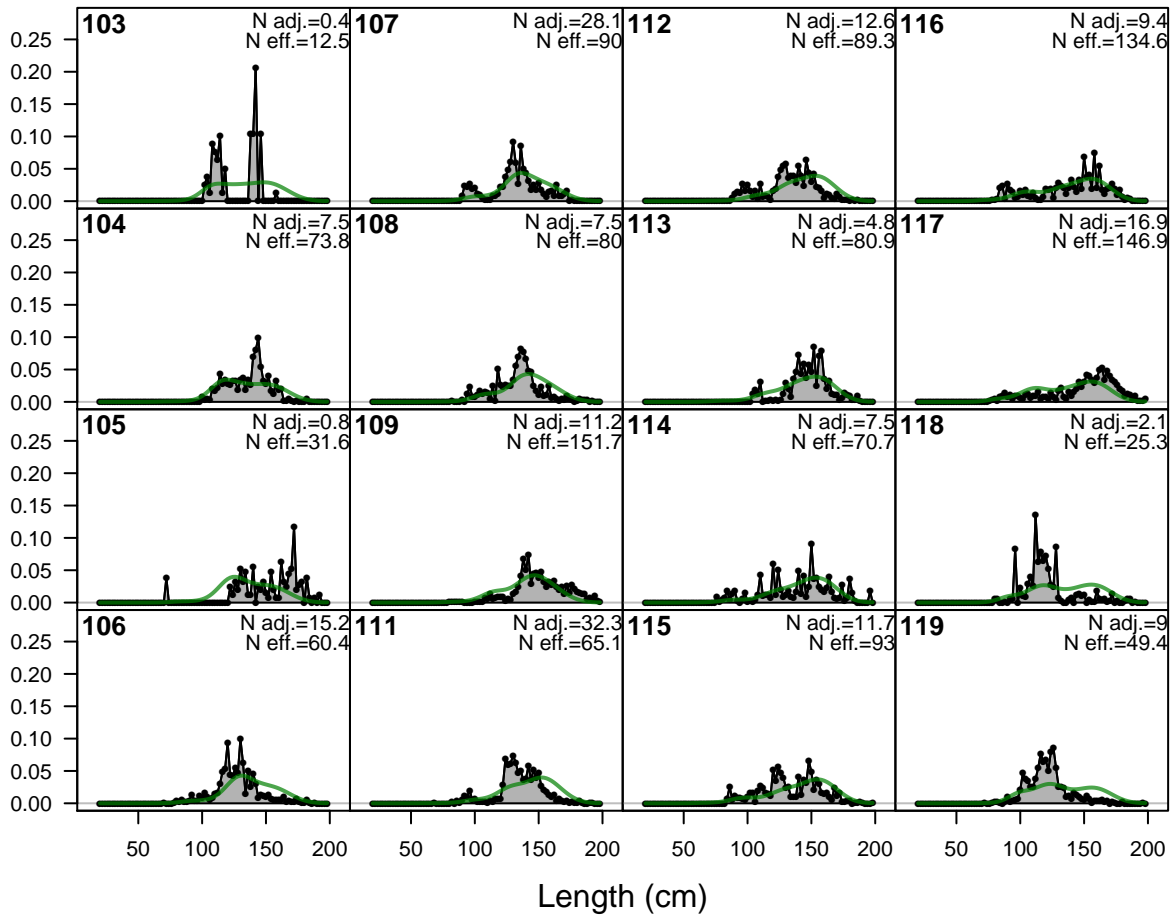
Proportion



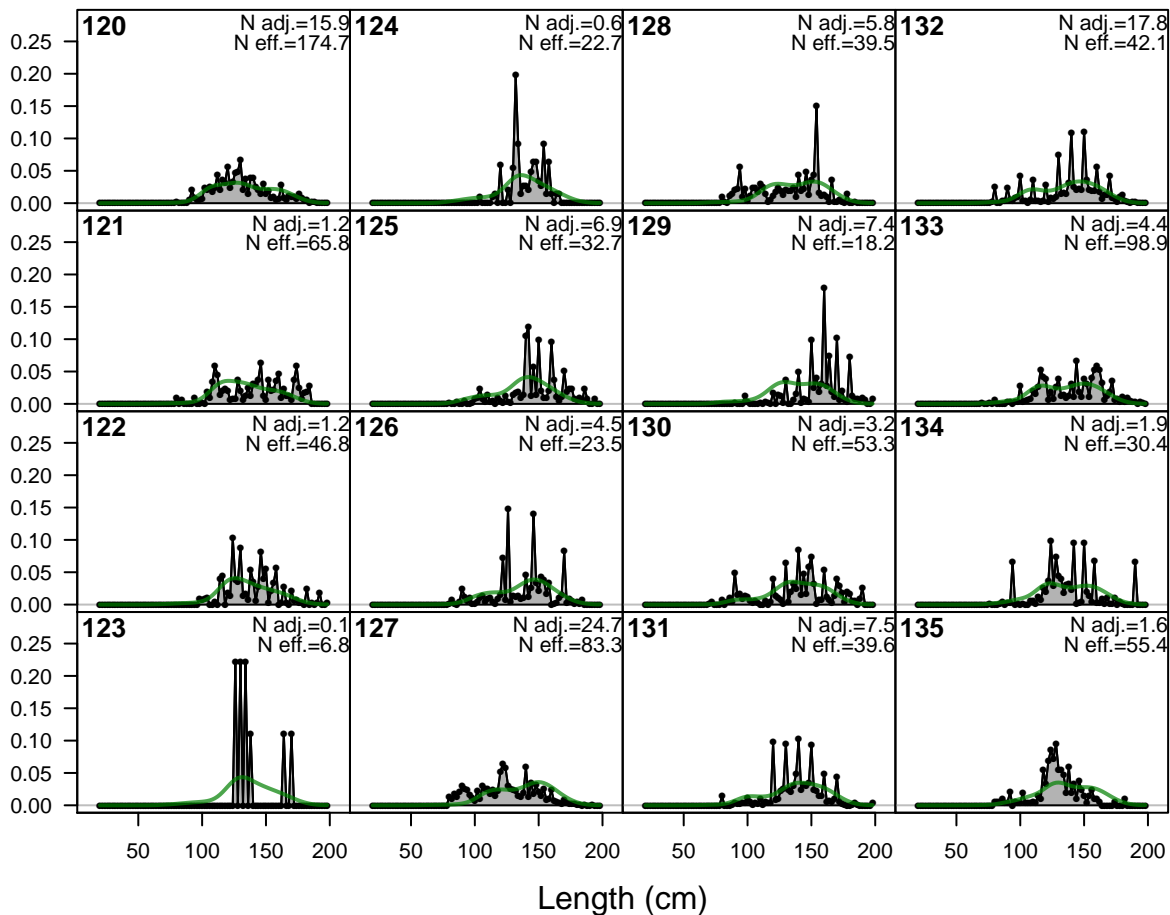
Proportion



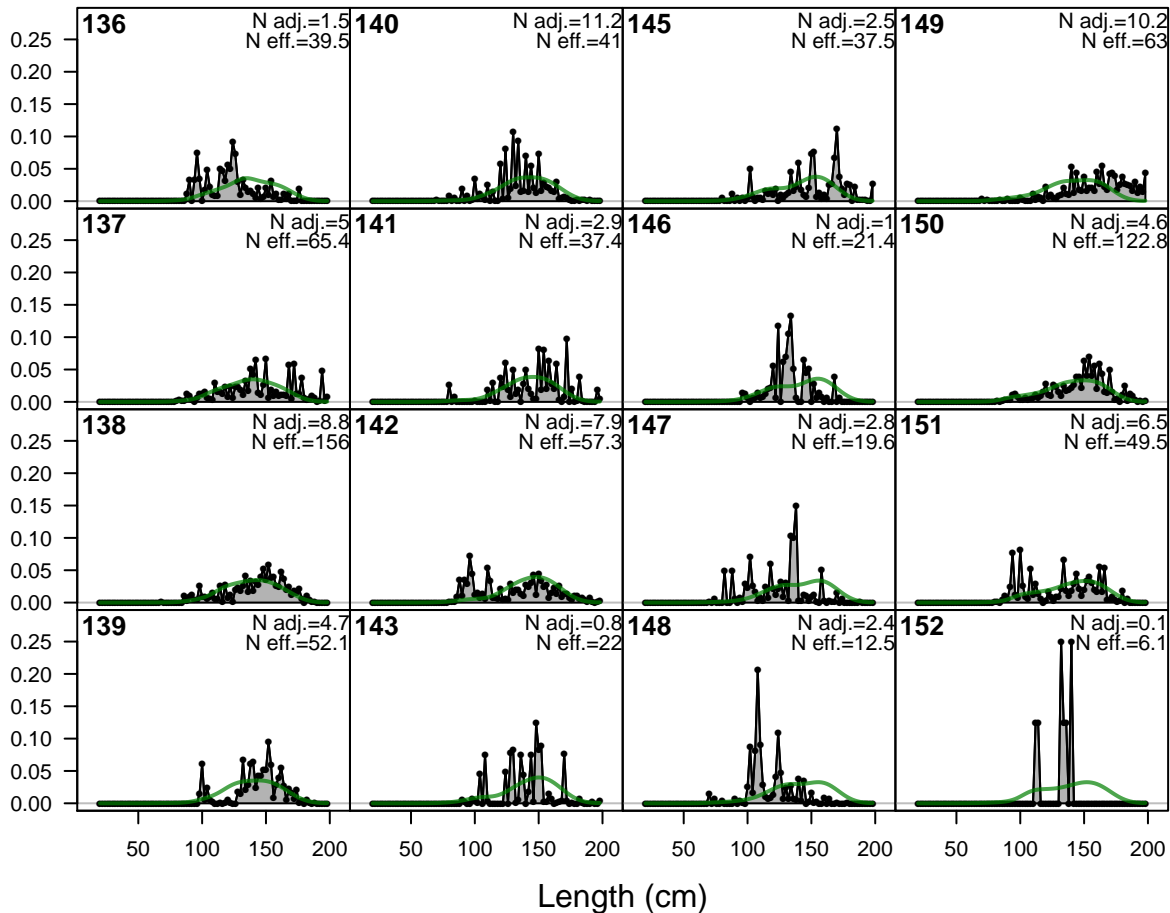
Proportion



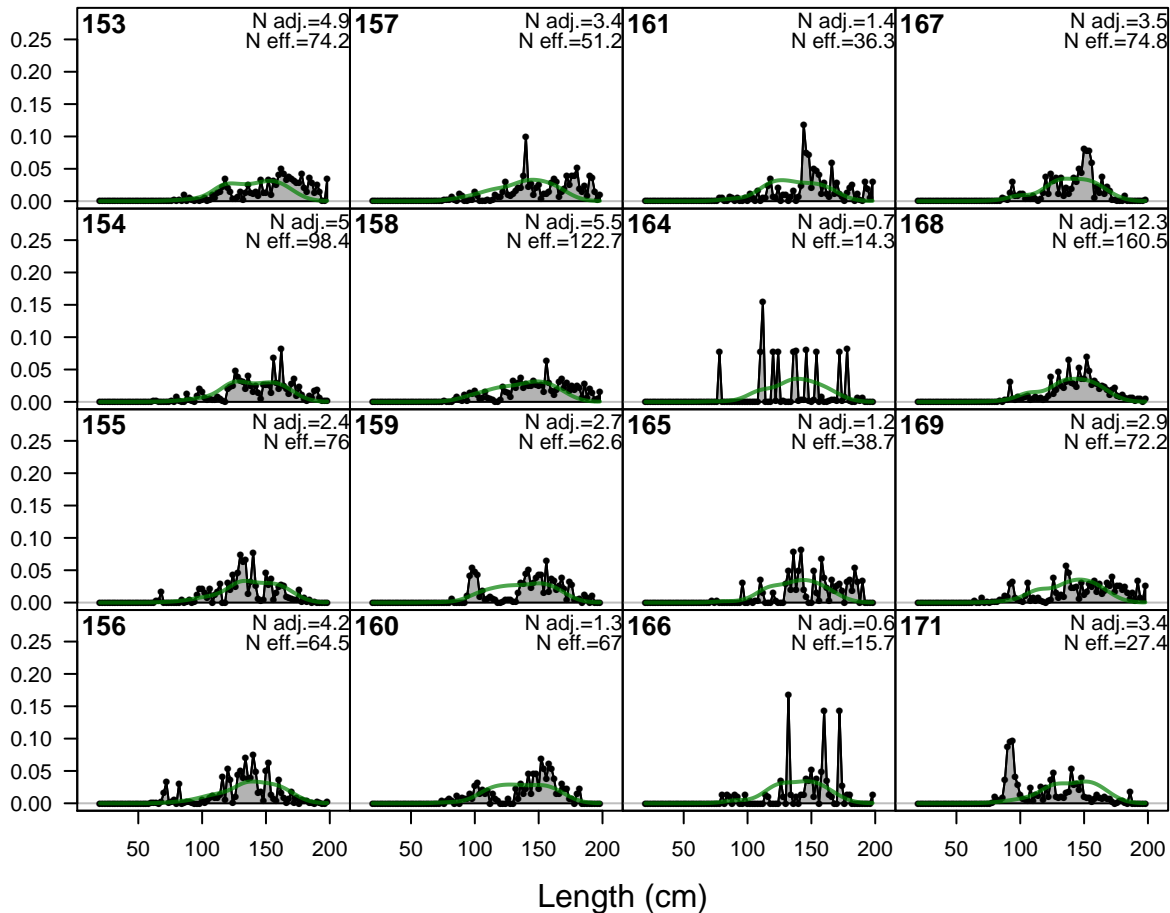
Proportion



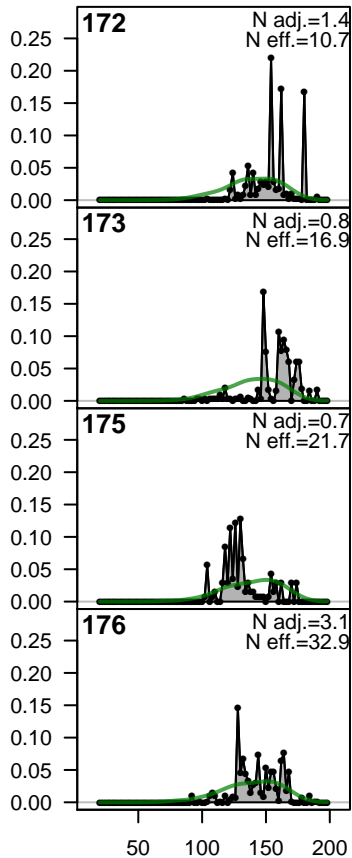
Proportion



Proportion

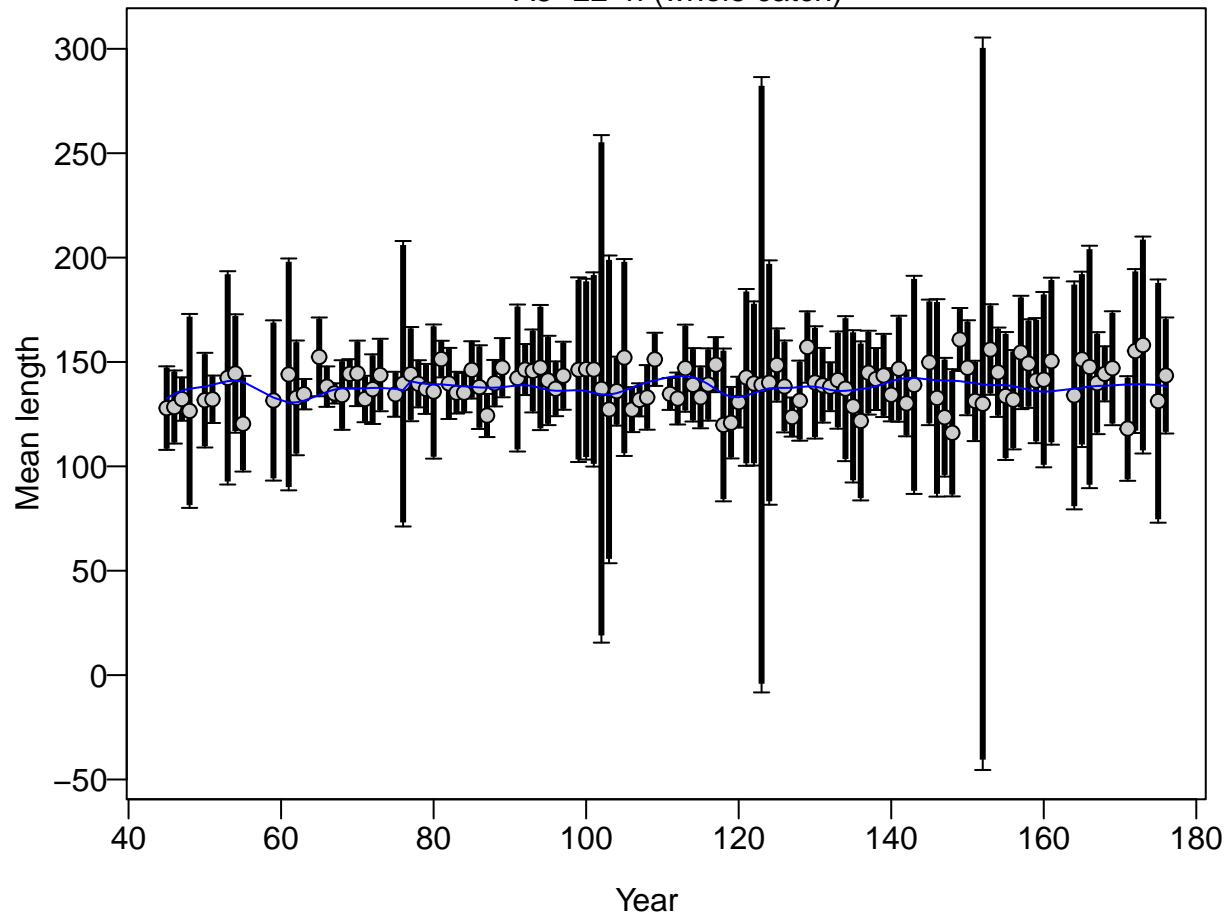


Proportion

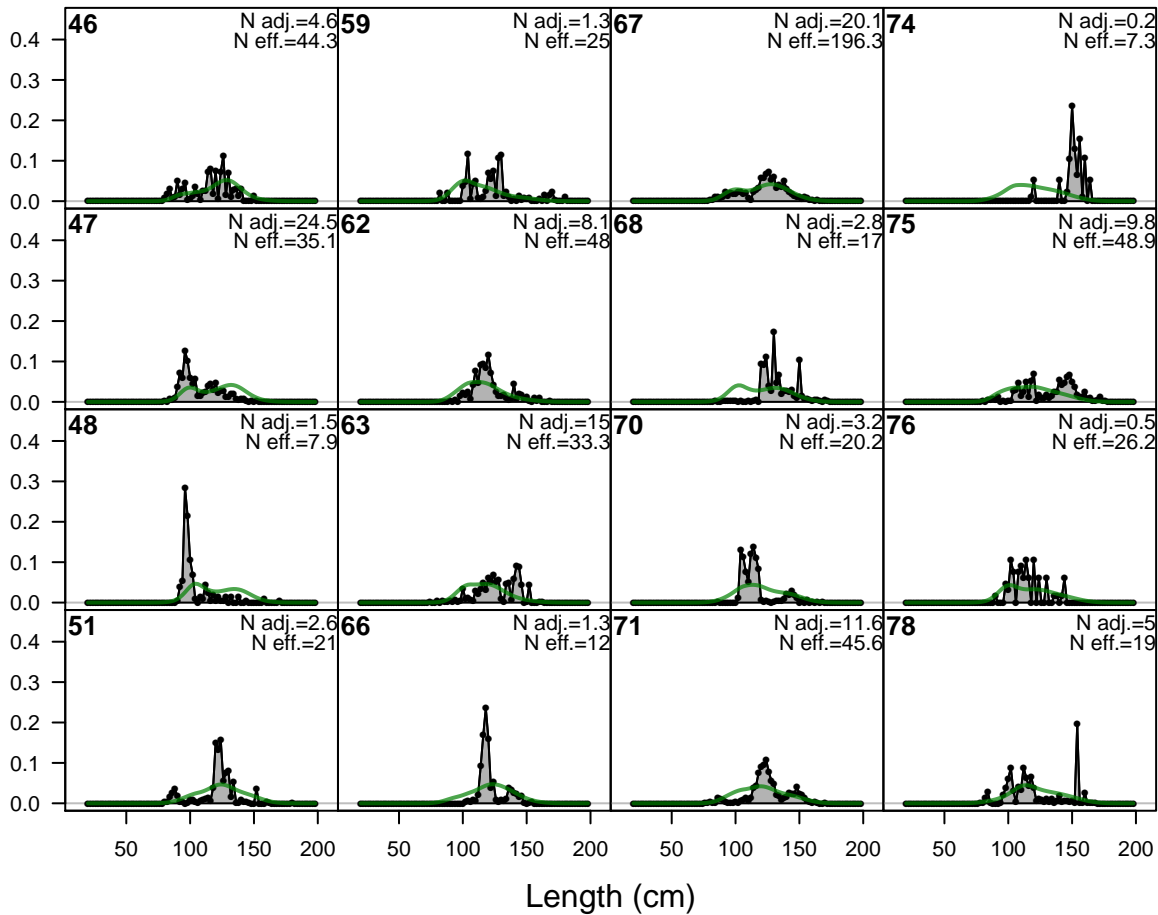


Length (cm)

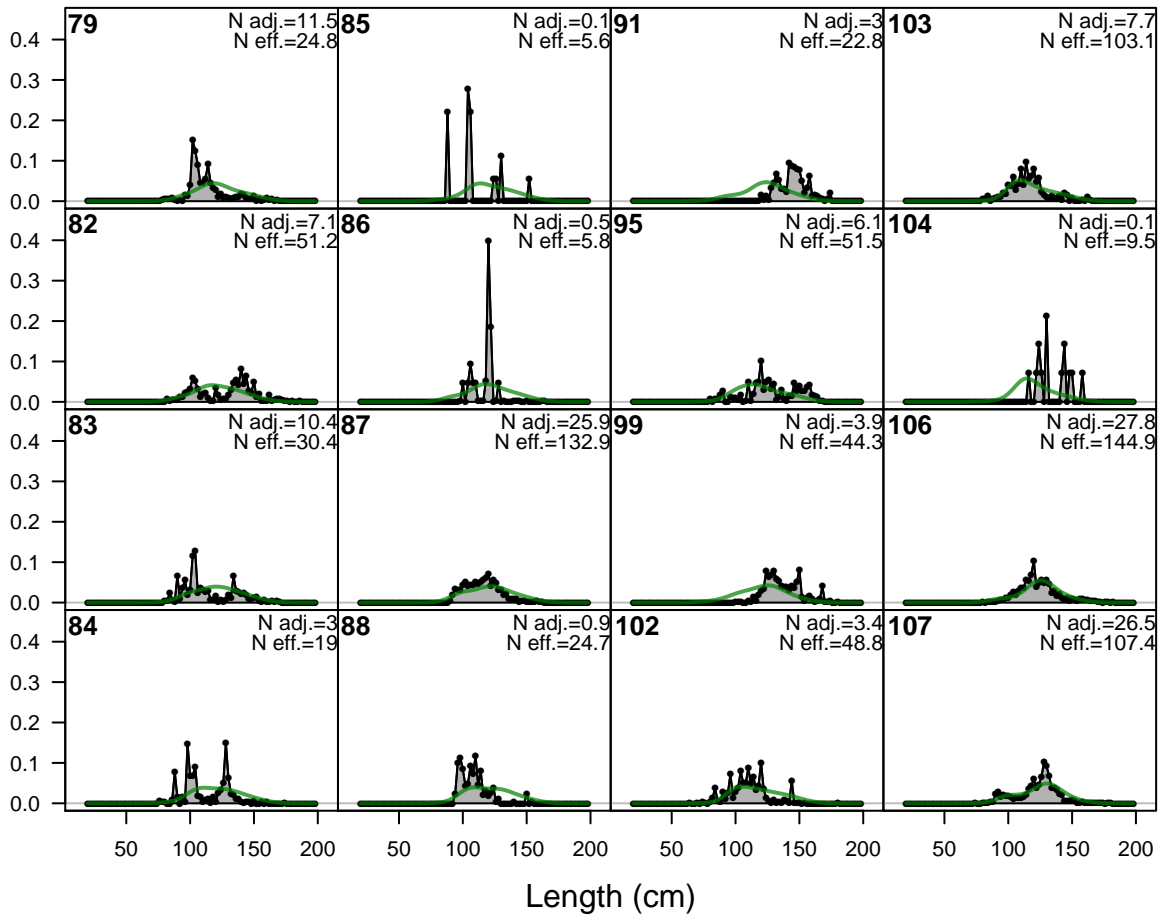
A5-LL-n (whole catch)



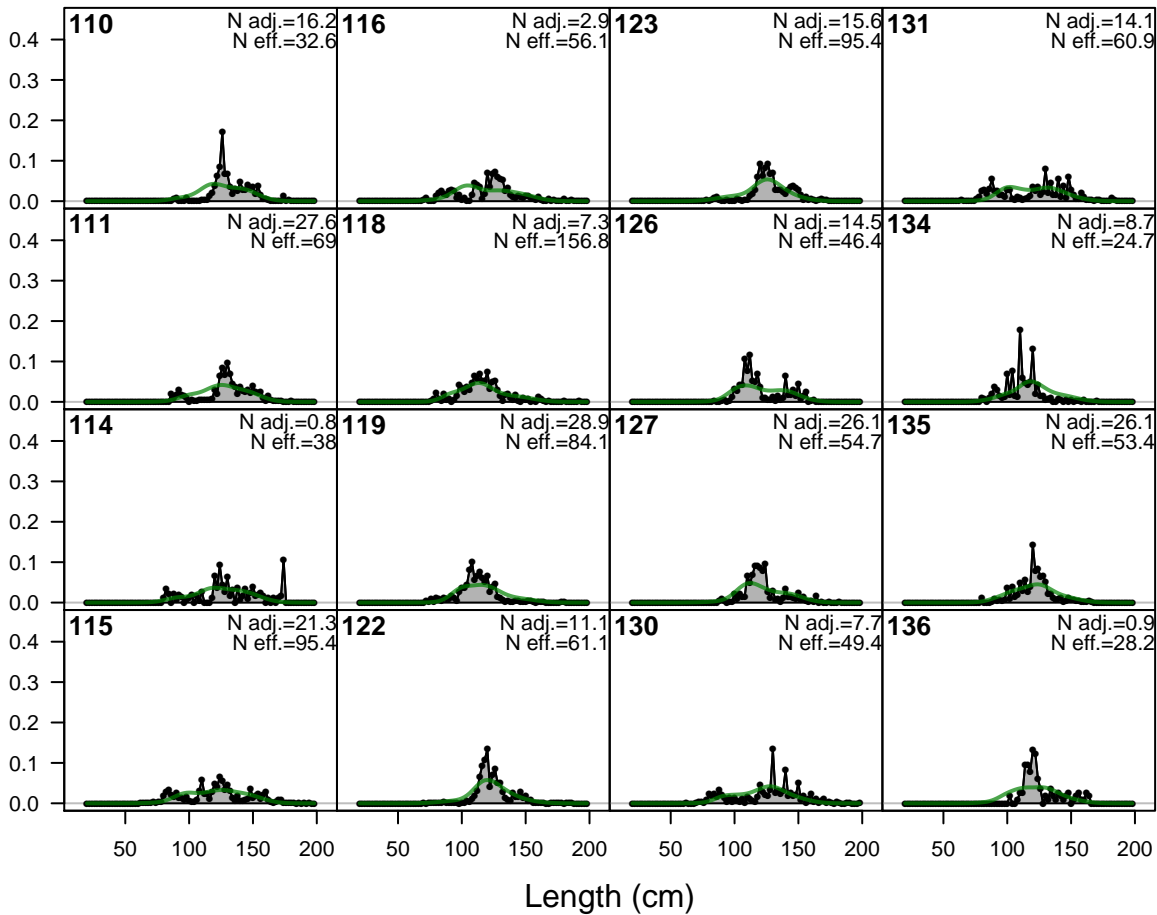
Proportion



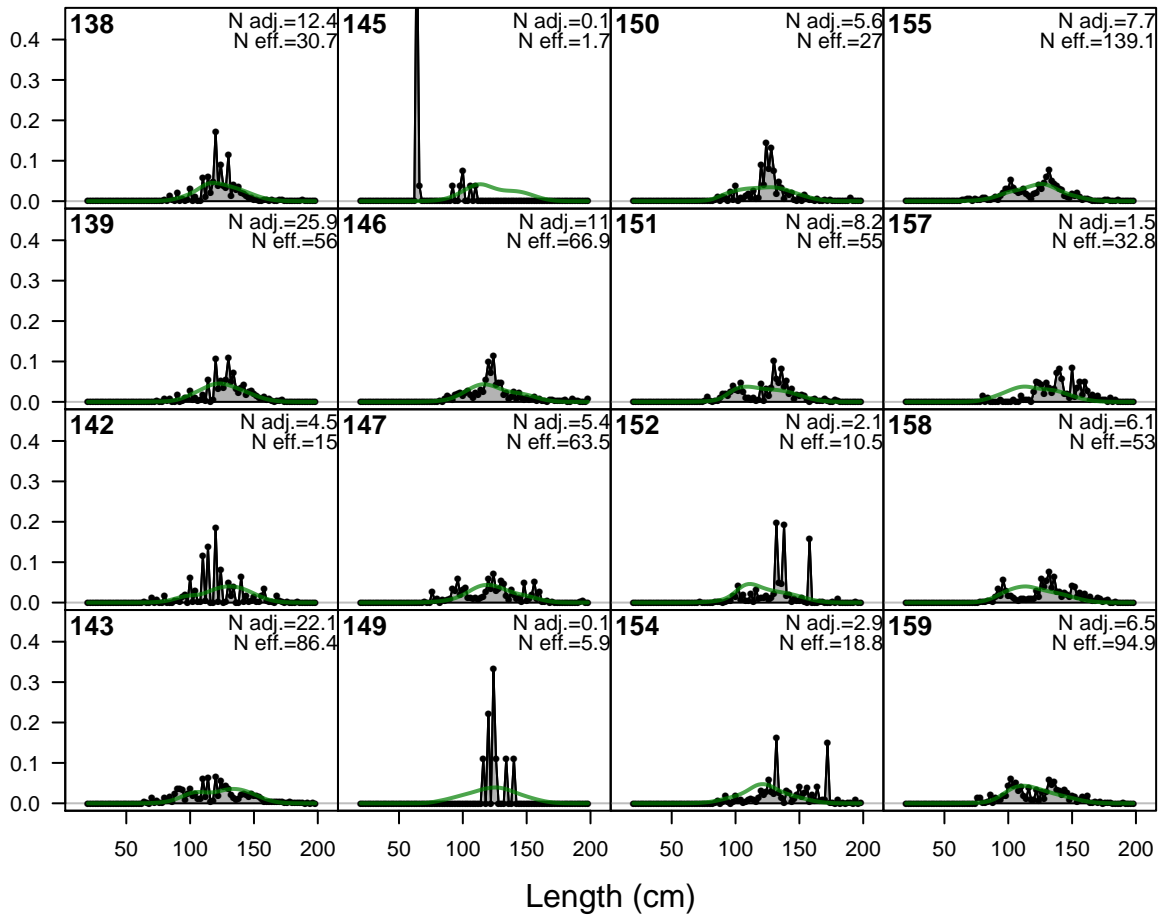
Proportion



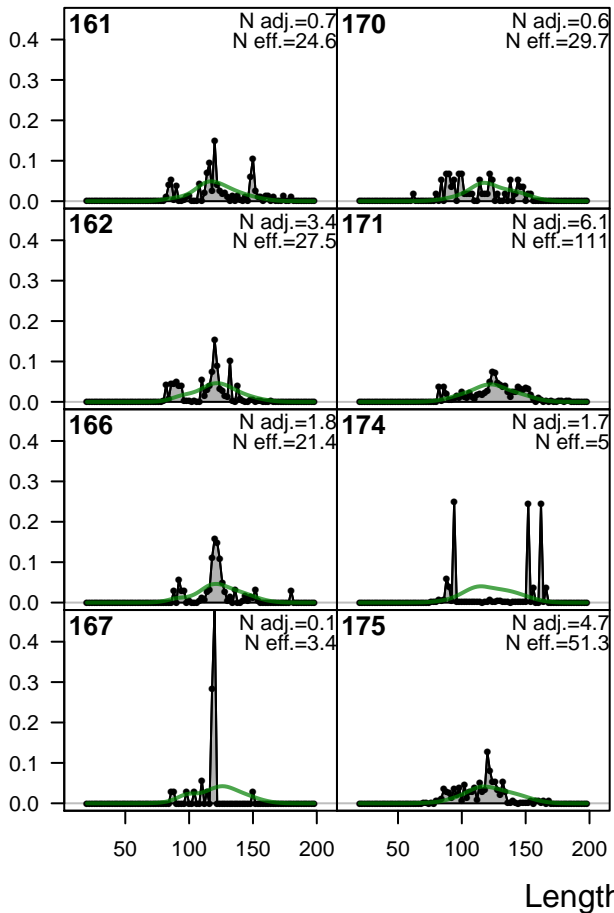
Proportion



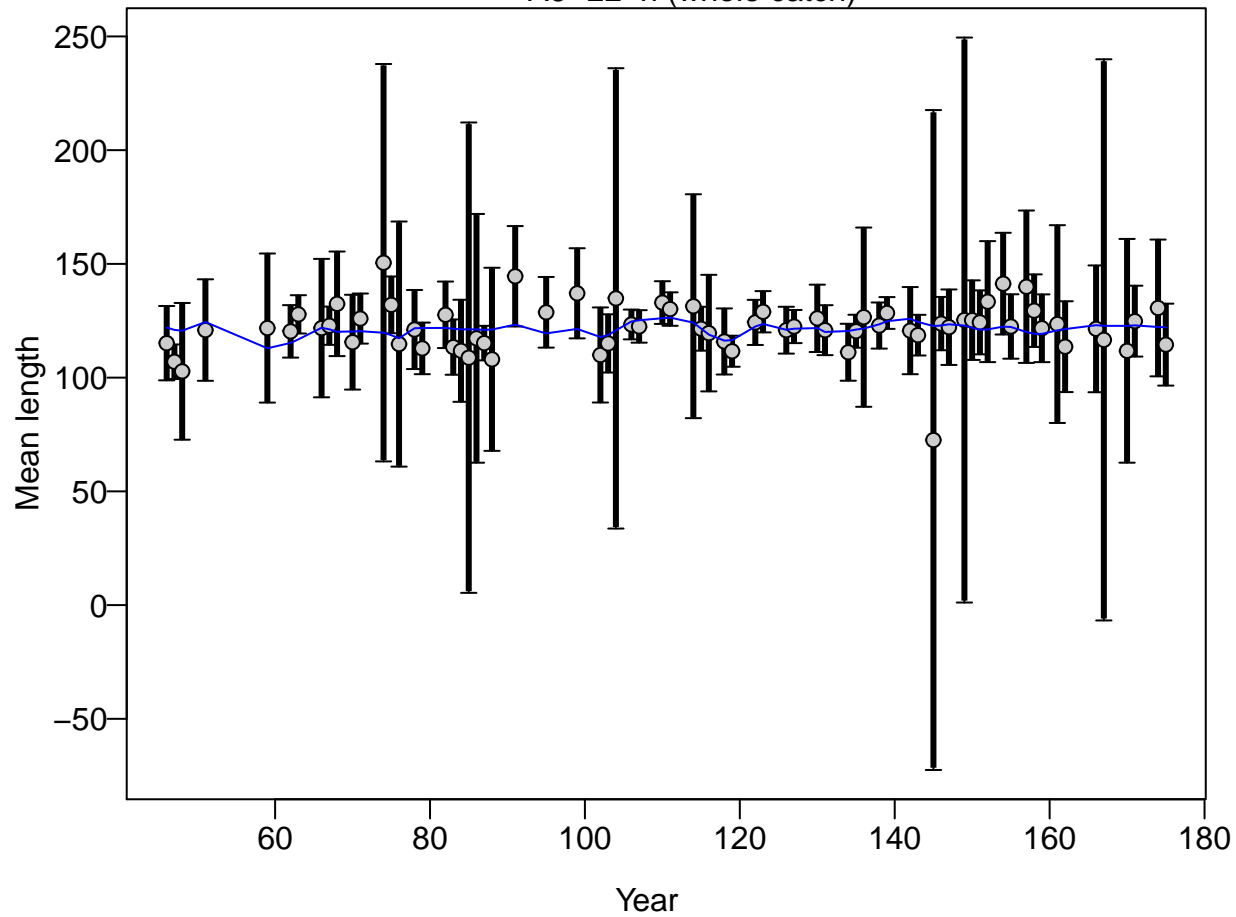
Proportion

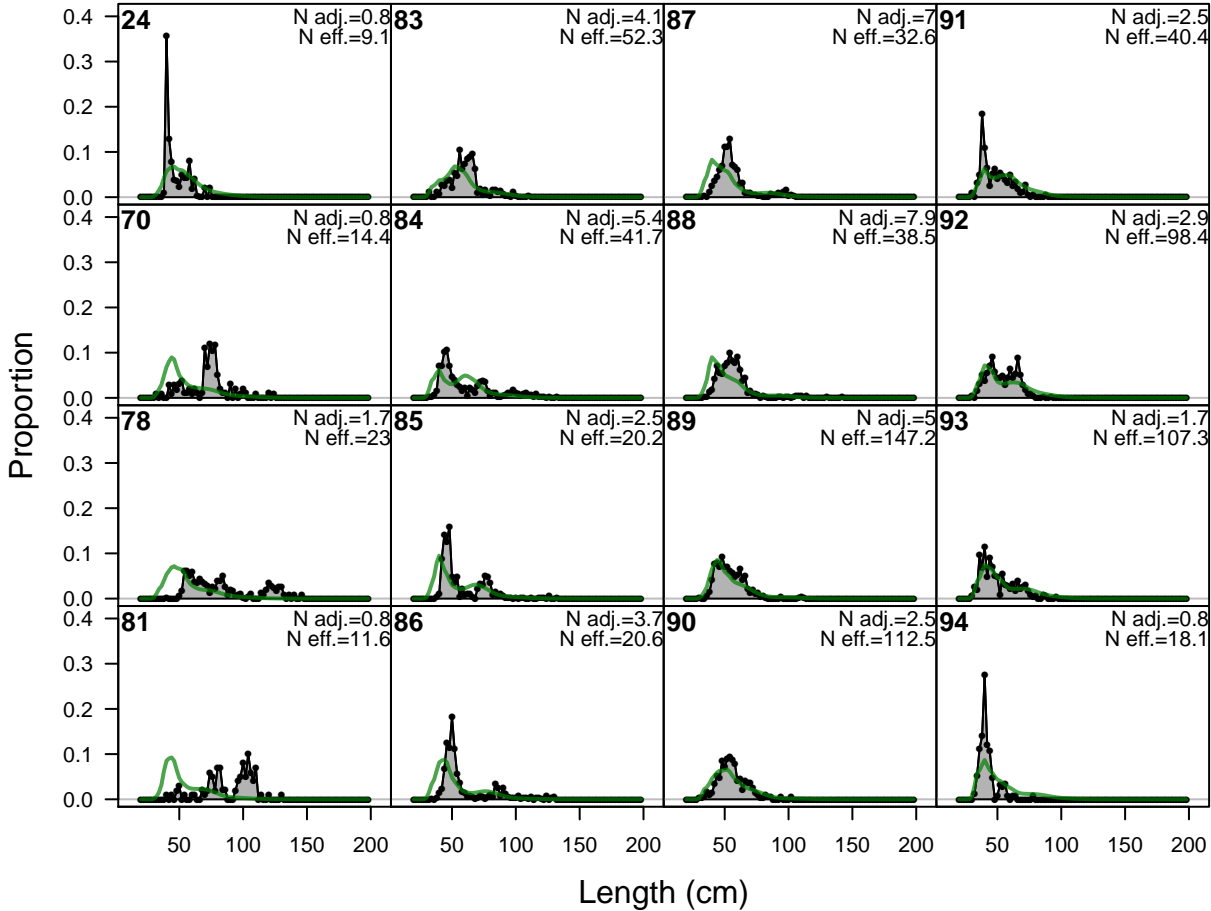


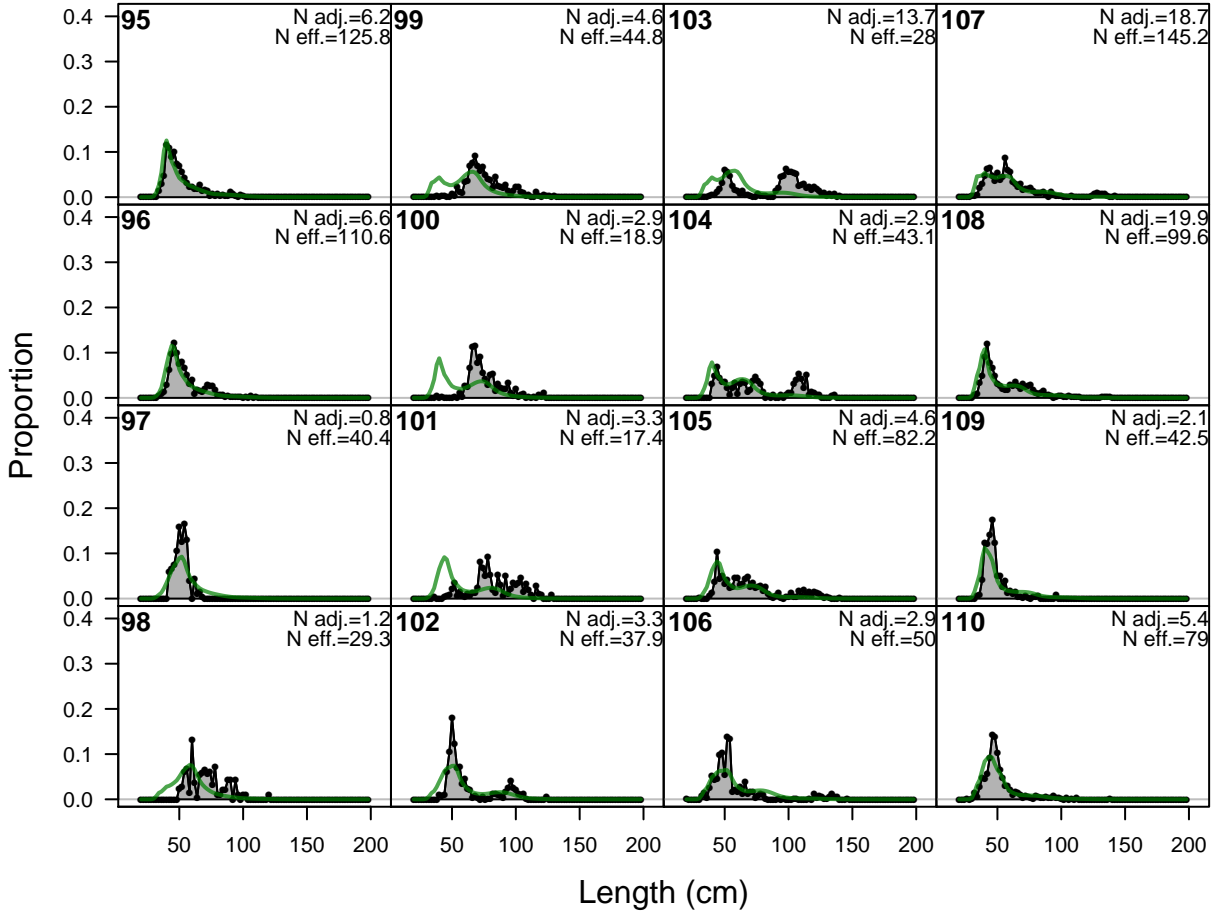
Proportion



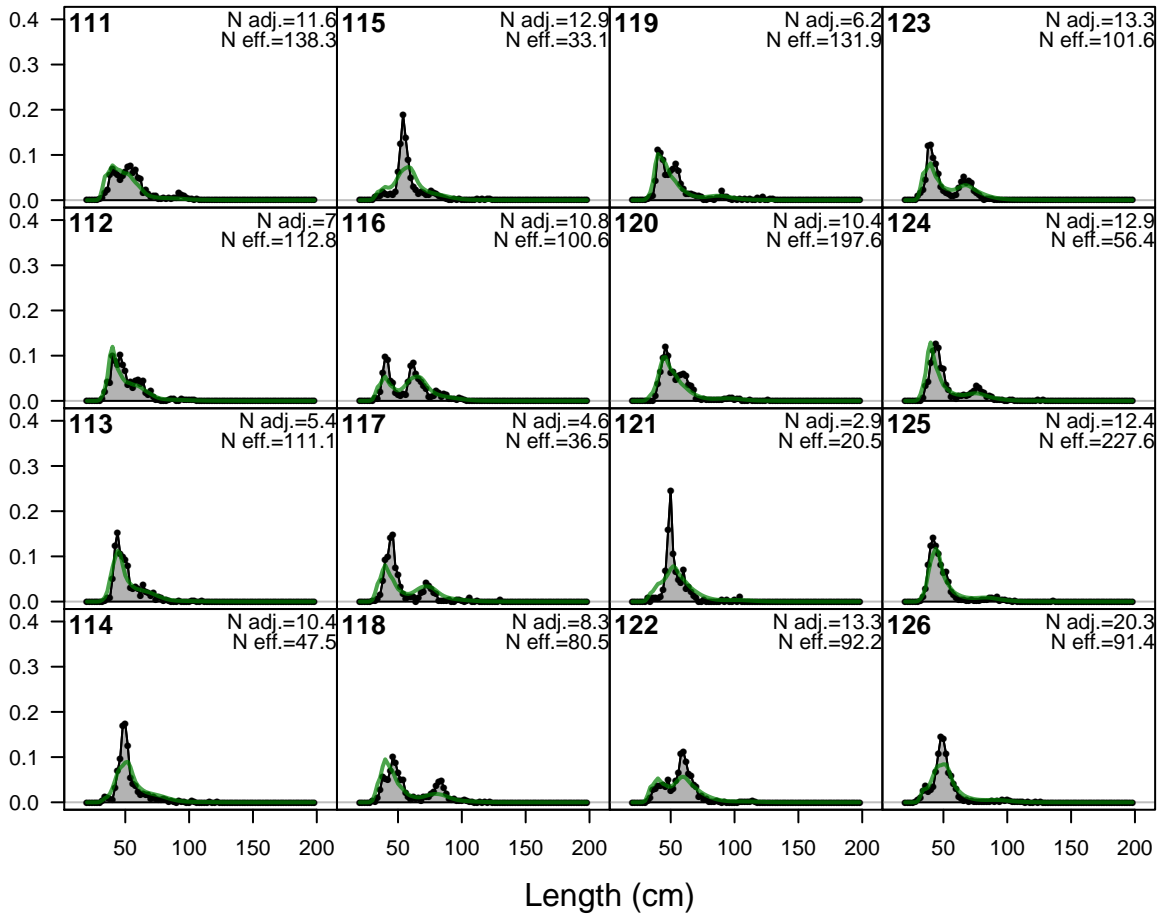
A6-LL-n (whole catch)



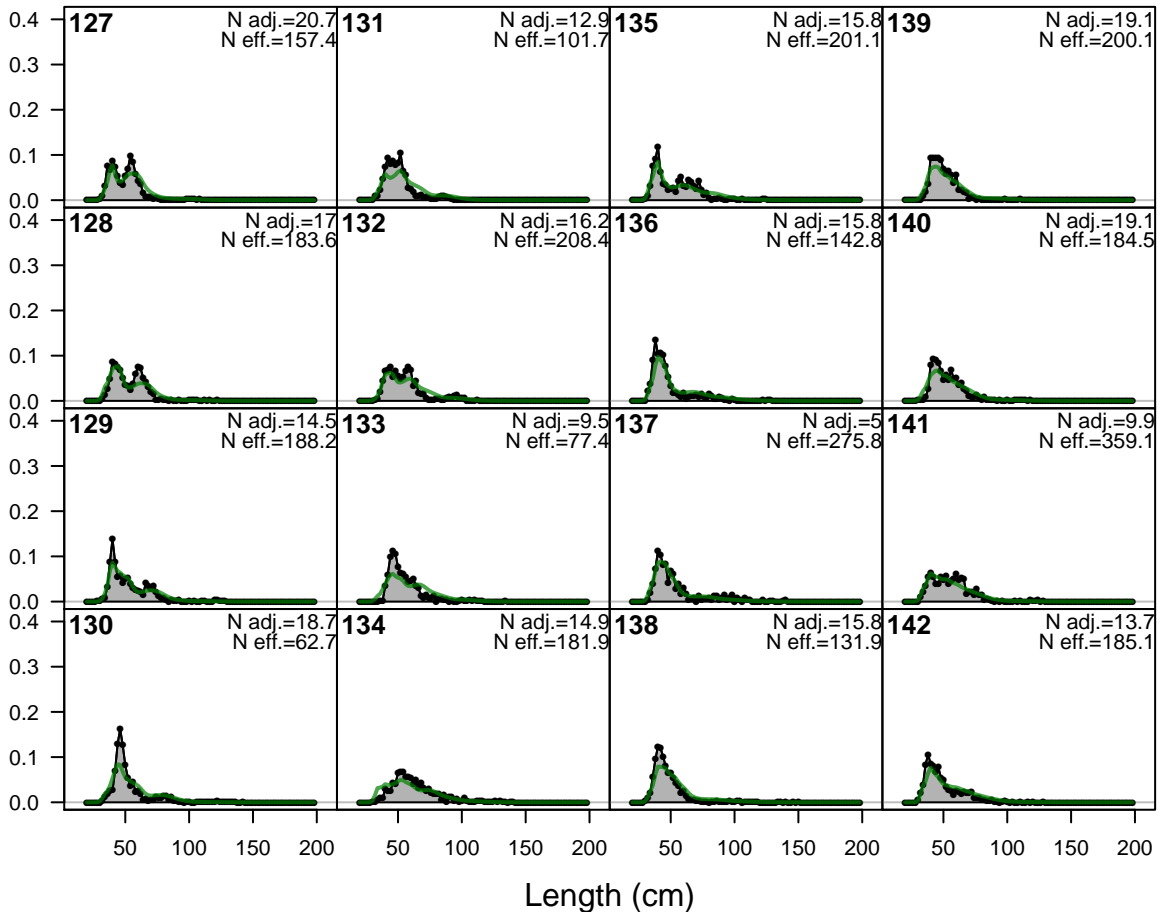




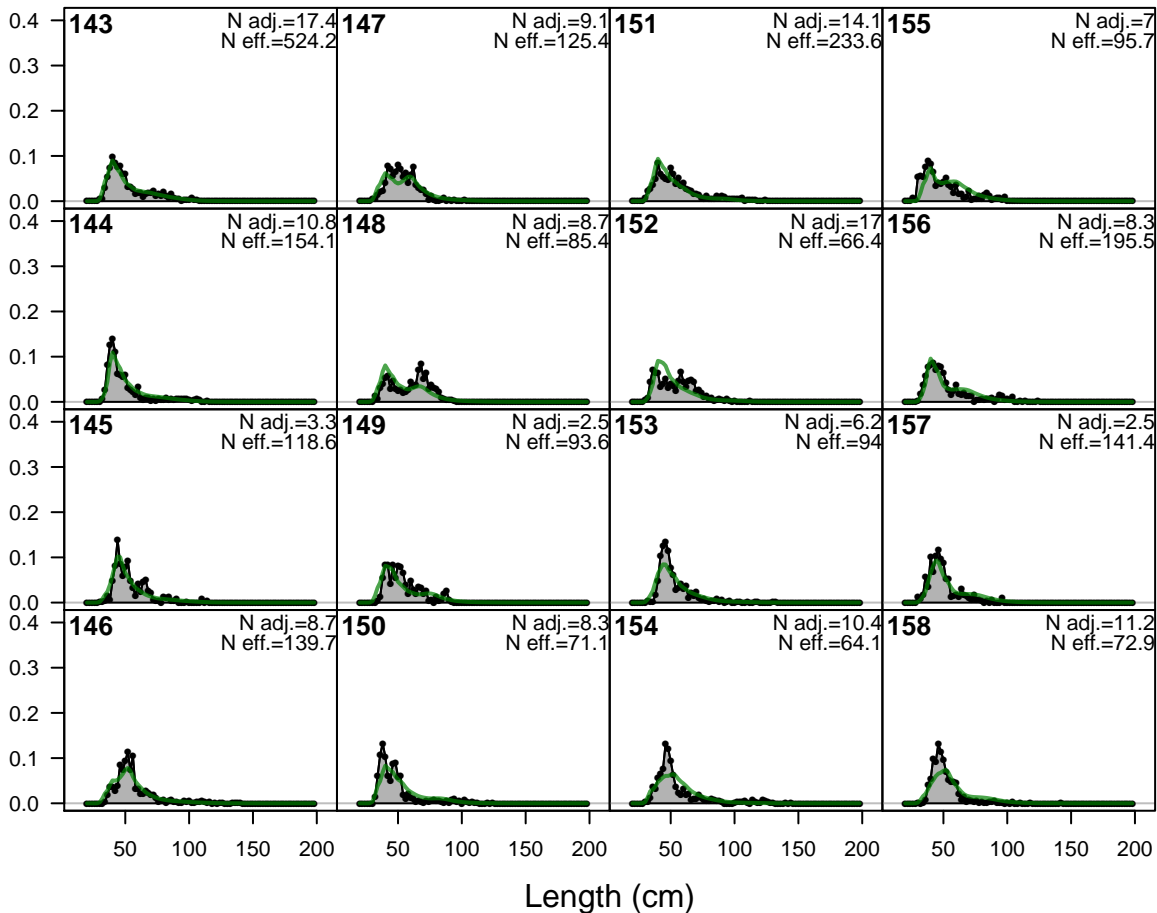
Proportion

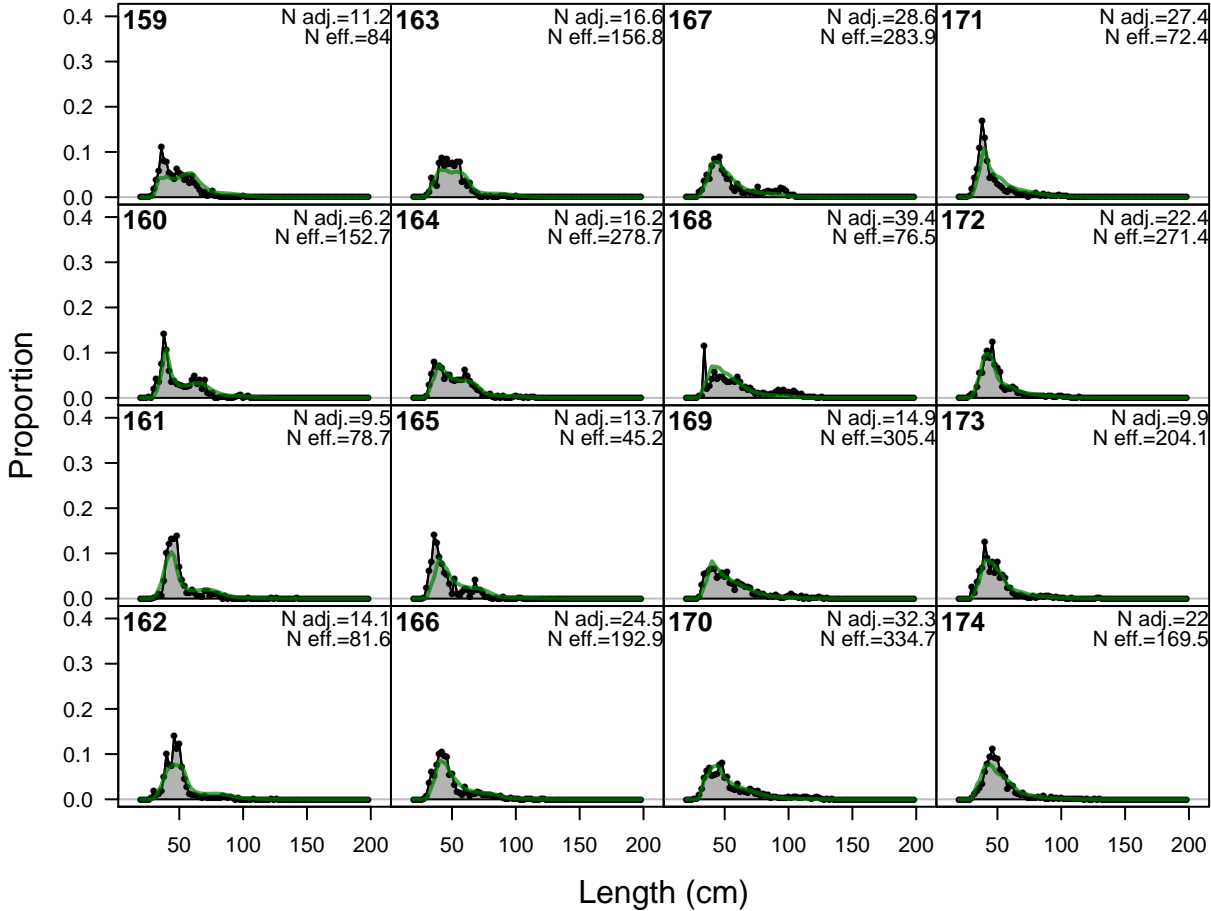


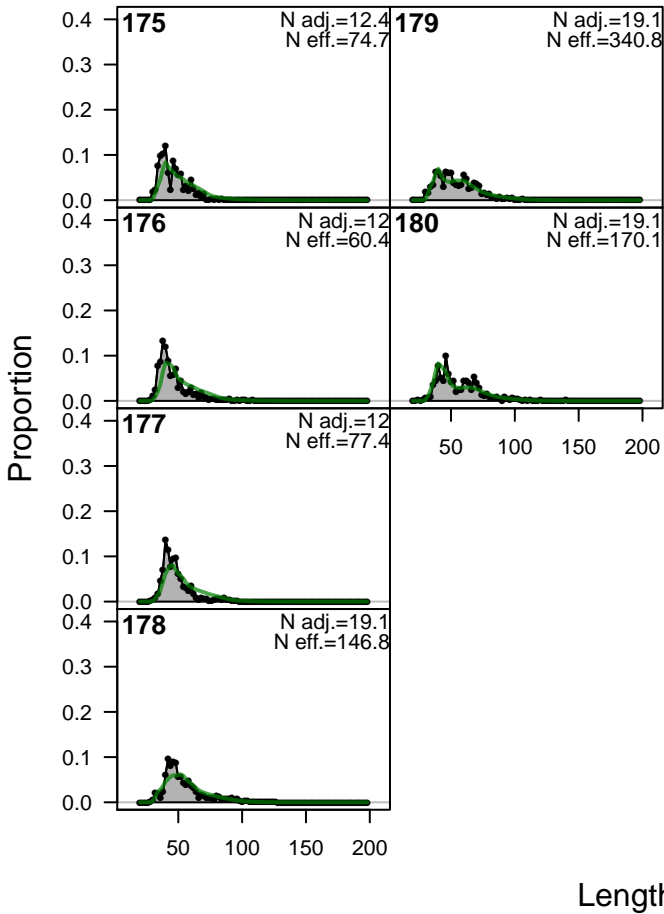
Proportion



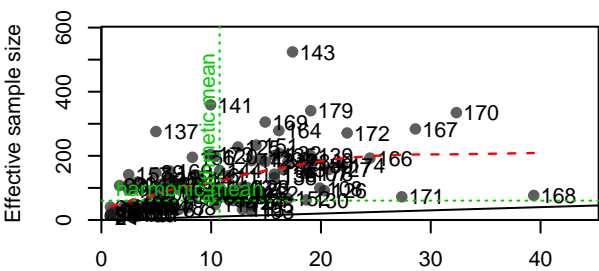
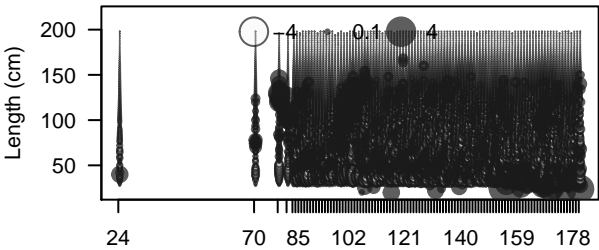
Proportion



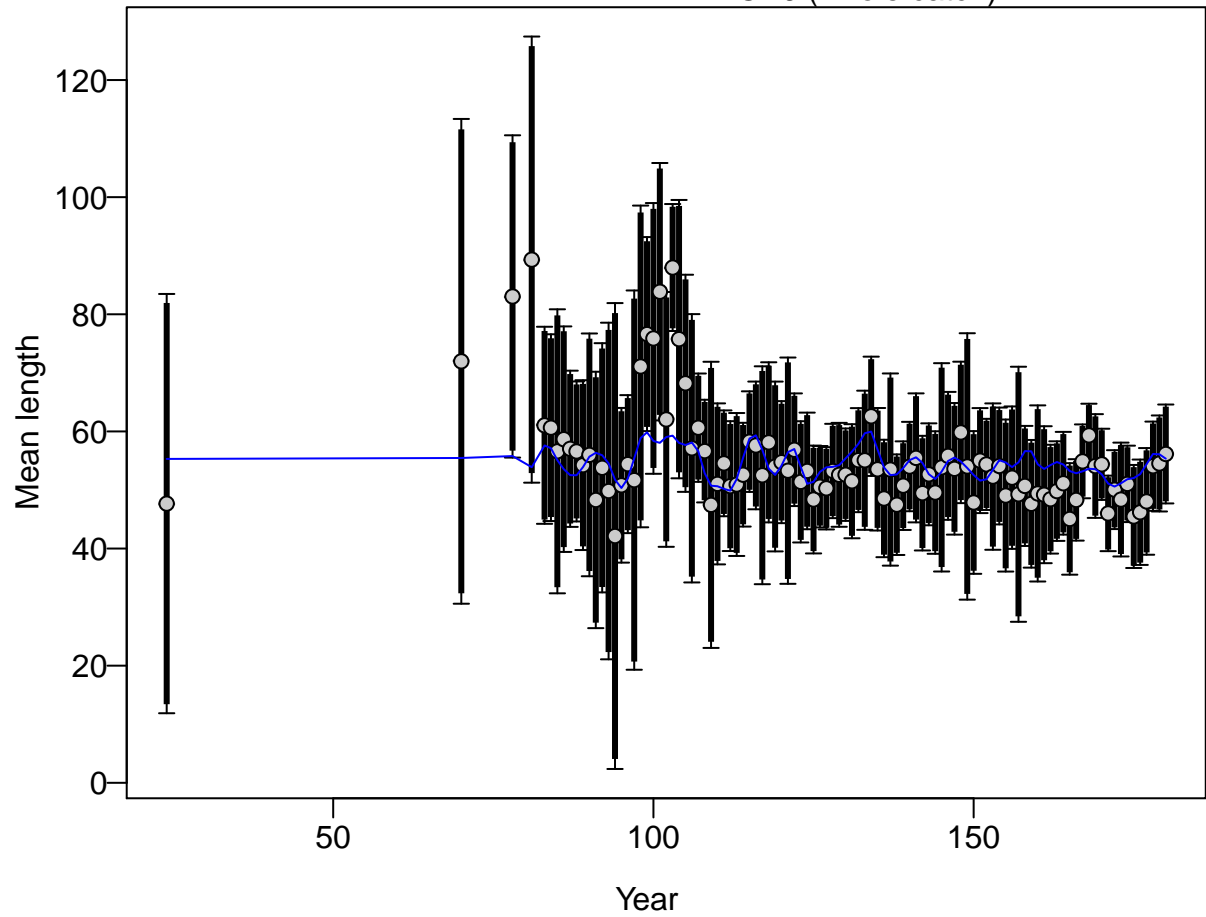




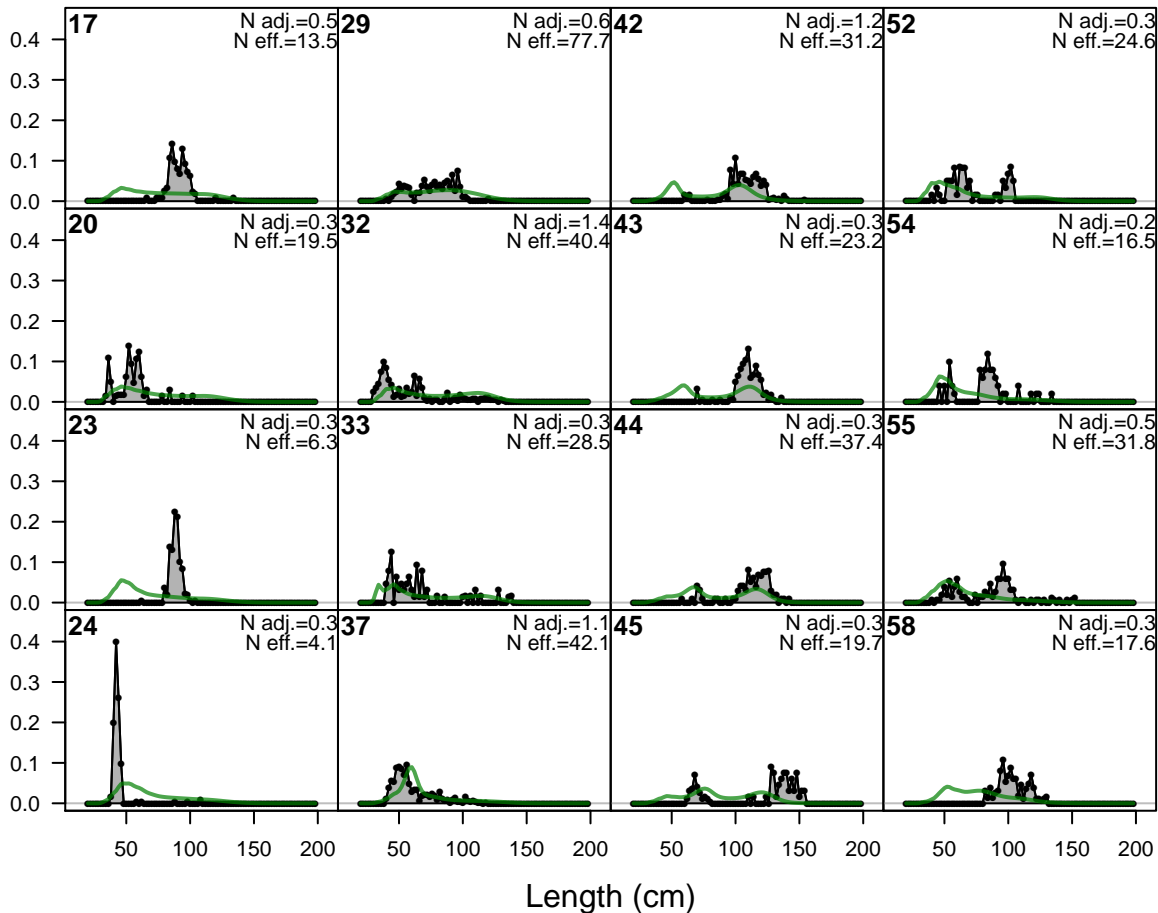
Length (cm)



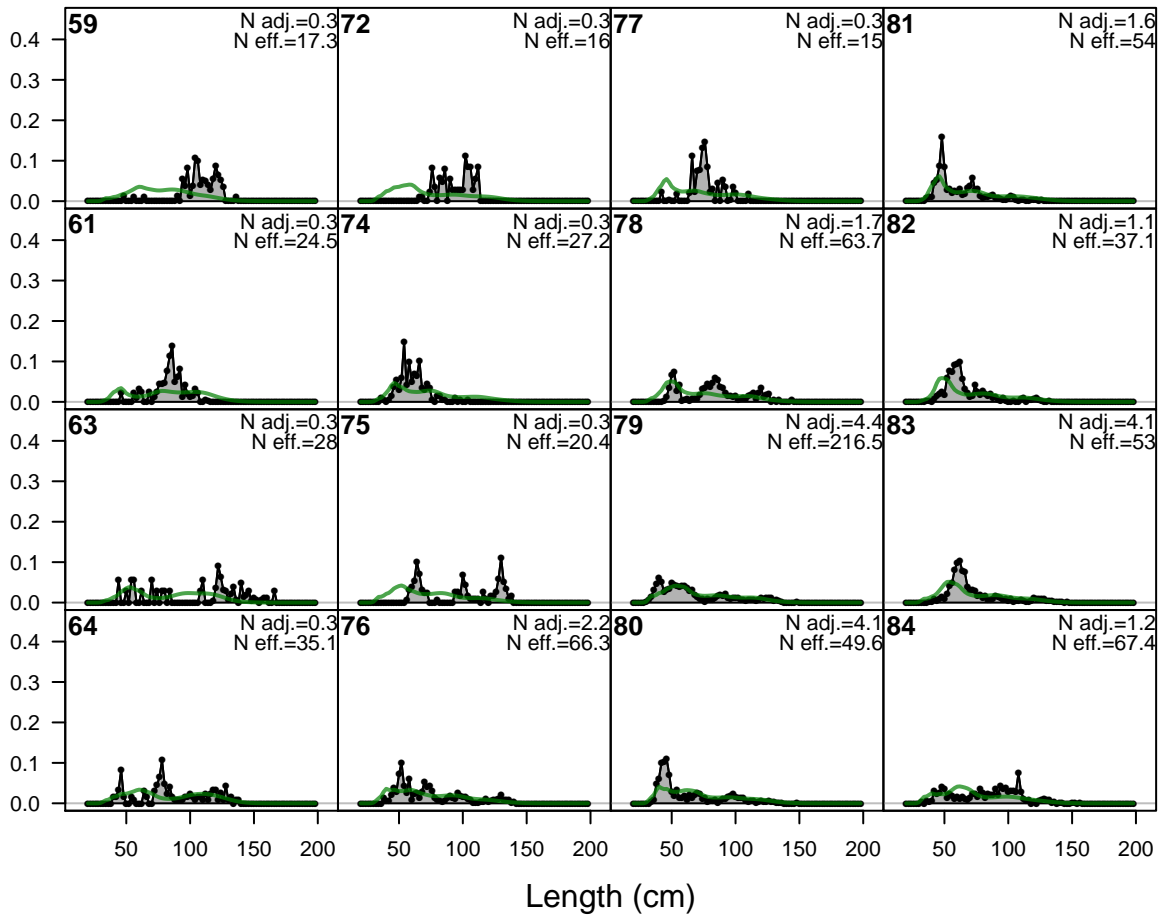
A2-OBJ (whole catch)



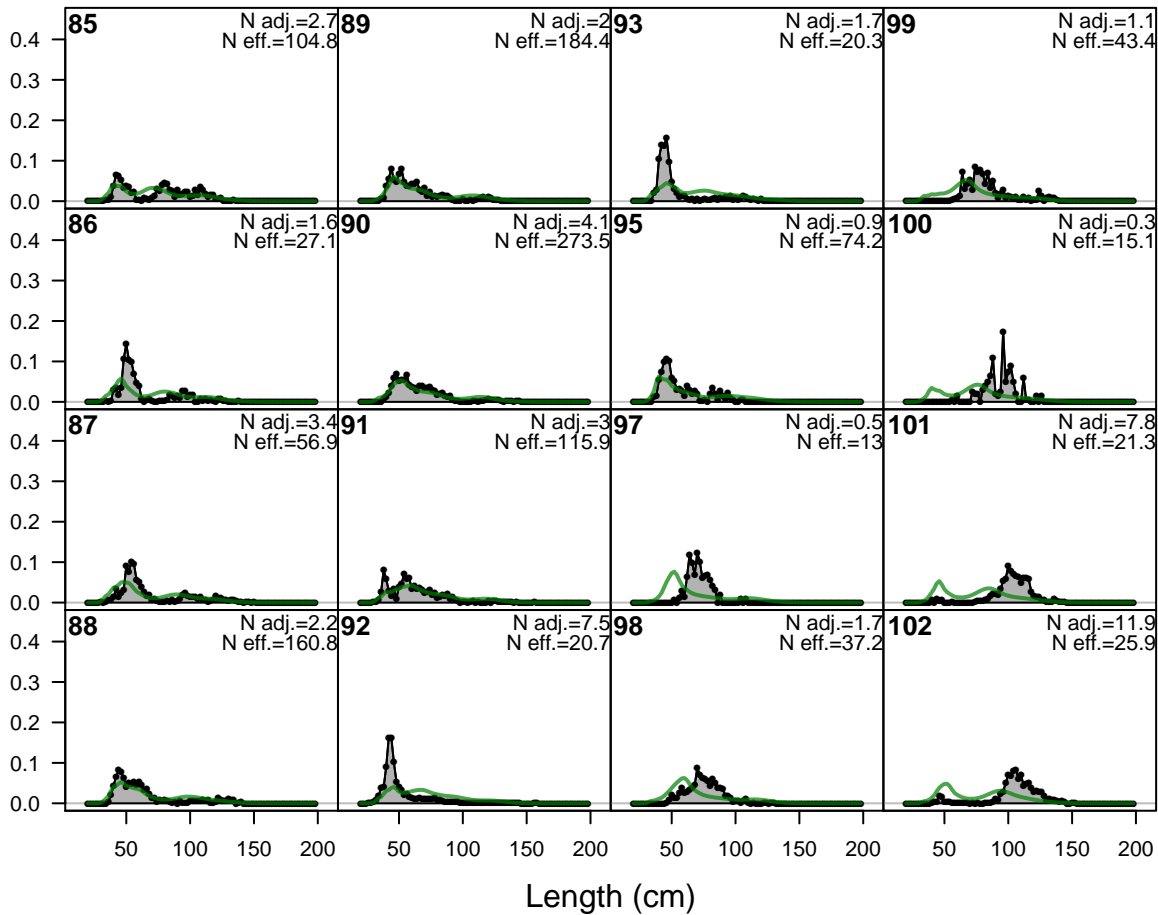
Proportion



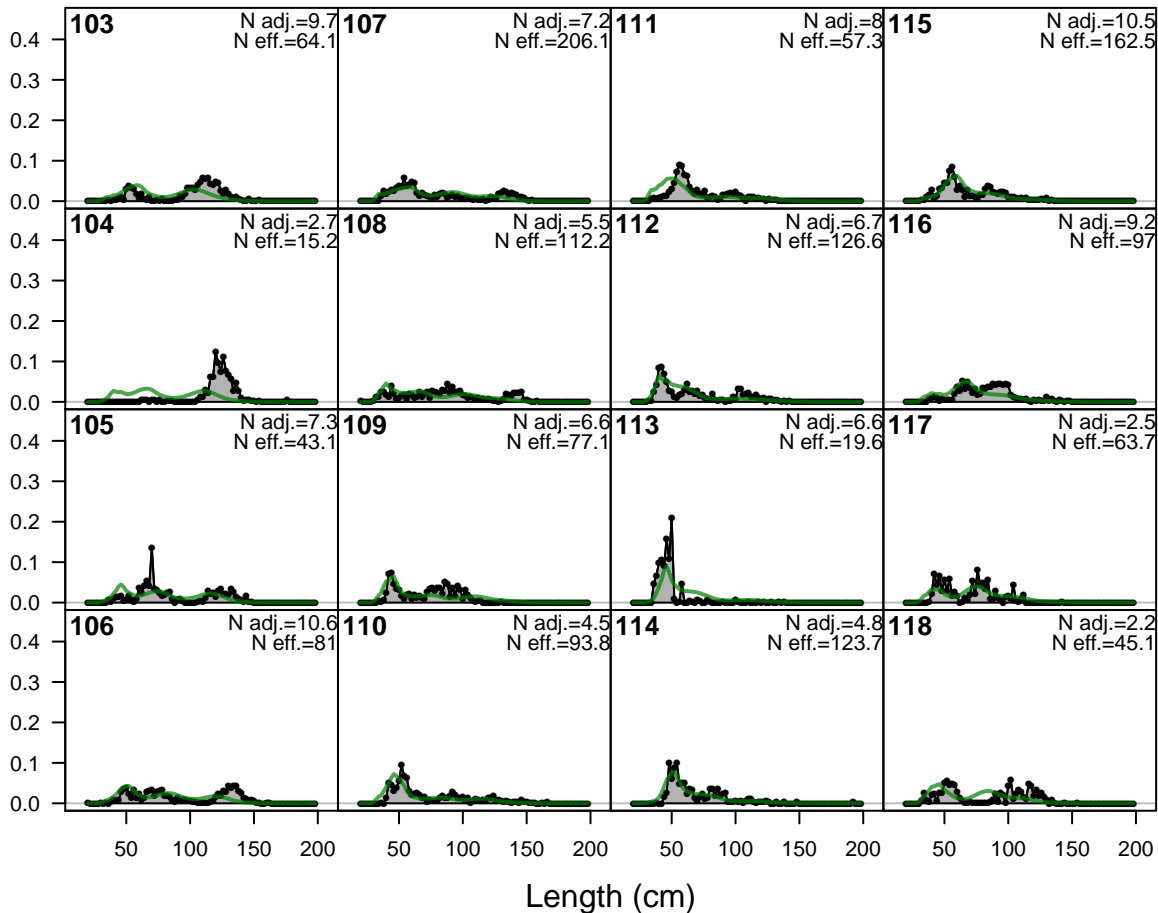
Proportion



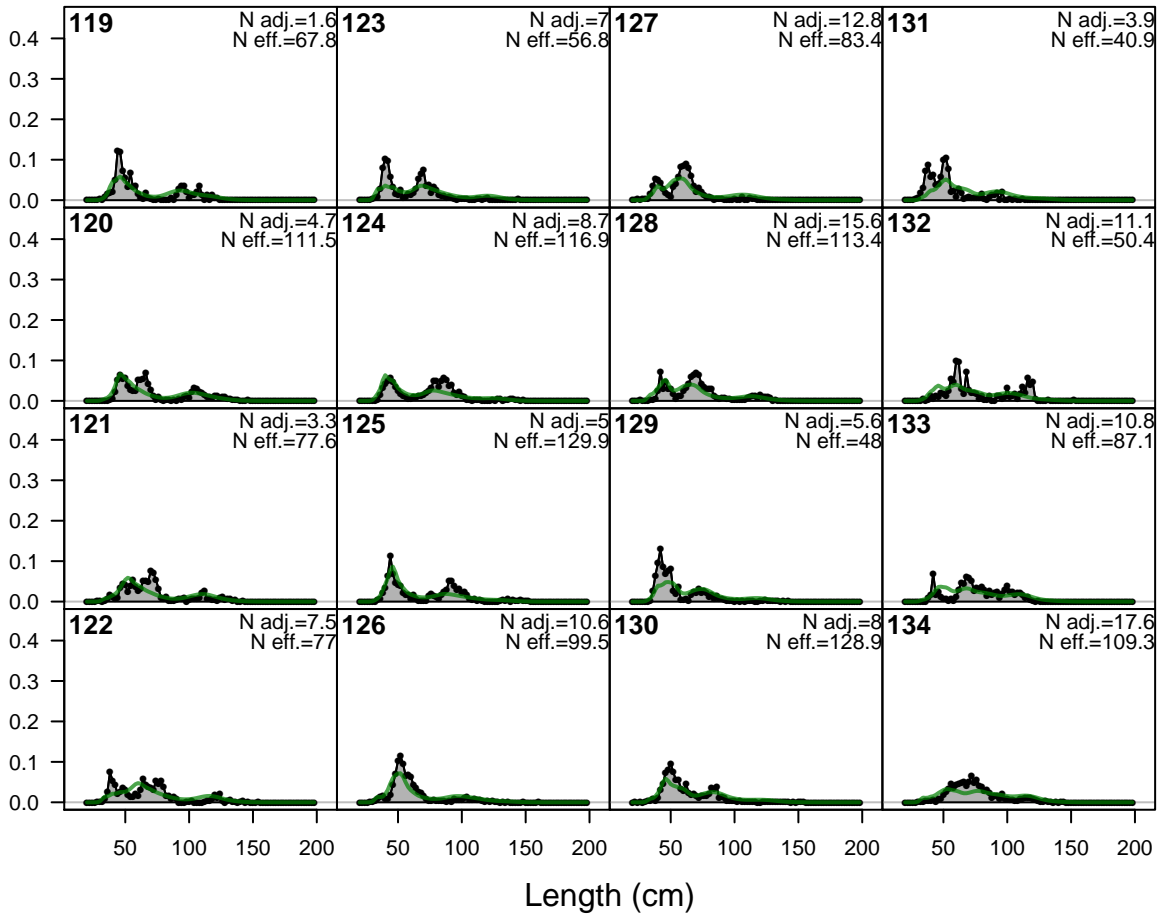
Proportion



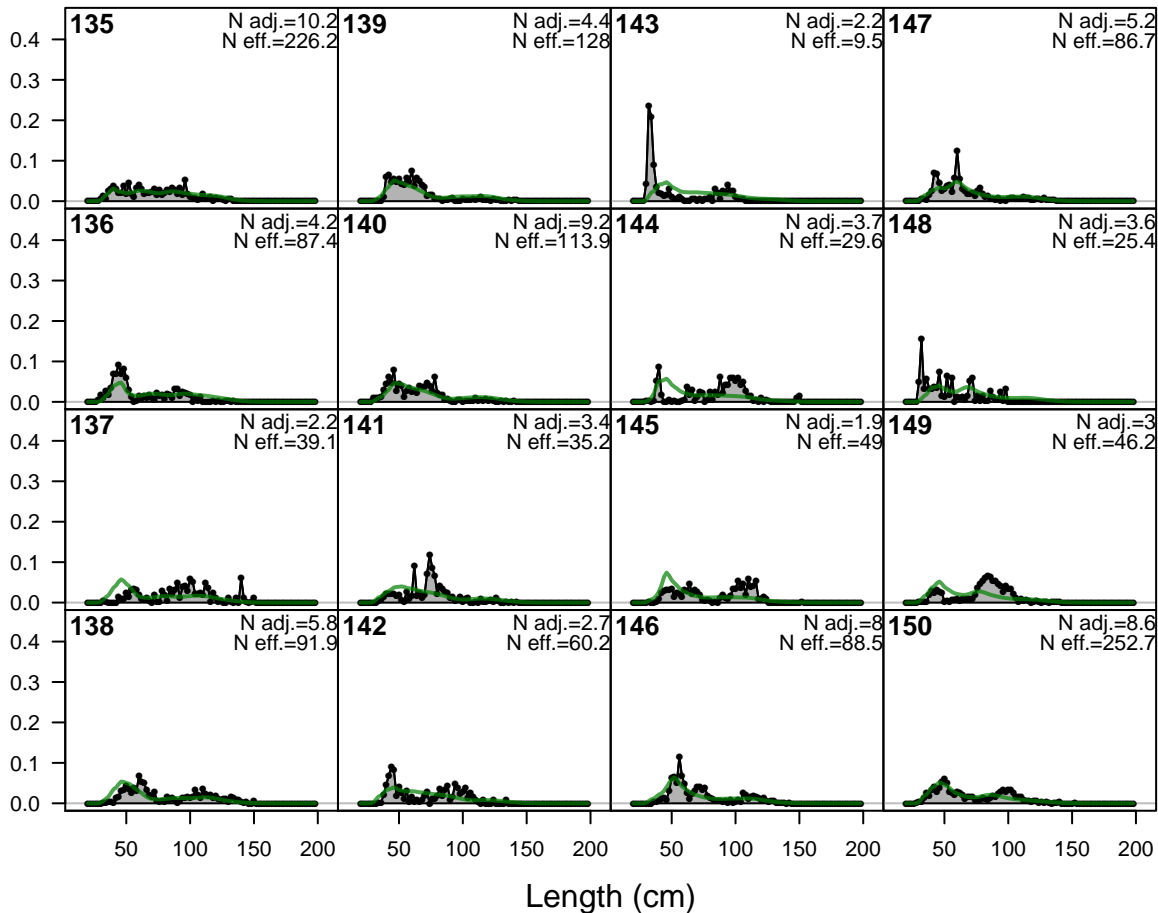
Proportion



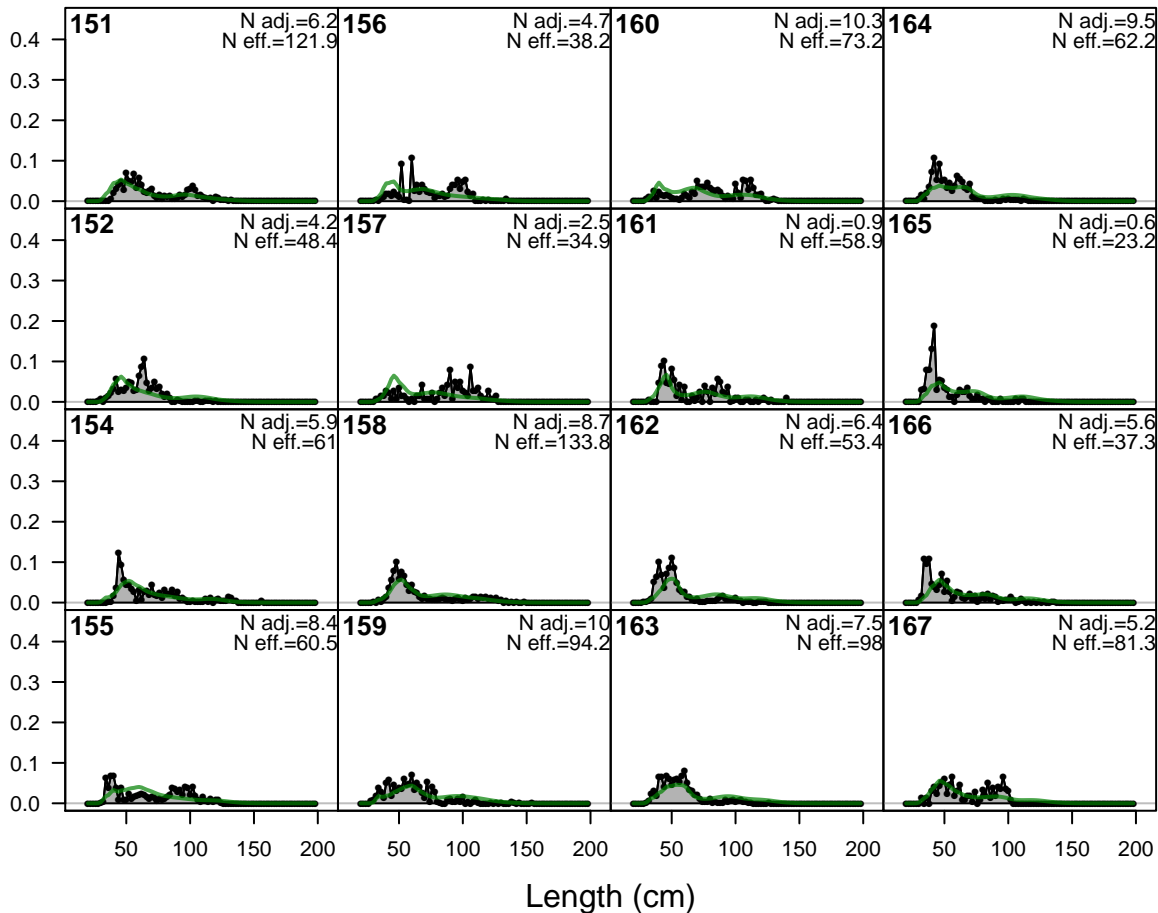
Proportion

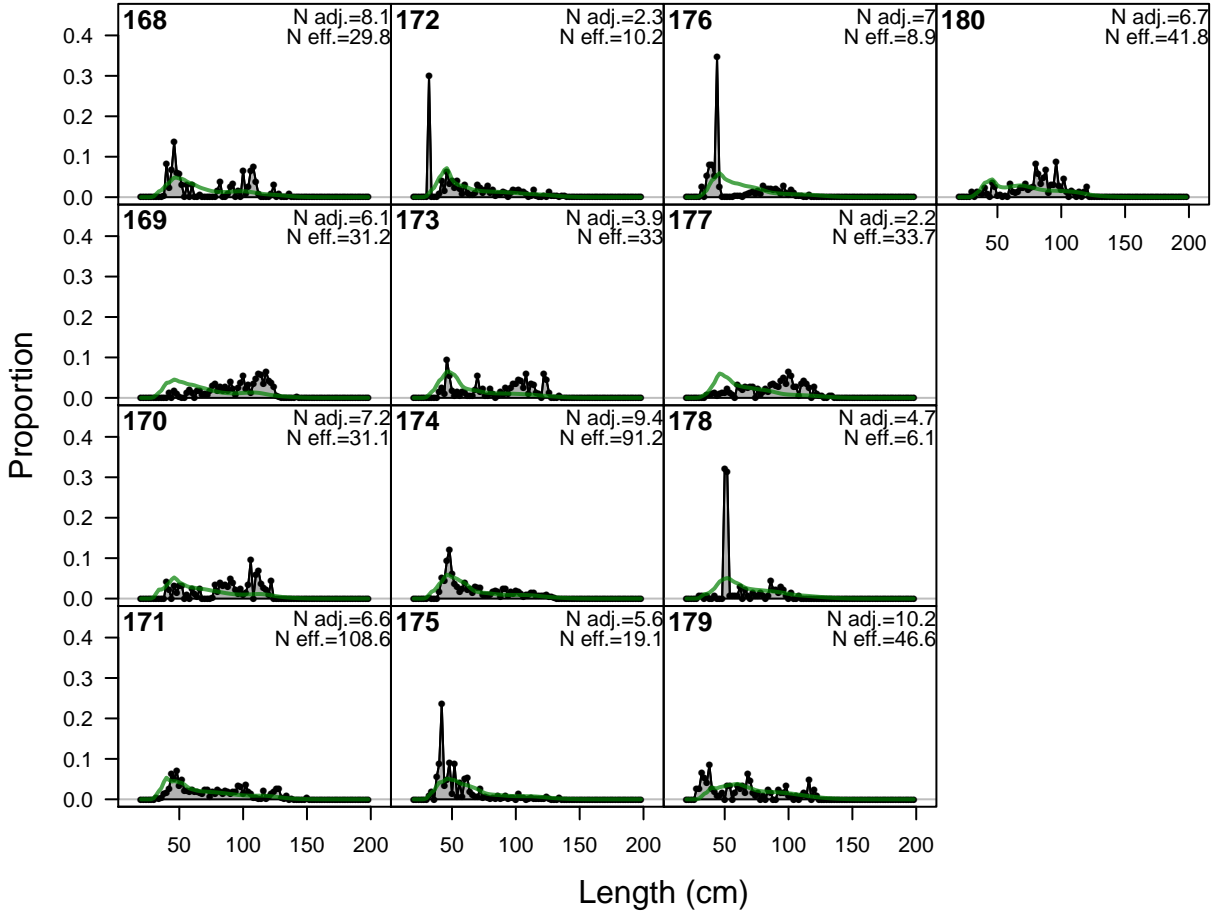


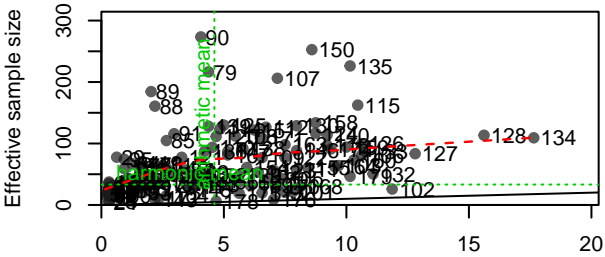
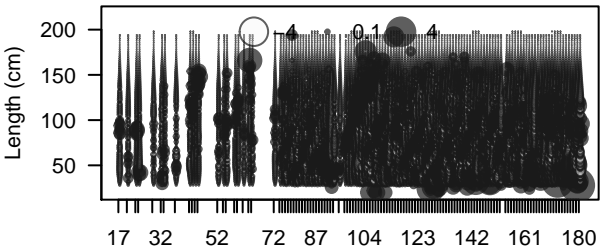
Proportion



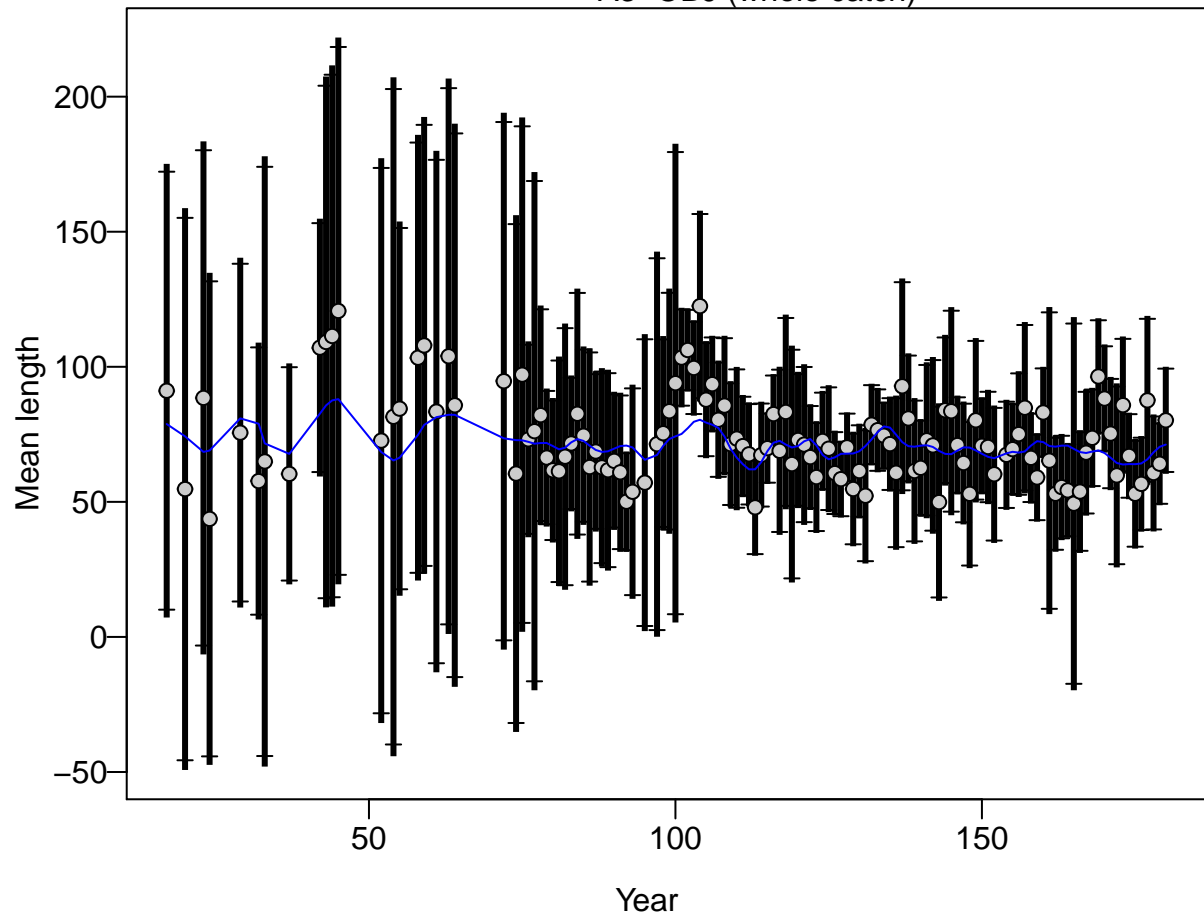
Proportion



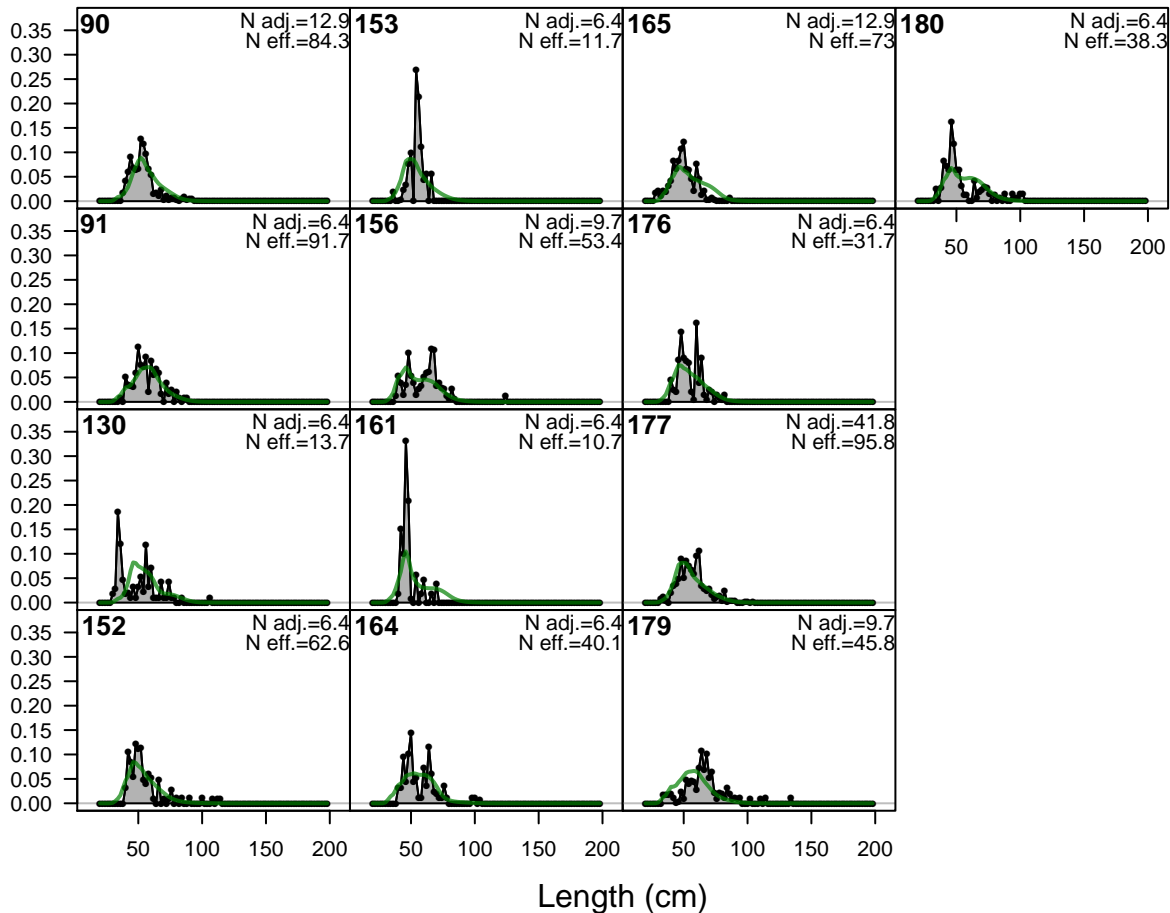


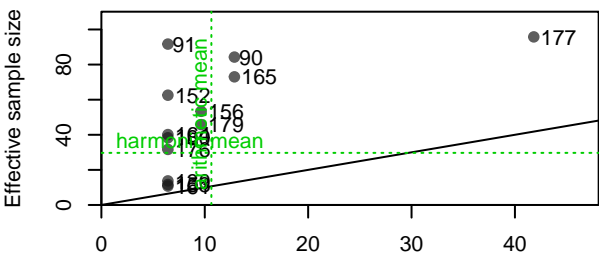
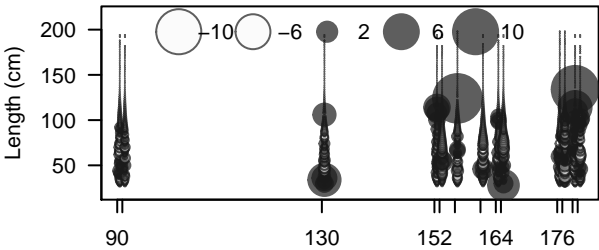


A3-OBJ (whole catch)

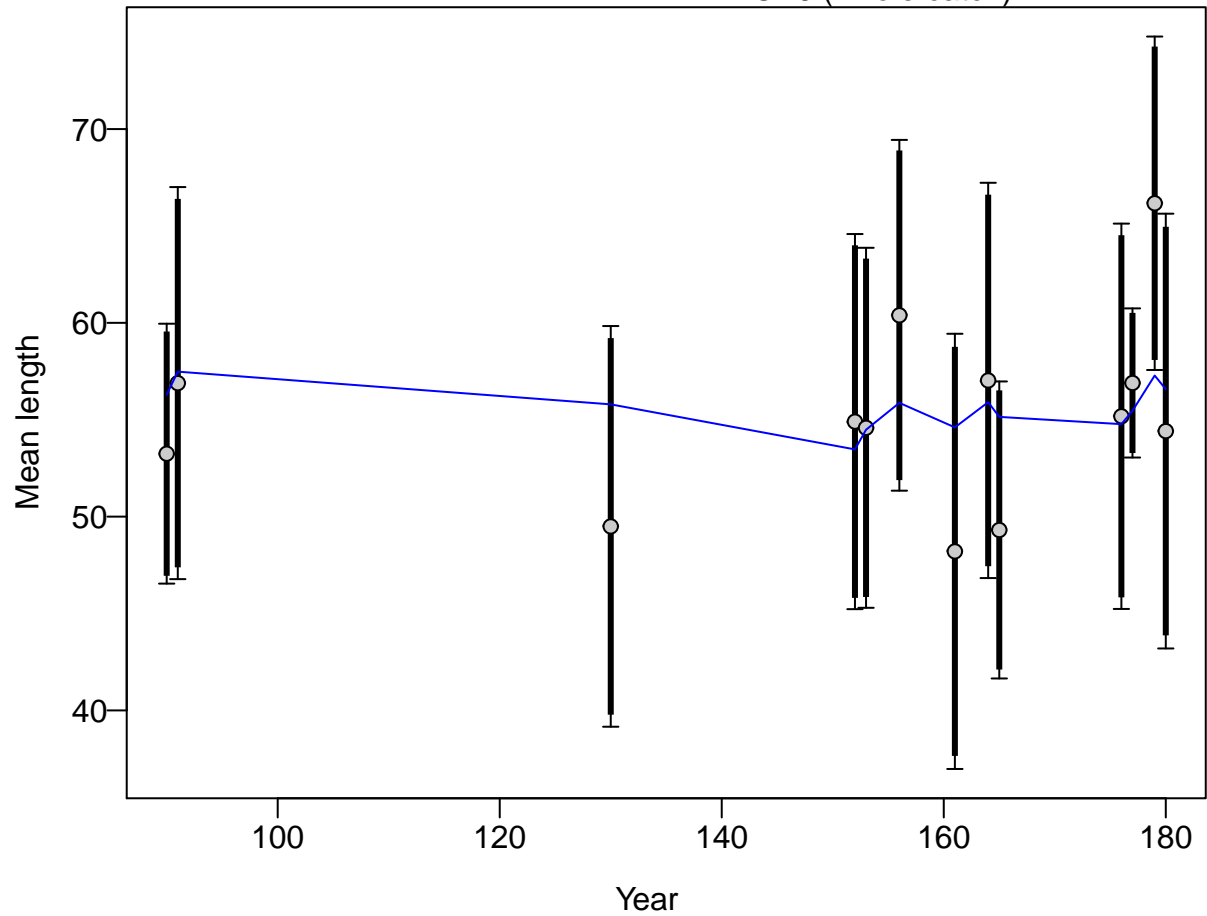


Proportion

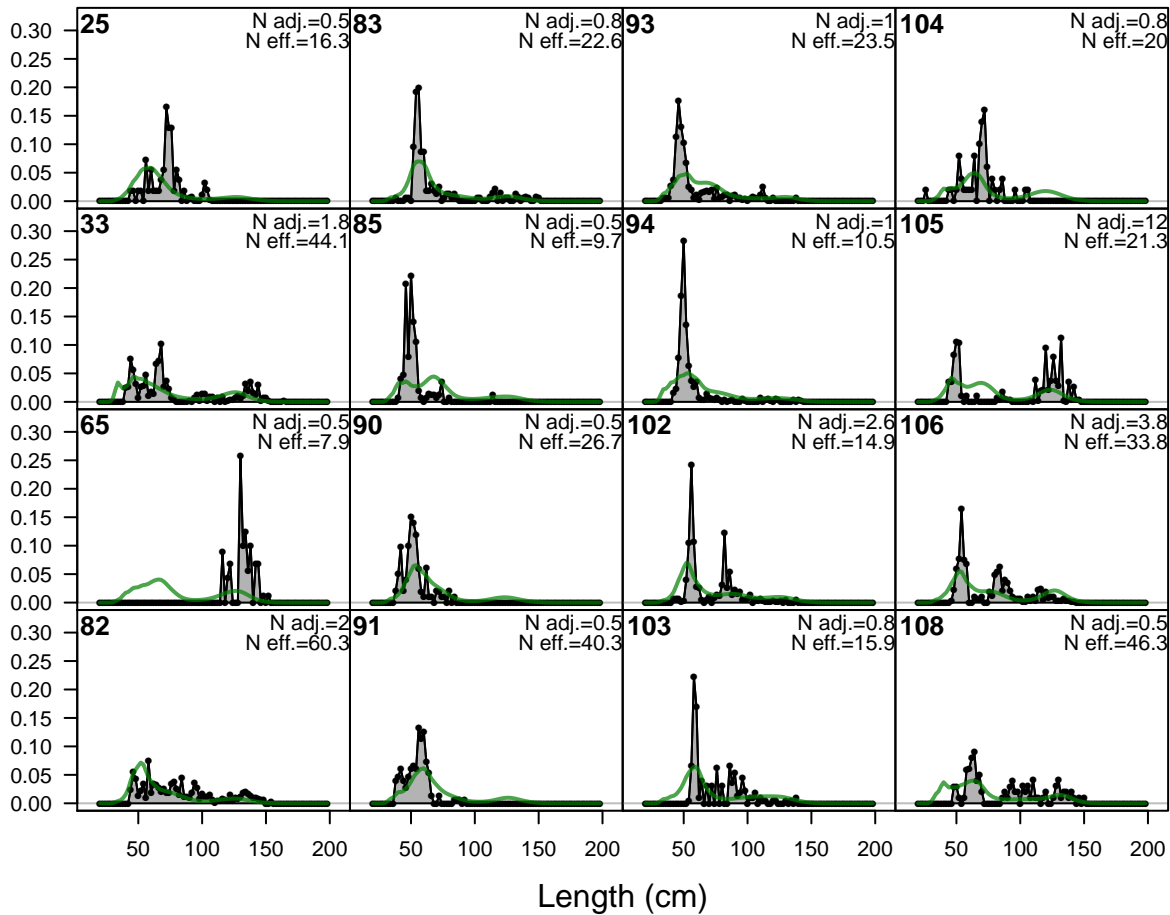




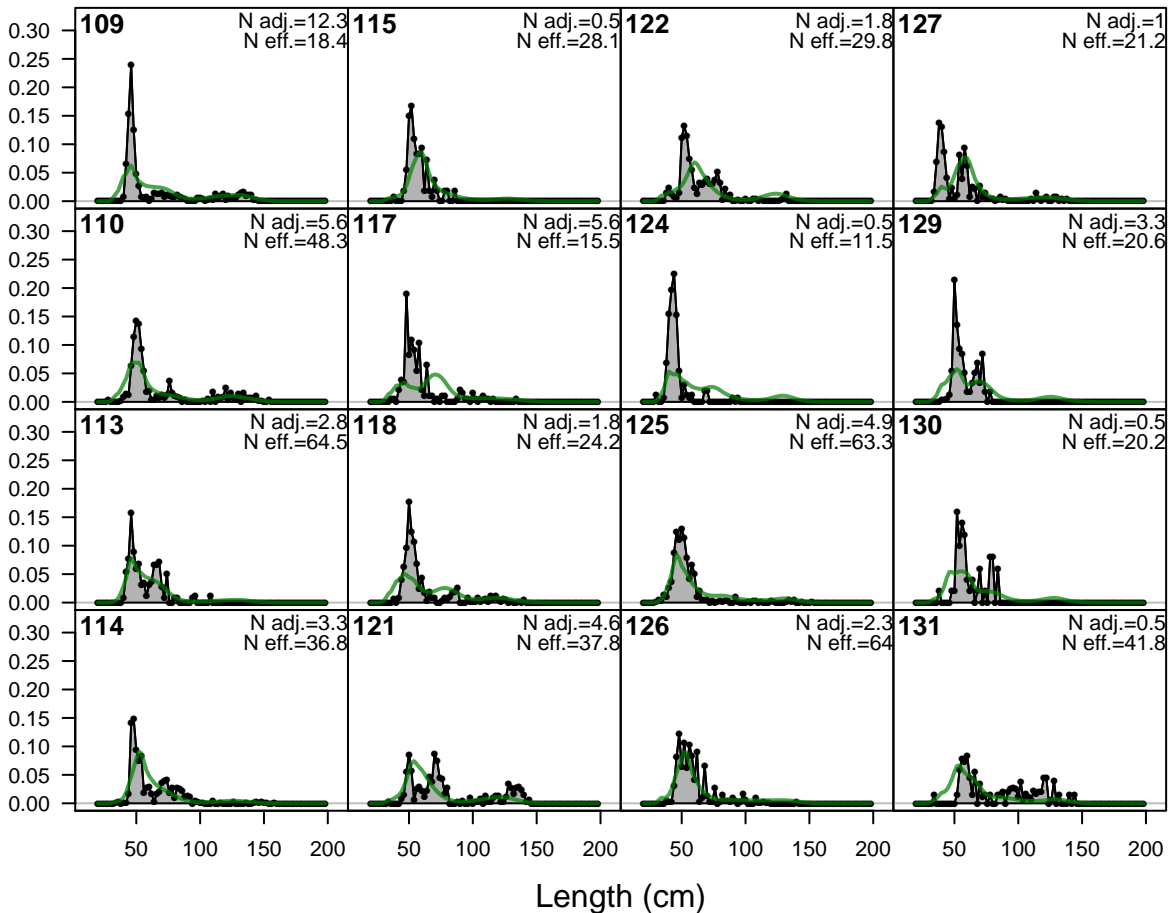
A4-Obj (whole catch)



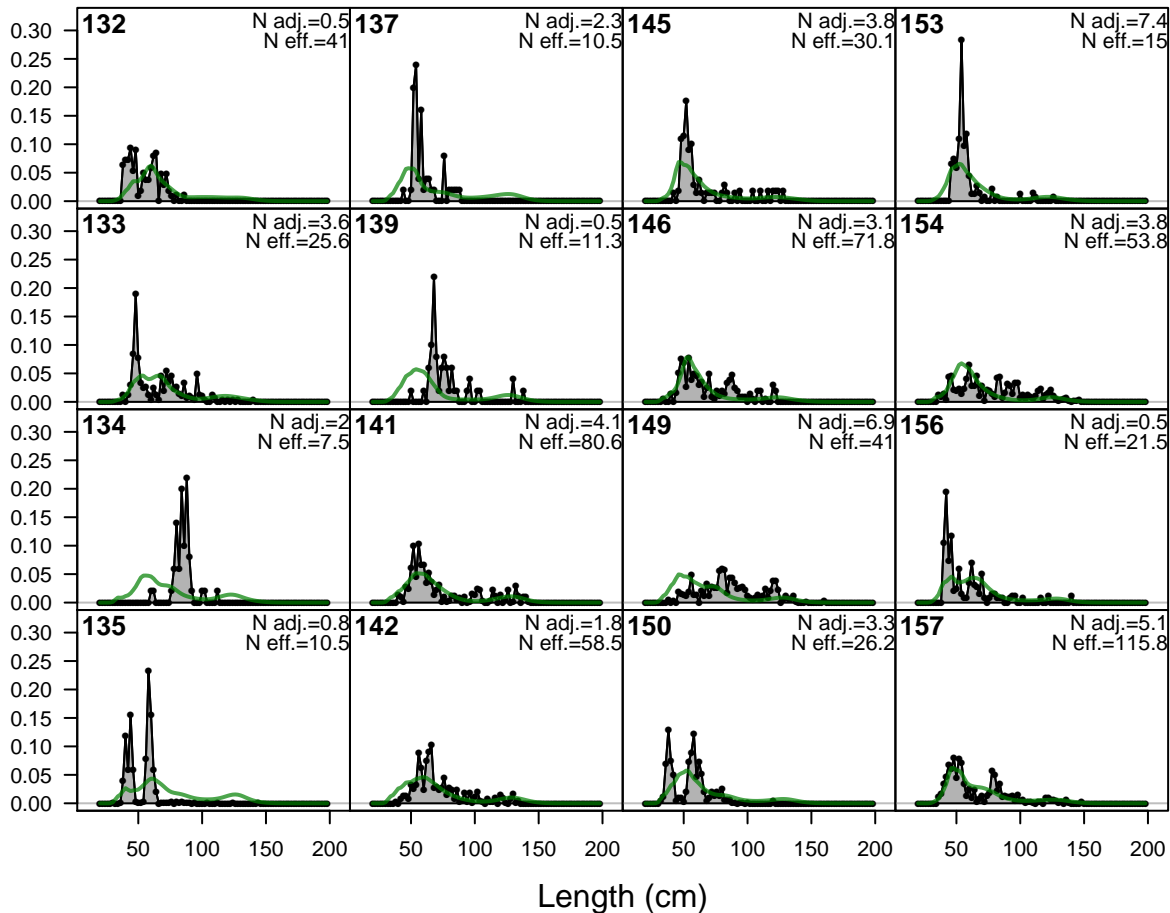
Proportion



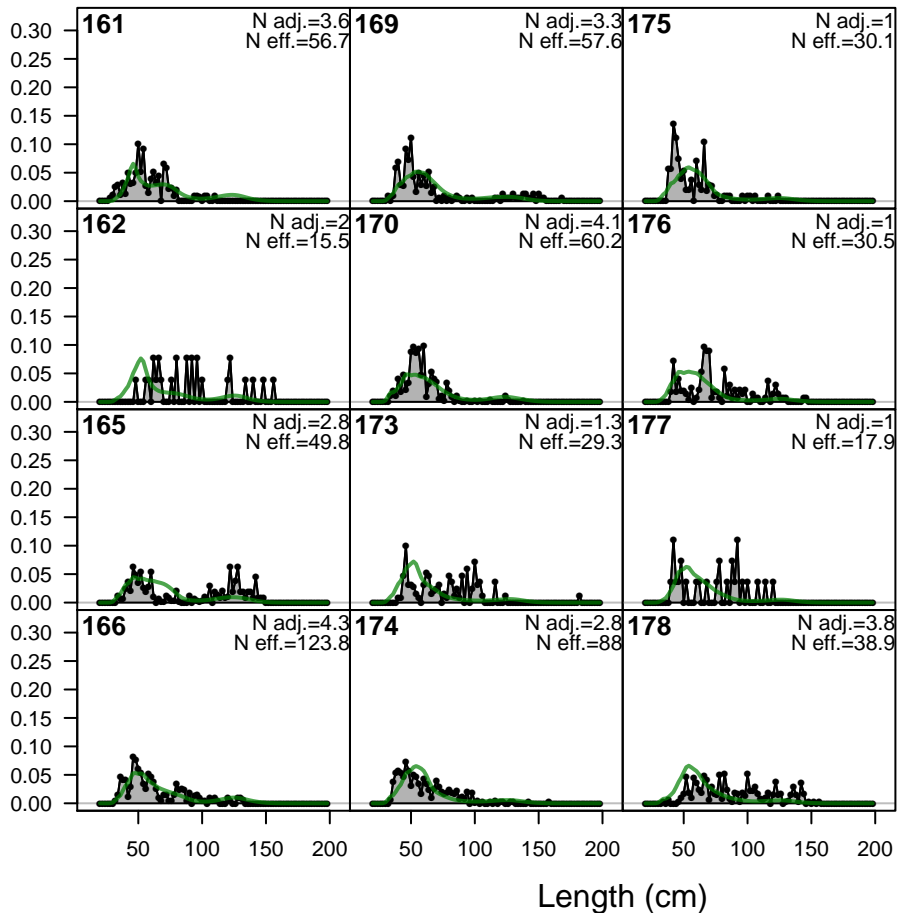
Proportion

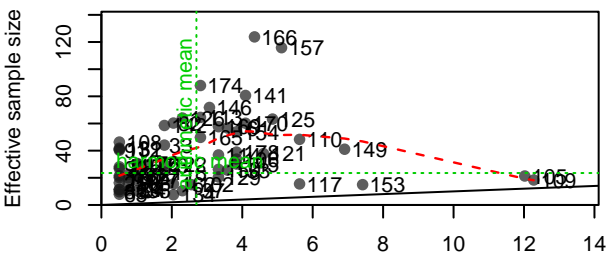
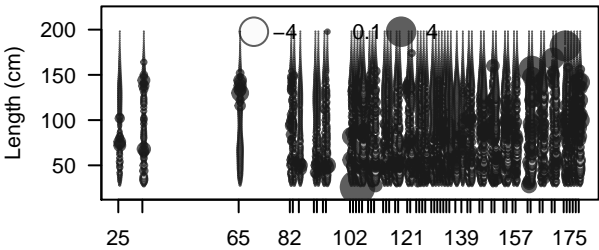


Proportion

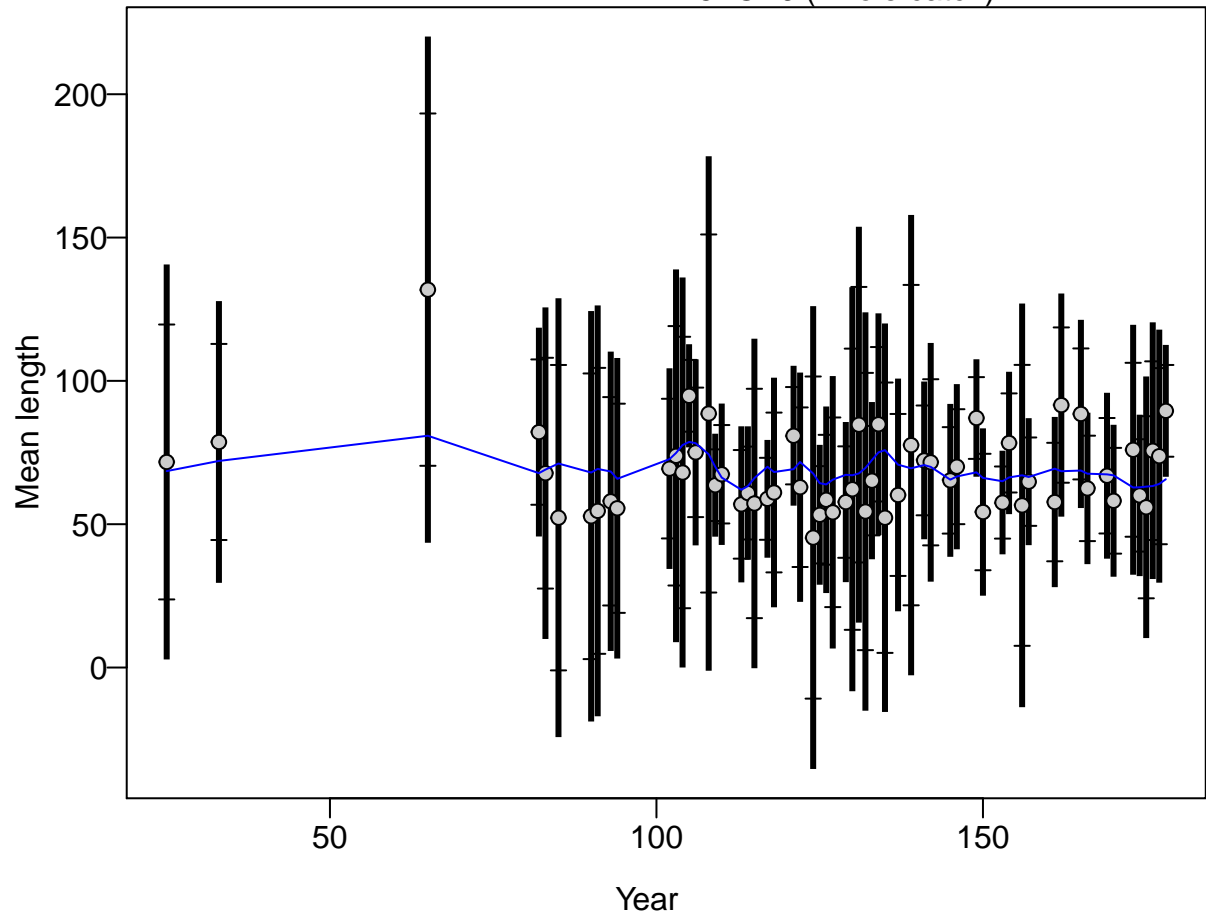


Proportion

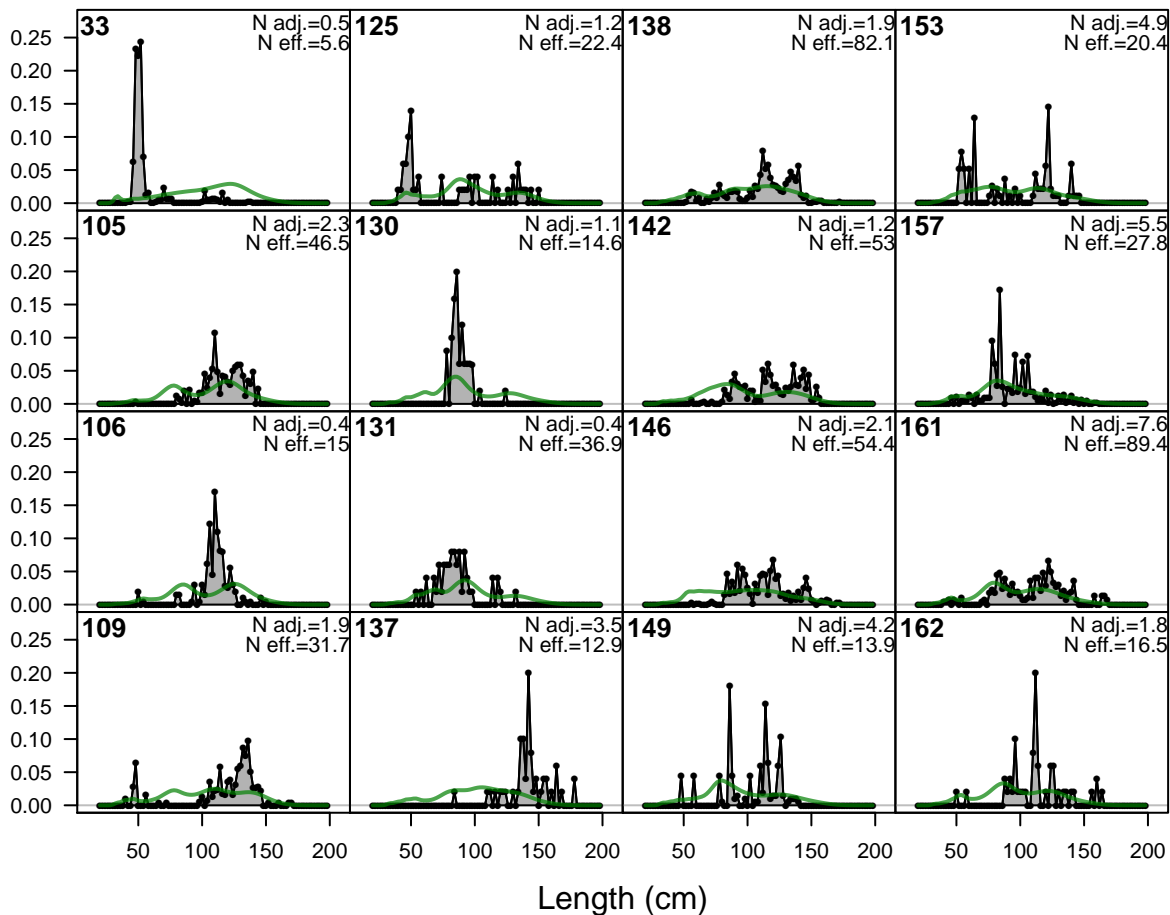




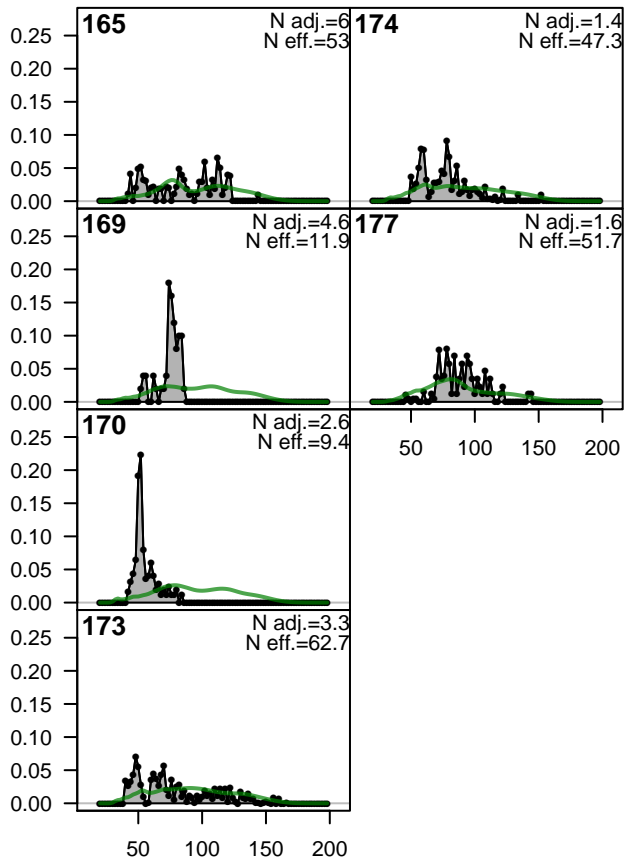
A5-OBJ (whole catch)



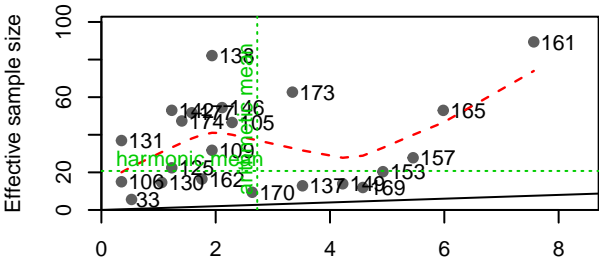
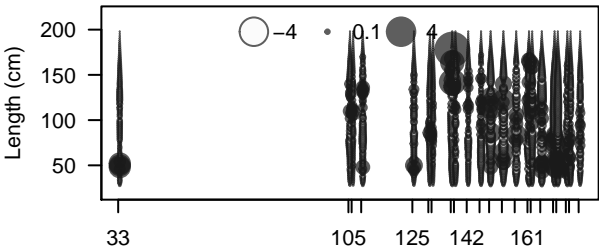
Proportion



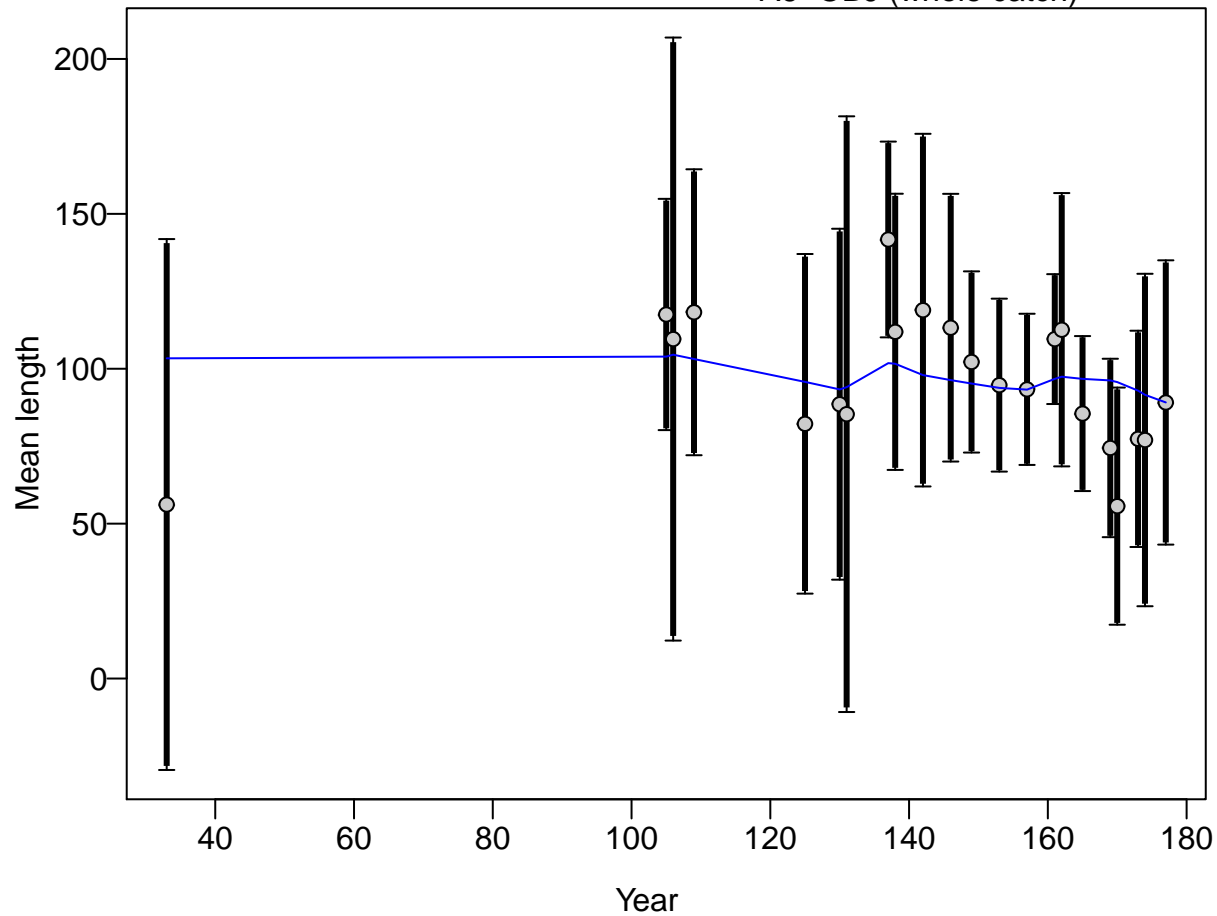
Proportion



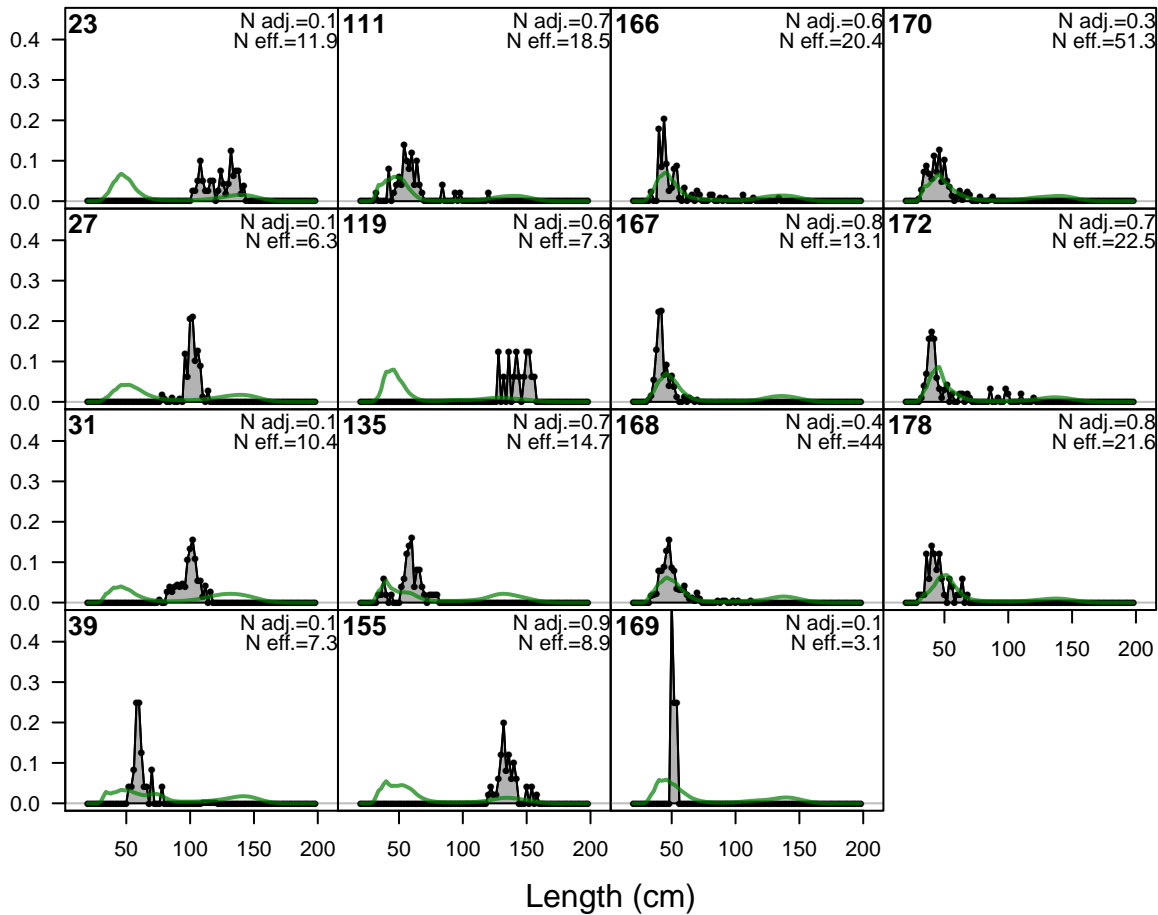
Length (cm)

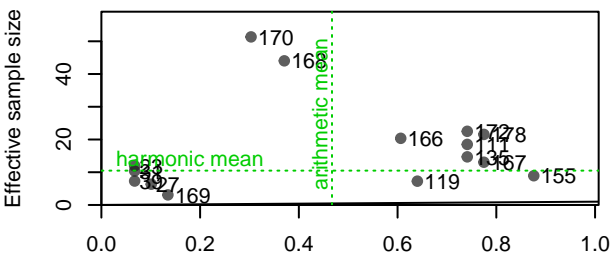
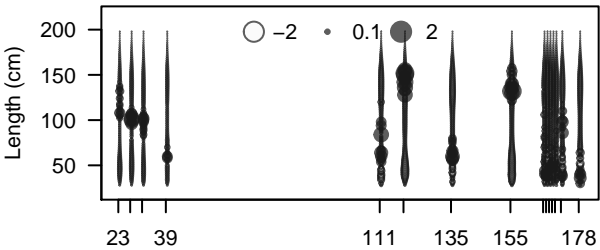


A6-OBJ (whole catch)

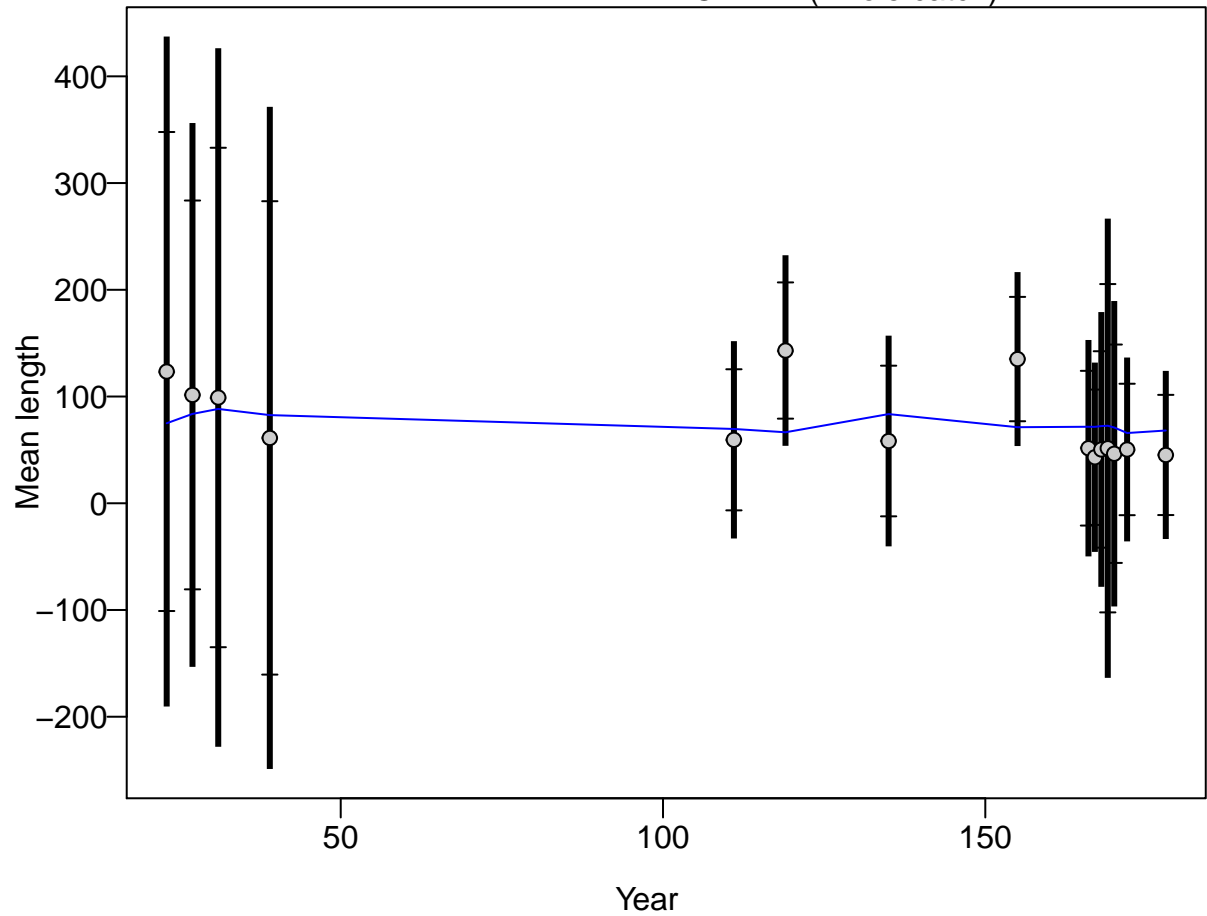


Proportion

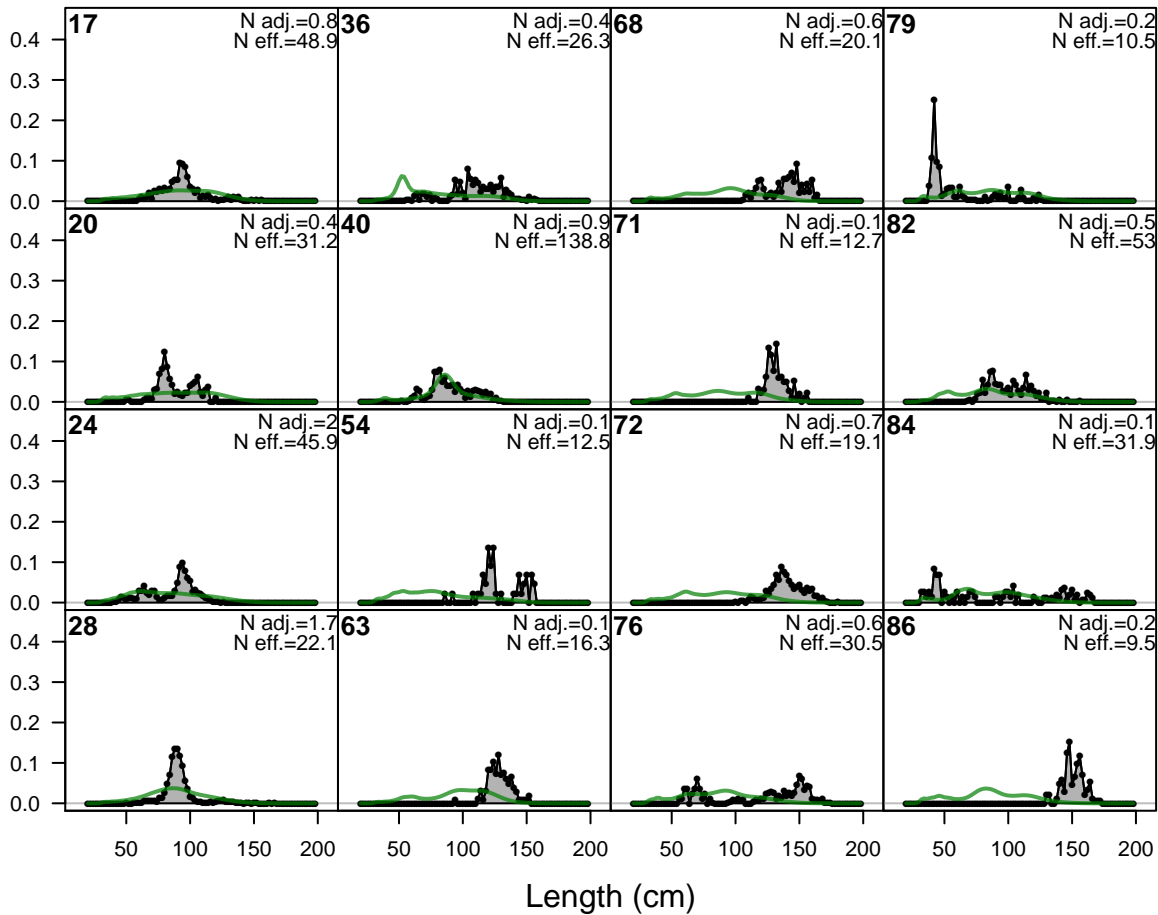




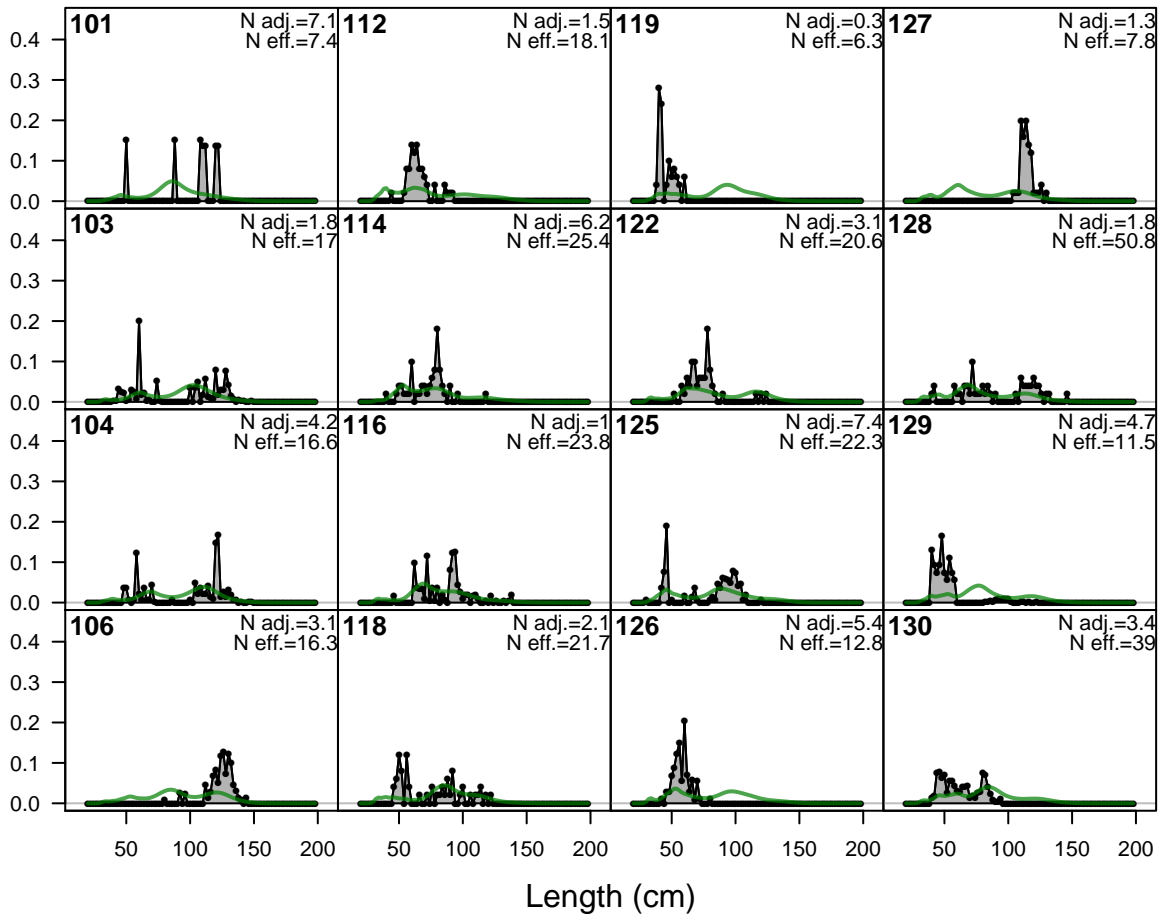
A2-NOADEL (whole catch)



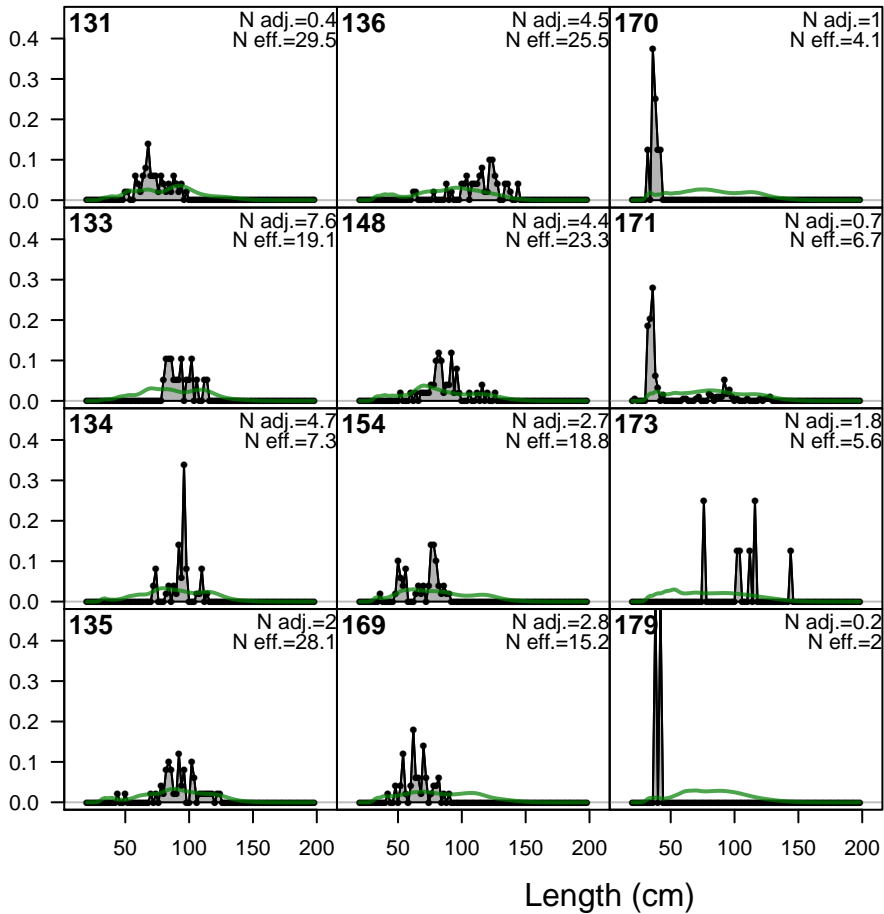
Proportion

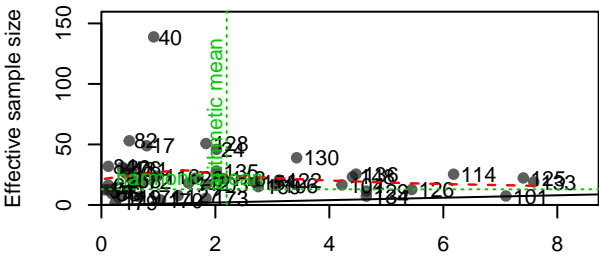
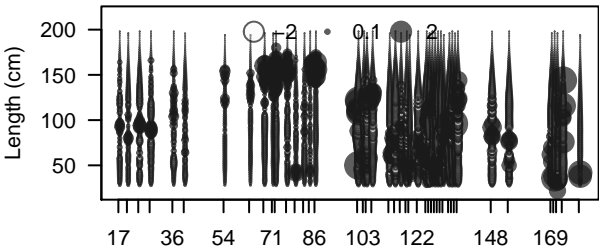


Proportion

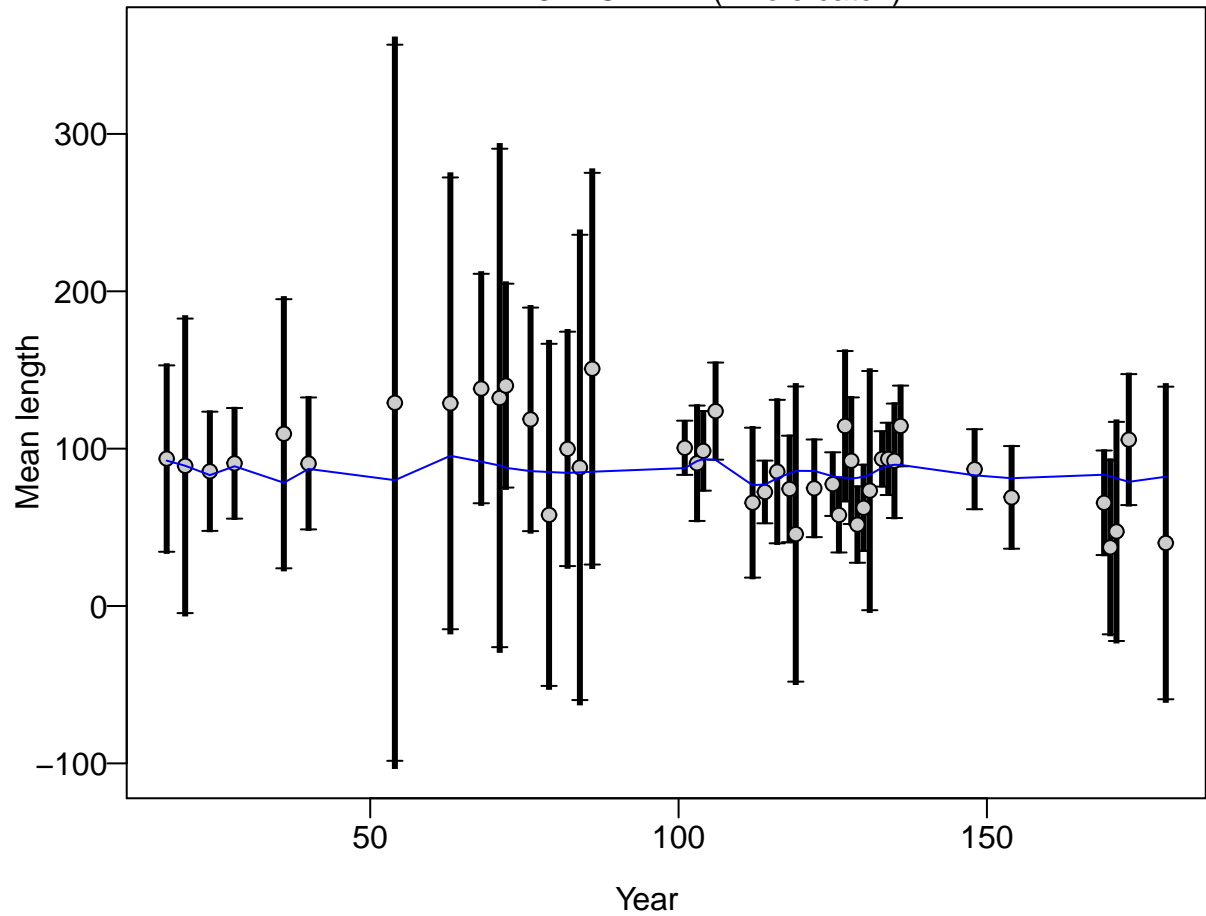


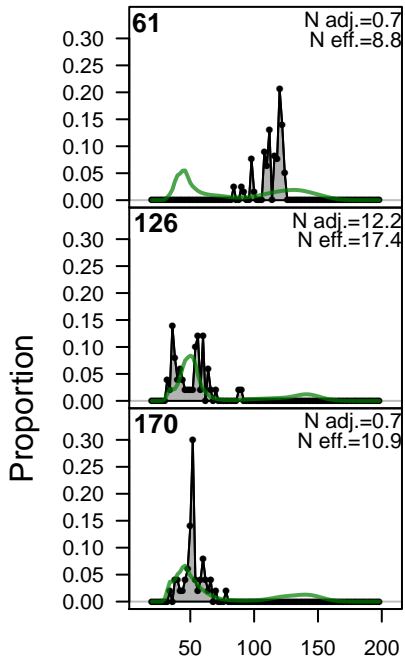
Proportion



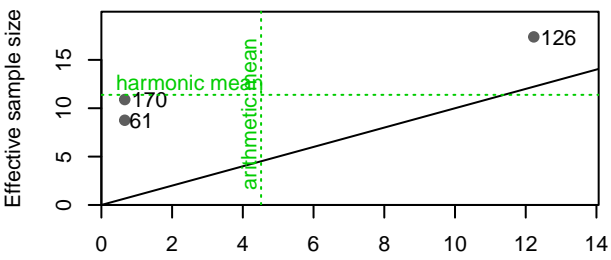
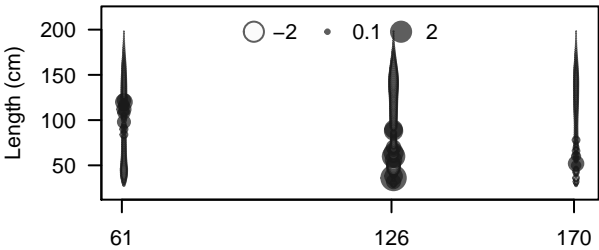


A3-NOADEL (whole catch)

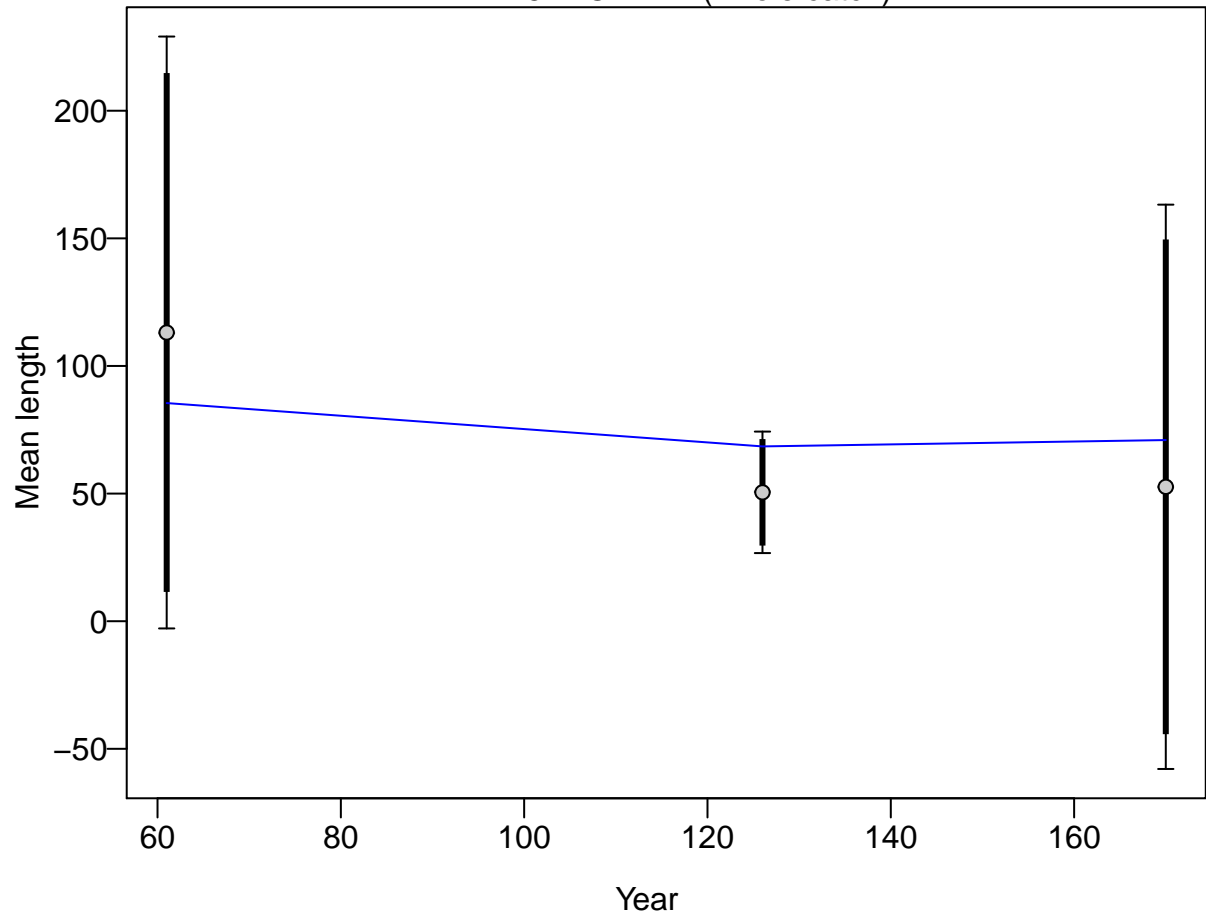




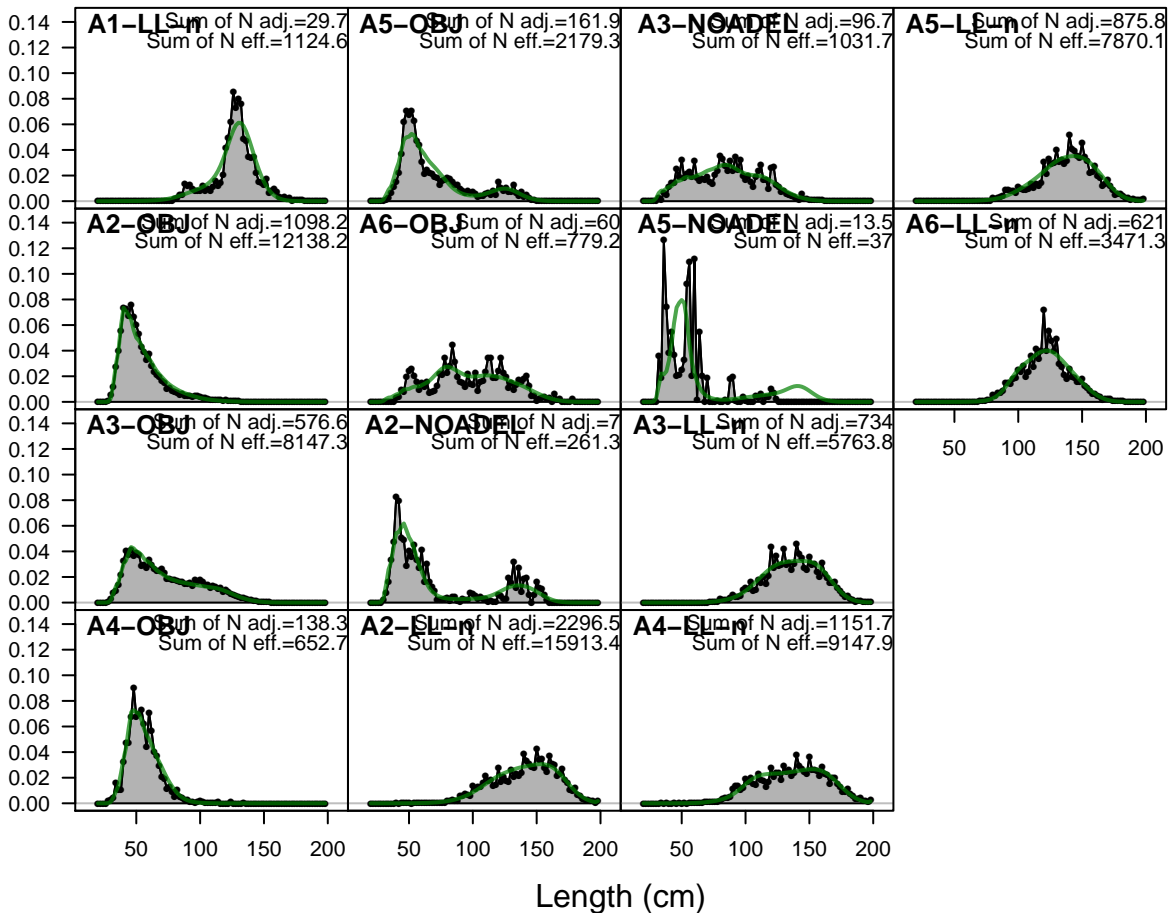
Length (cm)

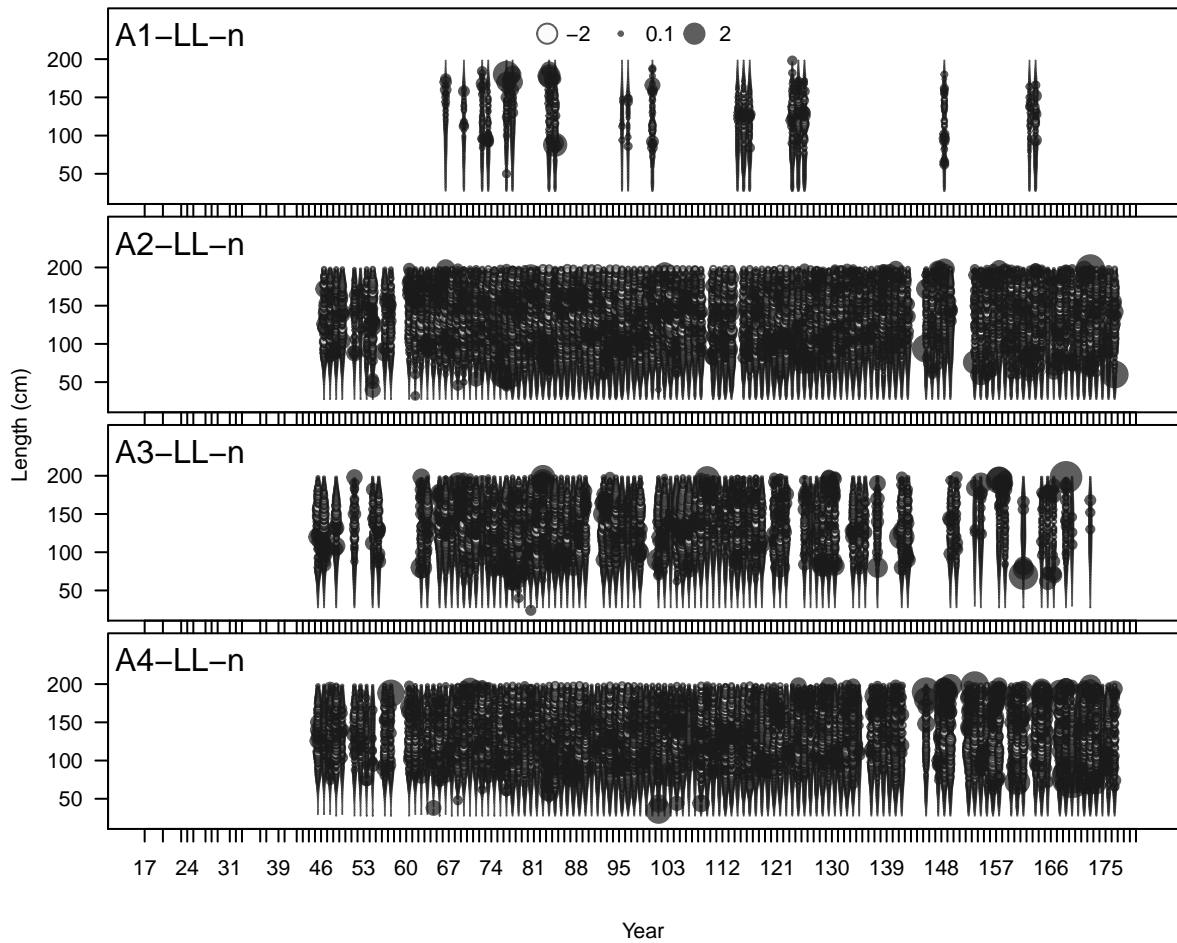


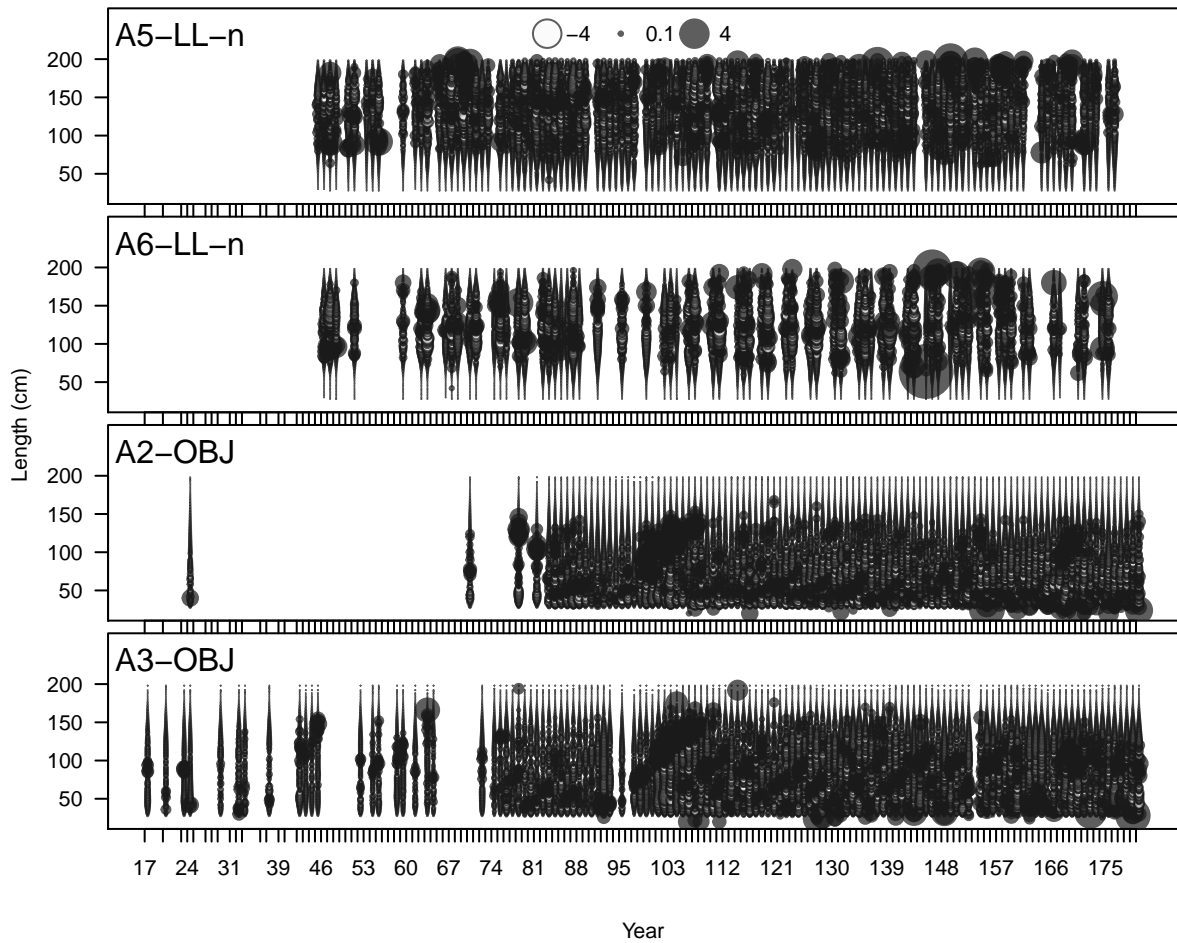
A5-NOADEL (whole catch)

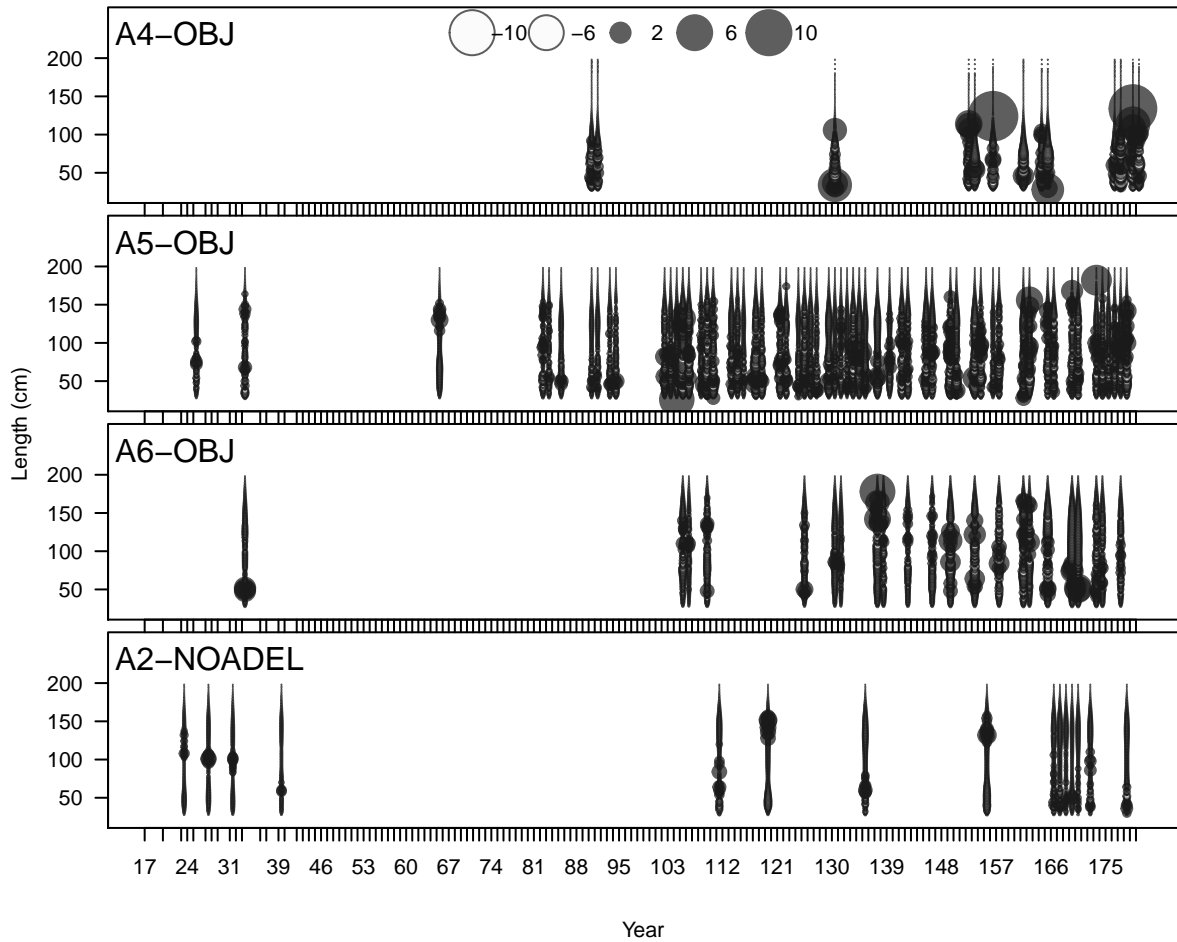


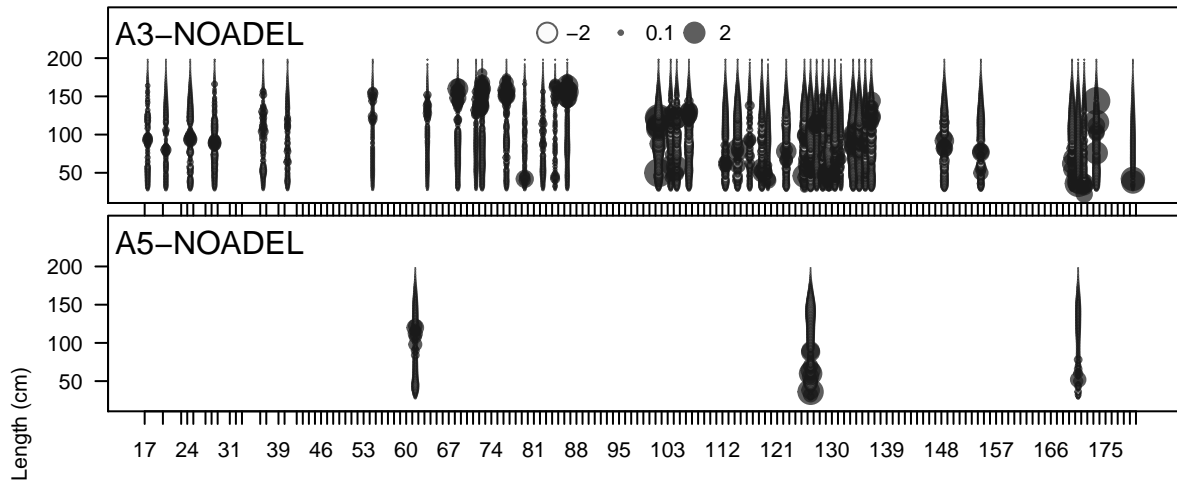
Proportion





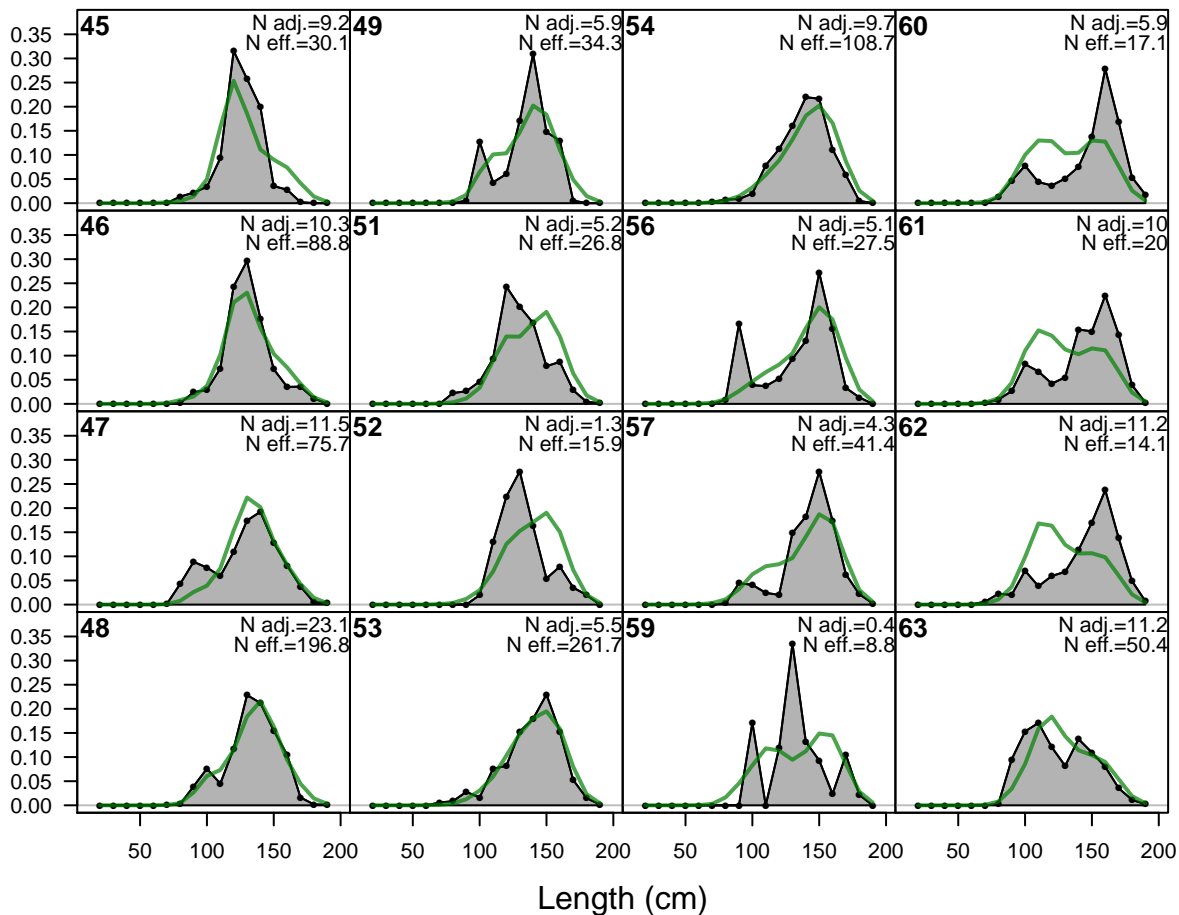




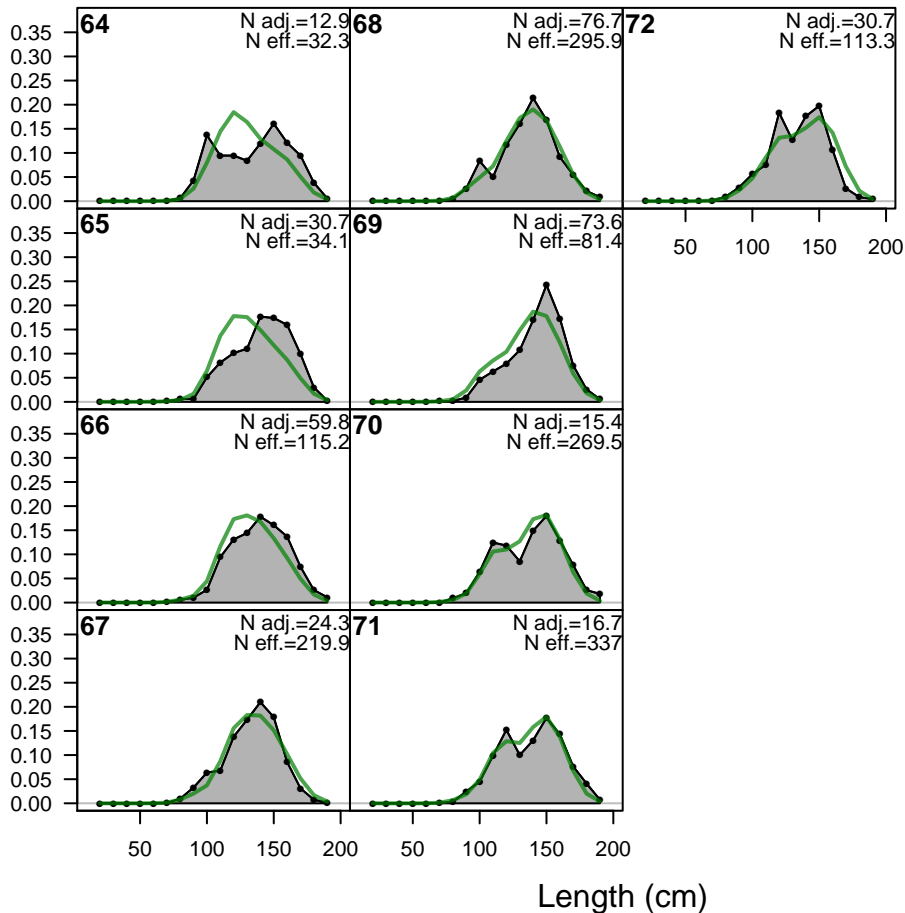


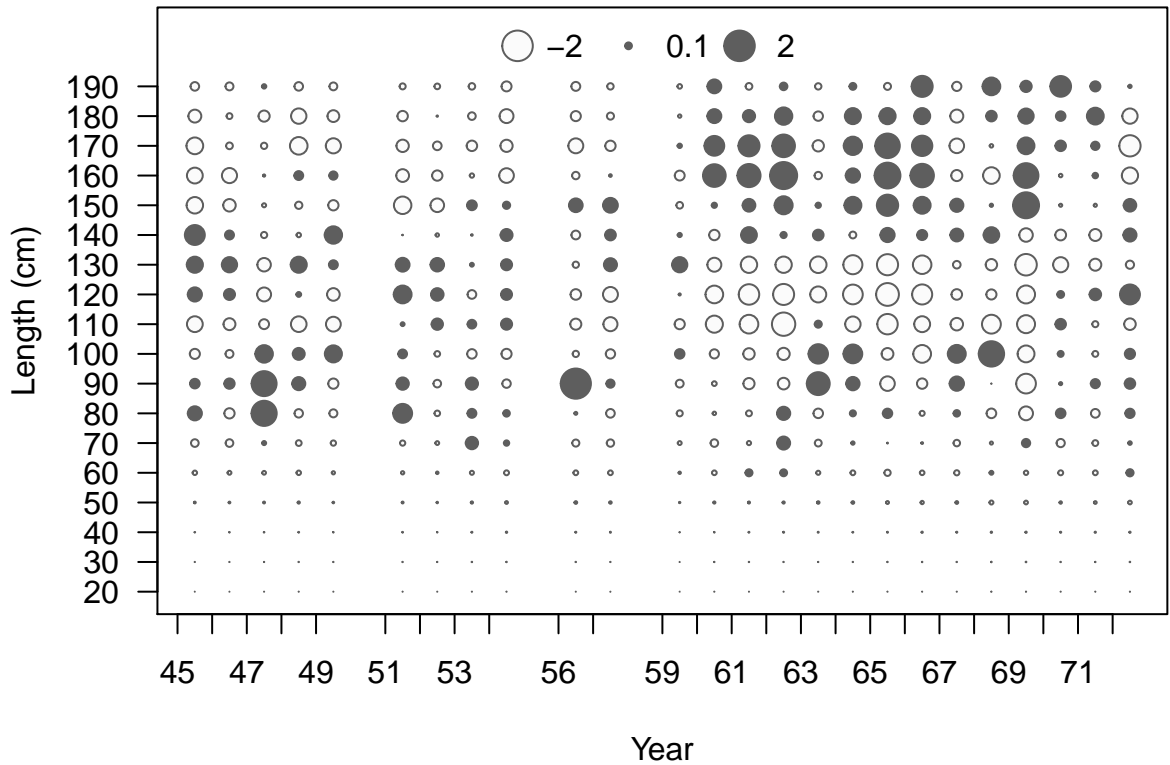
Year

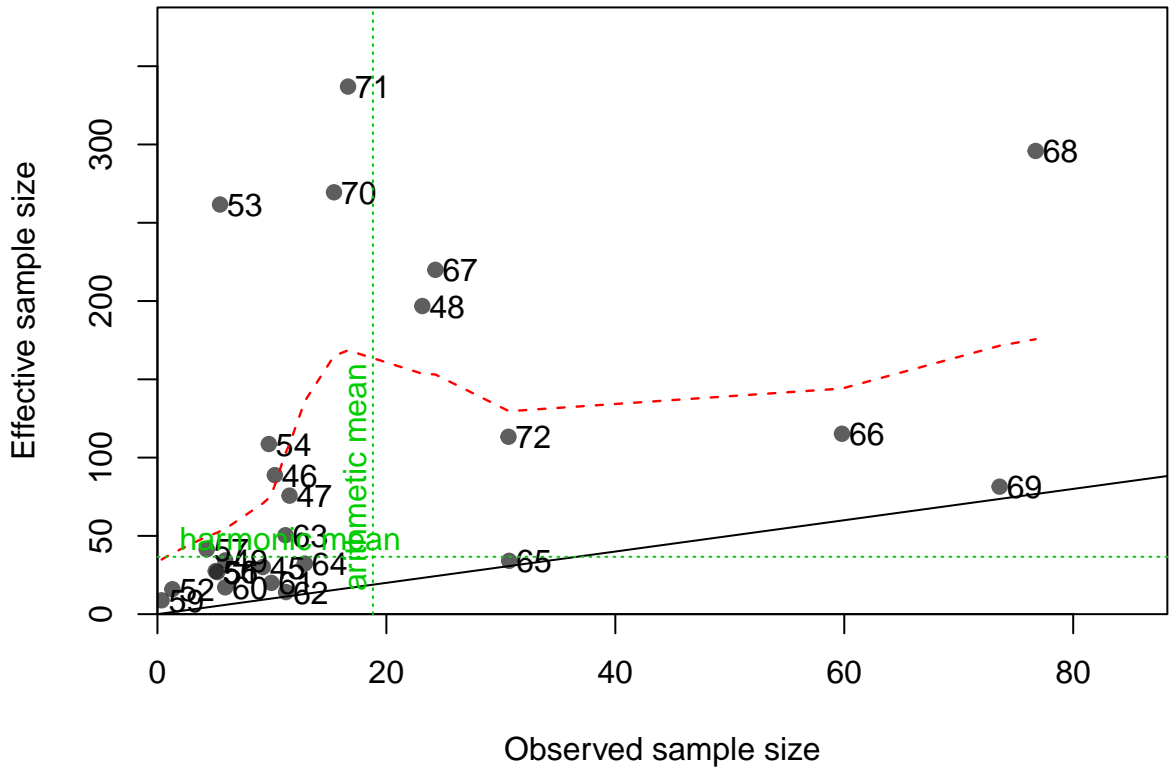
Proportion



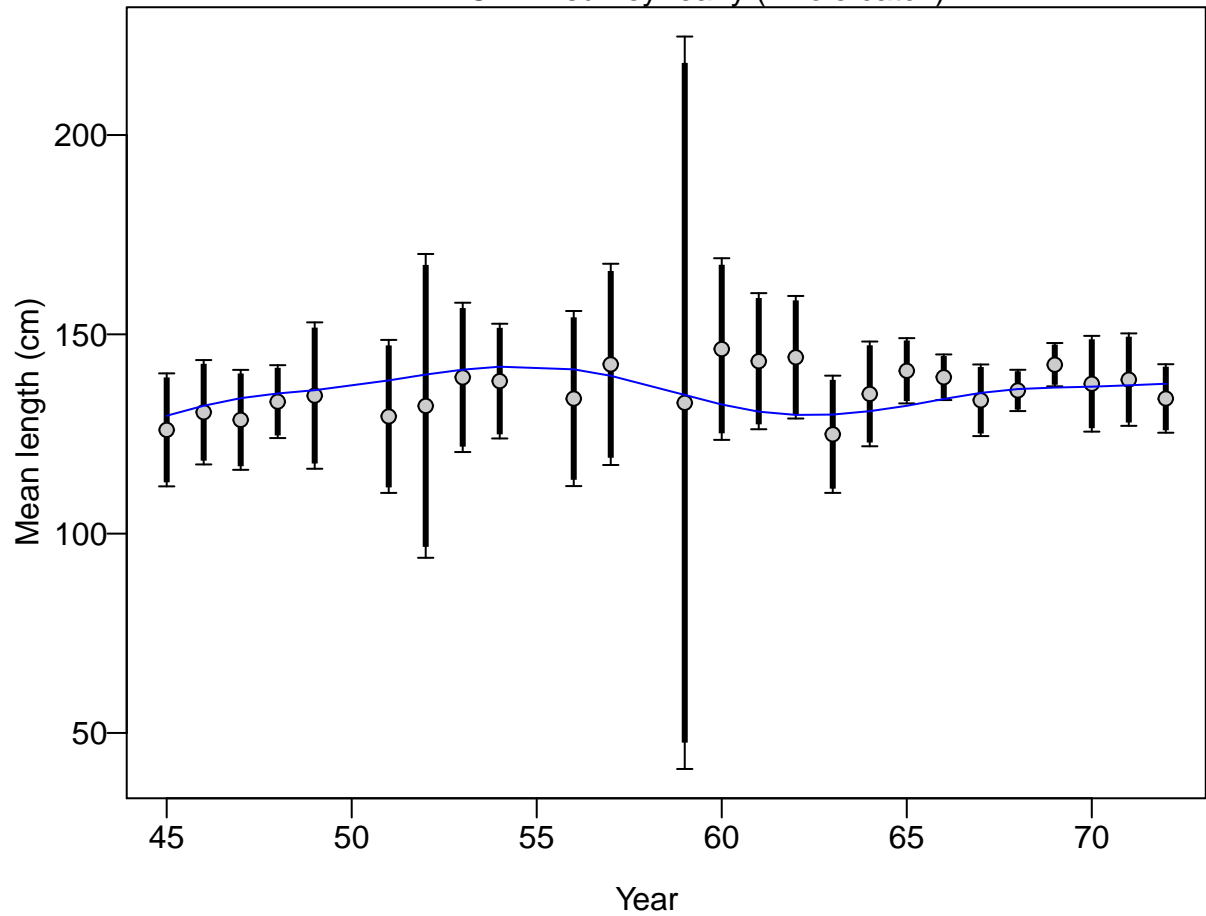
Proportion



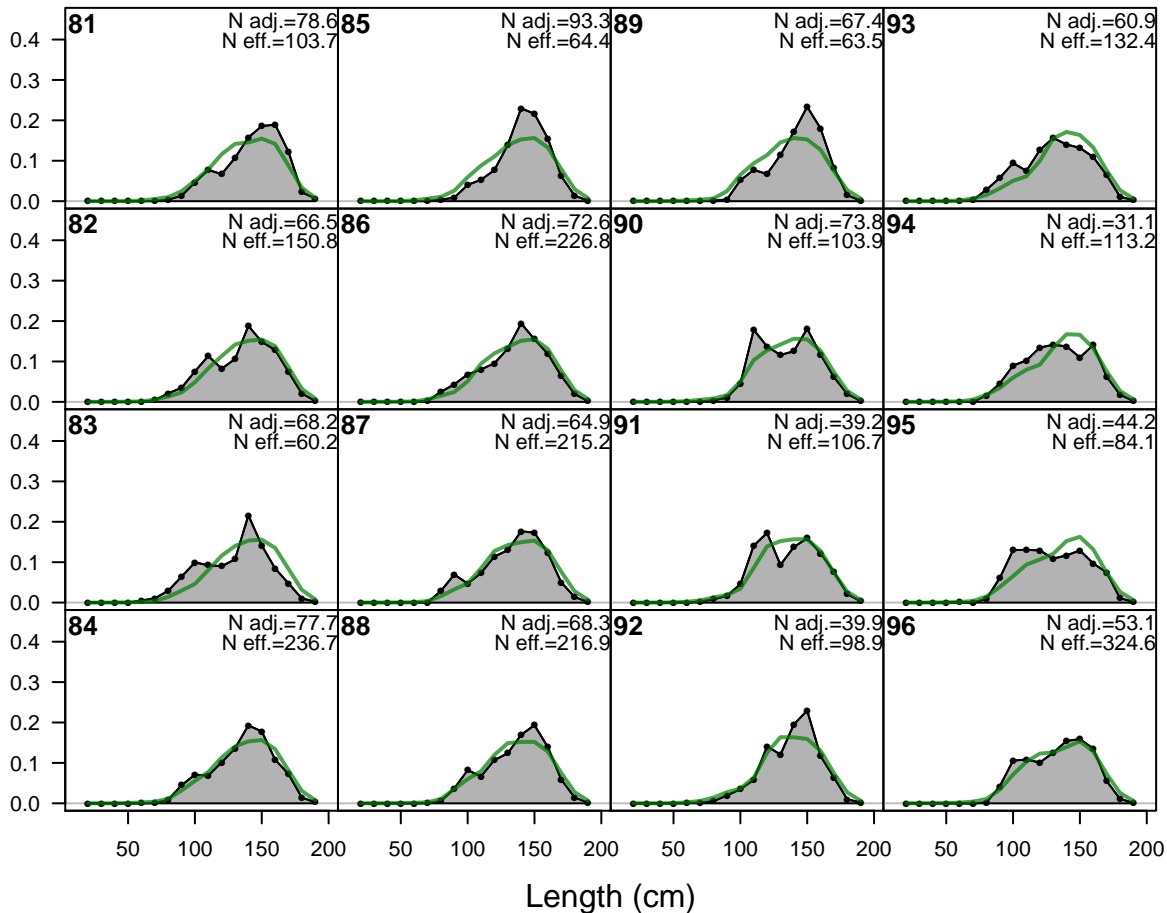




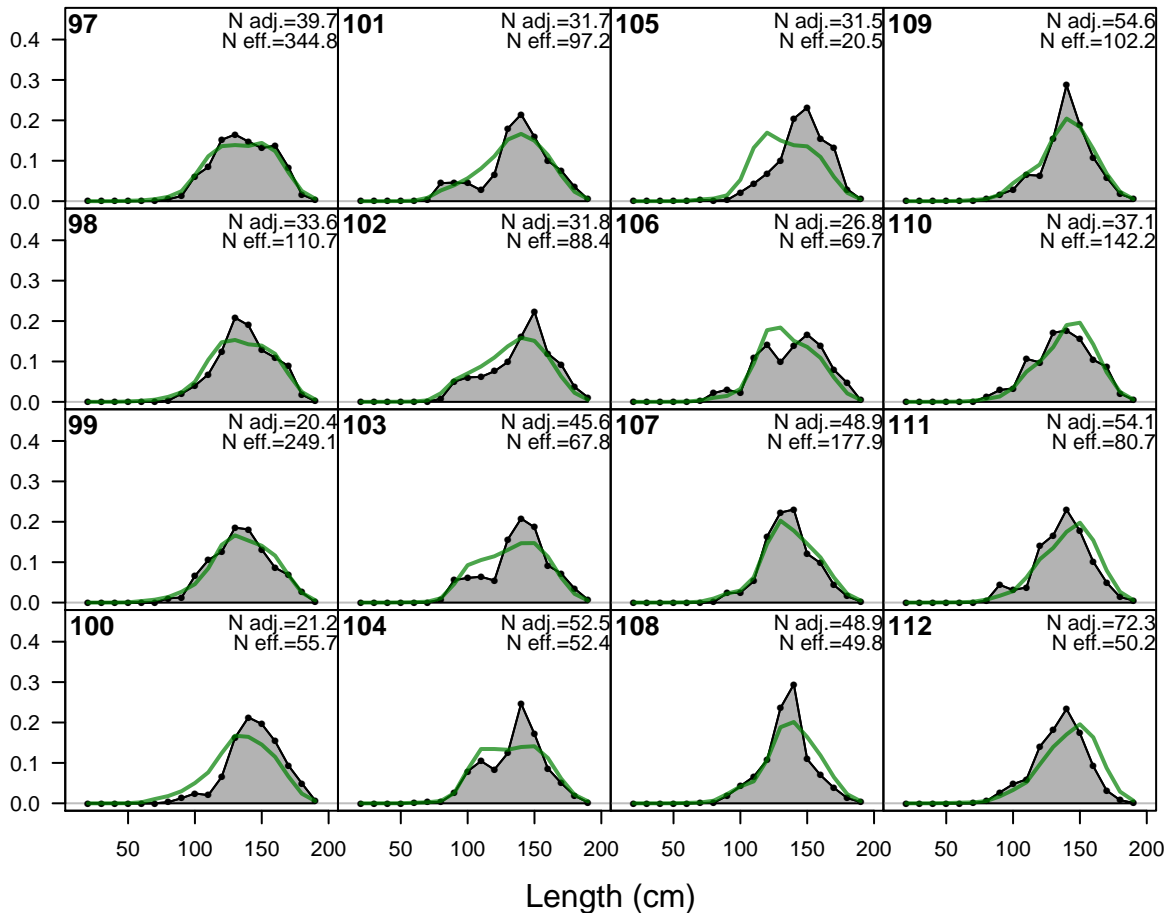
EPO-LL-survey-early (whole catch)



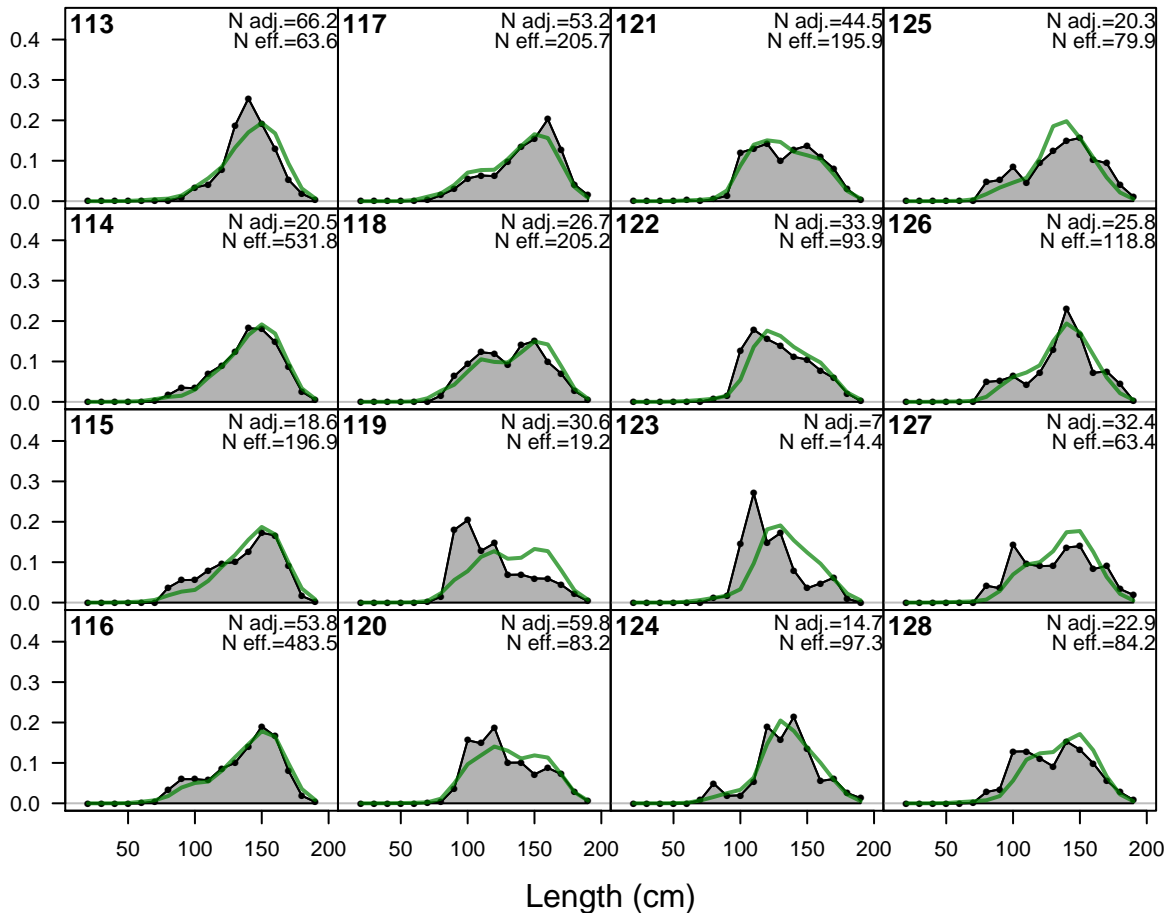
Proportion



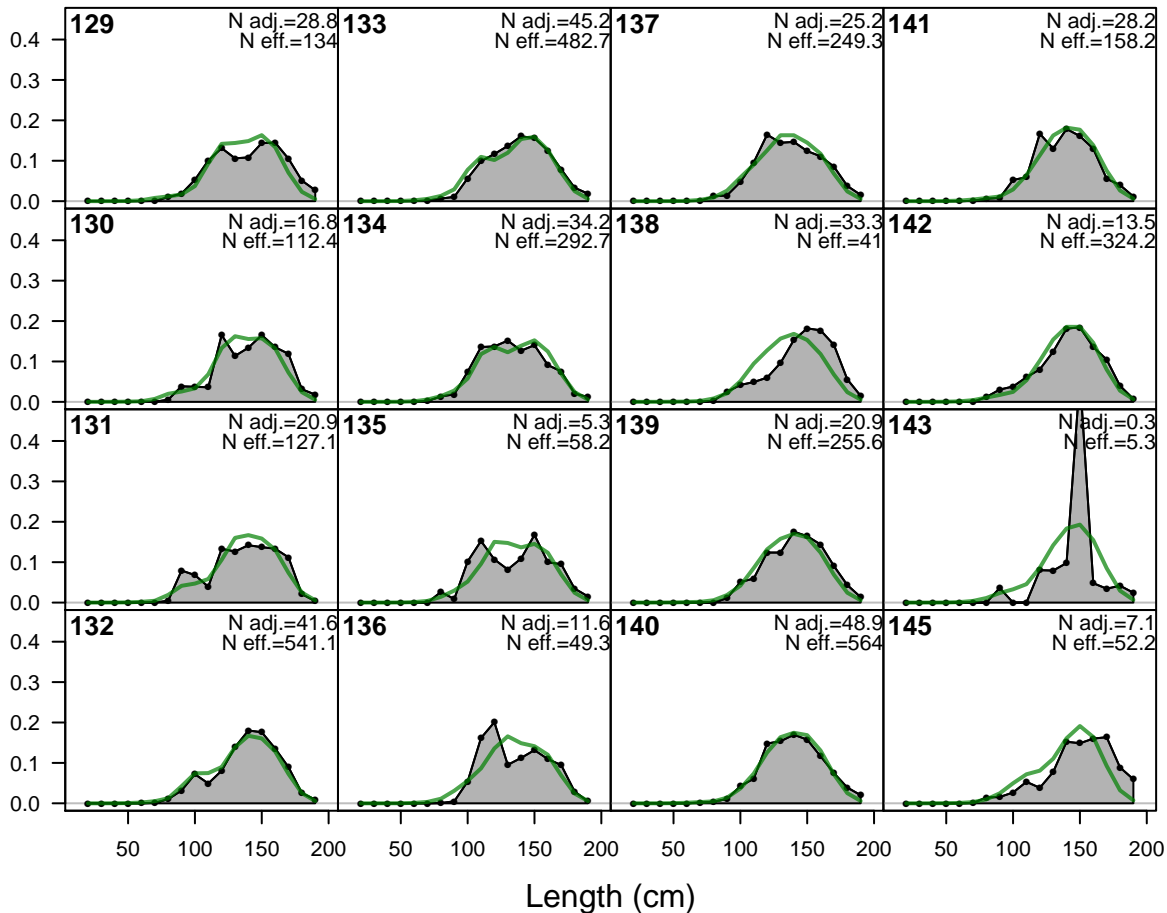
Proportion



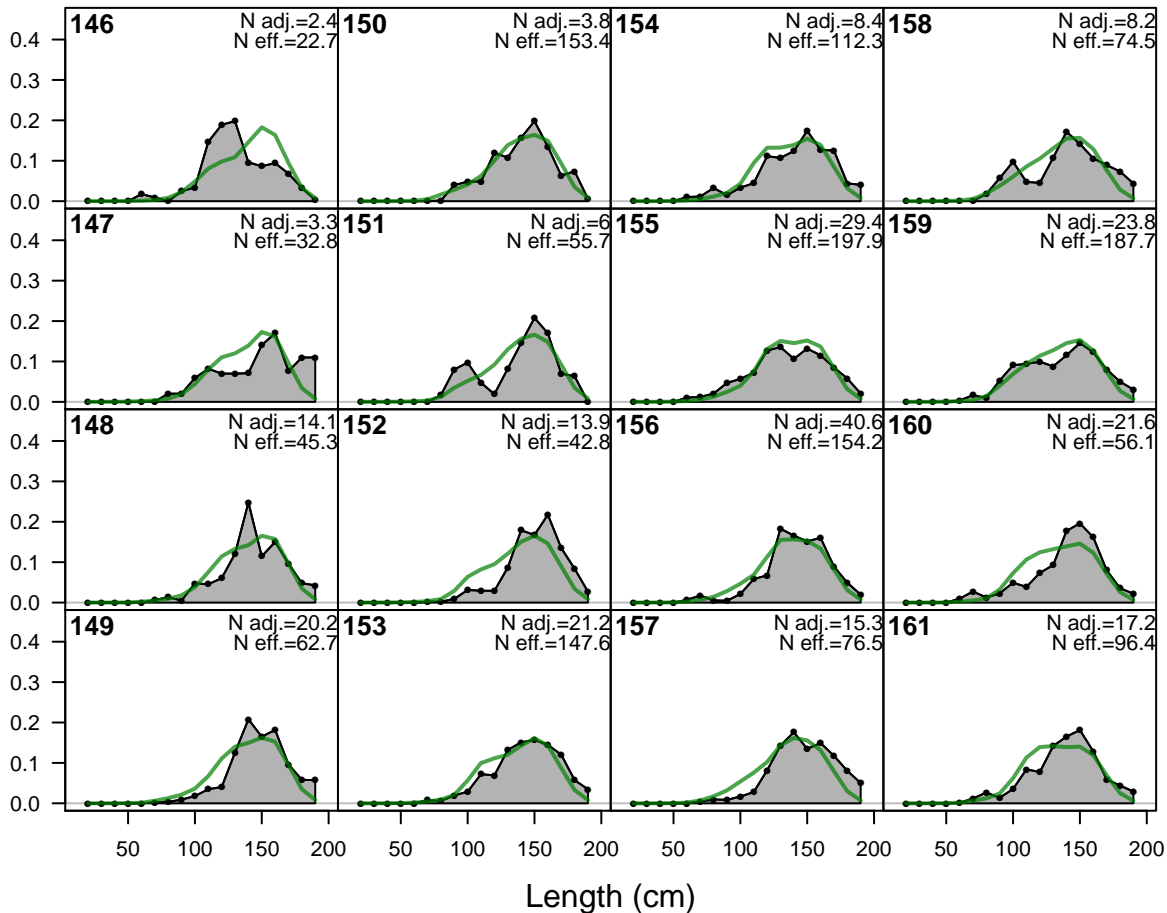
Proportion



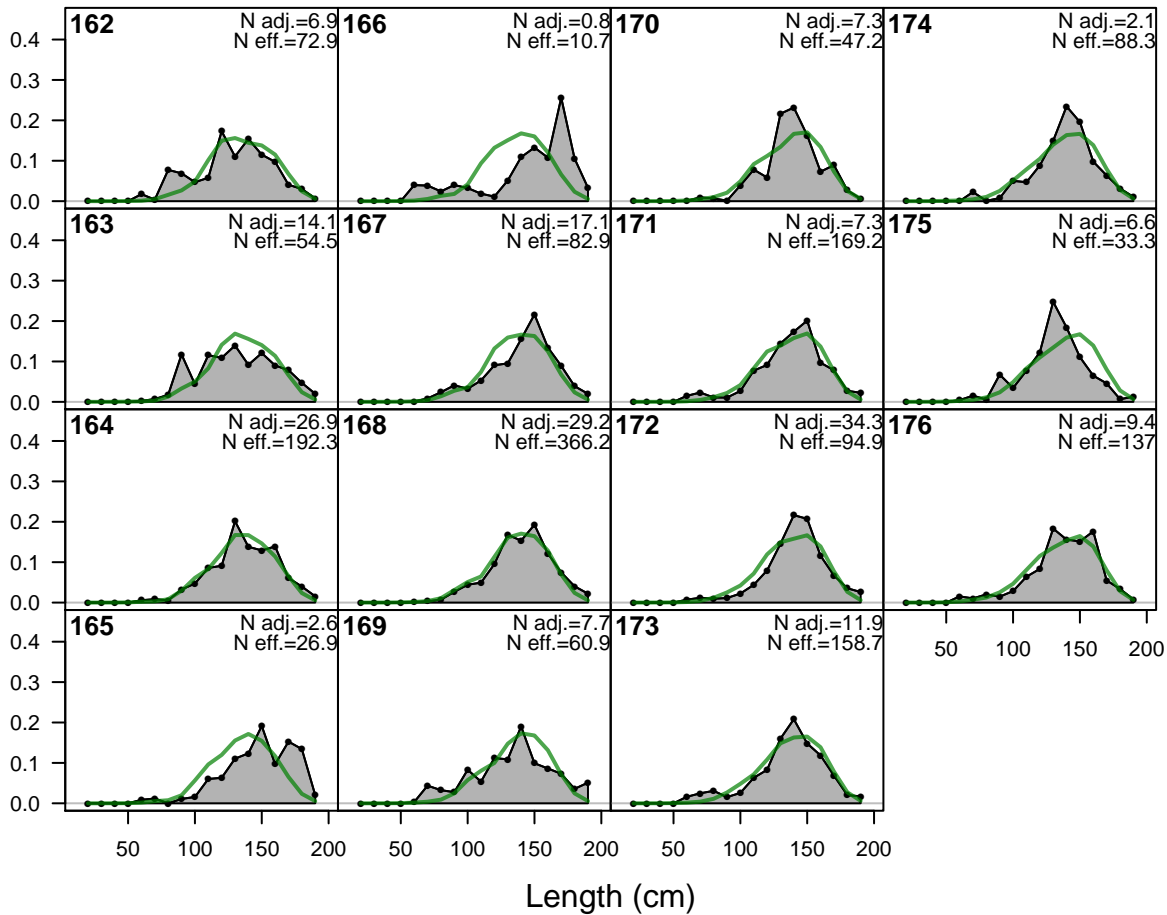
Proportion

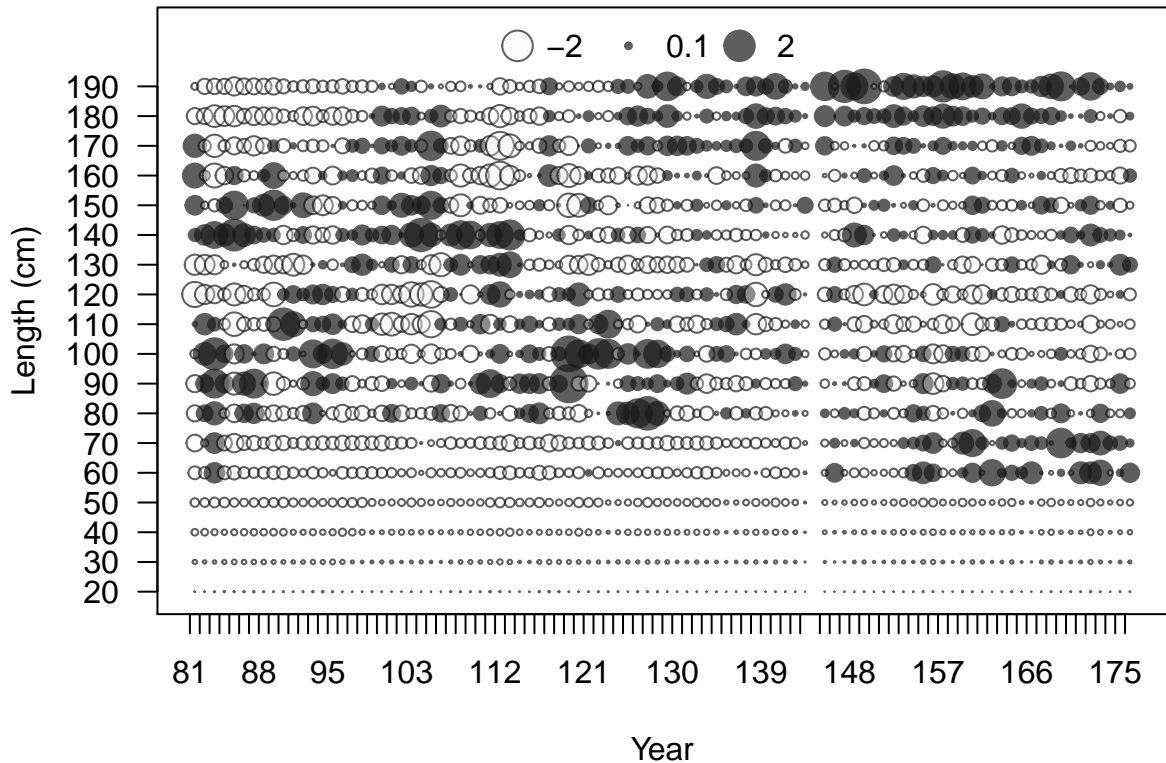


Proportion

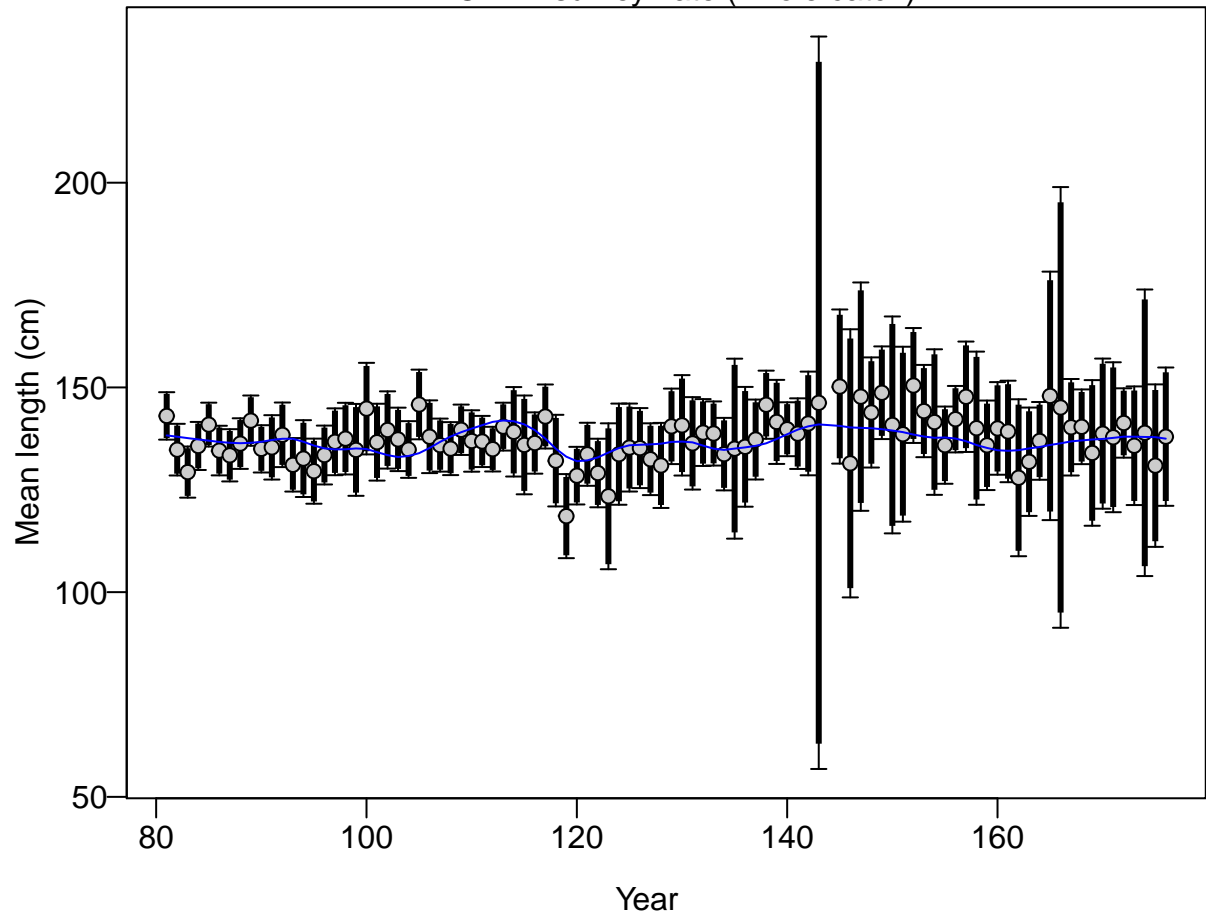


Proportion

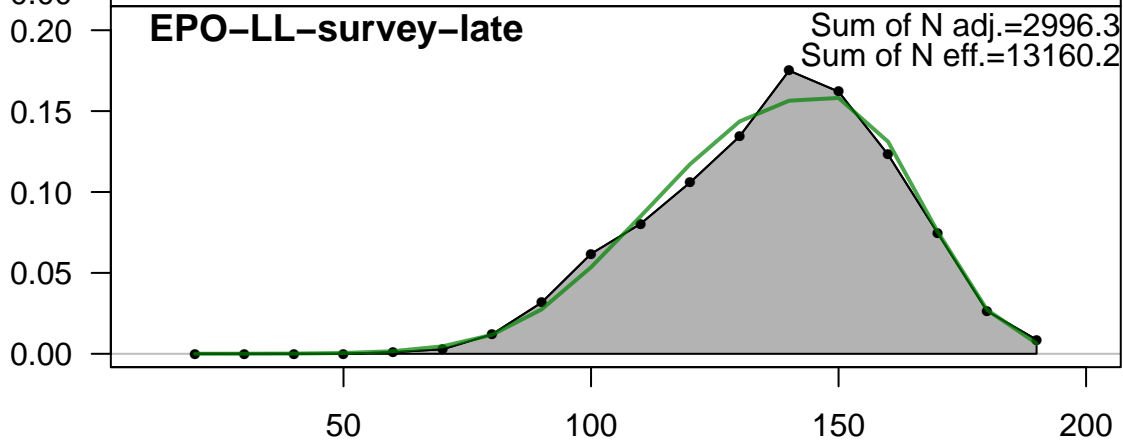
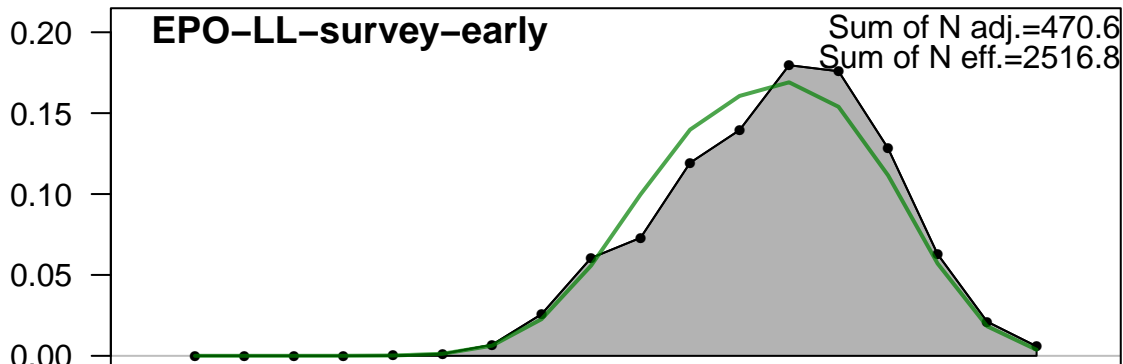




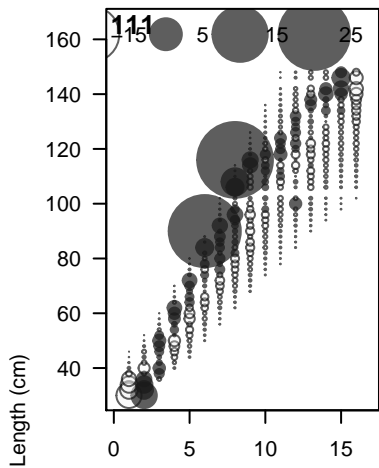
EPO-LL-survey-late (whole catch)



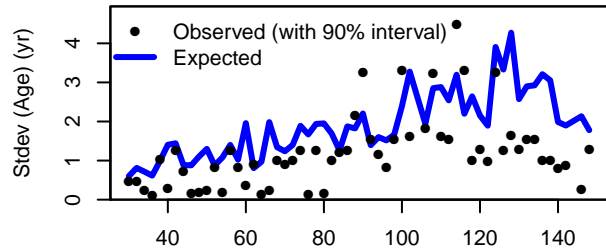
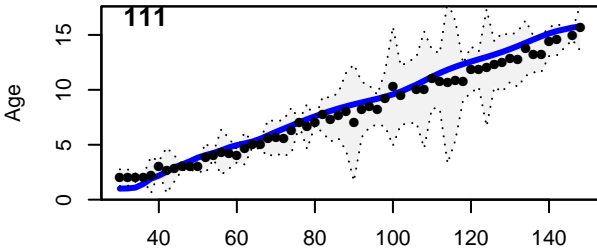
Proportion



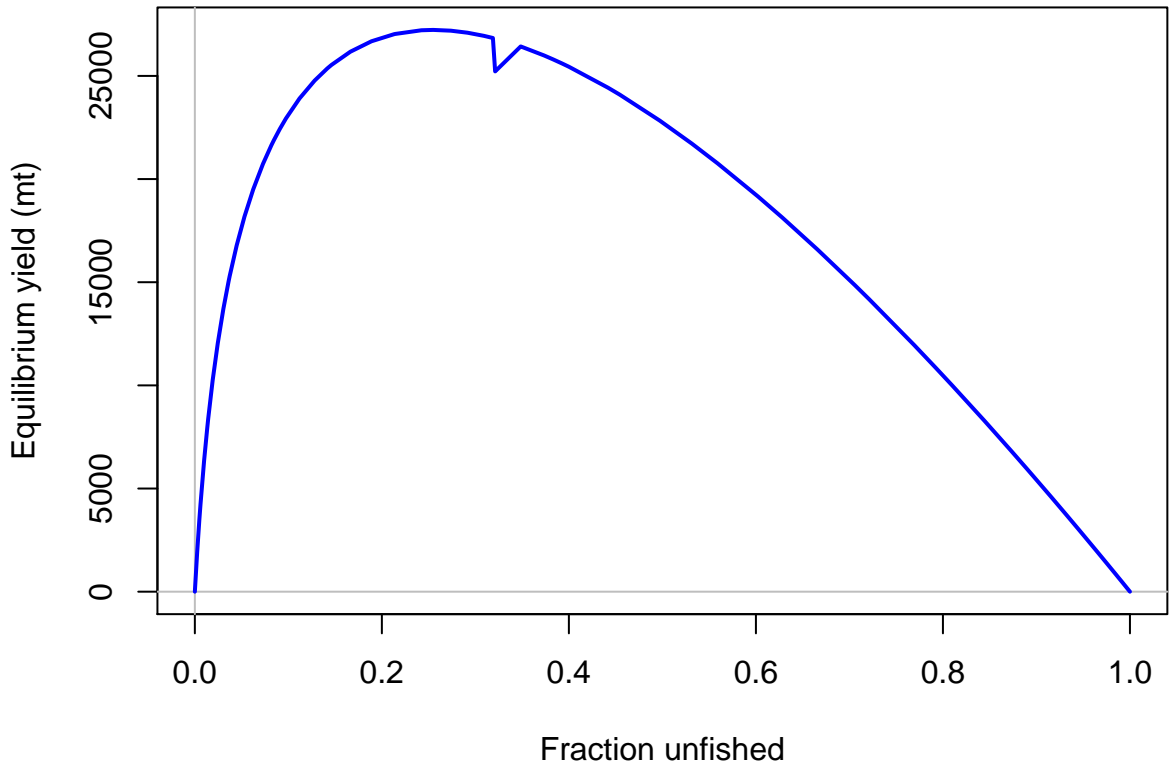
Length (cm)

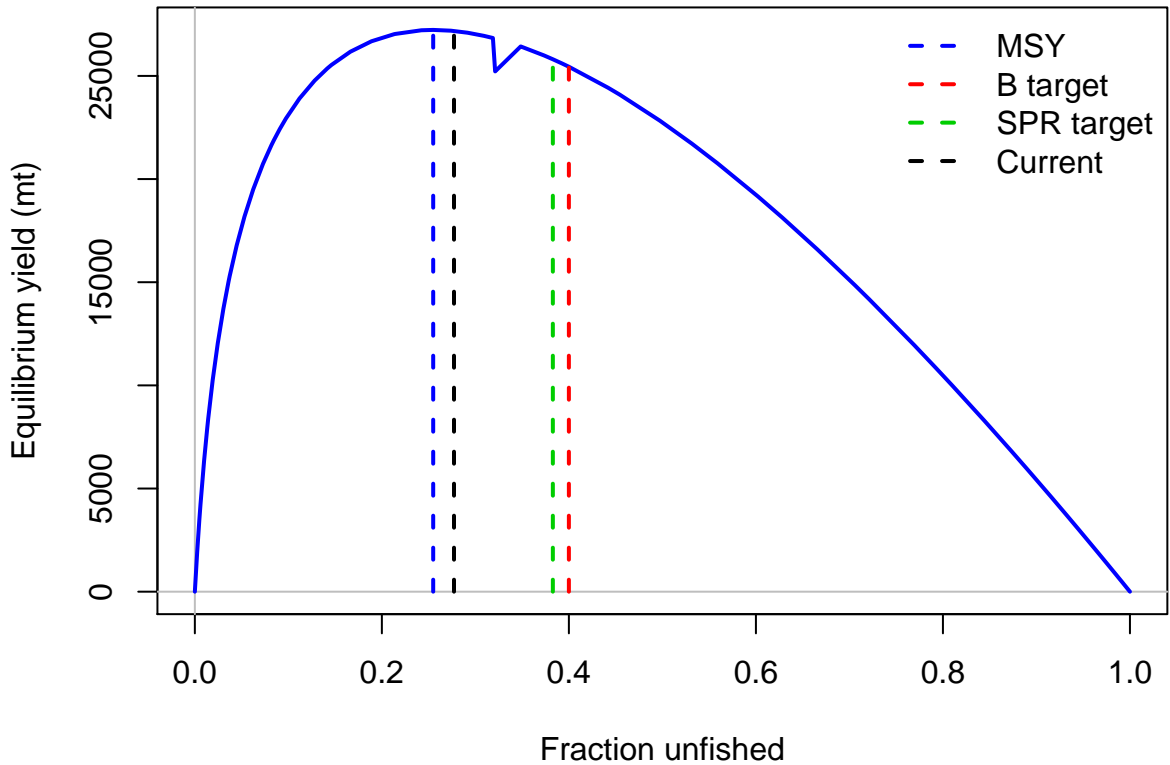


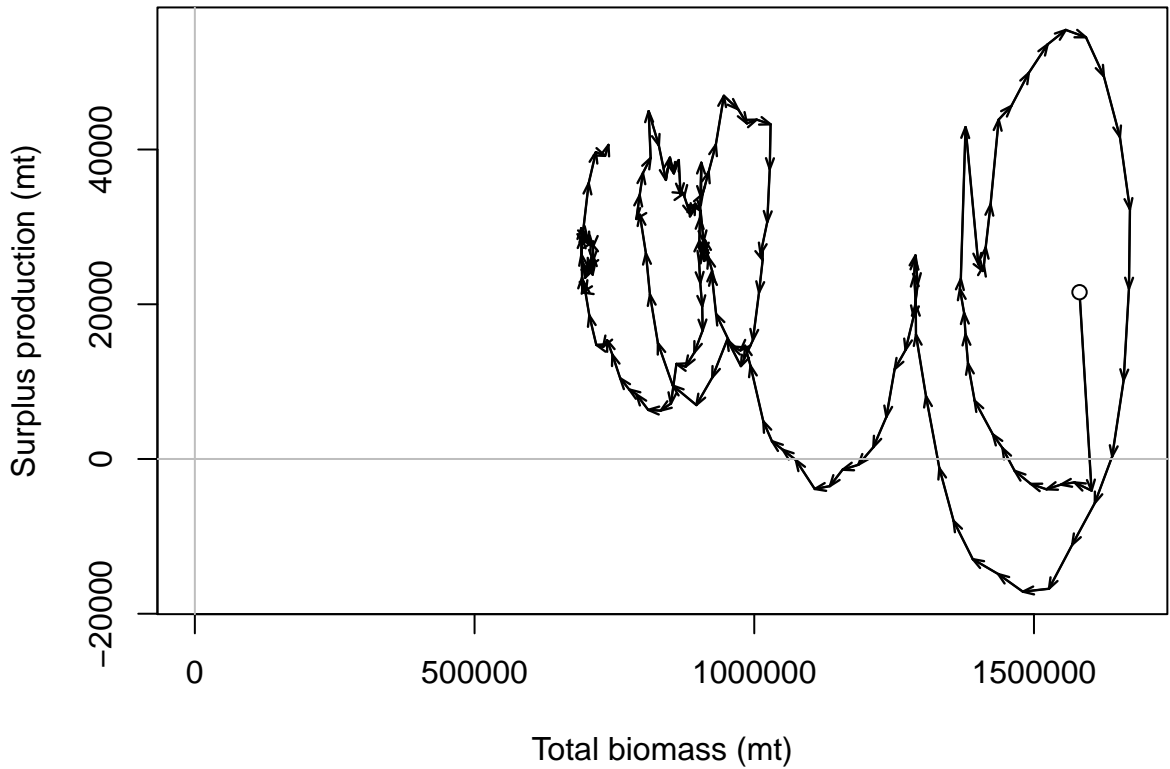
Age (yr)

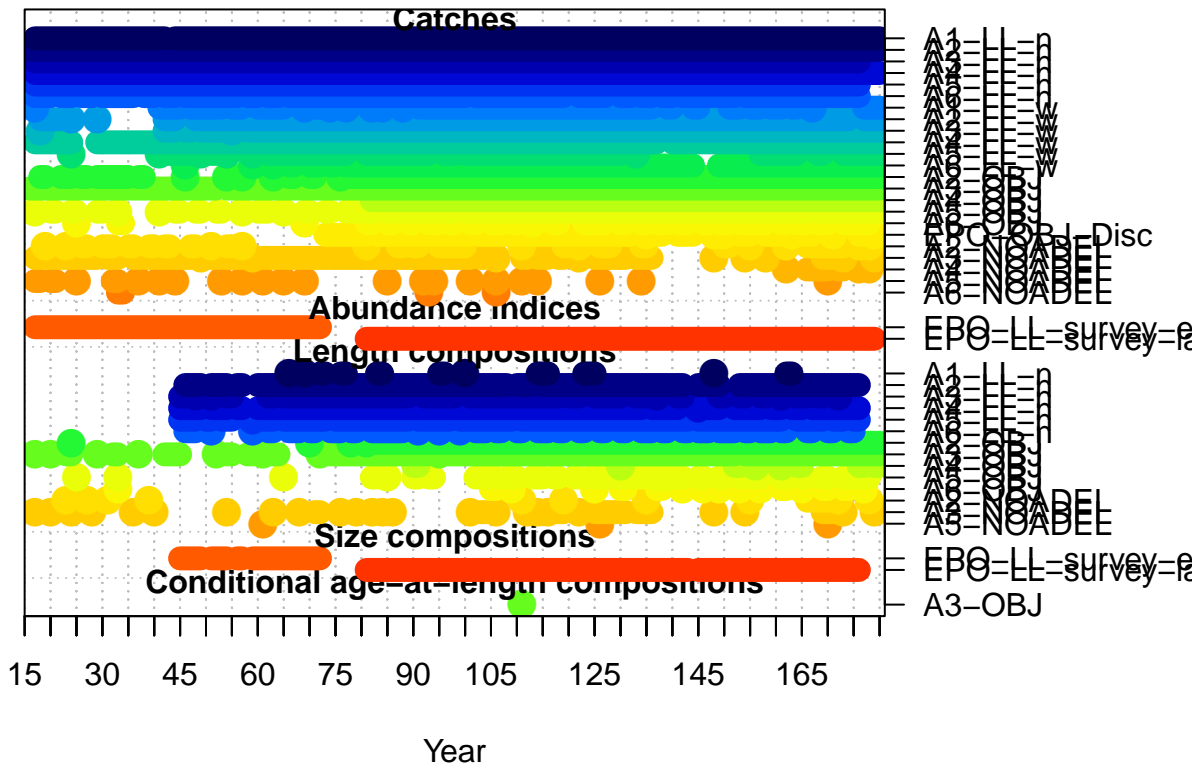


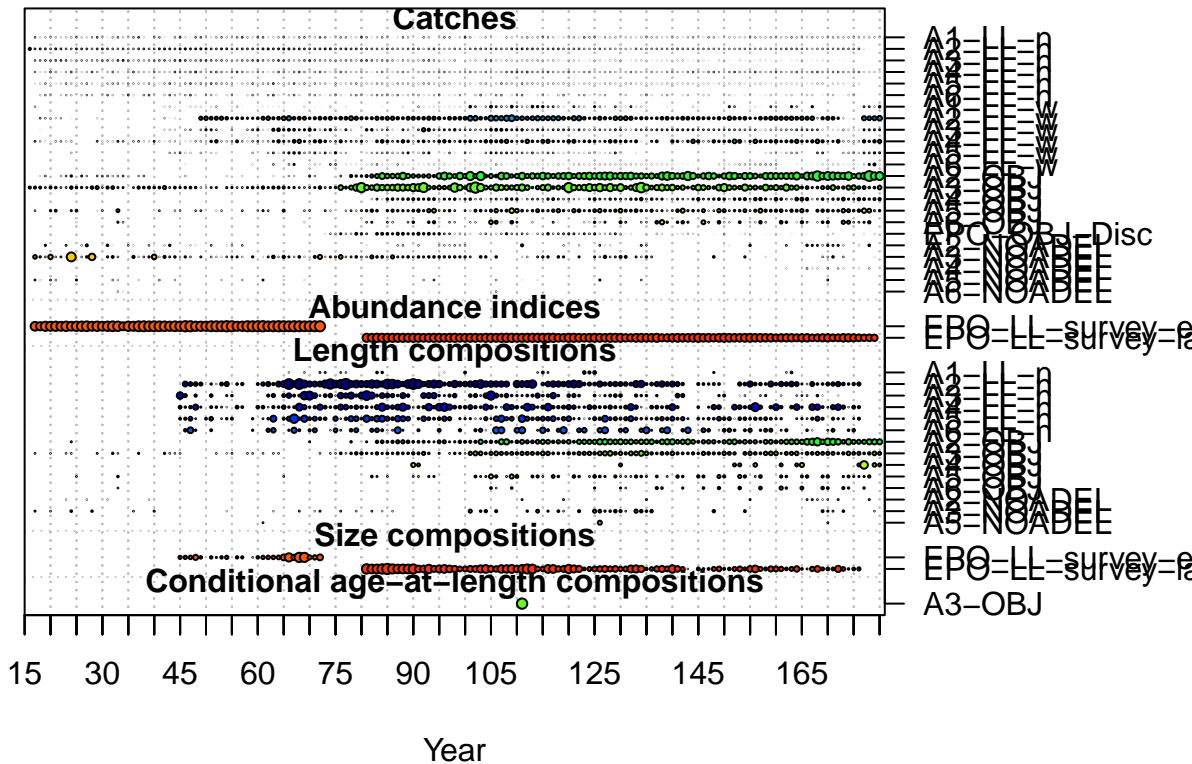
Length (cm)

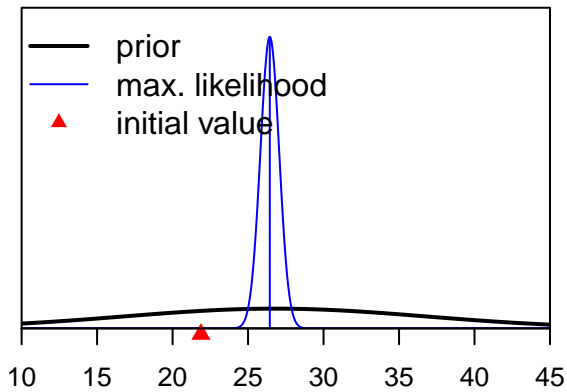
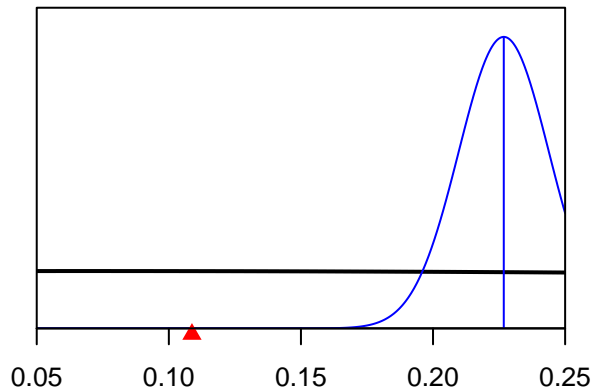
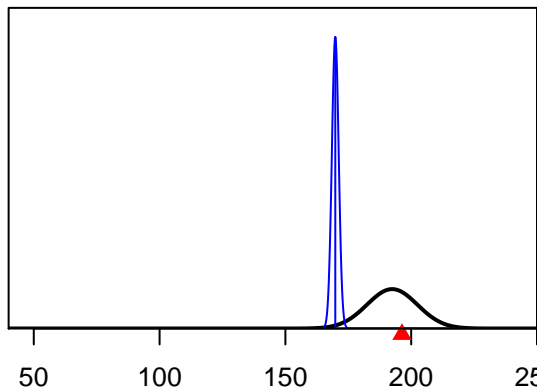
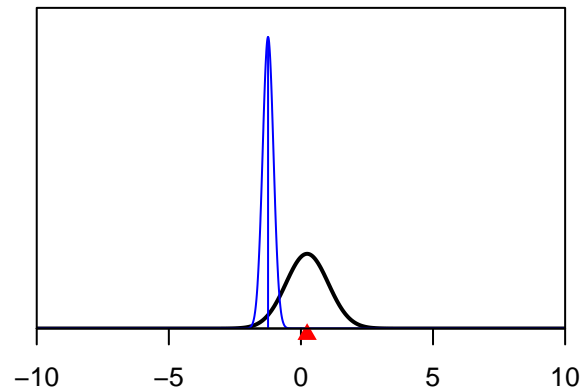






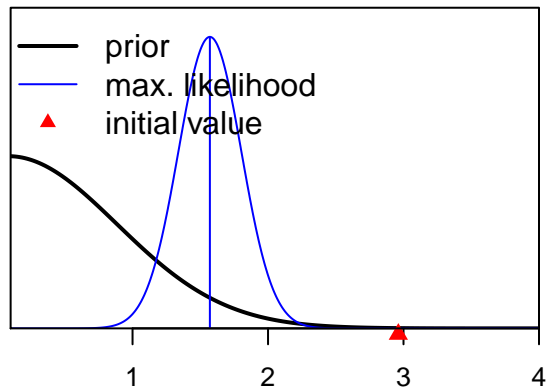




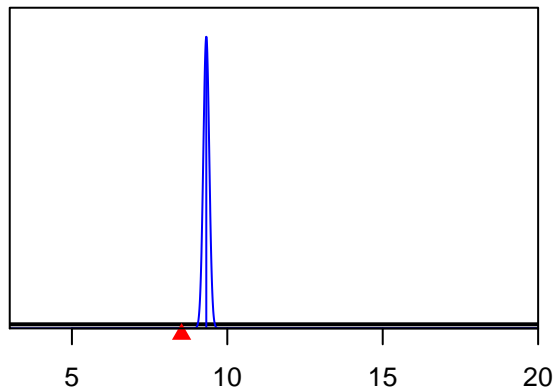
L_at_Amin_Fem_GP_1**VonBert_K_Fem_GP_1****L_at_Amax_Fem_GP_1****Richards_Fem_GP_1**

Parameter value

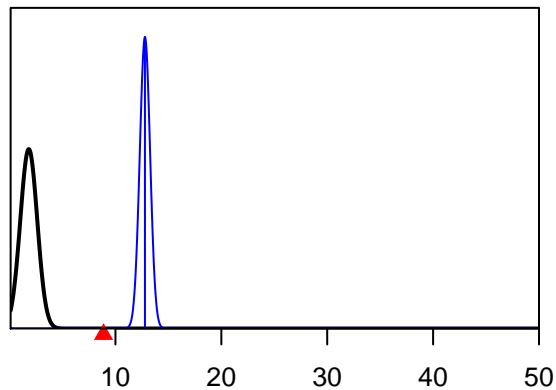
SD_young_Fem_GP_1



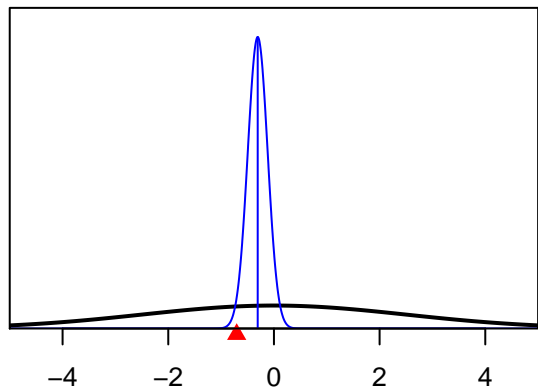
SR_LN(R0)



SD_old_Fem_GP_1

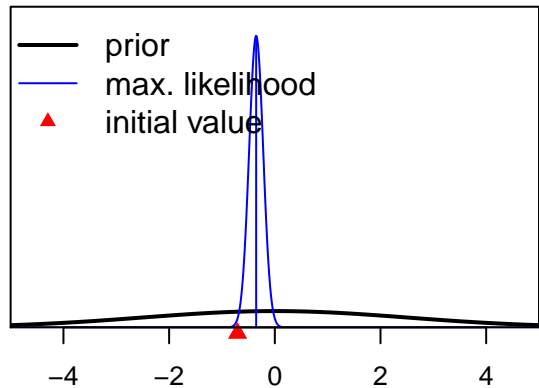


SR_regime_BLK1add_16

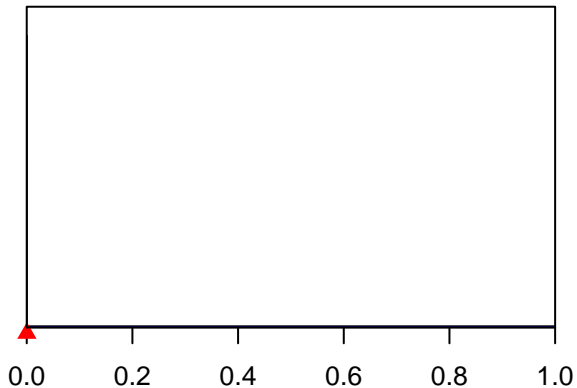


Parameter value

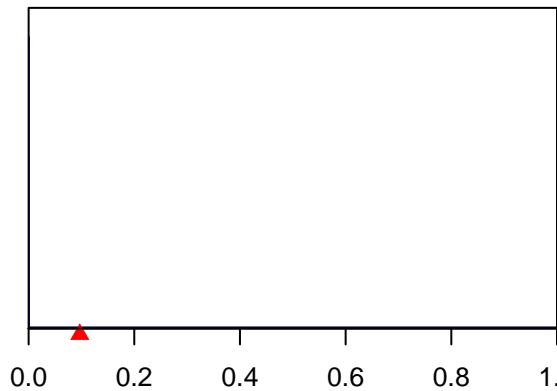
SR_regime_BLK1add_17



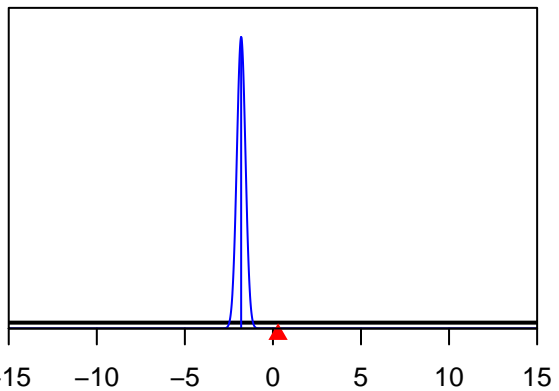
InitF_seas_1_flt_14A3-OBJ



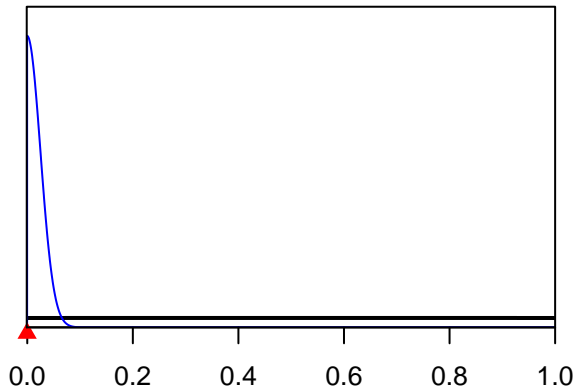
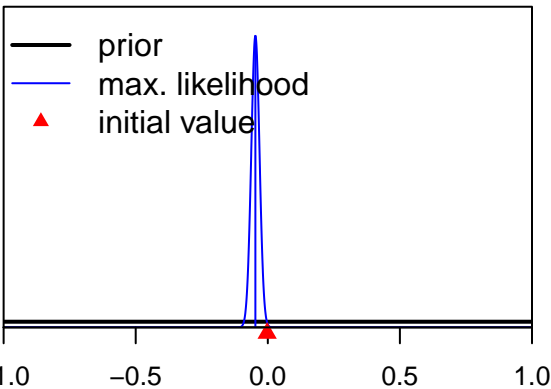
InitF_seas_1_flt_2A2-LL-n



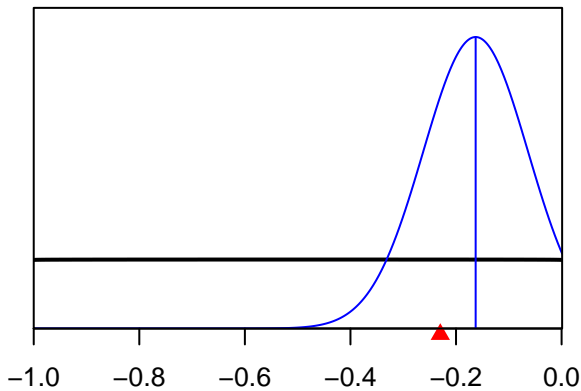
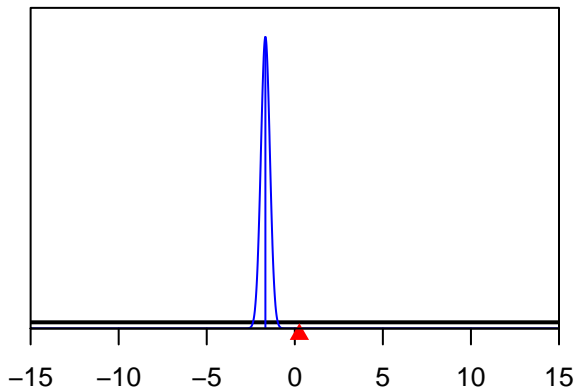
LnQ_base_EPO-LL-survey-early(24)



Parameter value

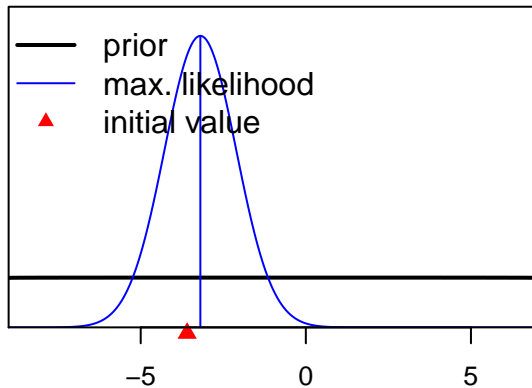
Q_extraSD_EPO-LL-survey-early(24)**SizeSpline_GradLo_A1-LL-n(1)**

Density

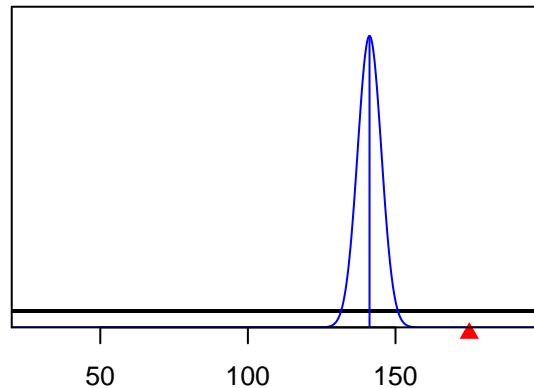
LnQ_base_EPO-LL-survey-late(25)**SizeSpline_GradHi_A1-LL-n(1)**

Parameter value

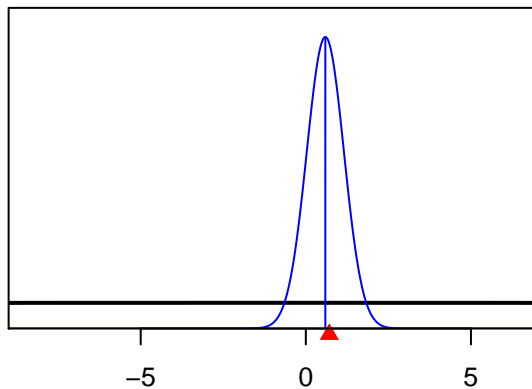
SizeSpline_Val_2_A1-LL-n(1)



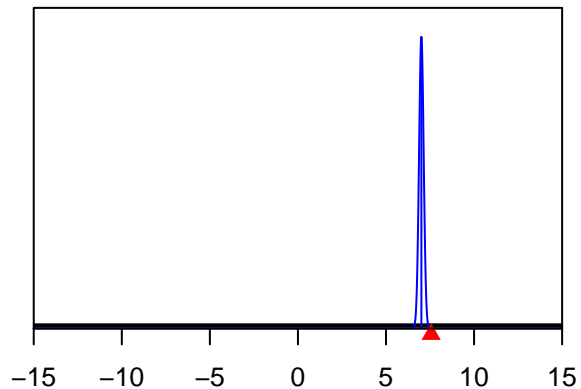
Size_DbIN_peak_A2-LL-n(2)



SizeSpline_Val_4_A1-LL-n(1)



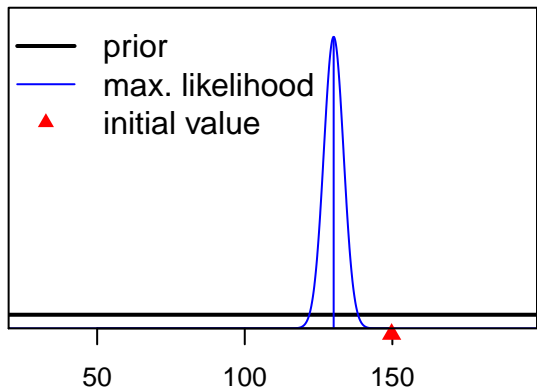
Size_DbIN_ascend_se_A2-LL-n(2)



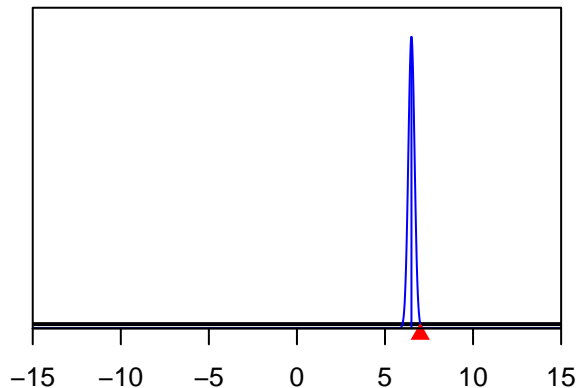
Parameter value

Density

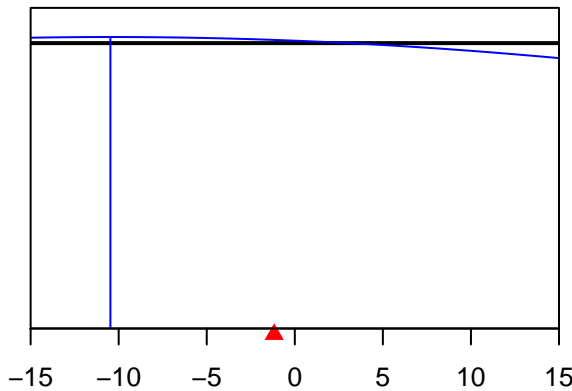
Size_DbIN_peak_A3-LL-n(3)



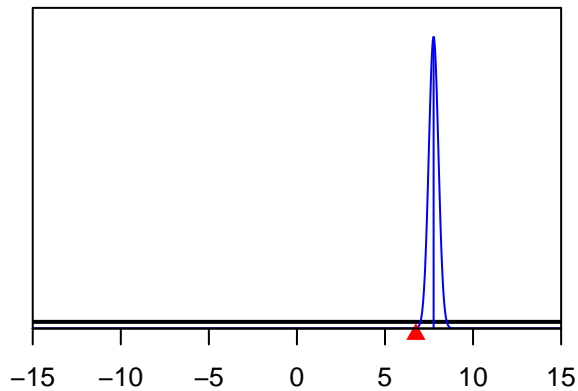
Size_DbIN_ascend_se_A3-LL-n(3)



Size_DbIN_top_logit_A3-LL-n(3)

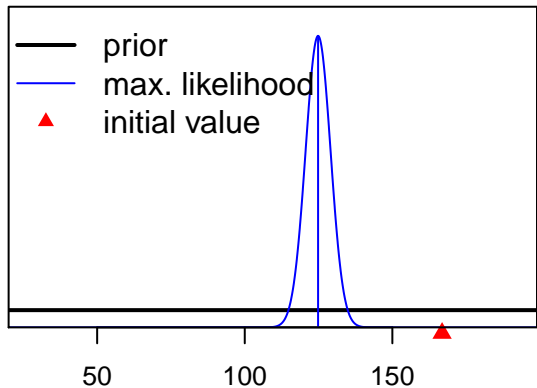


Size_DbIN_descend_se_A3-LL-n(3)

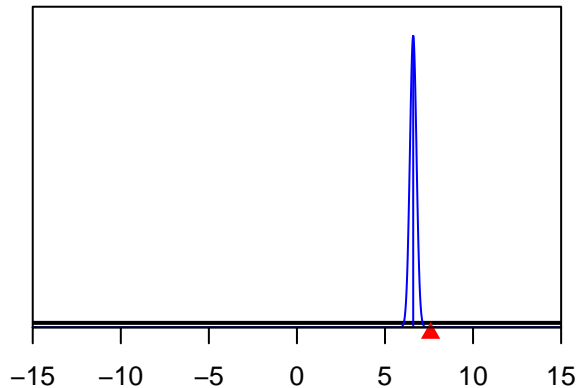


Parameter value

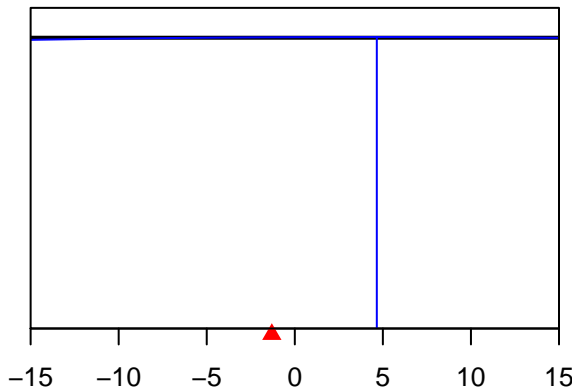
Size_DbIN_peak_A4-LL-n(4)



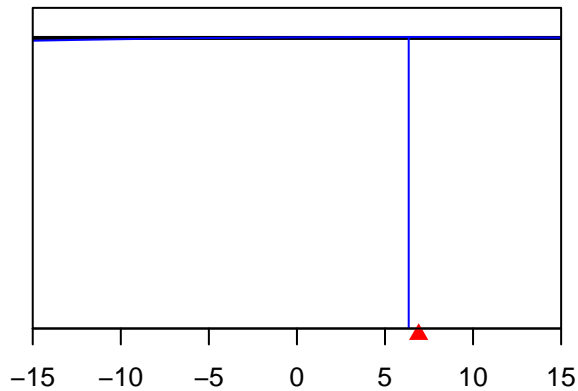
Size_DbIN_ascend_se_A4-LL-n(4)



Size_DbIN_top_logit_A4-LL-n(4)

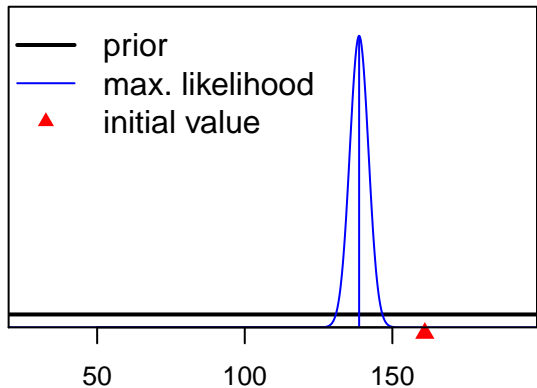


Size_DbIN_descend_se_A4-LL-n(4)

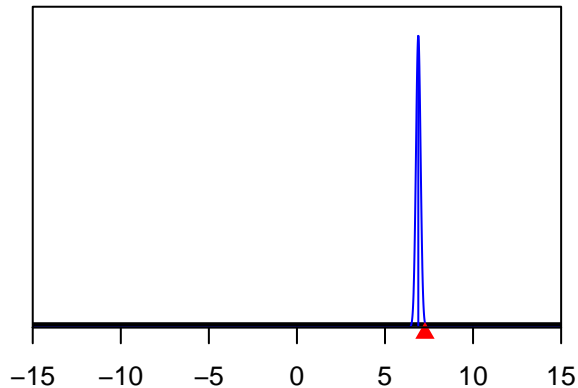


Parameter value

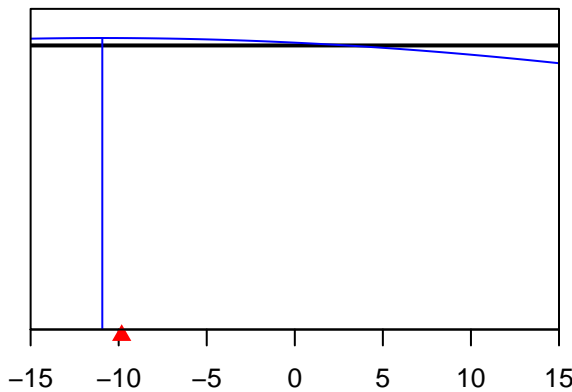
Size_DbIN_peak_A5-LL-n(5)



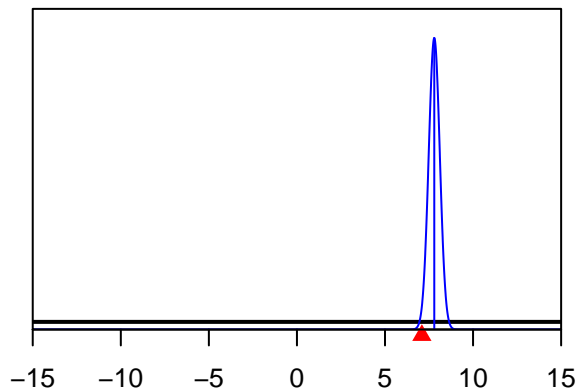
Size_DbIN_ascend_se_A5-LL-n(5)



Size_DbIN_top_logit_A5-LL-n(5)

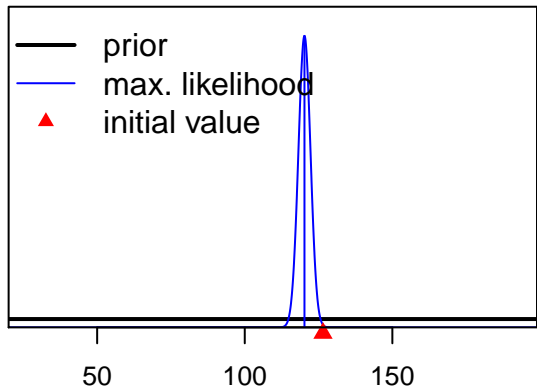


Size_DbIN_descend_se_A5-LL-n(5)

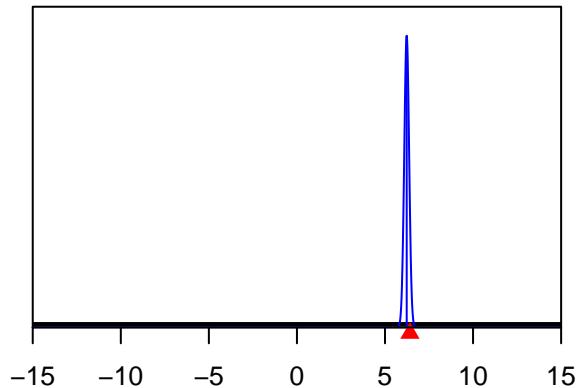


Parameter value

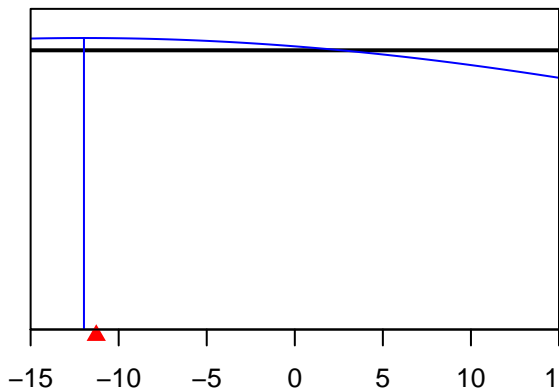
Size_DbIN_peak_A6-LL-n(6)



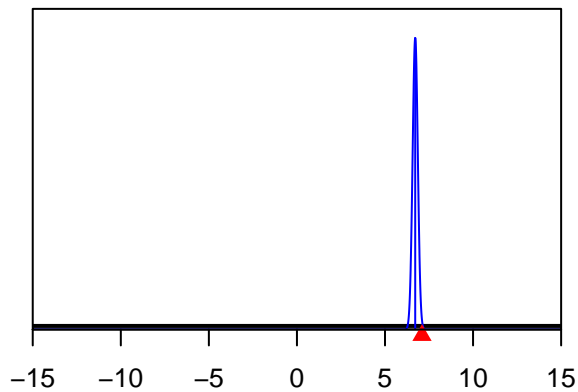
Size_DbIN_ascend_se_A6-LL-n(6)



Size_DbIN_top_logit_A6-LL-n(6)

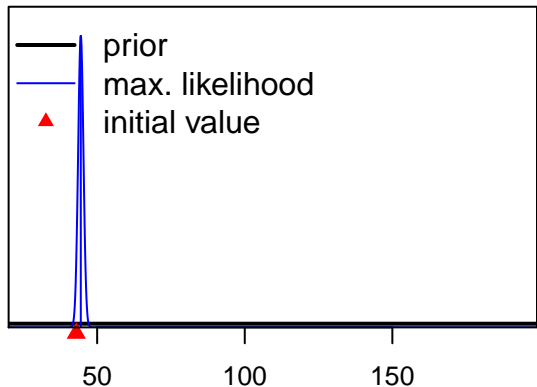


Size_DbIN_descend_se_A6-LL-n(6)

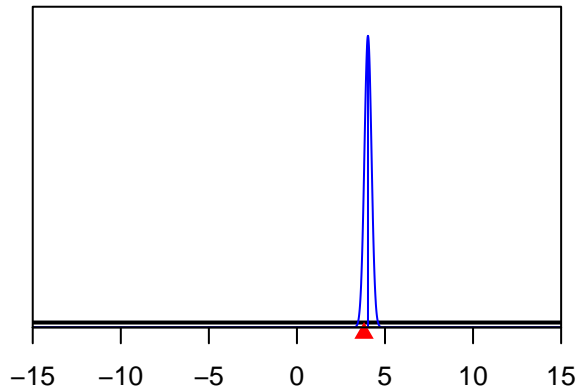


Parameter value

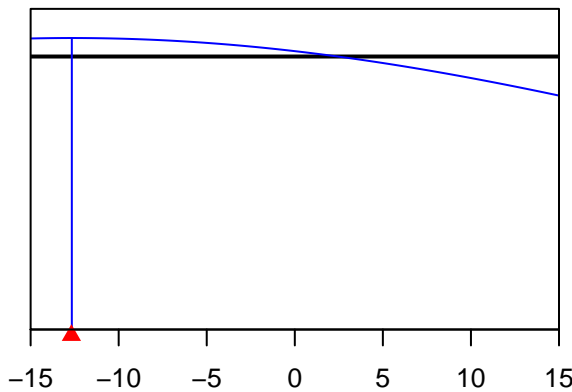
Size_DbIN_peak_A2-OBJ(13)



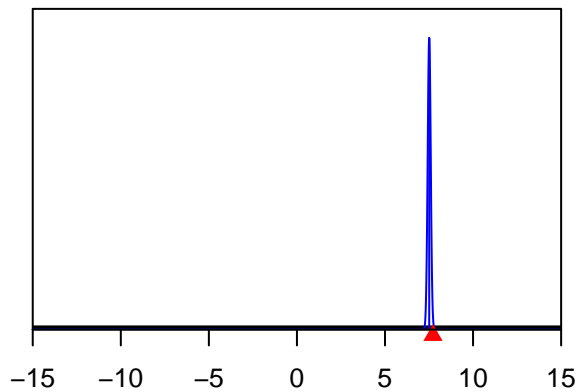
Size_DbIN_ascend_se_A2-OBJ(13)



Size_DbIN_top_logit_A2-OBJ(13)

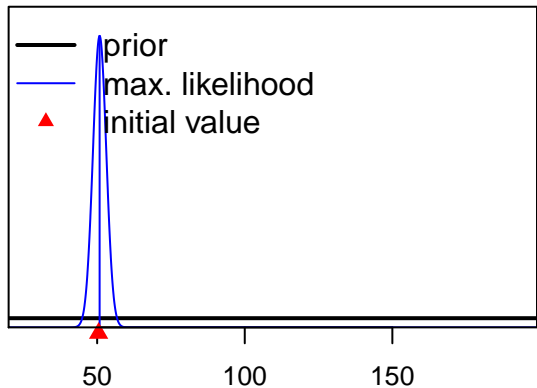


Size_DbIN_descend_se_A2-OBJ(13)

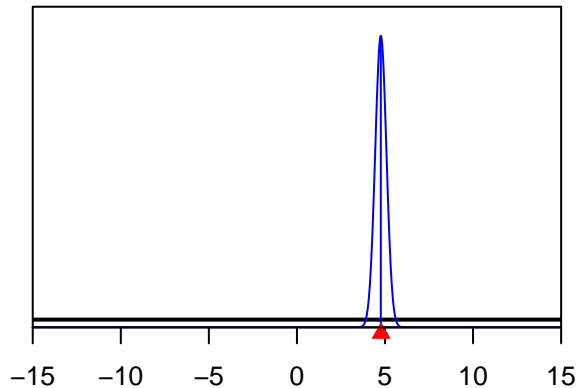


Parameter value

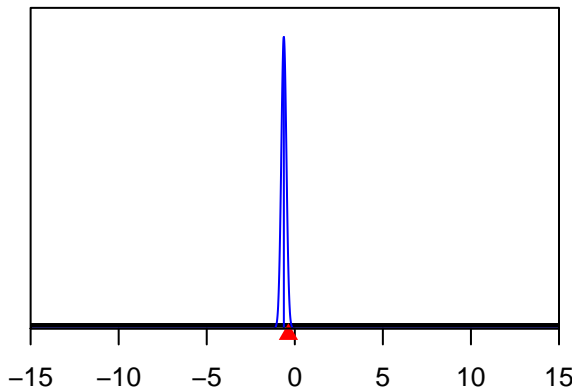
Size_DbIN_peak_A3-OBJ(14)



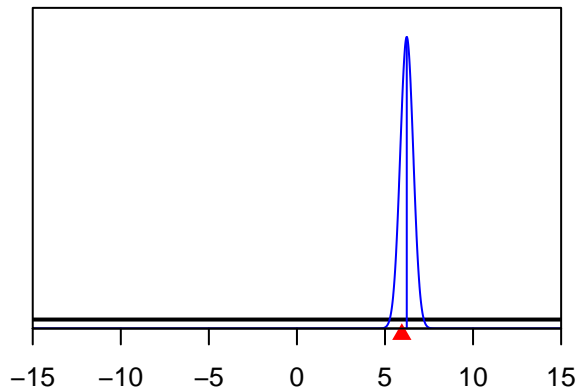
Size_DbIN_ascend_se_A3-OBJ(14)



Size_DbIN_top_logit_A3-OBJ(14)

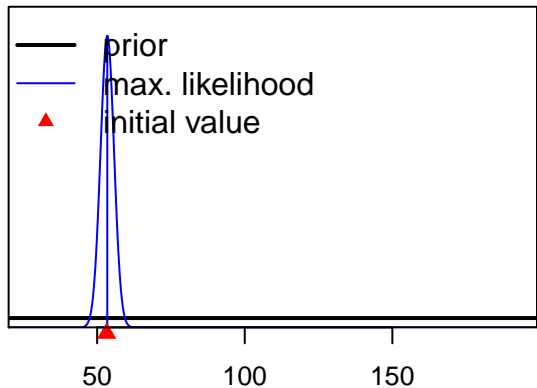


Size_DbIN_descend_se_A3-OBJ(14)

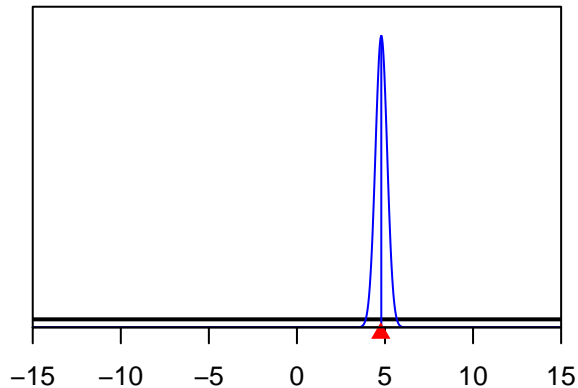


Parameter value

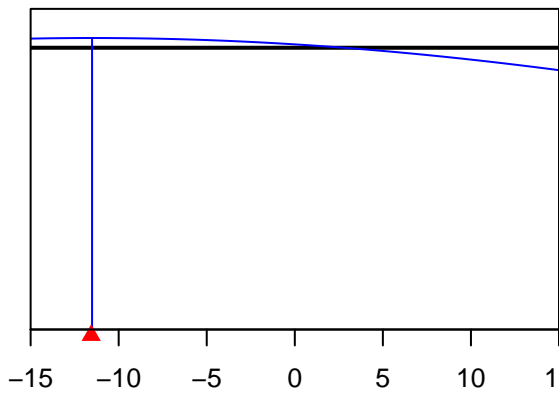
Size_DbIN_peak_A4-Obj(15)



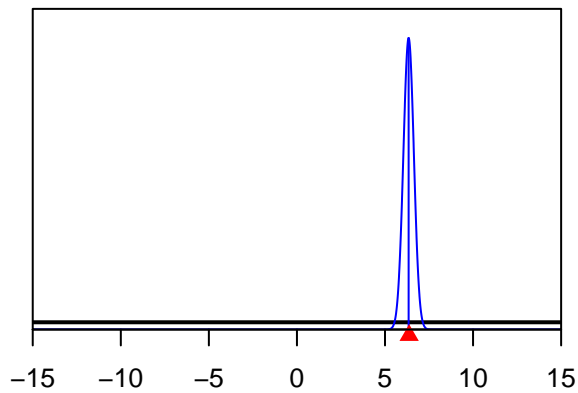
Size_DbIN_ascend_se_A4-Obj(15)



Size_DbIN_top_logit_A4-Obj(15)

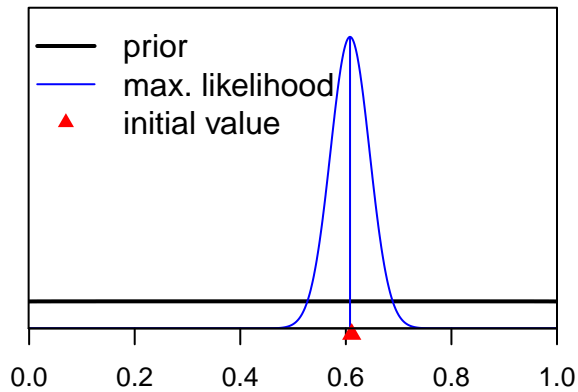


Size_DbIN_descend_se_A4-Obj(15)

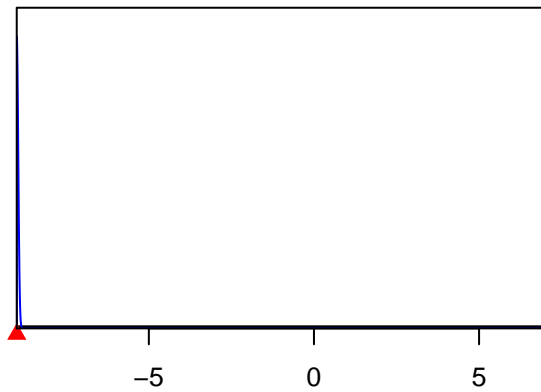


Parameter value

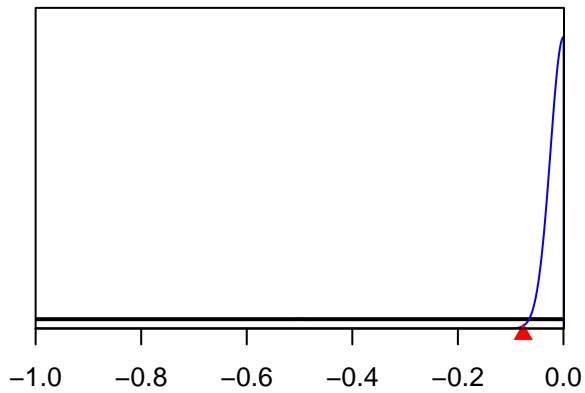
SizeSpline_GradLo_A5-Obj(16)



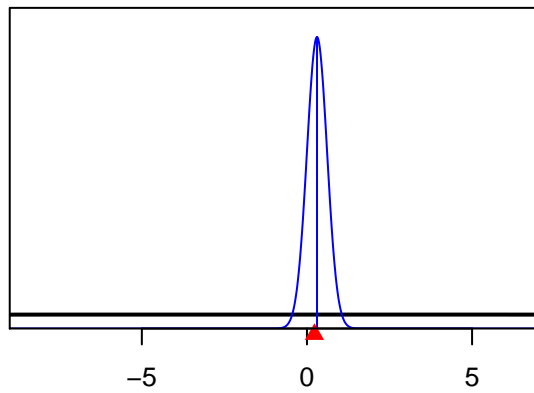
SizeSpline_Val_1_A5-Obj(16)



SizeSpline_GradHi_A5-Obj(16)

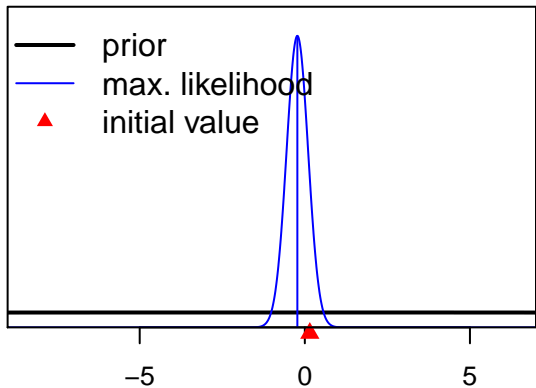


SizeSpline_Val_2_A5-Obj(16)

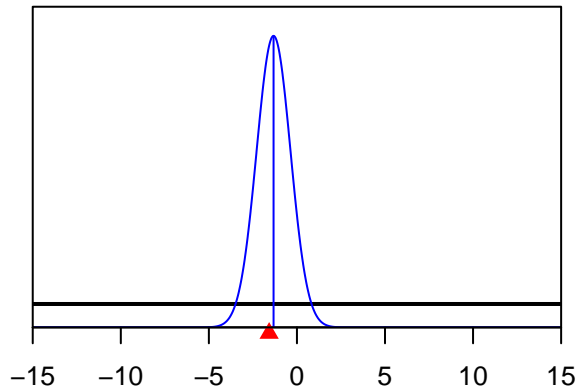


Parameter value

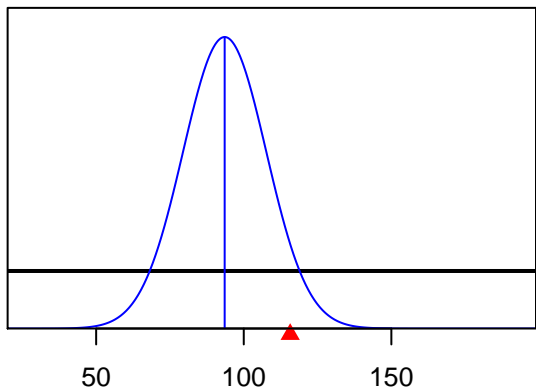
SizeSpline_Val_4_A5-OBJ(16)



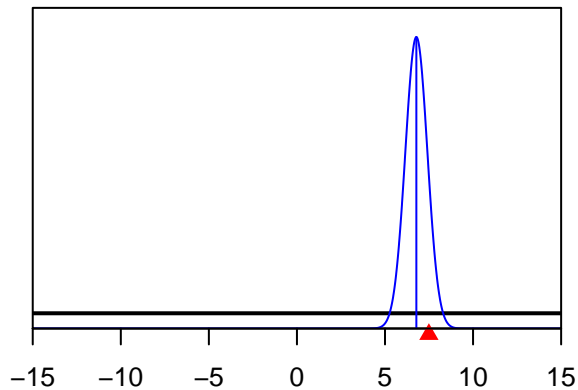
Size_DbIN_top_logit_A6-OBJ(17)



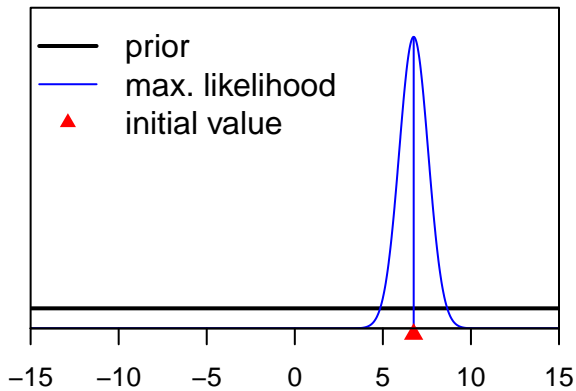
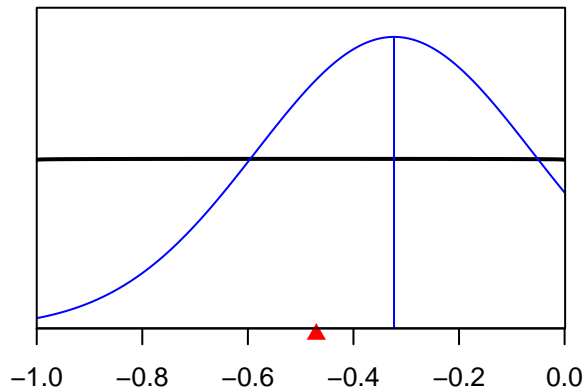
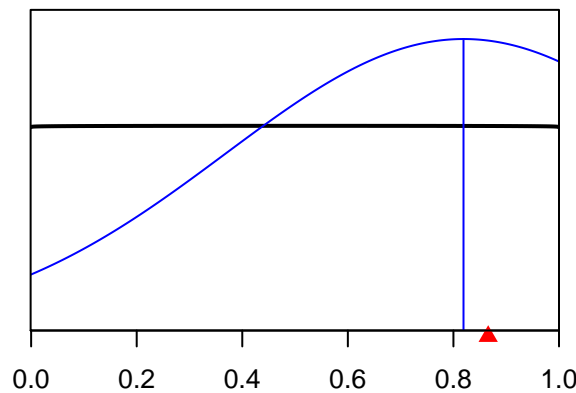
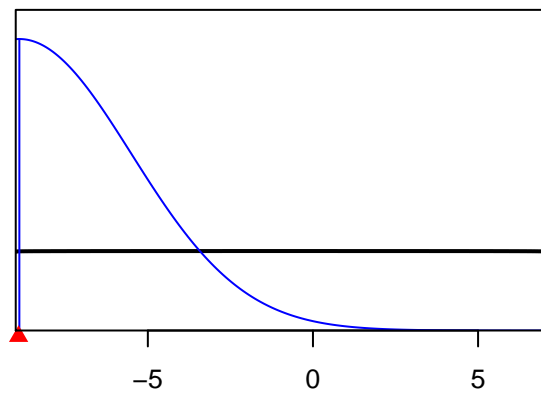
Size_DbIN_peak_A6-OBJ(17)



Size_DbIN_ascend_se_A6-OBJ(17)

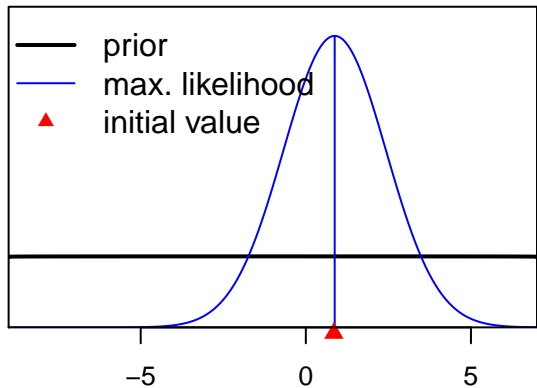


Parameter value

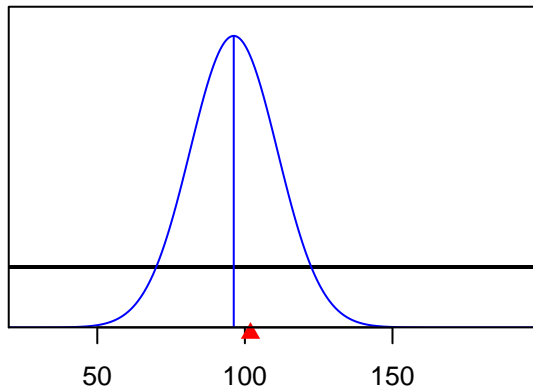
Size_DblN_descend_se_A6-Obj(17)**SizeSpline_GradHi_A2-NOADEL(19)****SizeSpline_GradLo_A2-NOADEL(19)****SizeSpline_Val_1_A2-NOADEL(19)**

Parameter value

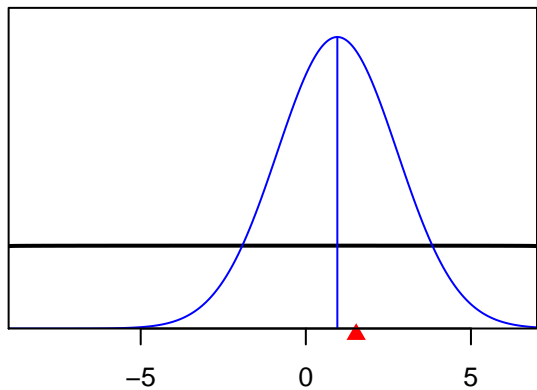
SizeSpline_Val_2_A2-NOADEL(19)



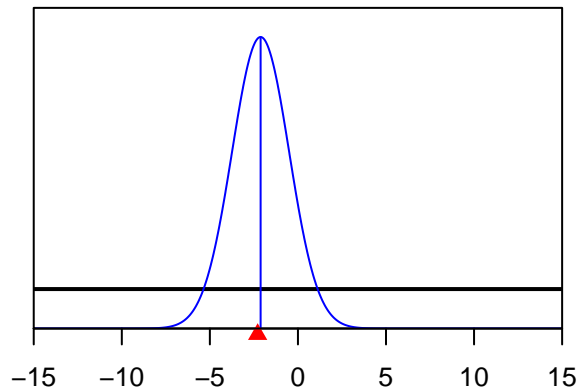
Size_DbIN_peak_A3-NOADEL(20)



SizeSpline_Val_4_A2-NOADEL(19)



Size_DbIN_top_logit_A3-NOADEL(20)

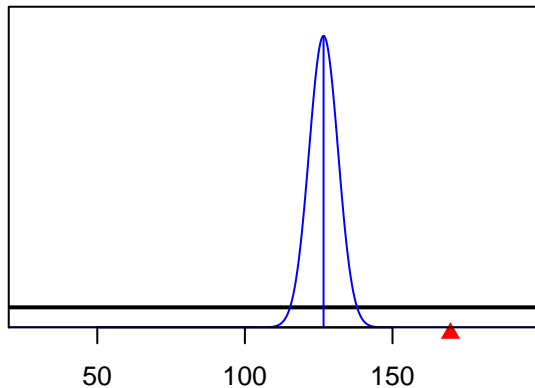
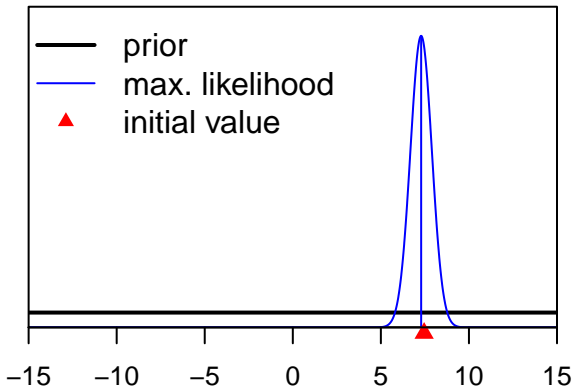


Parameter value

Density

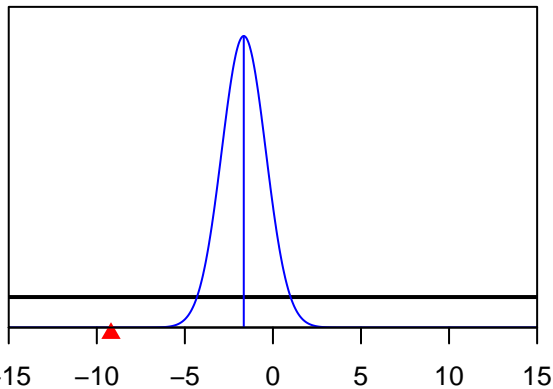
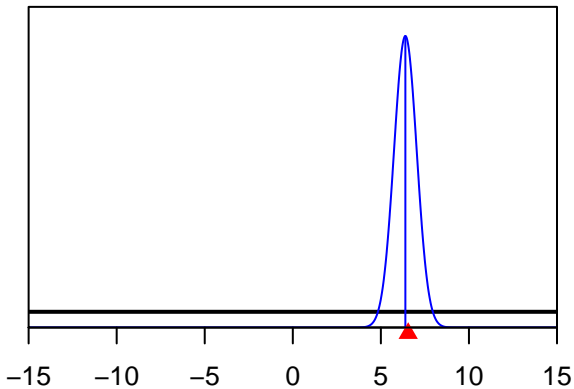
Size_DbIN_ascend_se_A3-NOADEL(20)

Size_DbIN_peak_EPO-LL-survey-early(24)



Size_DbIN_descend_se_A3-NOADEL(20)

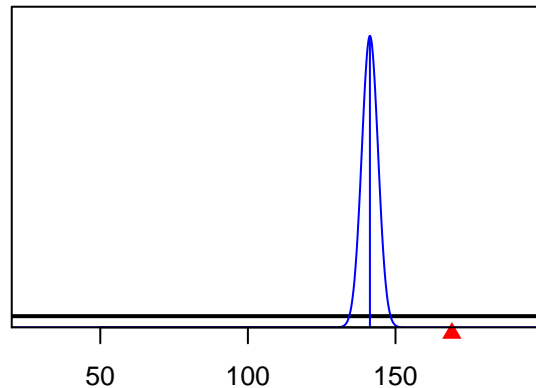
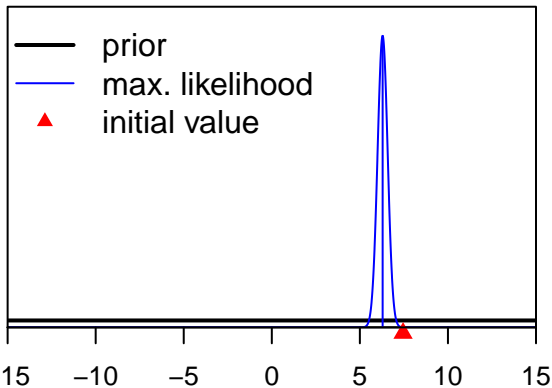
Size_DbIN_top_logit_EPO-LL-survey-early(24)



Parameter value

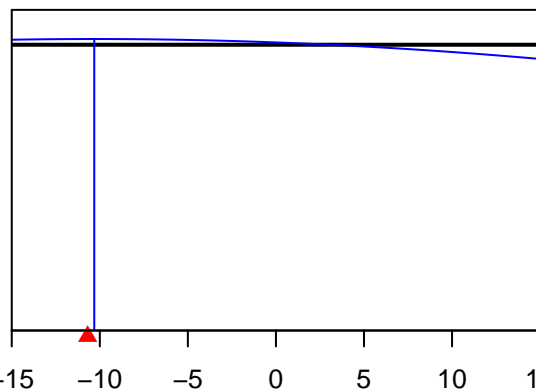
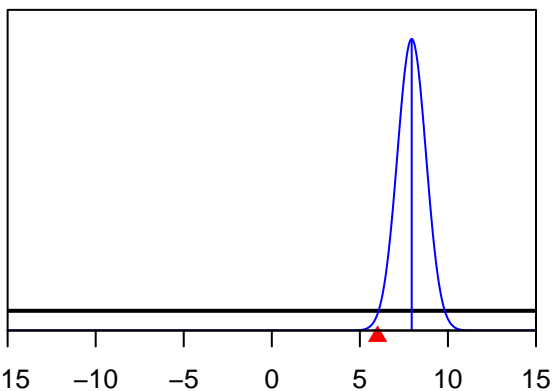
ize_DbIN_ascend_se_EPO-LL-survey-early(2)

Size_DbIN_peak_EPO-LL-survey-late(25)



ze_DbIN_descend_se_EPO-LL-survey-early(2)

Size_DbIN_top_logit_EPO-LL-survey-late(25)

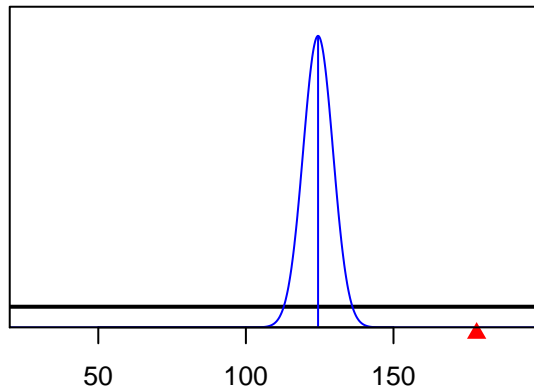
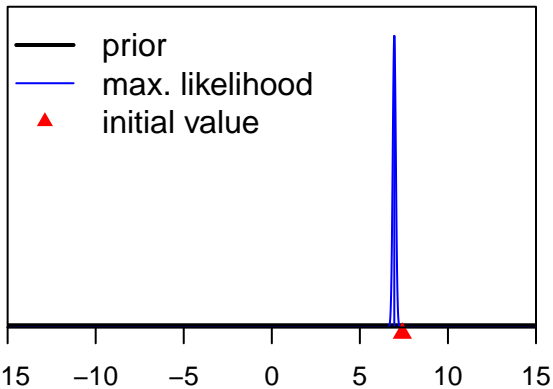


Density

Parameter value

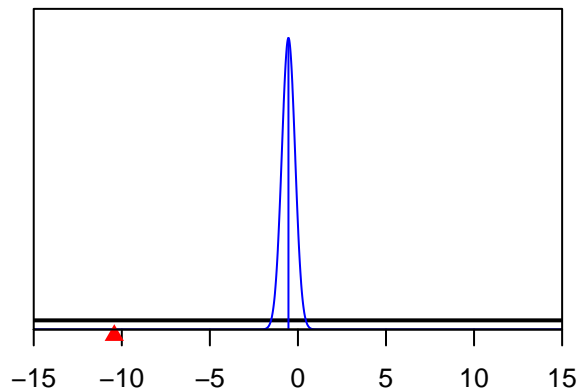
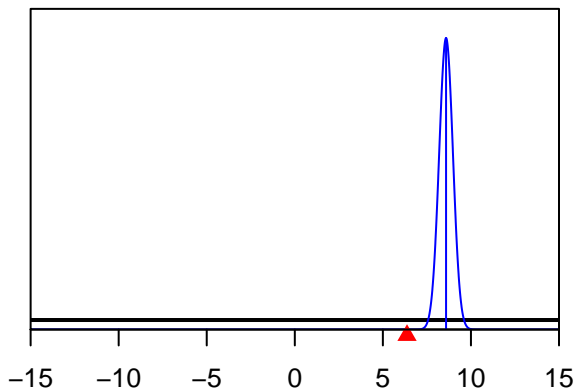
size_DblN_ascend_se_EPO-LL-survey-late(25

Size_DblN_peak_A2-LL-n(2)_BLK2repl_17



ize_DblN_descend_se_EPO-LL-survey-late(25

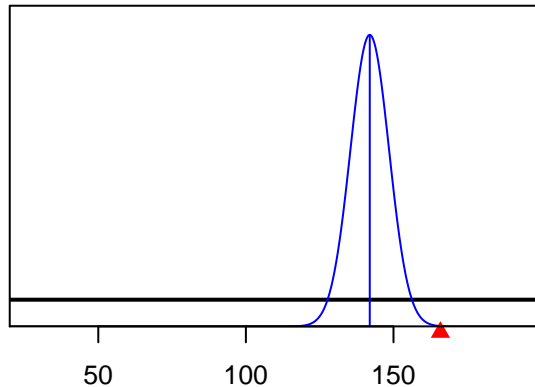
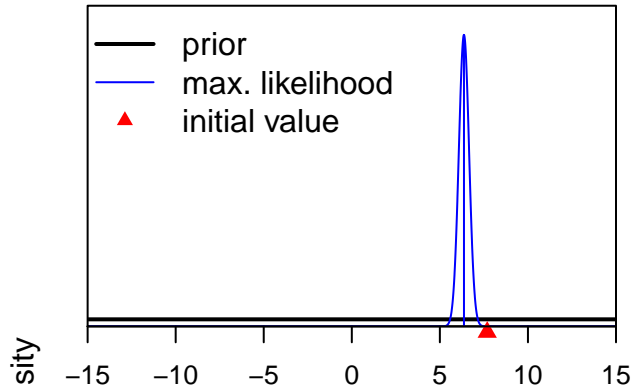
Size_DblN_top_logit_A2-LL-n(2)_BLK2repl_17



Parameter value

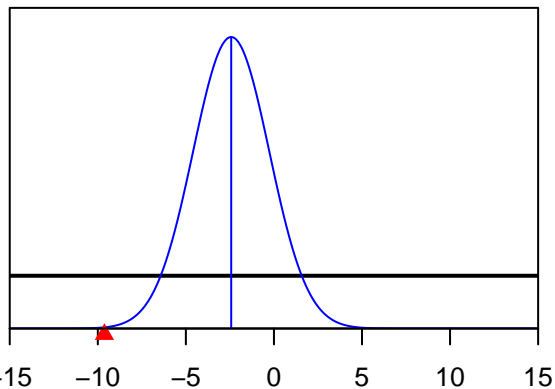
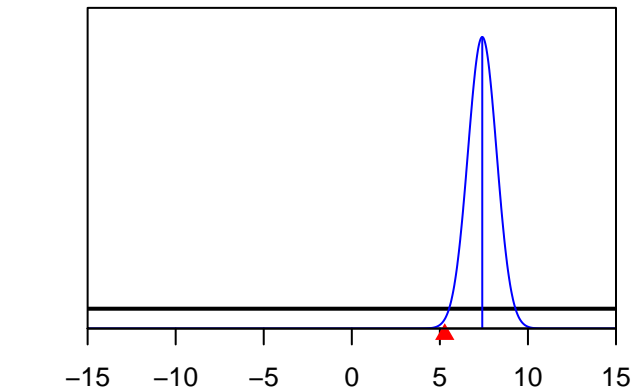
ize_DbIN_ascend_se_A2-LL-n(2)_BLK2repl_1

Size_DbIN_peak_A3-LL-n(3)_BLK2repl_17



ize_DbIN_descend_se_A2-LL-n(2)_BLK2repl_1

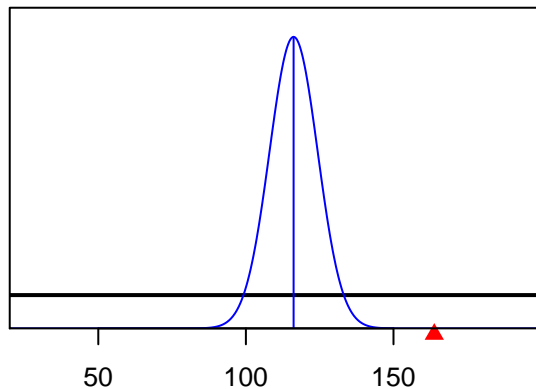
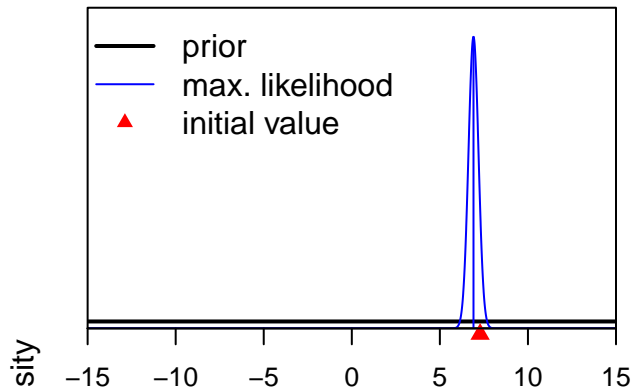
Size_DbIN_top_logit_A3-LL-n(3)_BLK2repl_17



Parameter value

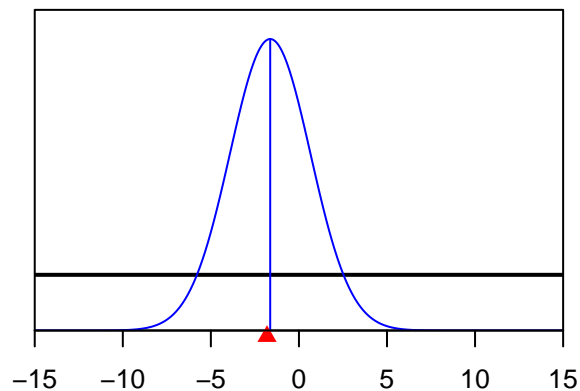
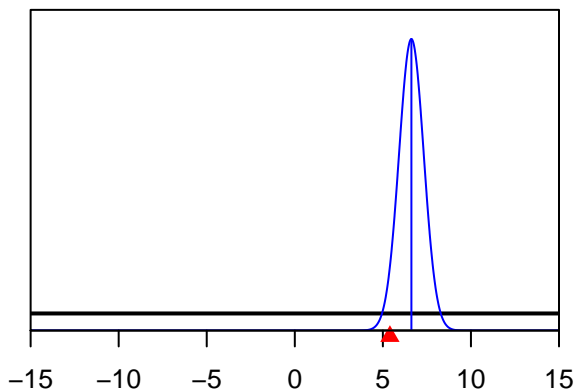
ize_DbIN_ascend_se_A3-LL-n(3)_BLK2repl_1

Size_DbIN_peak_A4-LL-n(4)_BLK2repl_17



ize_DbIN_descend_se_A3-LL-n(3)_BLK2repl_1

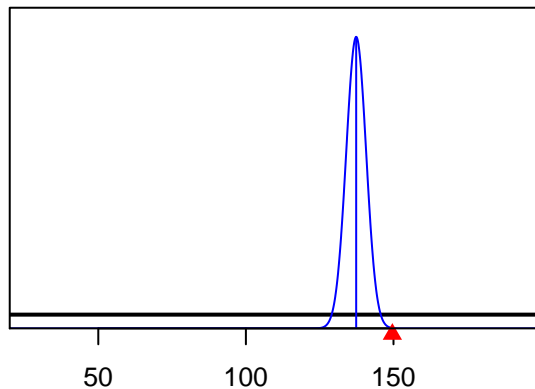
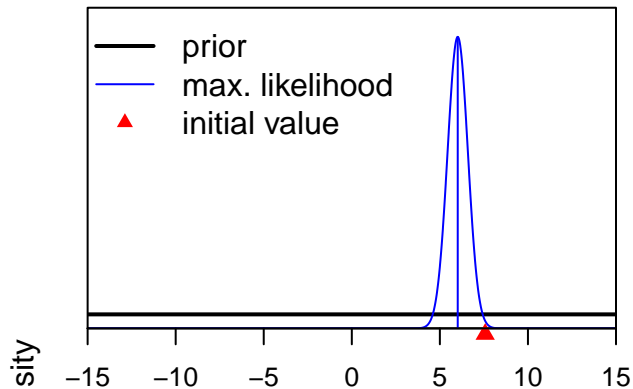
Size_DbIN_top_logit_A4-LL-n(4)_BLK2repl_17



Parameter value

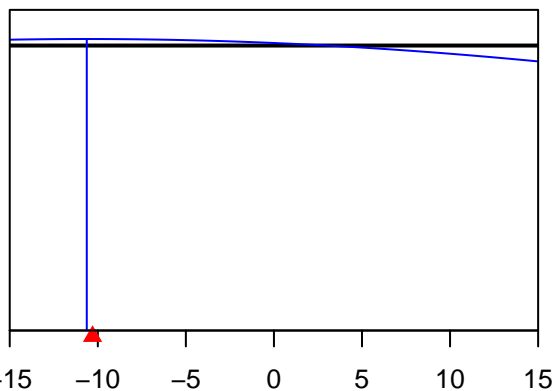
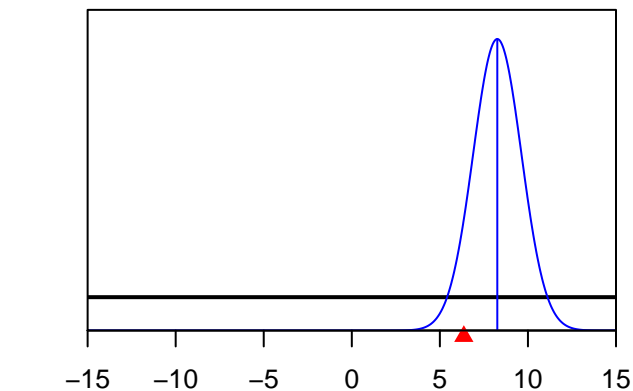
ize_DbIN_ascend_se_A4-LL-n(4)_BLK2repl_1

Size_DbIN_peak_A5-LL-n(5)_BLK2repl_17



ize_DbIN_descend_se_A4-LL-n(4)_BLK2repl_1

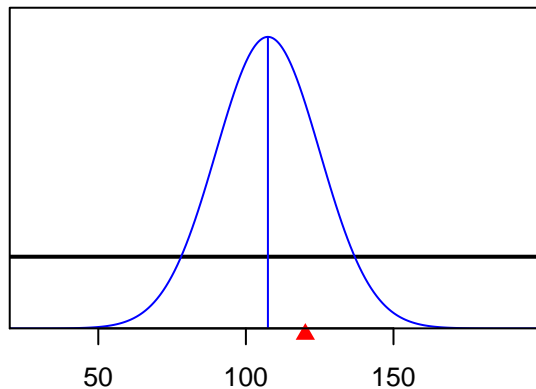
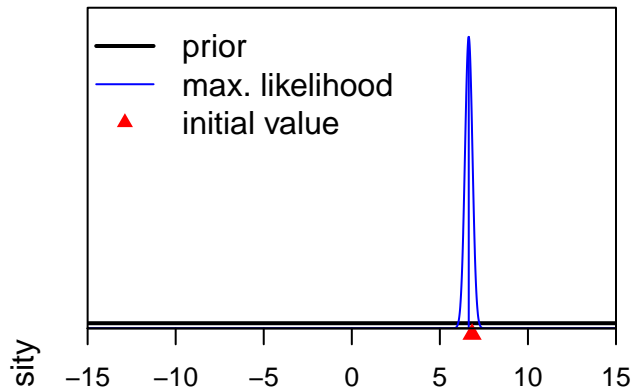
Size_DbIN_top_logit_A5-LL-n(5)_BLK2repl_17



Parameter value

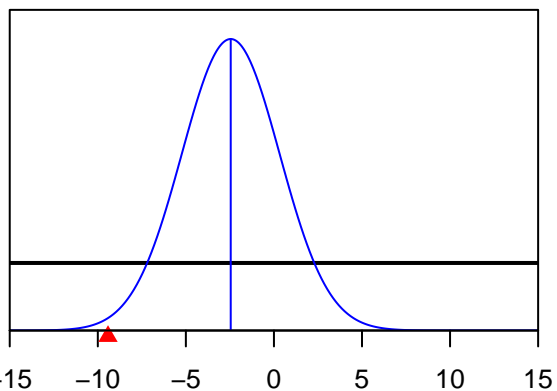
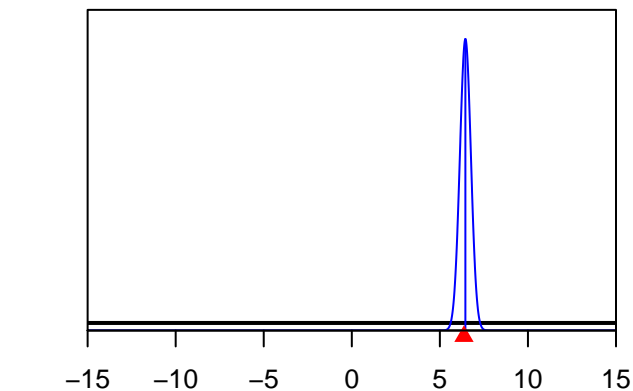
ize_DbIN_ascend_se_A5-LL-n(5)_BLK2repl_1

Size_DbIN_peak_A6-LL-n(6)_BLK2repl_17



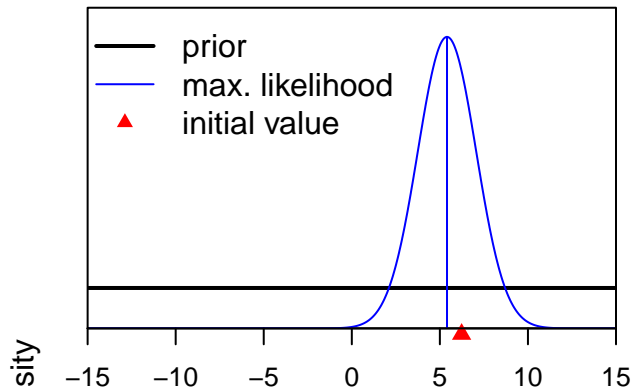
ize_DbIN_descend_se_A5-LL-n(5)_BLK2repl_1

Size_DbIN_top_logit_A6-LL-n(6)_BLK2repl_17



Parameter value

ize_DbIN_ascend_se_A6-LL-n(6)_BLK2repl_1



ize_DbIN_descend_se_A6-LL-n(6)_BLK2repl_1

