

EPO yellowfin tuna  
Benchmark assessment 2020  
model: TBM.GRO,  $h = 0.8$

Plots created using the 'r4ss' package in R

Stock Synthesis version: 3.30.15.0

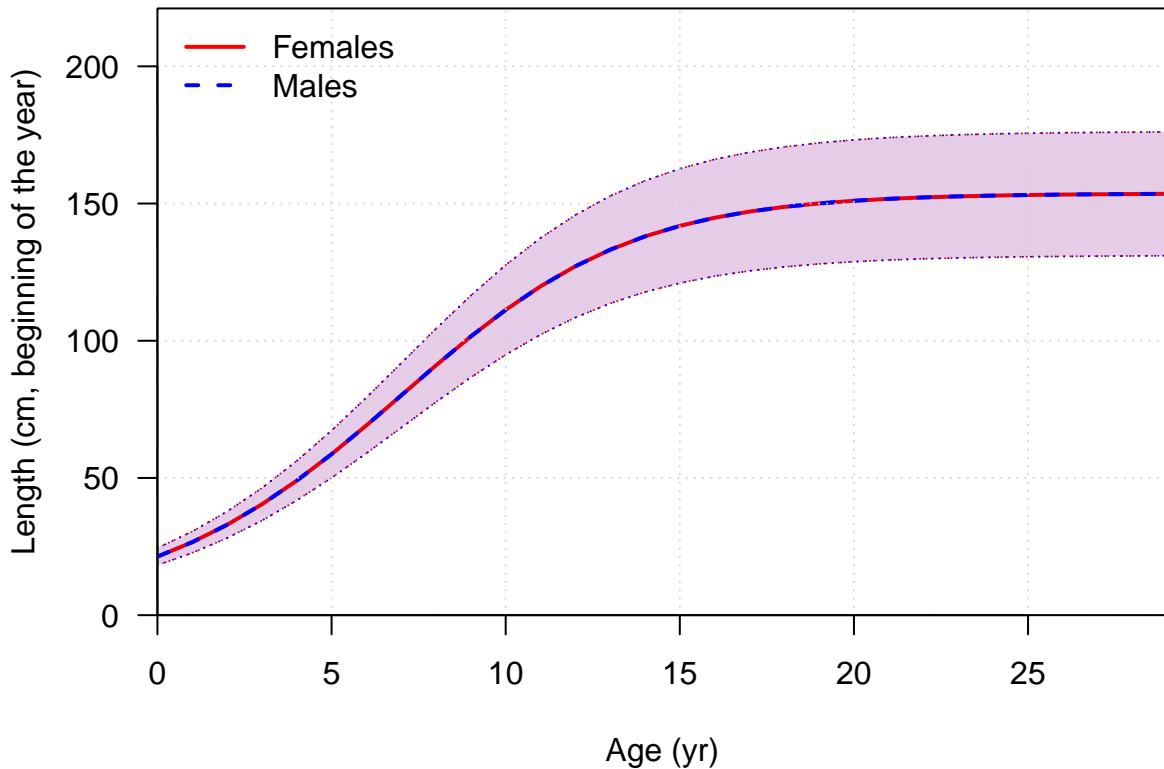
StartTime: Mon Jul 20 19:24:45 2020

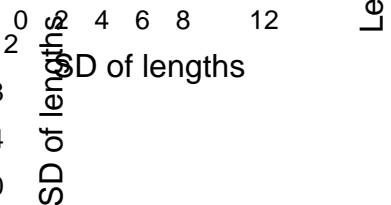
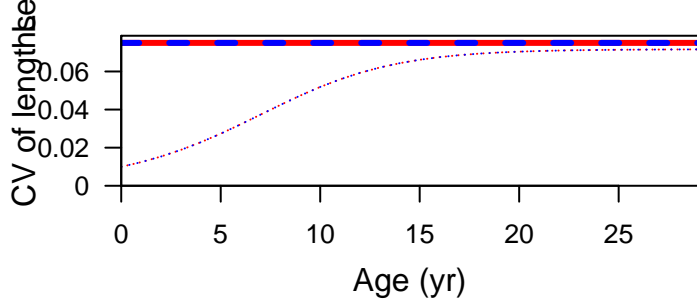
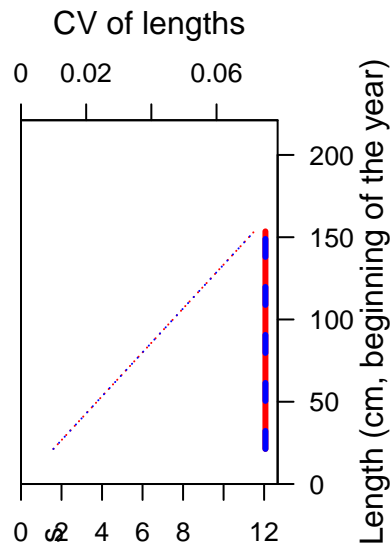
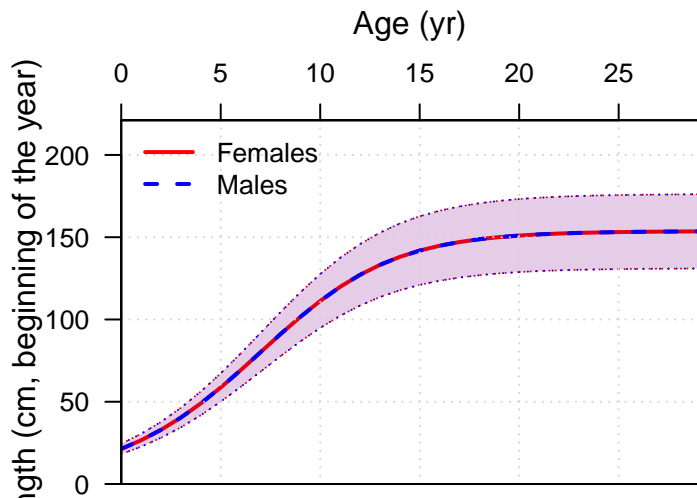
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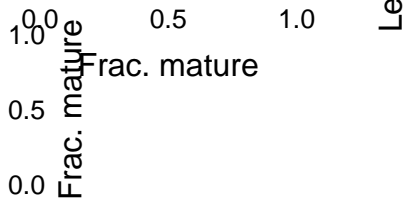
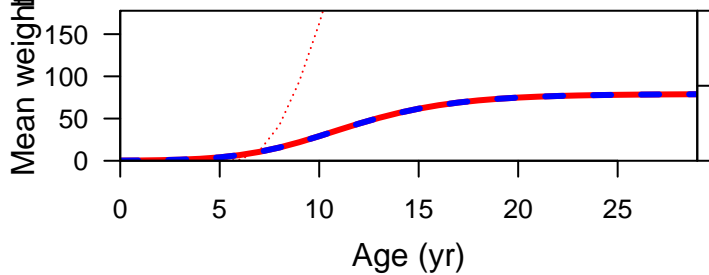
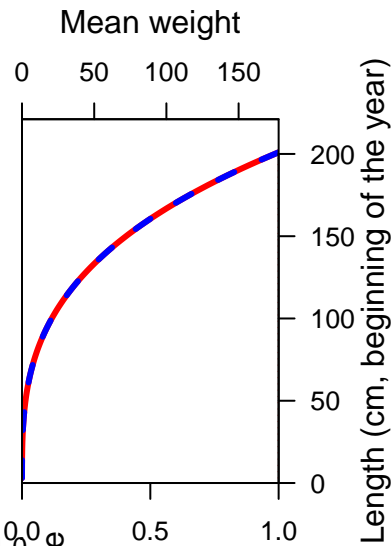
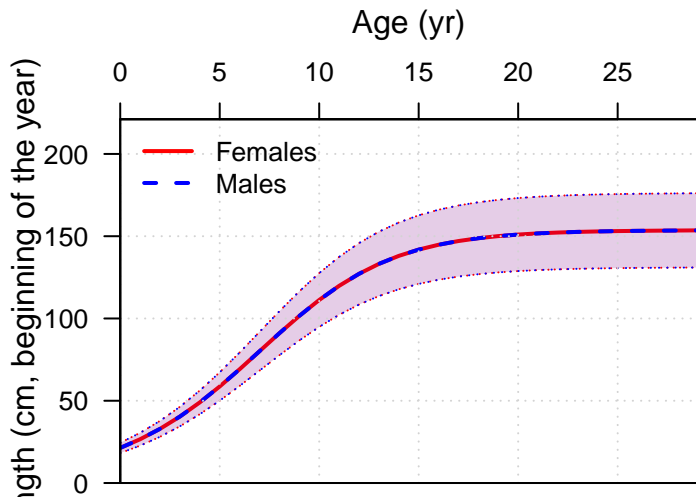
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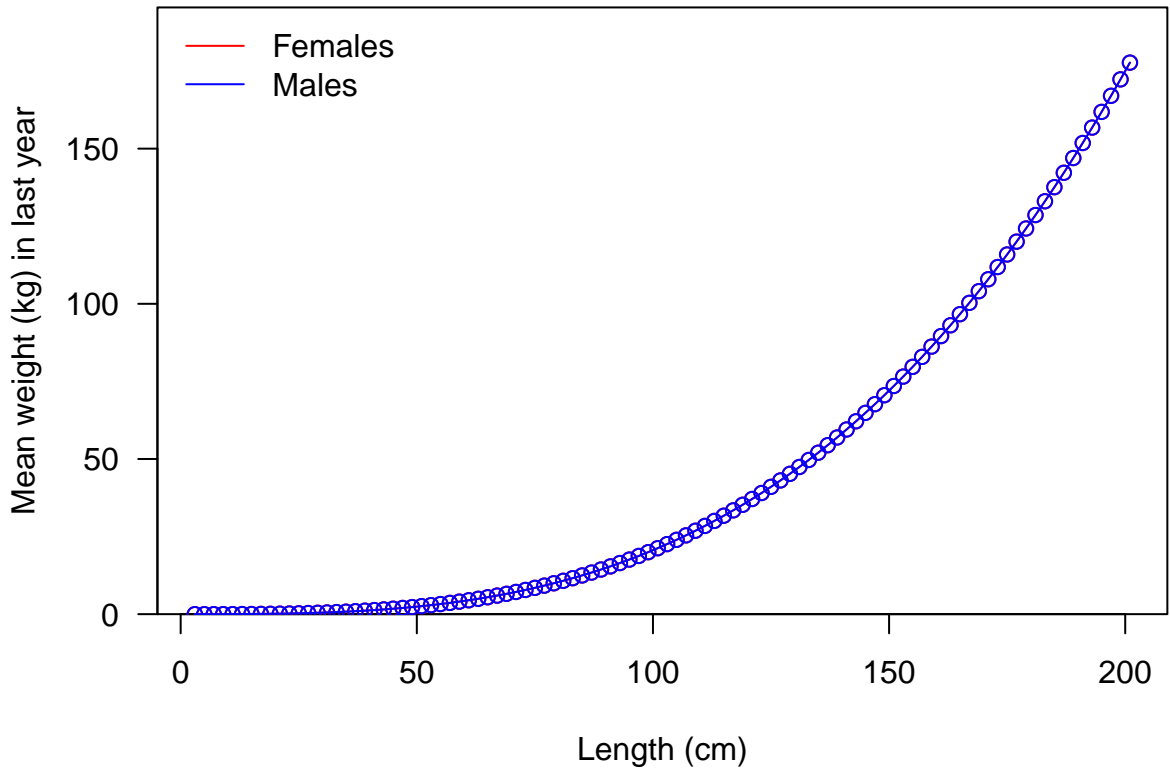


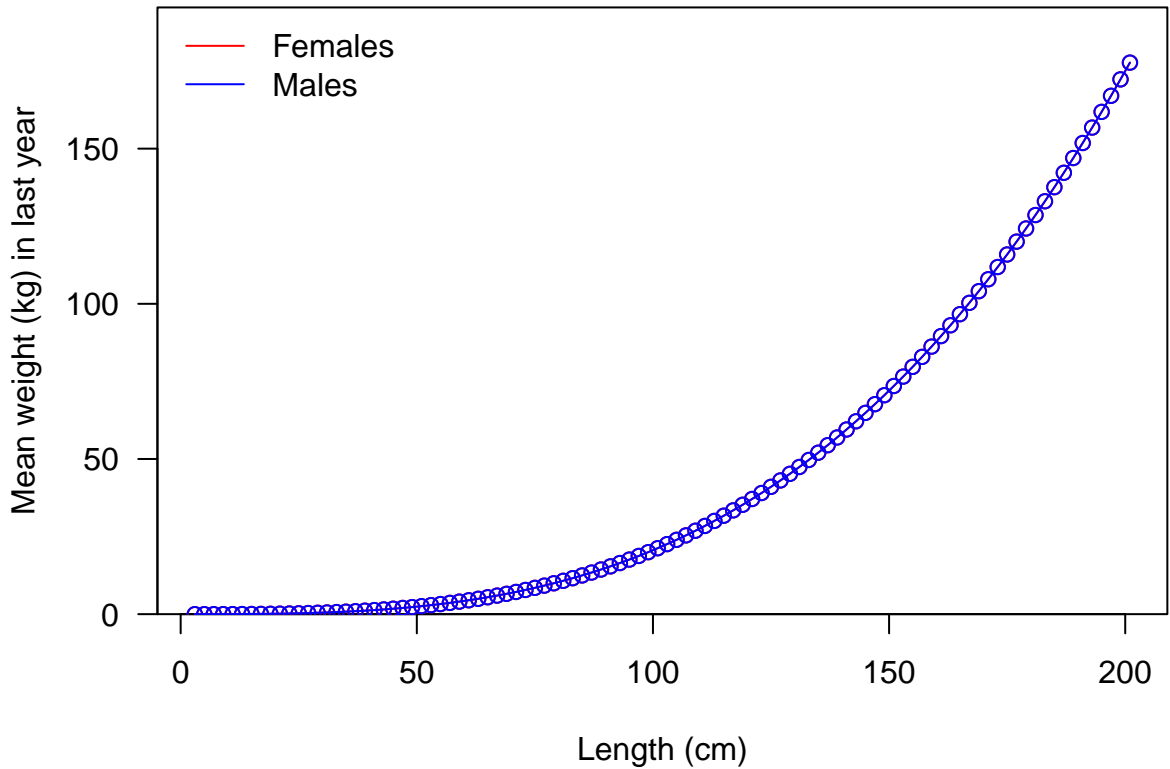
## Ending year expected growth (with 95% intervals)

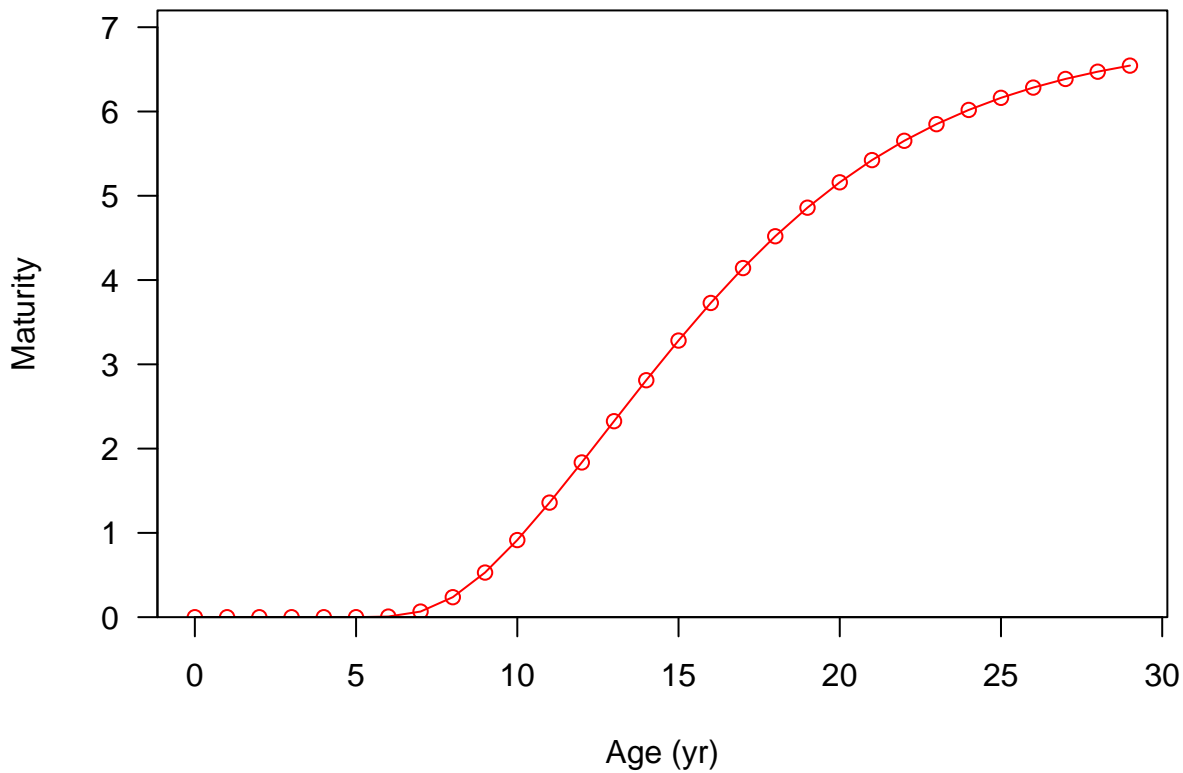


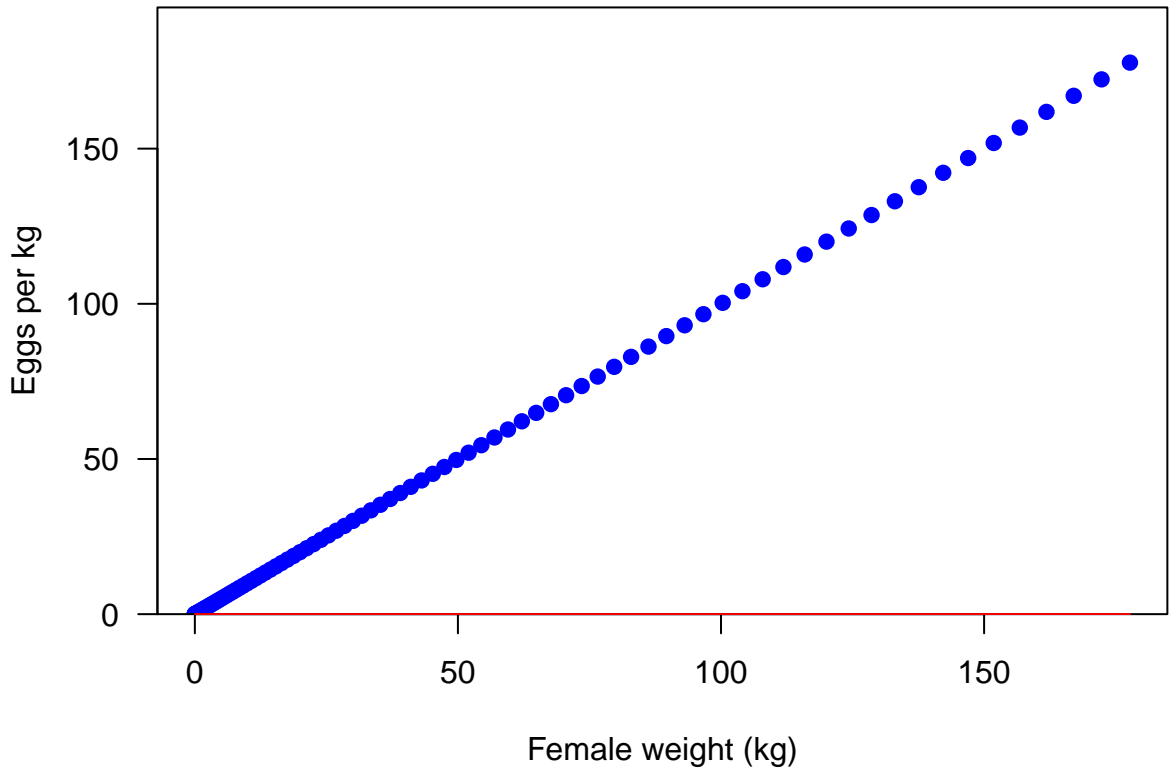


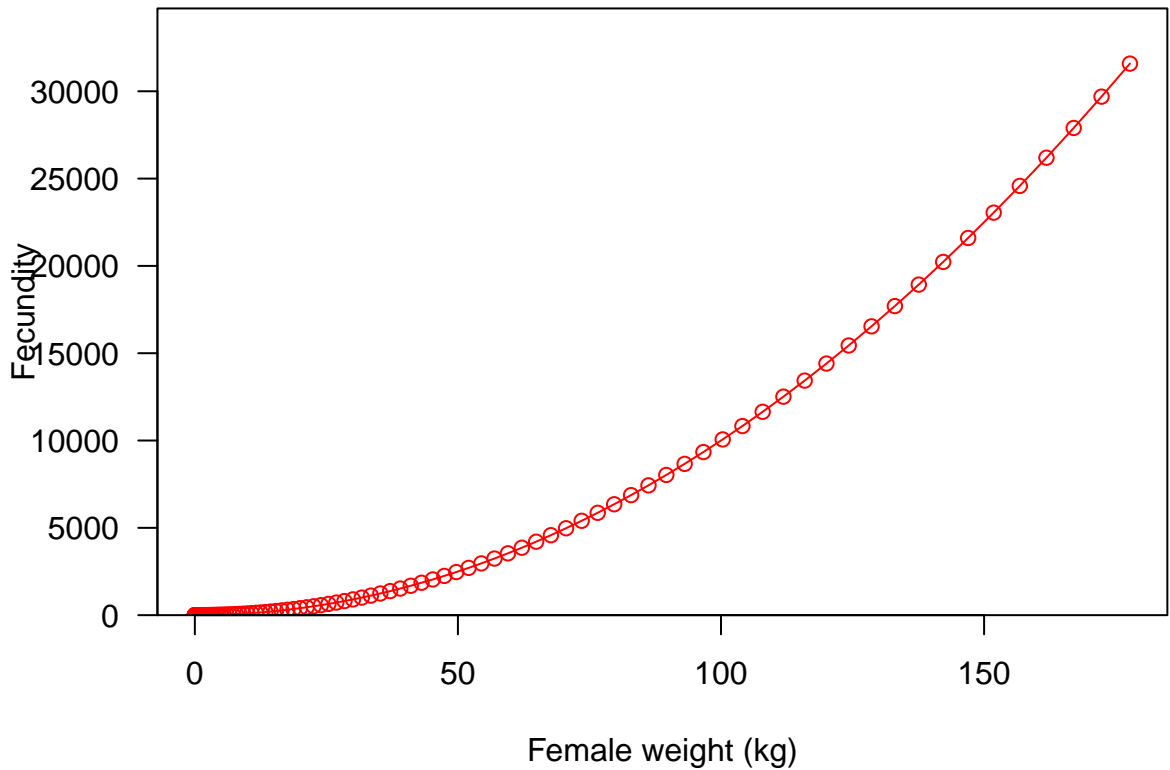




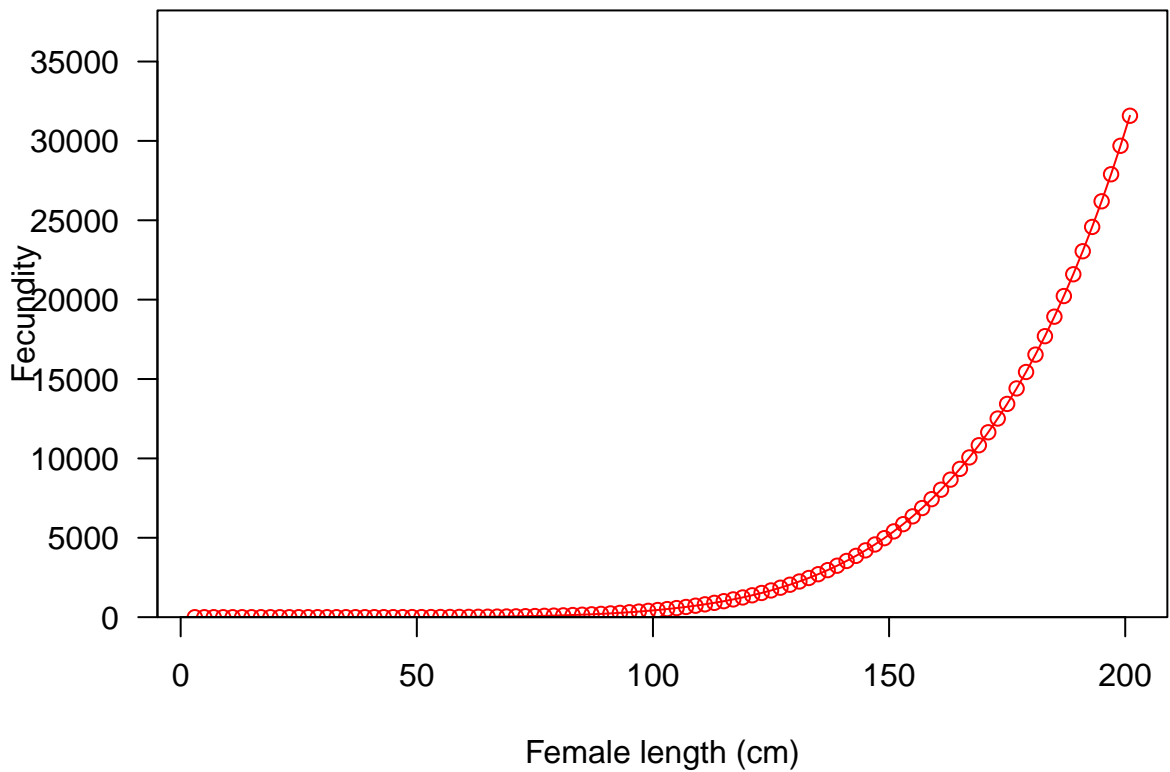


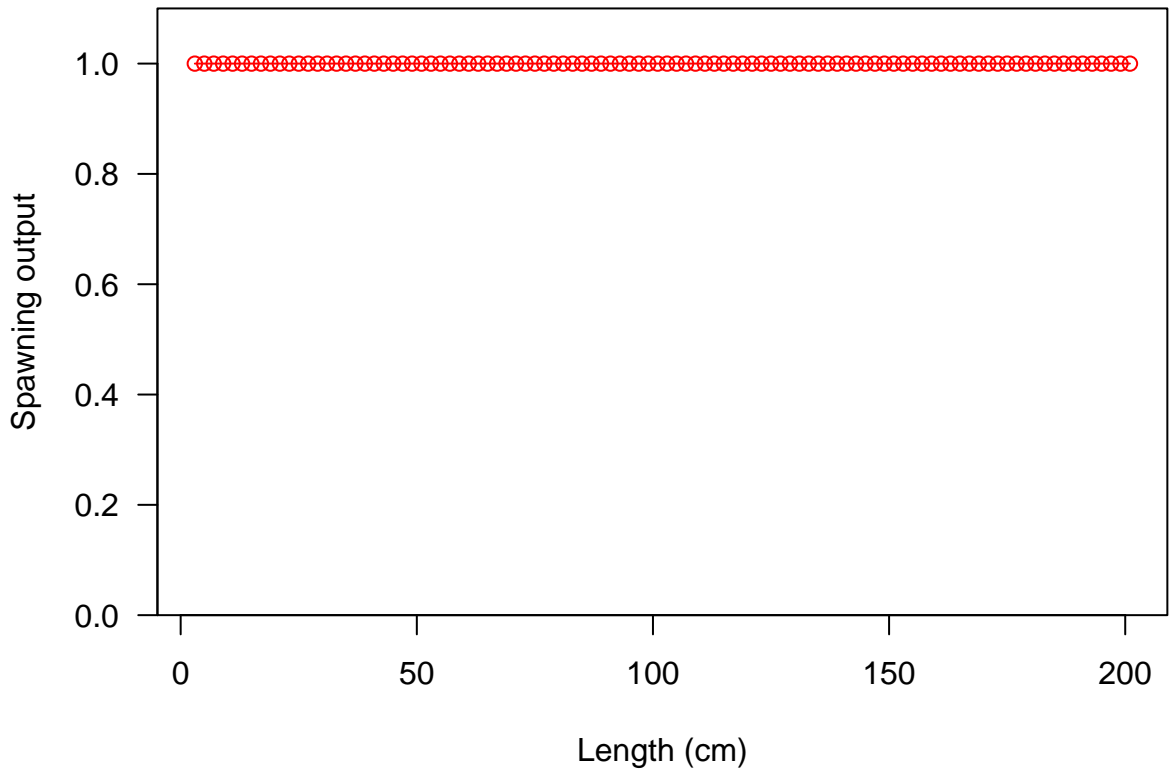


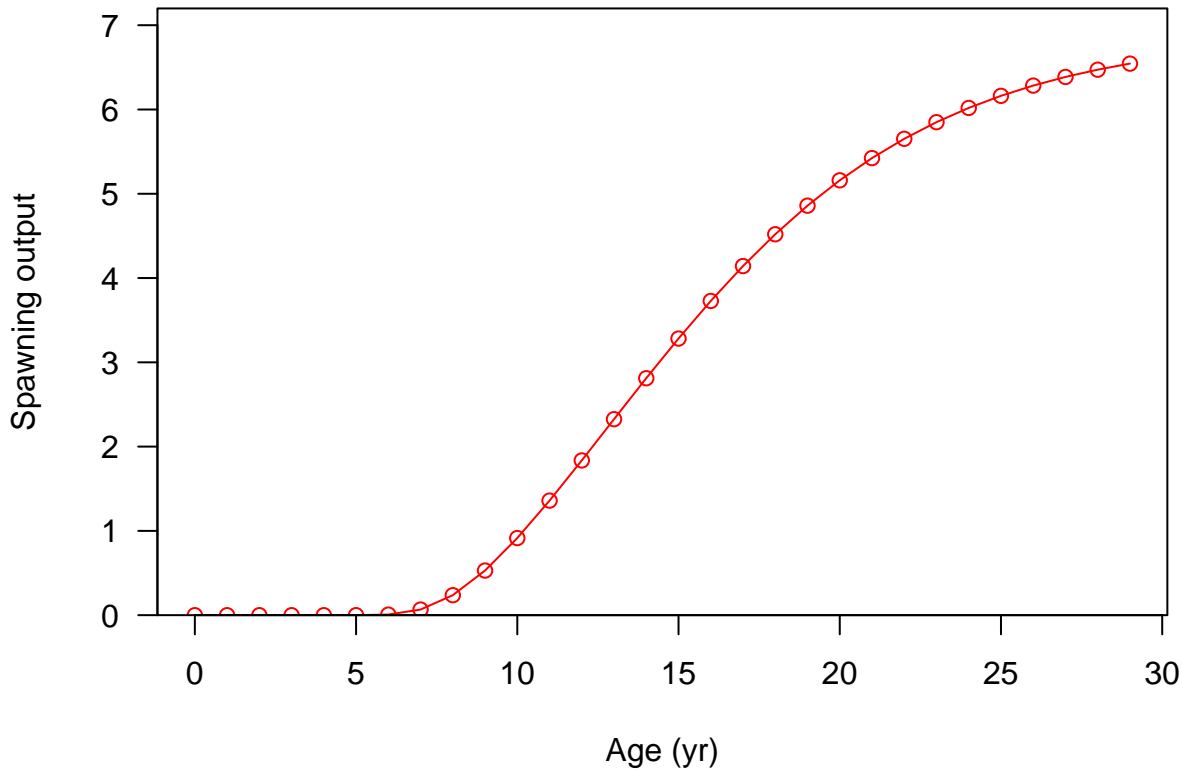




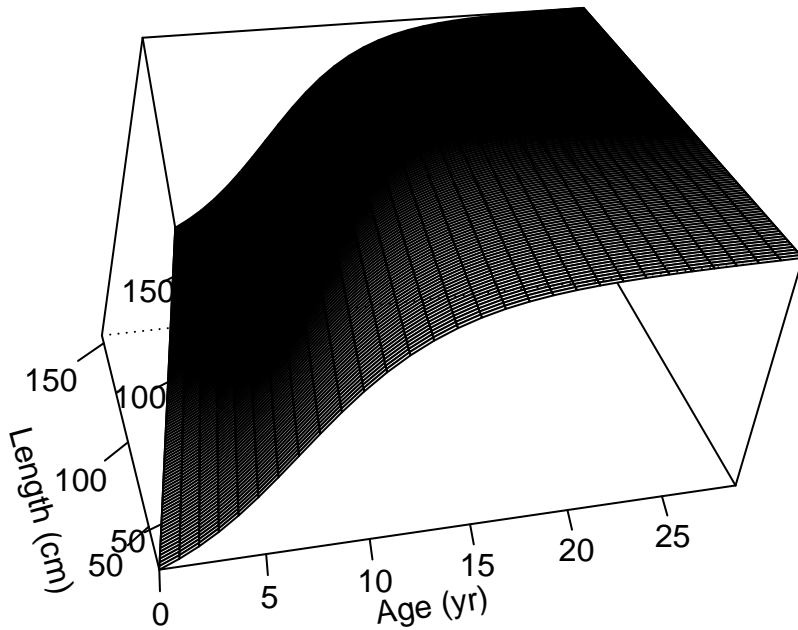




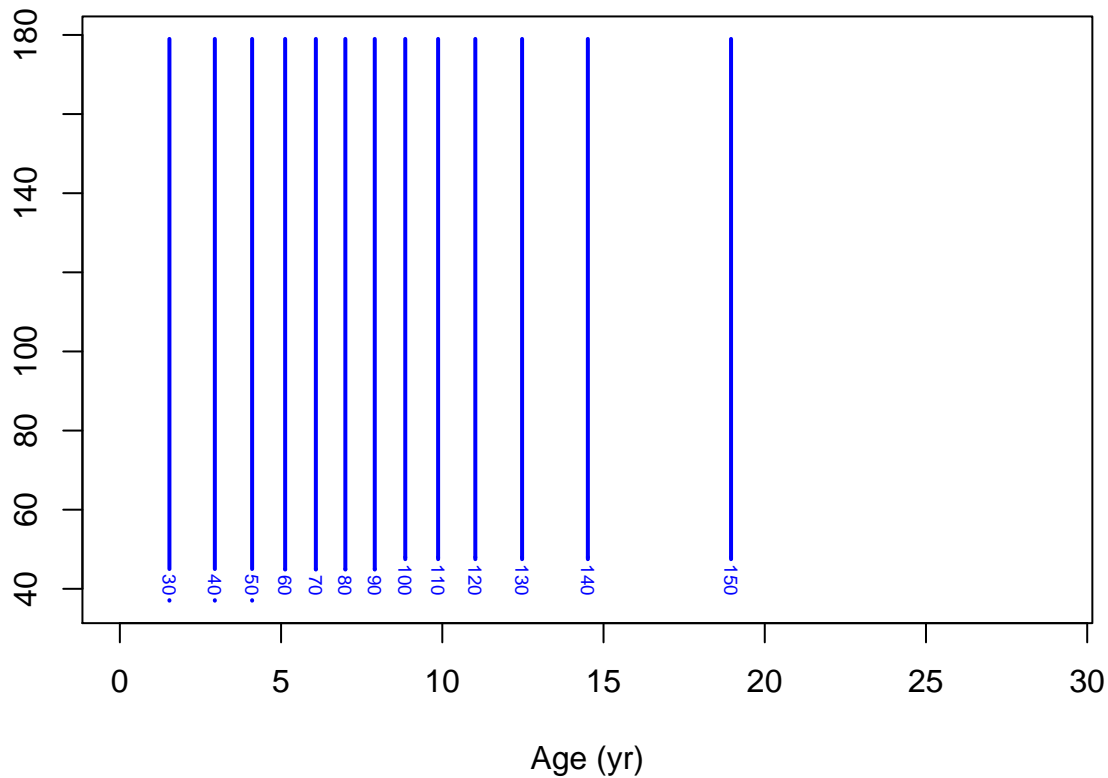




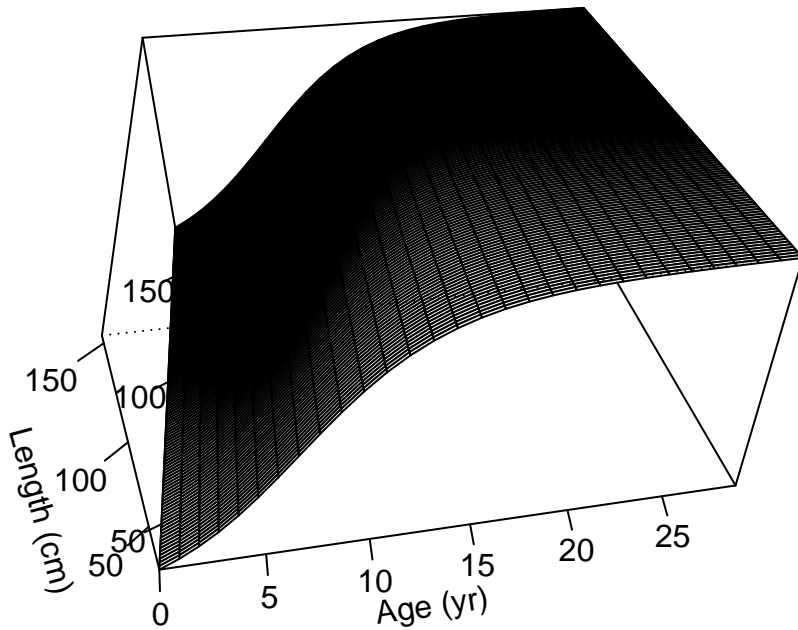
## Female time-varying growth



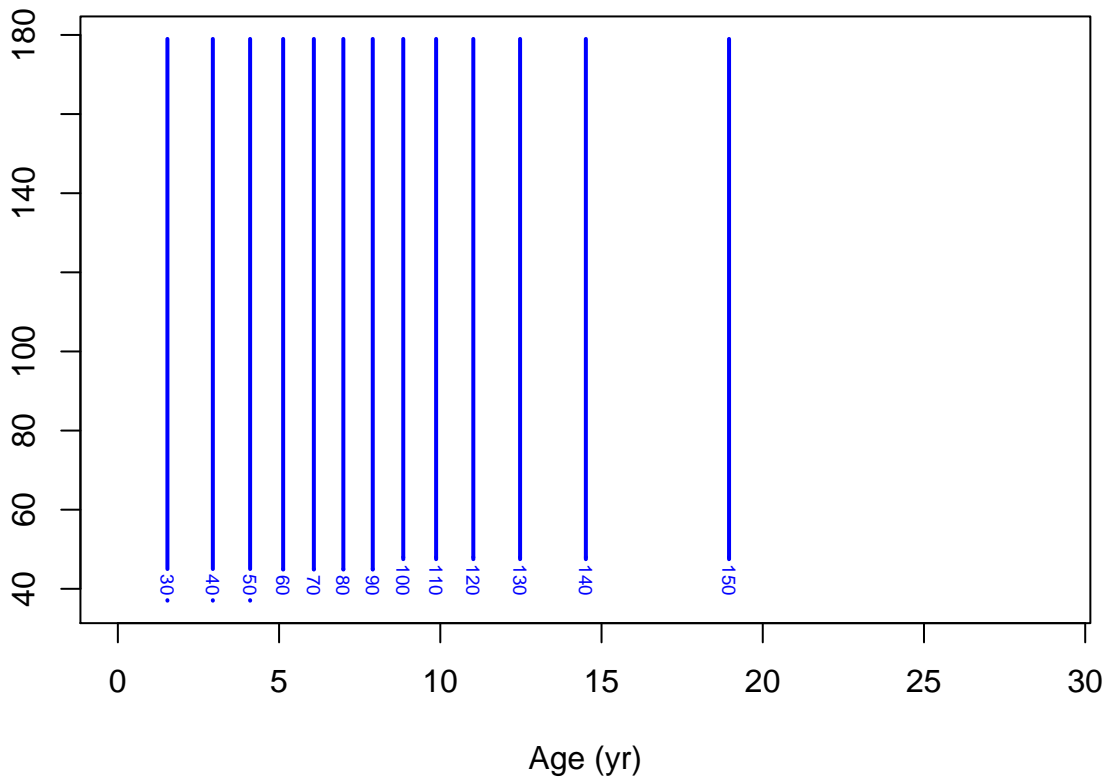
# Female time-varying growth



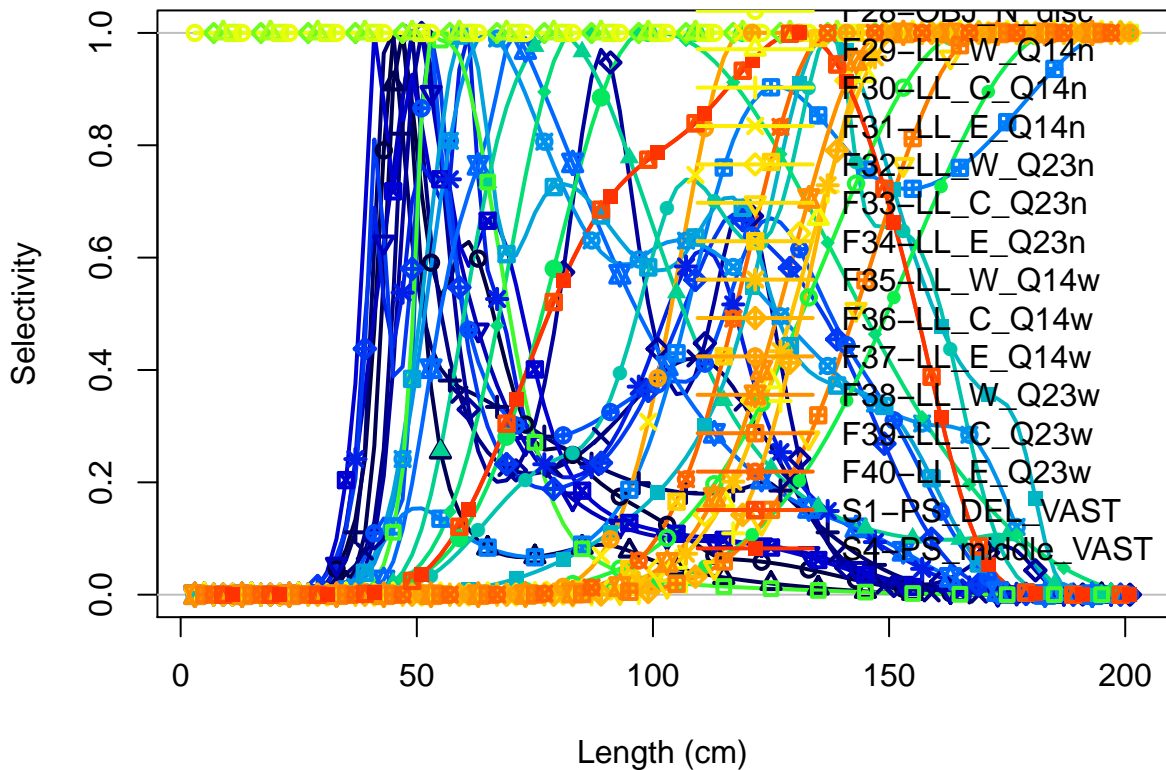
# Male time-varying growth



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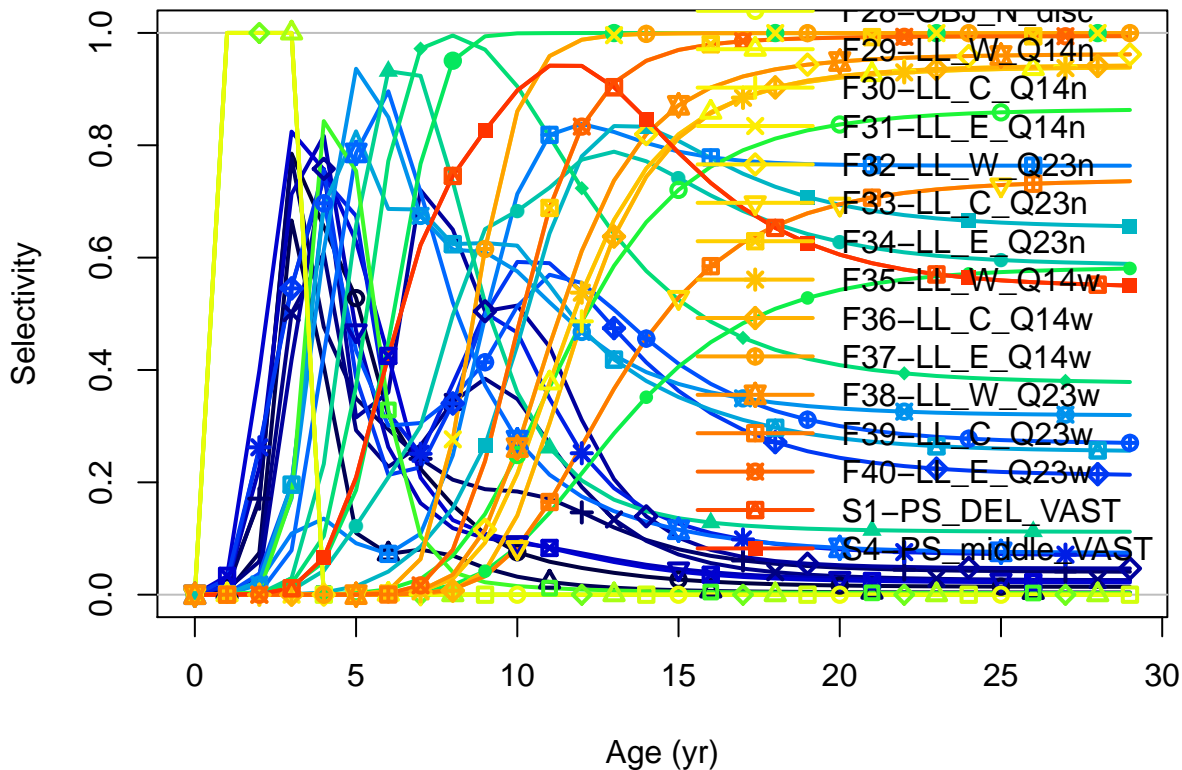
## Length-based selectivity by fleet in 180



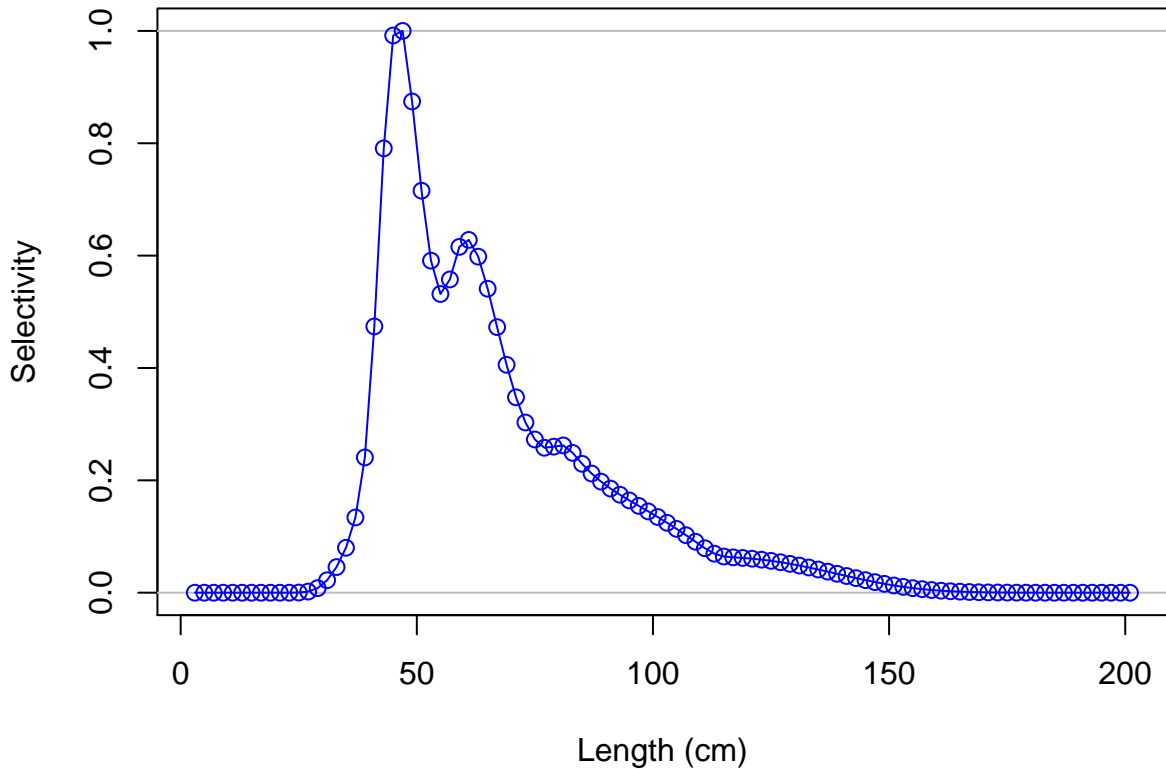




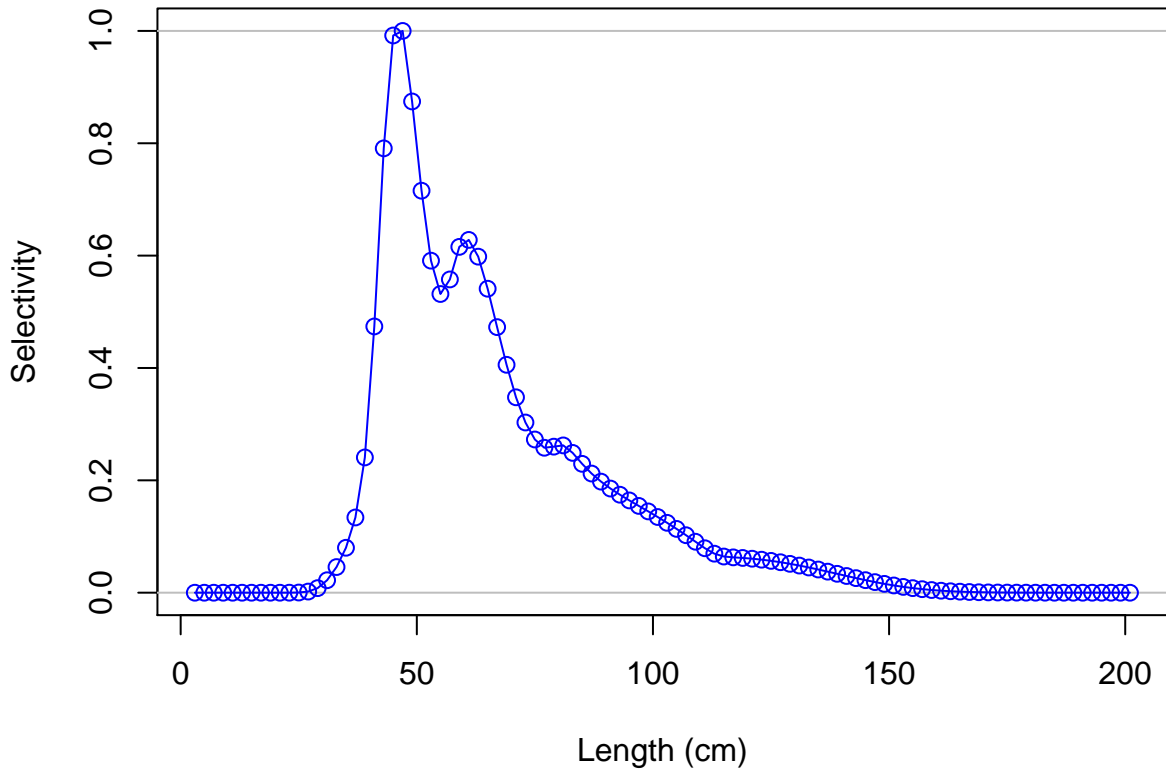
# Derived age-based from length-based selectivity by fleet in 180



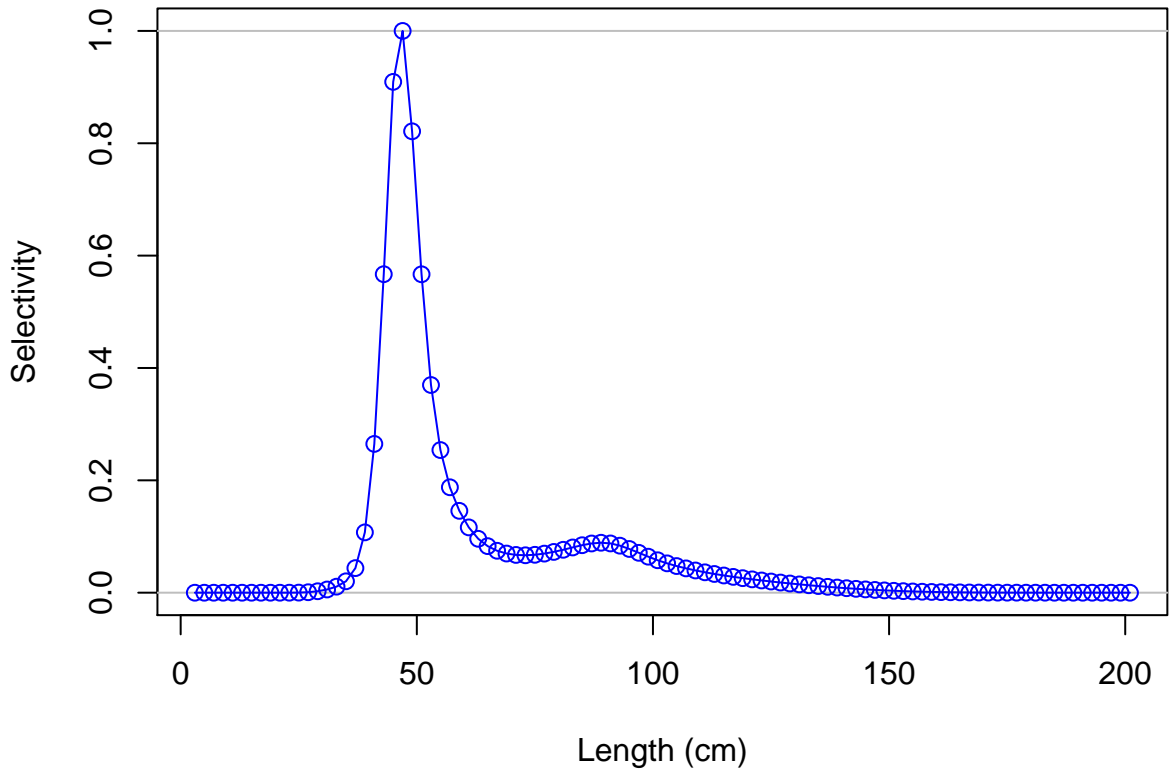
## Female ending year selectivity for F1-Obj\_N-Q14



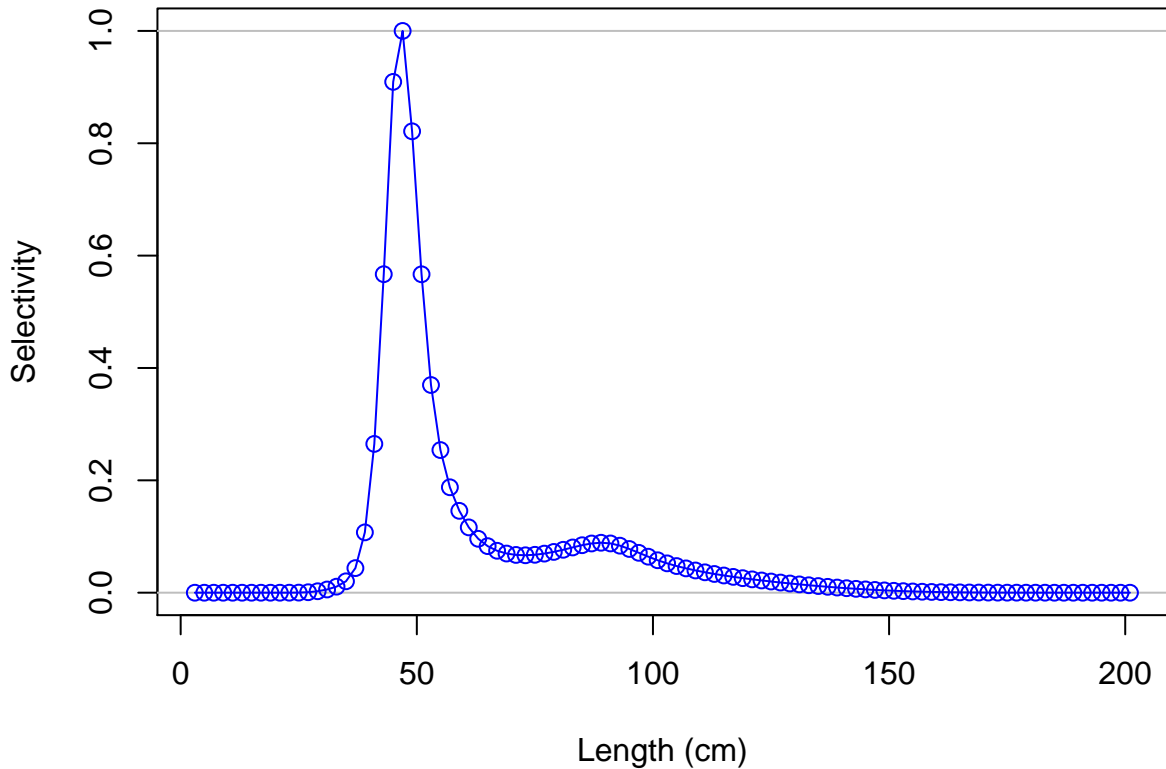
# Male ending year selectivity for F1-OBJ\_N-Q14



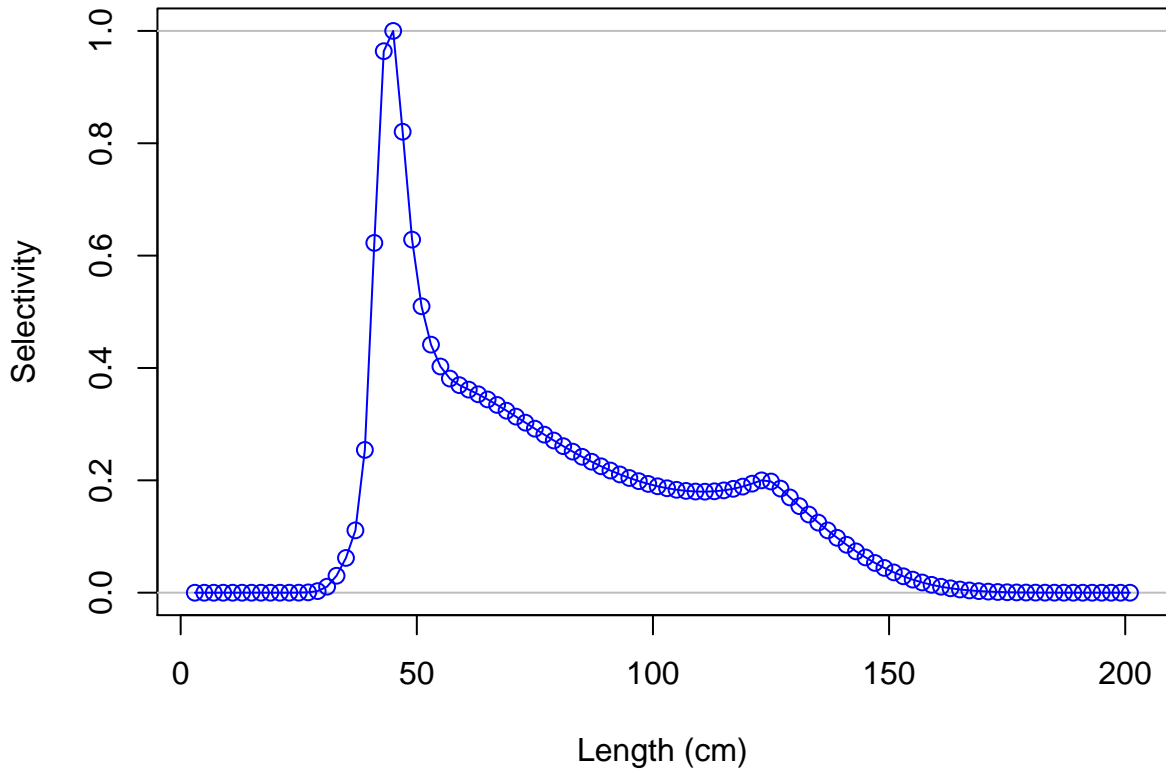
# Female ending year selectivity for F2-OBJ\_Nc\_Q14



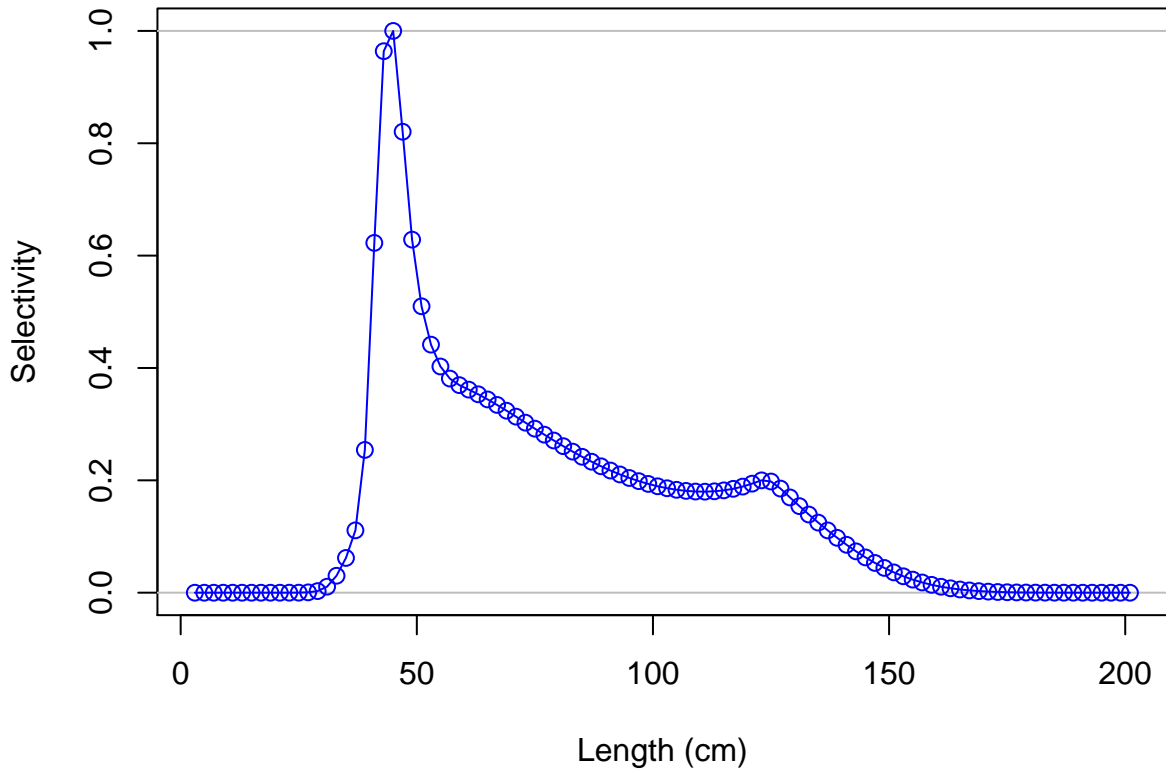
### Male ending year selectivity for F2-OBJ\_Nc\_Q14



## Female ending year selectivity for F3-OBJ\_C\_Q14

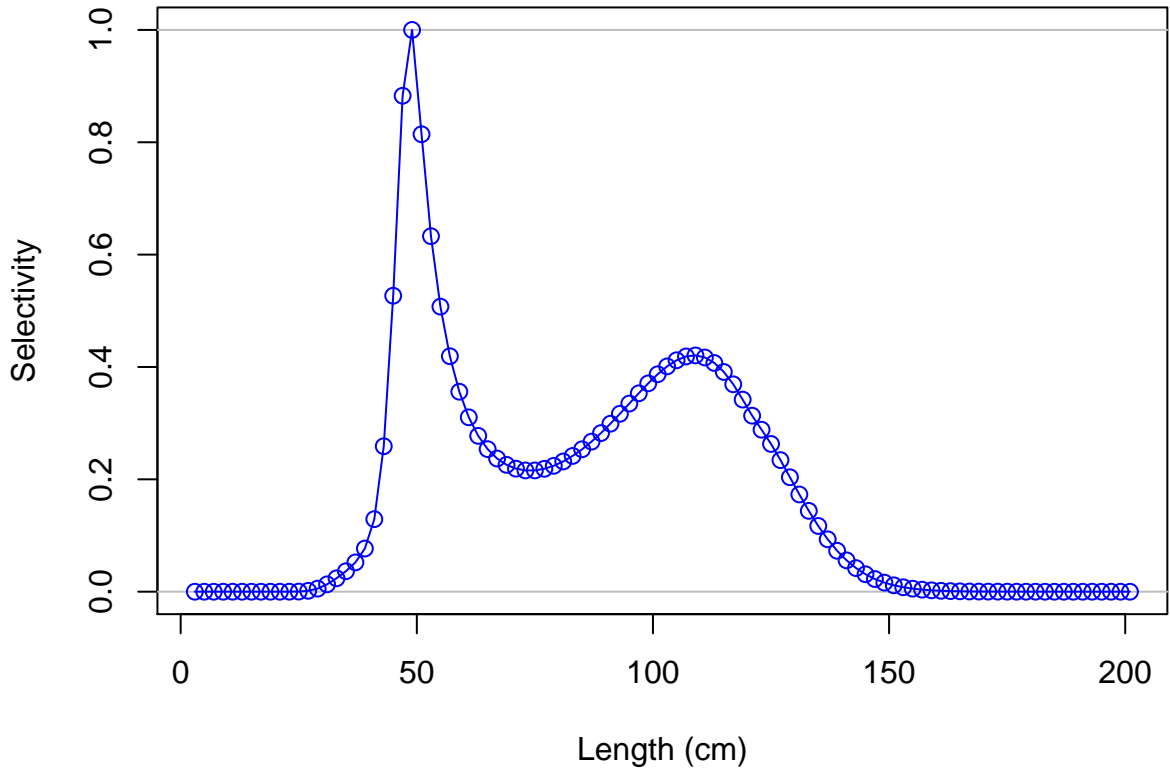


### Male ending year selectivity for F3-OBJ\_C\_Q14

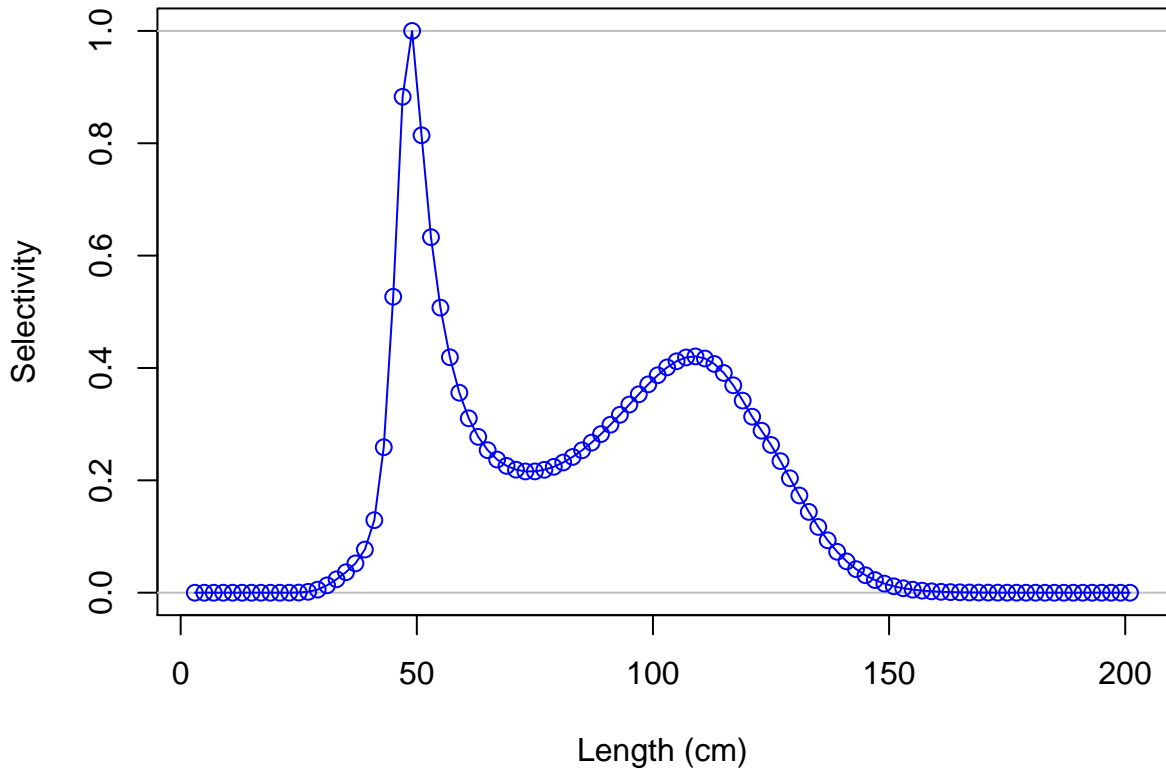




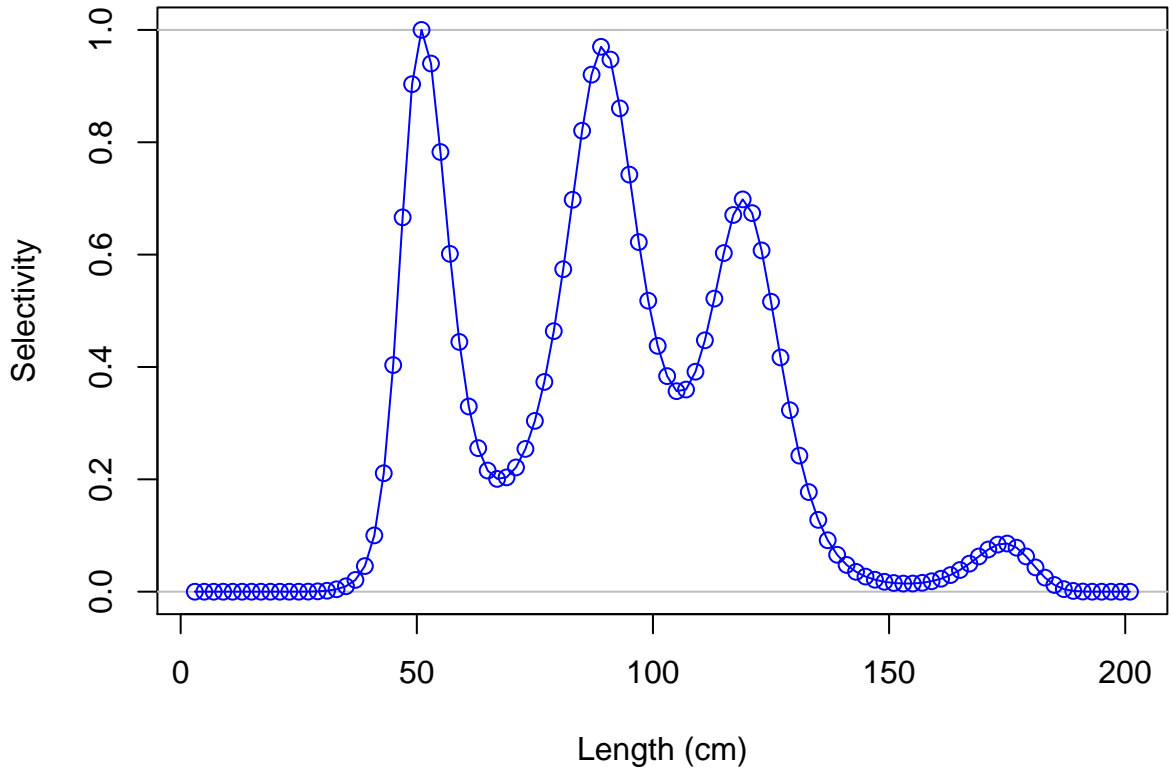
# Female ending year selectivity for F4-OBJ\_Cc\_Q14



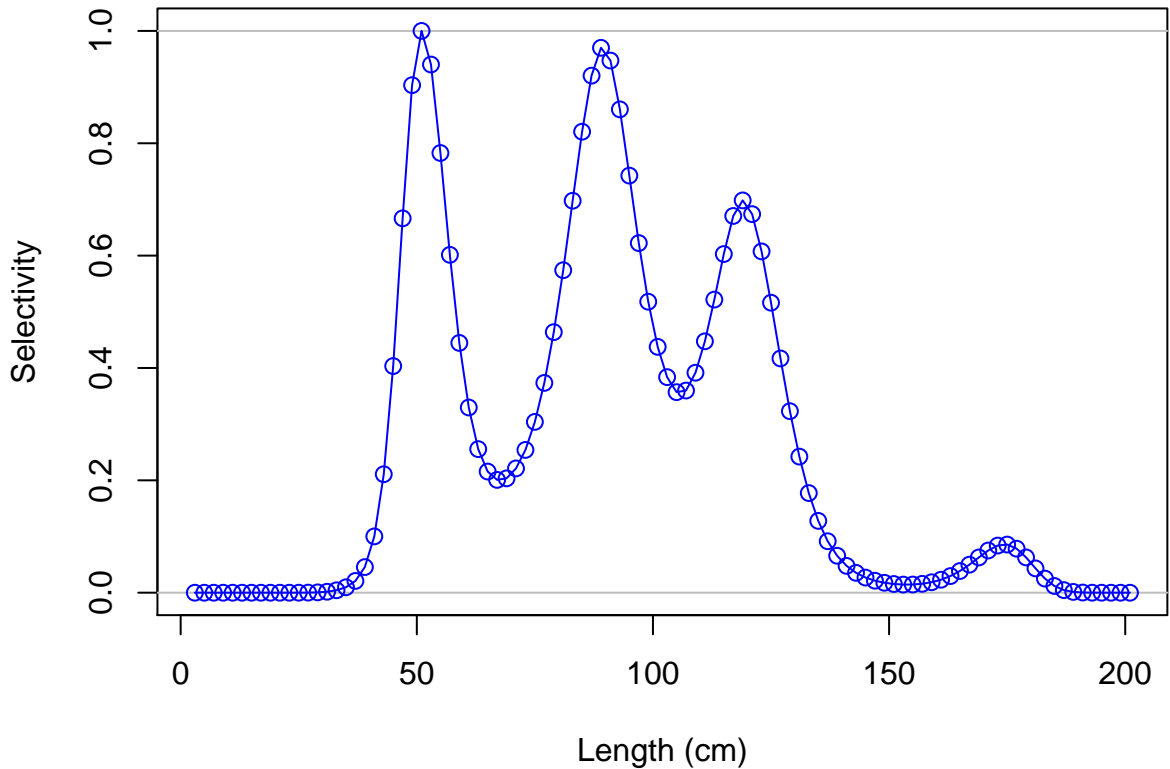
# Male ending year selectivity for F4-Obj\_Cc\_Q14



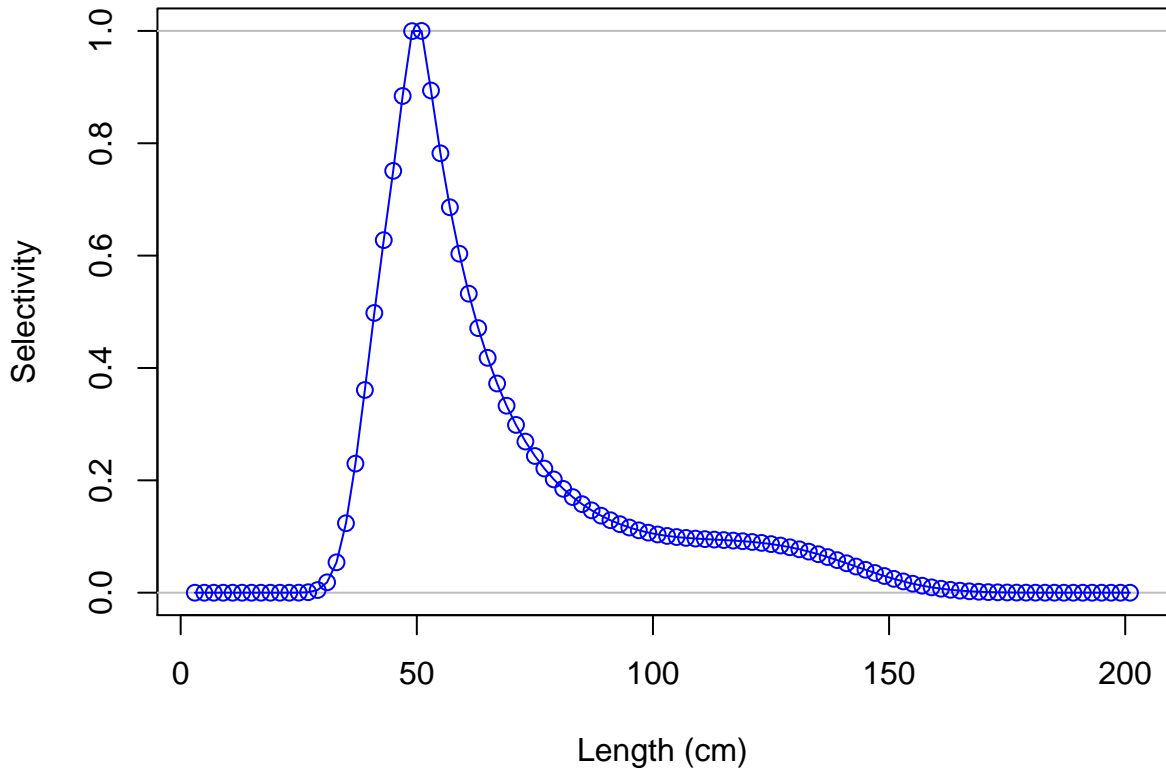
## Female ending year selectivity for F5-OBJ\_S\_Q14



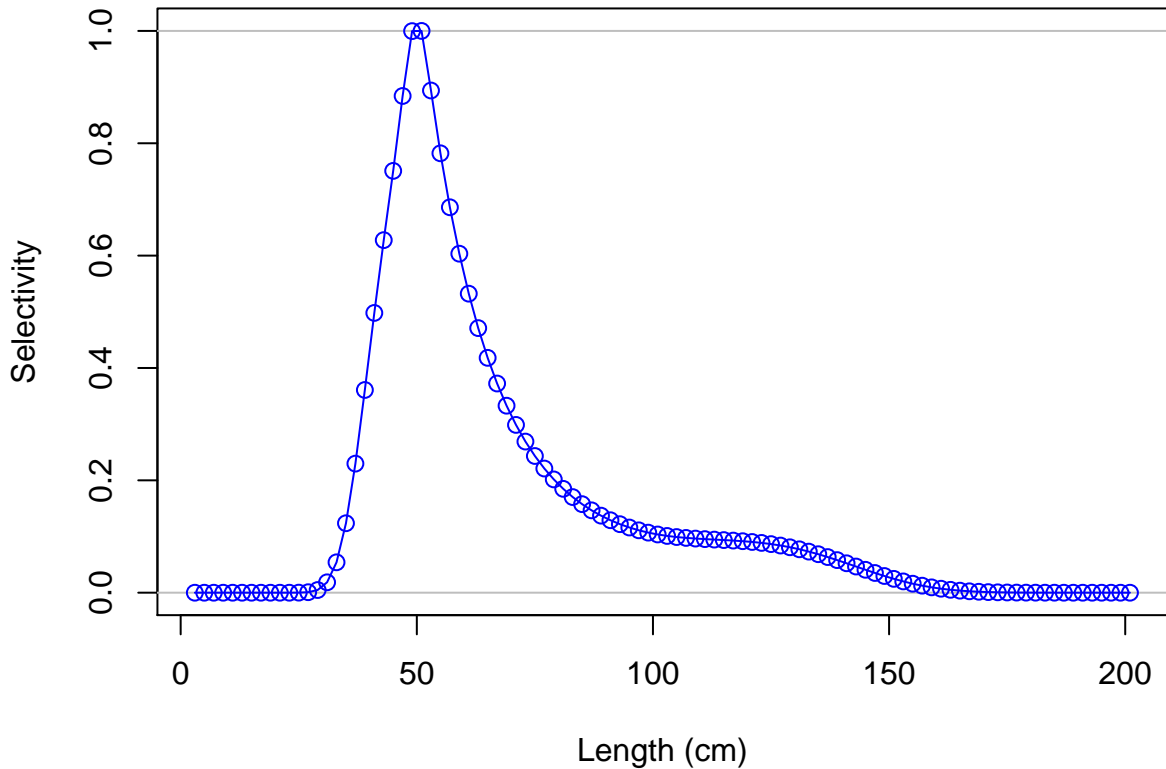
# Male ending year selectivity for F5-OBJ\_S\_Q14



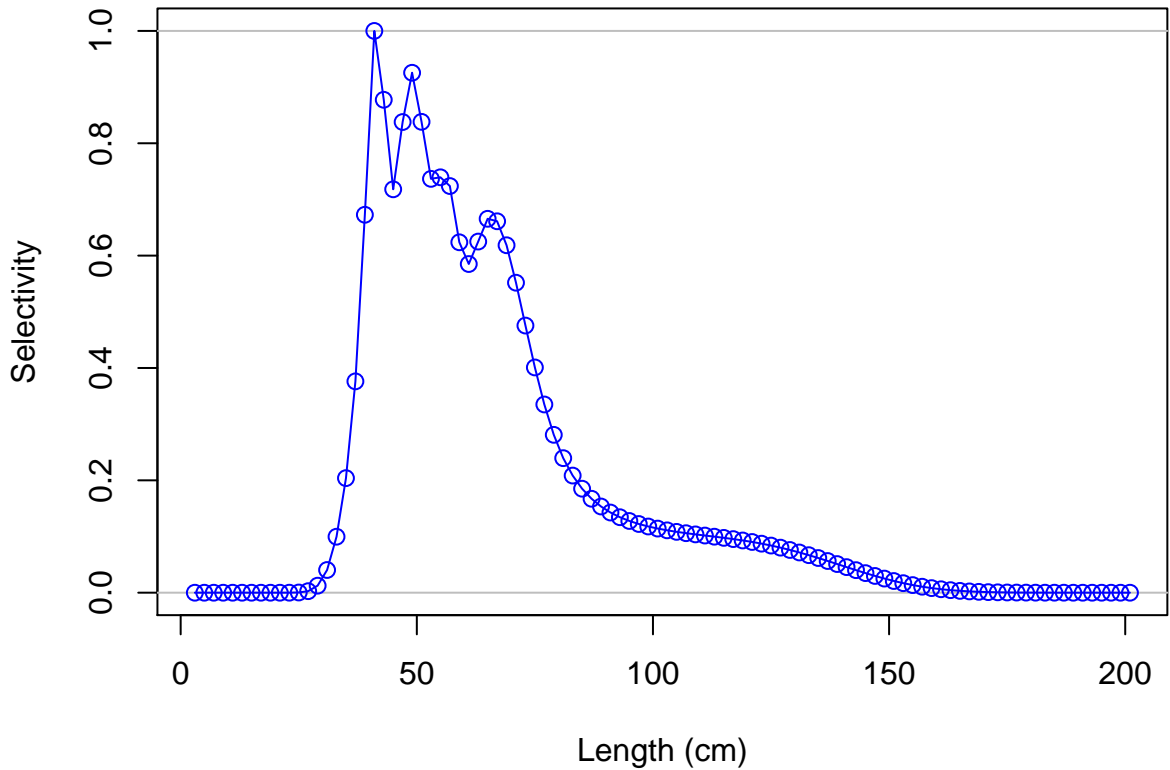
## Female ending year selectivity for F6-OBJ\_N\_Q23



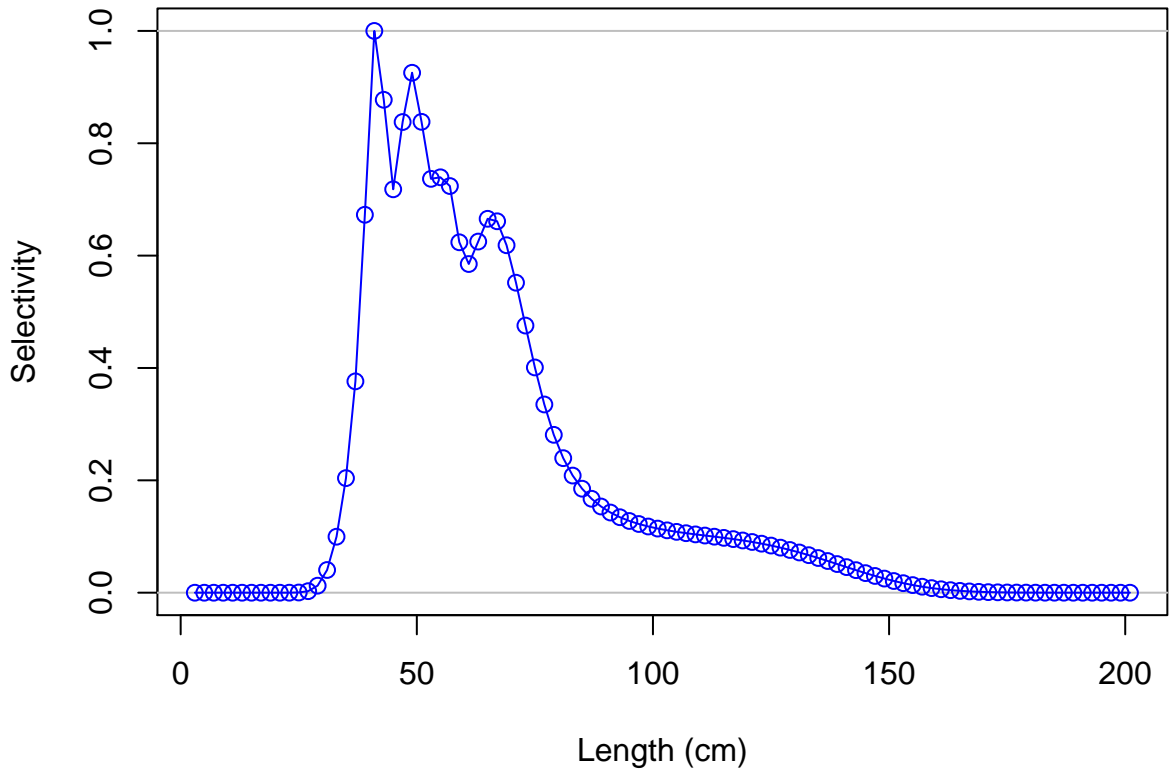
### Male ending year selectivity for F6-OBJ\_N\_Q23



### Female ending year selectivity for F7-OBJ\_Nc\_Q23

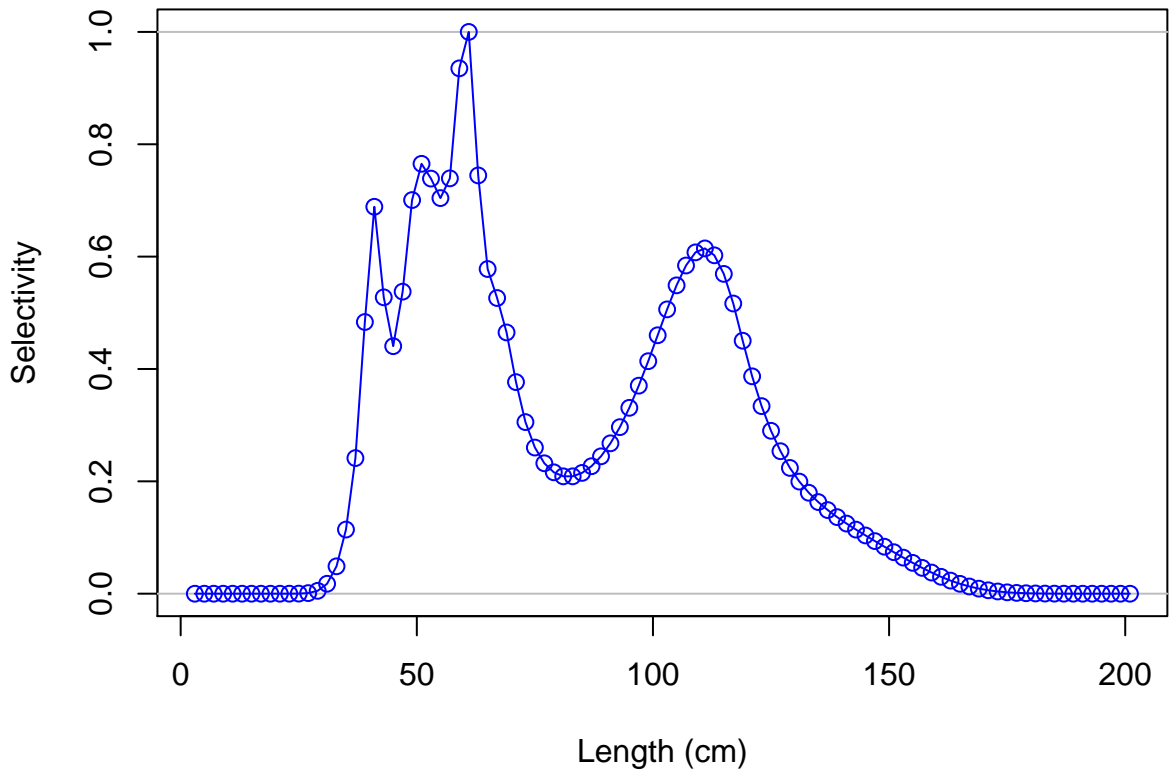


# Male ending year selectivity for F7-OBJ\_Nc\_Q23

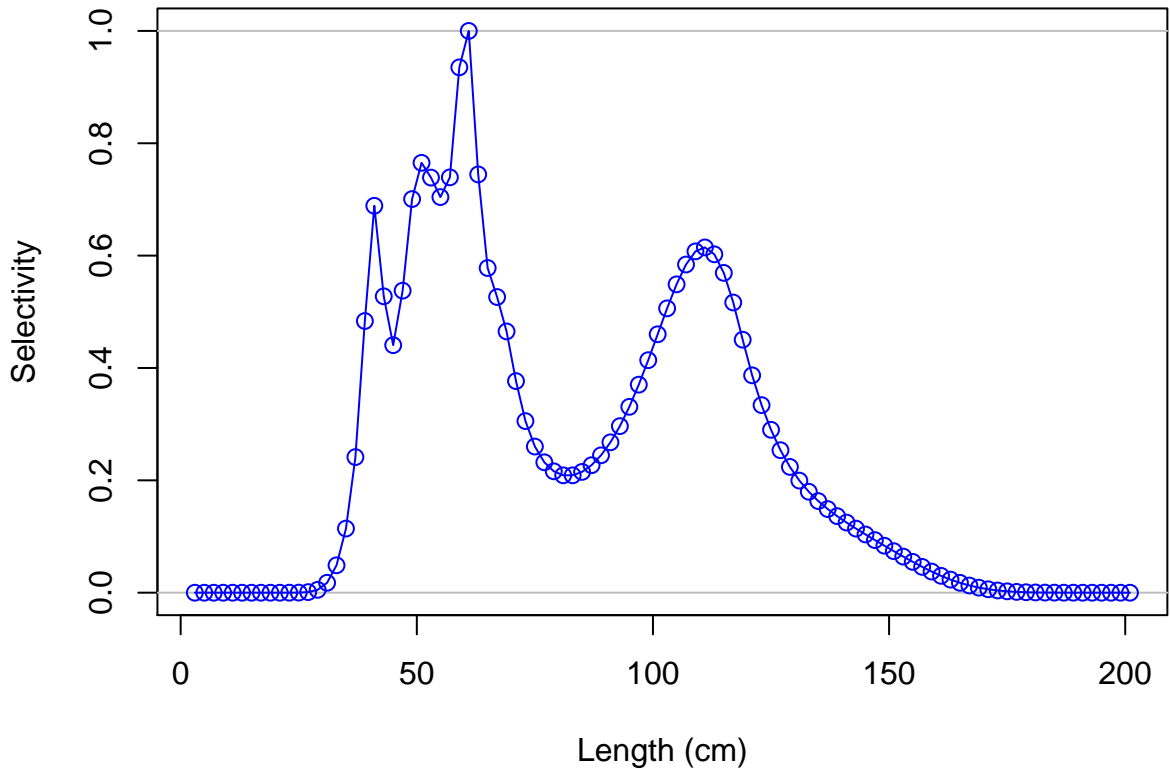




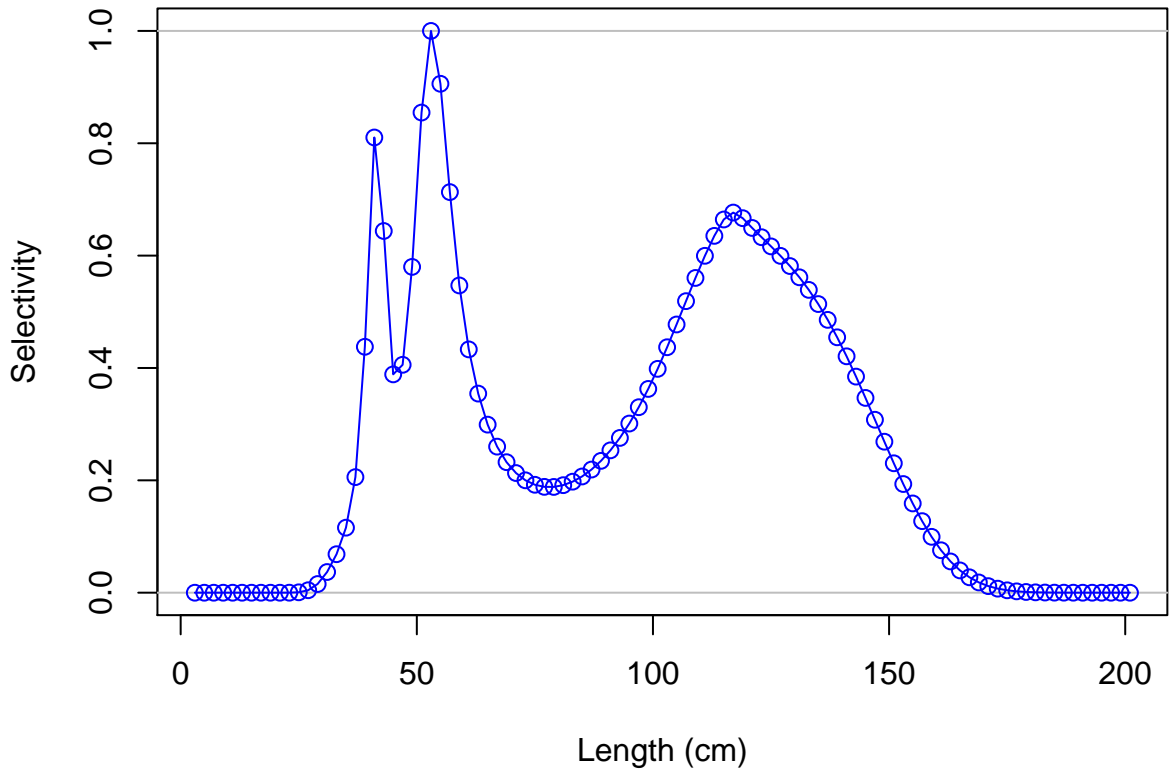
## Female ending year selectivity for F8-OBJ\_C\_Q23



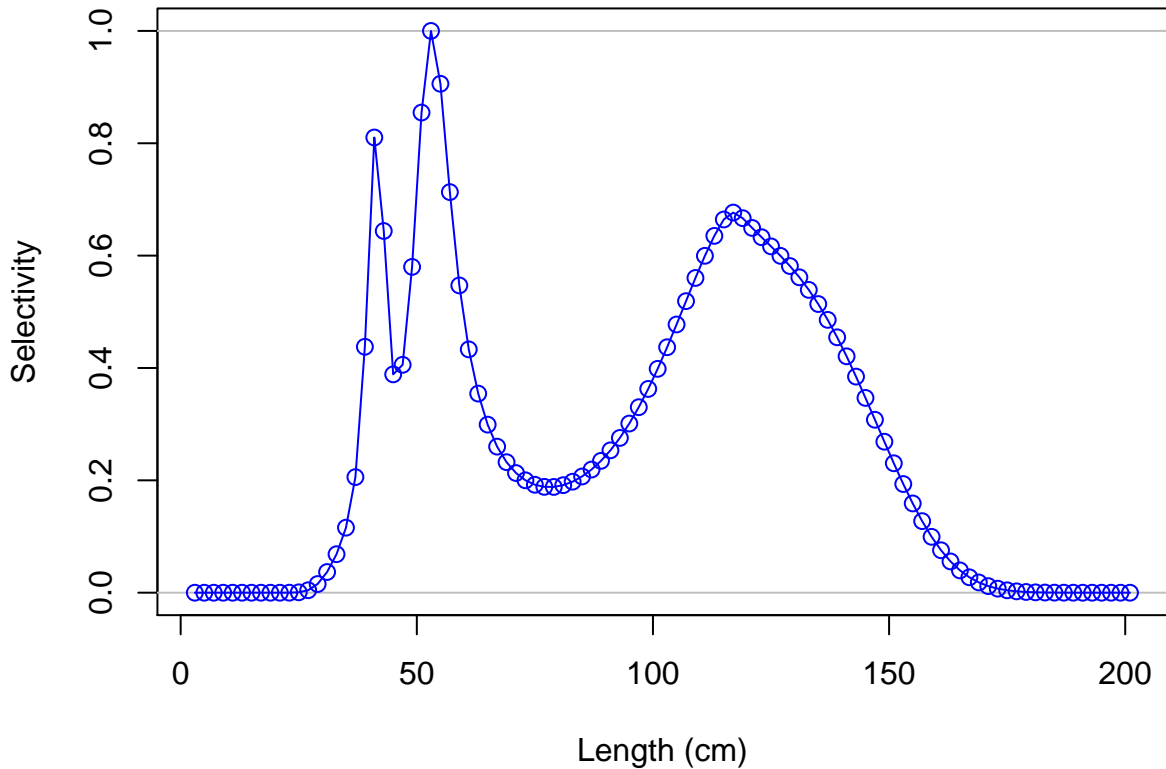
# Male ending year selectivity for F8-OBJ\_C\_Q23



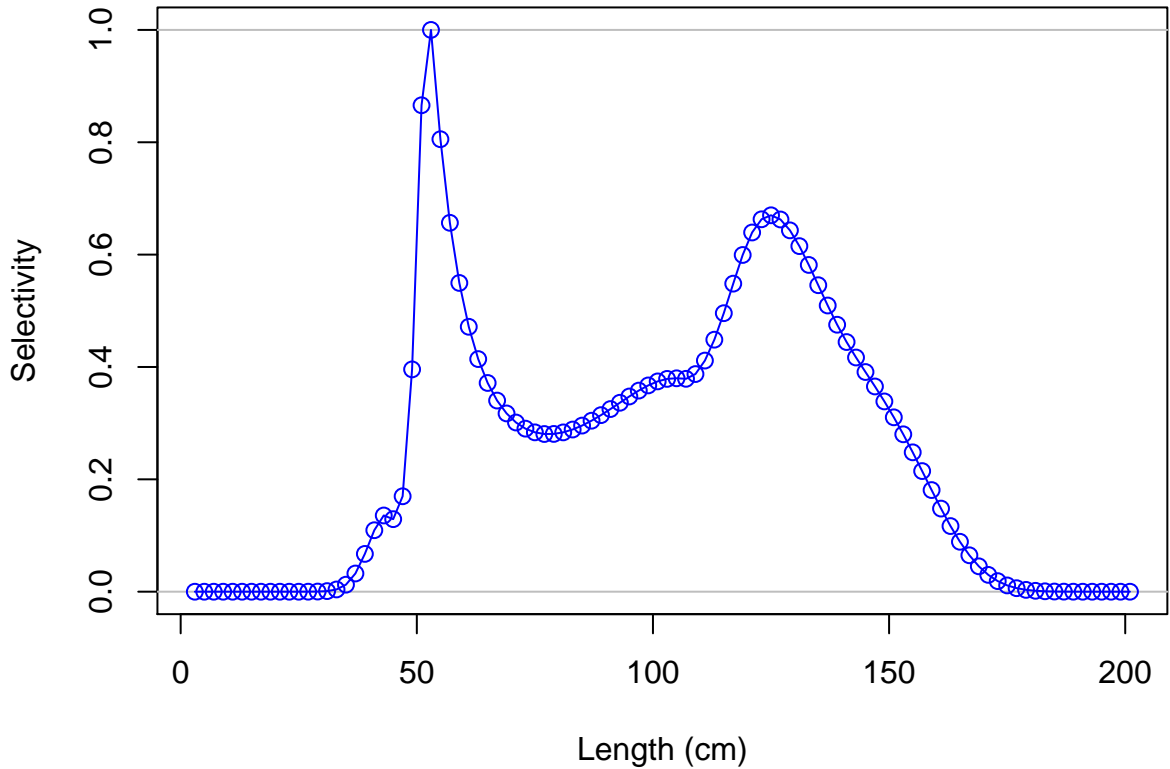
## Female ending year selectivity for F9-OBJ\_Cc\_Q23



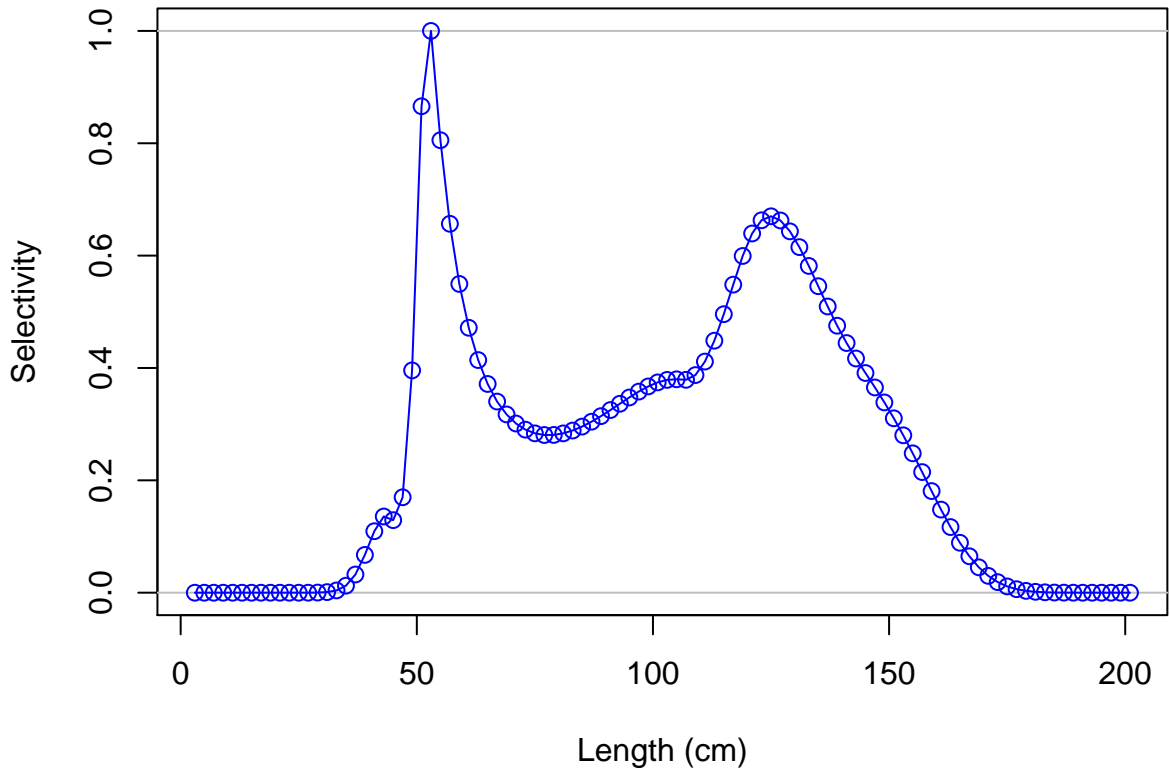
# Male ending year selectivity for F9-Obj\_Cc\_Q23



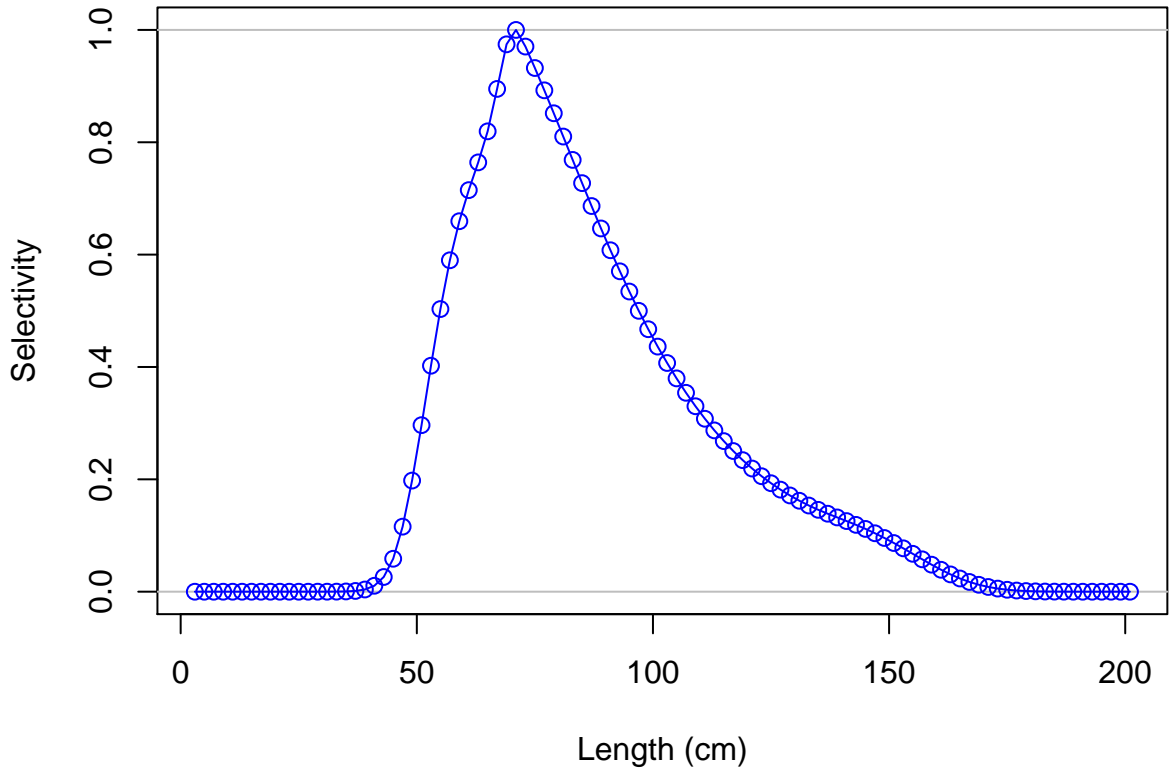
# Female ending year selectivity for F10-OBJ\_S\_Q23



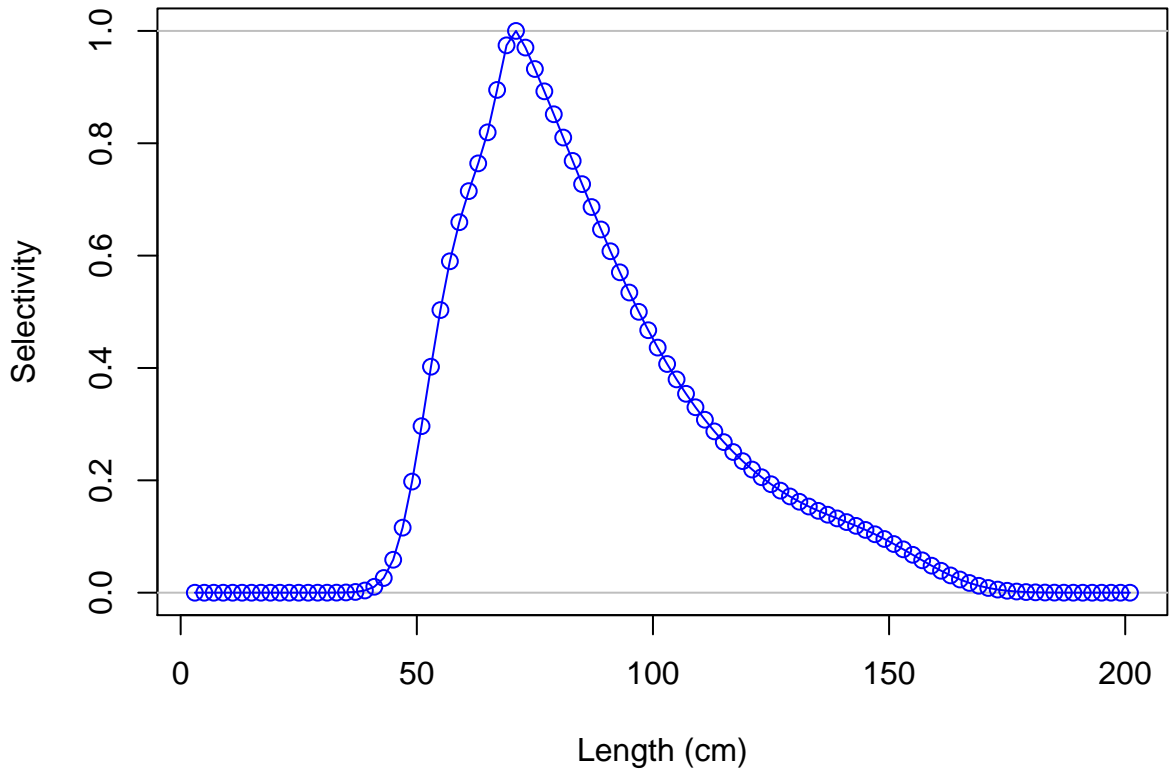
# Male ending year selectivity for F10-OBJ\_S\_Q23



## Female ending year selectivity for F11-NOA\_N

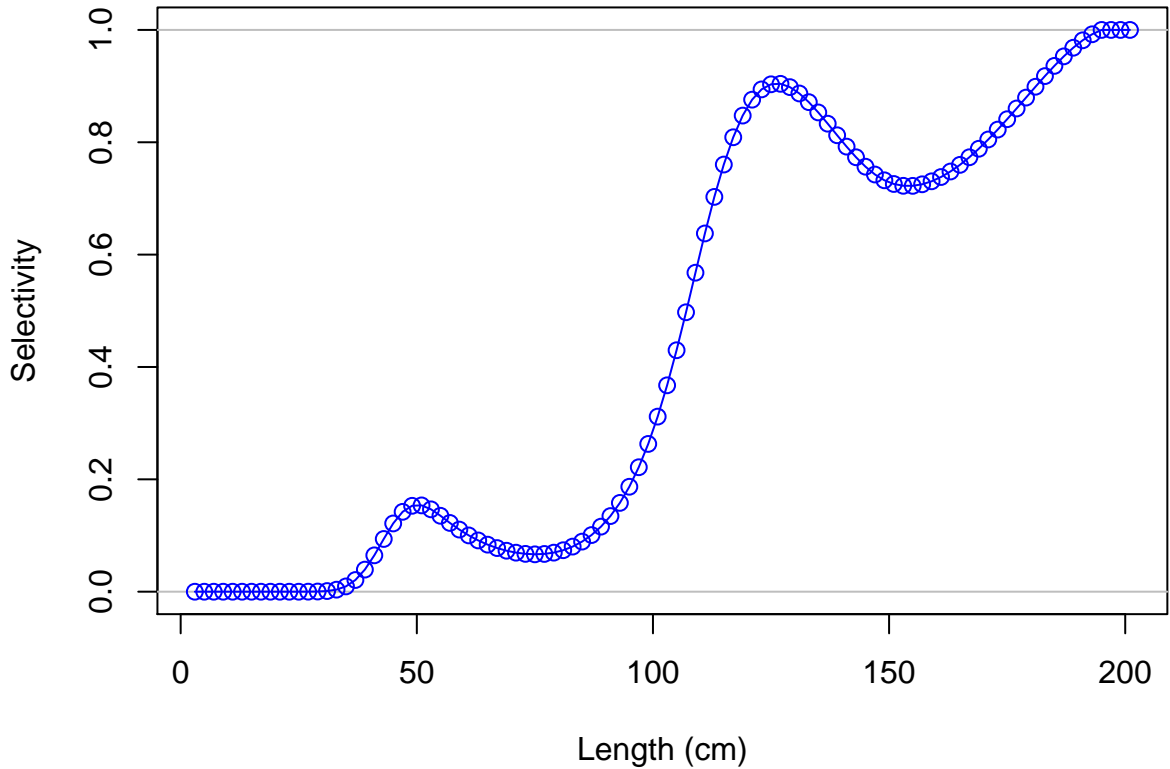


# Male ending year selectivity for F11-NOA\_N

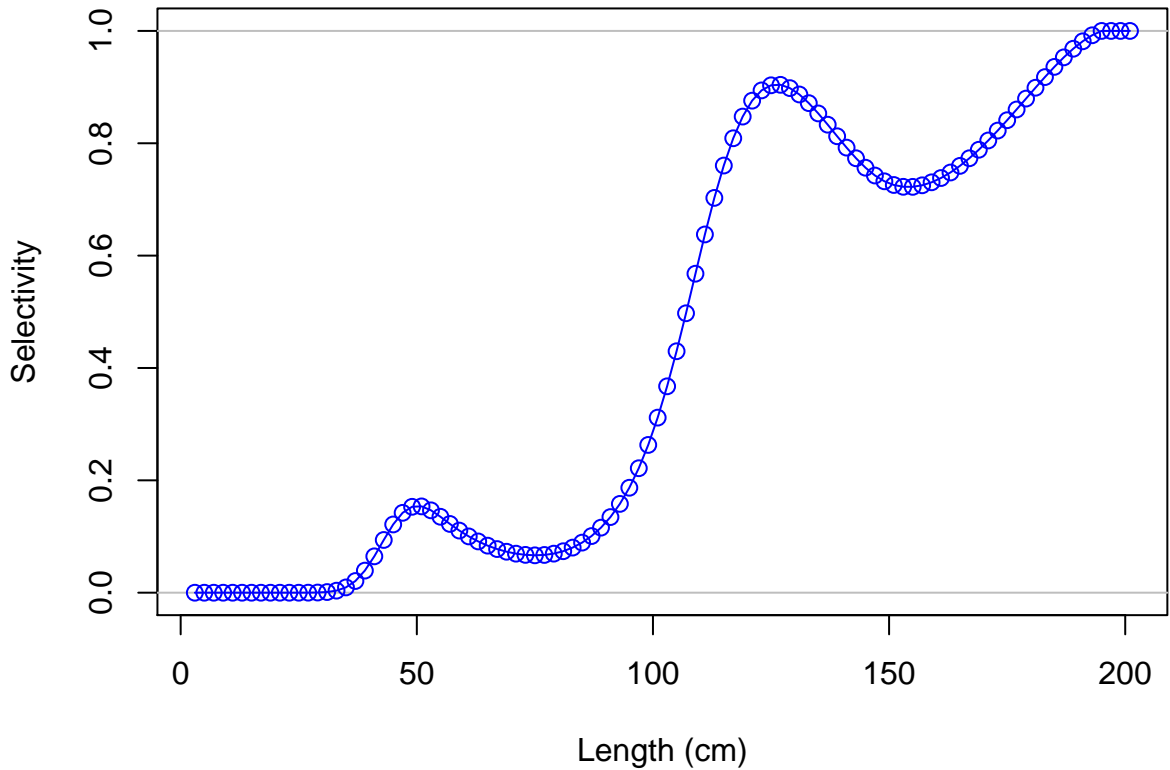




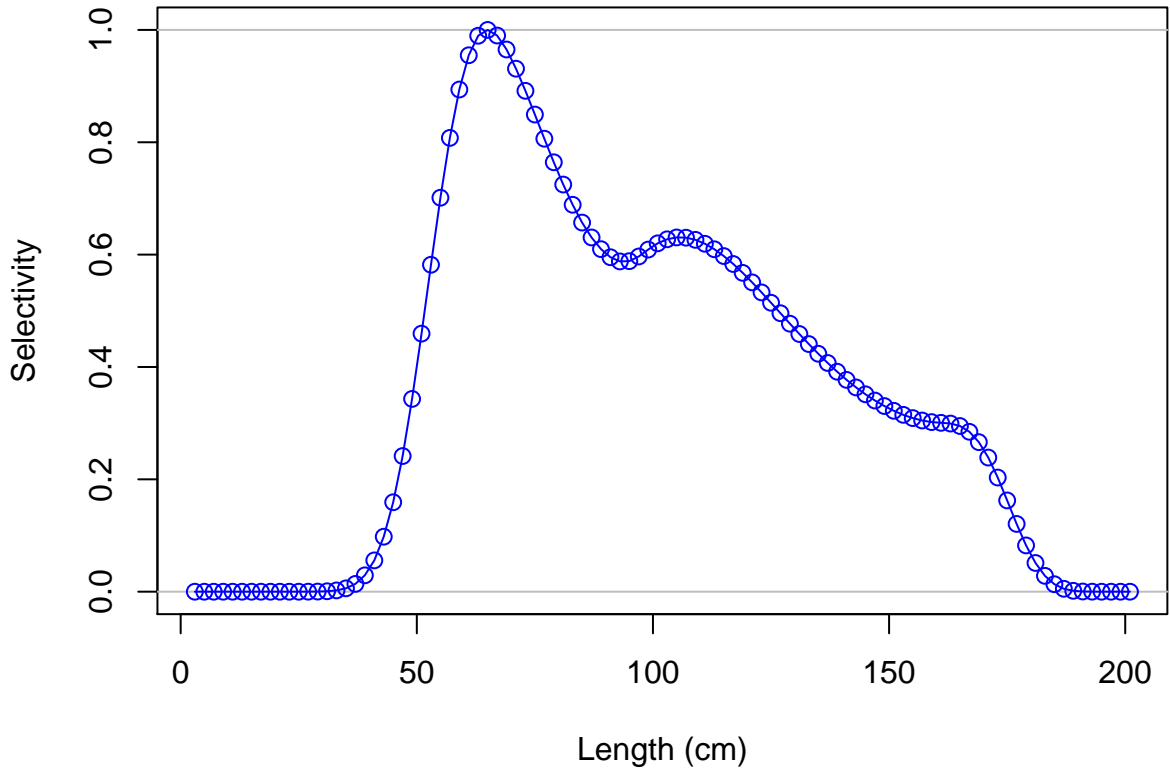
## Female ending year selectivity for F12-NOA\_C



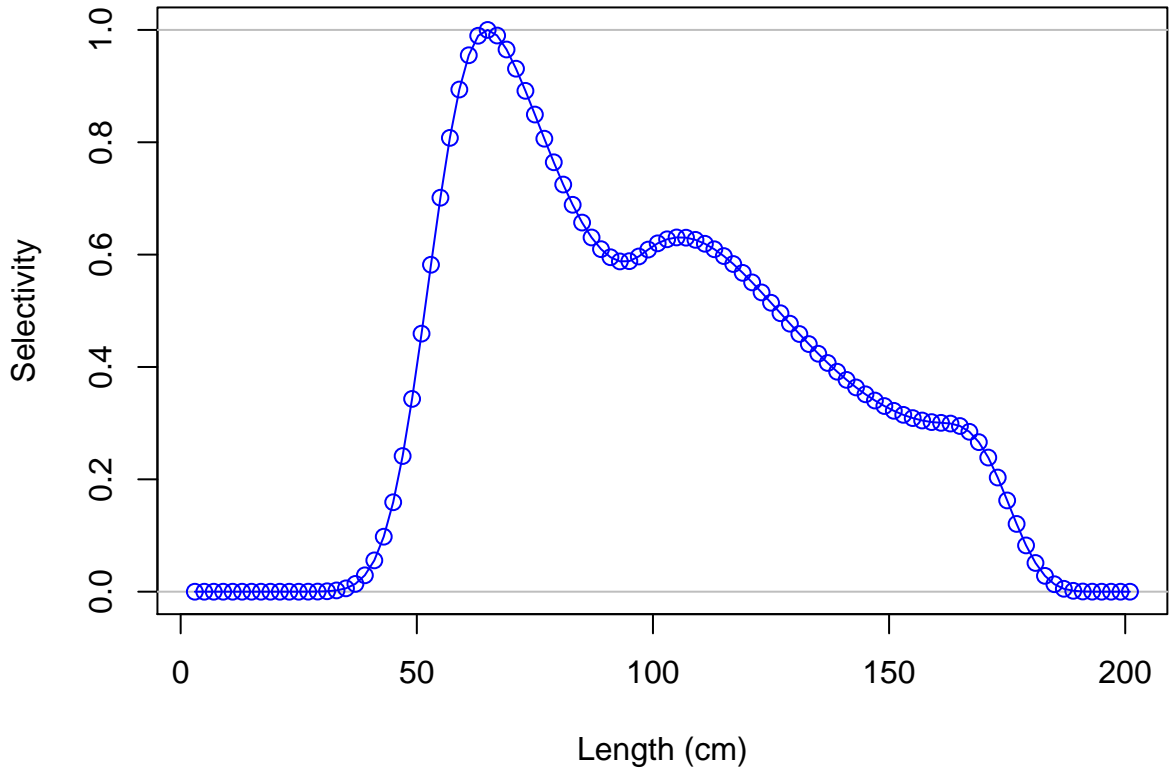
# Male ending year selectivity for F12-NOA\_C



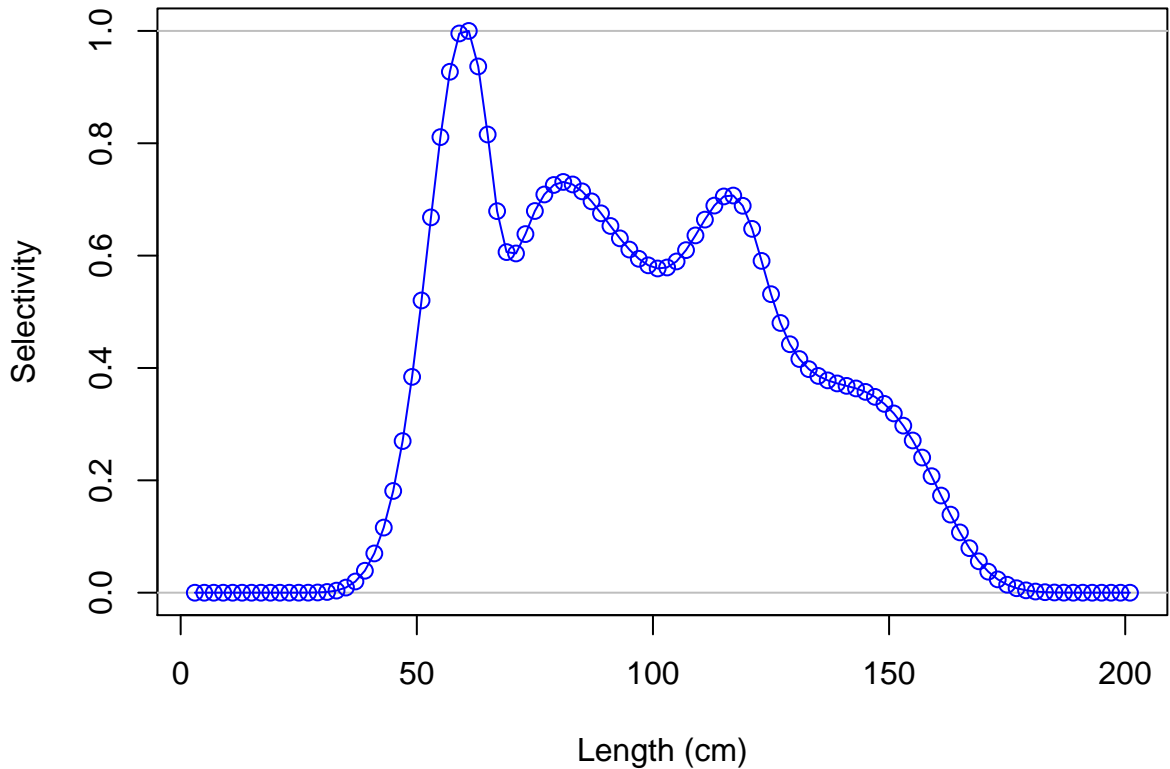
## Female ending year selectivity for F13-NOA\_I



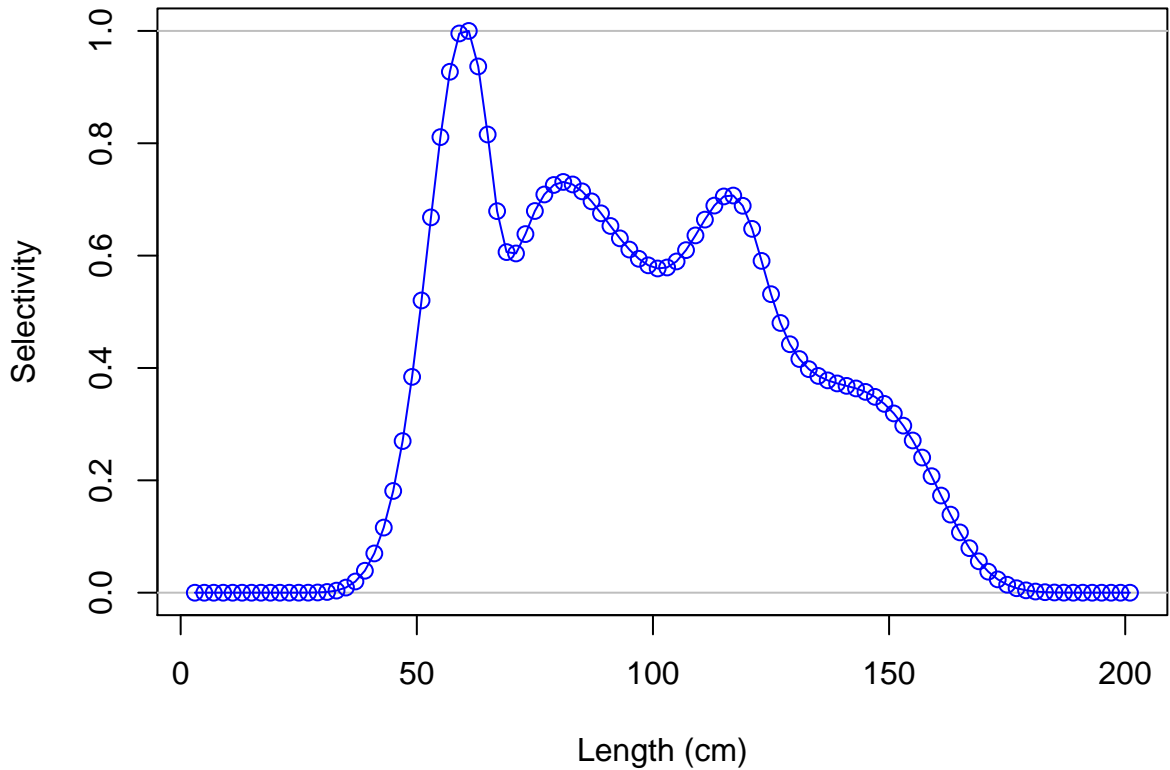
# Male ending year selectivity for F13-NOA\_I



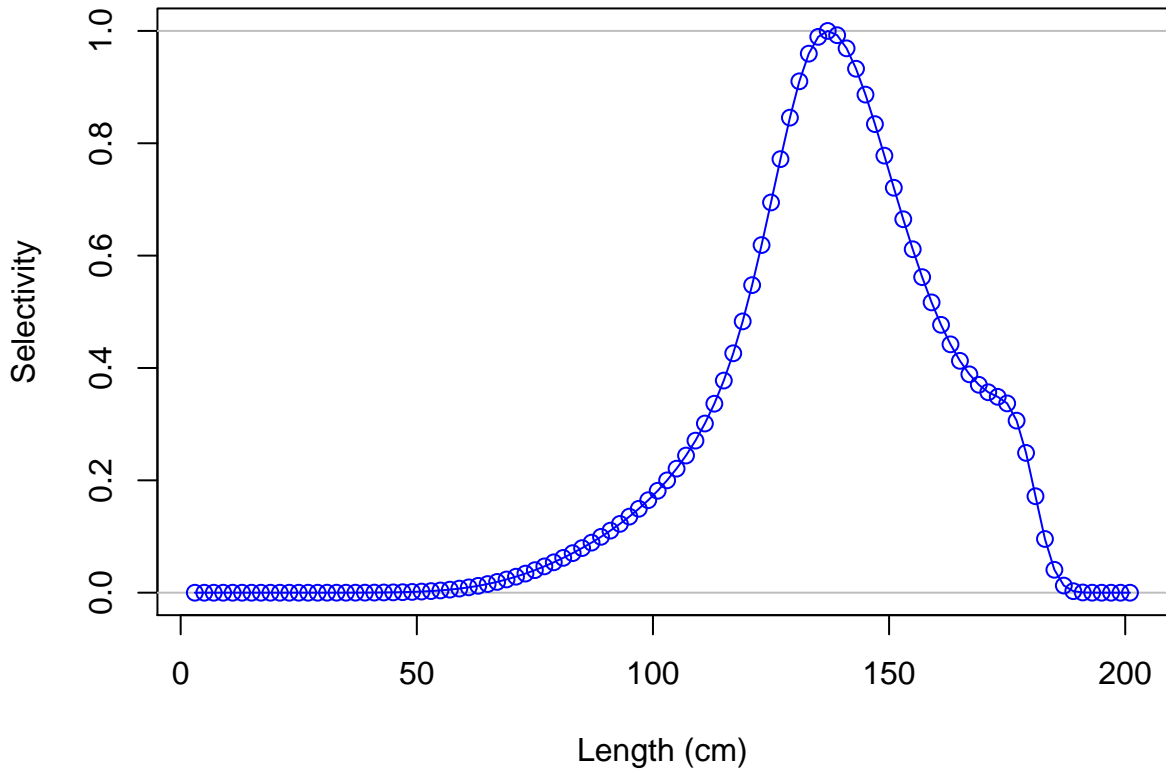
# Female ending year selectivity for F14-NOA\_S



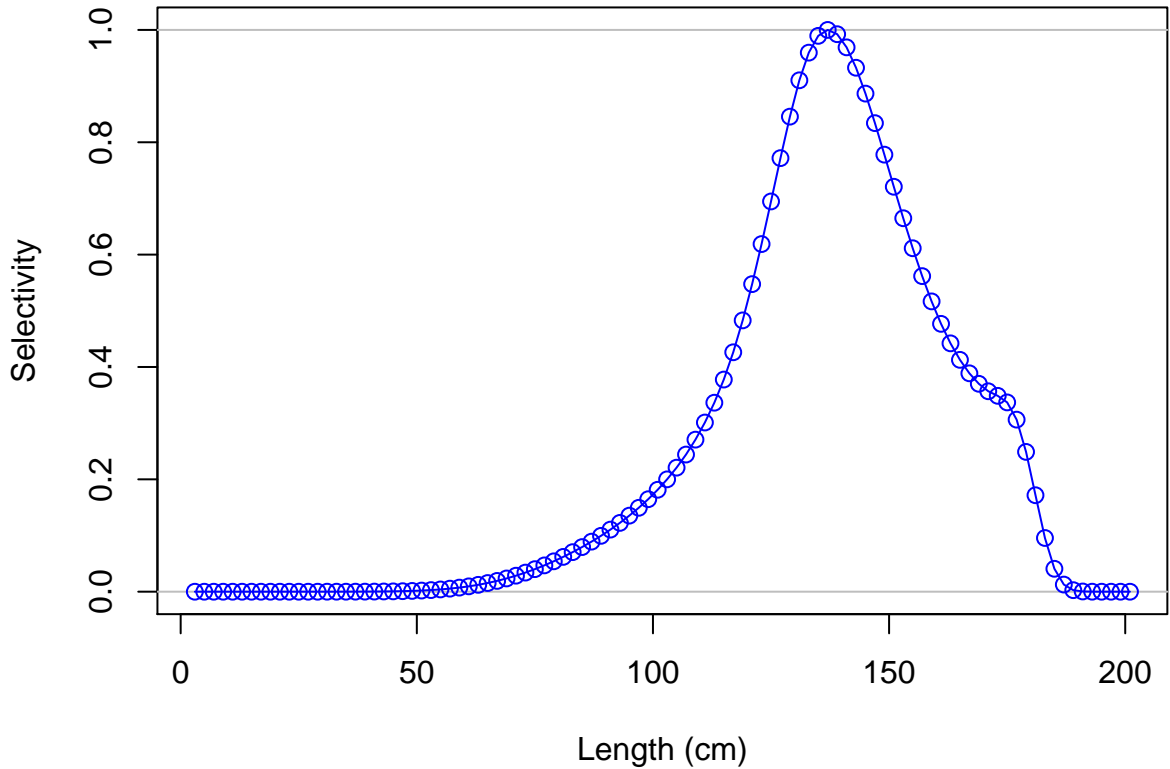
# Male ending year selectivity for F14-NOA\_S



## Female ending year selectivity for F15-DEL\_N

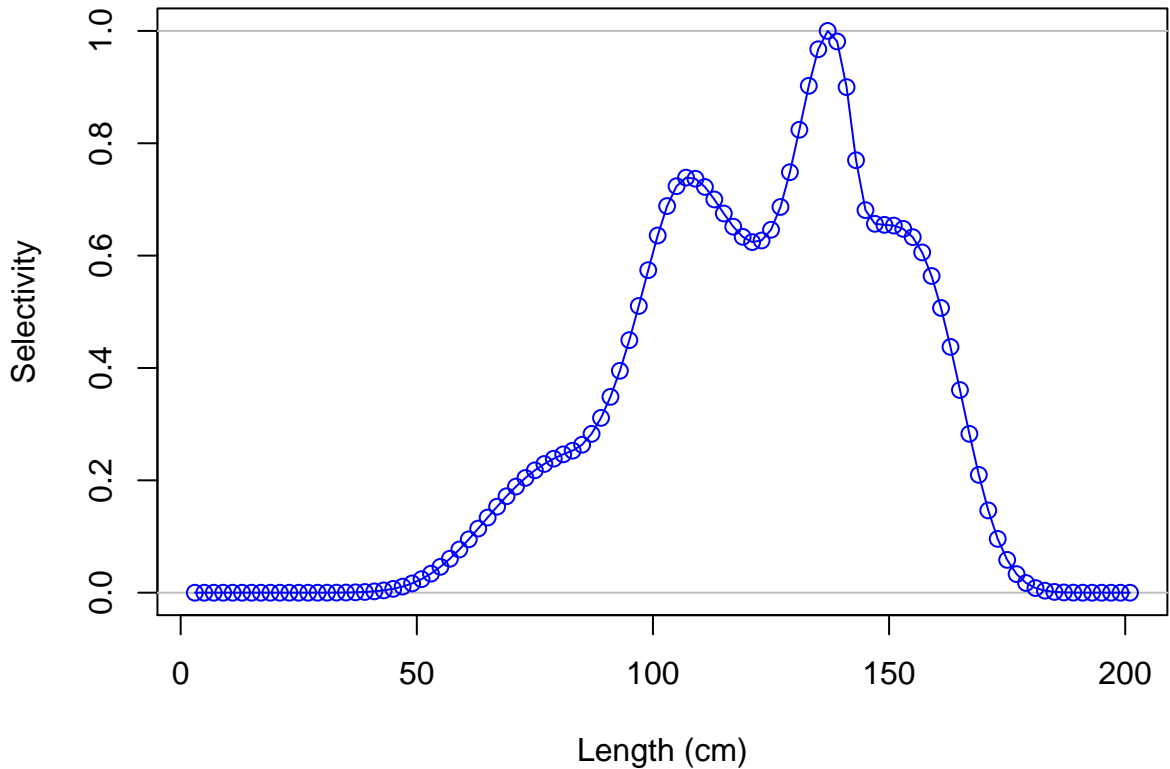


# Male ending year selectivity for F15-DEL\_N

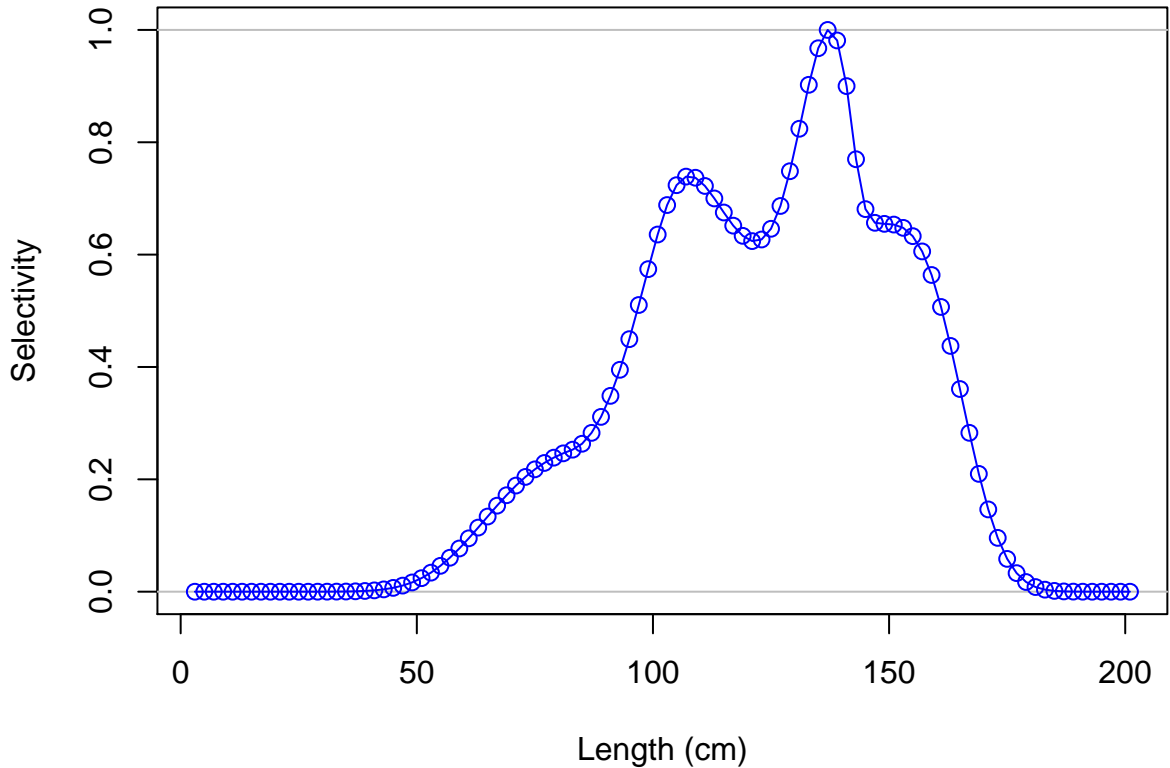




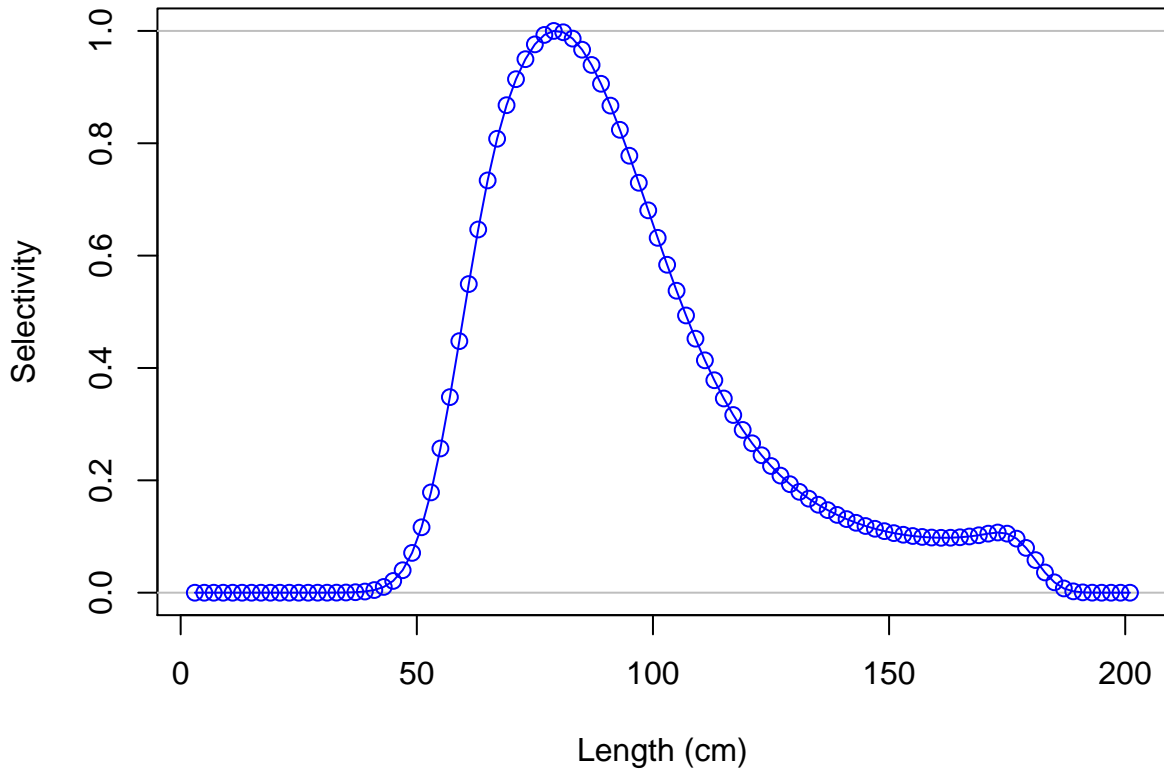
## Female ending year selectivity for F16-DEL\_NE



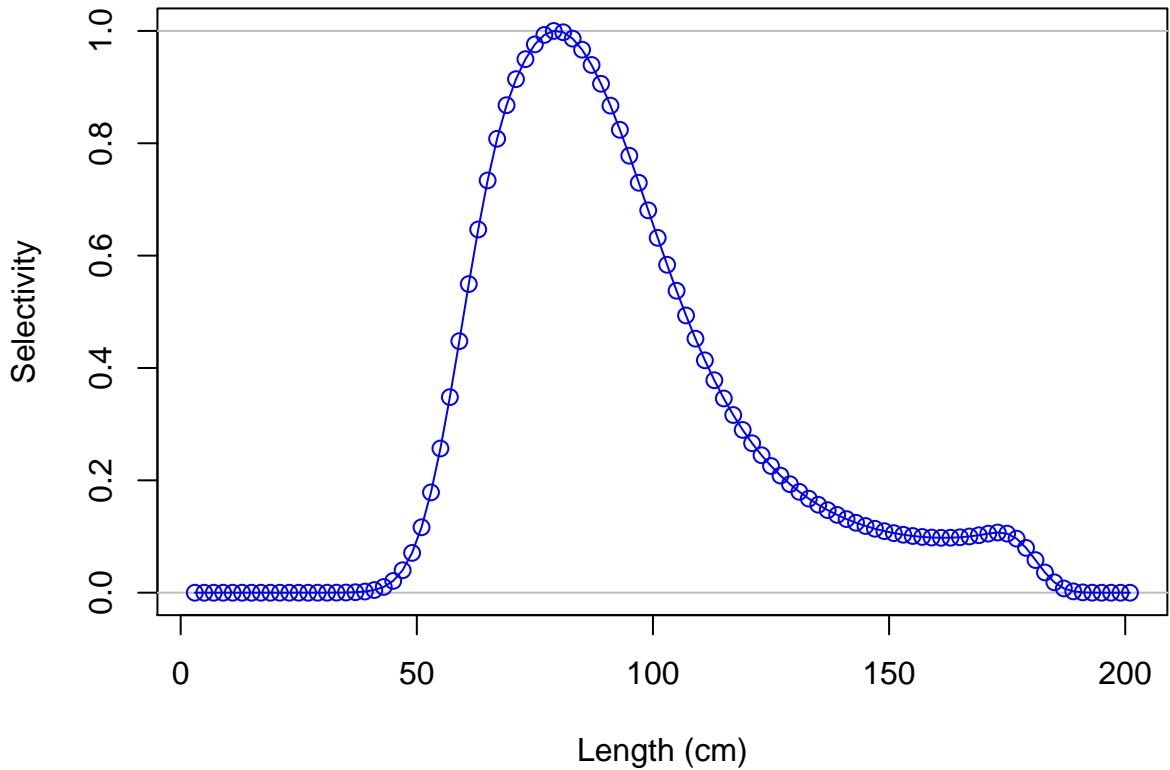
# Male ending year selectivity for F16-DEL\_NE



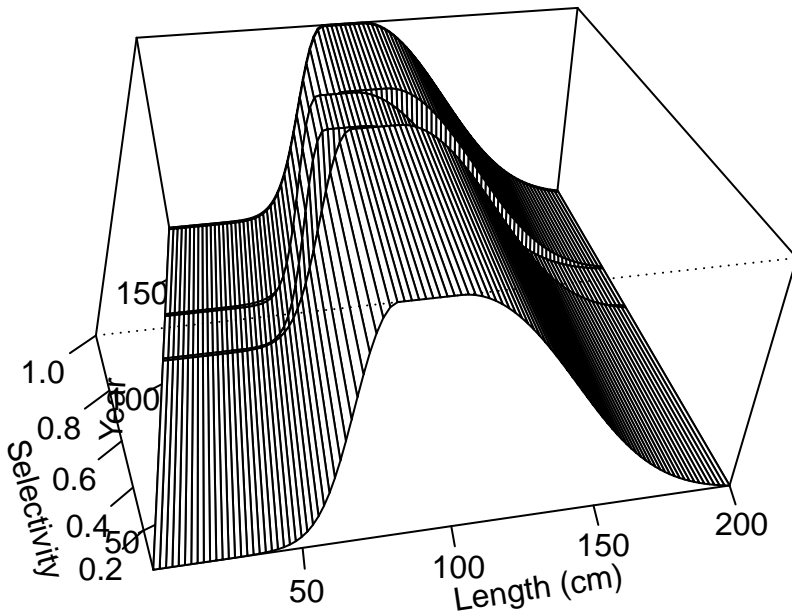
## Female ending year selectivity for F17-DEL\_M



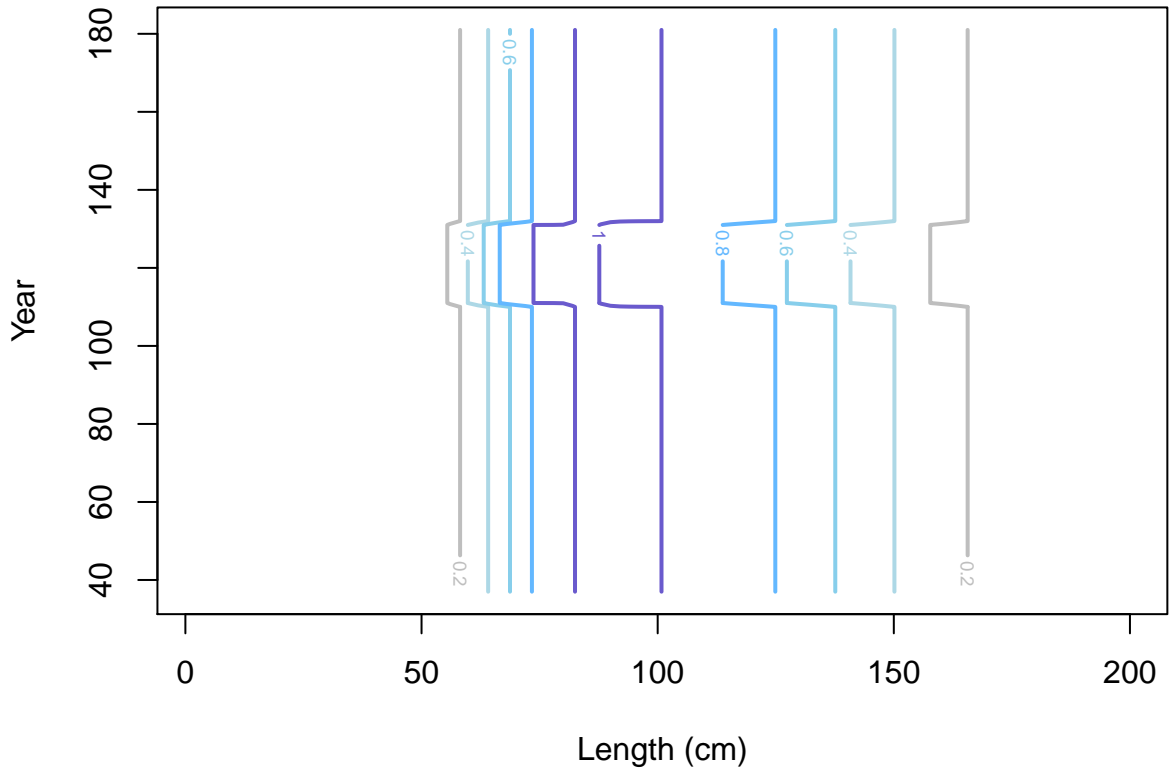
# Male ending year selectivity for F17-DEL\_M



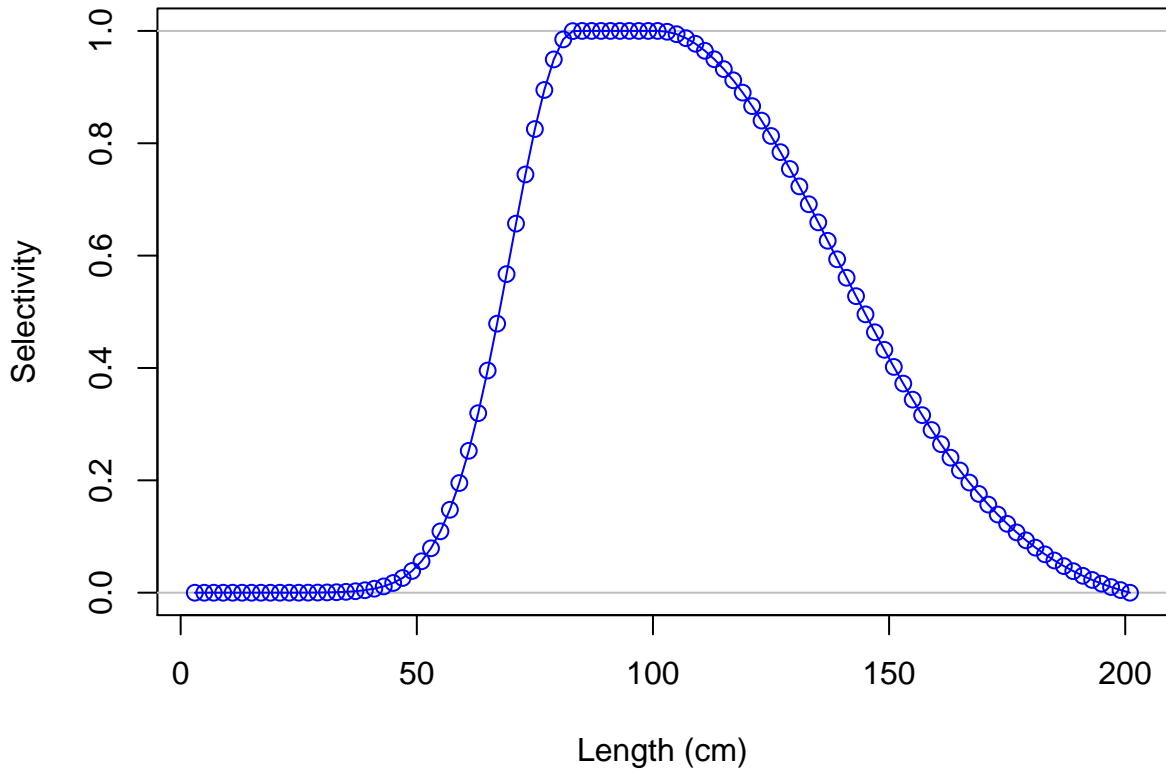
# Female time-varying selectivity for F18-DEL\_C



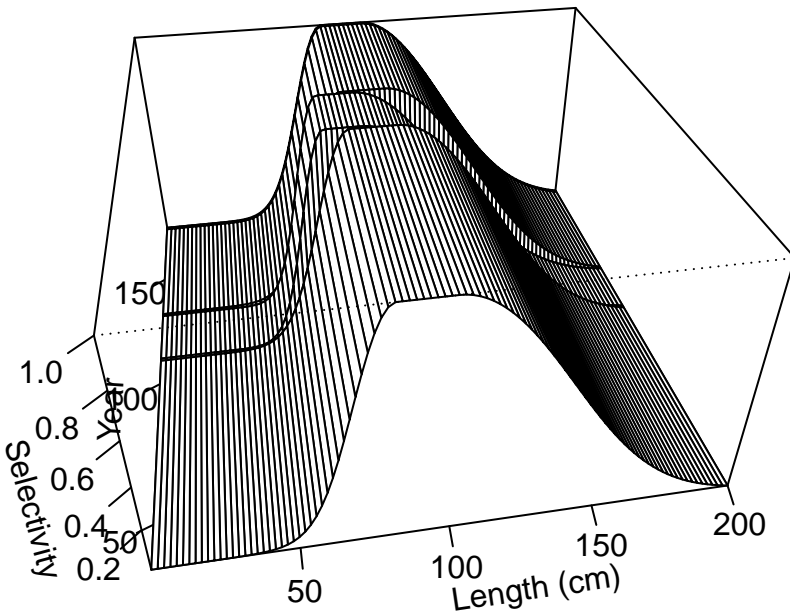
# Female time-varying selectivity for F18-DEL\_C



## Female ending year selectivity for F18-DEL\_C

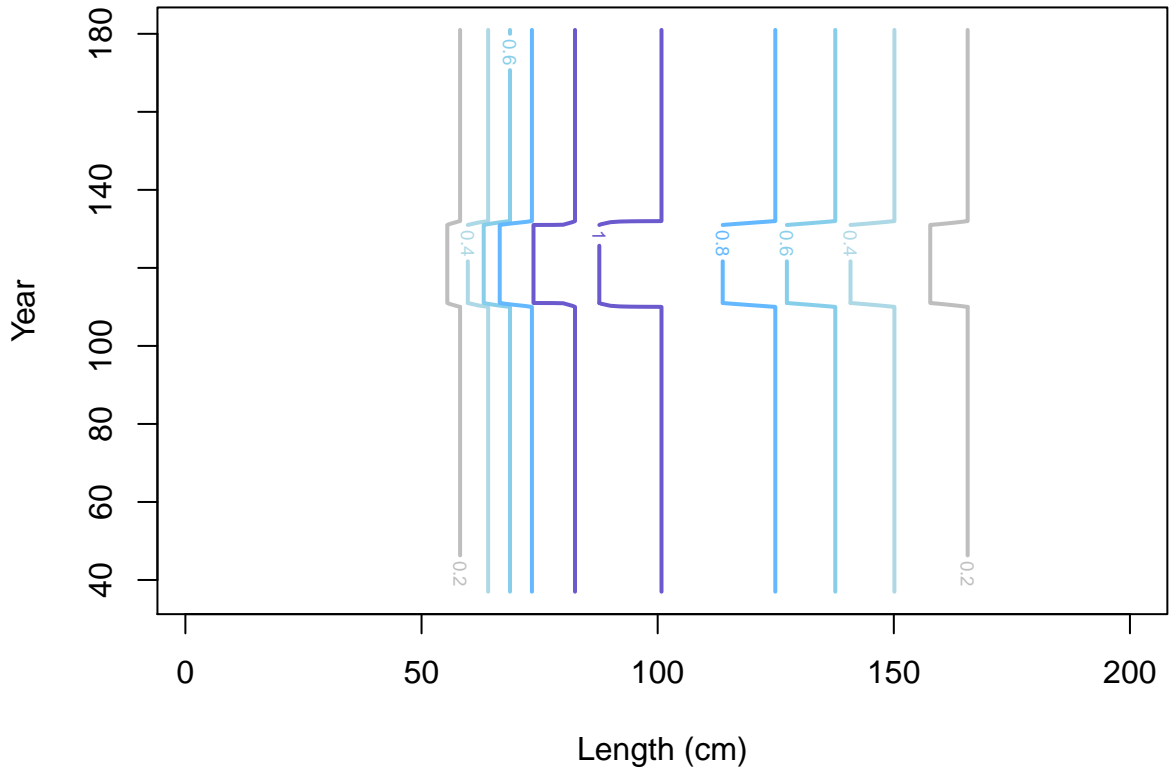


# Male time-varying selectivity for F18-DEL\_C

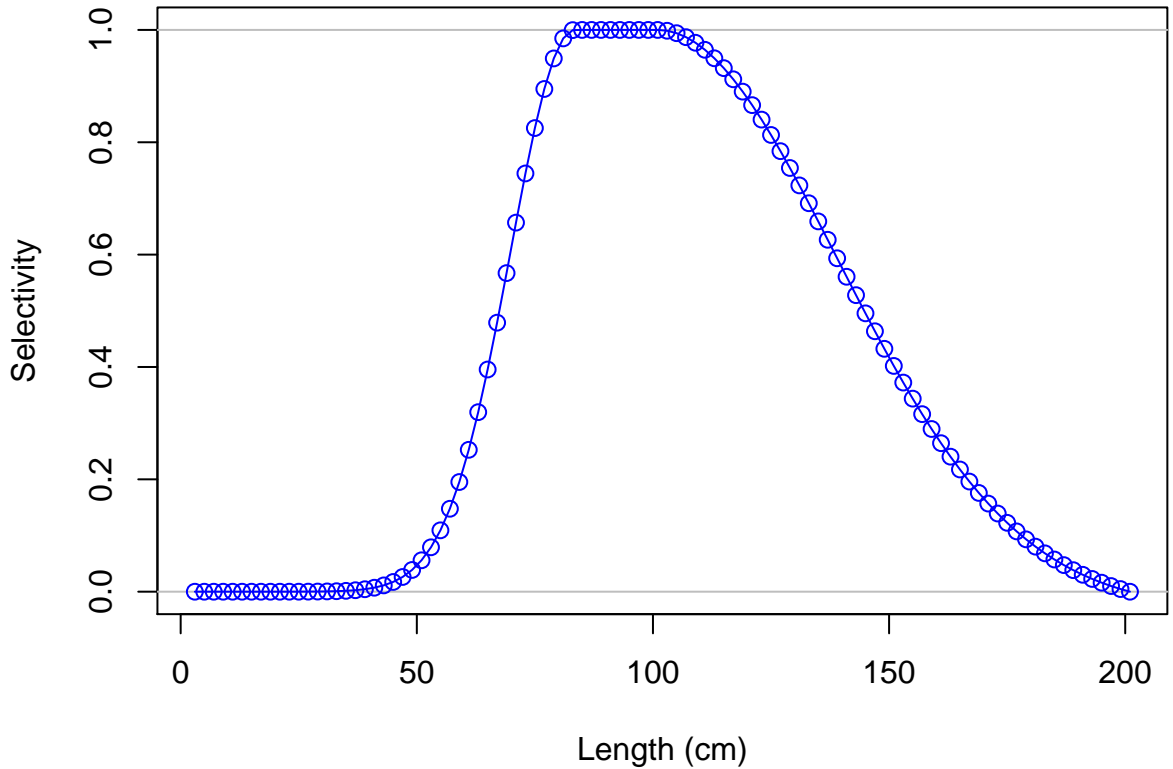




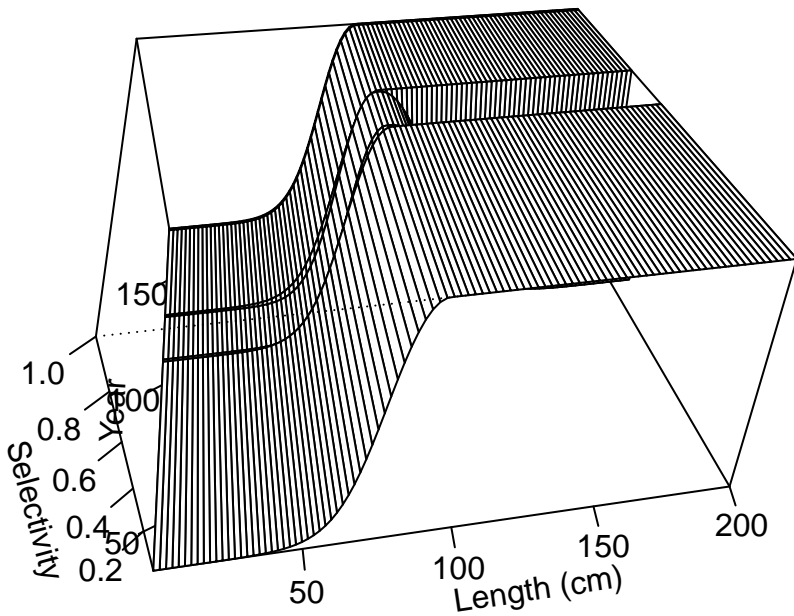
# Male time-varying selectivity for F18-DEL\_C



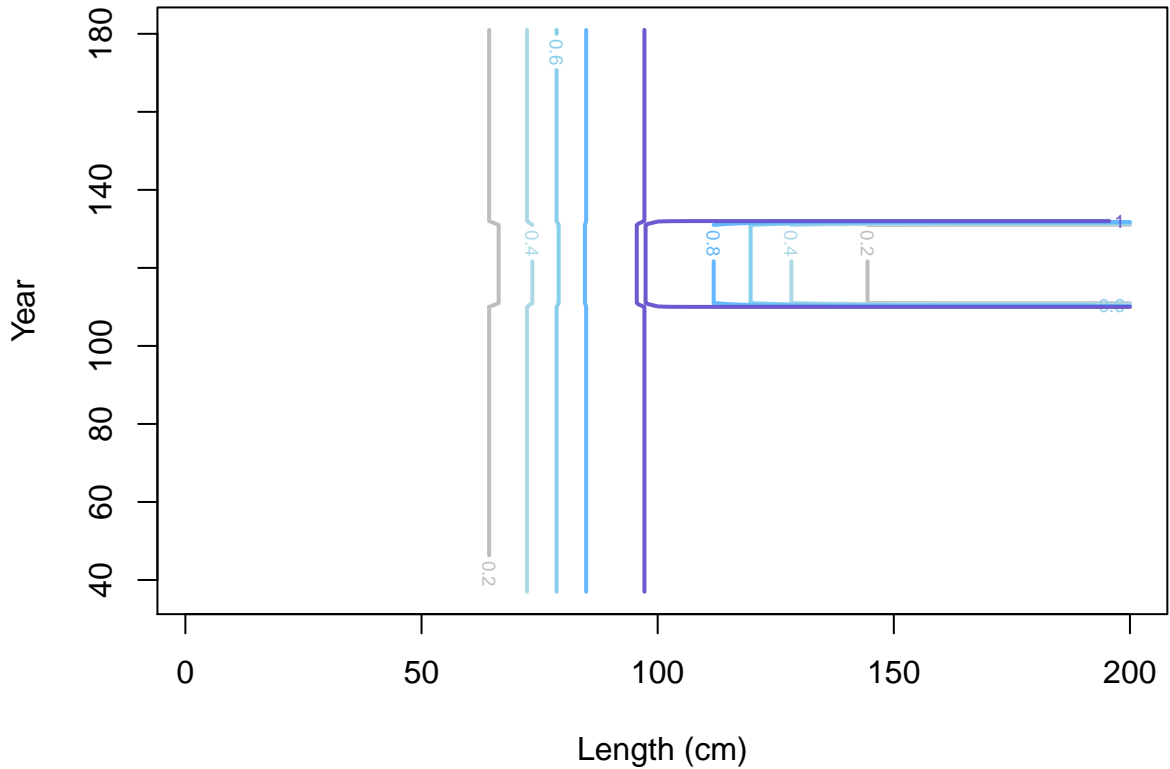
# Male ending year selectivity for F18-DEL\_C



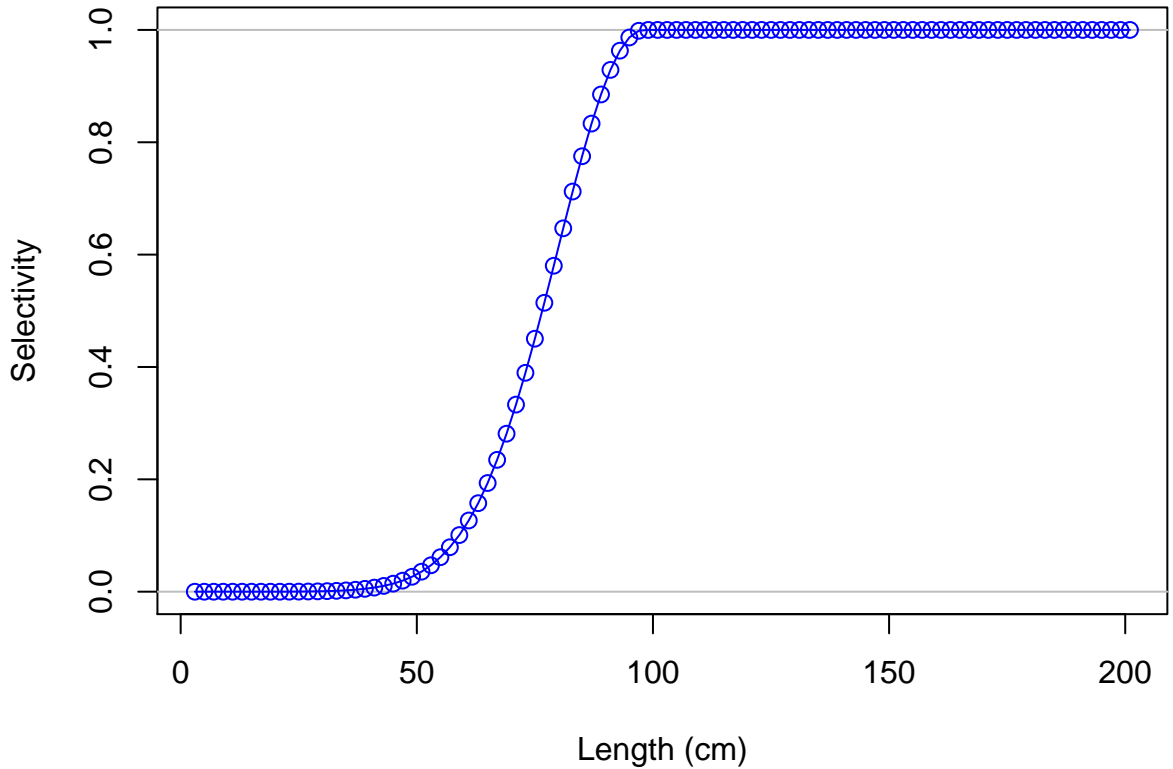
## Female time-varying selectivity for F19-DEL\_P



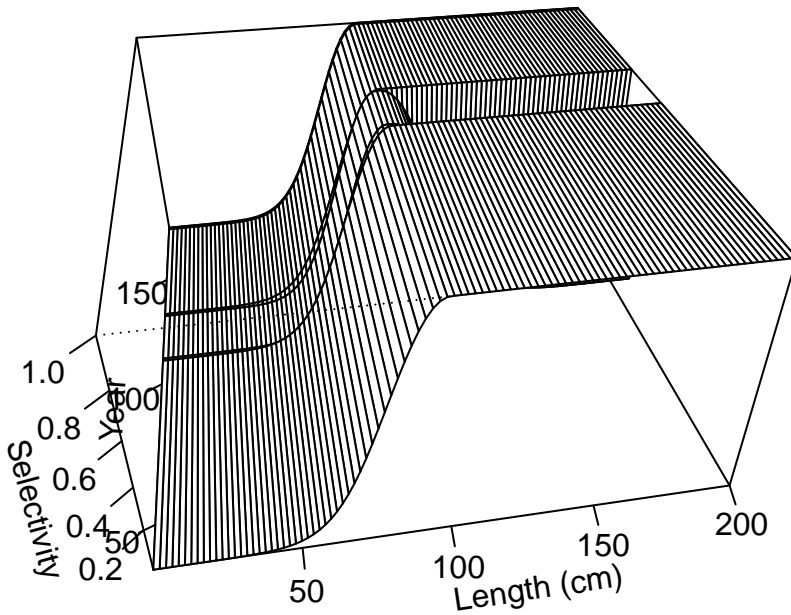
# Female time-varying selectivity for F19-DEL\_P



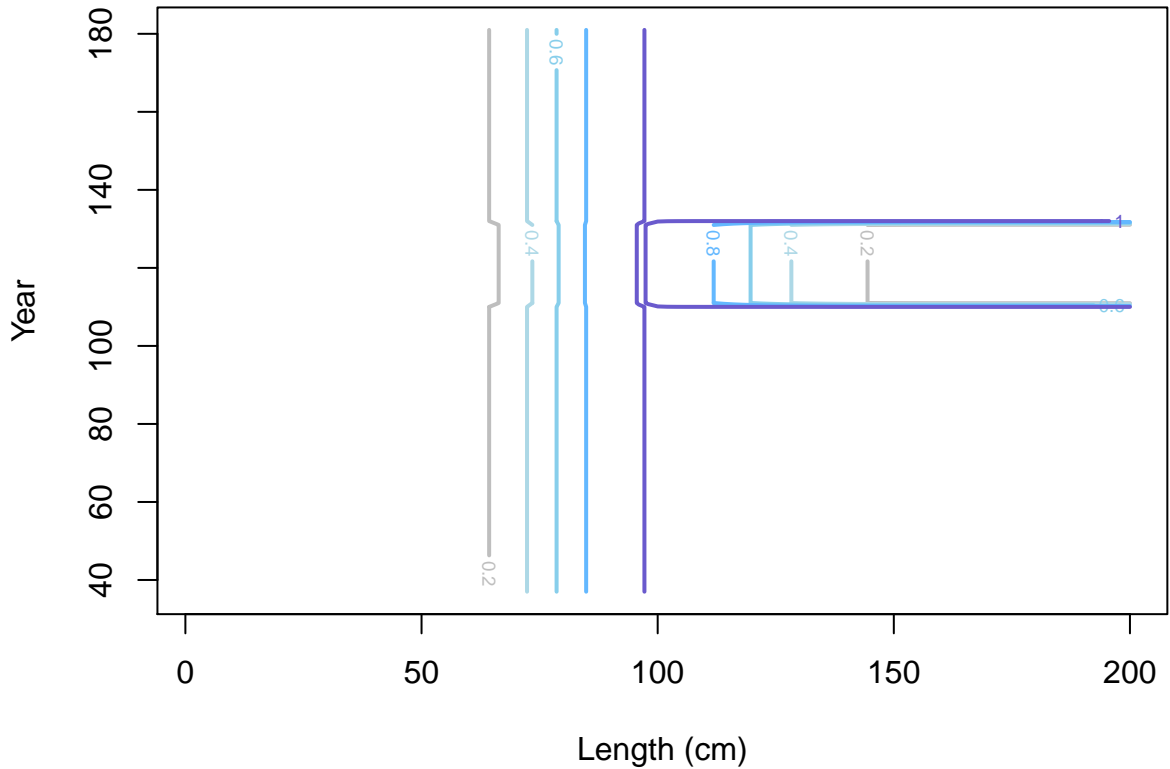
## Female ending year selectivity for F19-DEL\_P



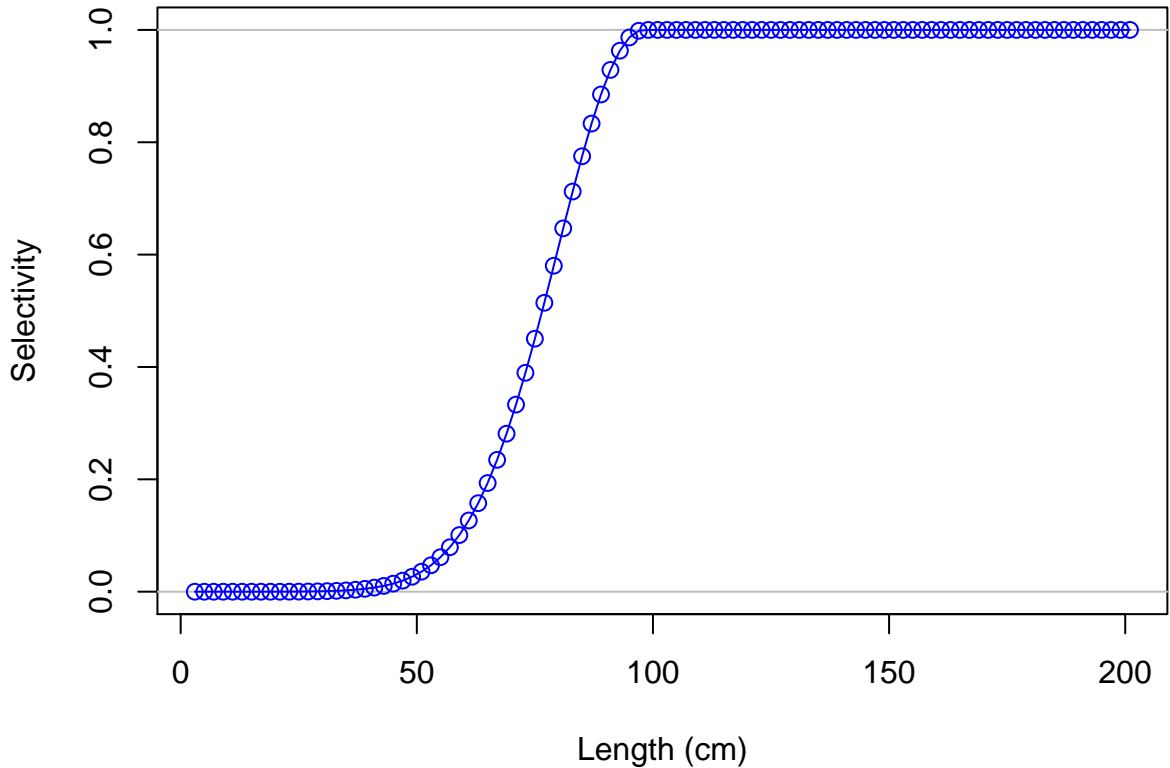
## Male time-varying selectivity for F19-DEL\_P



# Male time-varying selectivity for F19-DEL\_P

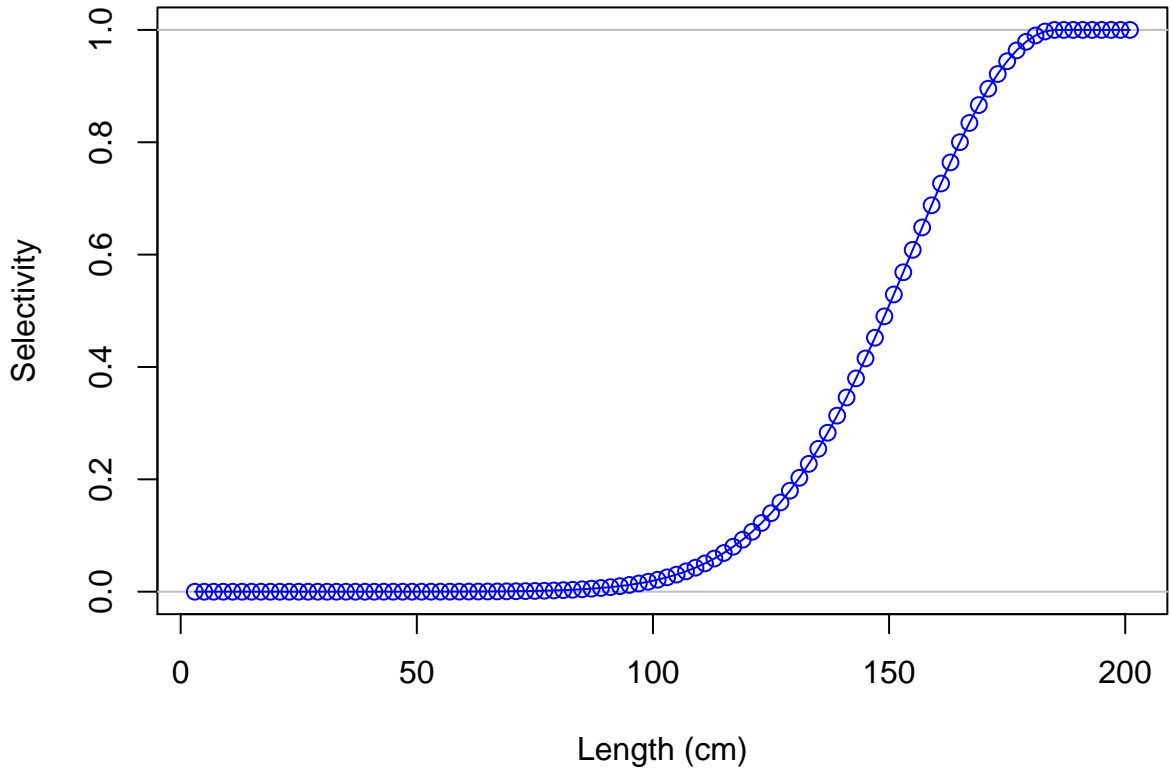


# Male ending year selectivity for F19-DEL\_P

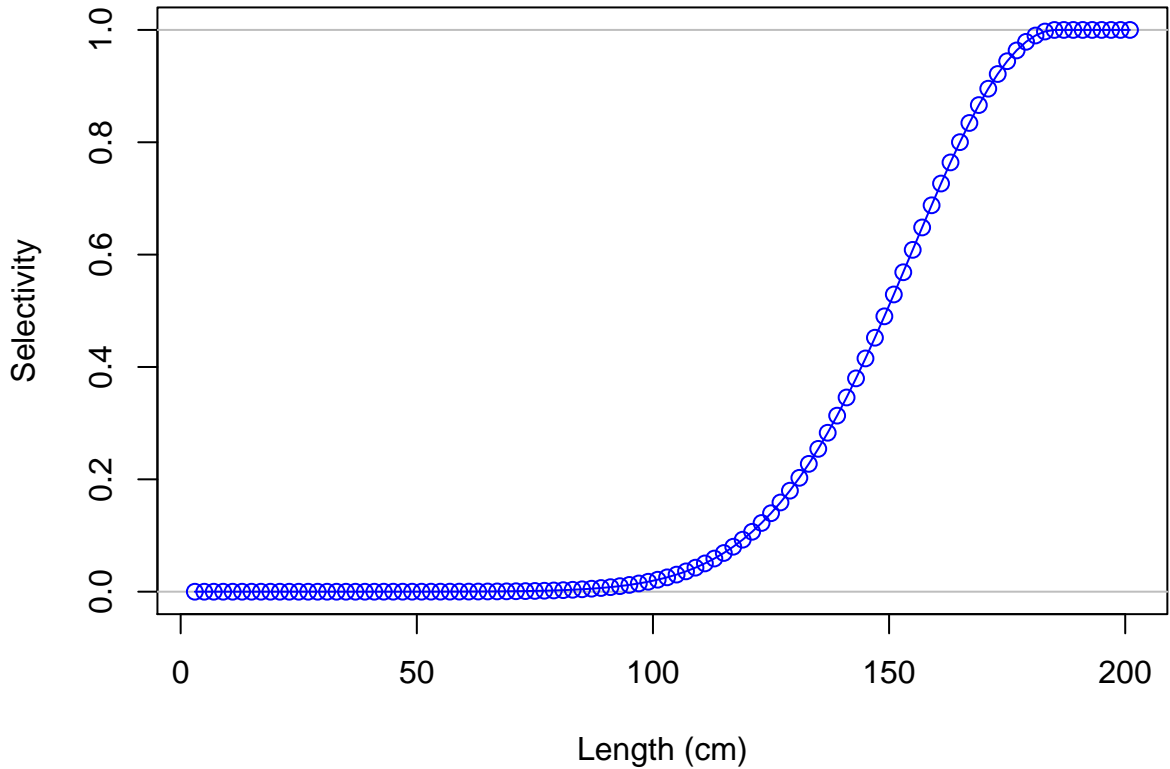




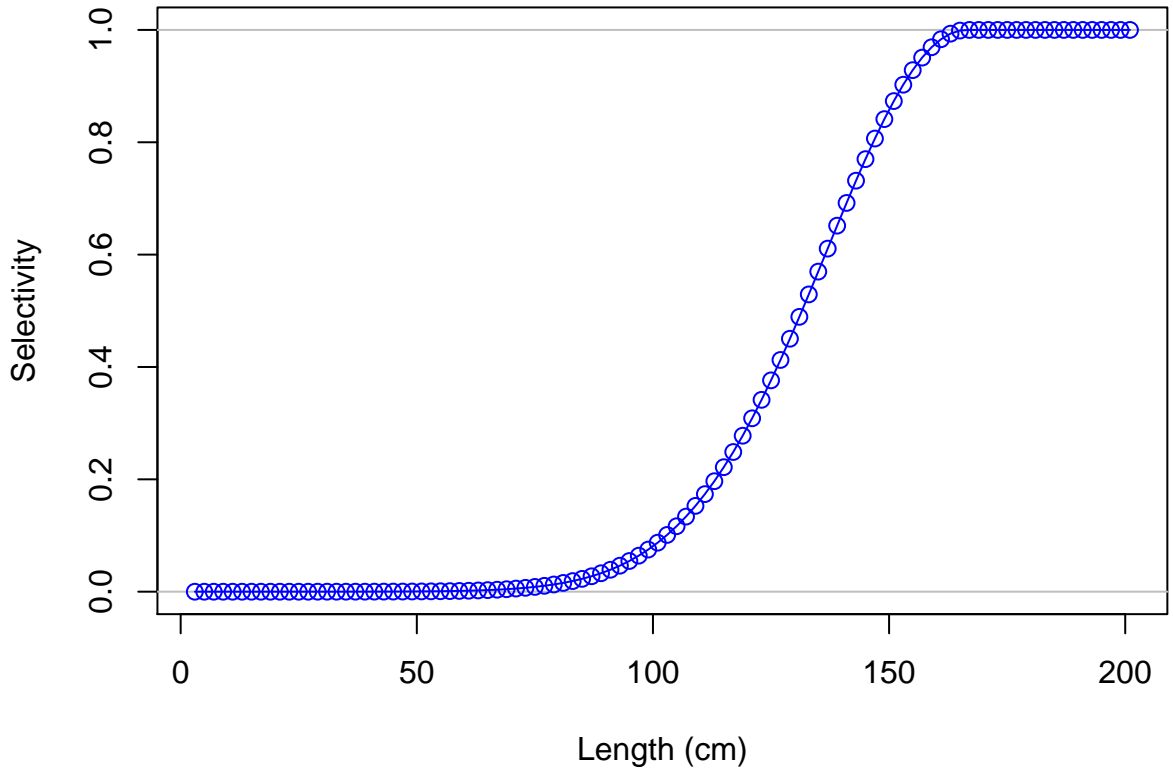
## Female ending year selectivity for F20-DEL\_S



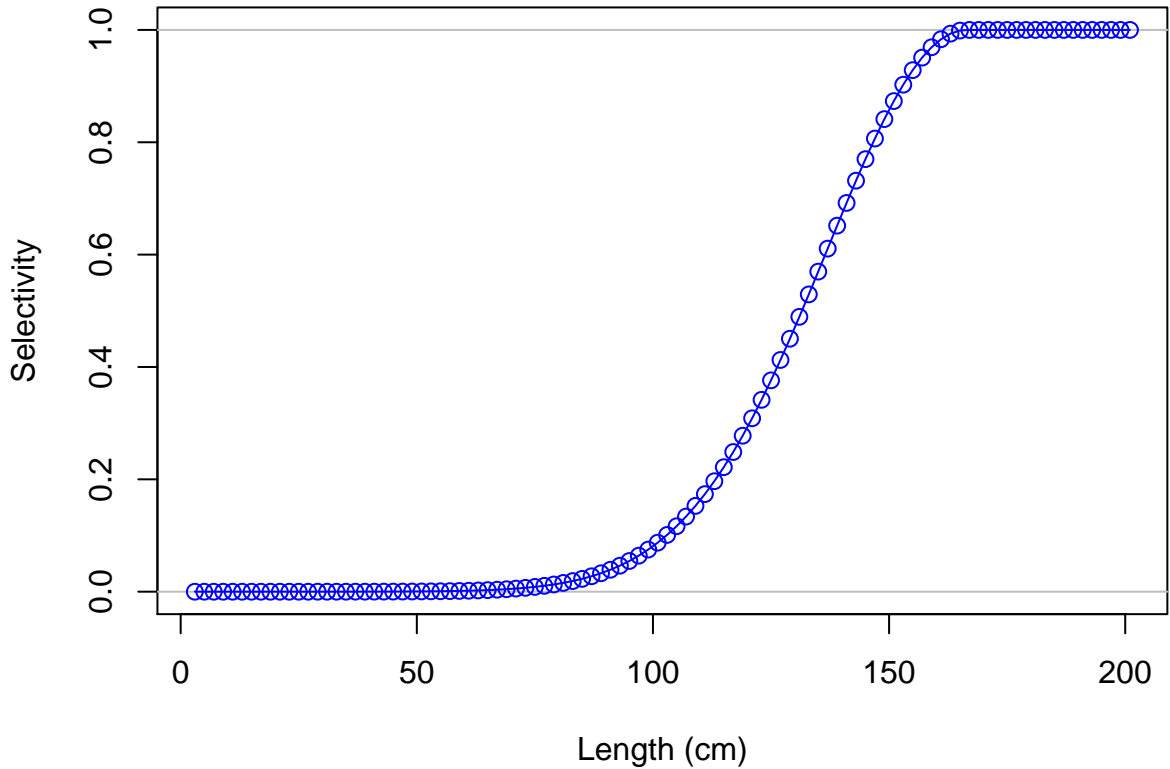
# Male ending year selectivity for F20-DEL\_S



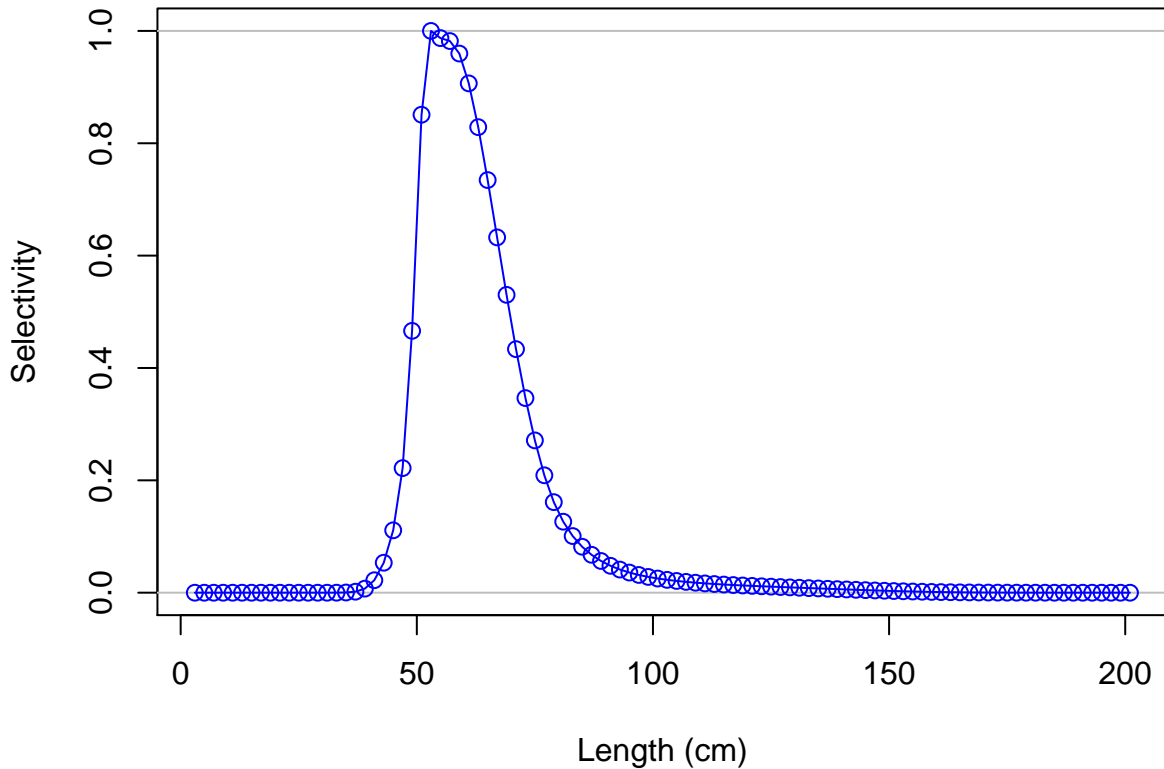
## Female ending year selectivity for F21-DEL\_I



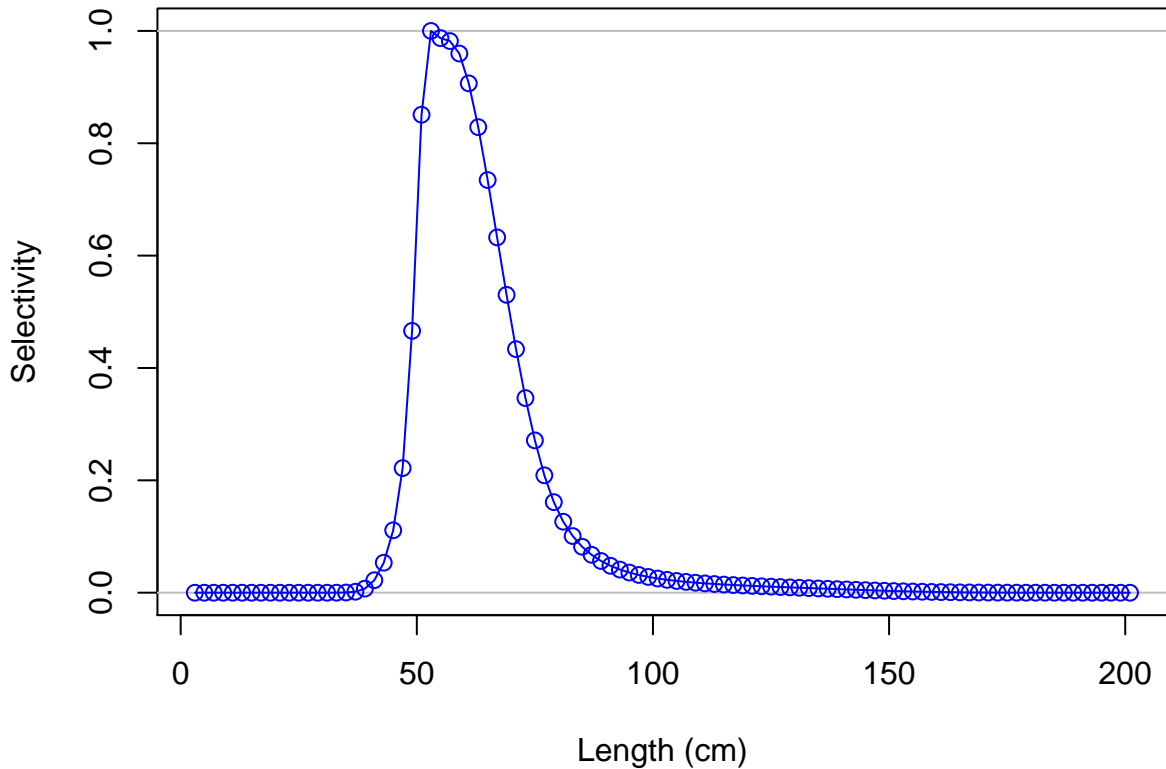
# Male ending year selectivity for F21-DEL\_I



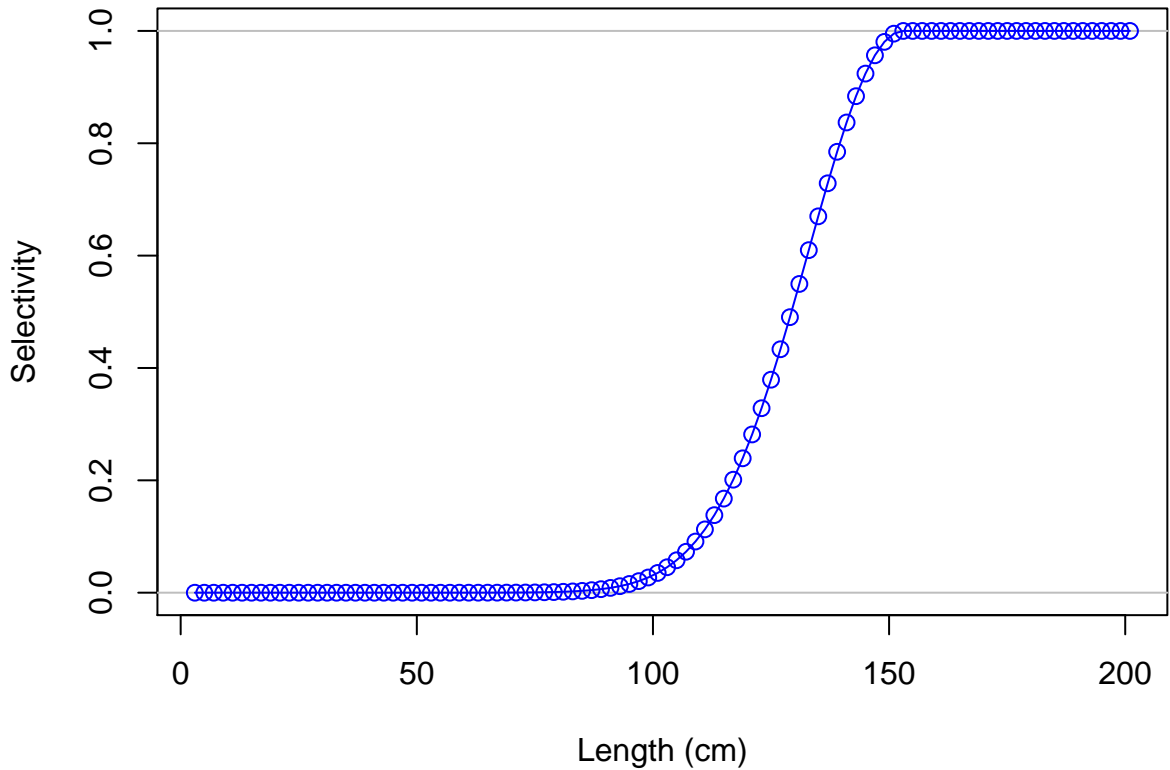
## Female ending year selectivity for F22-BB



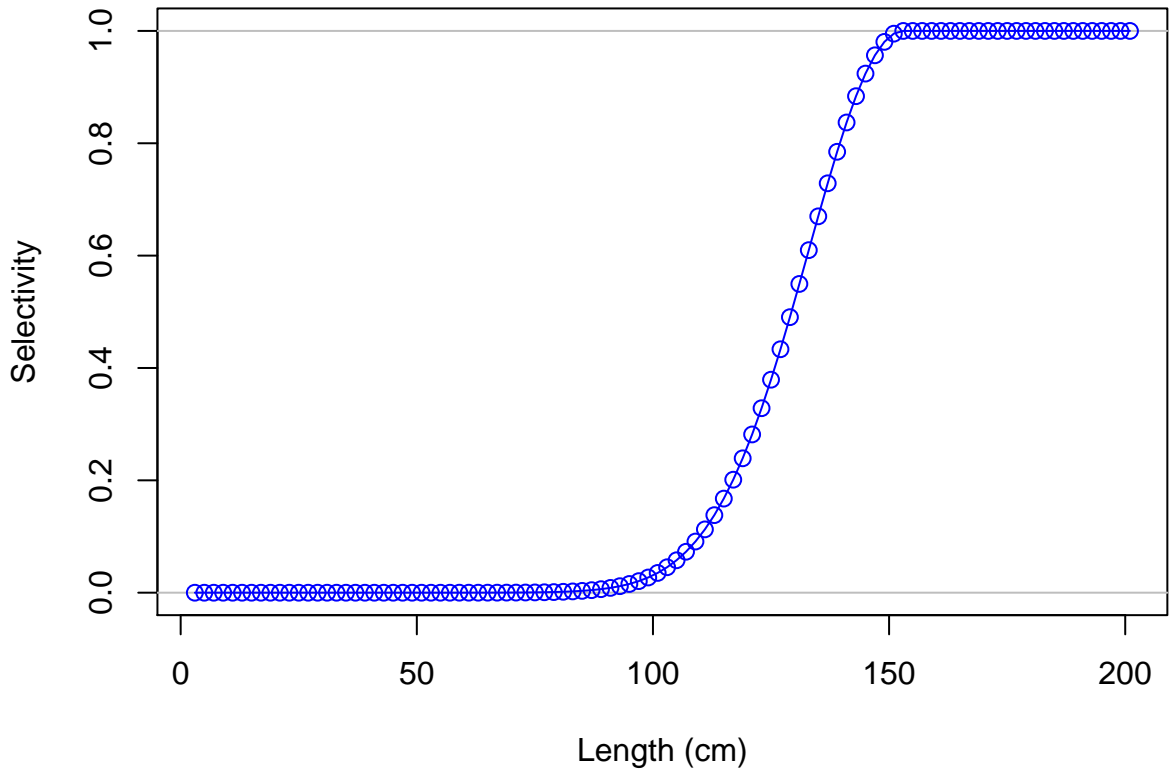
### Male ending year selectivity for F22-BB



# Female ending year selectivity for F29-LL\_W\_Q14n

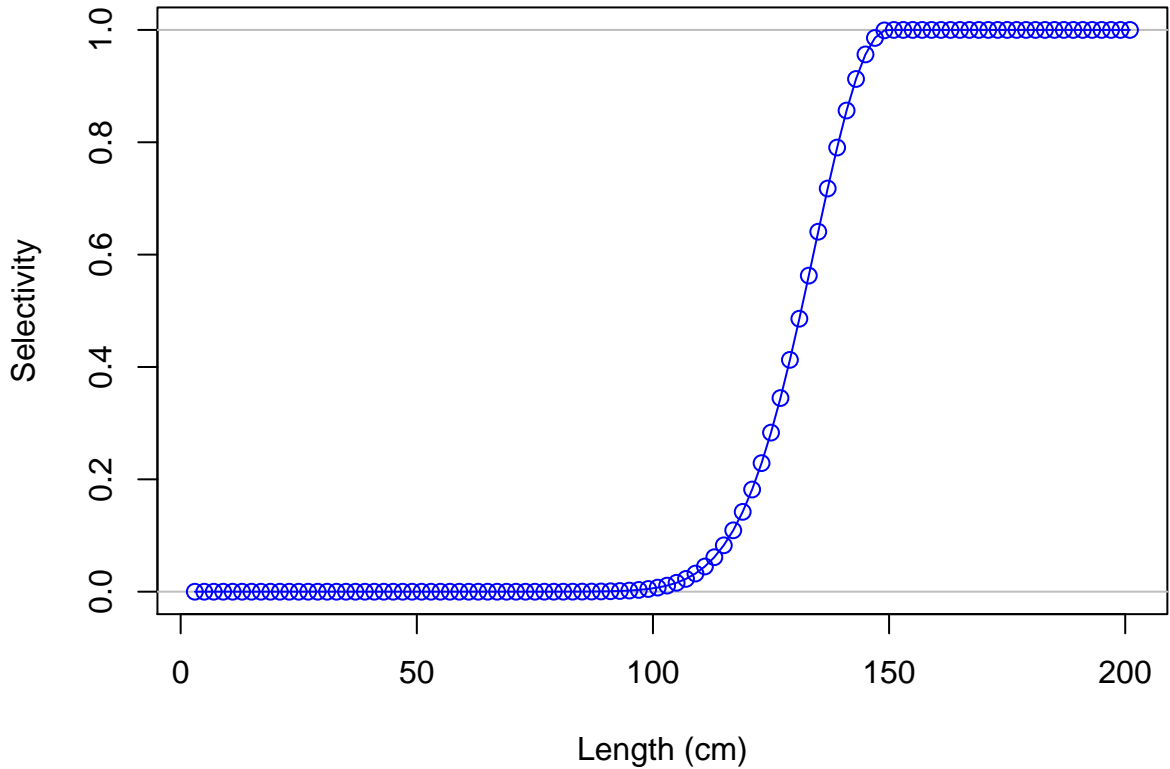


# Male ending year selectivity for F29-LL\_W\_Q14n

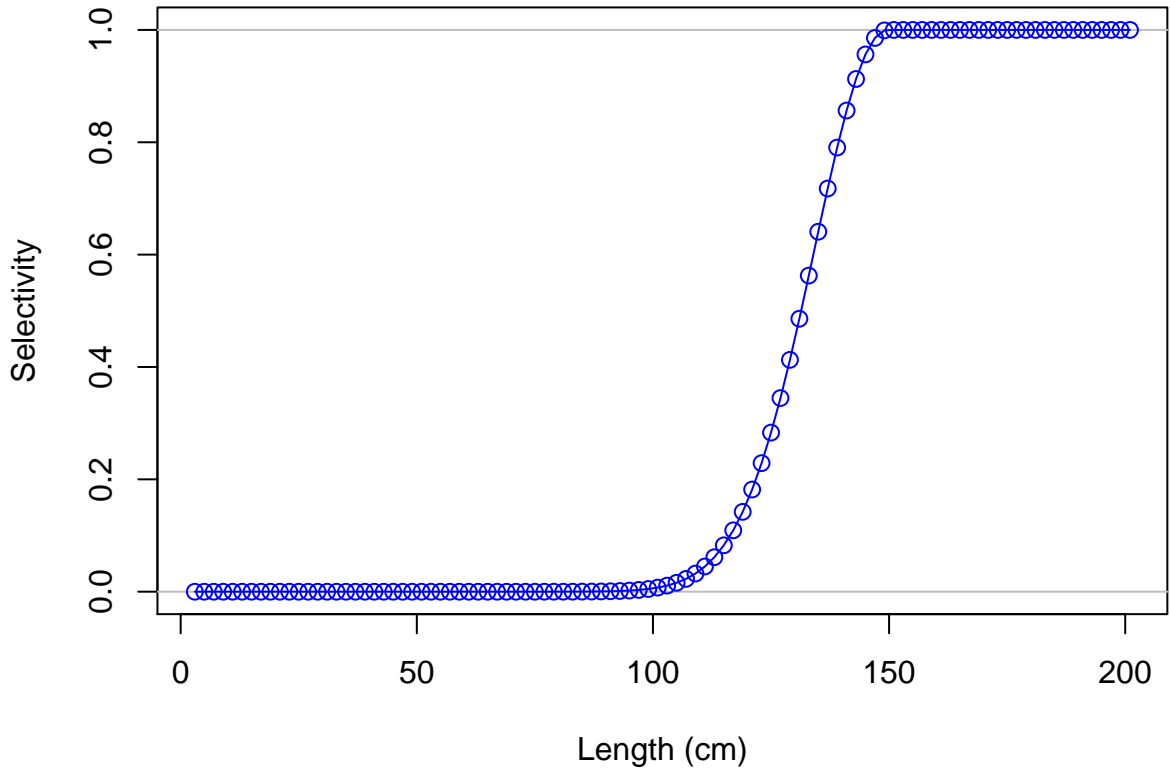




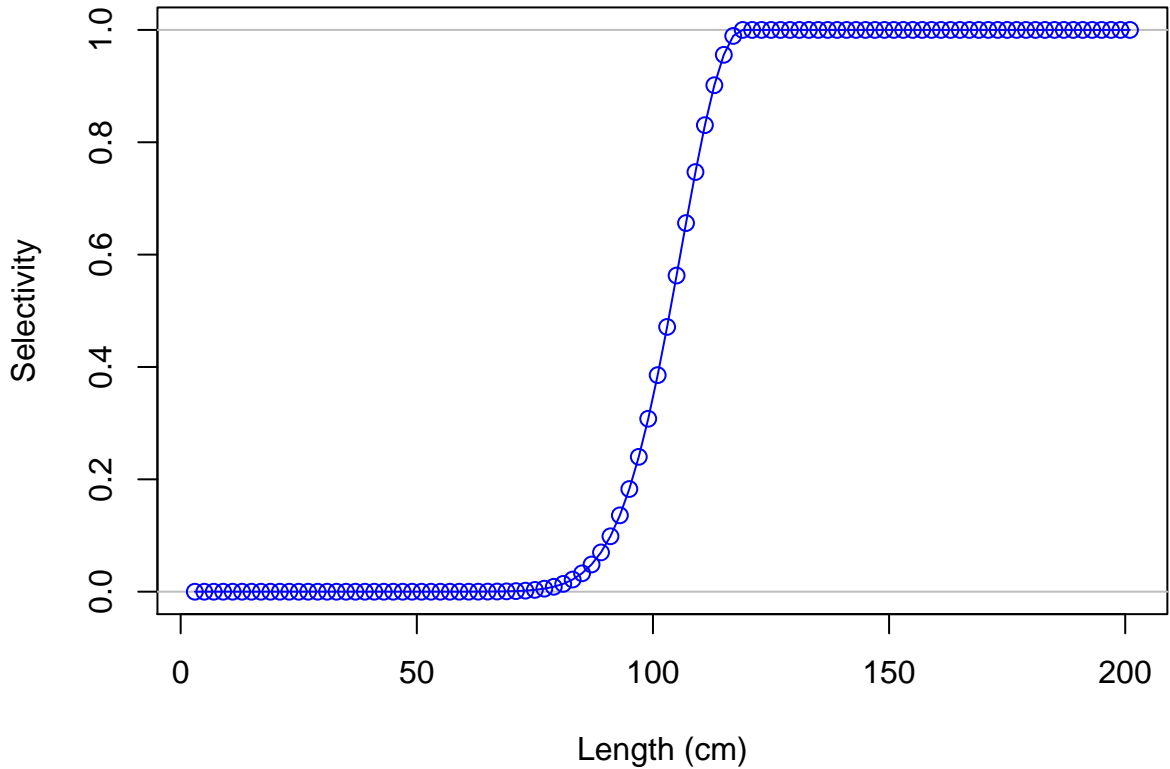
# Female ending year selectivity for F30-LL\_C\_Q14n



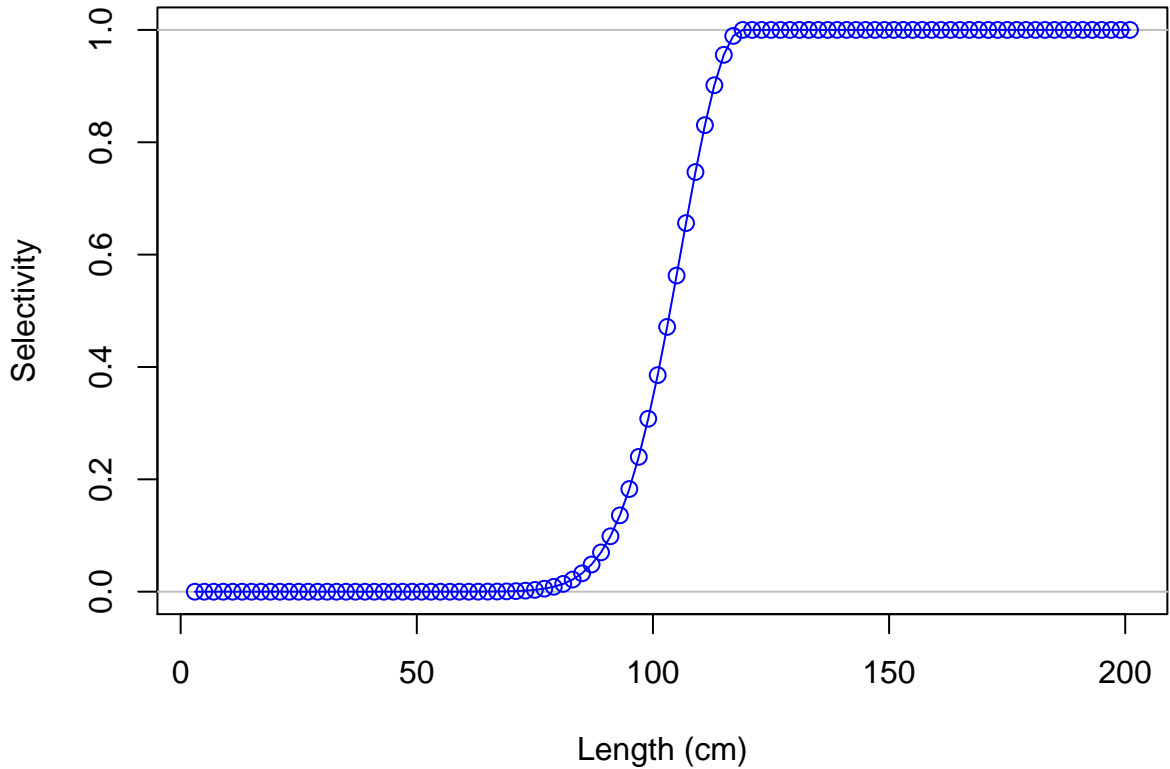
# Male ending year selectivity for F30-LL\_C\_Q14n



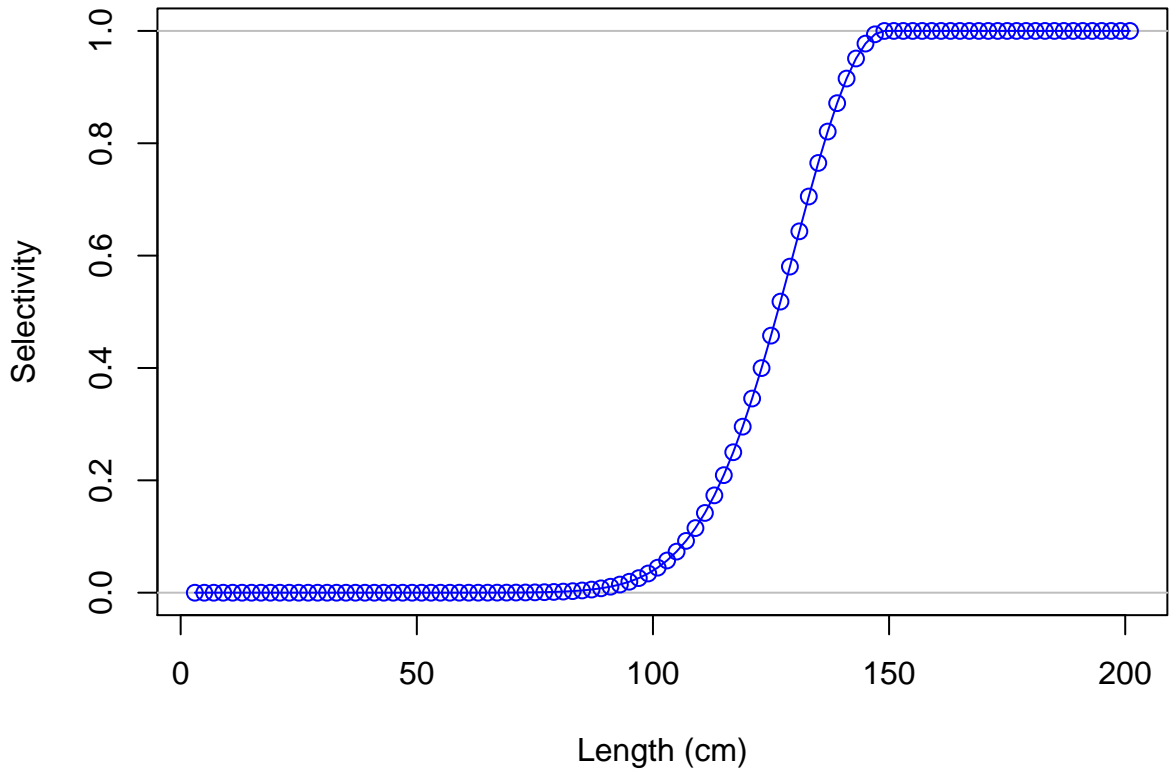
# Female ending year selectivity for F31-LL\_E\_Q14n



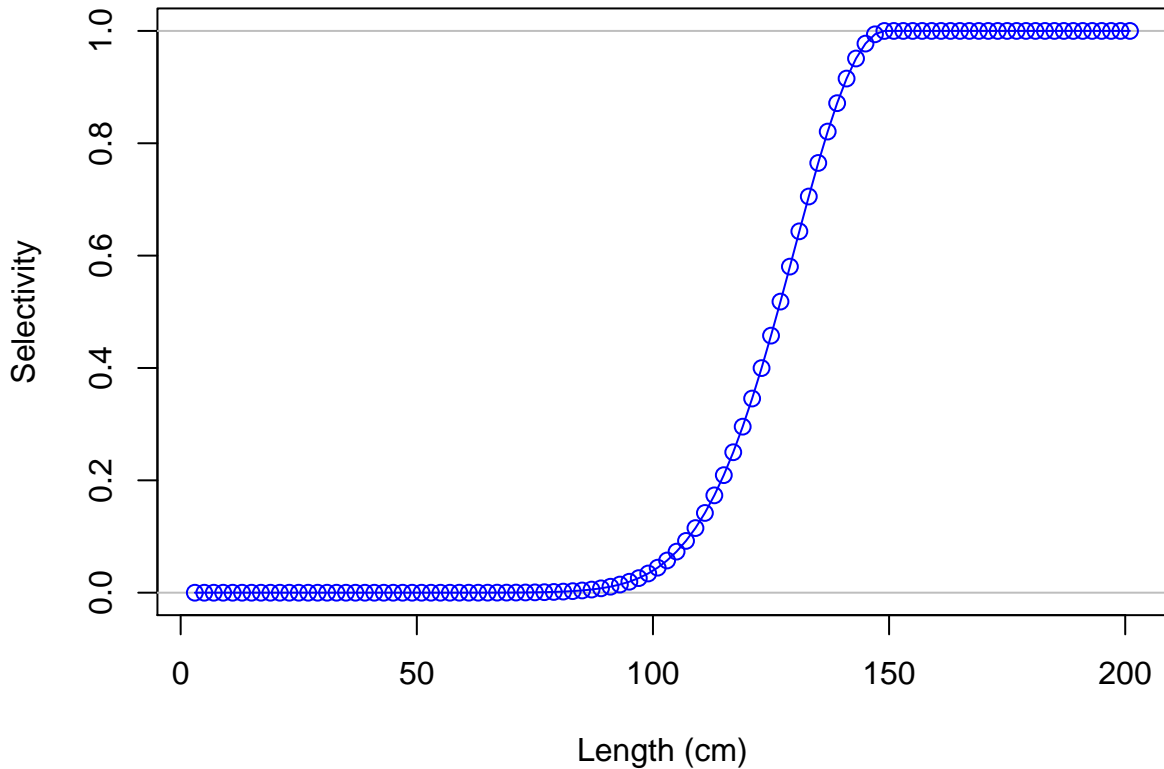
# Male ending year selectivity for F31-LL\_E\_Q14n



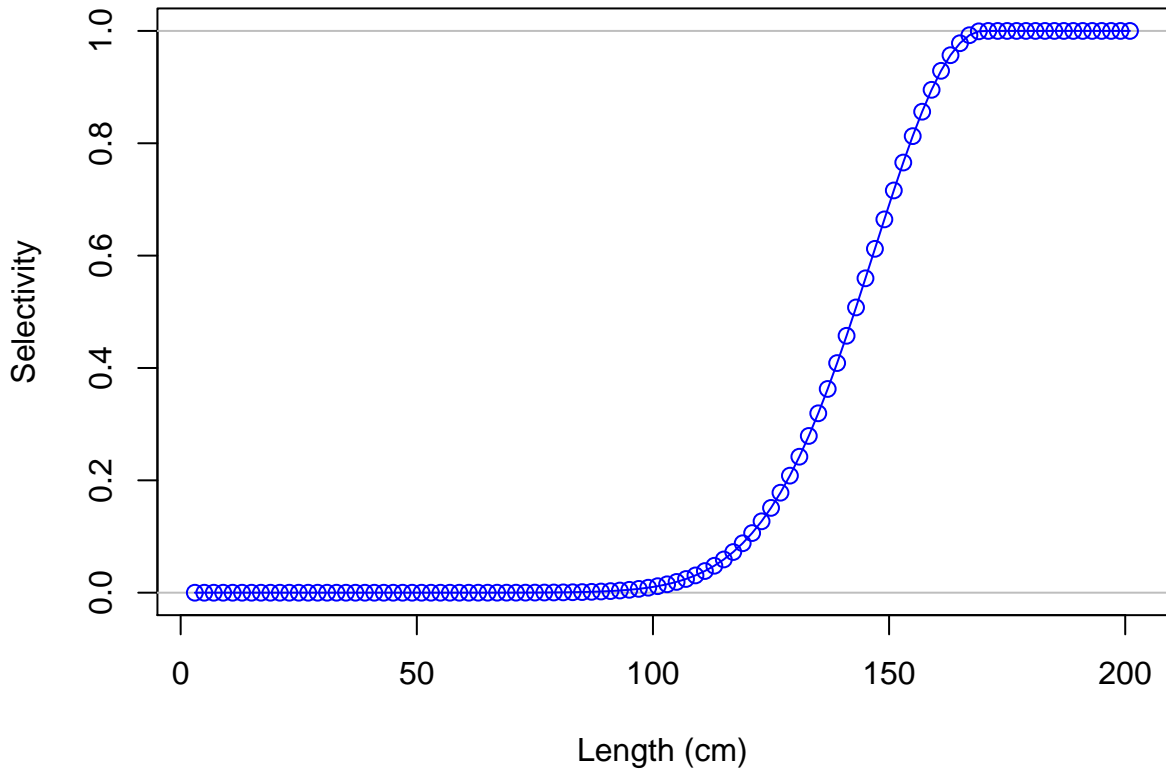
# Female ending year selectivity for F32-LL\_W\_Q23n



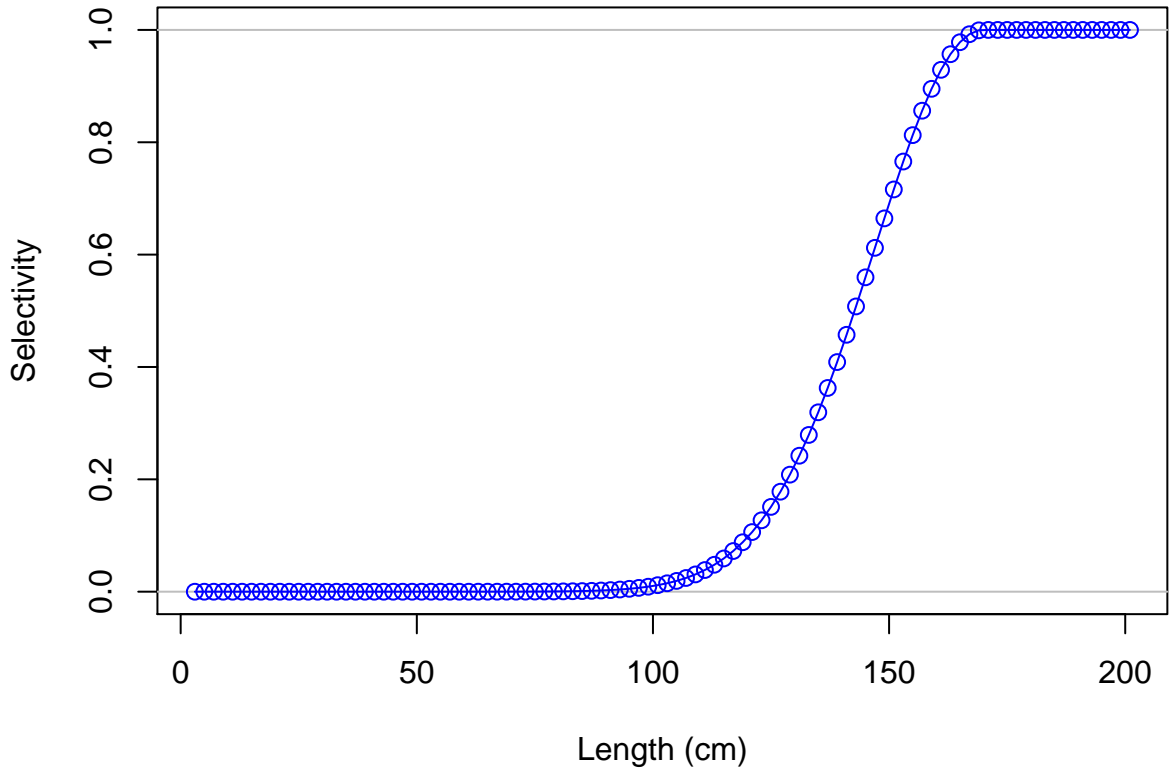
# Male ending year selectivity for F32-LL\_W\_Q23n



# Female ending year selectivity for F33-LL\_C\_Q23n

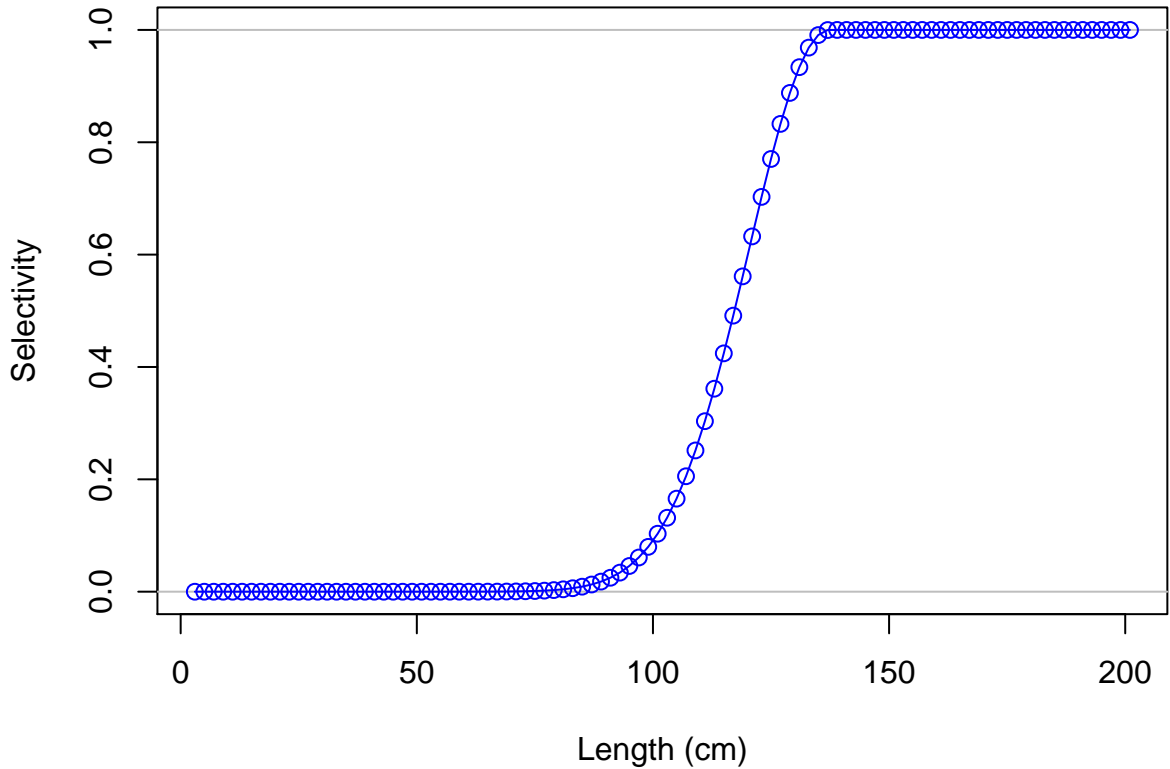


### Male ending year selectivity for F33-LL\_C\_Q23n

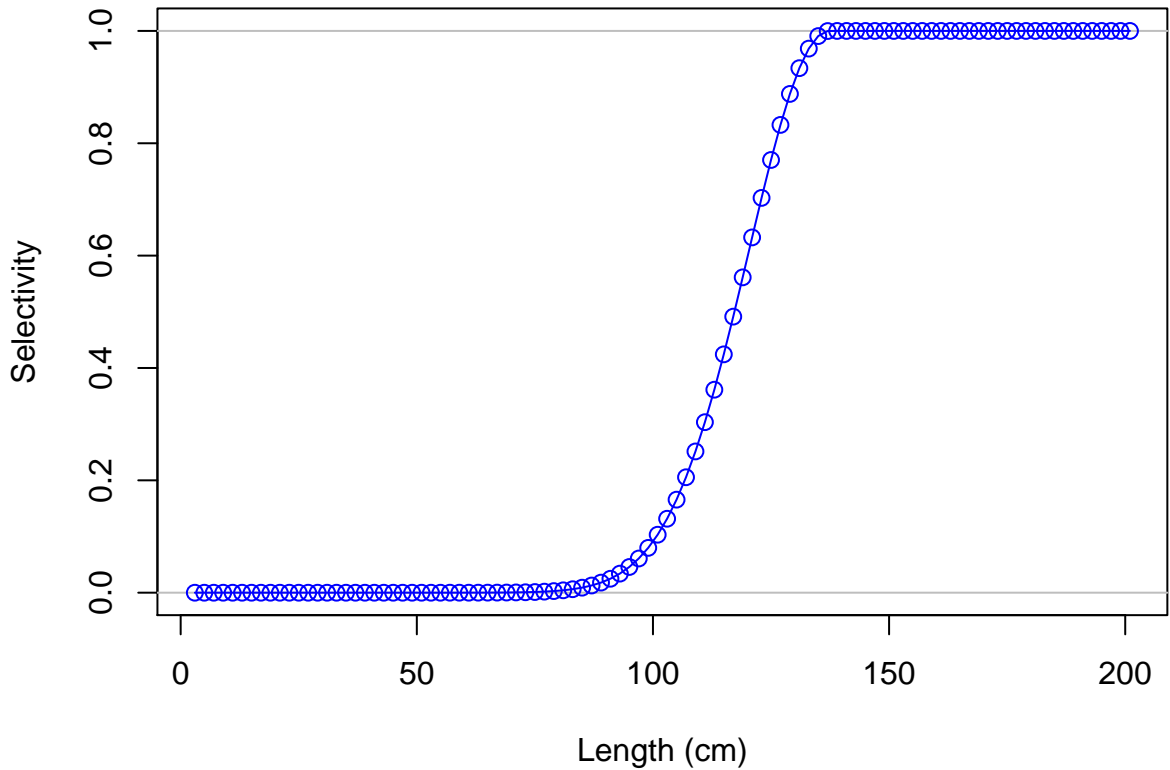




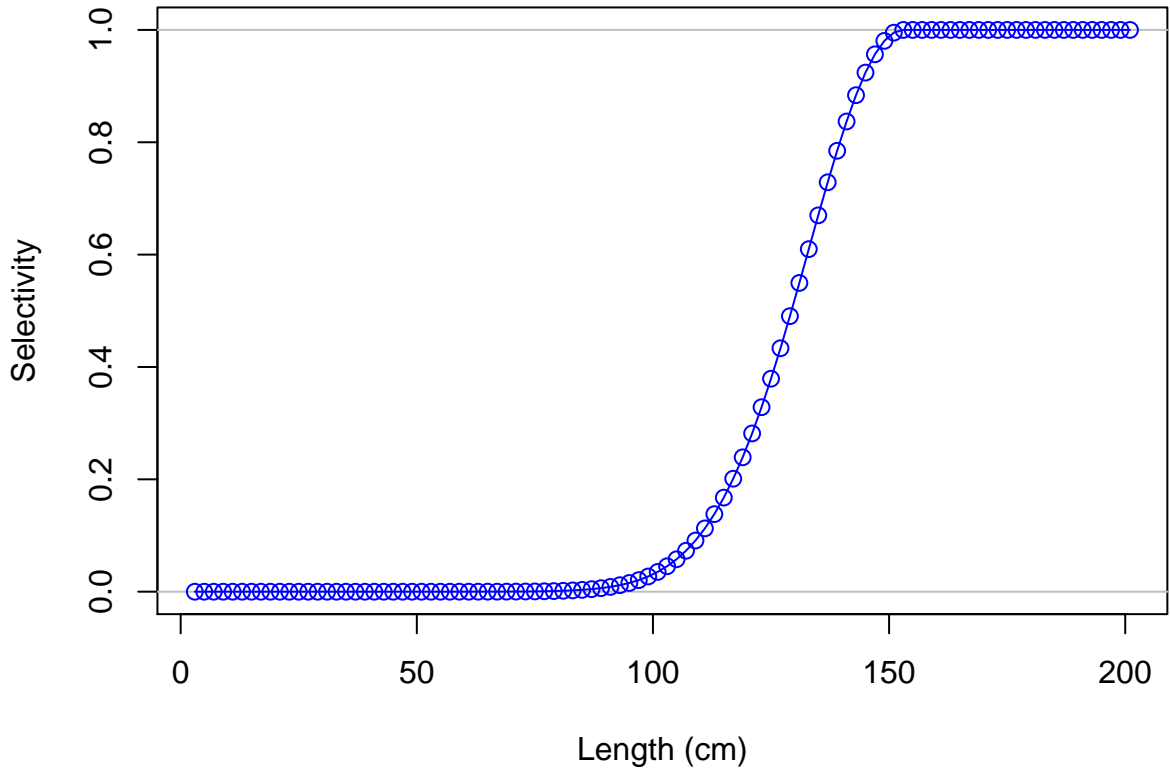
## Female ending year selectivity for F34-LL\_E\_Q23n



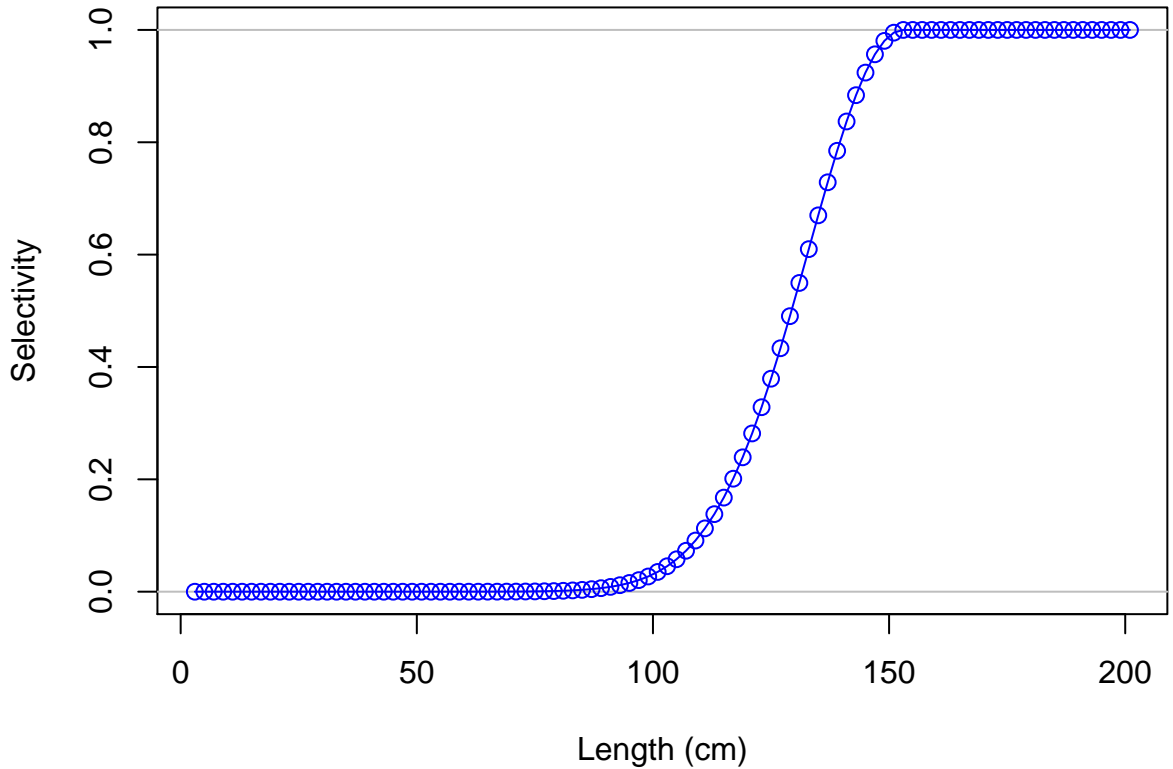
### Male ending year selectivity for F34-LL\_E\_Q23n



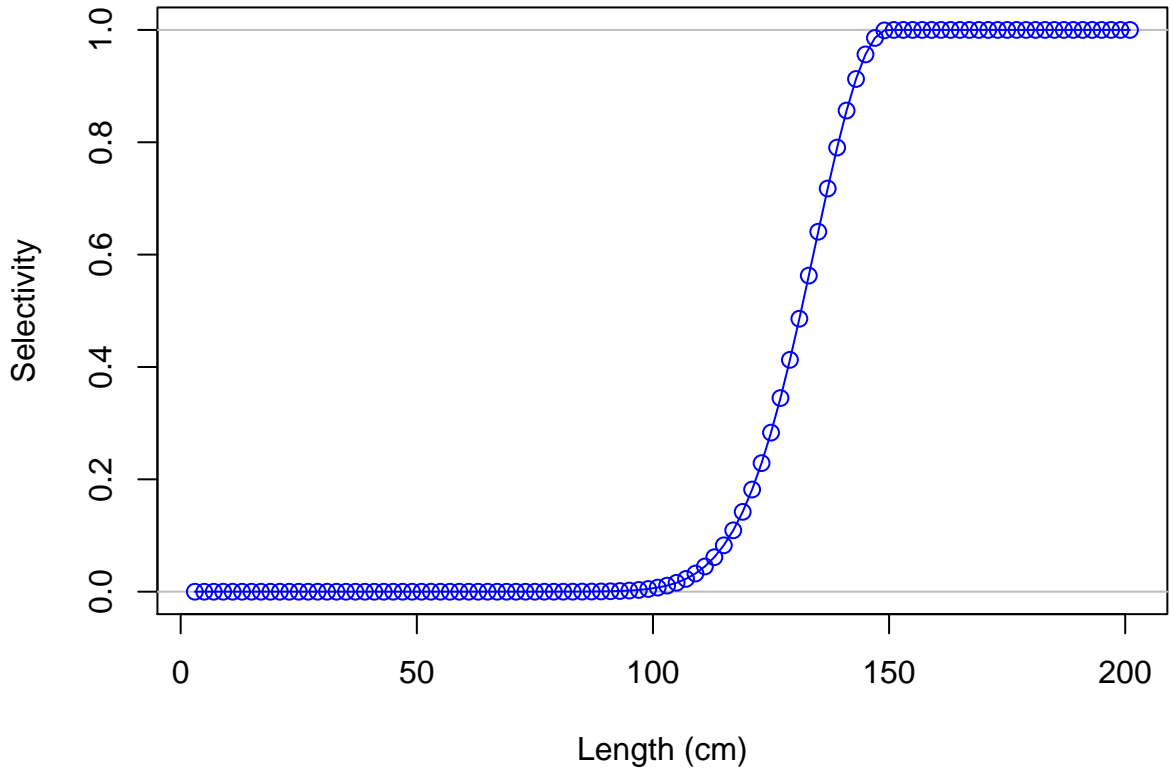
## Female ending year selectivity for F35-LL\_W\_Q14w



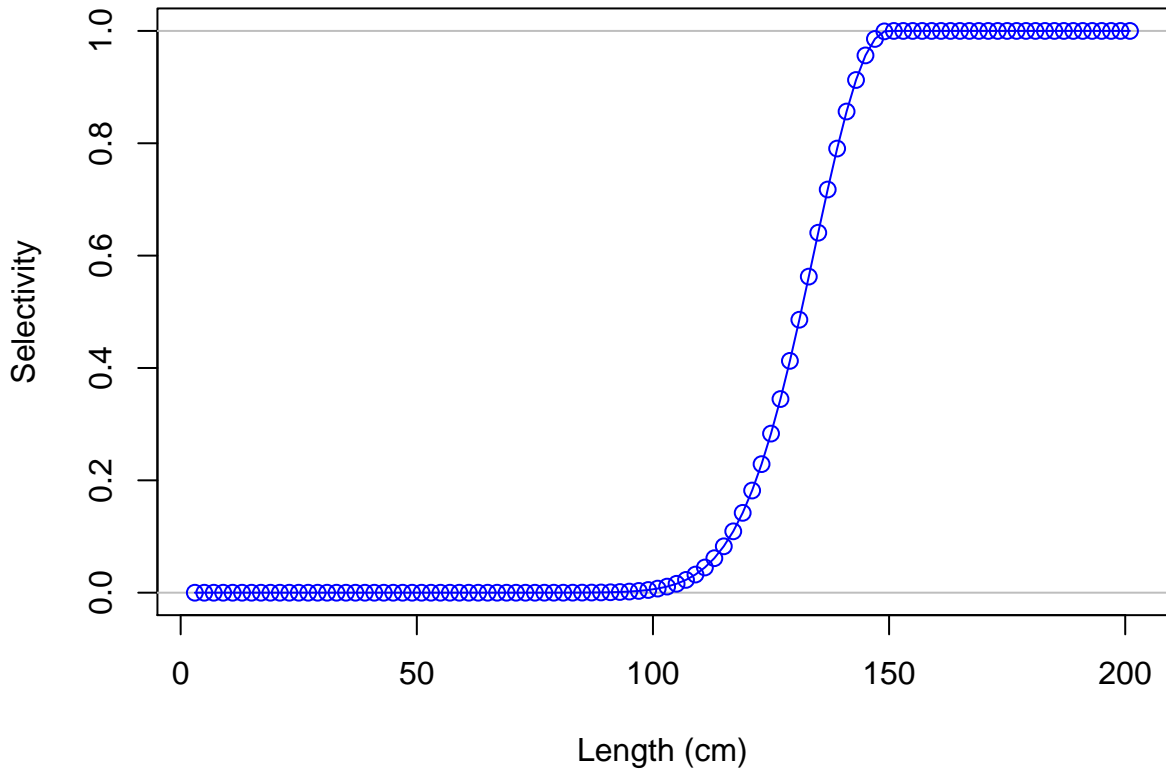
# Male ending year selectivity for F35-LL\_W\_Q14w



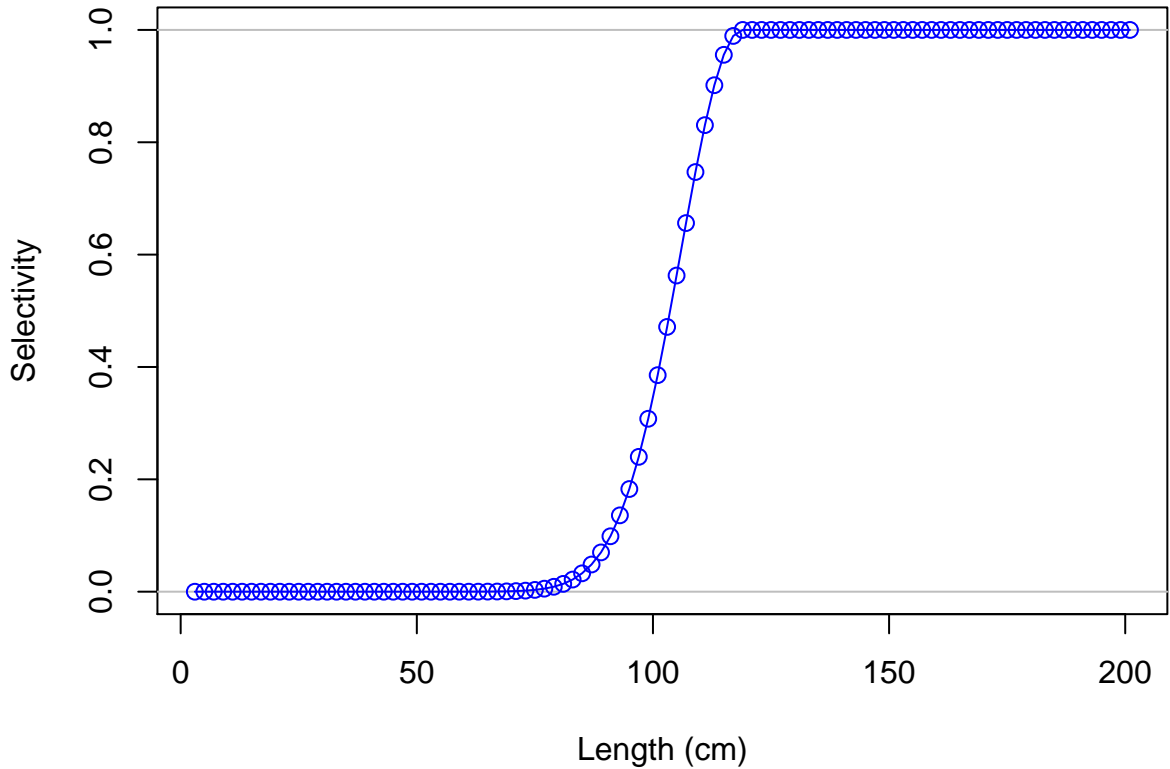
# Female ending year selectivity for F36-LL\_C\_Q14w



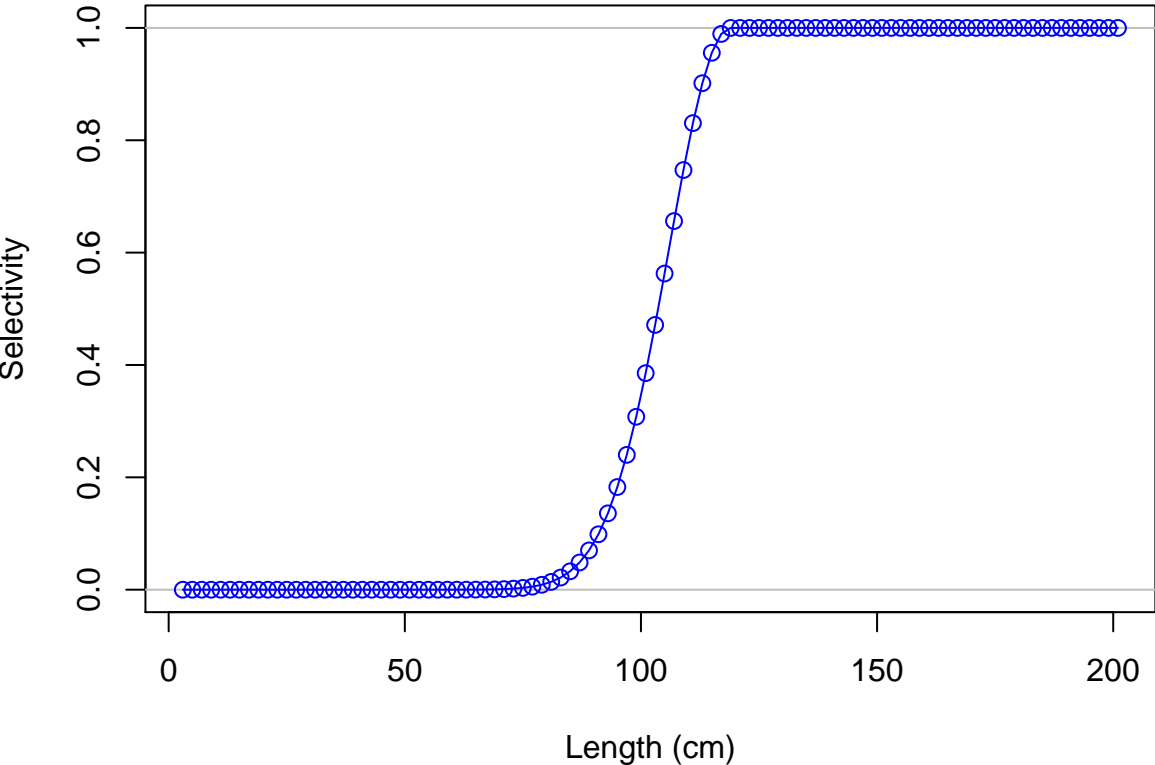
# Male ending year selectivity for F36-LL\_C\_Q14w



# Female ending year selectivity for F37-LL\_E\_Q14w

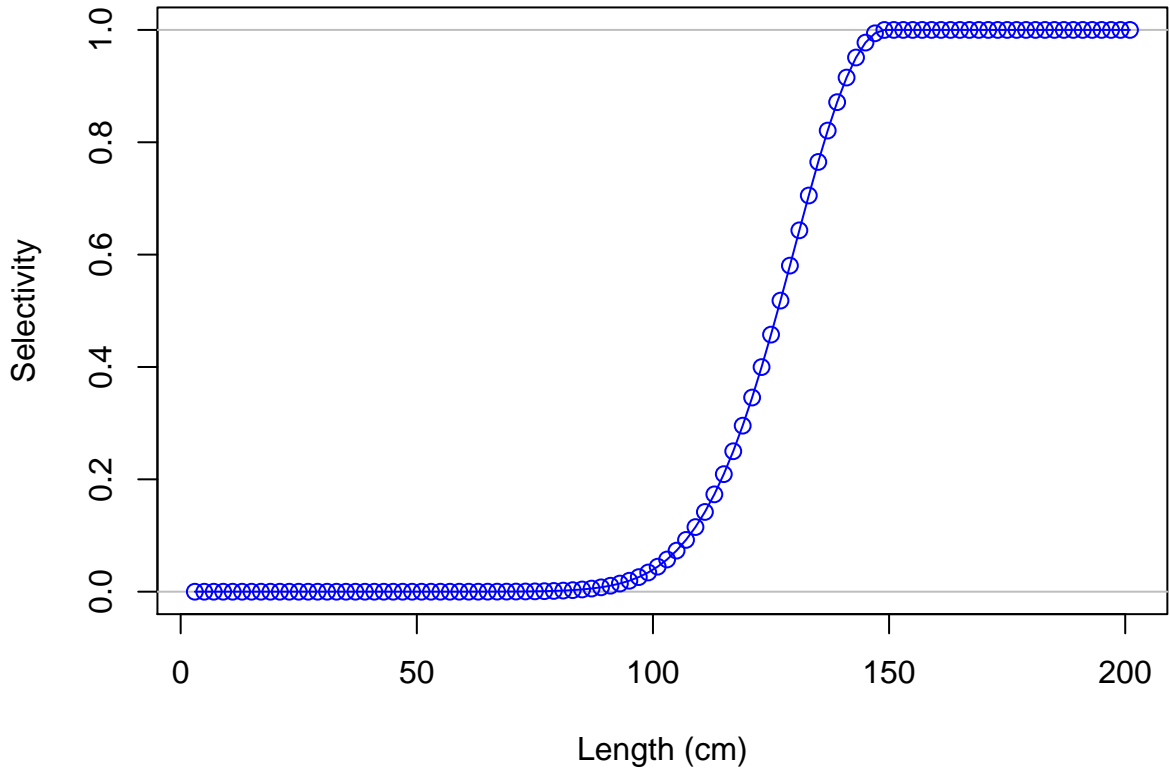


Male ending year selectivity for F37-LL\_E\_Q14w

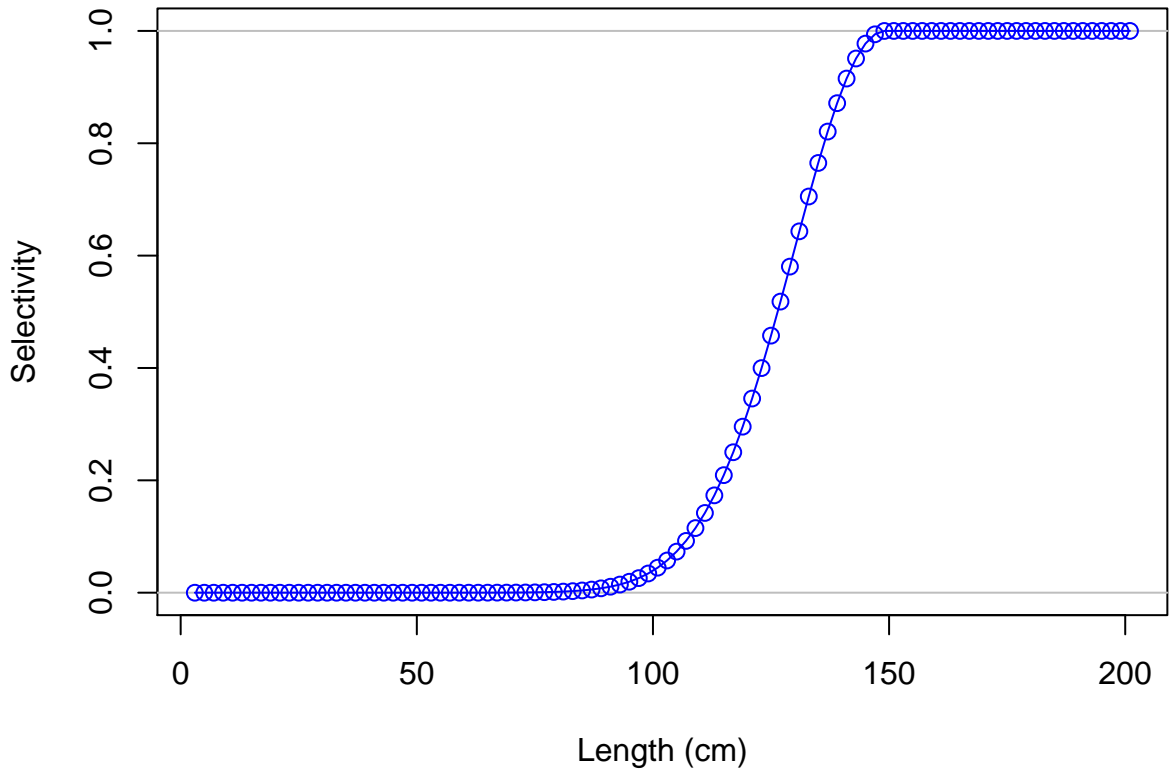




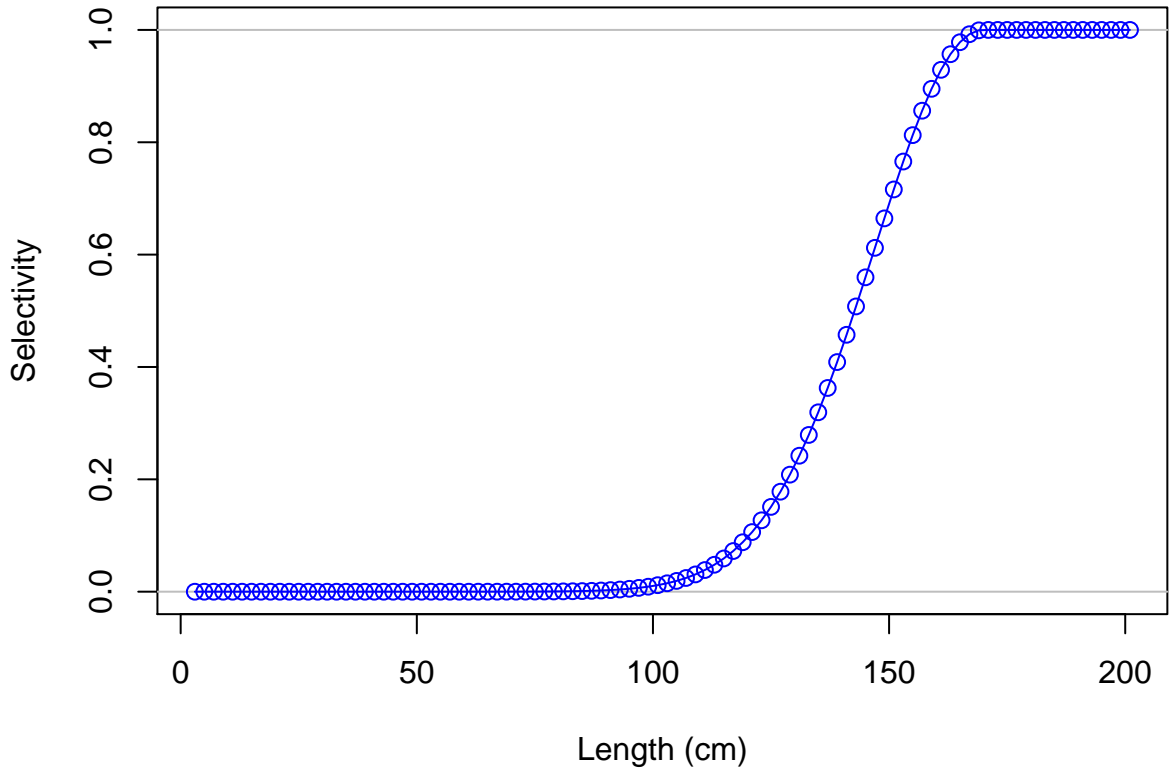
## Female ending year selectivity for F38-LL\_W\_Q23w



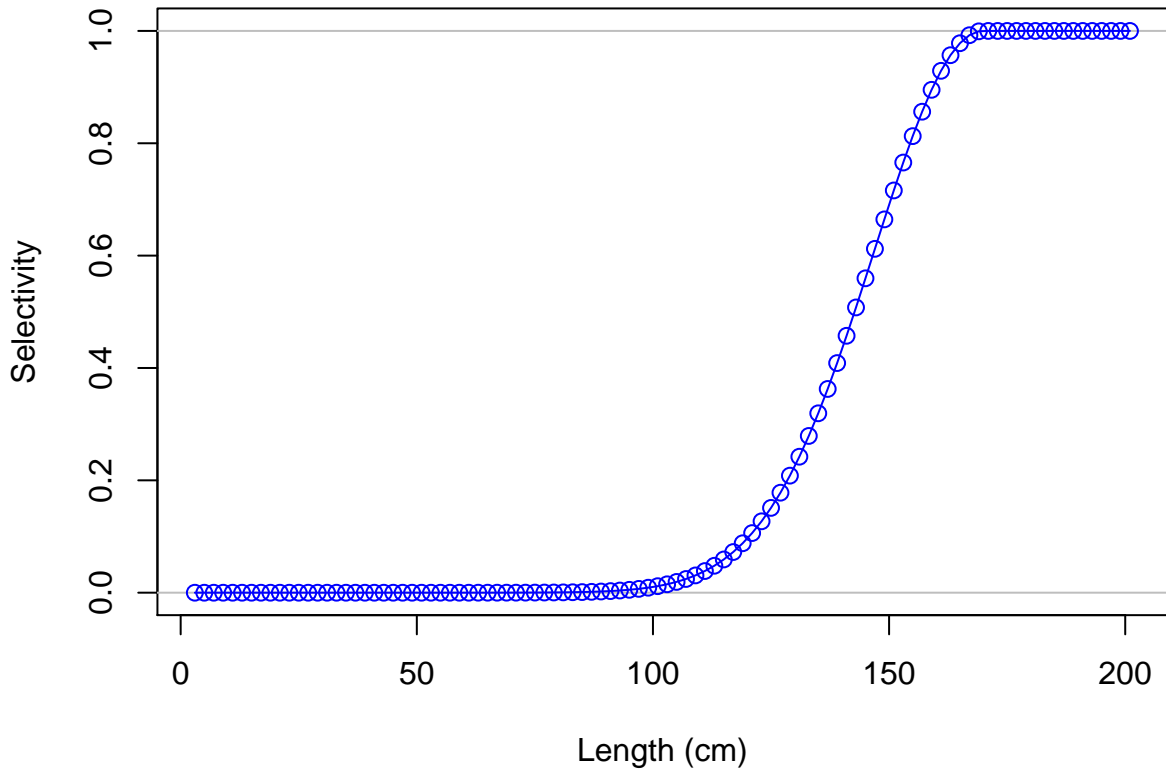
# Male ending year selectivity for F38-LL\_W\_Q23w



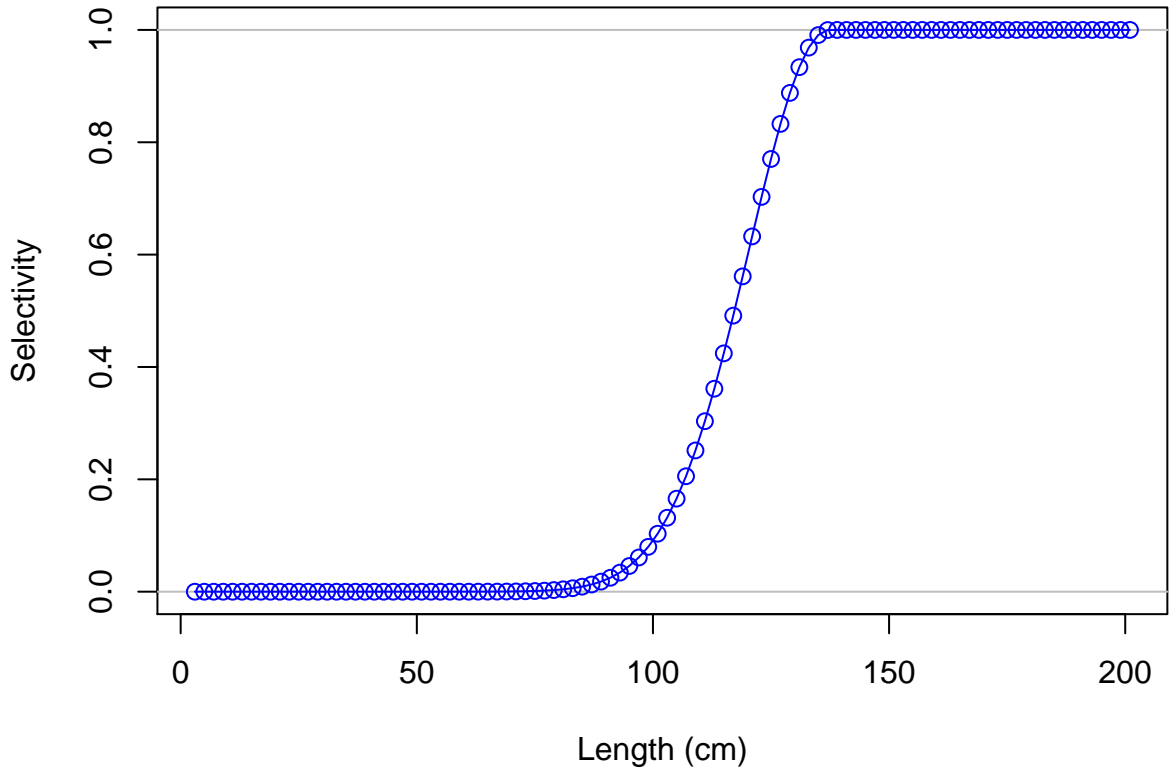
### Female ending year selectivity for F39-LL\_C\_Q23w



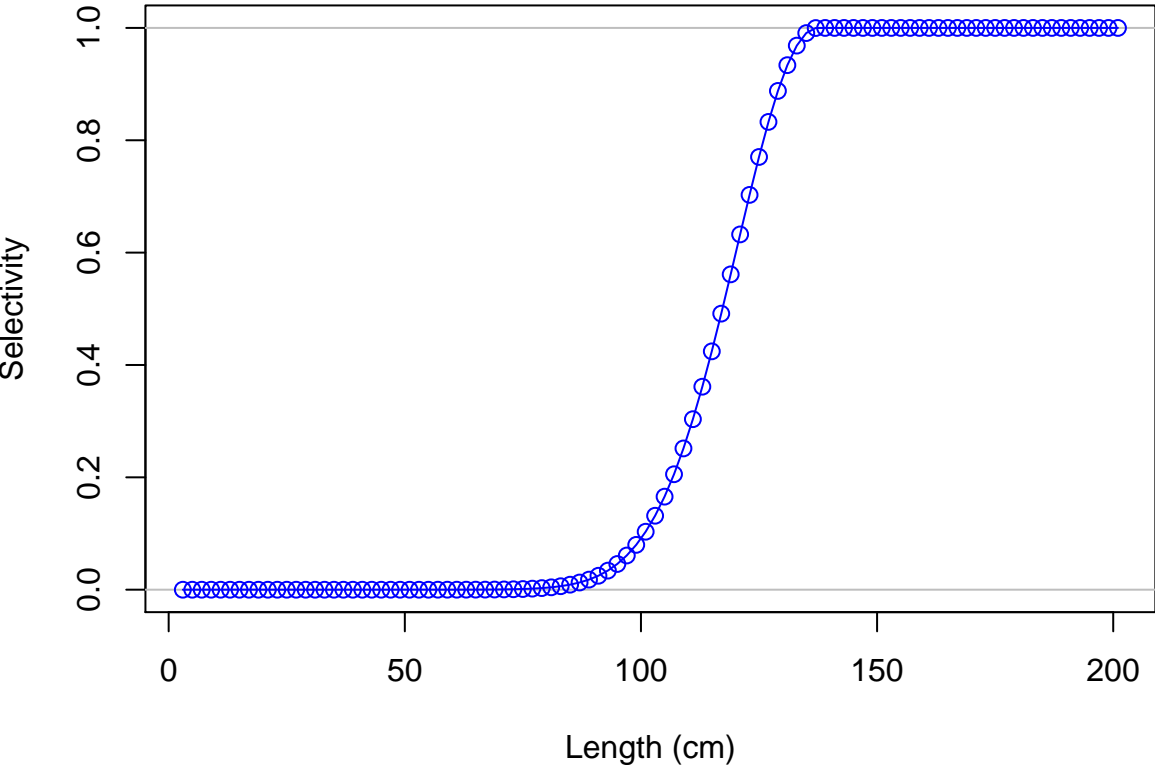
# Male ending year selectivity for F39-LL\_C\_Q23w



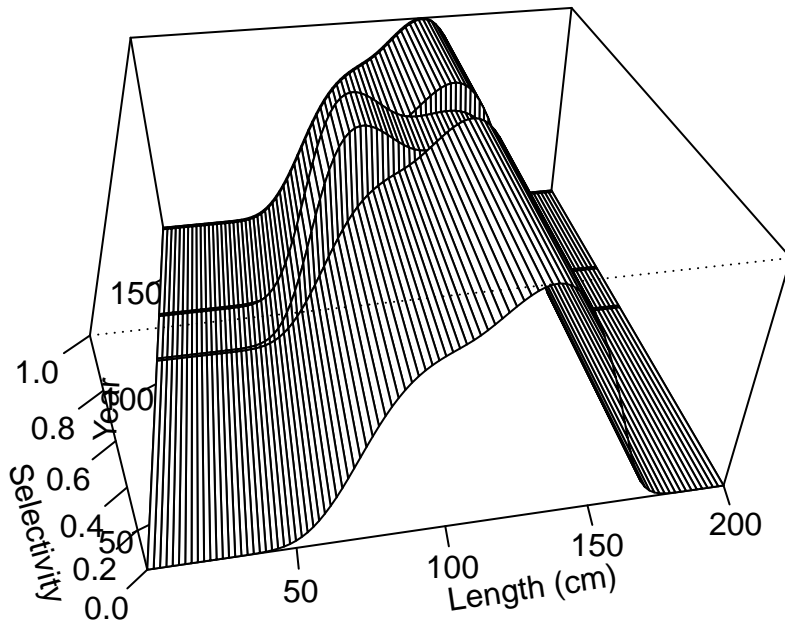
# Female ending year selectivity for F40-LL\_E\_Q23w



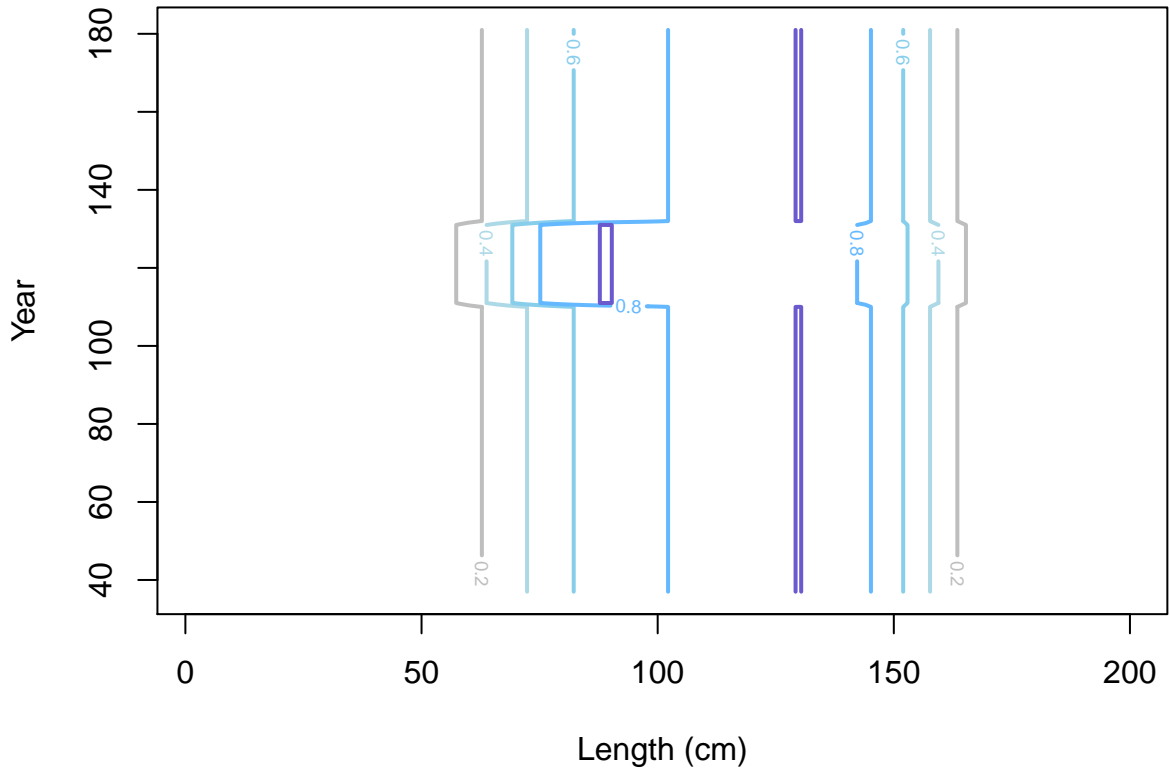
Male ending year selectivity for F40-LL\_E\_Q23w



## Female time-varying selectivity for S1-PS\_DEL\_VAST

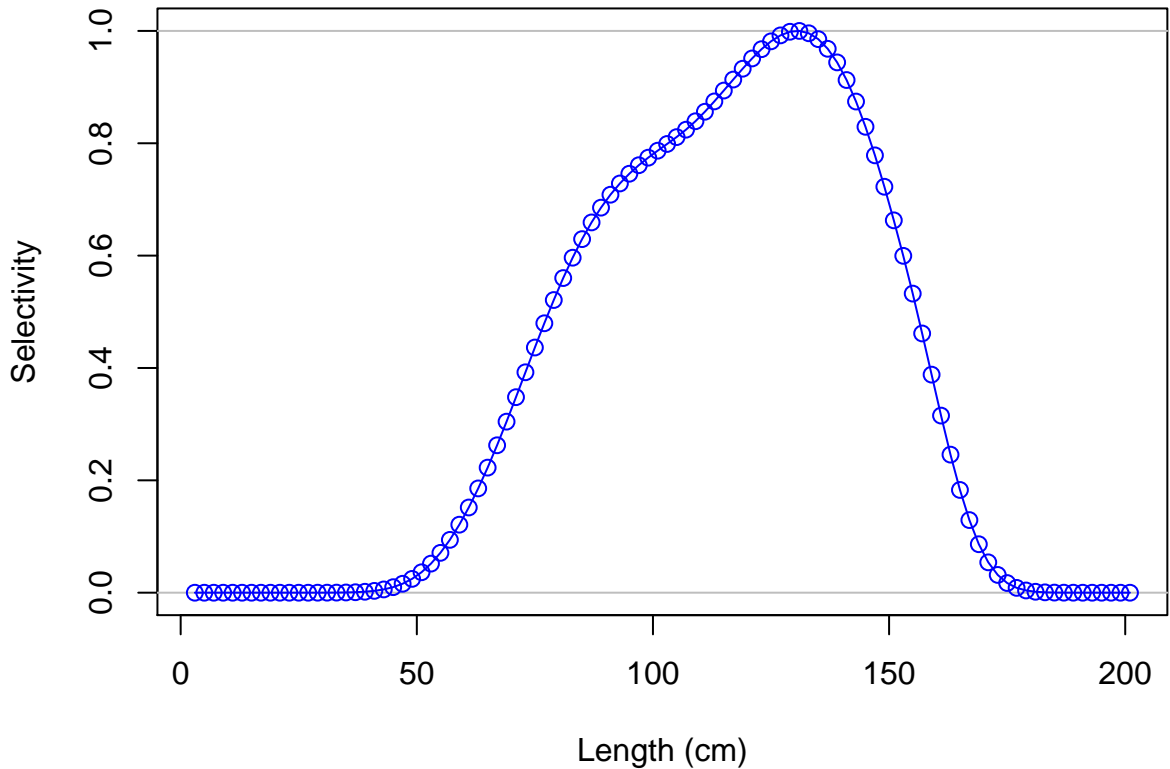


# Female time-varying selectivity for S1-PS\_DEL\_VAST

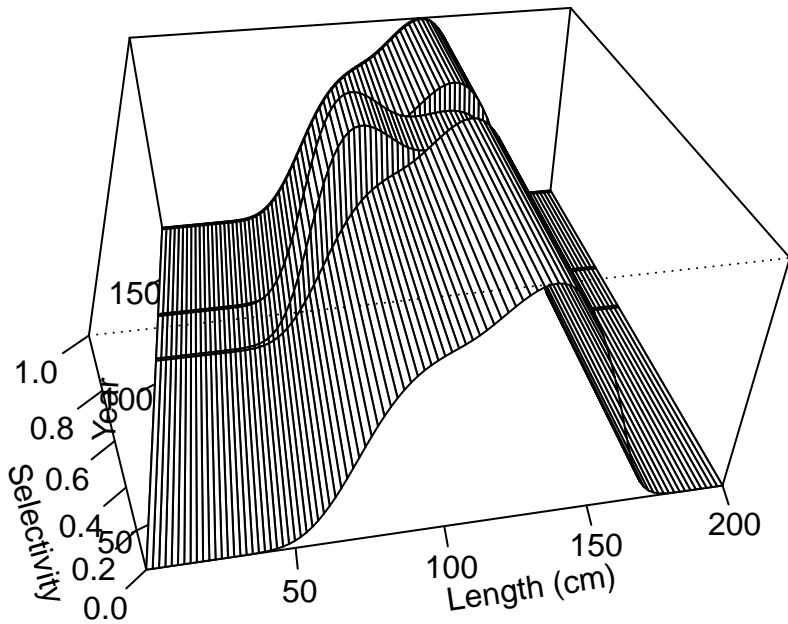




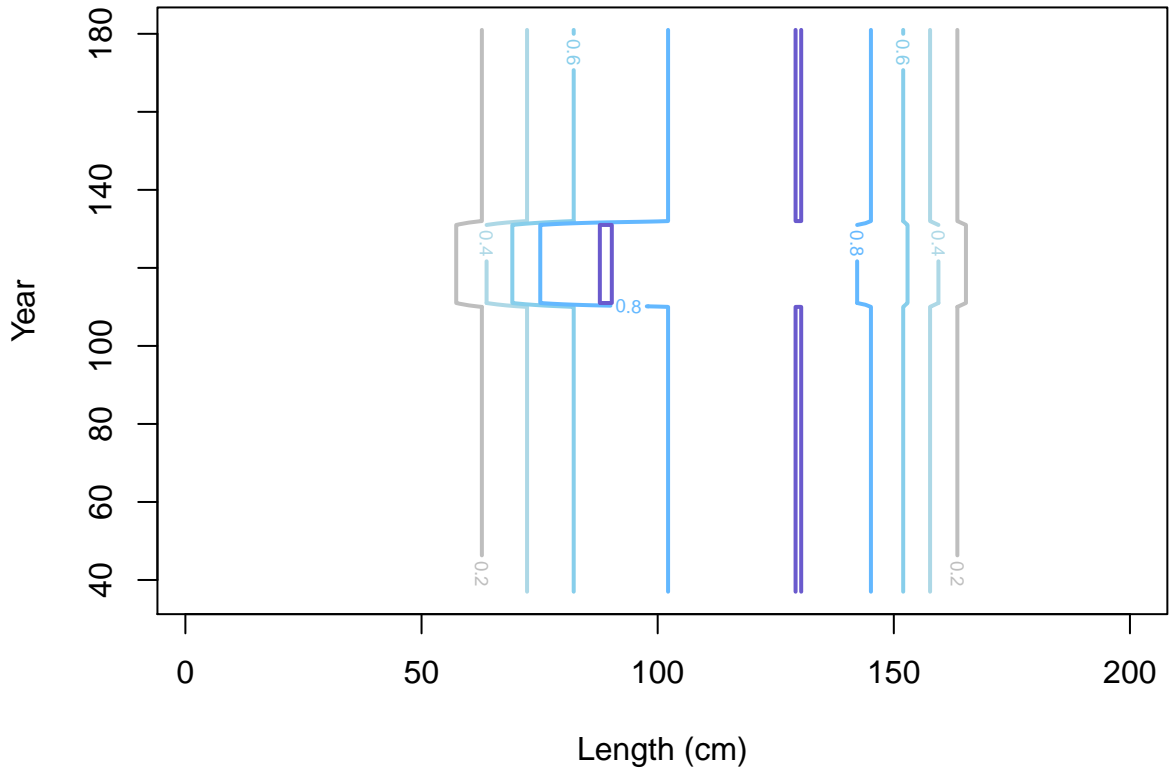
# Female ending year selectivity for S1-PS\_DEL\_VAST



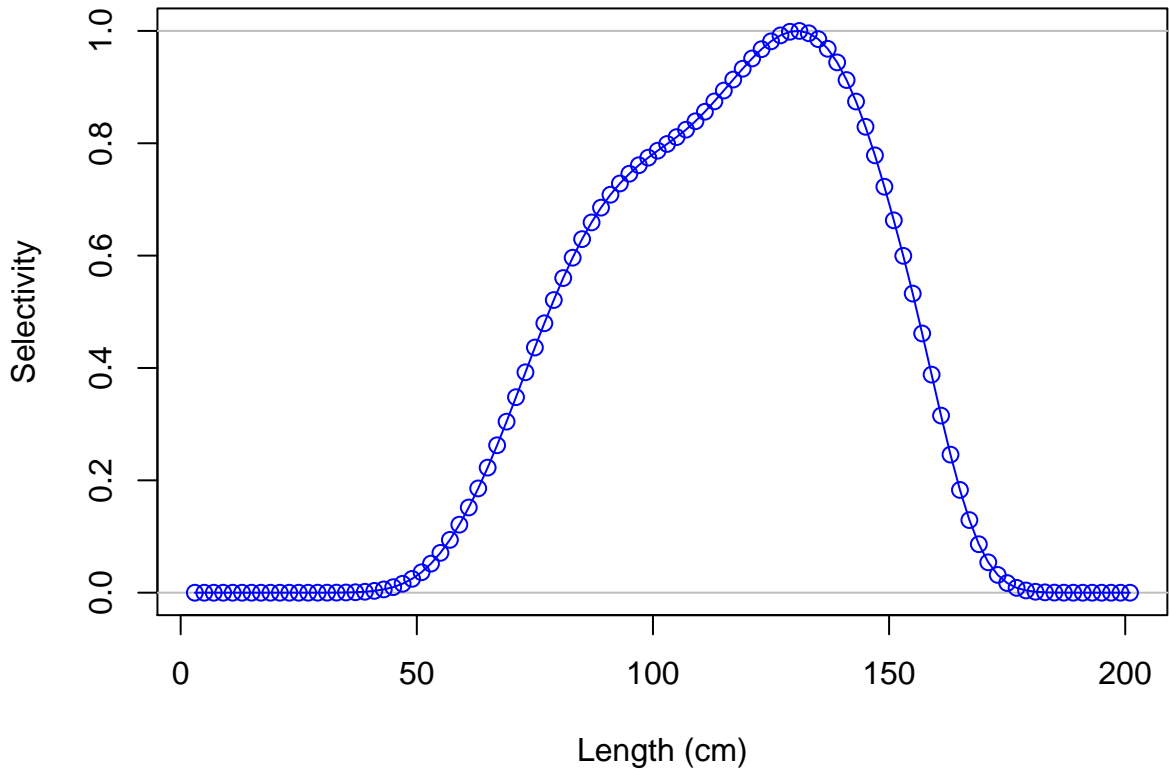
# Male time-varying selectivity for S1-PS\_DEL\_VAST



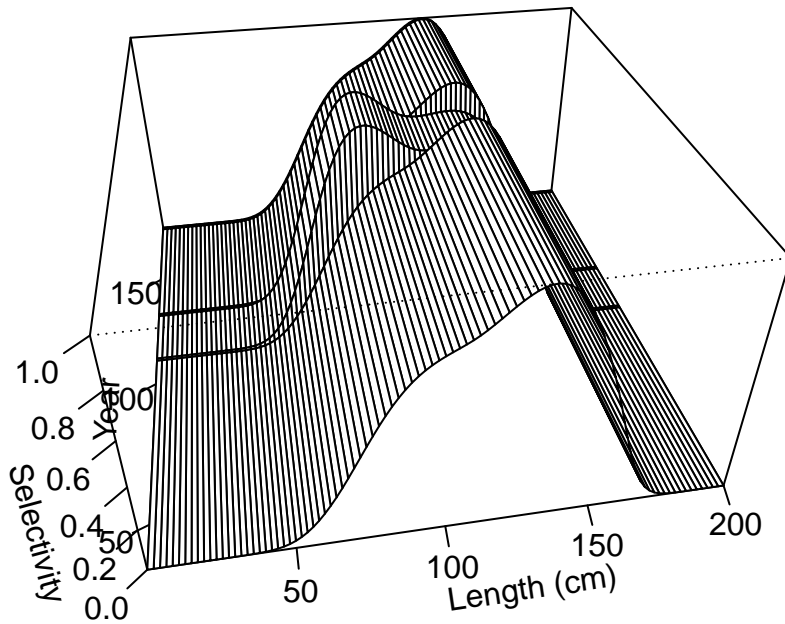
# Male time-varying selectivity for S1-PS\_DEL\_VAST



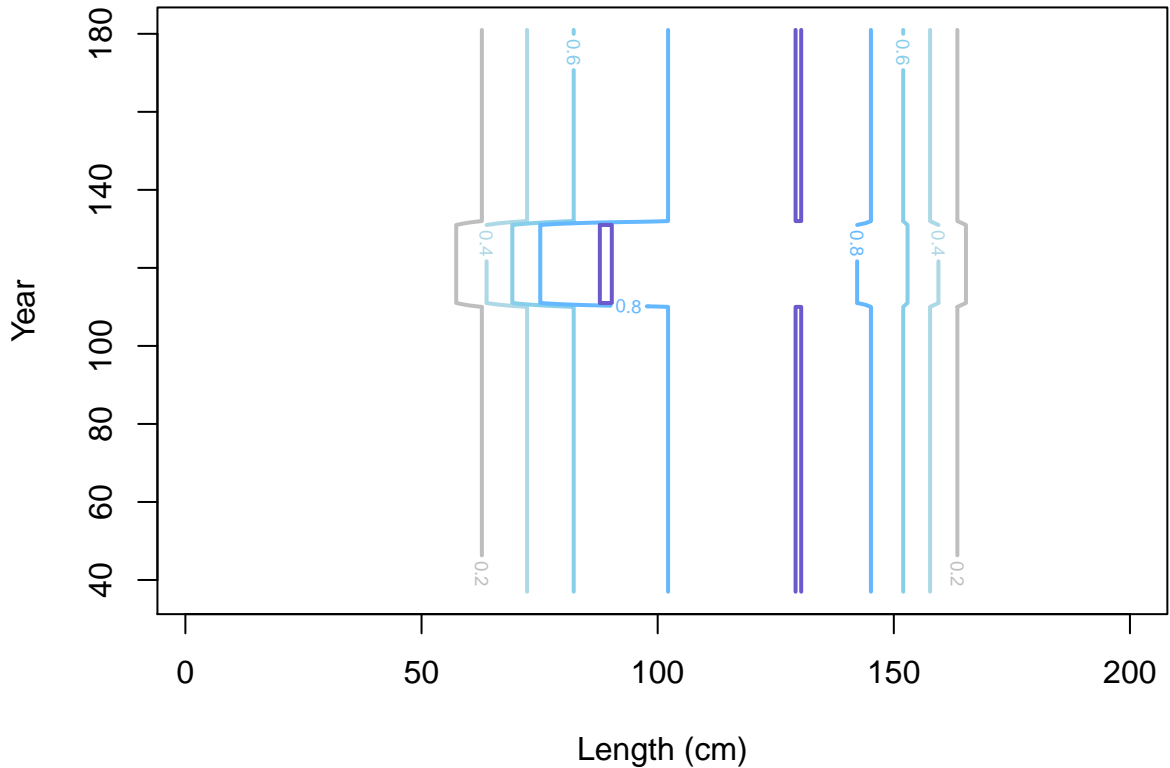
# Male ending year selectivity for S1-PS\_DEL\_VAST



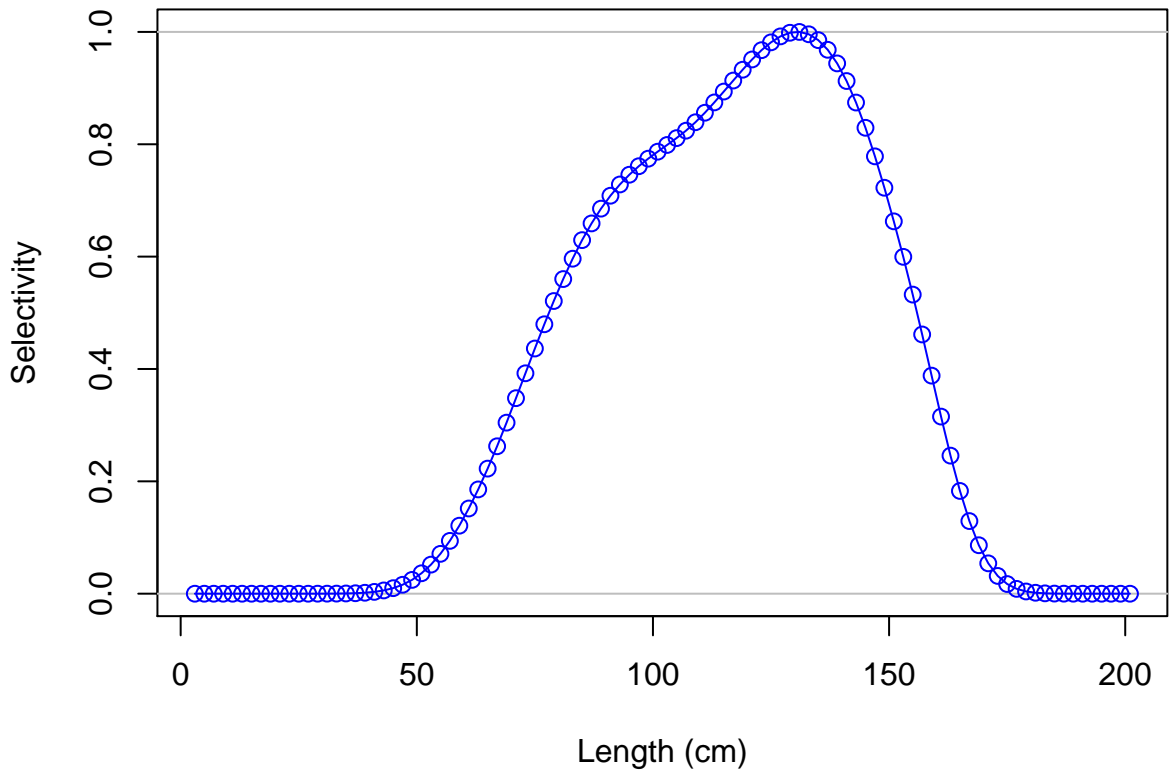
# Female time-varying selectivity for S4-PS\_middle\_VAST



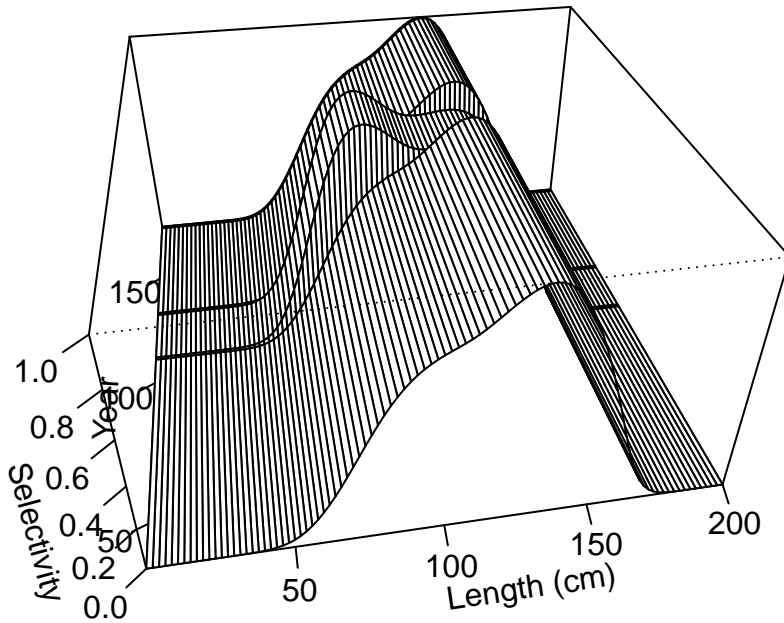
# Female time-varying selectivity for S4-PS\_middle\_VAST



## Female ending year selectivity for S4-PS\_middle\_VAST

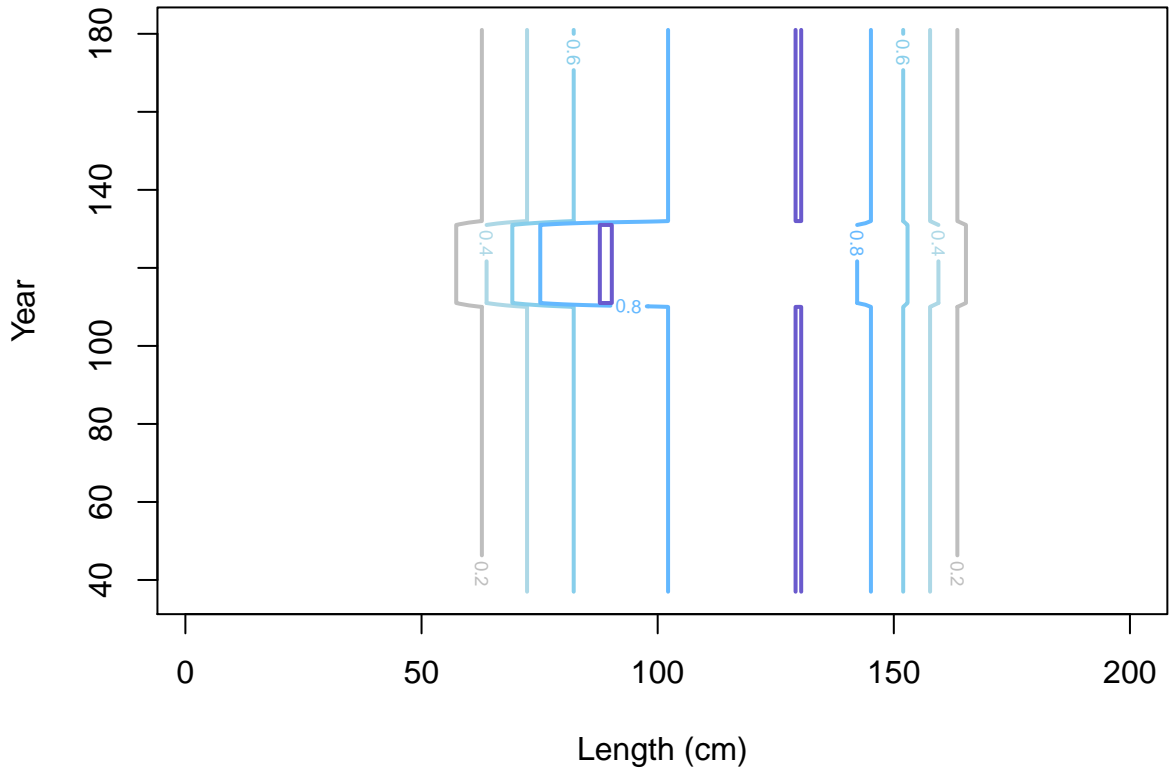


# Male time-varying selectivity for S4-PS\_middle\_VAST

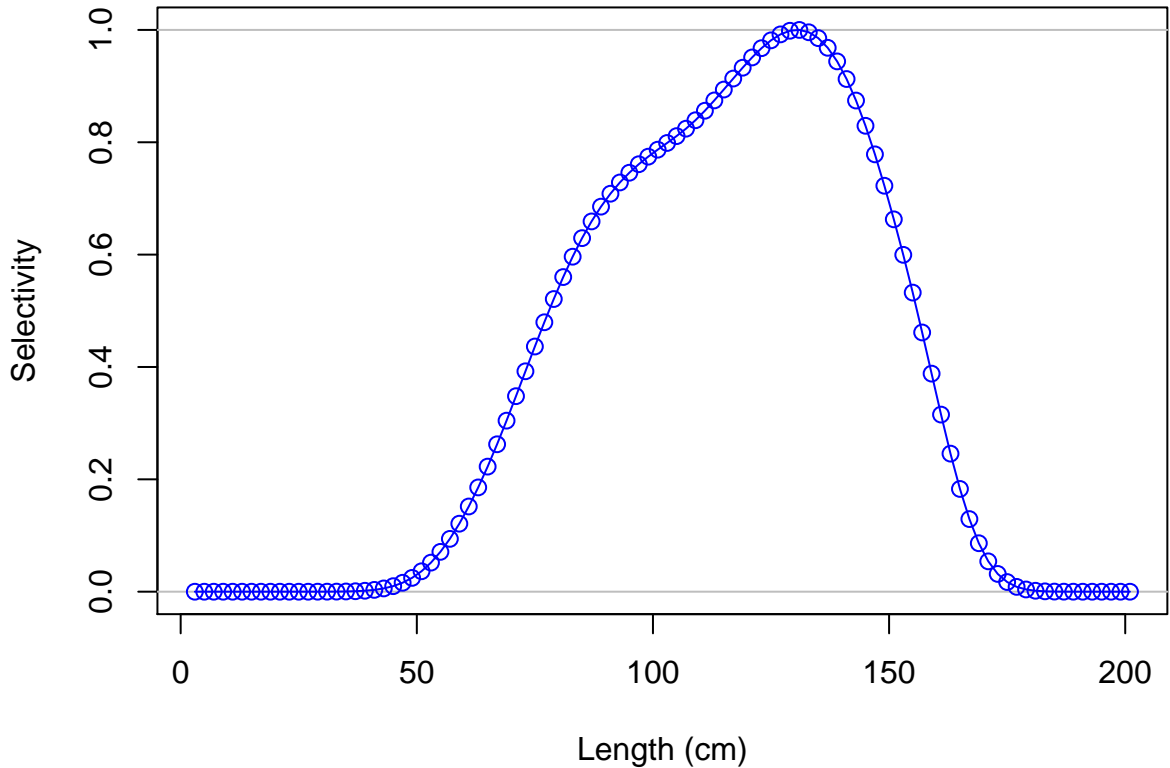




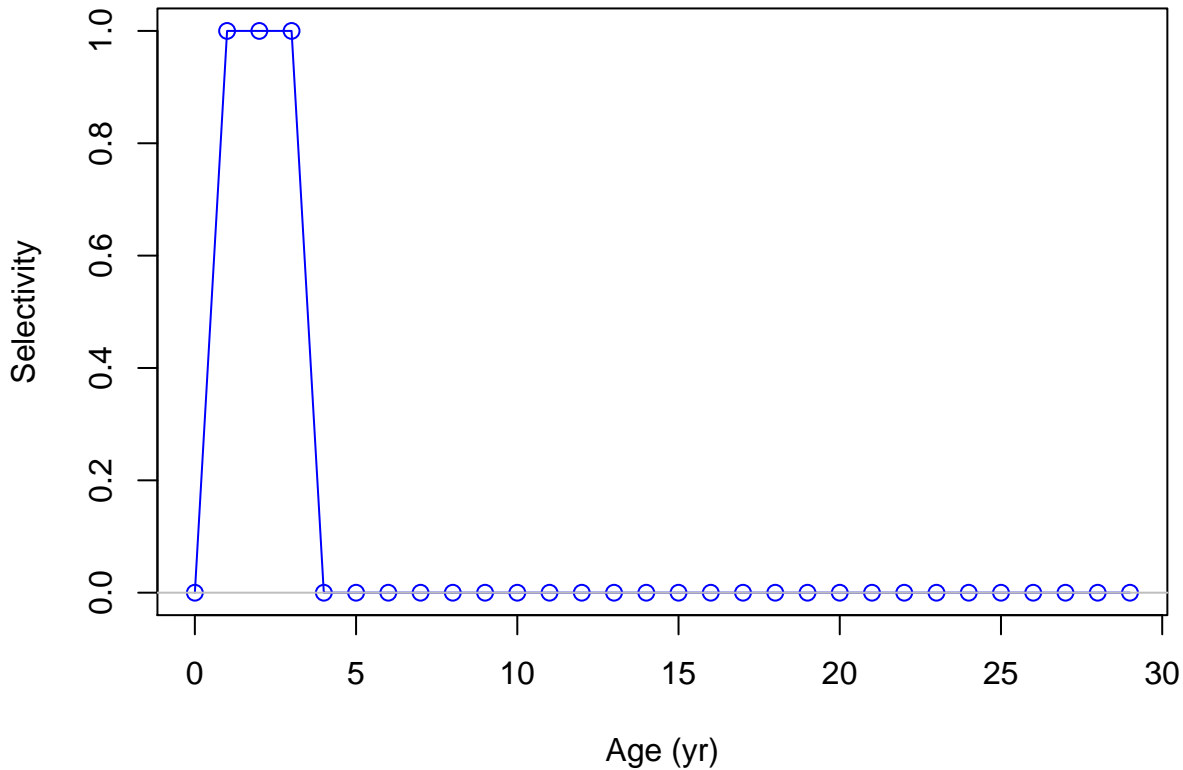
# Male time-varying selectivity for S4-PS\_middle\_VAST



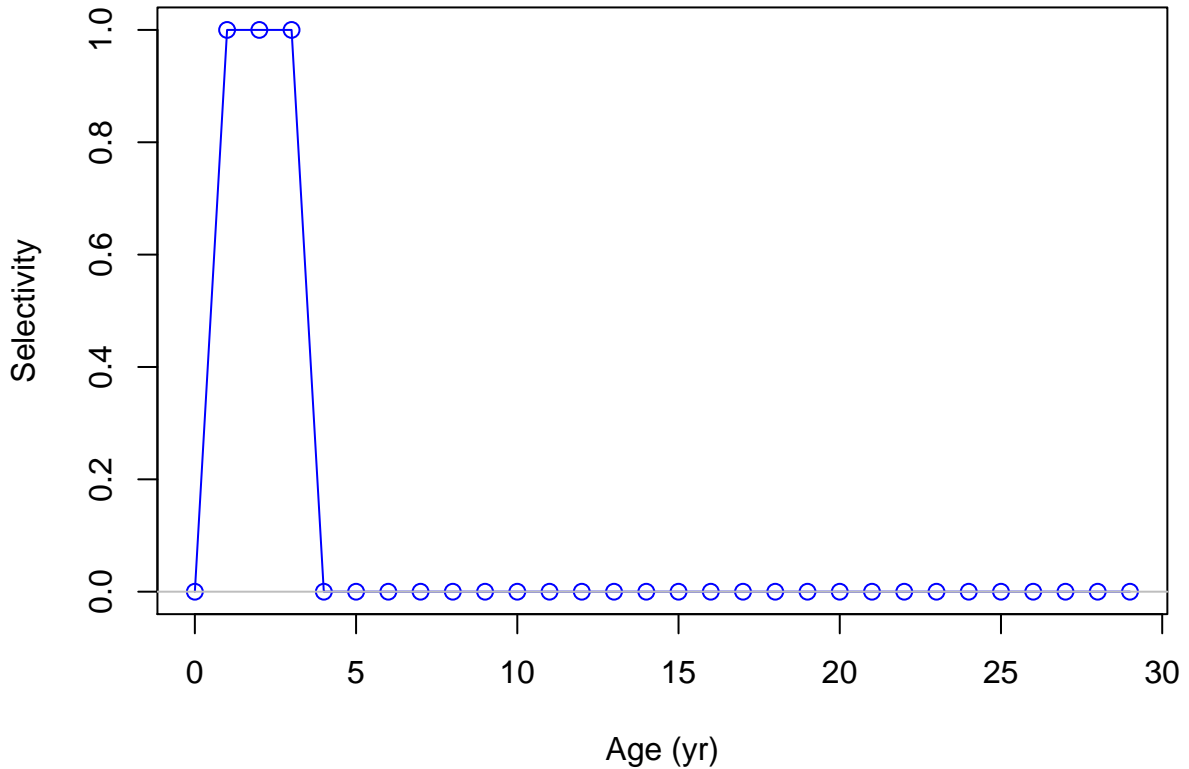
# Male ending year selectivity for S4-PS\_middle\_VAST



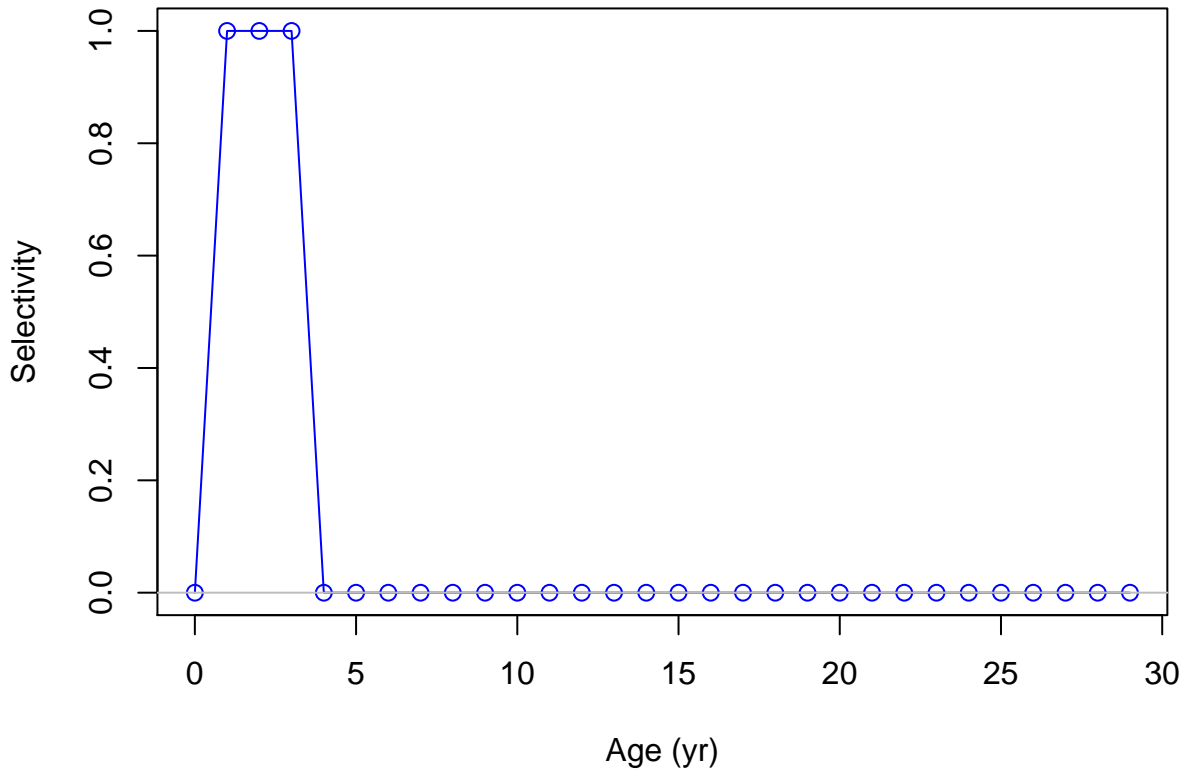
### Female ending year selectivity for F25-OBJ\_S\_disc



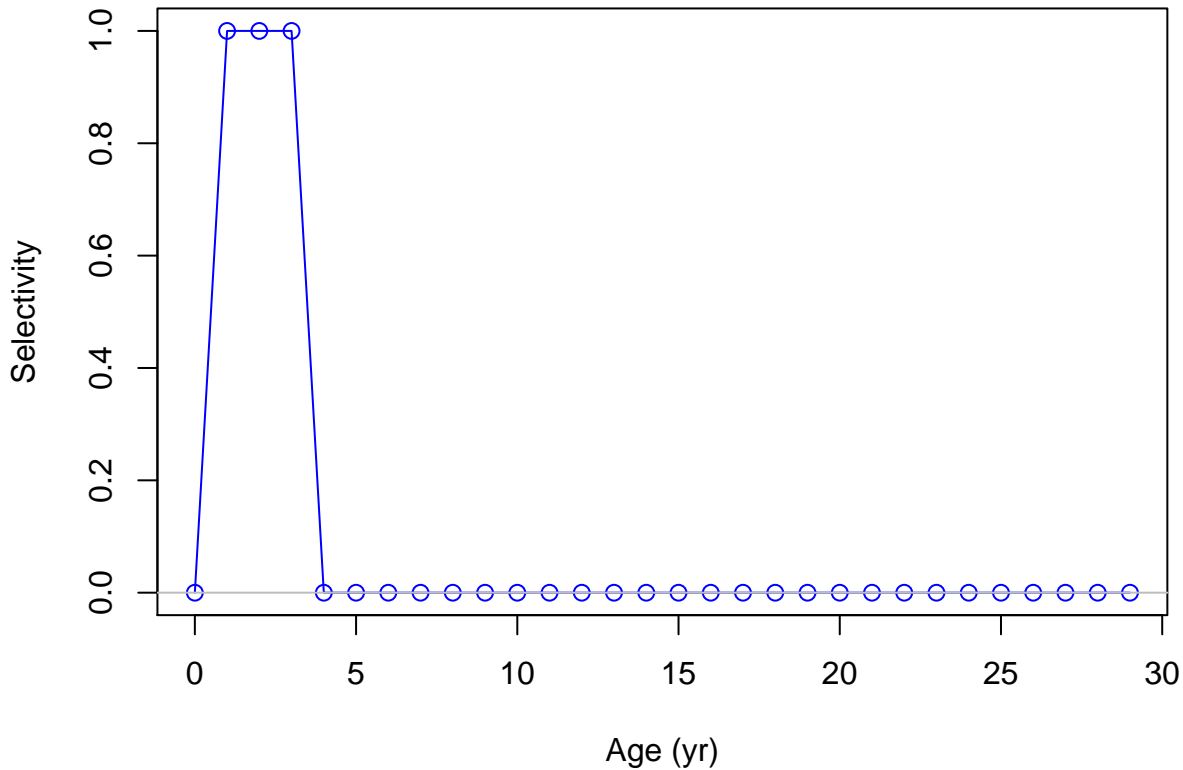
### Male ending year selectivity for F25-OBJ\_S\_disc



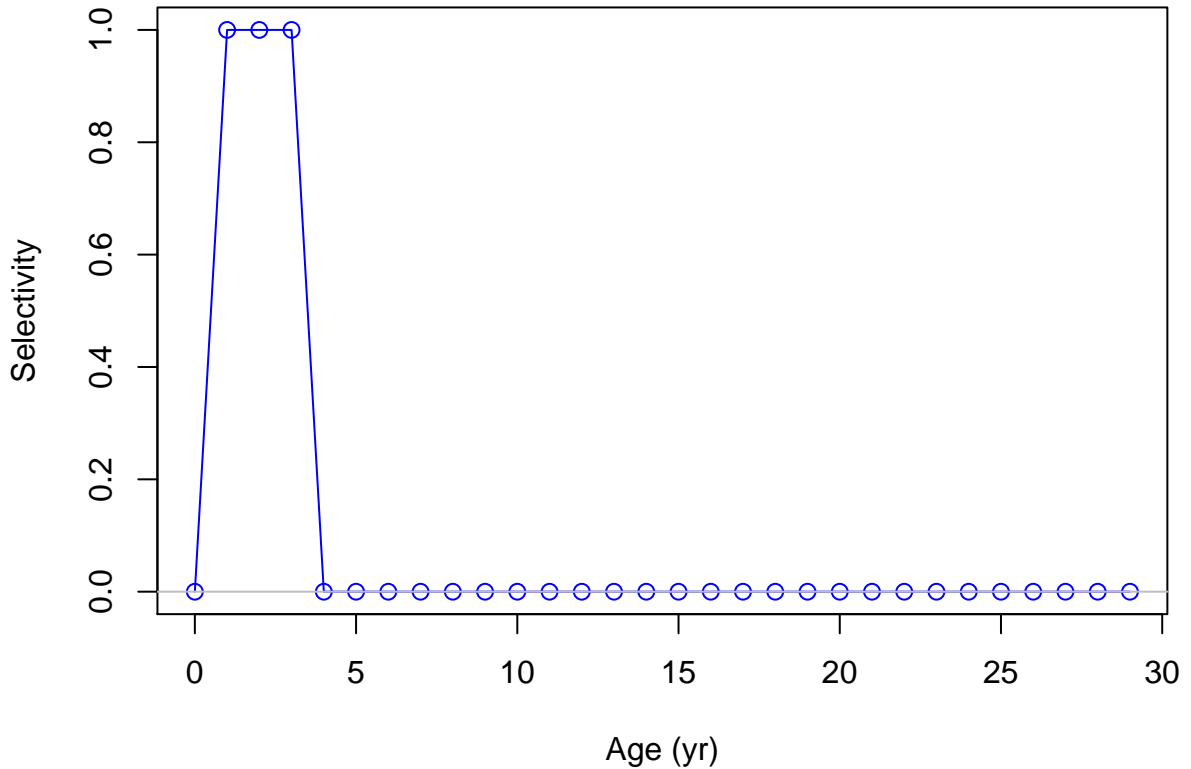
## Female ending year selectivity for F26-OBJ\_C\_disc



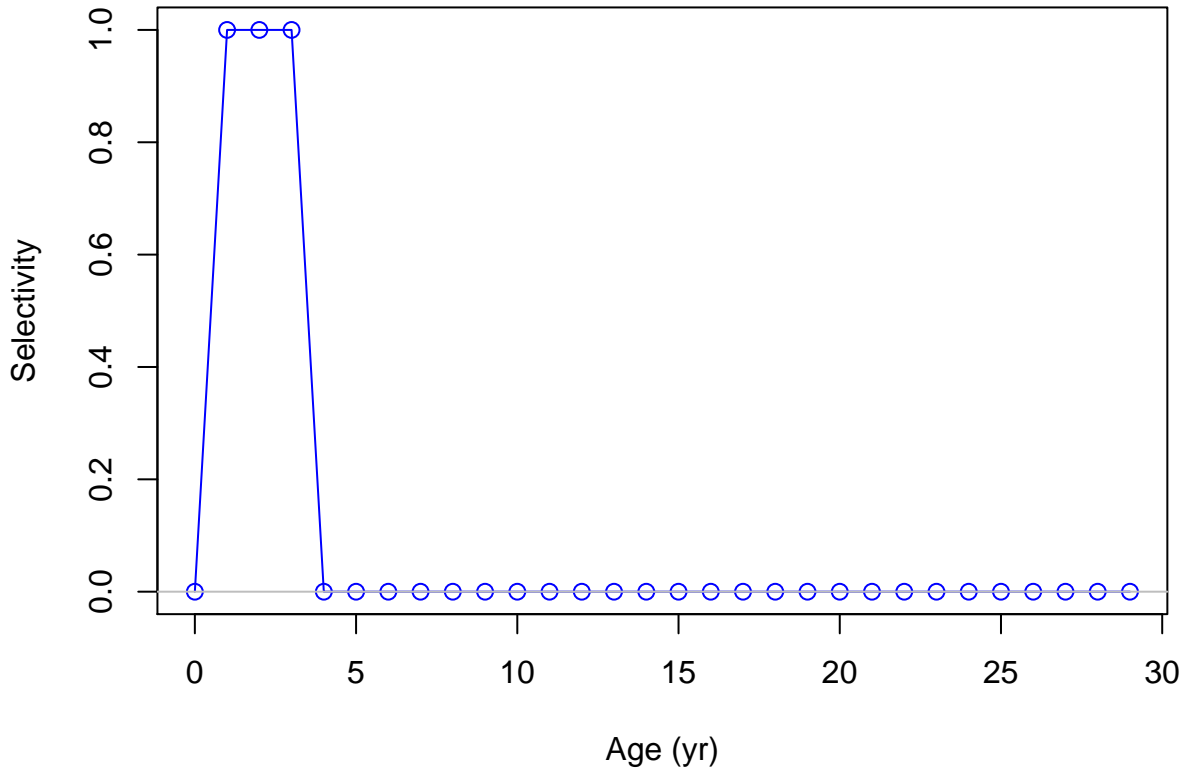
### Male ending year selectivity for F26-OBJ\_C\_disc



### Female ending year selectivity for F27-OBJ\_I\_disc

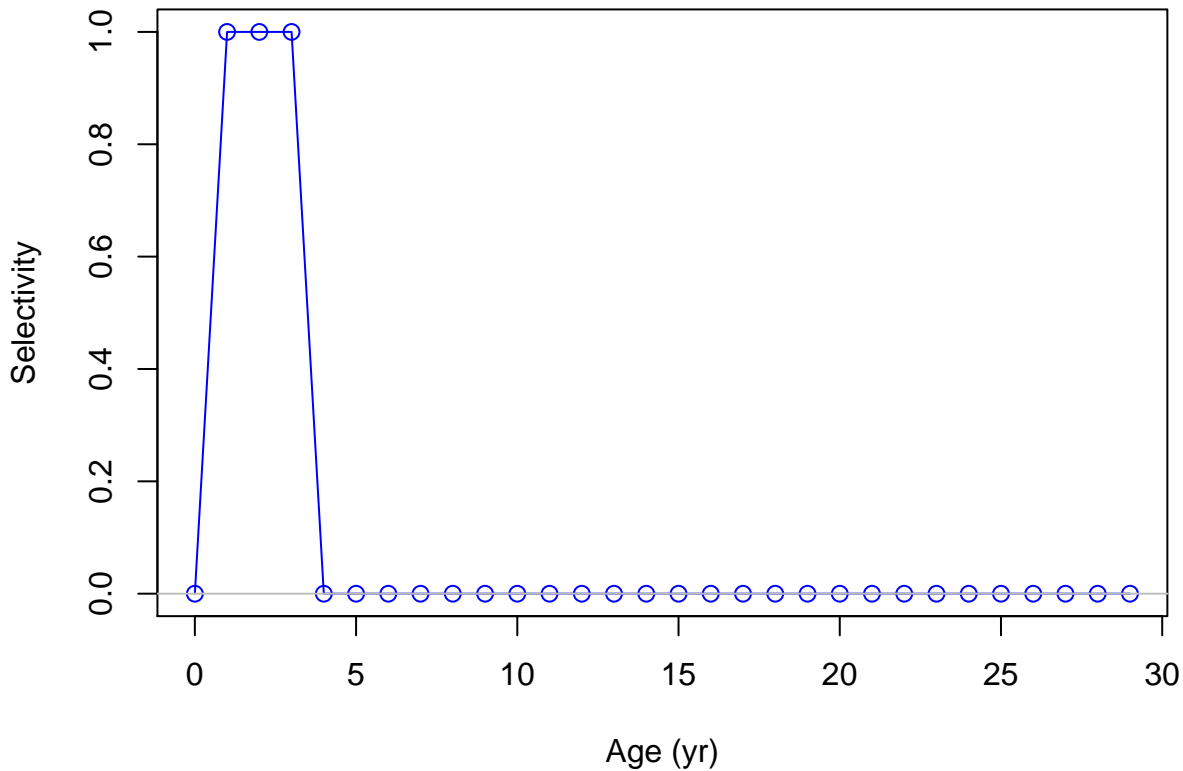


### Male ending year selectivity for F27-OBJ\_I\_disc

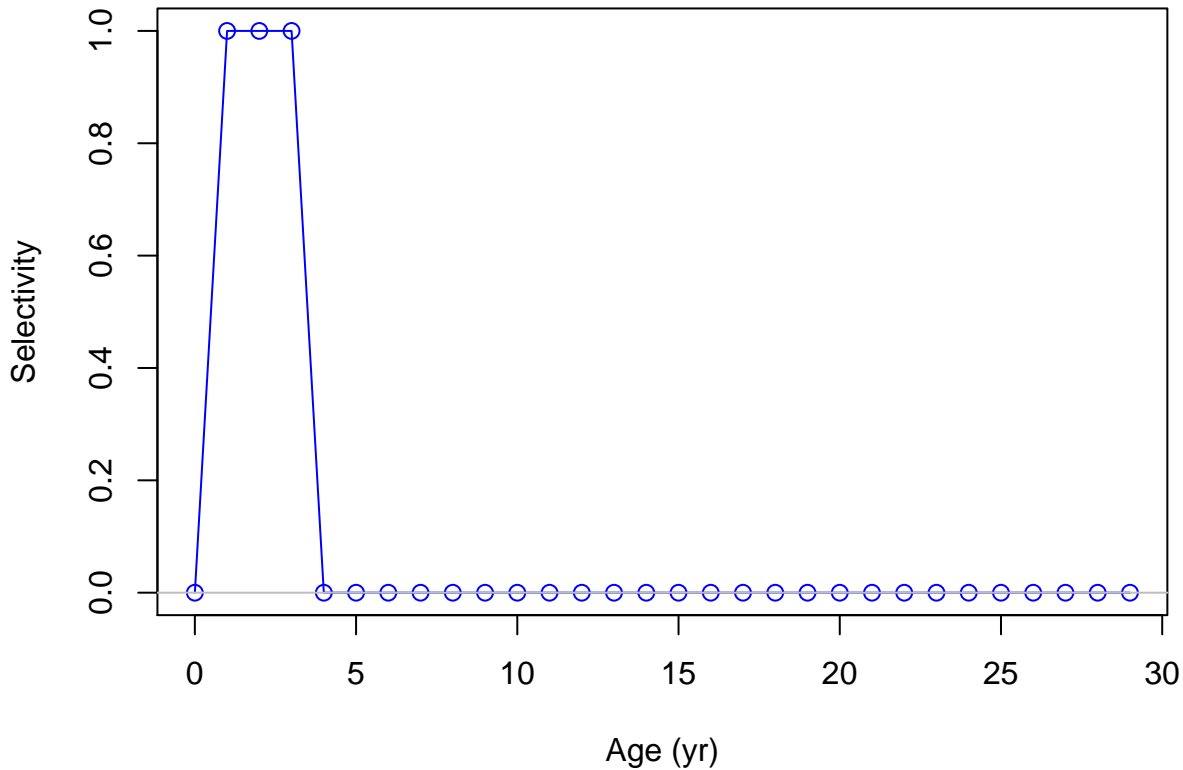




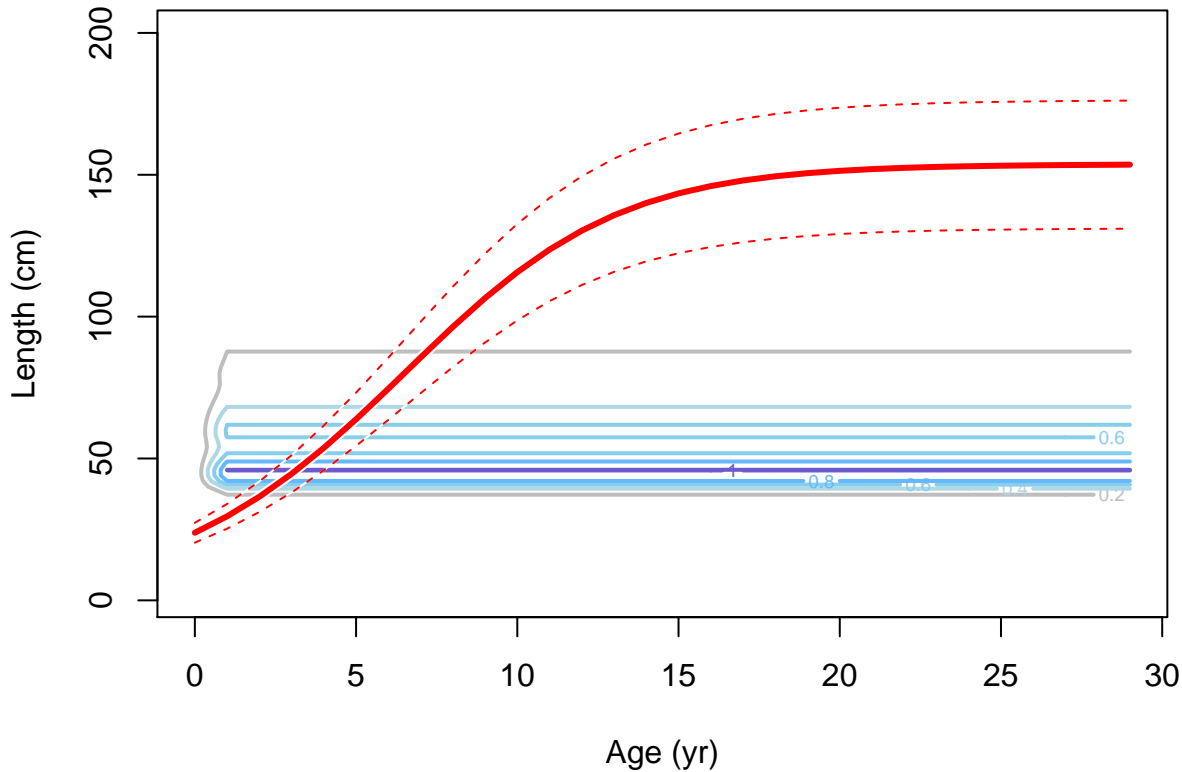
## Female ending year selectivity for F28-OBJ\_N\_disc



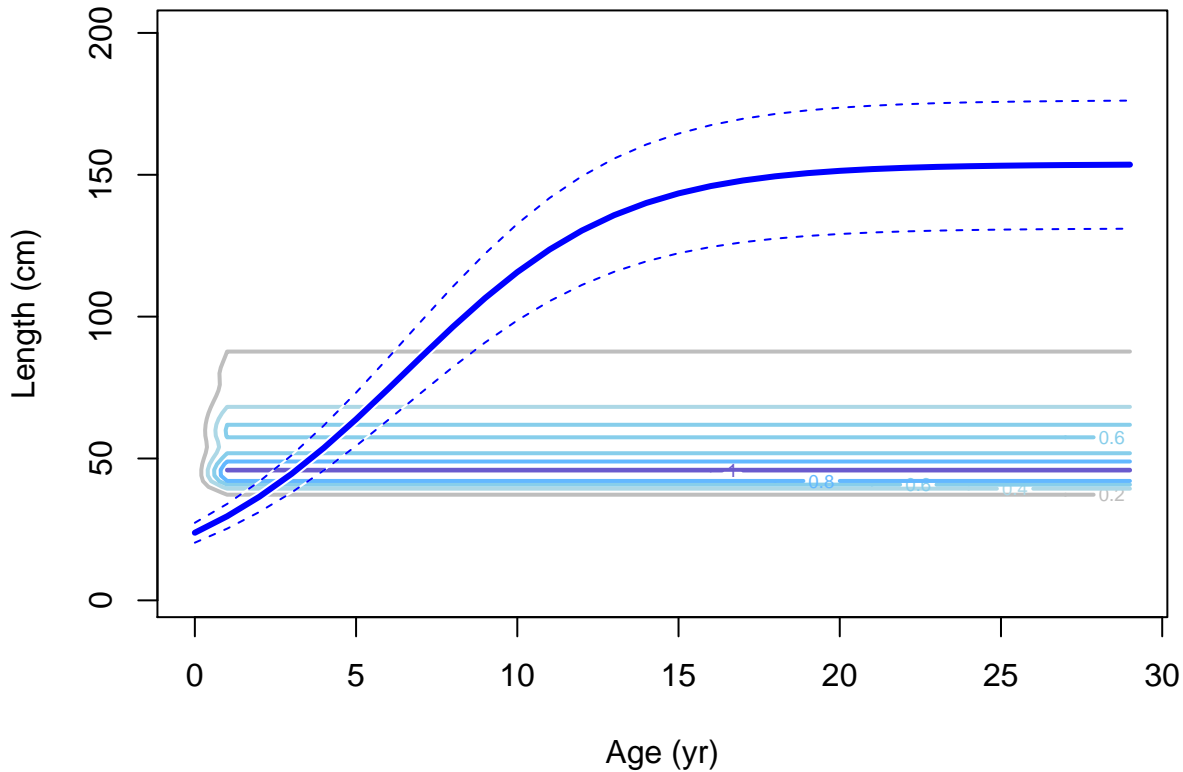
### Male ending year selectivity for F28-OBJ\_N\_disc



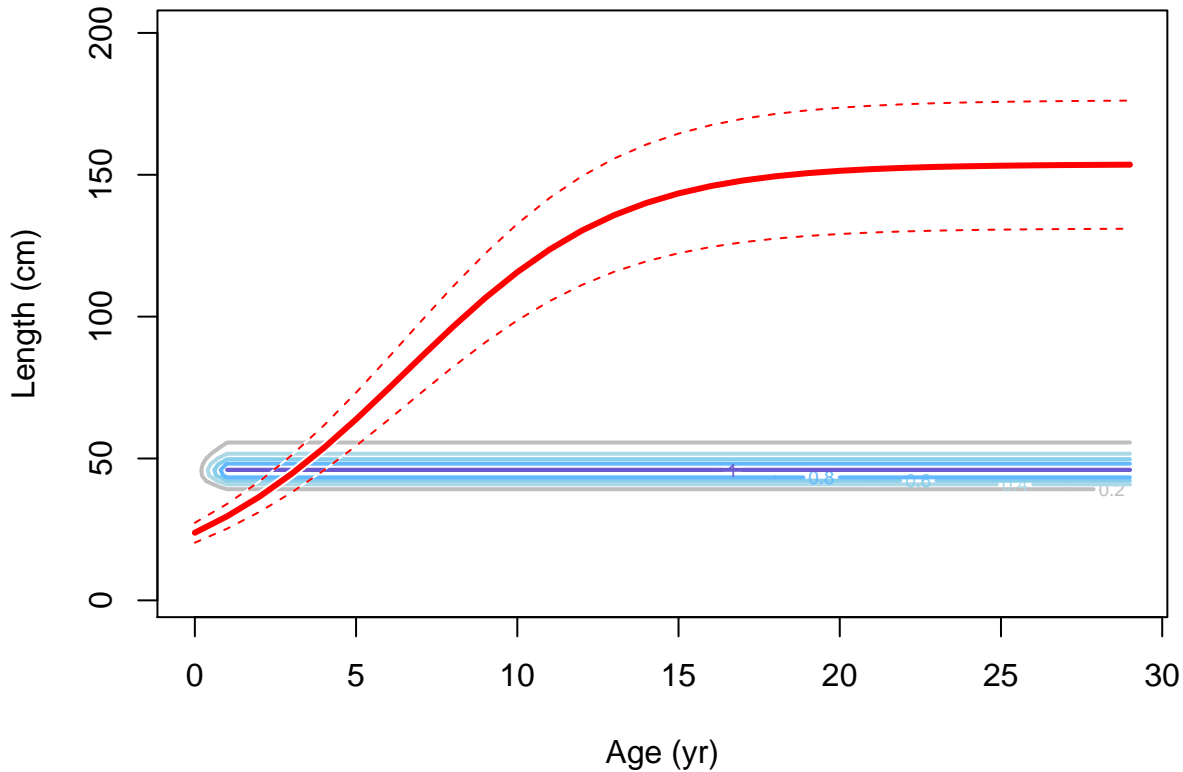
# Female ending year selectivity and growth for F1-OBJ\_N-Q14



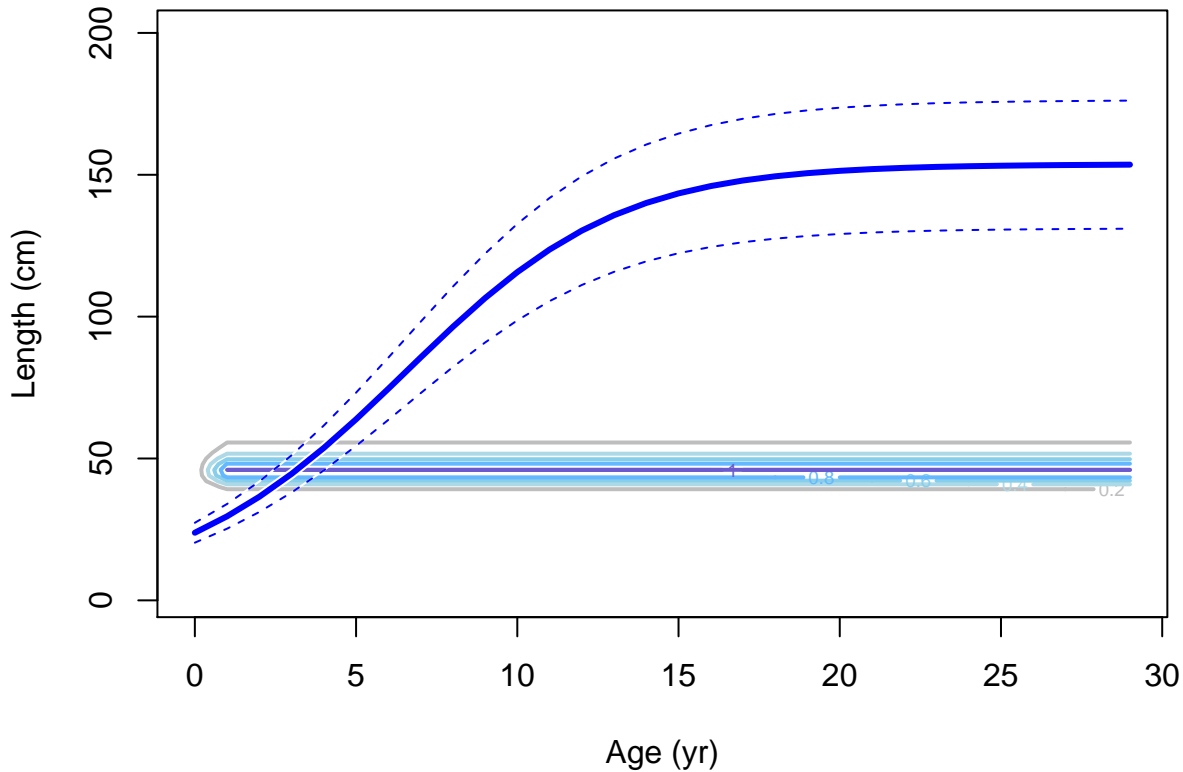
# Male ending year selectivity and growth for F1-OBJ\_N-Q14



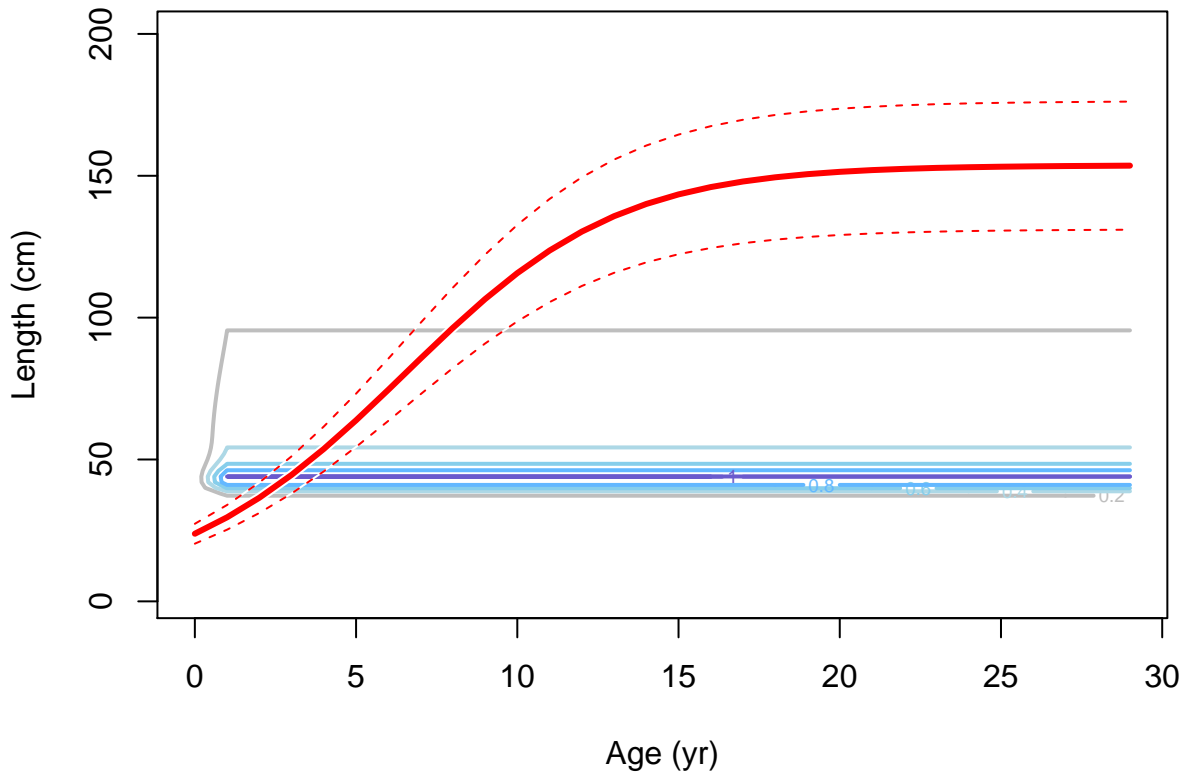
# Female ending year selectivity and growth for F2-OBJ\_Nc\_Q14



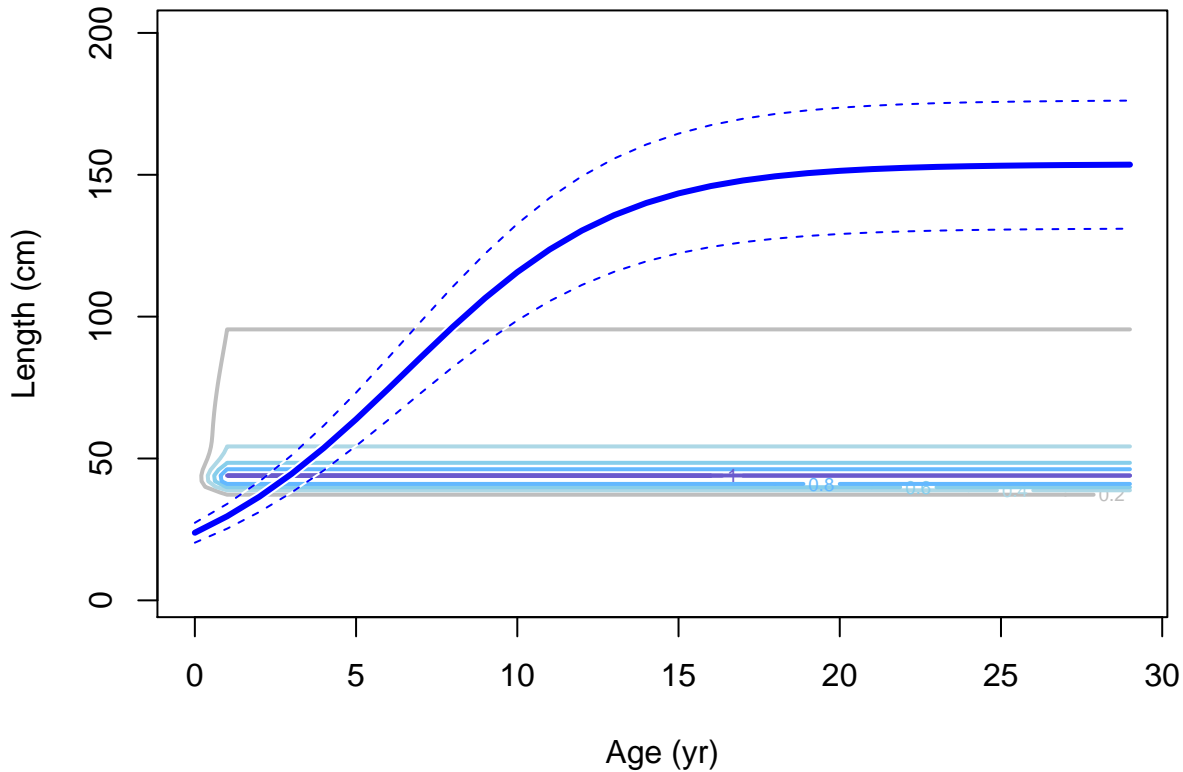
# Male ending year selectivity and growth for F2-OBJ\_Nc\_Q14



# Female ending year selectivity and growth for F3-OBJ\_C\_Q14



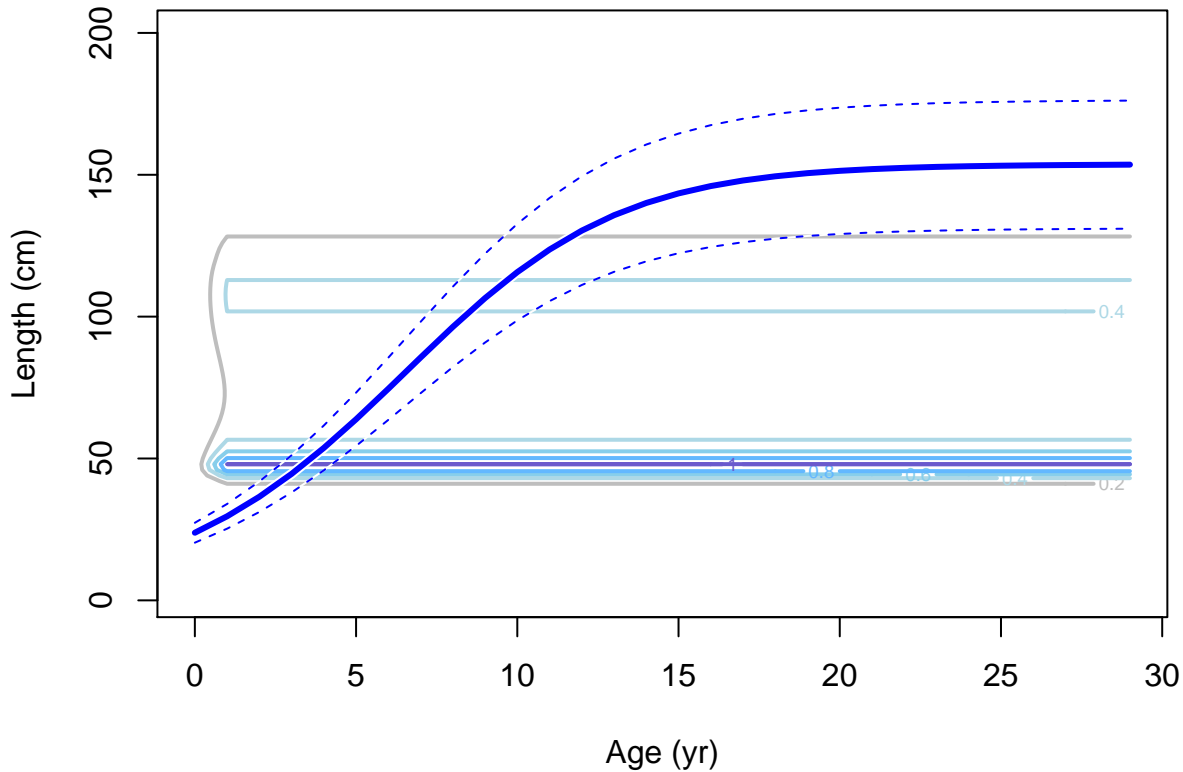
# Male ending year selectivity and growth for F3-OBJ\_C\_Q14



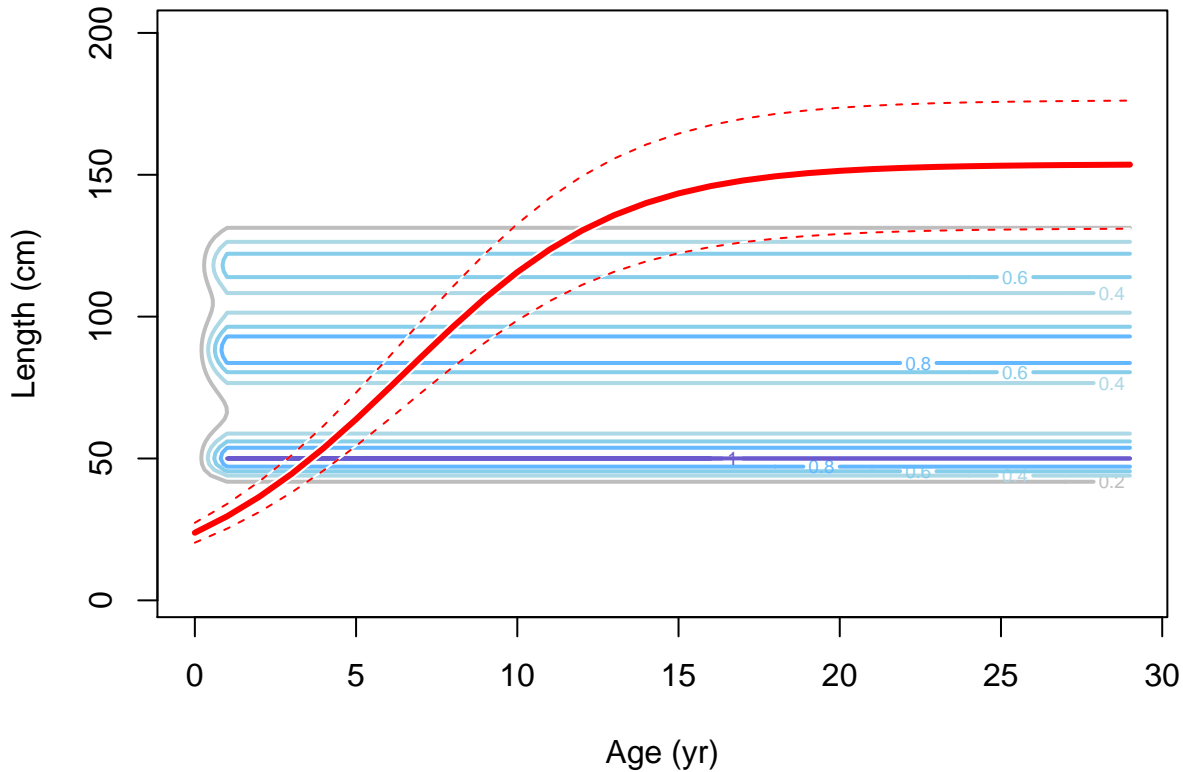




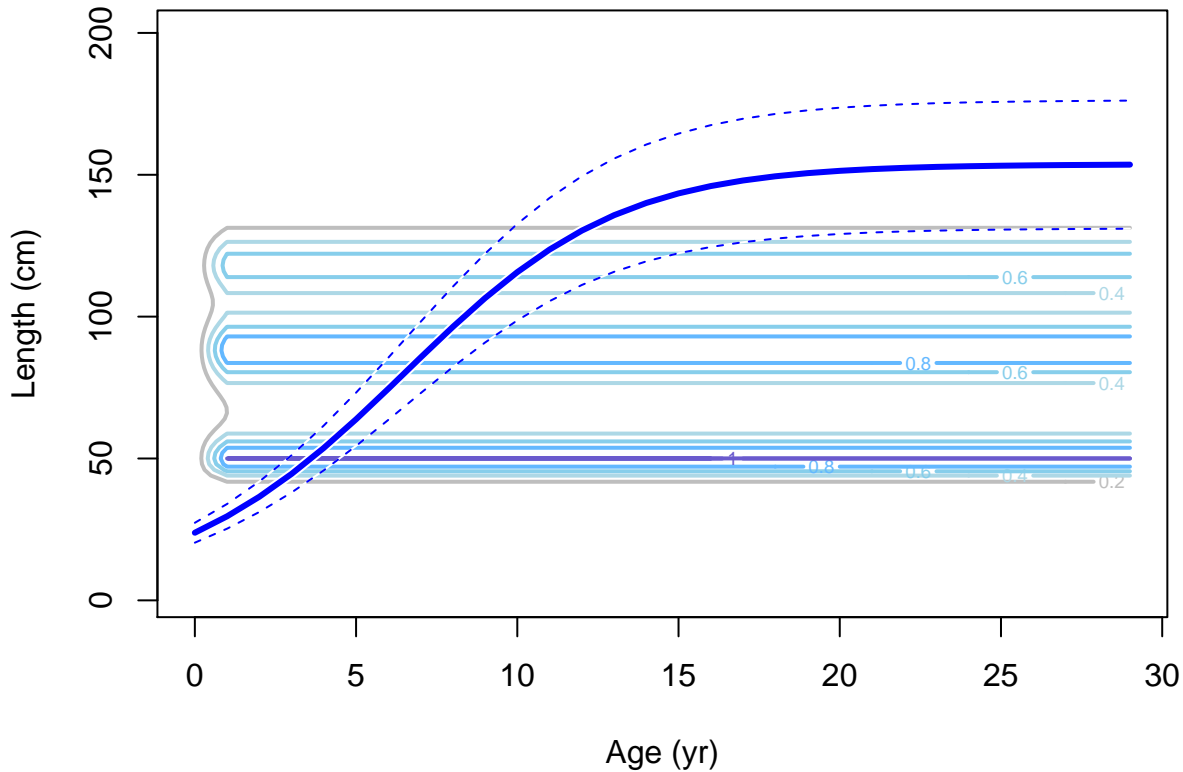
# Male ending year selectivity and growth for F4-Obj\_Cc\_Q14



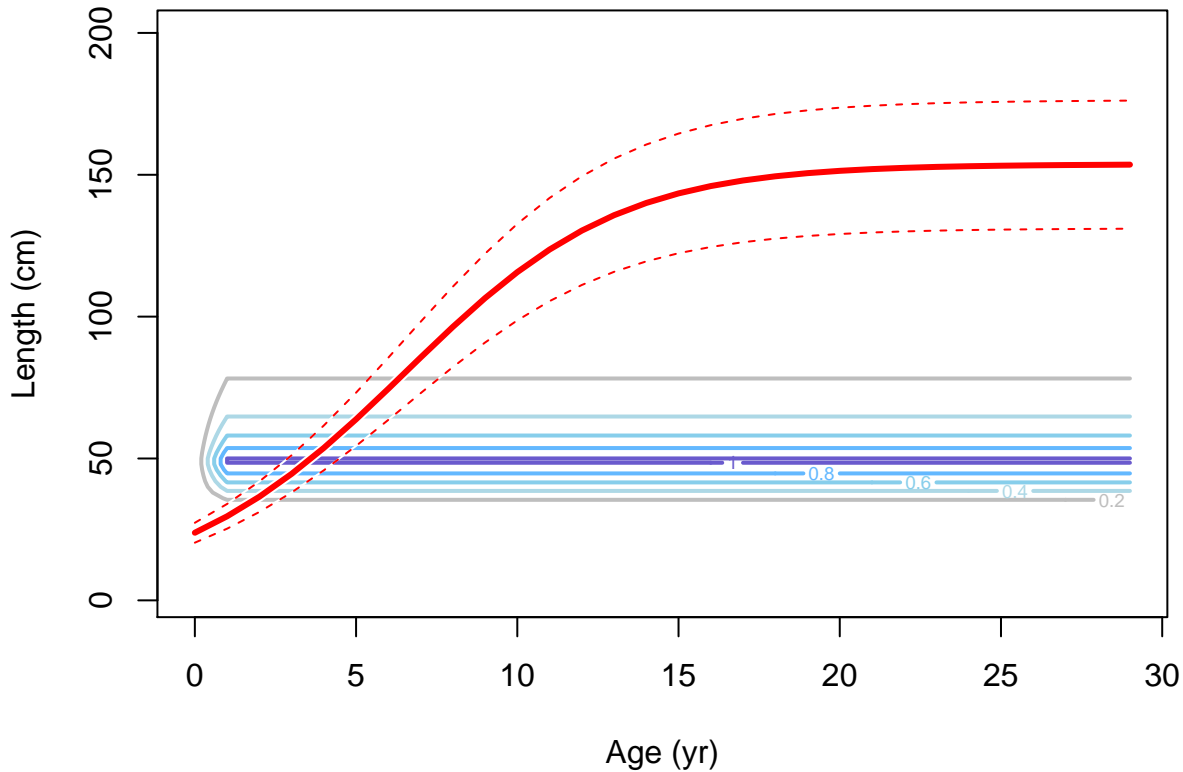
# Female ending year selectivity and growth for F5-OBJ\_S\_Q14



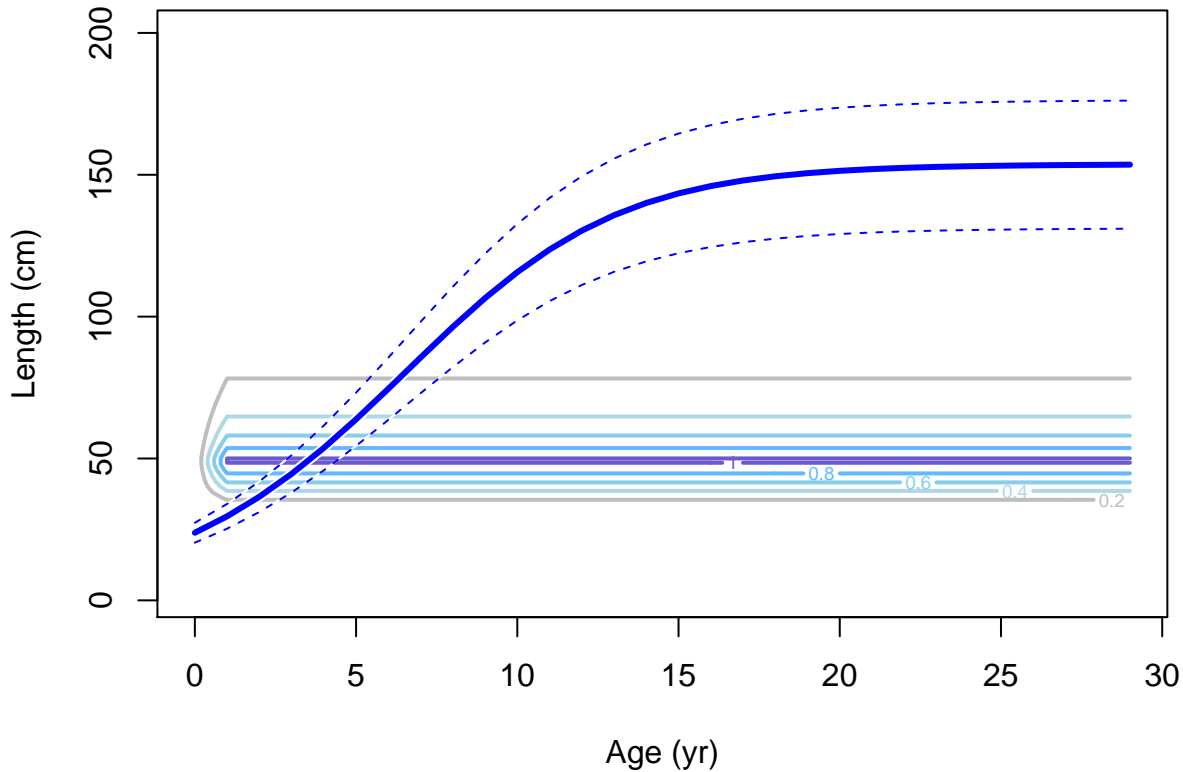
# Male ending year selectivity and growth for F5-OBJ\_S\_Q14



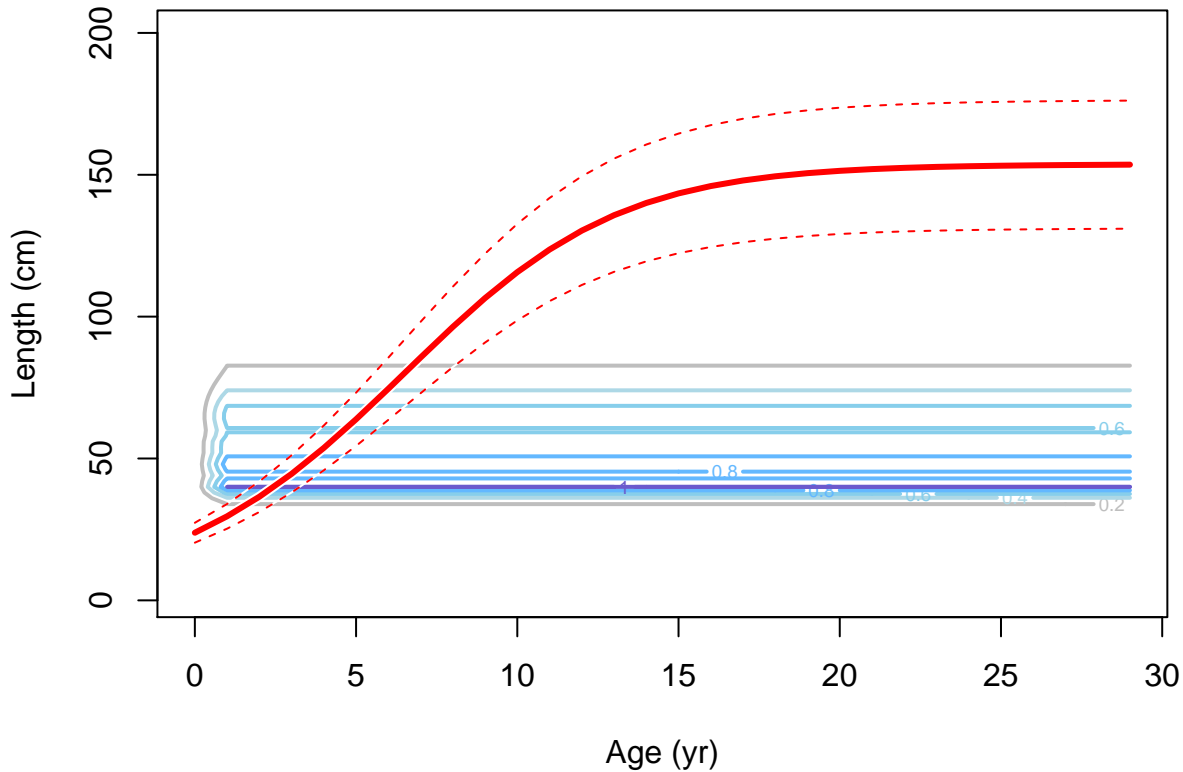
# Female ending year selectivity and growth for F6-OBJ\_N\_Q23



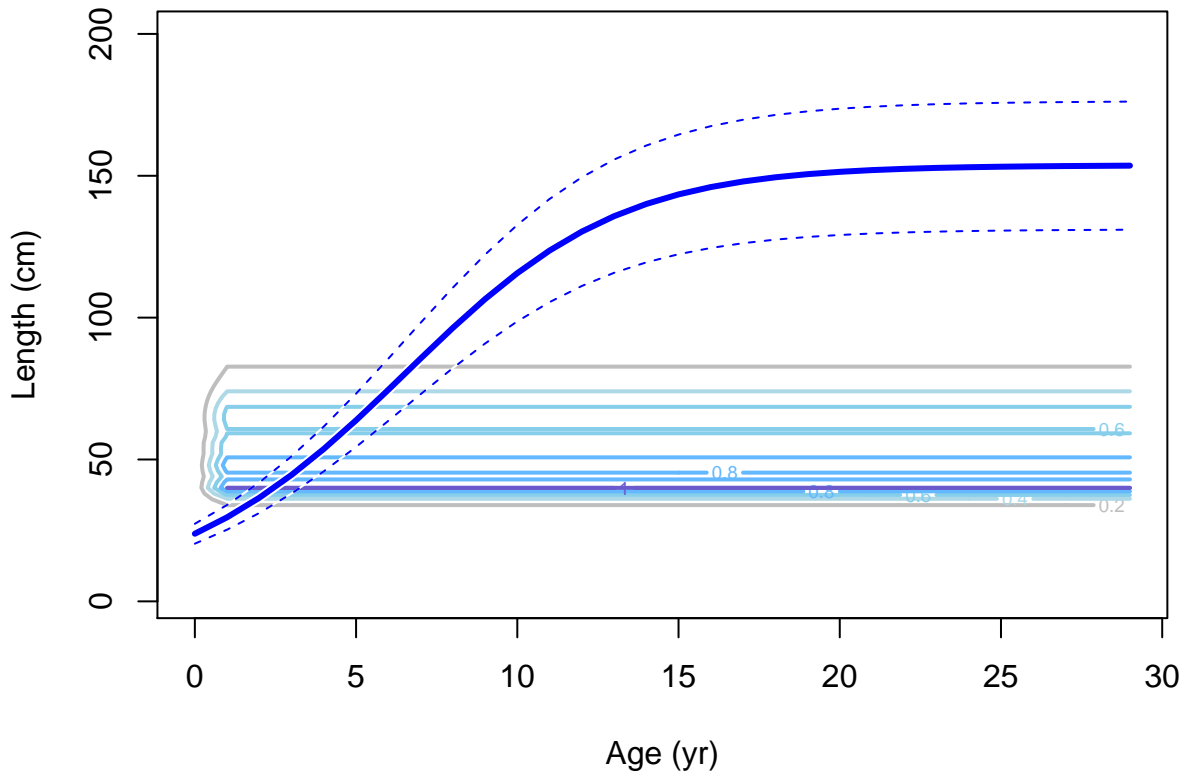
# Male ending year selectivity and growth for F6-OBJ\_N\_Q23



# Female ending year selectivity and growth for F7-OBJ\_Nc\_Q23

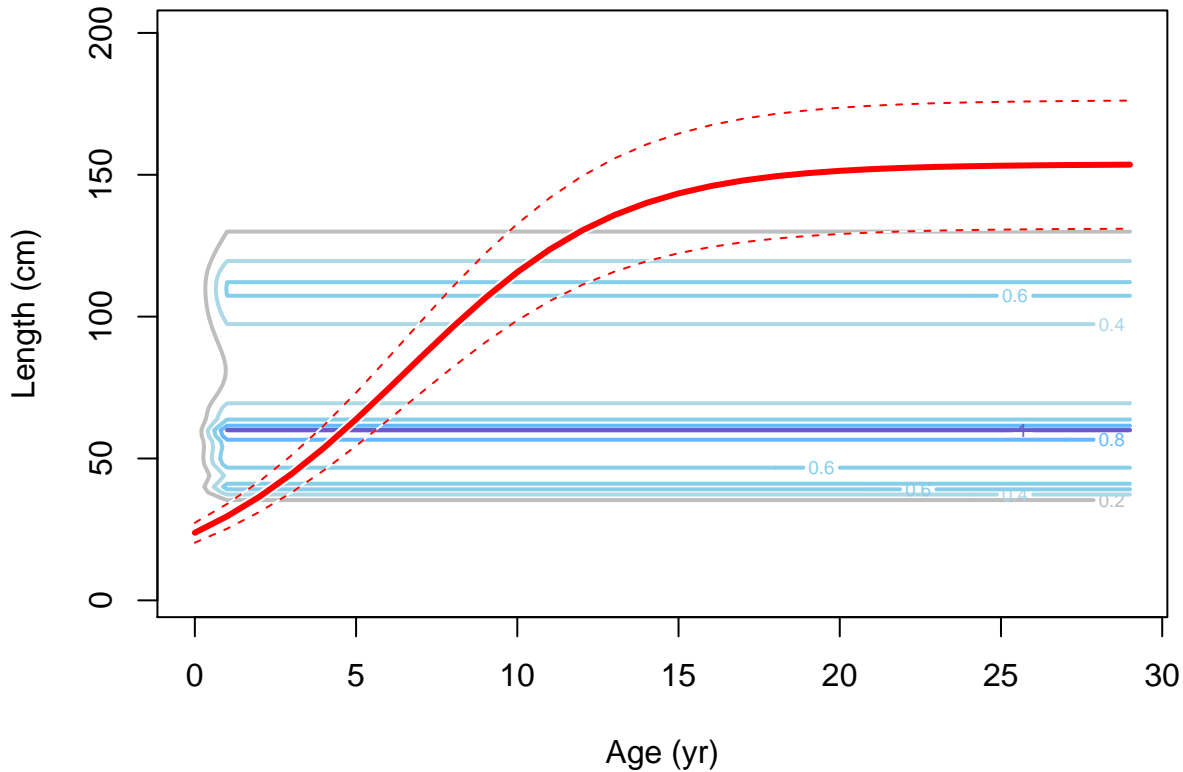


# Male ending year selectivity and growth for F7-Obj\_Nc\_Q23

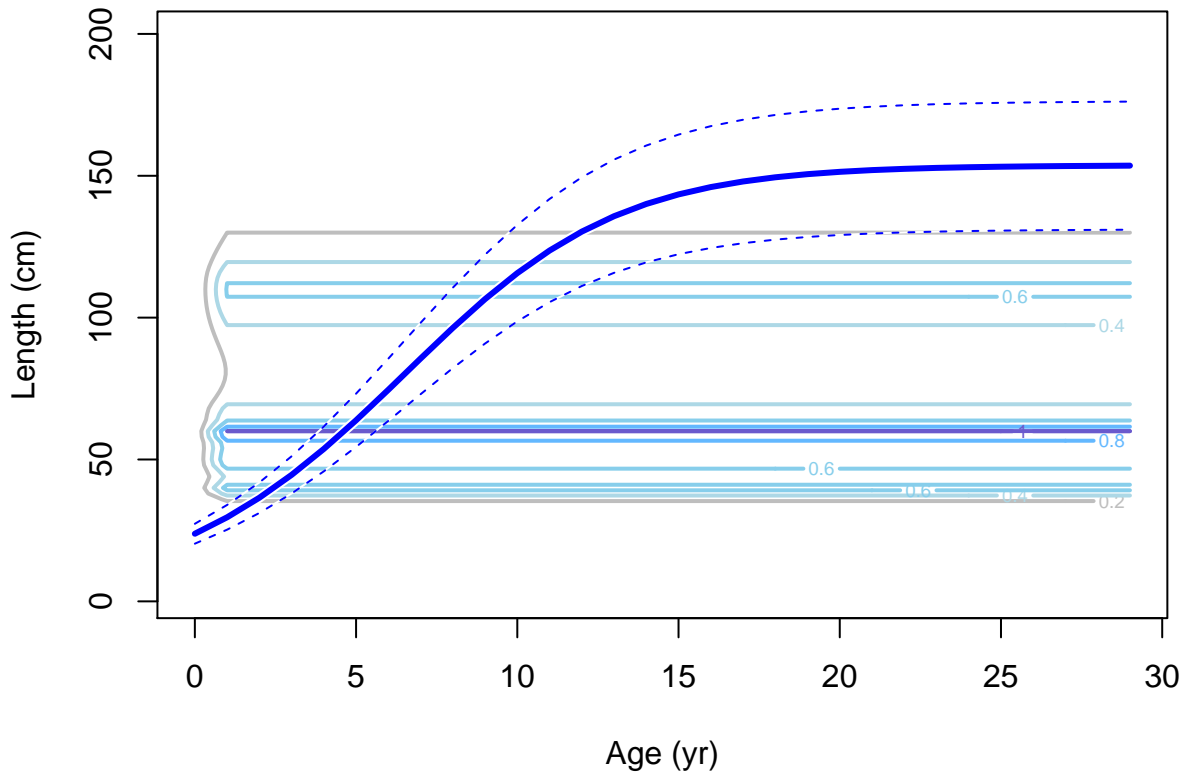




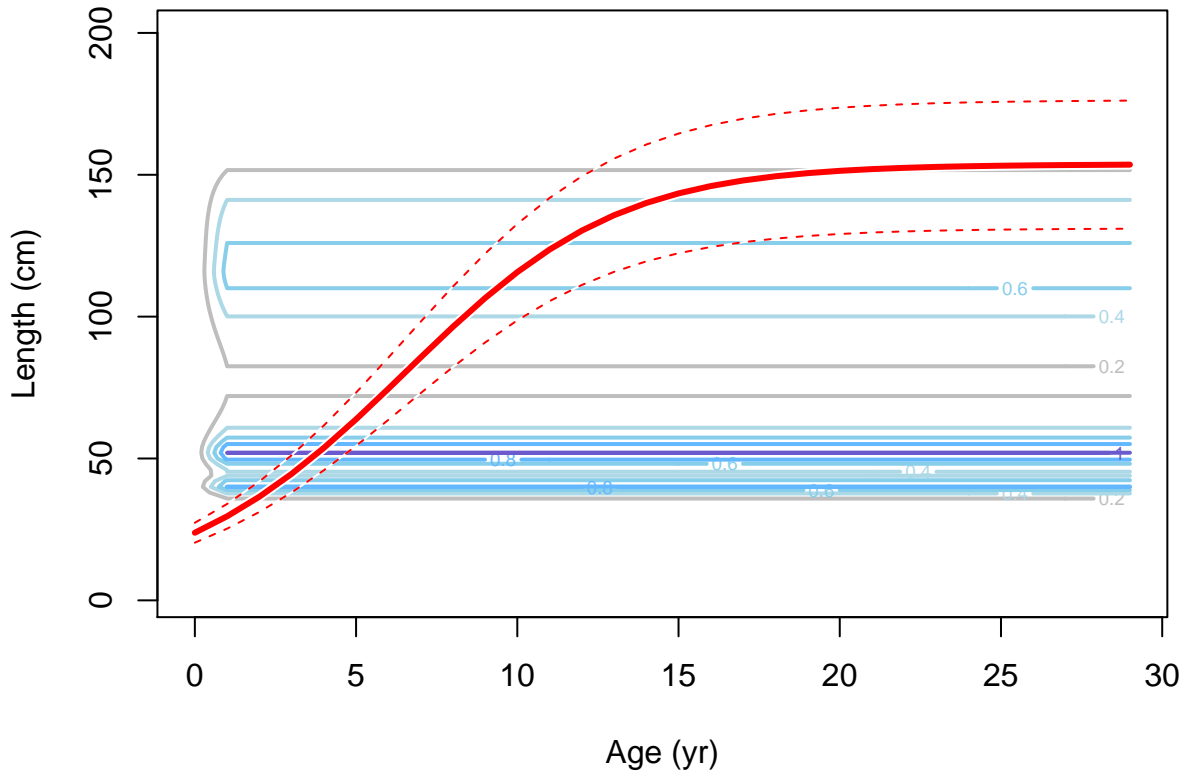
# Female ending year selectivity and growth for F8-OBJ\_C\_Q23



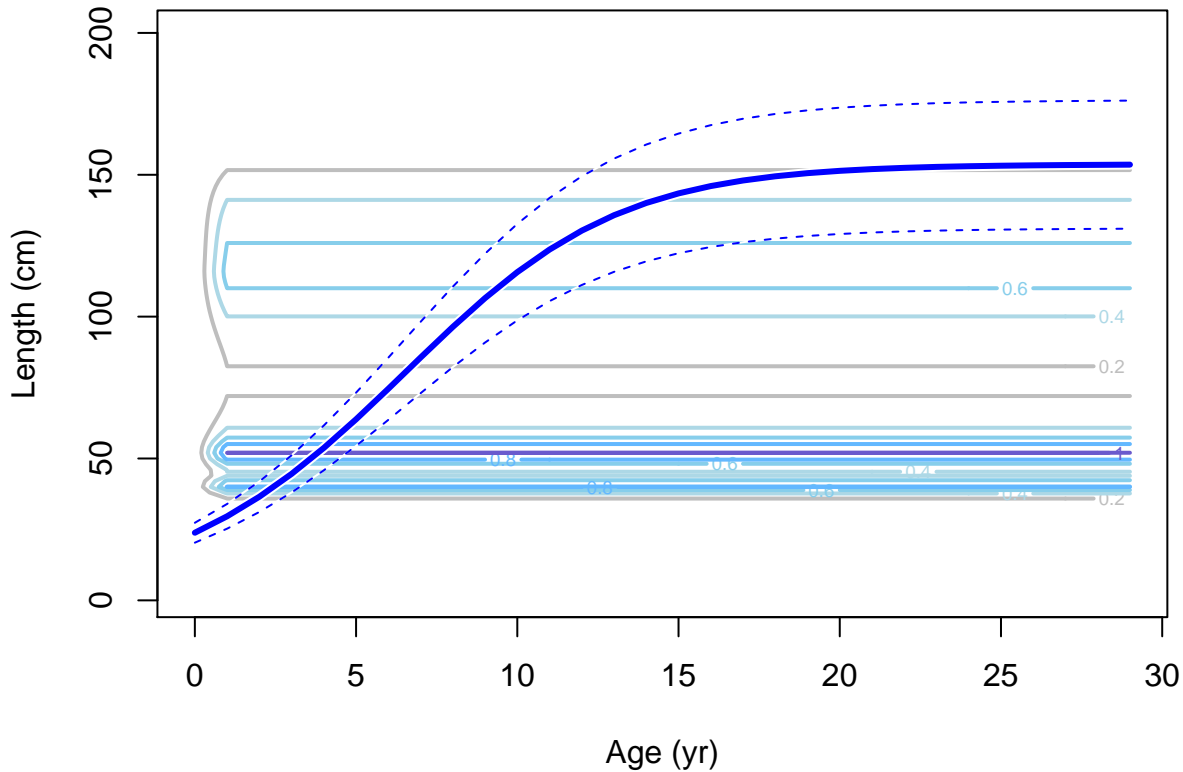
# Male ending year selectivity and growth for F8-OBJ\_C\_Q23



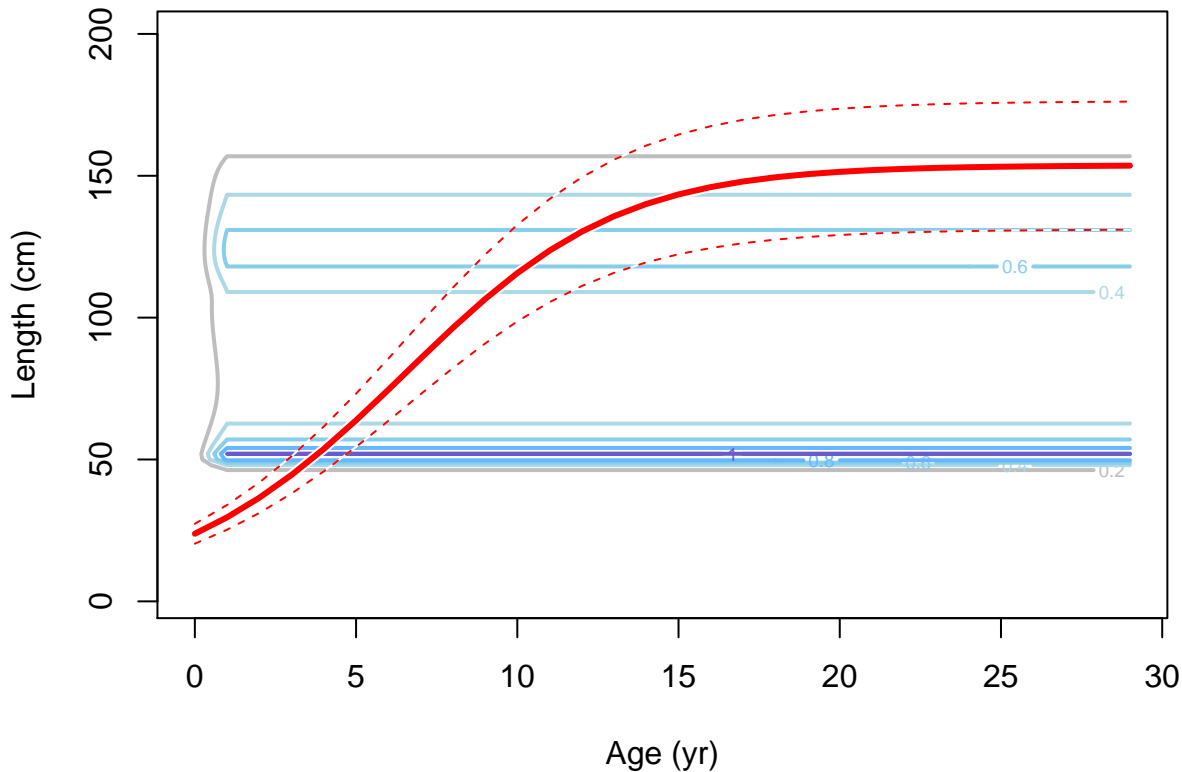
# Female ending year selectivity and growth for F9-OBJ\_Cc\_Q23



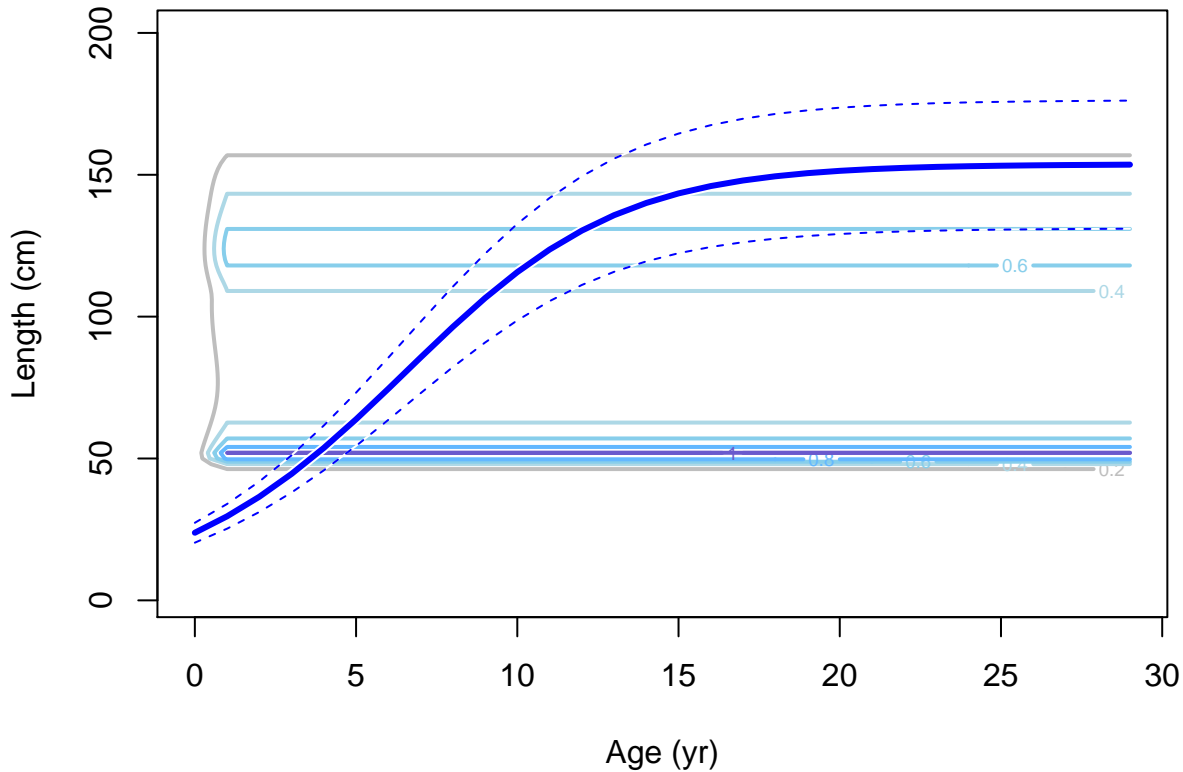
# Male ending year selectivity and growth for F9-Obj\_Cc\_Q23



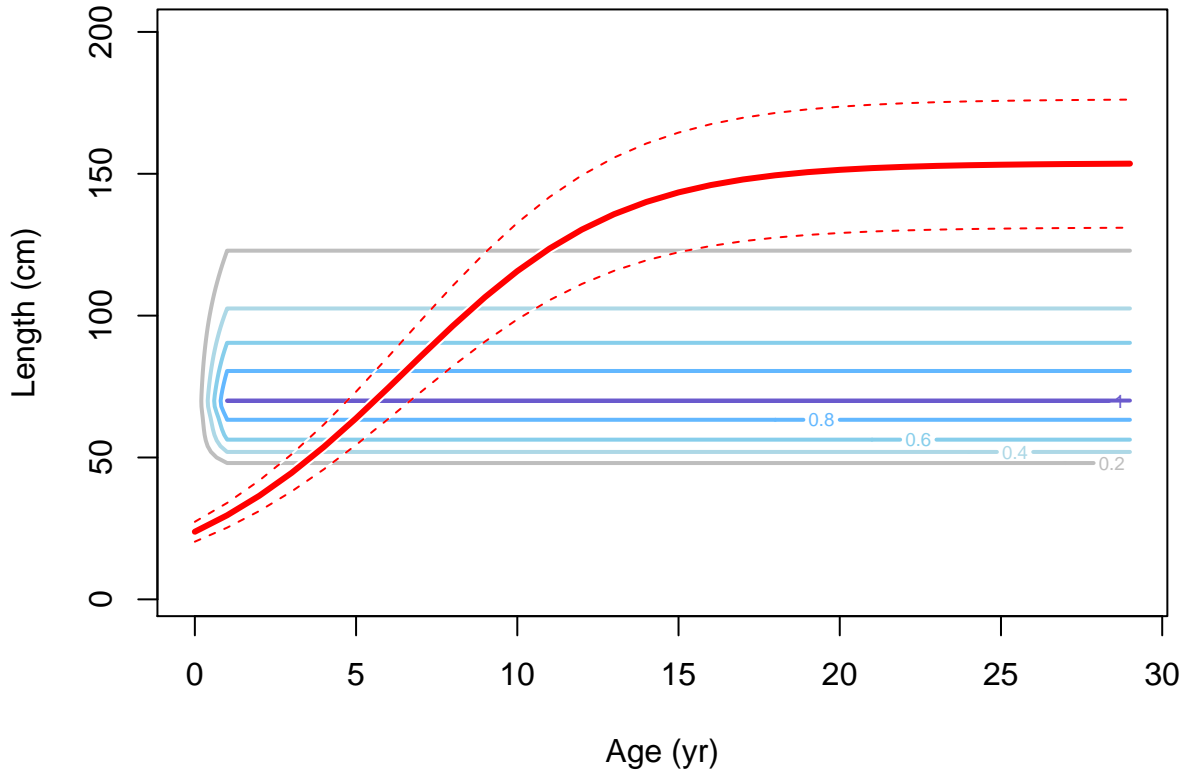
# Female ending year selectivity and growth for F10-OBJ\_S\_Q23



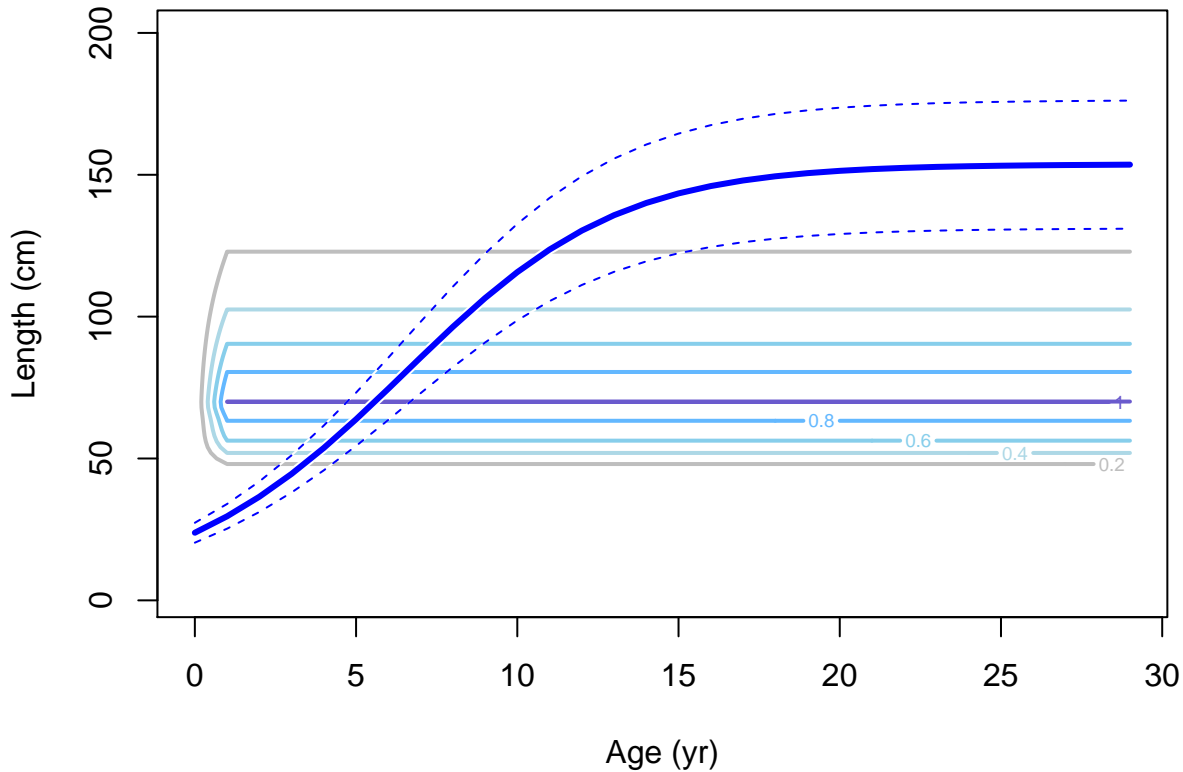
# Male ending year selectivity and growth for F10-OBJ\_S\_Q23



# Female ending year selectivity and growth for F11-NOA\_N

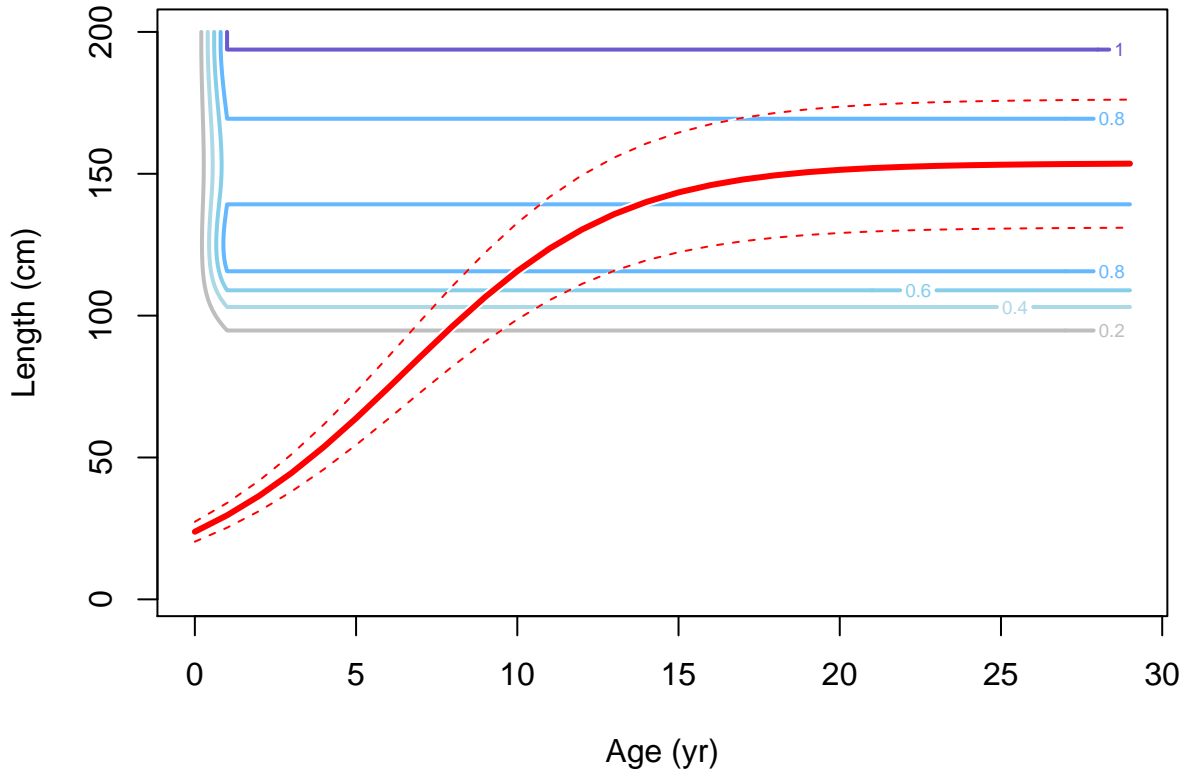


# Male ending year selectivity and growth for F11-NOA\_N

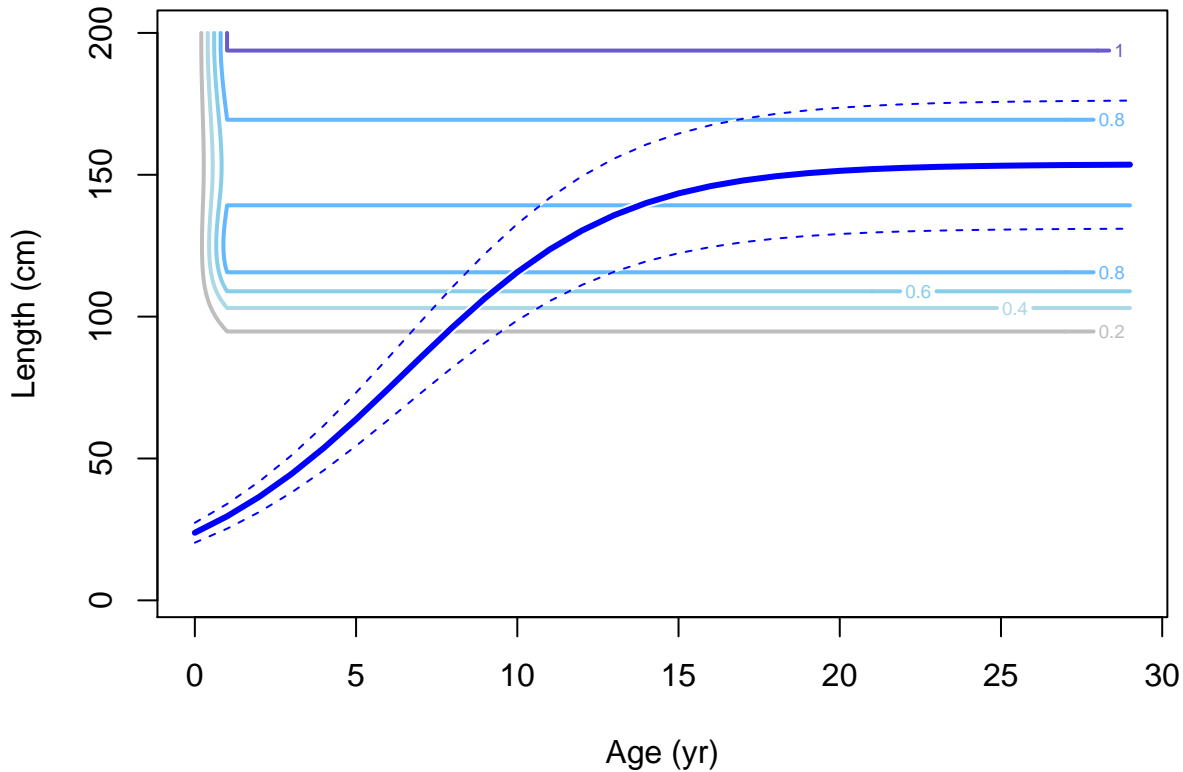




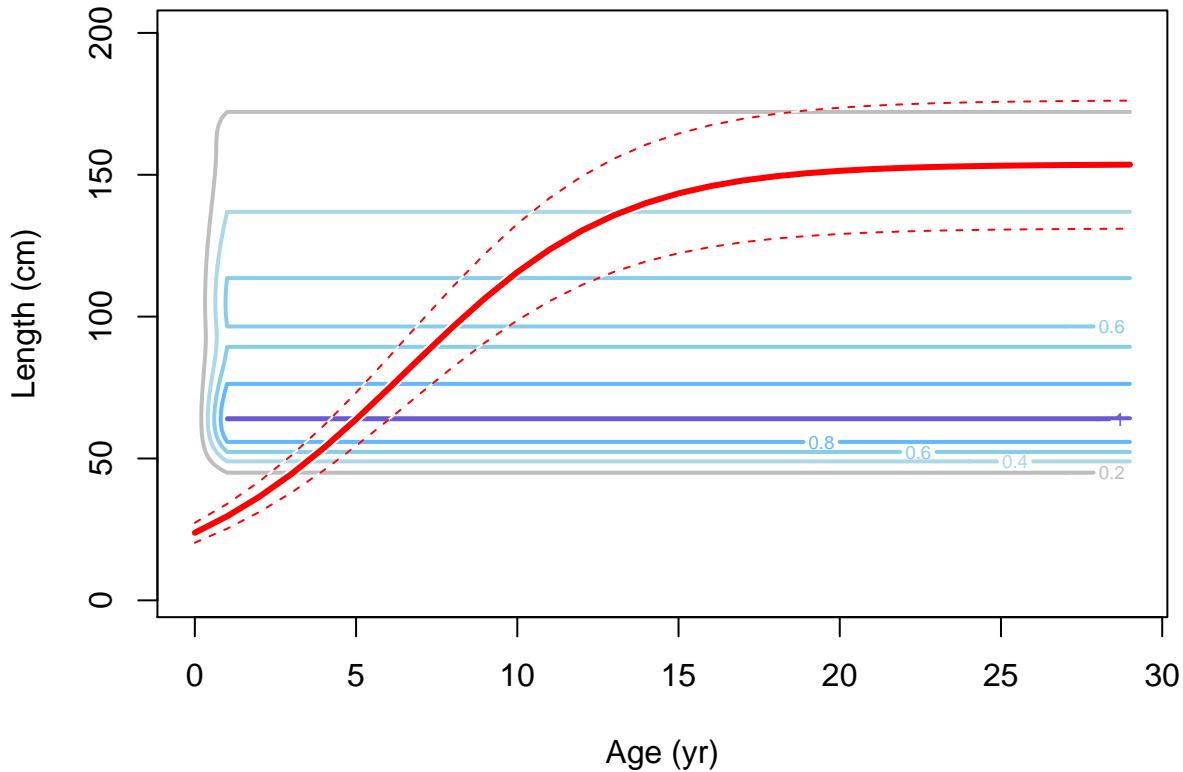
# Female ending year selectivity and growth for F12-NOA\_C



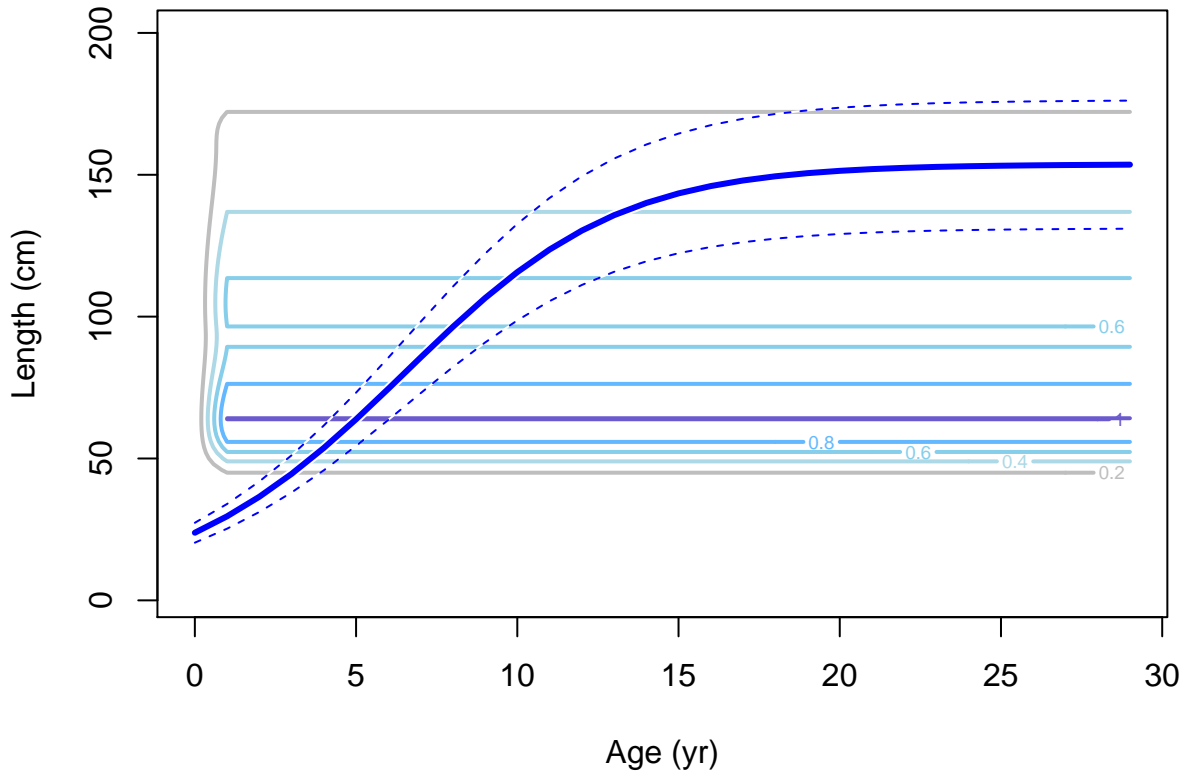
# Male ending year selectivity and growth for F12-NOA\_C



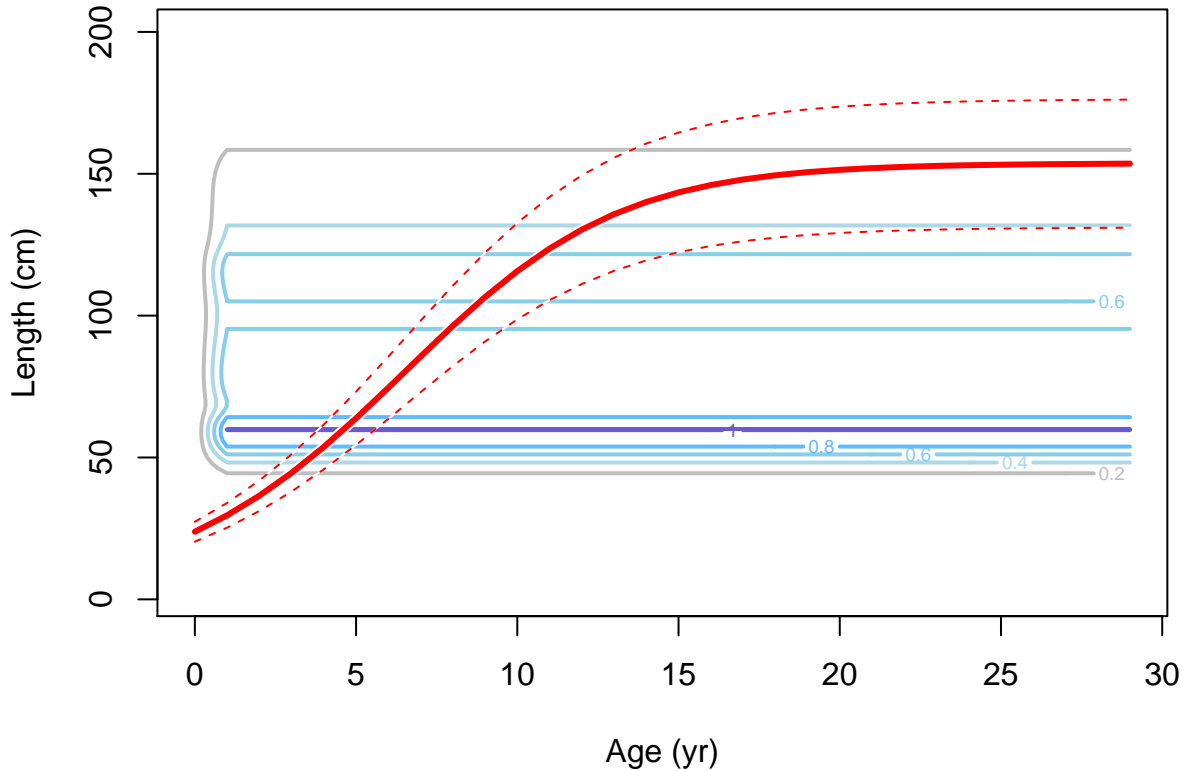
# Female ending year selectivity and growth for F13-NOA\_I



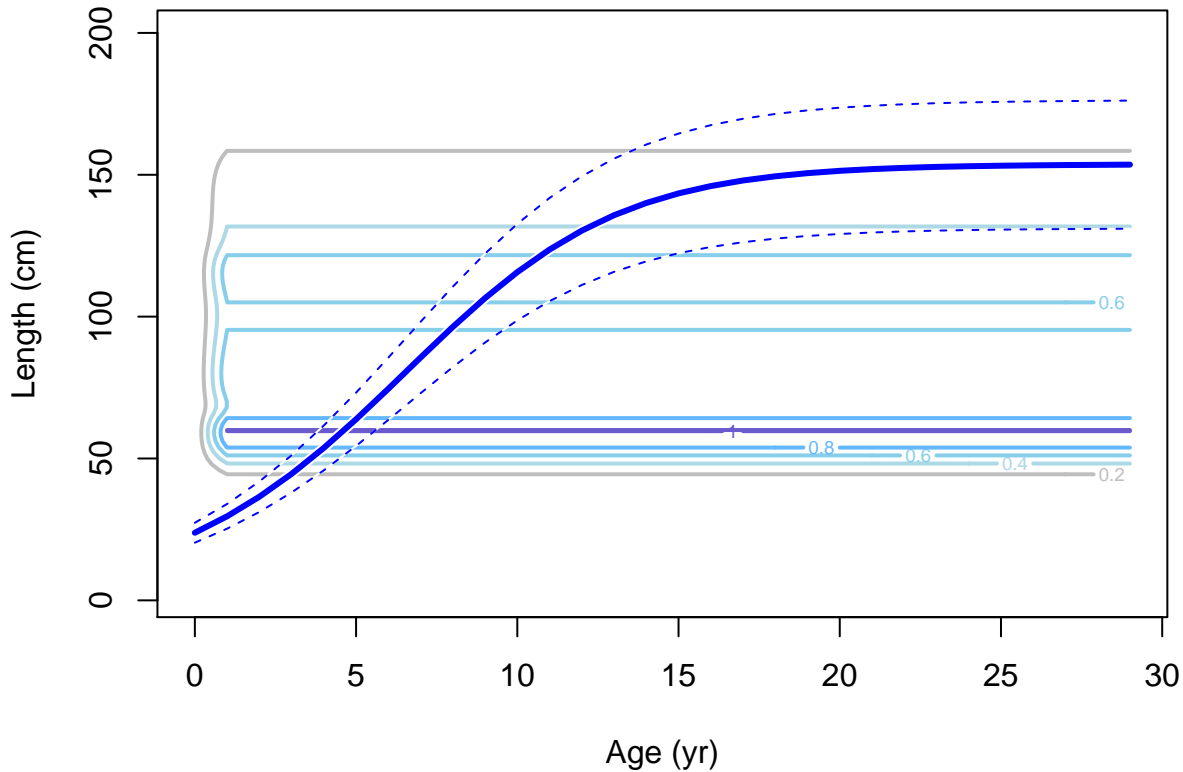
# Male ending year selectivity and growth for F13-NOA\_I



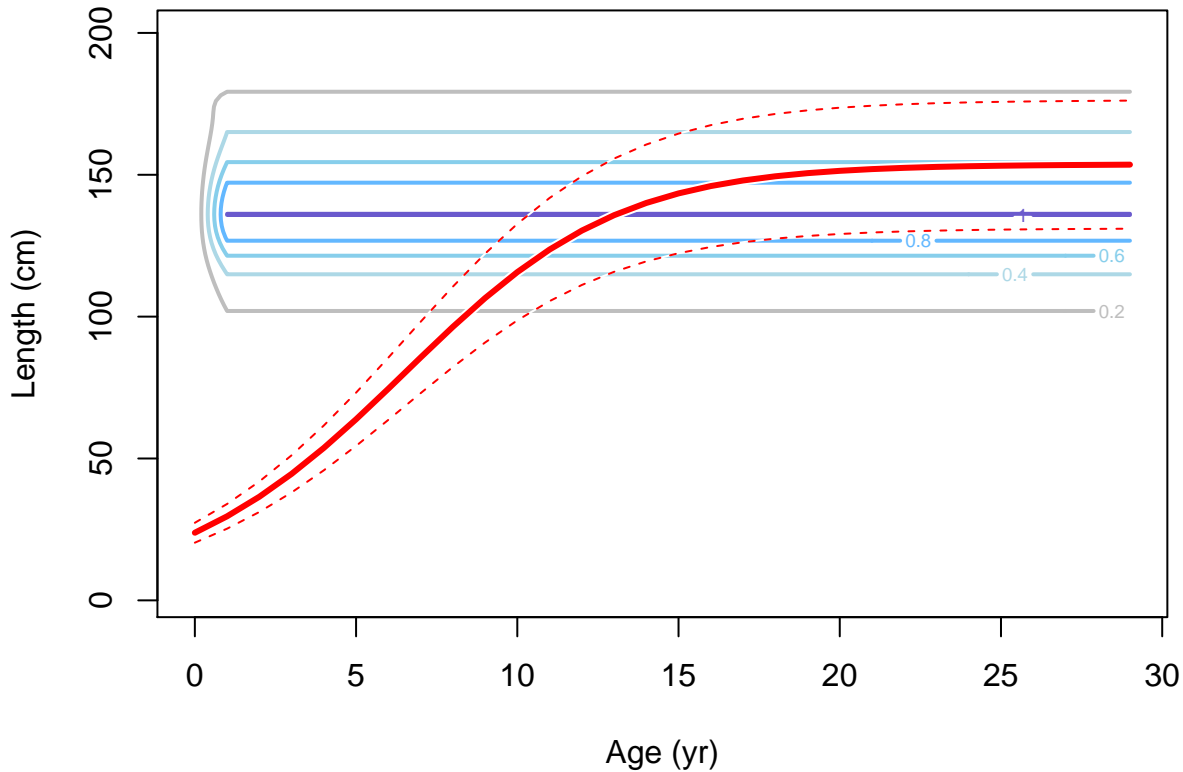
# Female ending year selectivity and growth for F14-NOA\_S



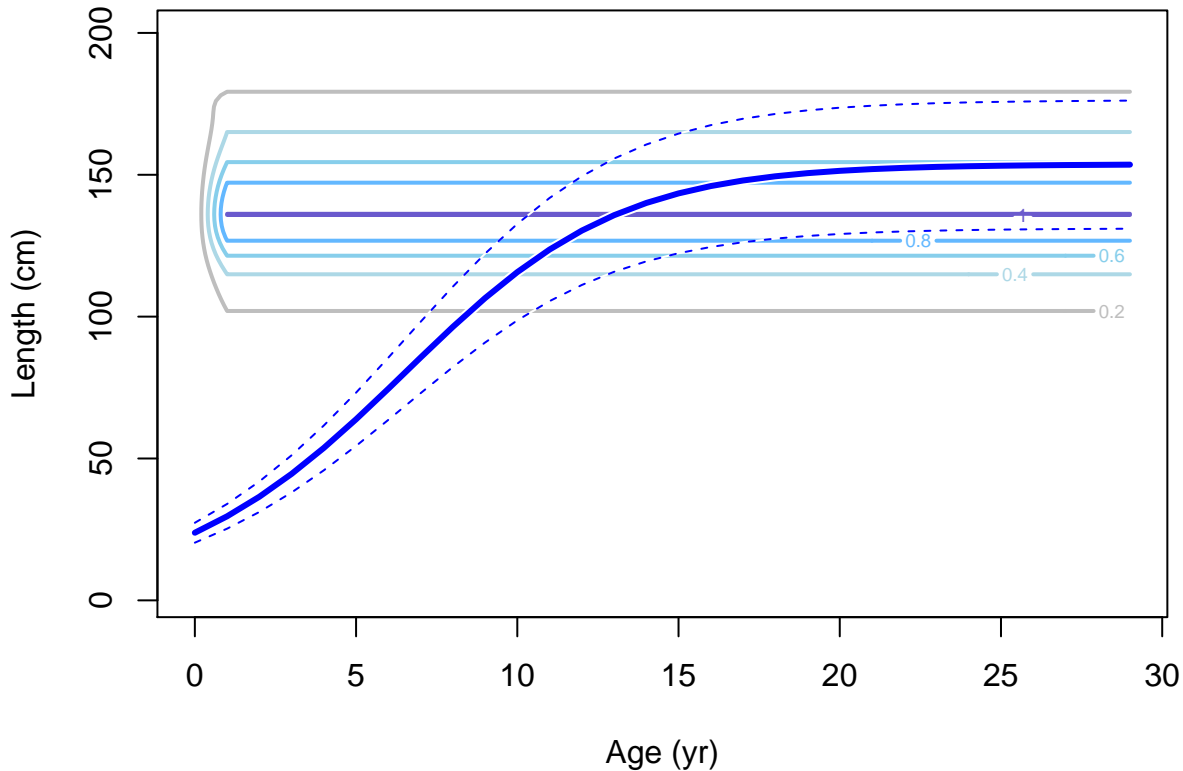
# Male ending year selectivity and growth for F14-NOA\_S



# Female ending year selectivity and growth for F15-DEL\_N

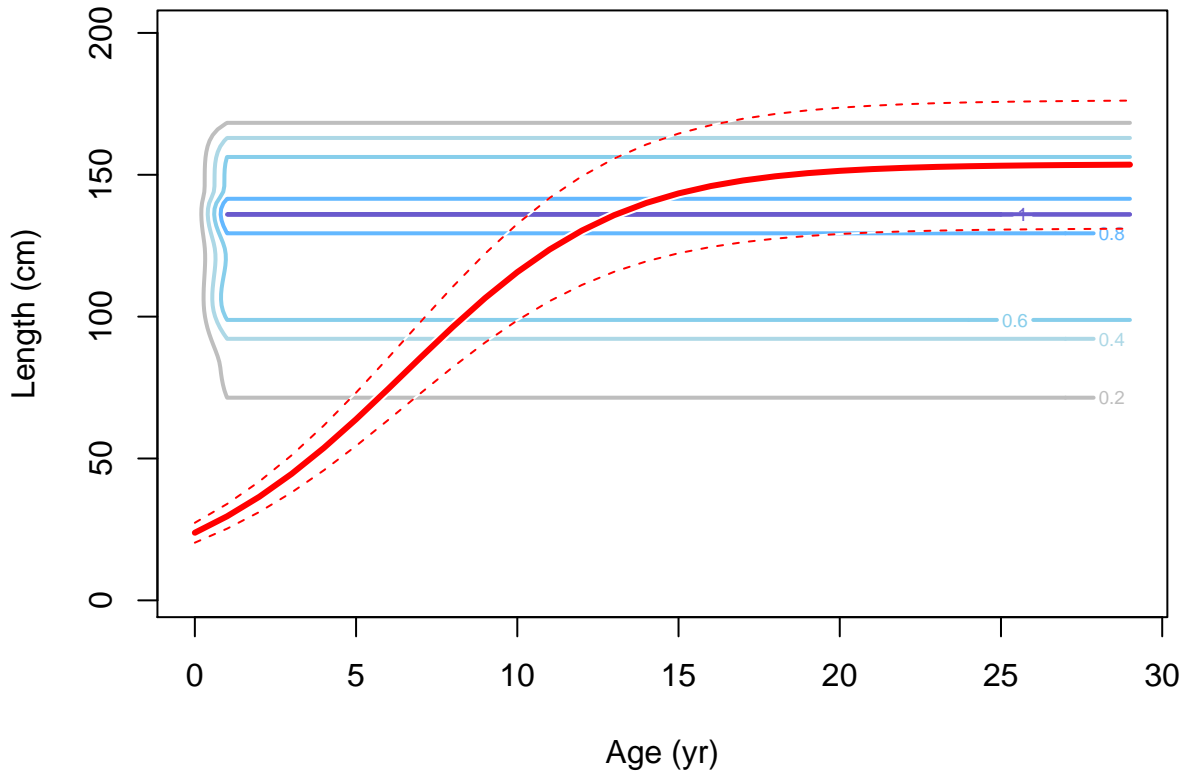


# Male ending year selectivity and growth for F15-DEL\_N

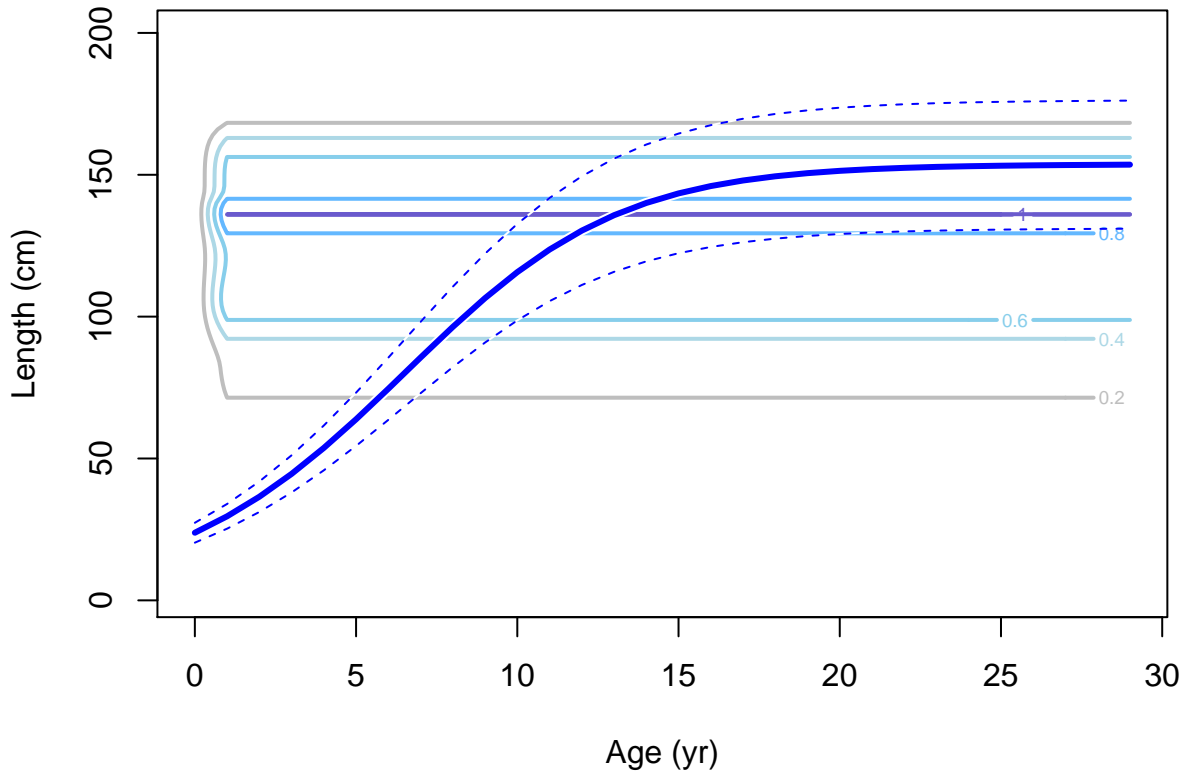




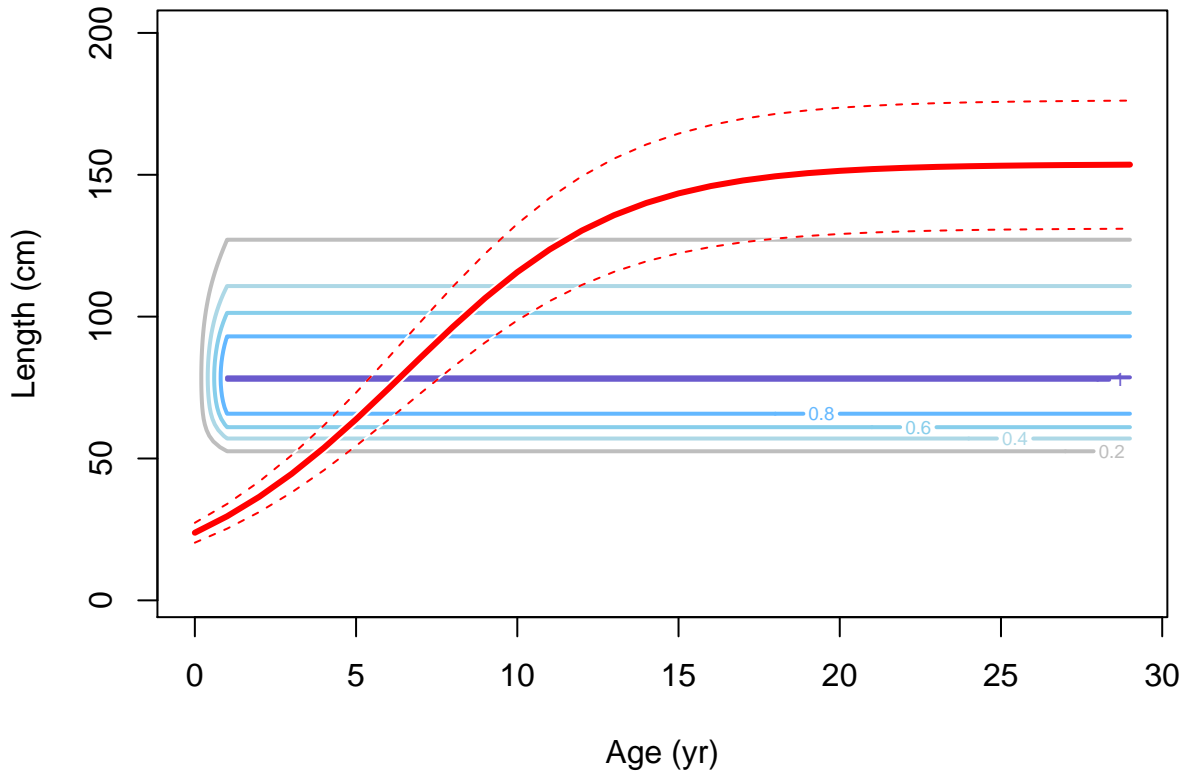
# Female ending year selectivity and growth for F16-DEL\_NE



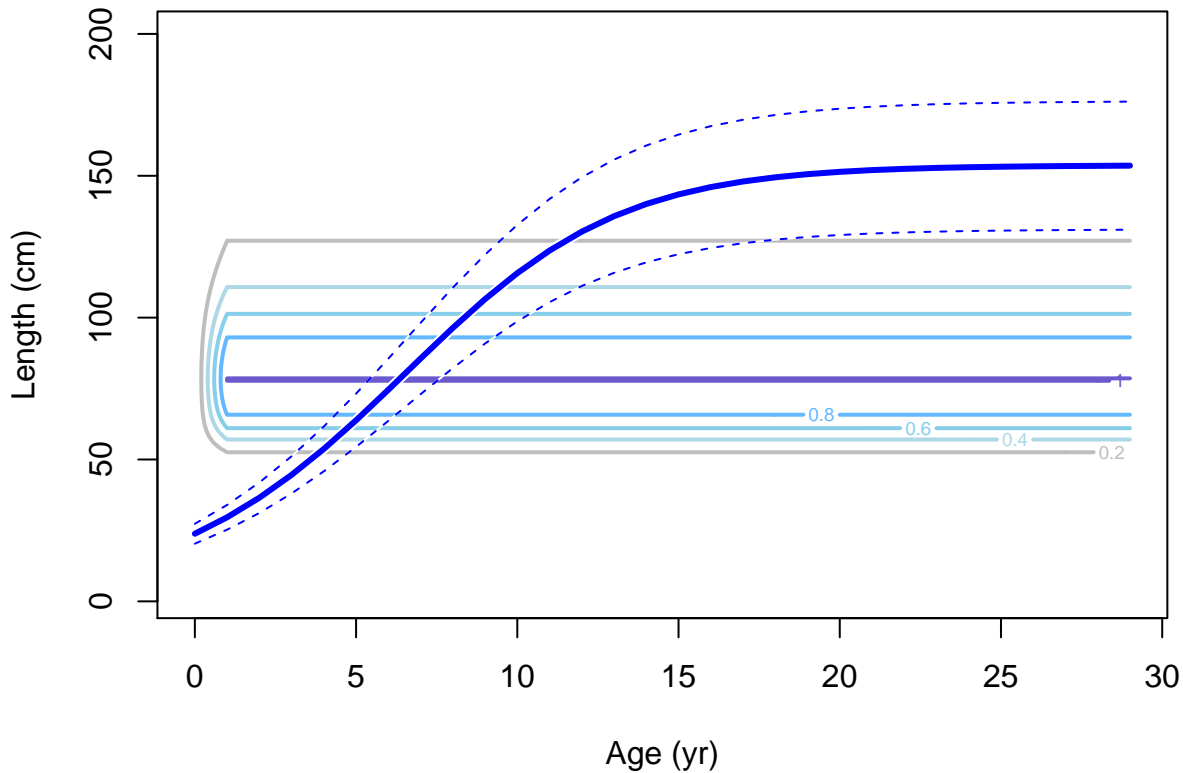
# Male ending year selectivity and growth for F16-DEL\_NE



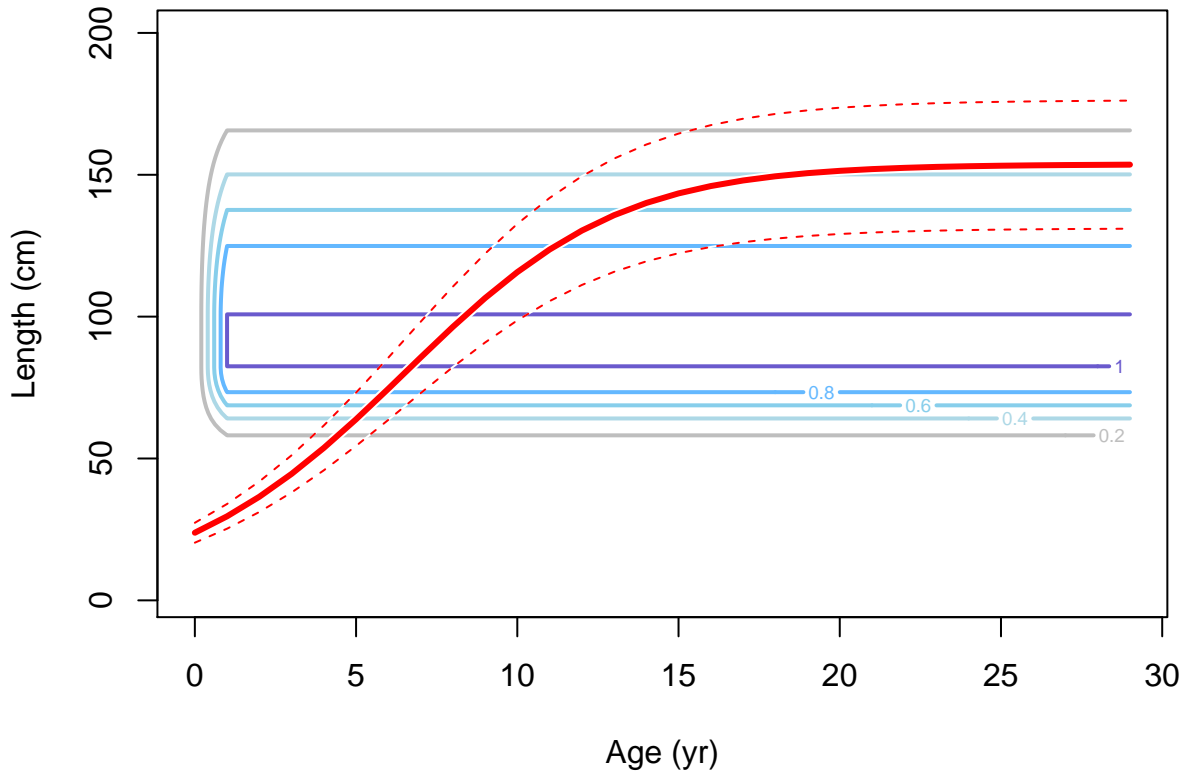
# Female ending year selectivity and growth for F17-DEL\_M



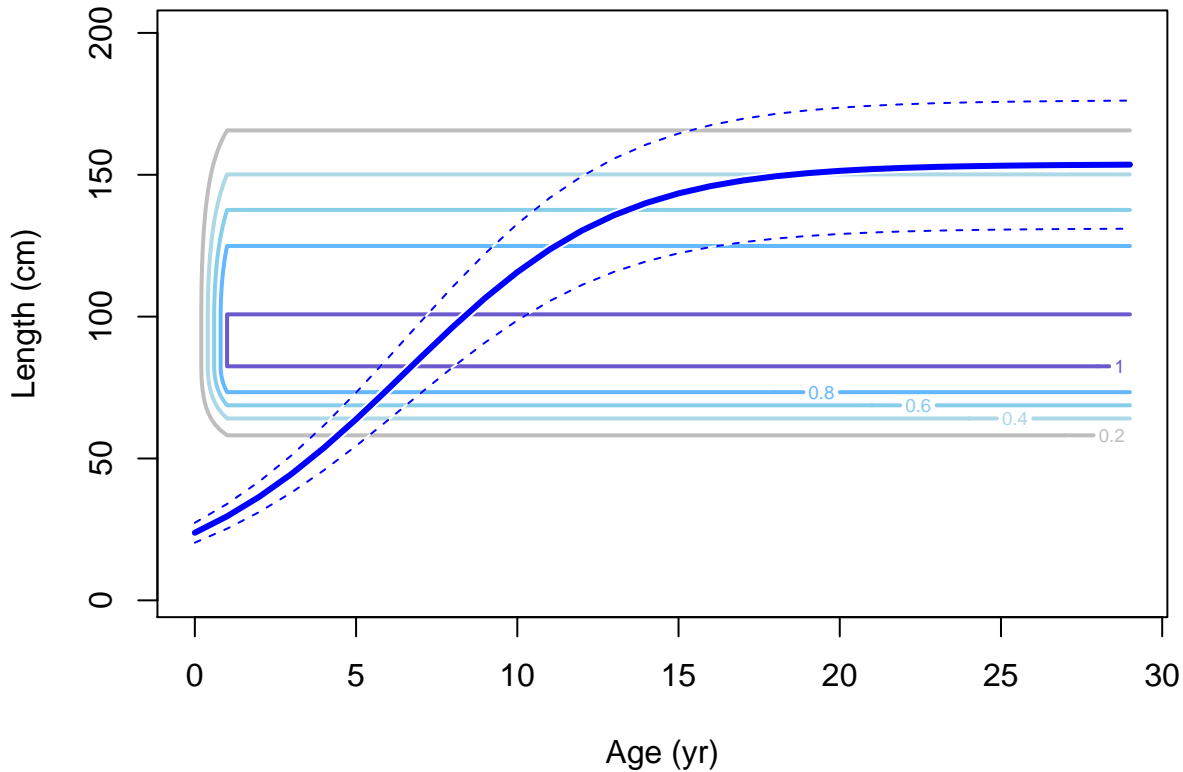
# Male ending year selectivity and growth for F17-DEL\_M



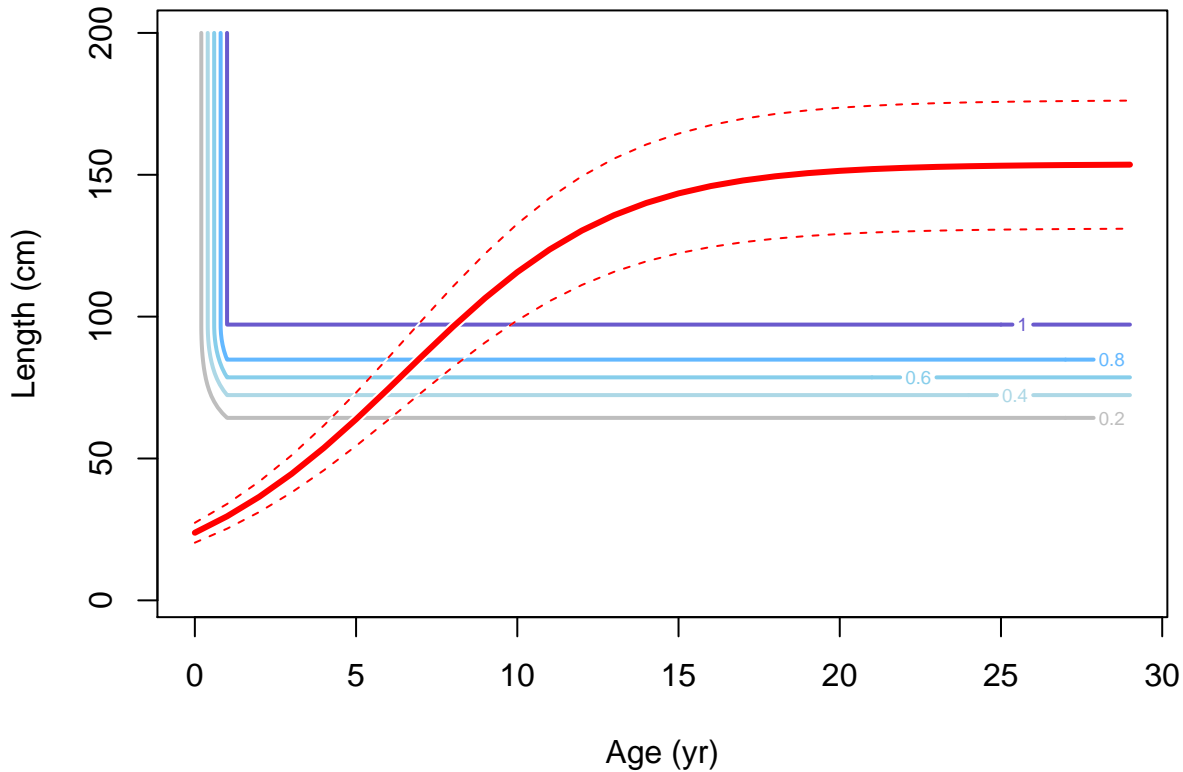
# Female ending year selectivity and growth for F18-DEL\_C



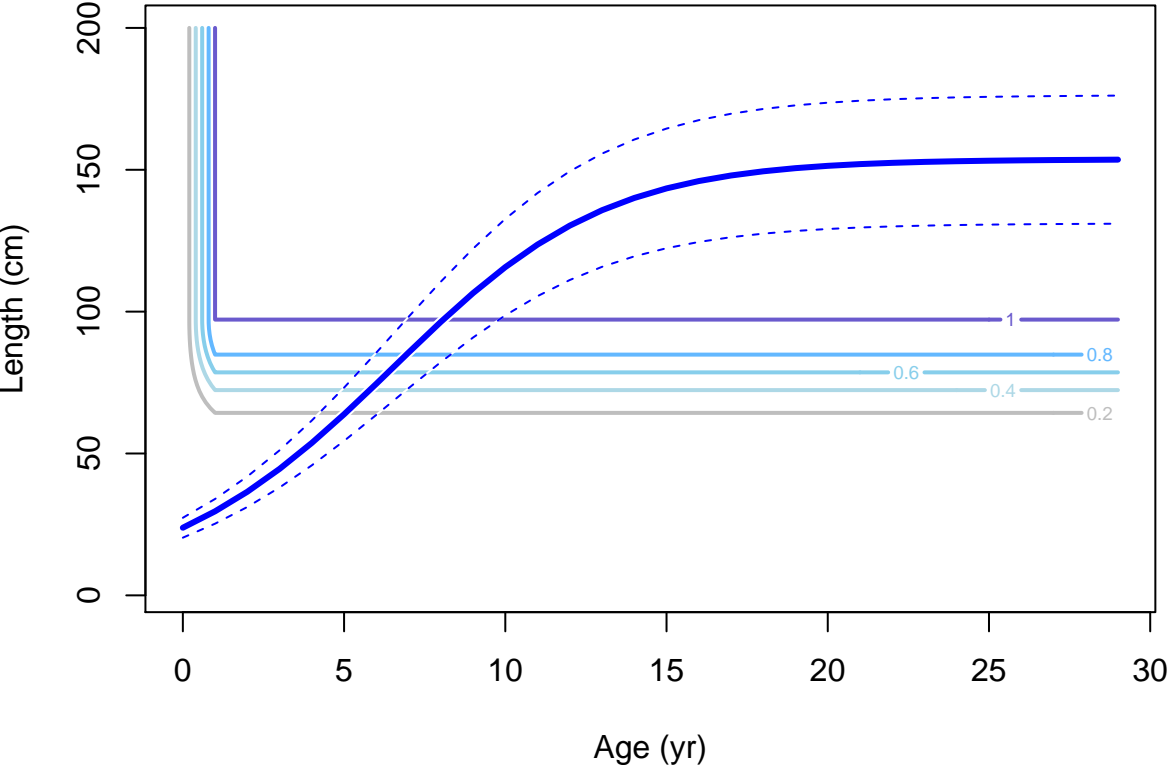
# Male ending year selectivity and growth for F18-DEL\_C



# Female ending year selectivity and growth for F19-DEL\_P

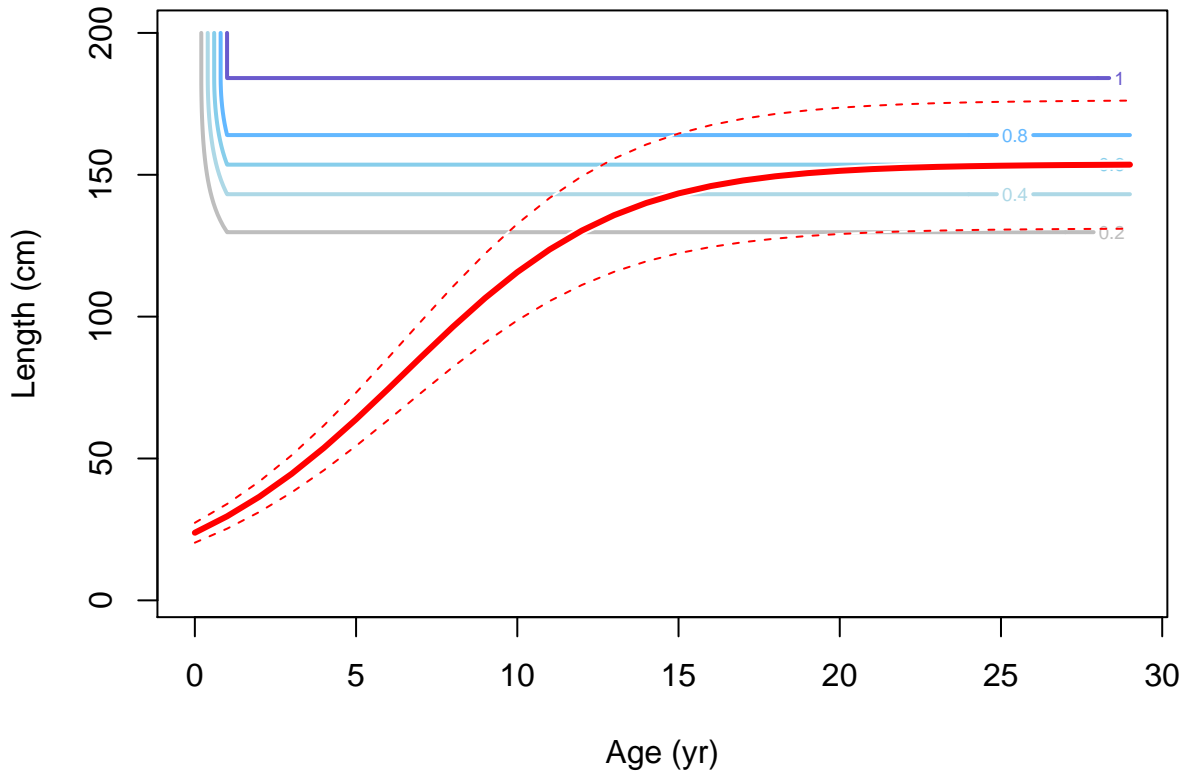


# Male ending year selectivity and growth for F19-DEL\_P

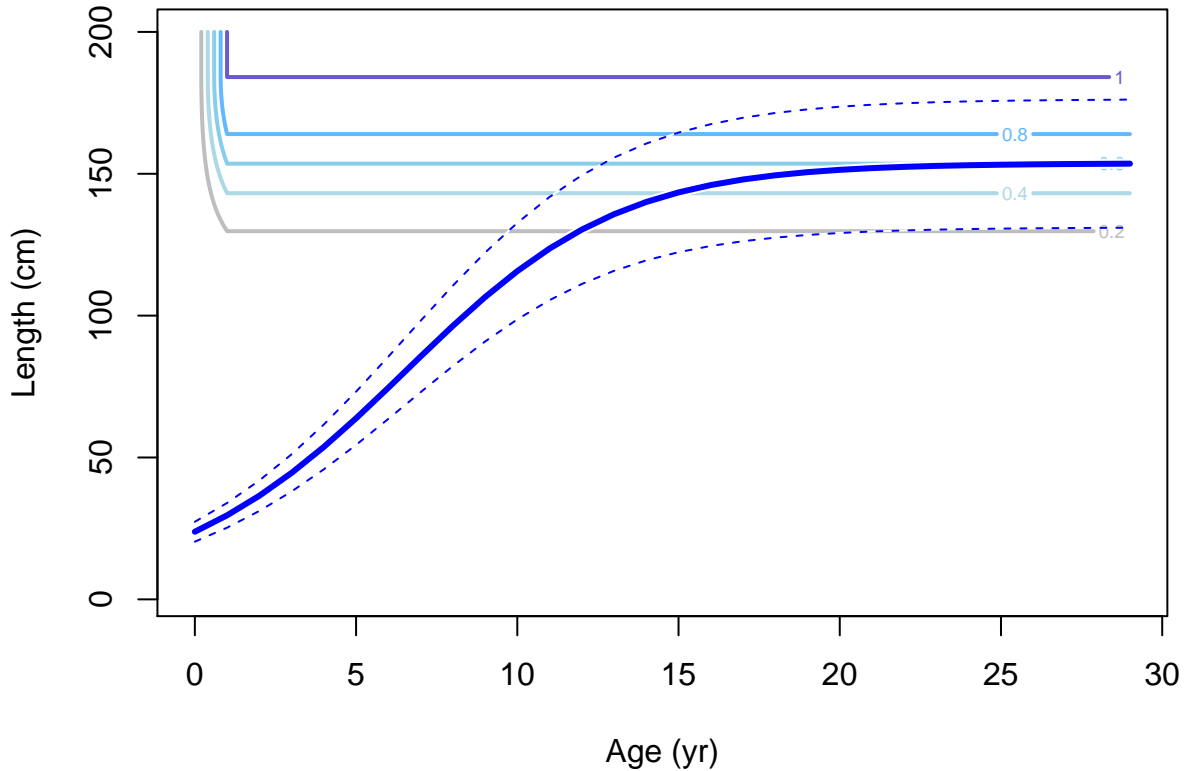




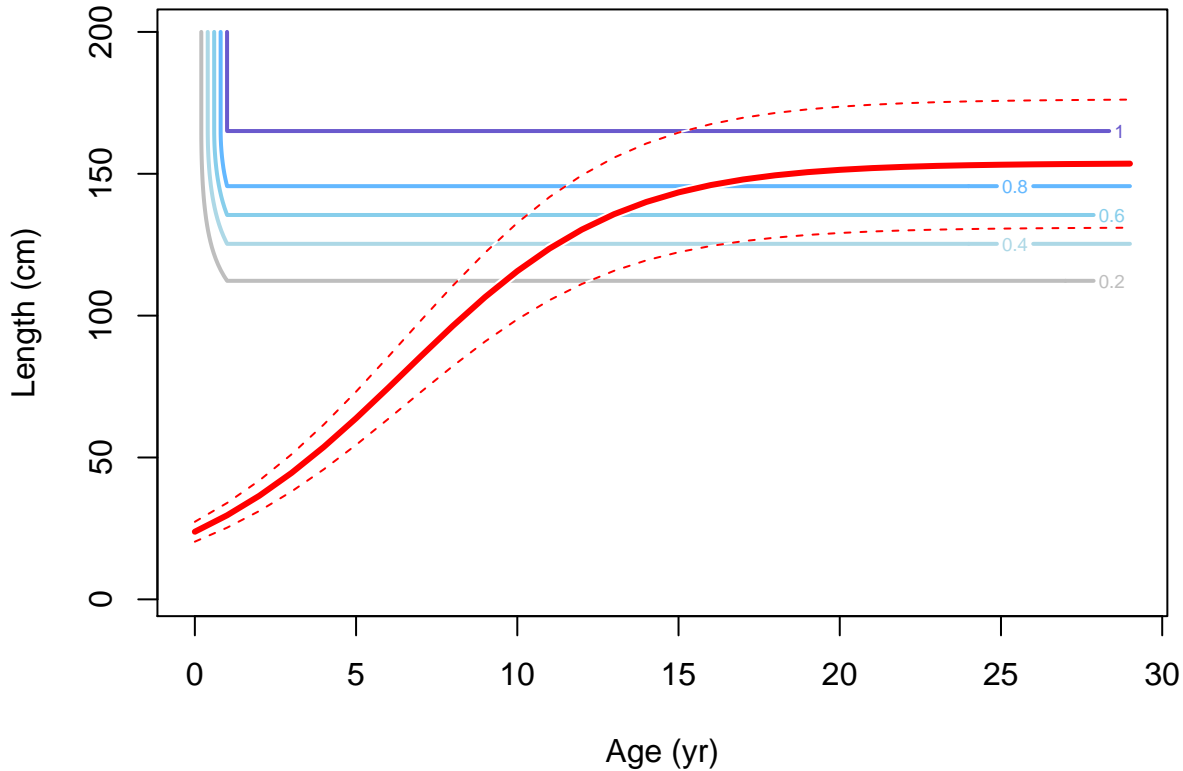
## Female ending year selectivity and growth for F20-DEL\_S



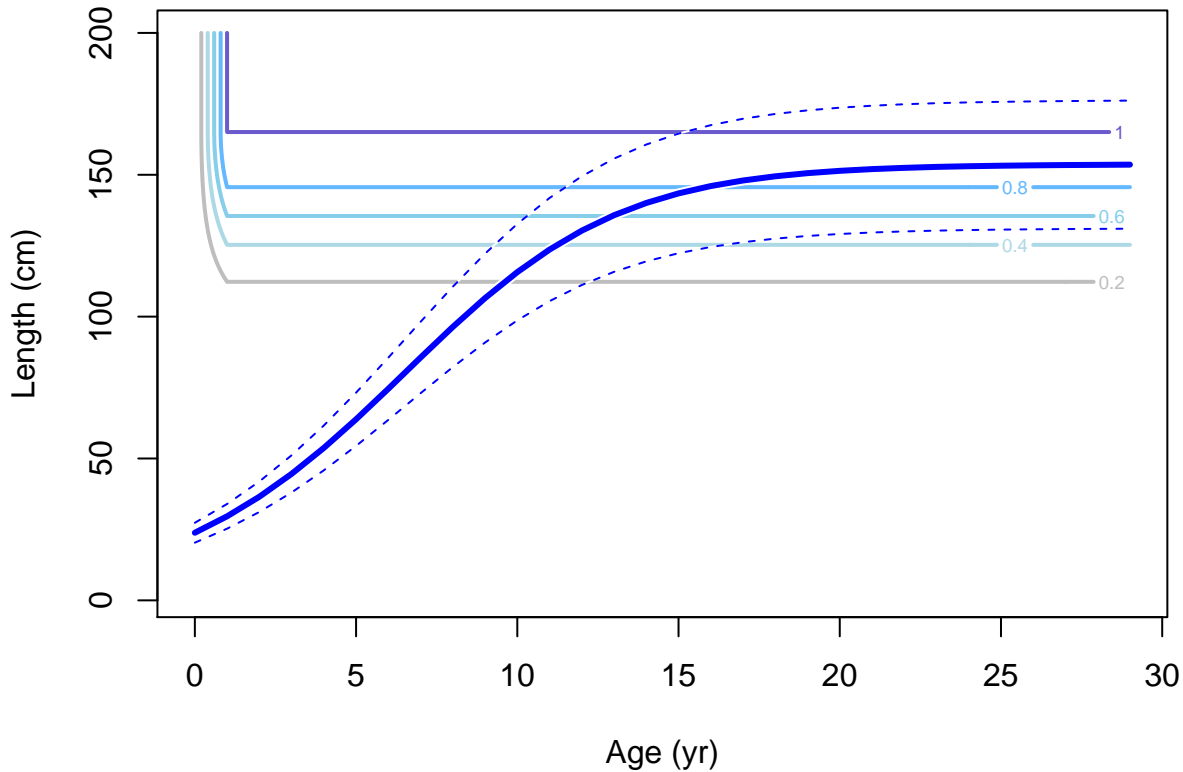
# Male ending year selectivity and growth for F20-DEL\_S



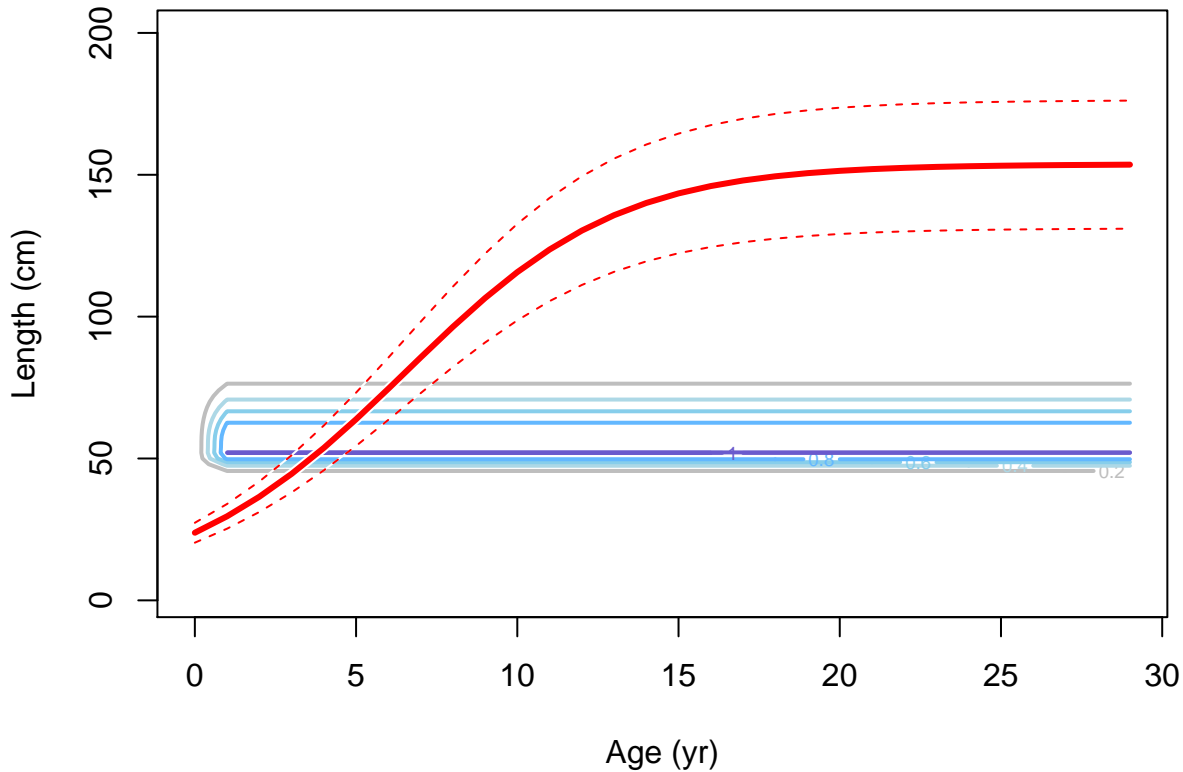
# Female ending year selectivity and growth for F21-DEL\_I



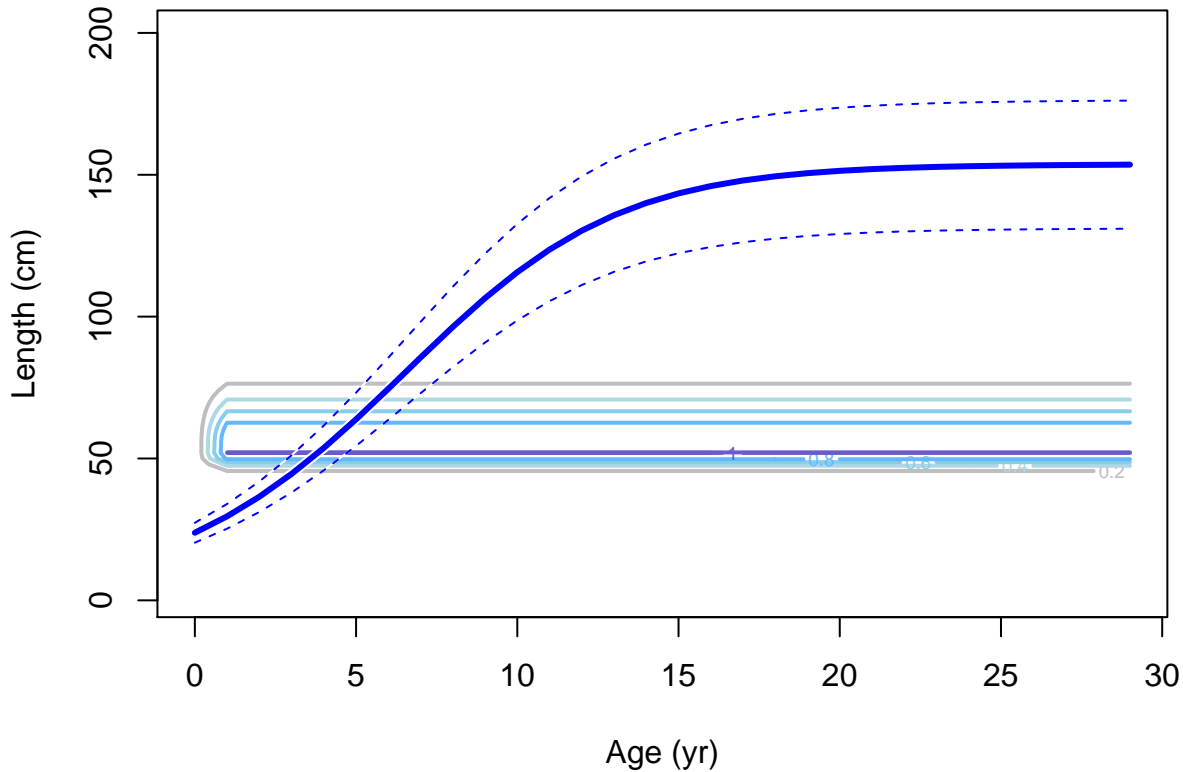
# Male ending year selectivity and growth for F21-DEL\_I



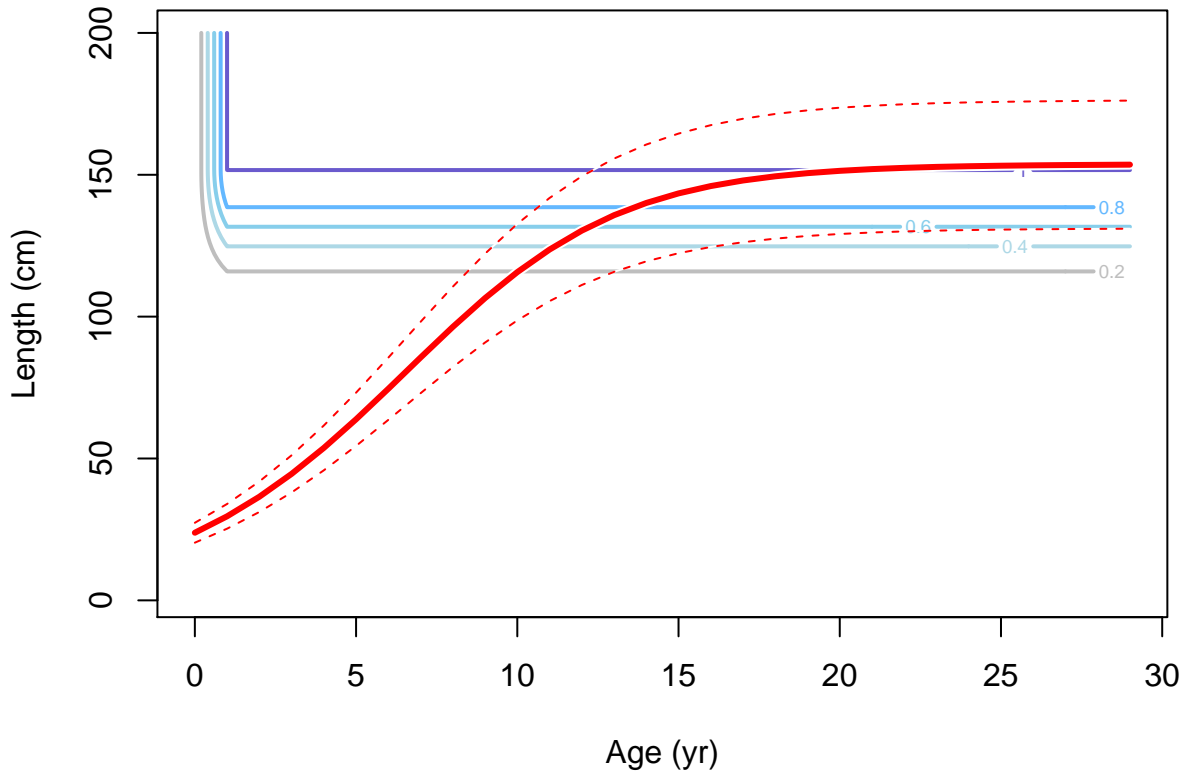
## Female ending year selectivity and growth for F22-BB



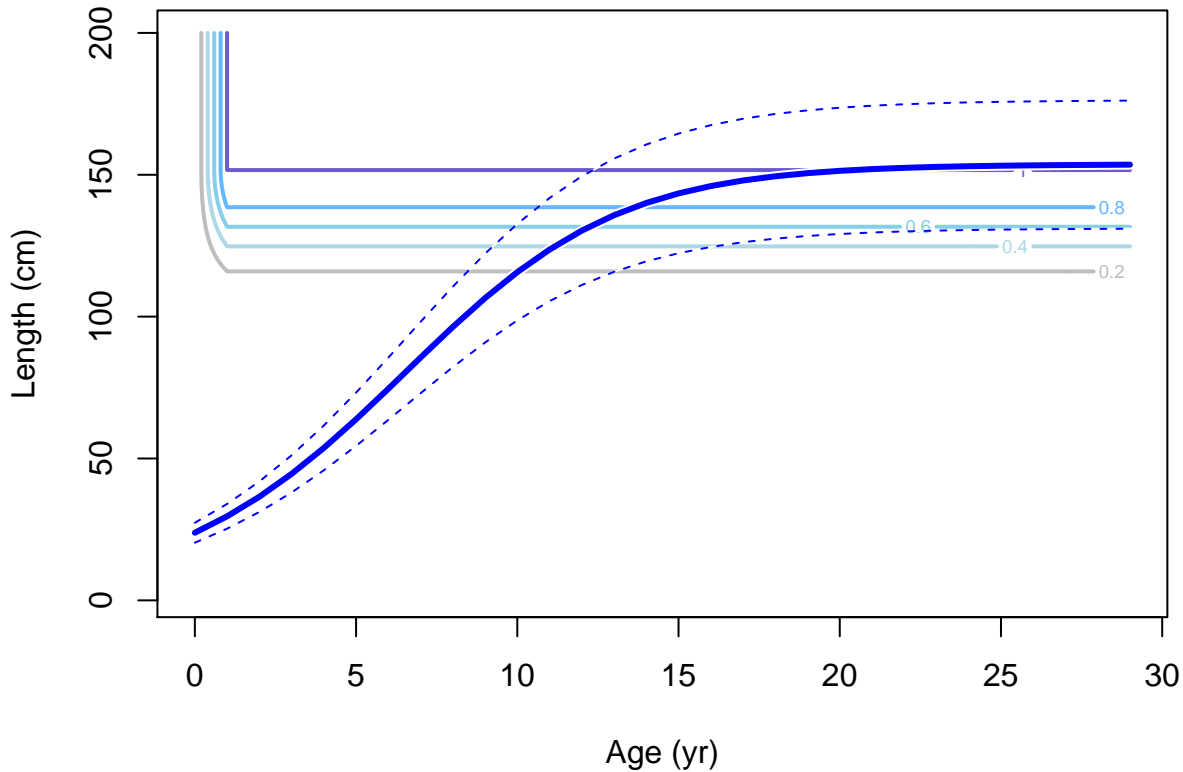
# Male ending year selectivity and growth for F22-BB



# Female ending year selectivity and growth for F29-LL\_W\_Q14n

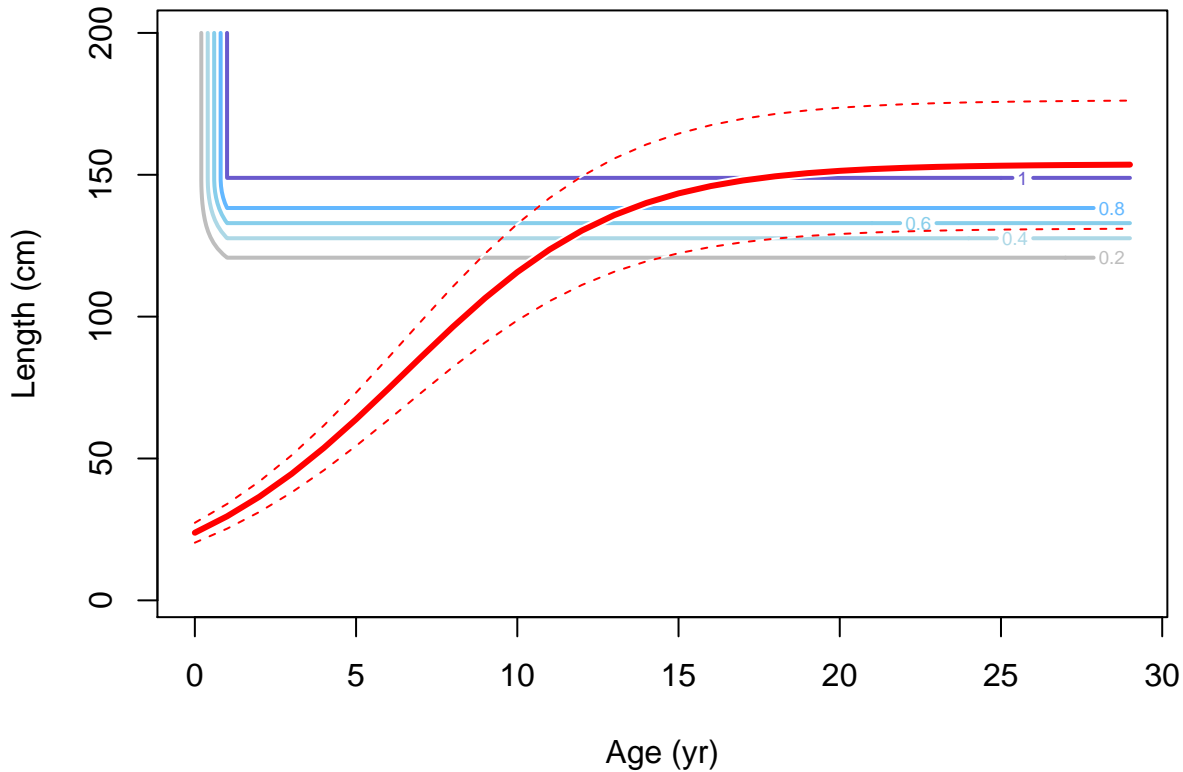


# Male ending year selectivity and growth for F29-LL\_W\_Q14n

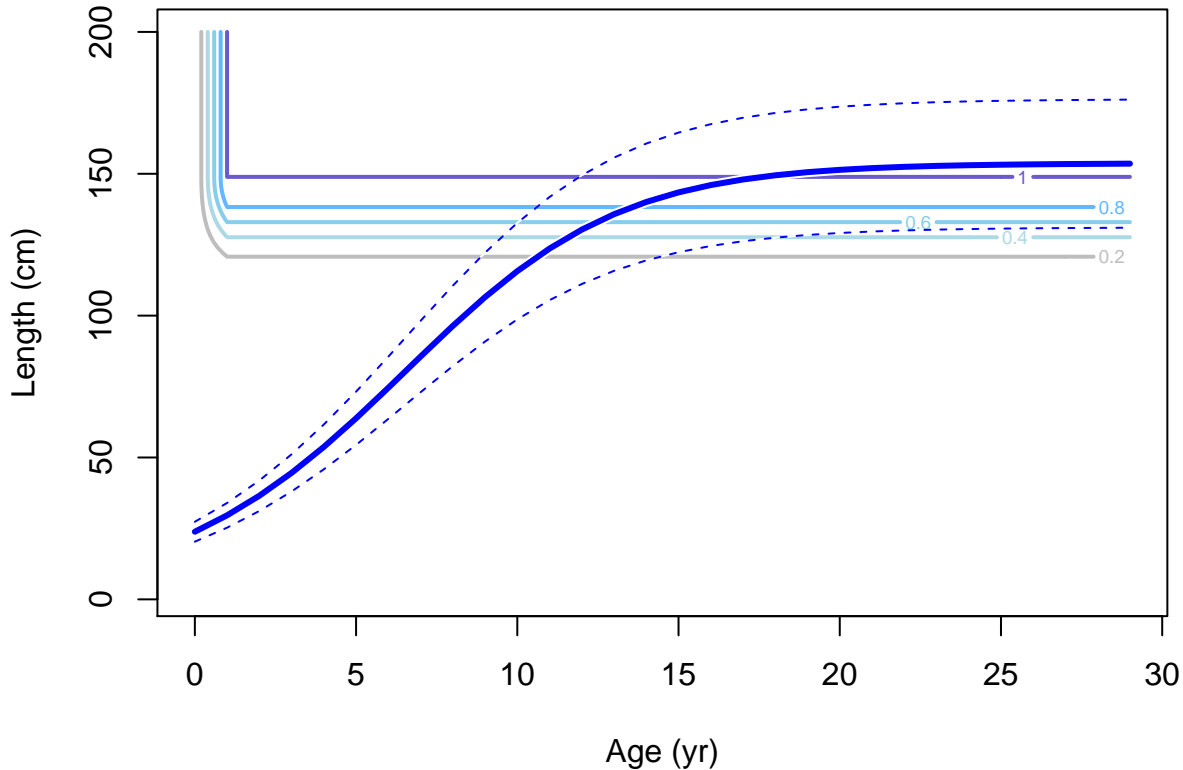




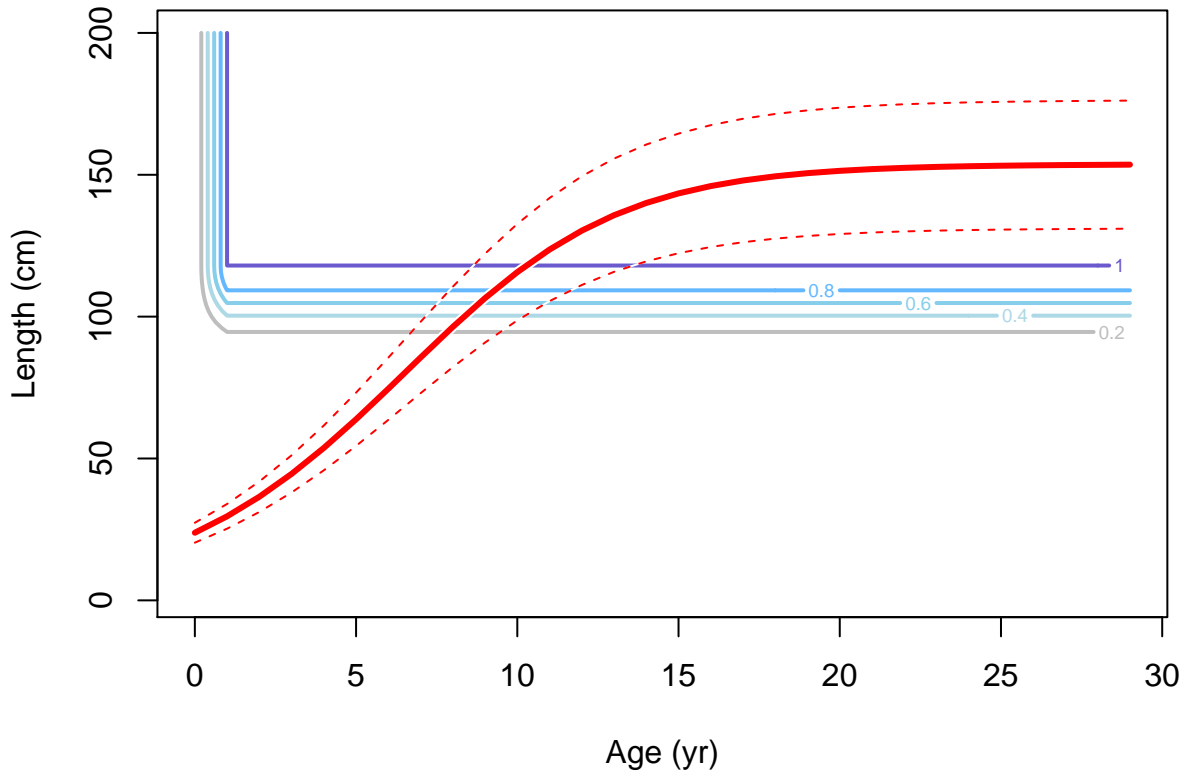
# Female ending year selectivity and growth for F30-LL\_C\_Q14n



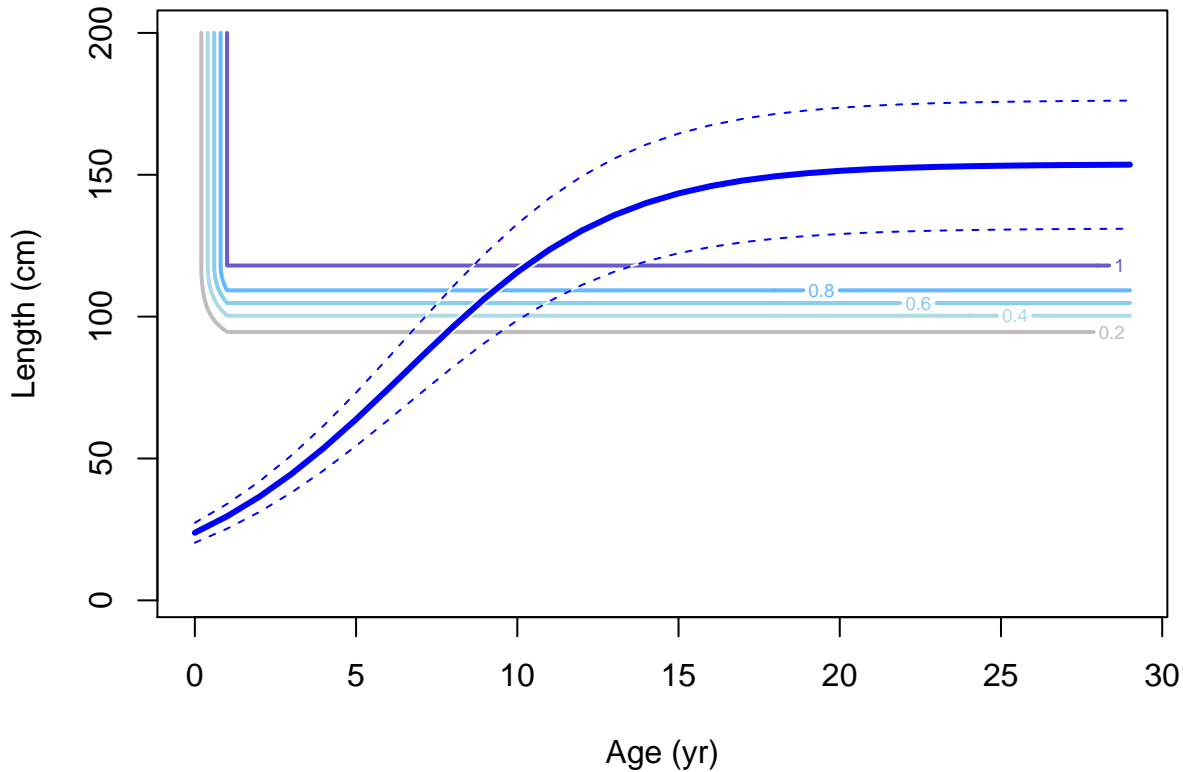
# Male ending year selectivity and growth for F30-LL\_C\_Q14n



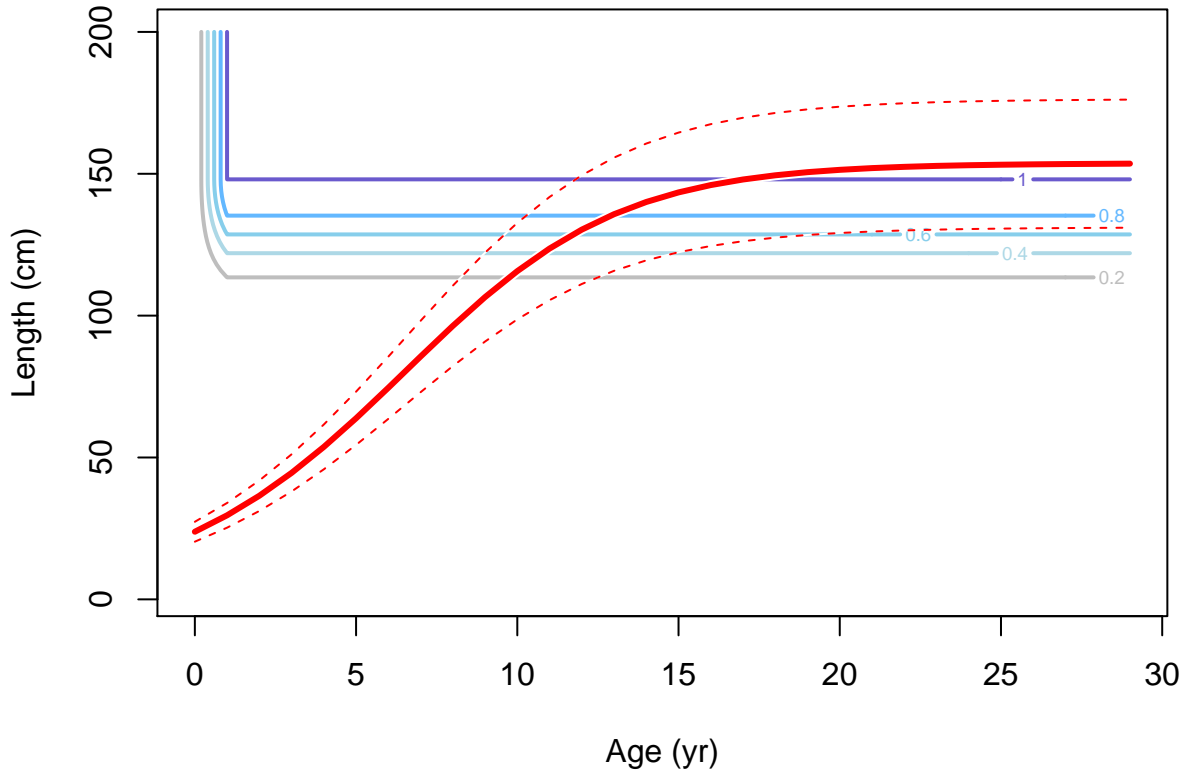
# Female ending year selectivity and growth for F31-LL\_E\_Q14n



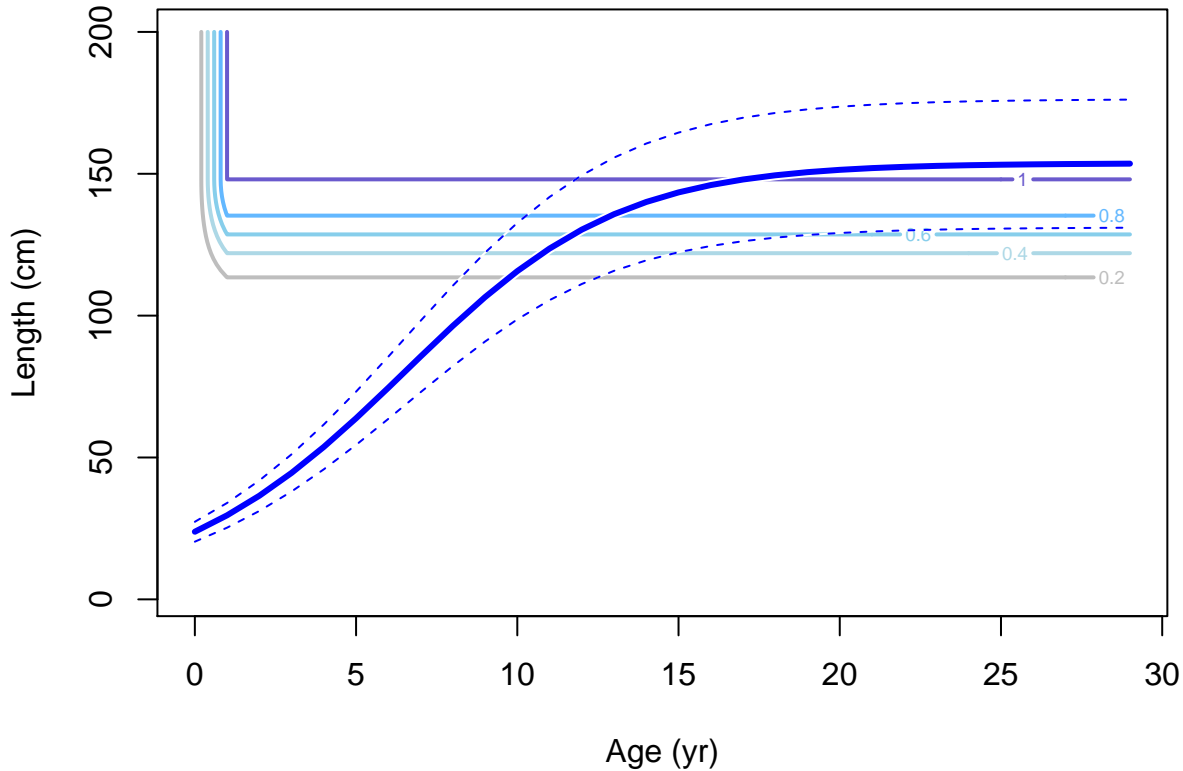
# Male ending year selectivity and growth for F31-LL\_E\_Q14n



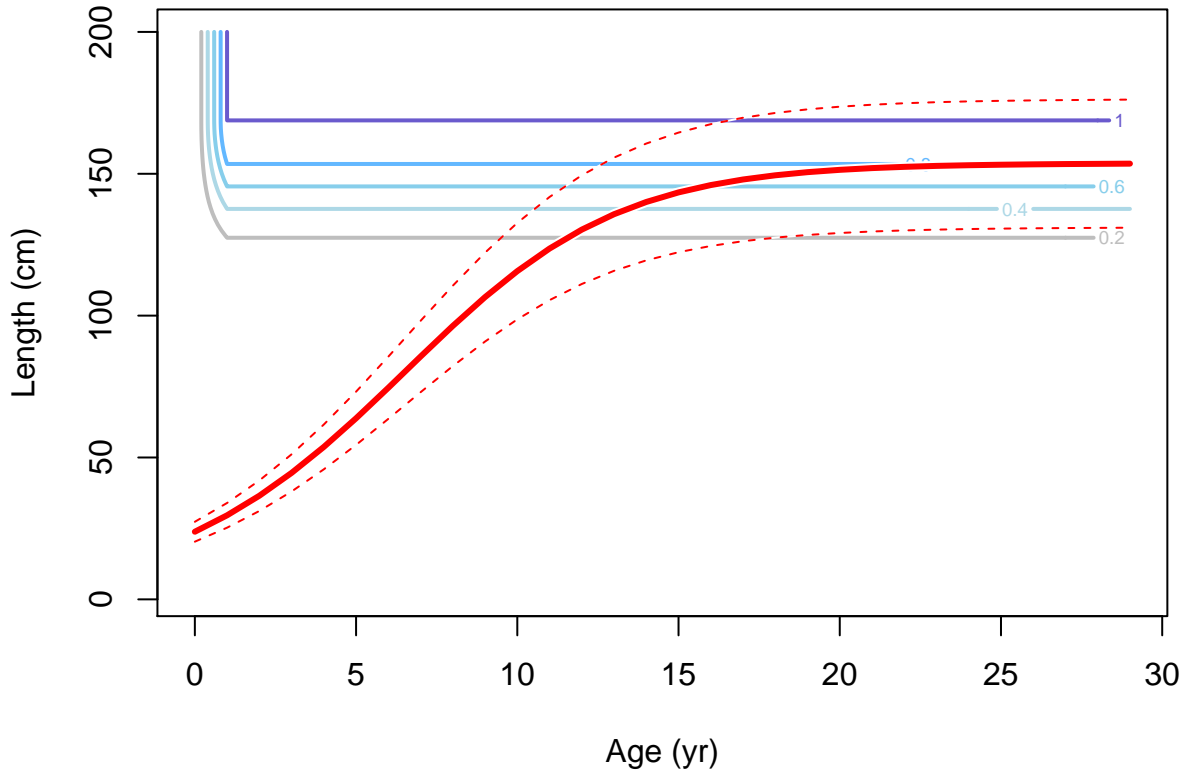
# Female ending year selectivity and growth for F32-LL\_W\_Q23n



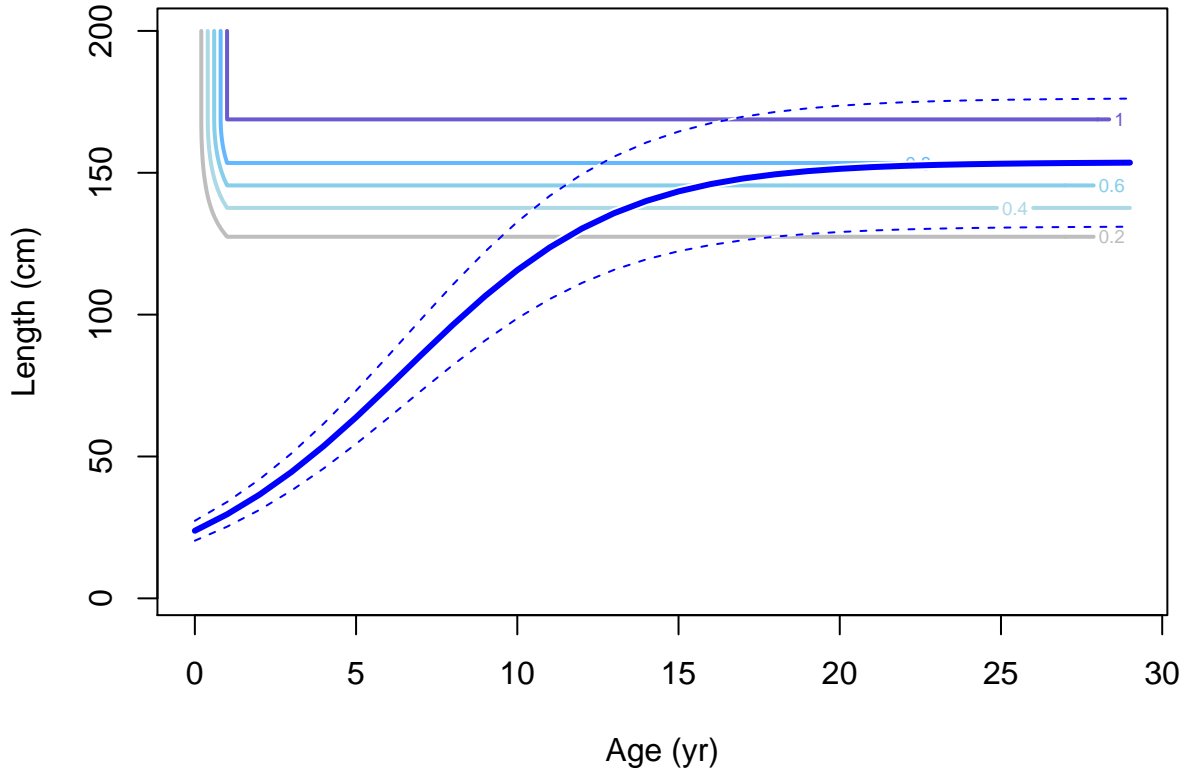
# Male ending year selectivity and growth for F32-LL\_W\_Q23n



# Female ending year selectivity and growth for F33-LL\_C\_Q23n

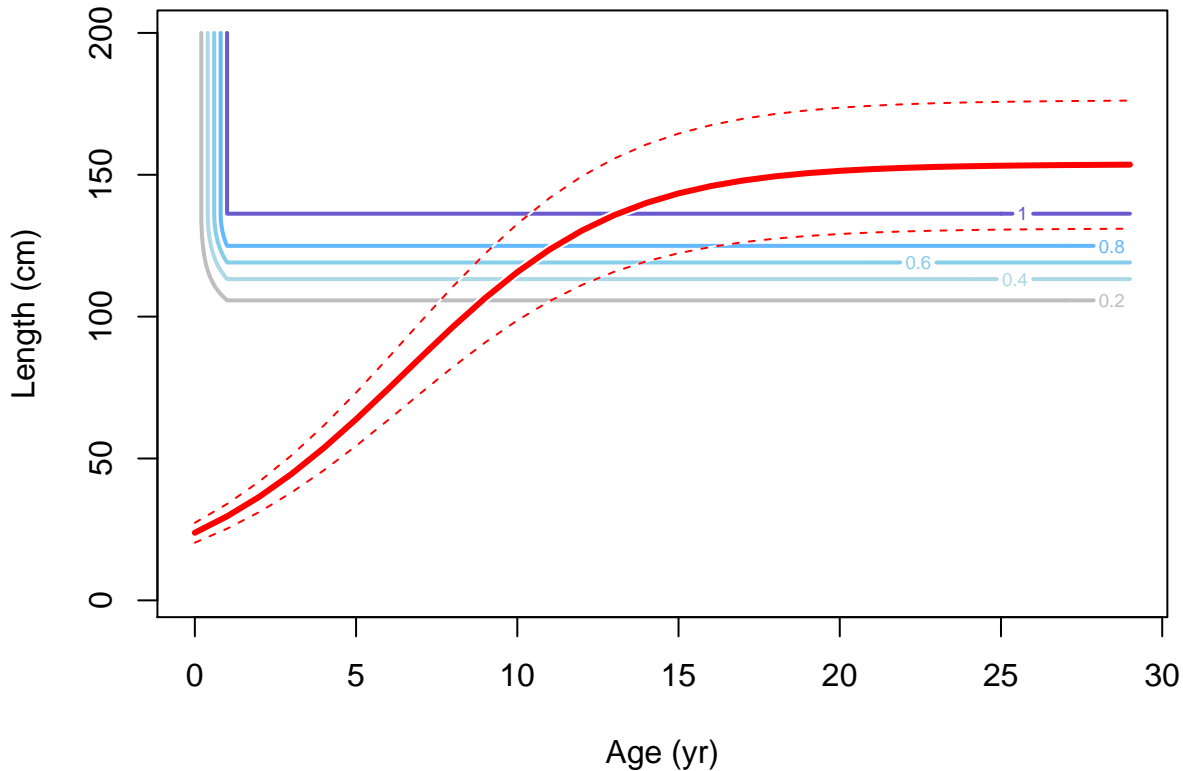


# Male ending year selectivity and growth for F33-LL\_C\_Q23n

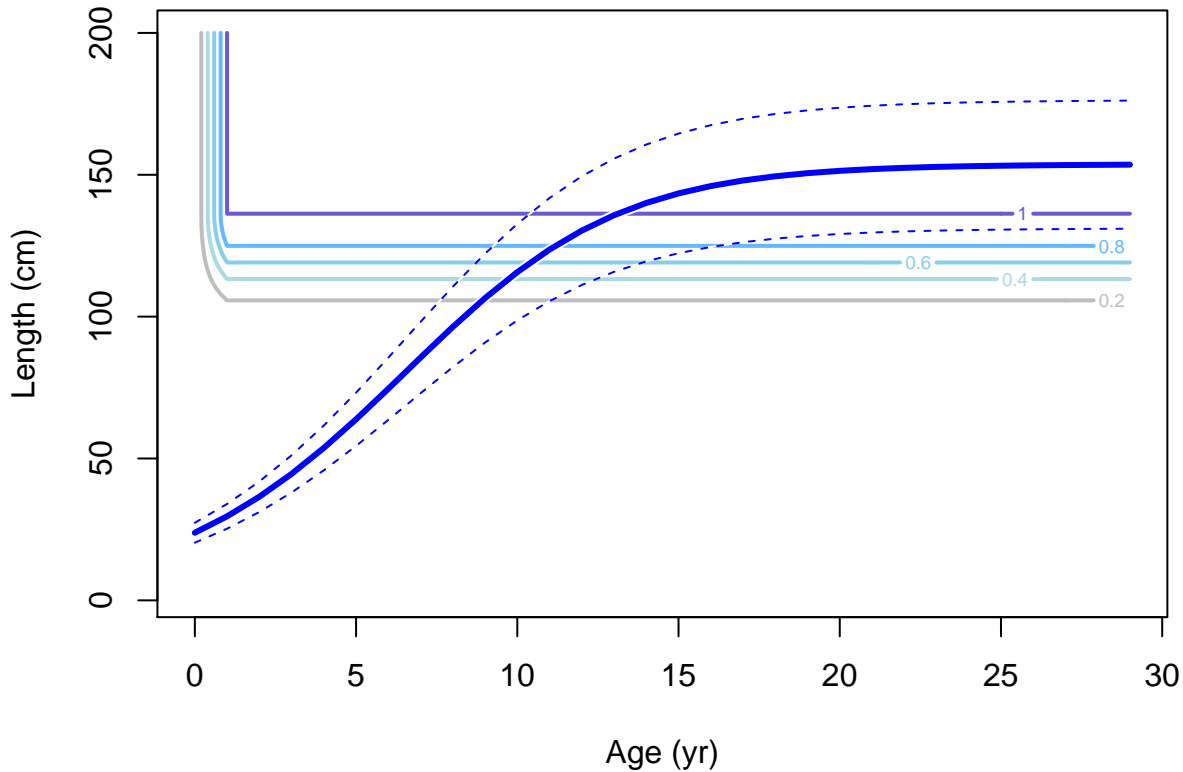




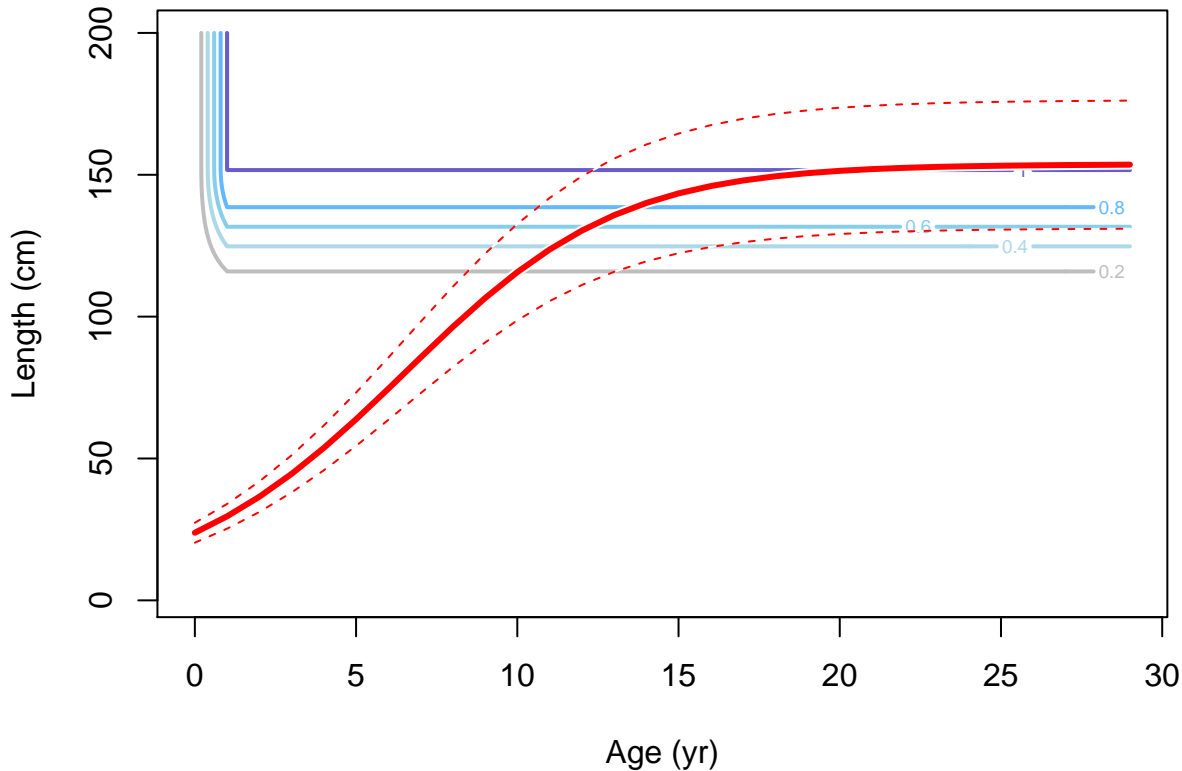
# Female ending year selectivity and growth for F34-LL\_E\_Q23n



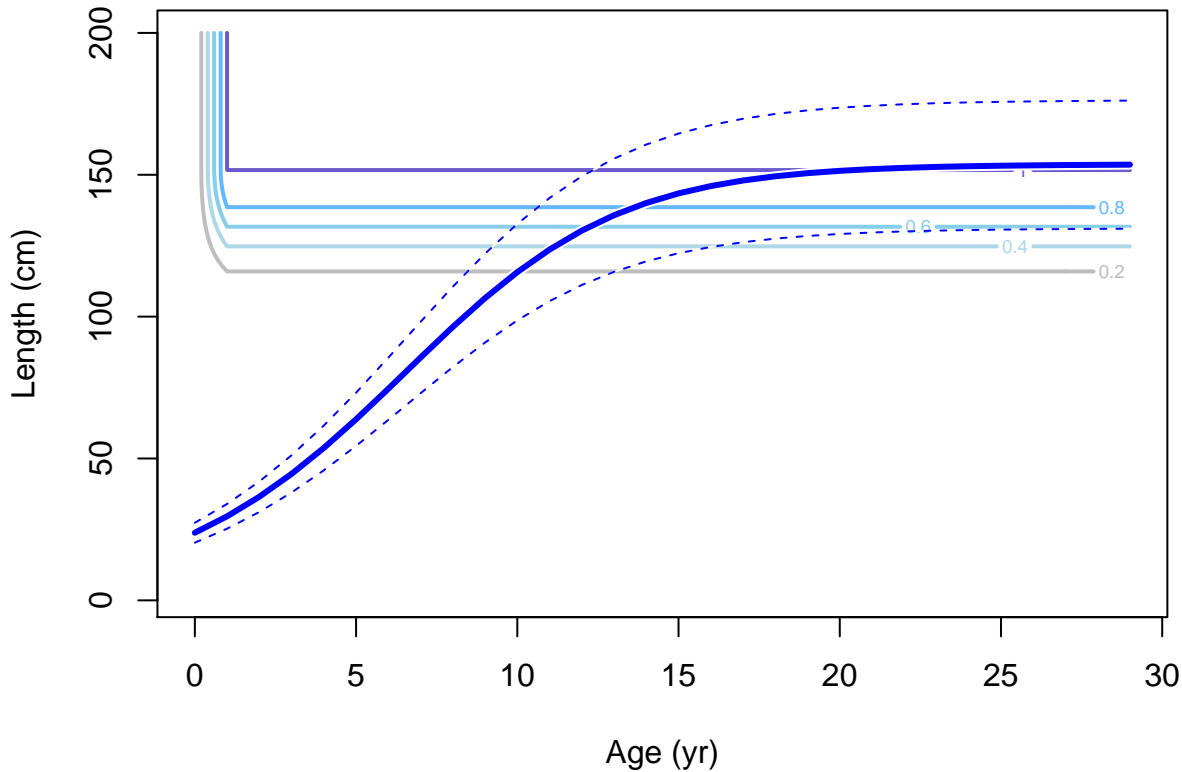
# Male ending year selectivity and growth for F34-LL\_E\_Q23n



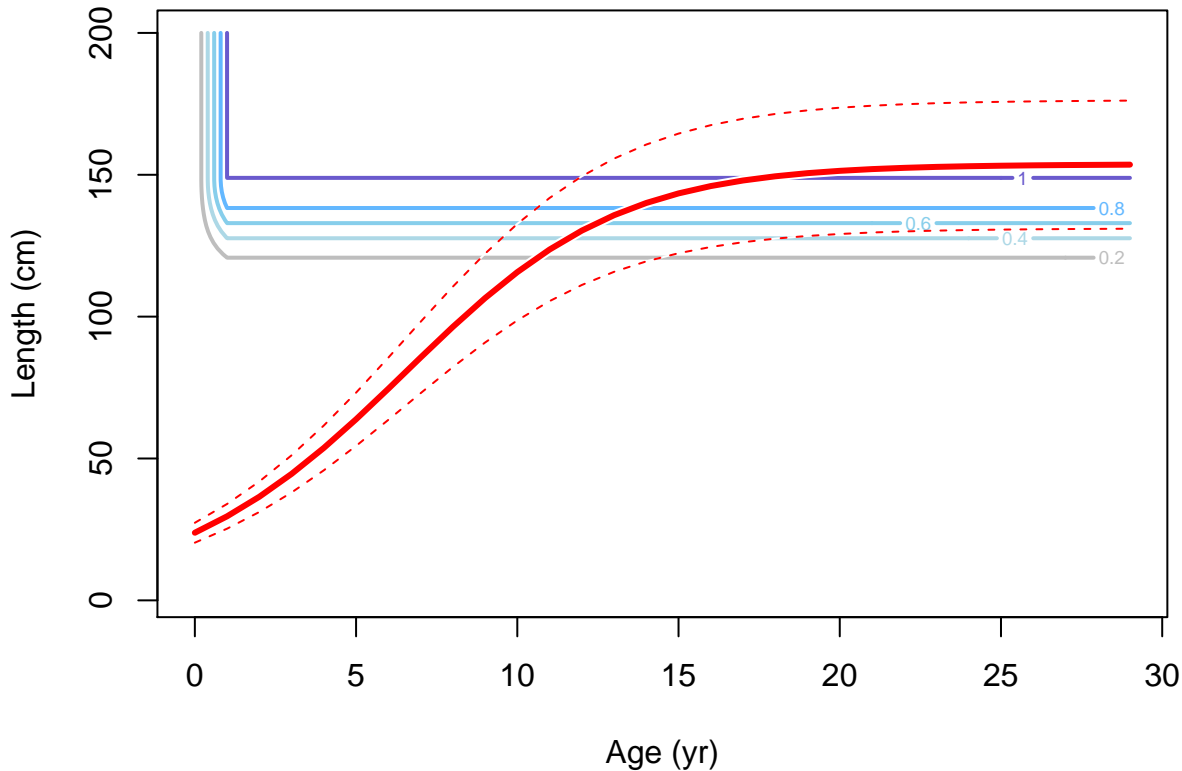
# Female ending year selectivity and growth for F35-LL\_W\_Q14w



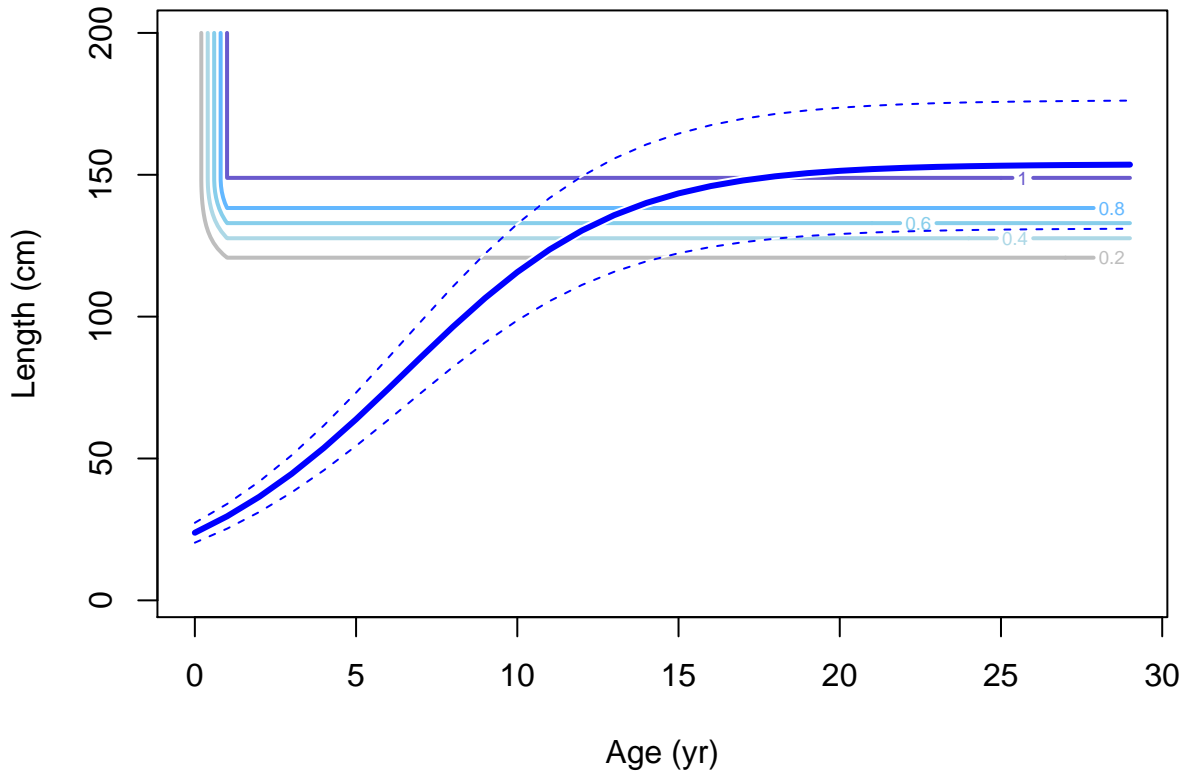
# Male ending year selectivity and growth for F35-LL\_W\_Q14w



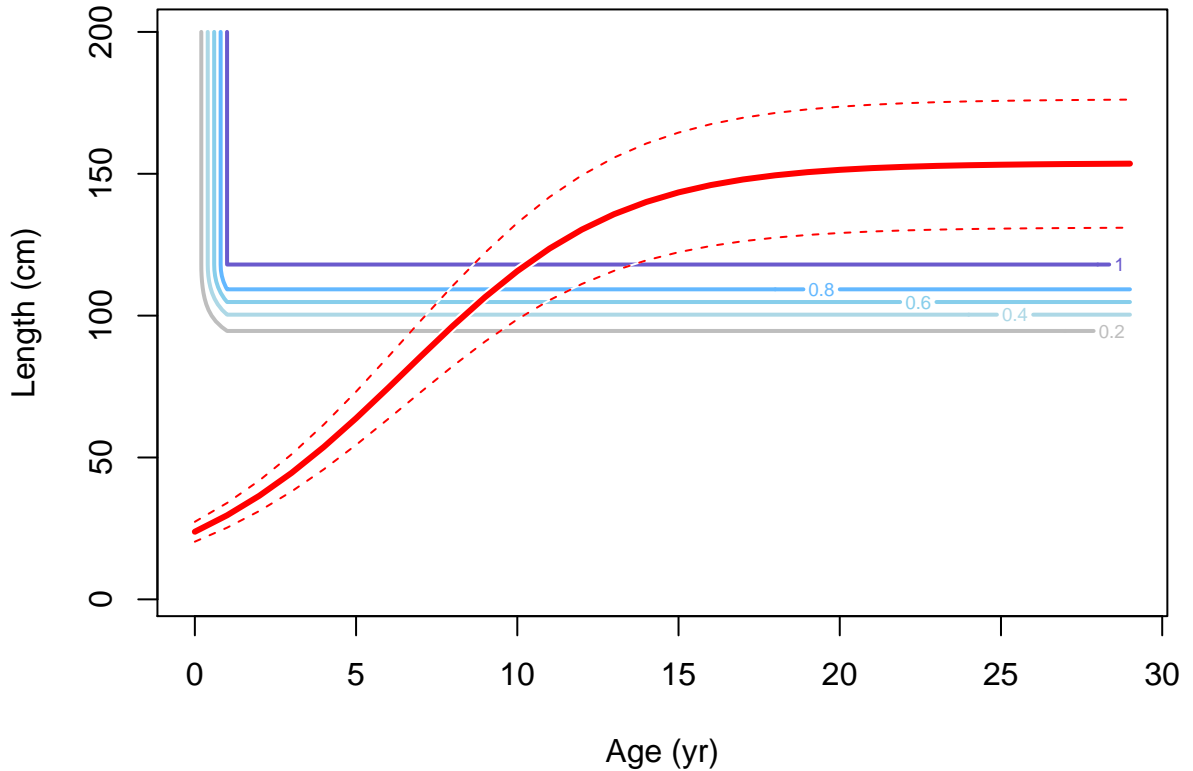
Female ending year selectivity and growth for F36-LL\_C\_Q14w



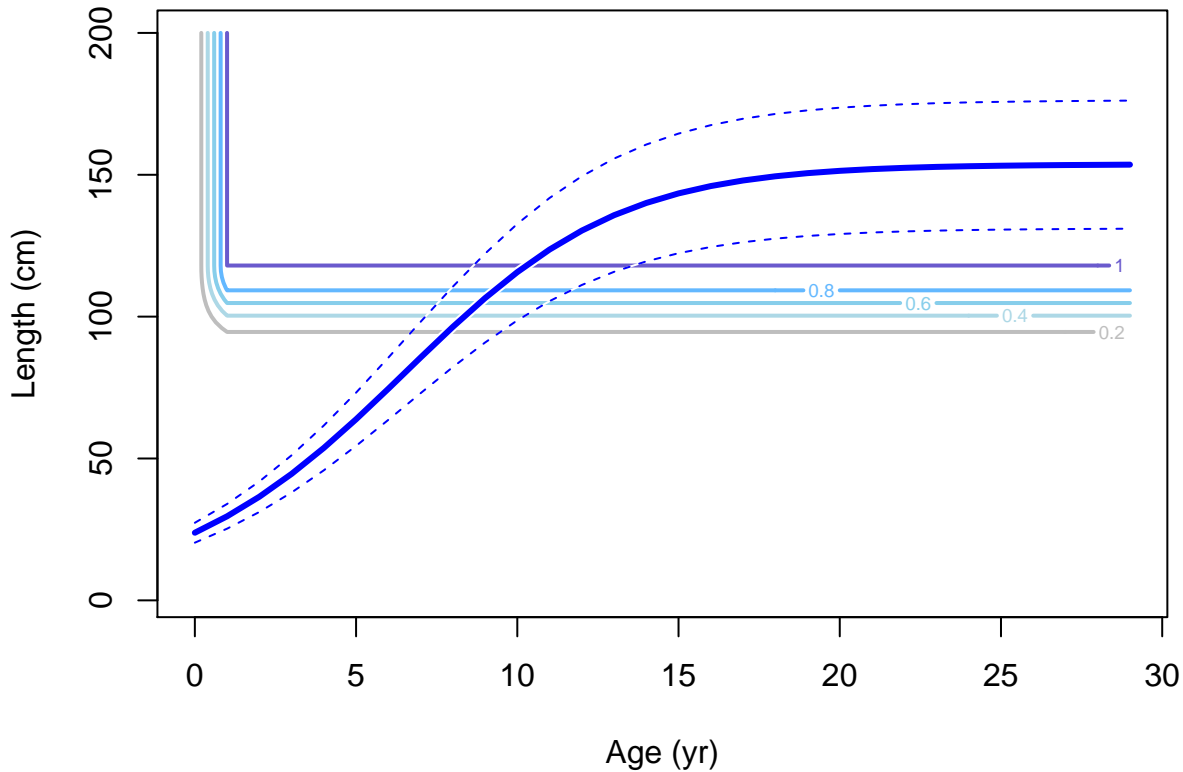
# Male ending year selectivity and growth for F36-LL\_C\_Q14w



# Female ending year selectivity and growth for F37-LL\_E\_Q14w

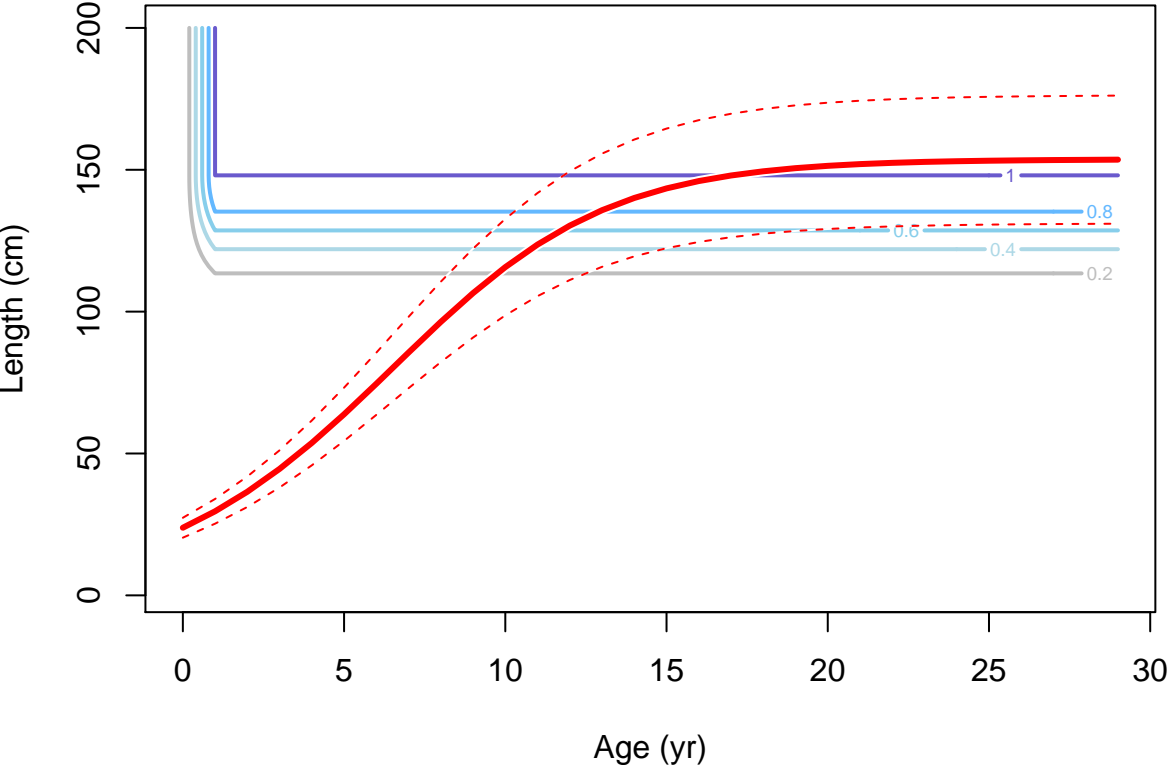


# Male ending year selectivity and growth for F37-LL\_E\_Q14w

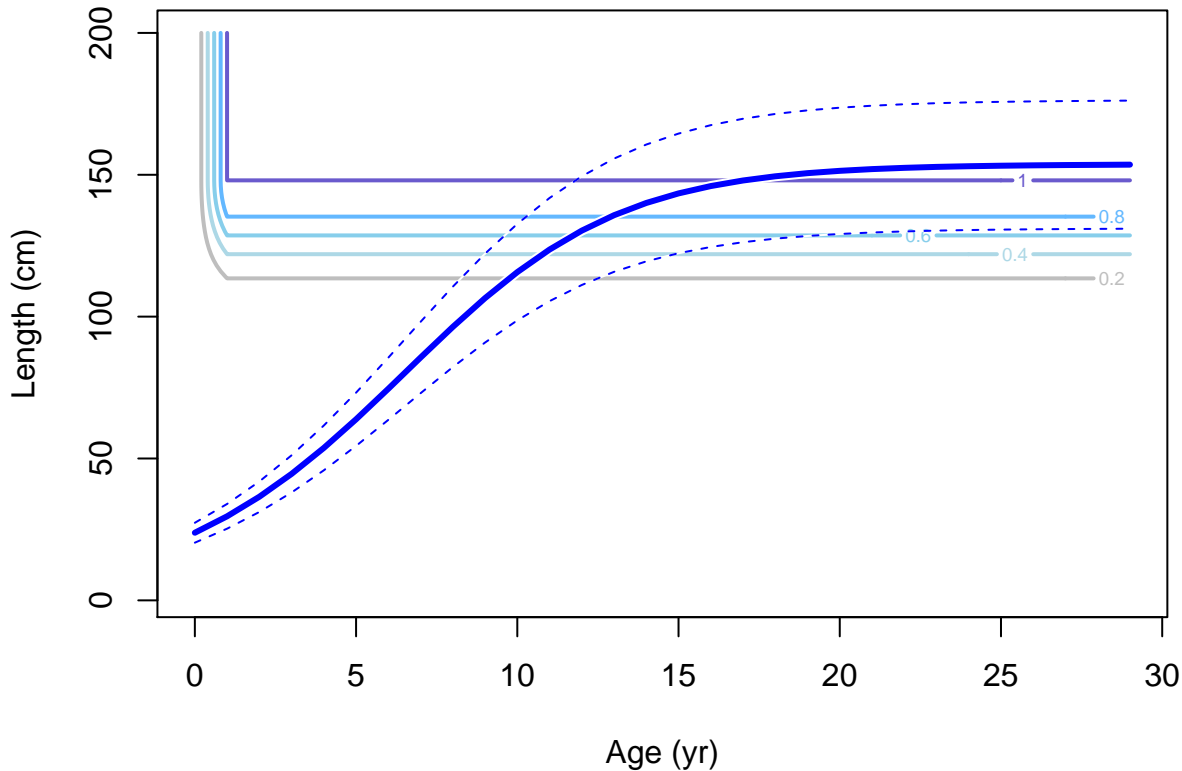




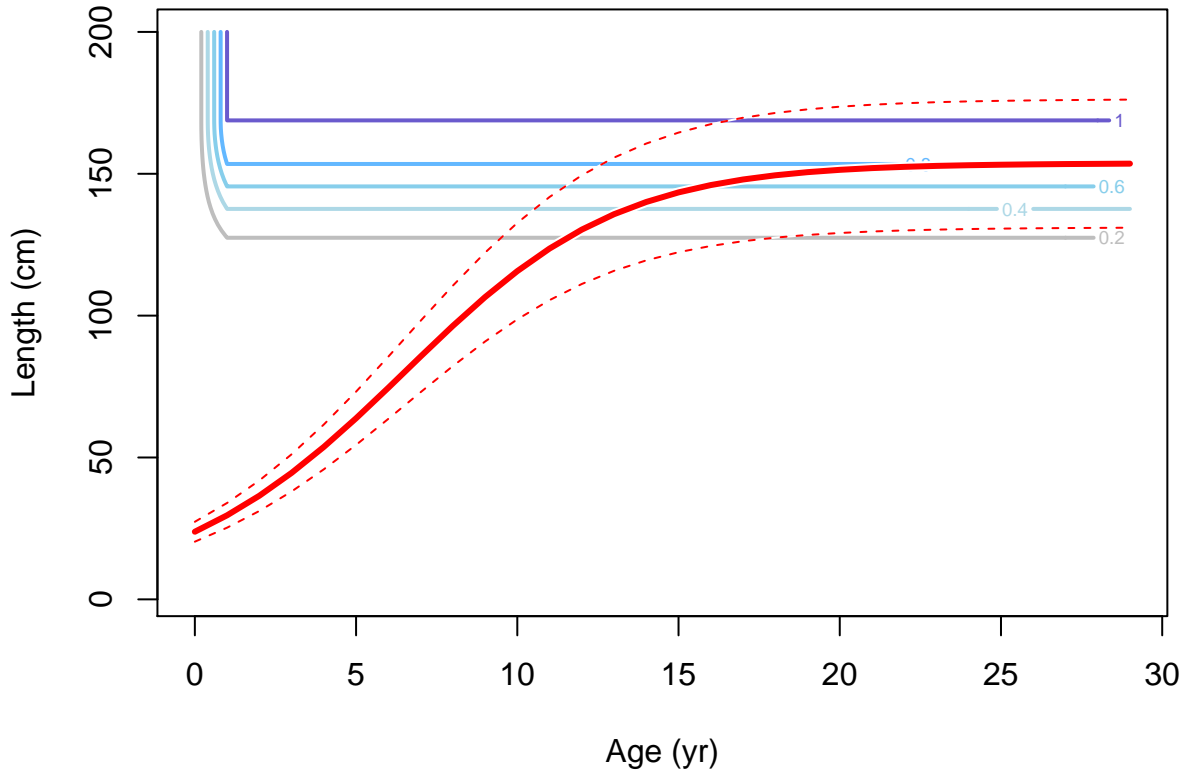
# Female ending year selectivity and growth for F38-LL\_W\_Q23w



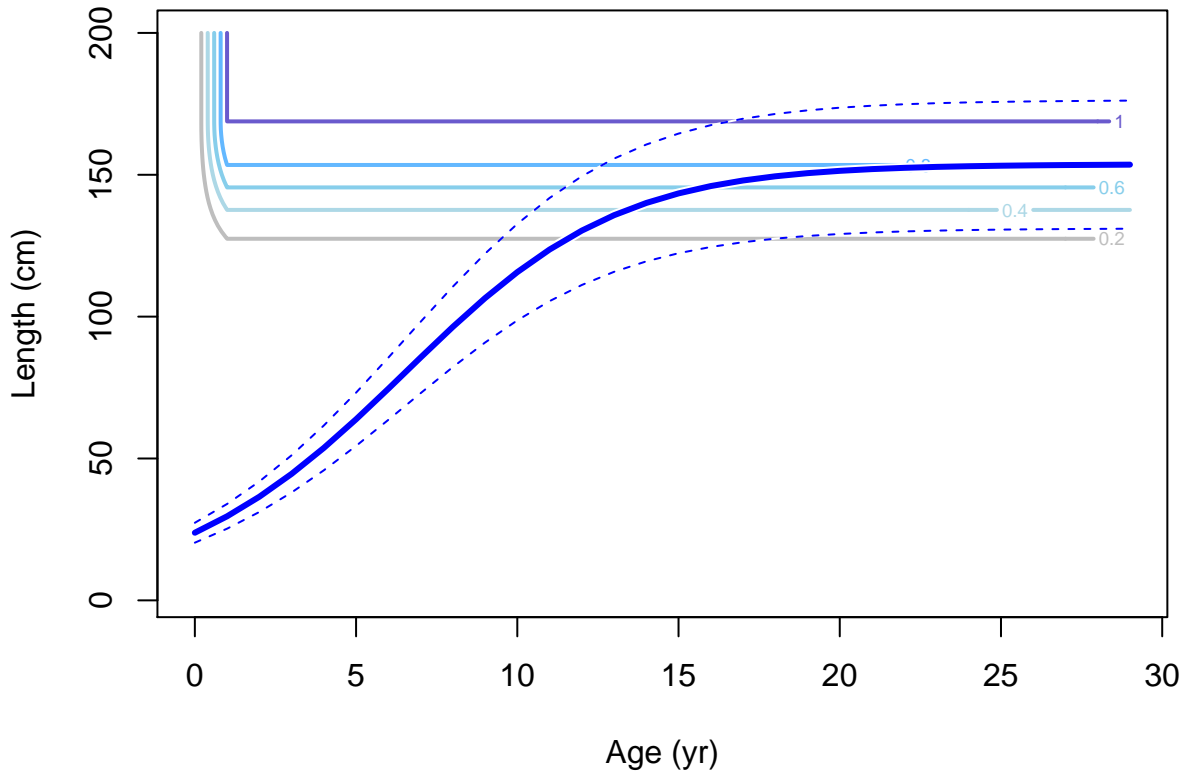
# Male ending year selectivity and growth for F38-LL\_W\_Q23w



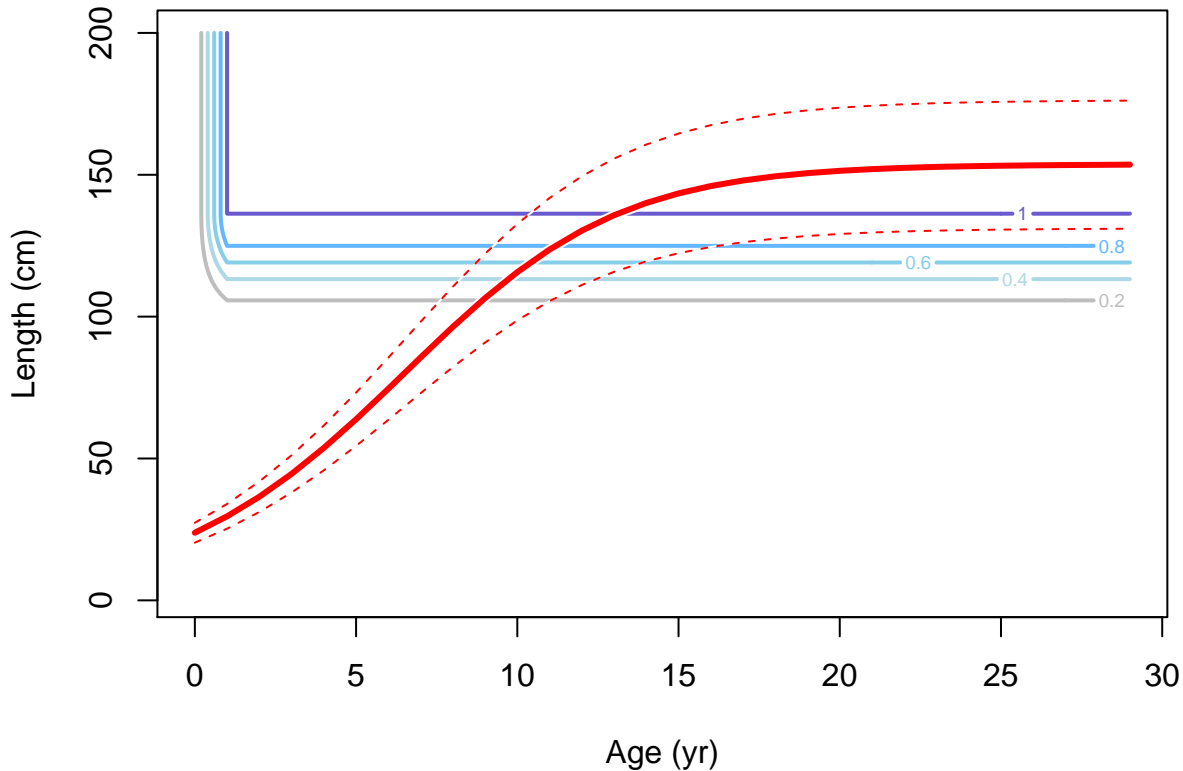
# Female ending year selectivity and growth for F39-LL\_C\_Q23w



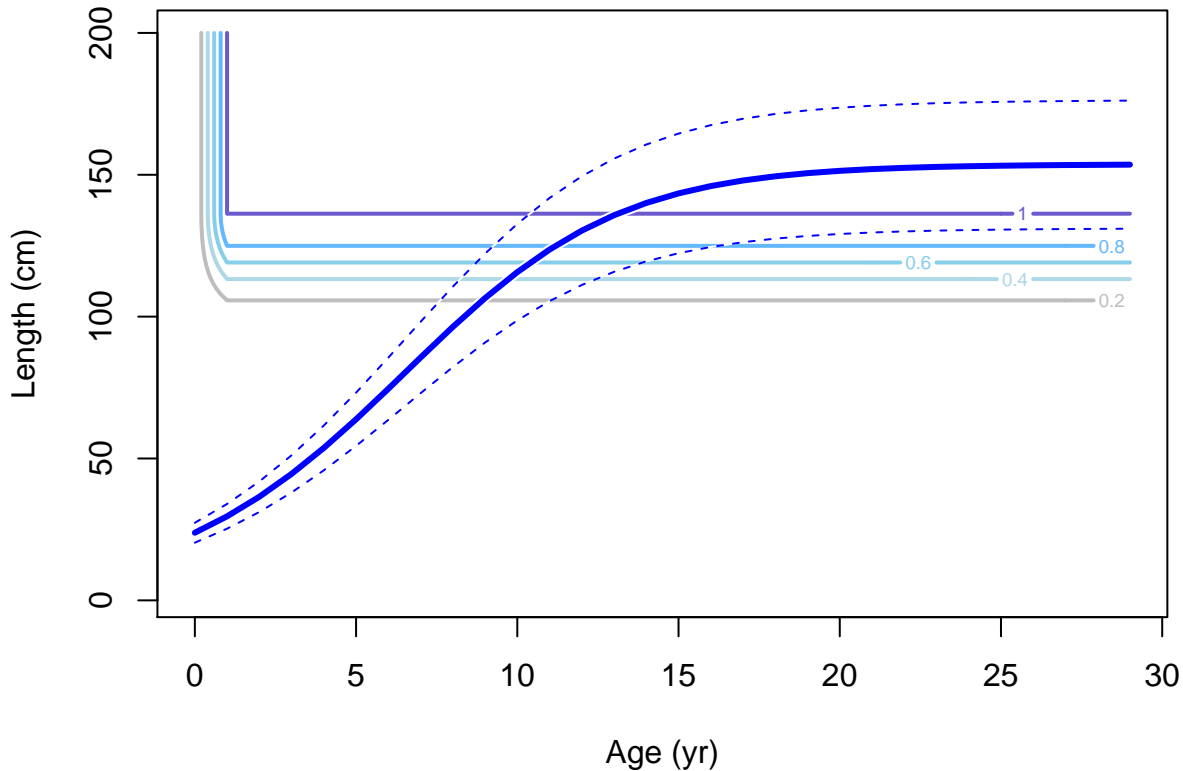
# Male ending year selectivity and growth for F39-LL\_C\_Q23w



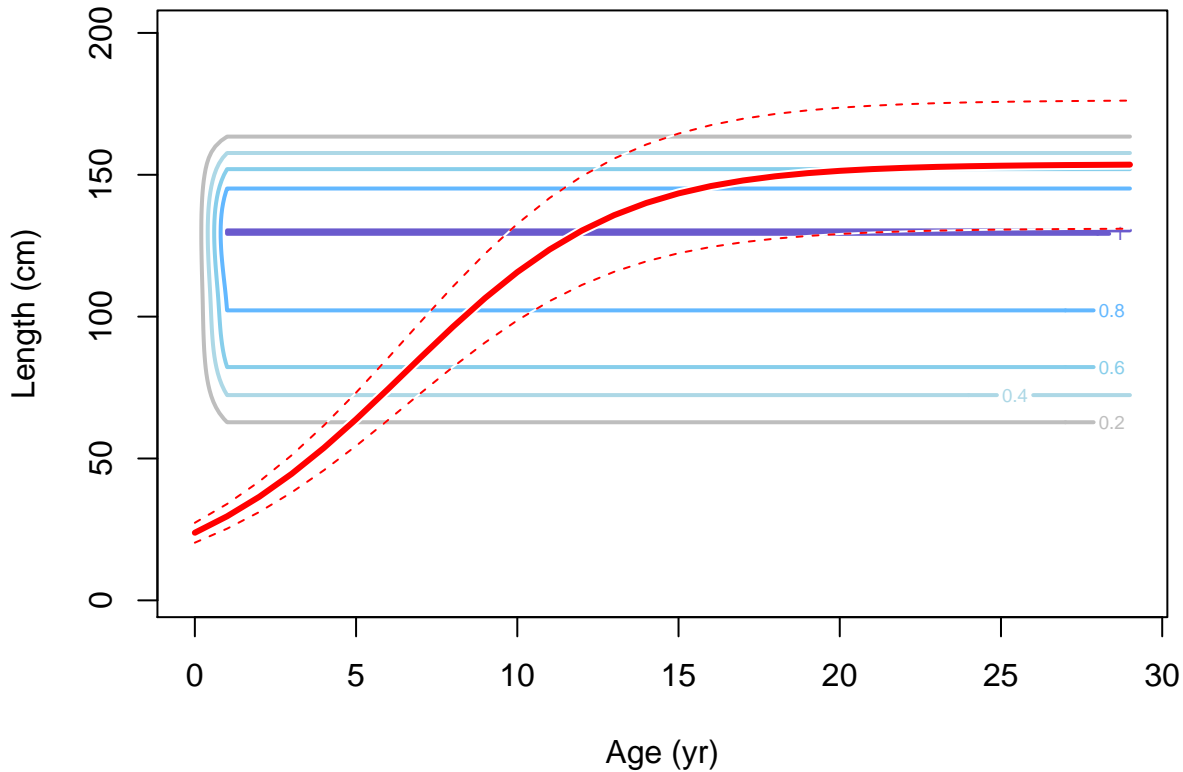
# Female ending year selectivity and growth for F40-LL\_E\_Q23w



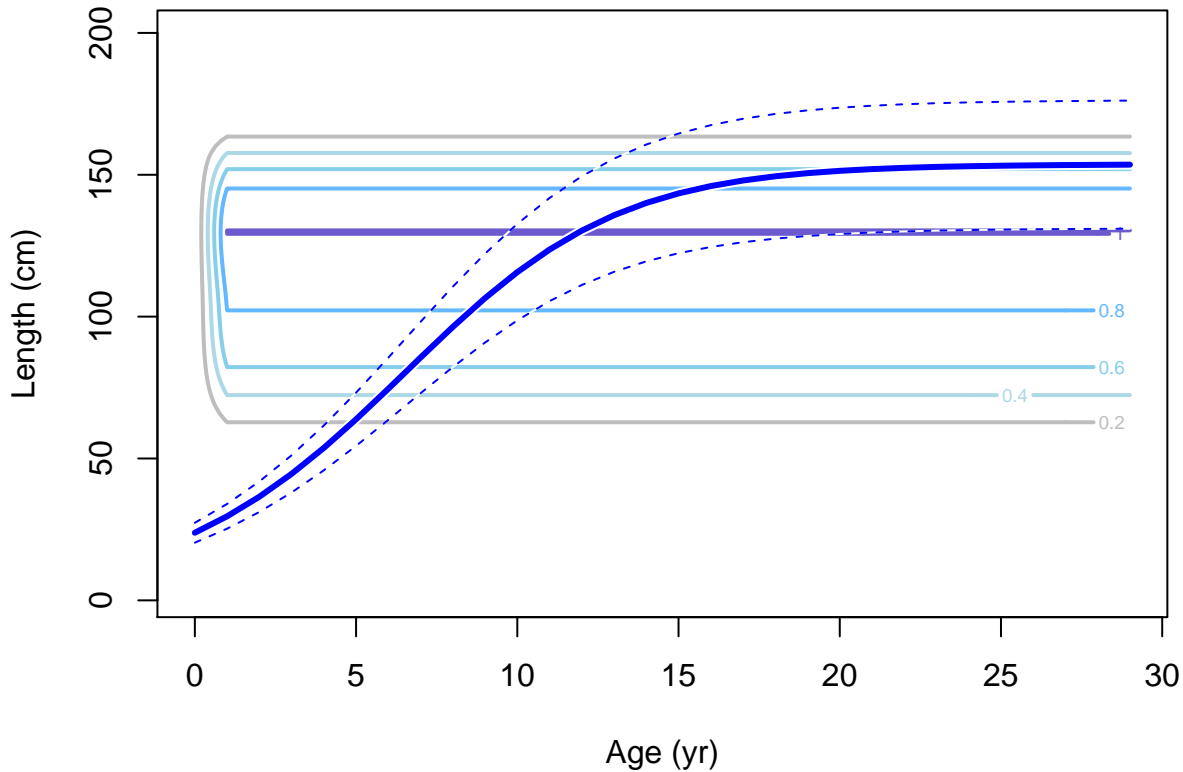
# Male ending year selectivity and growth for F40-LL\_E\_Q23w



# Female ending year selectivity and growth for S1-PS\_DEL\_VAST

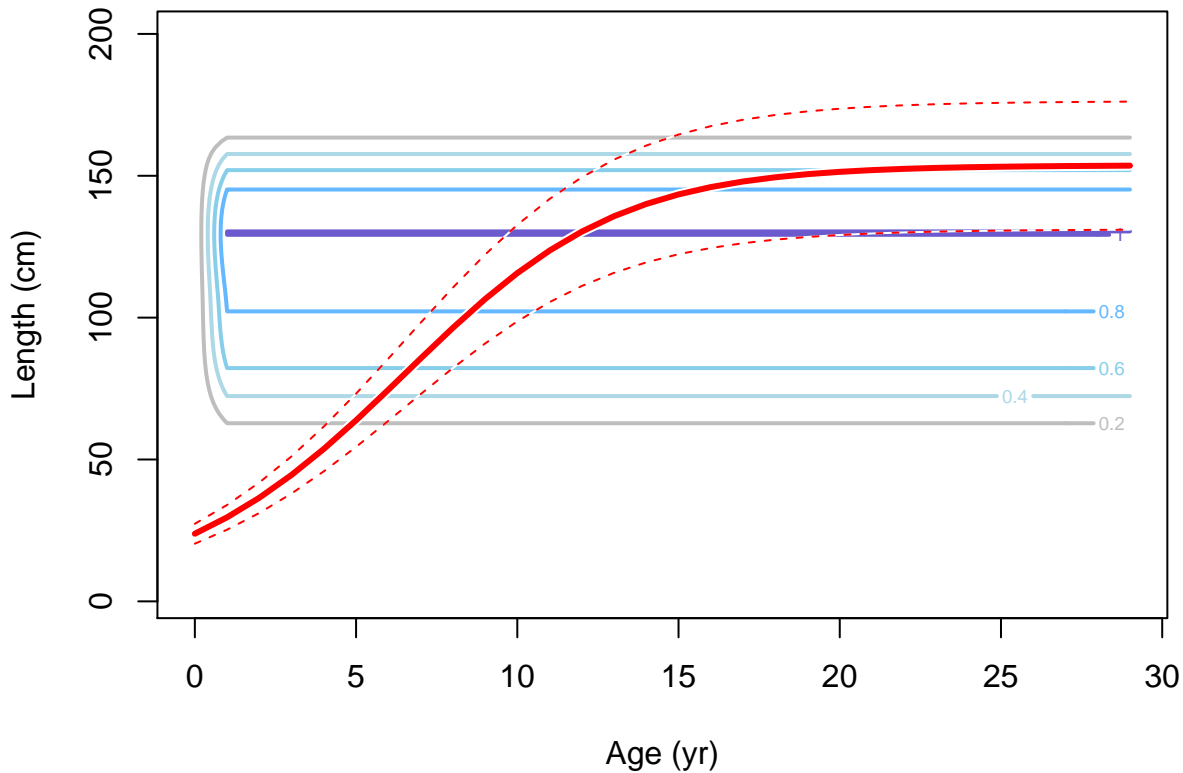


# Male ending year selectivity and growth for S1-PS\_DEL\_VAST

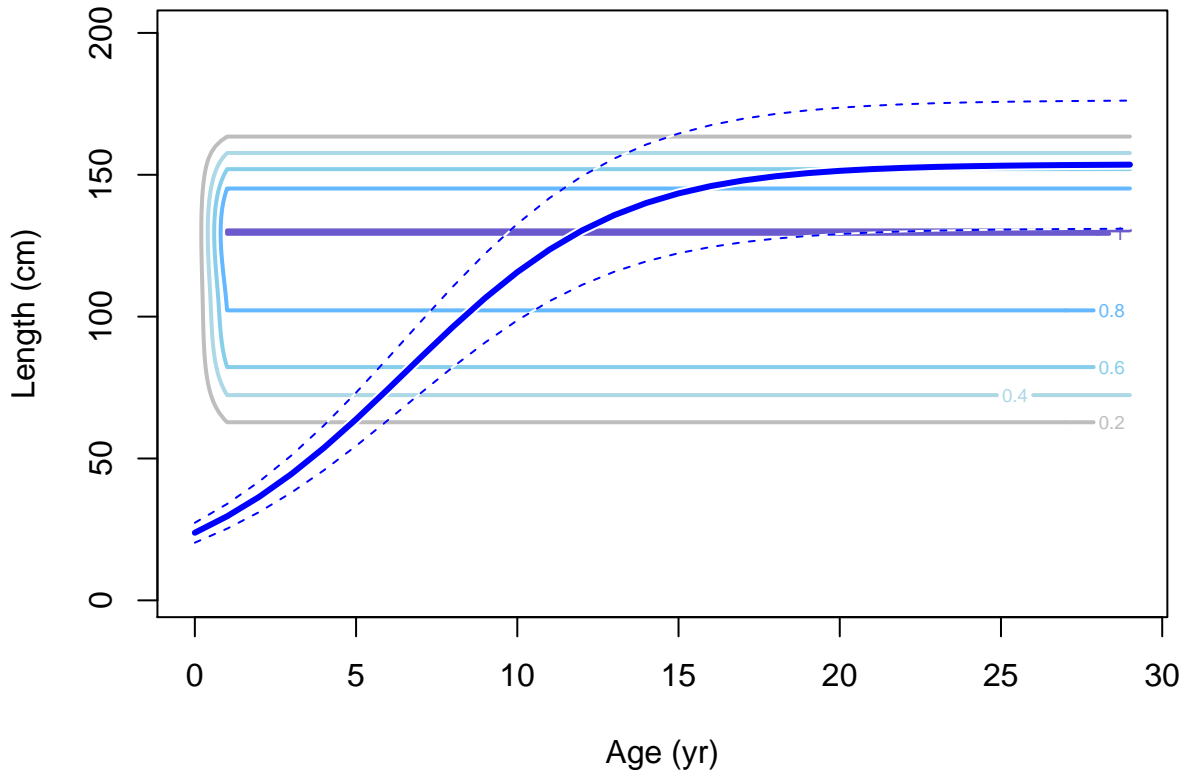




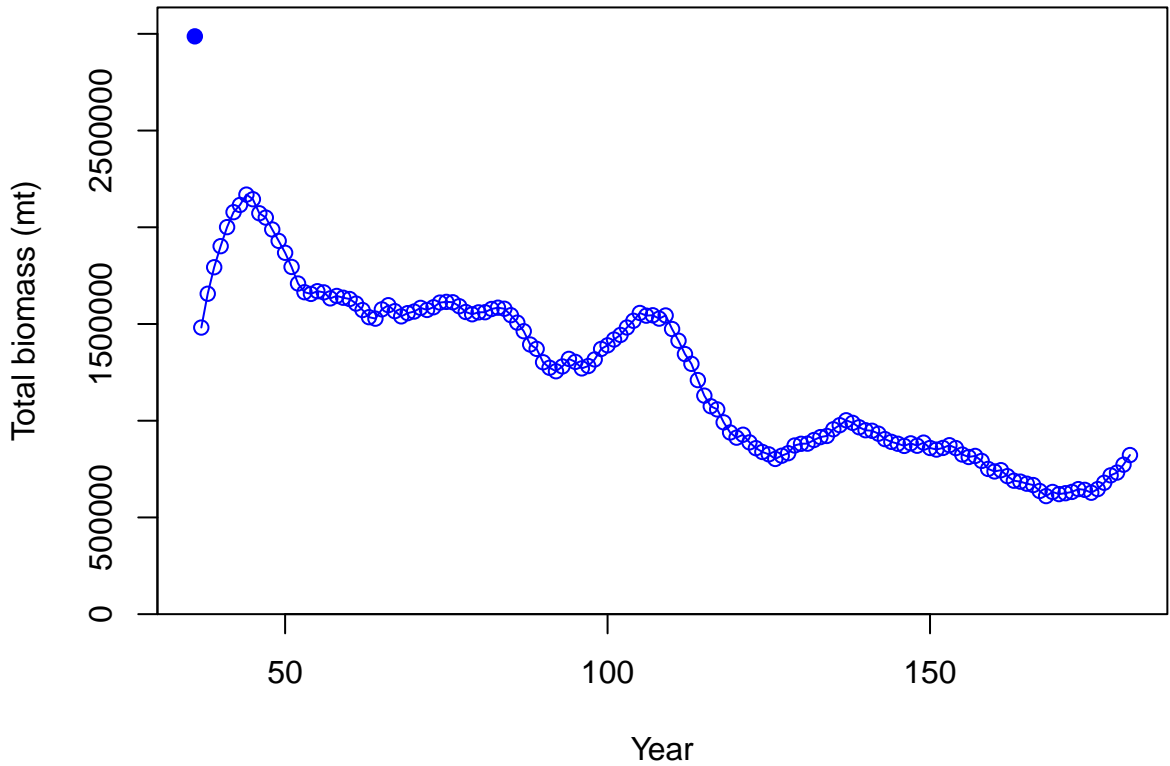
# Female ending year selectivity and growth for S4-PS\_middle\_VAST



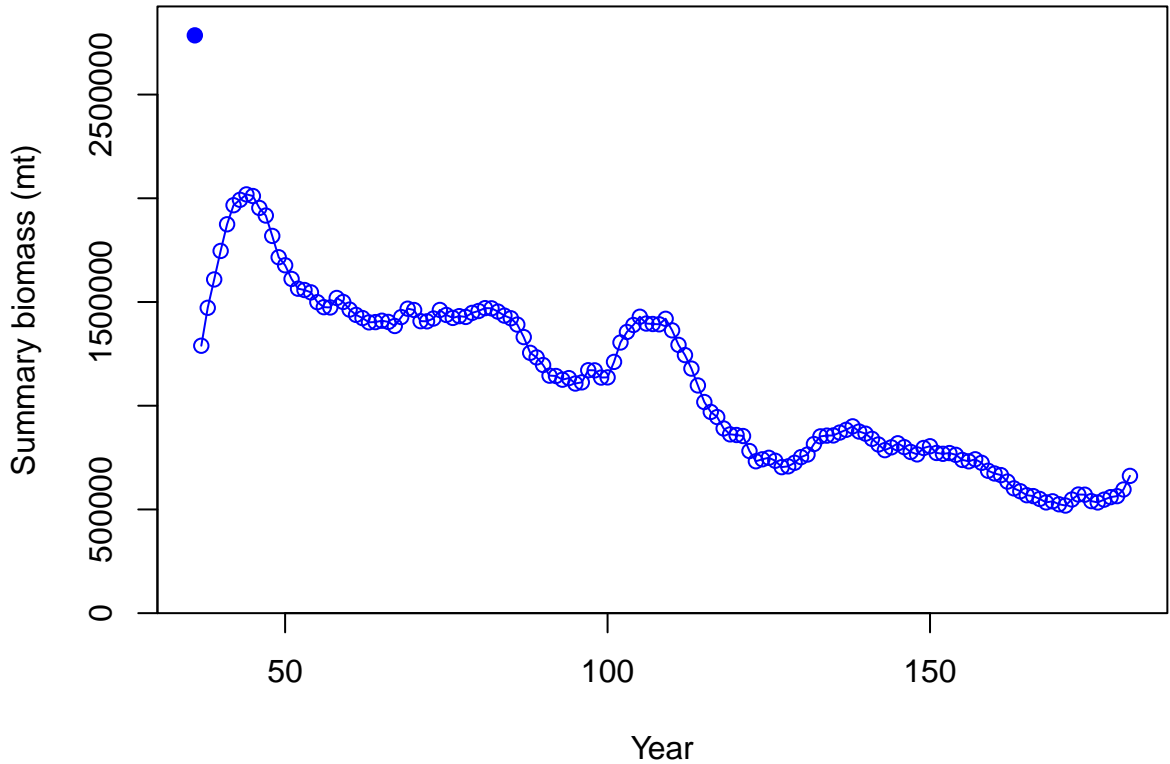
# Male ending year selectivity and growth for S4-PS\_middle\_VAST



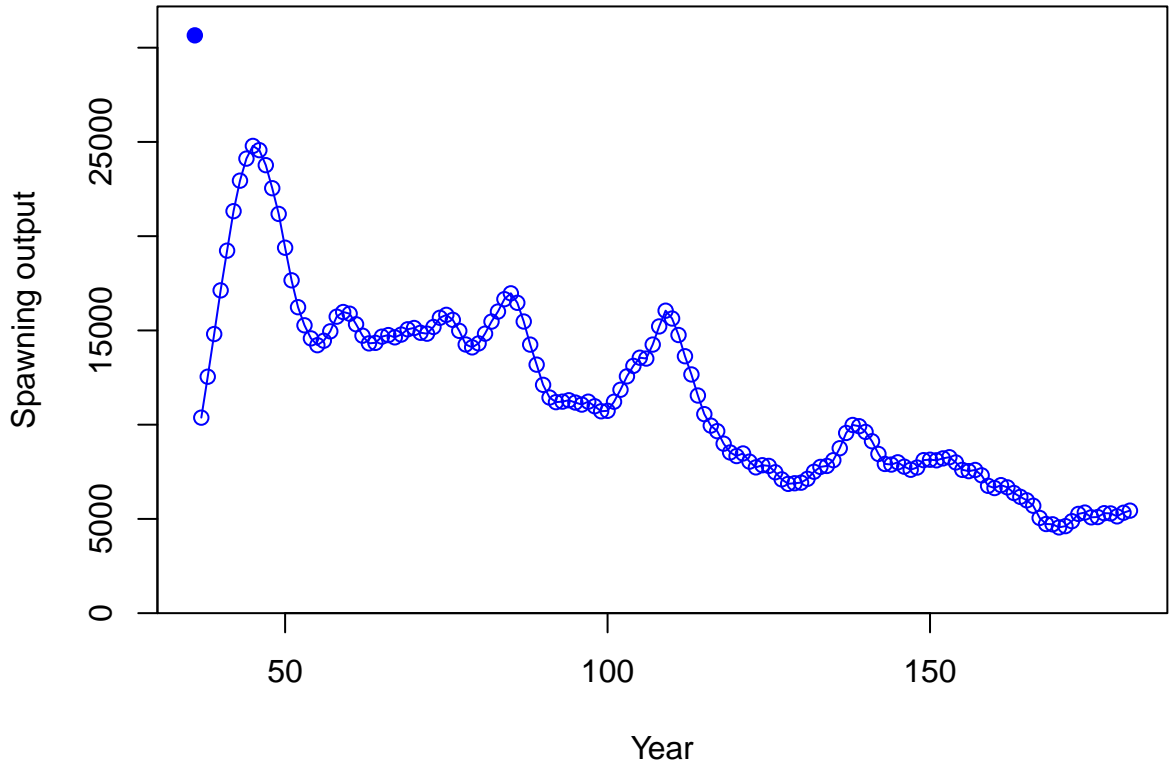
# Total biomass (mt)



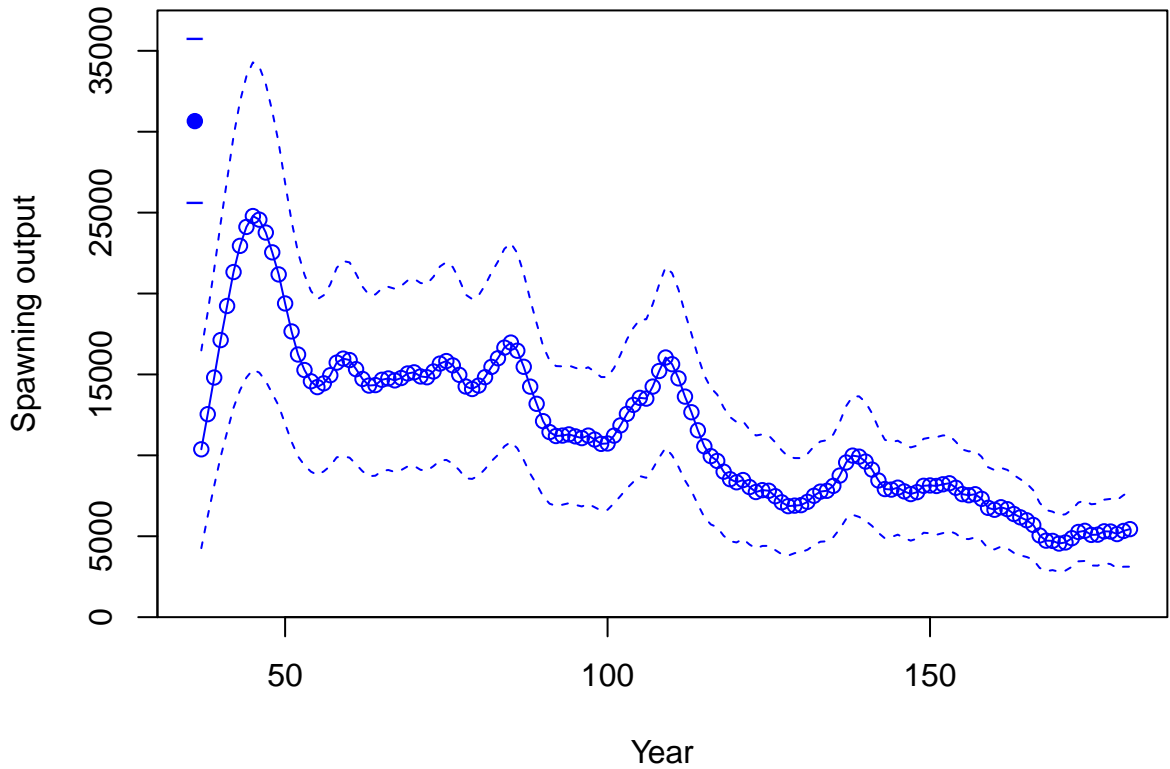
# Summary biomass (mt)



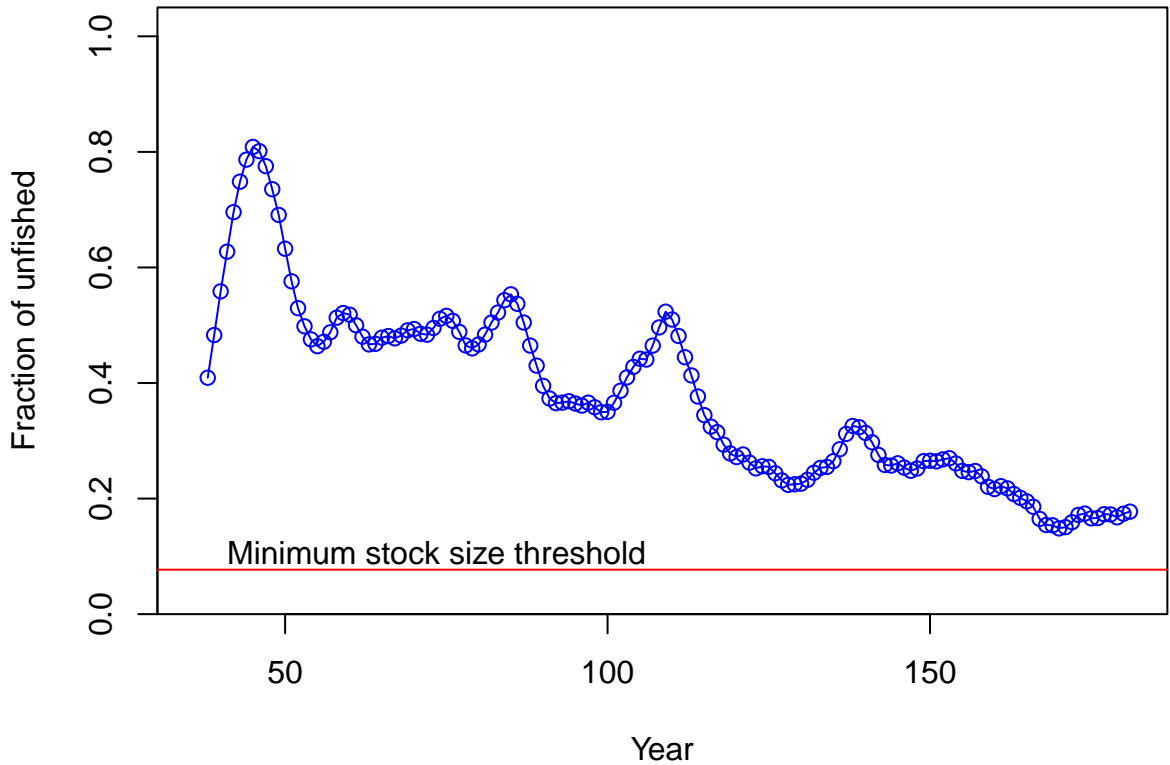
# Spawning output



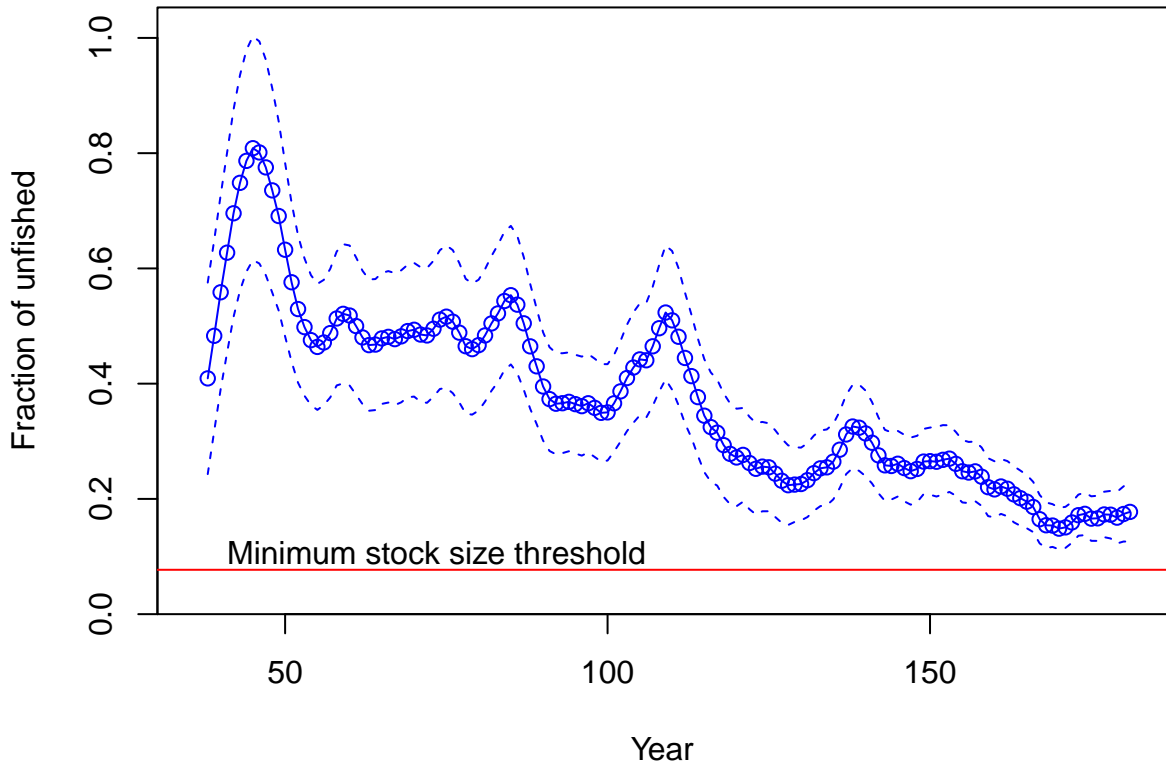
## Spawning output with ~95% asymptotic intervals



## Fraction of unfished

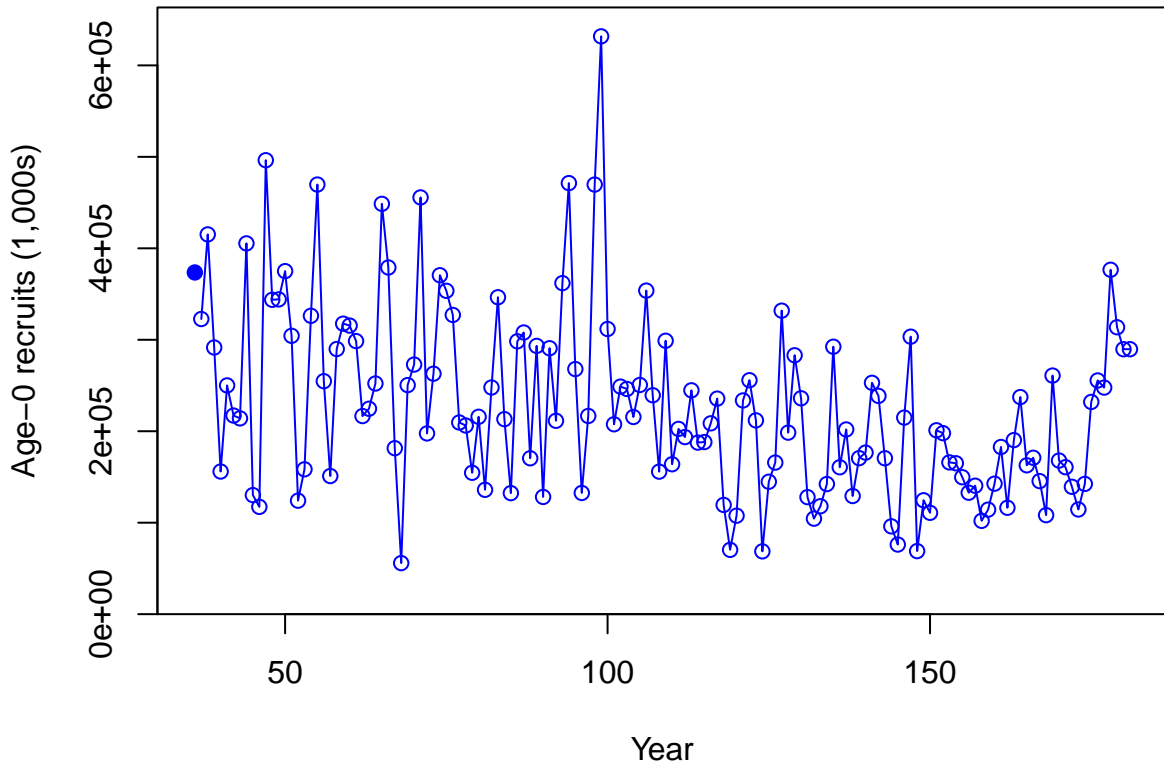


## Fraction of unfished with ~95% asymptotic intervals

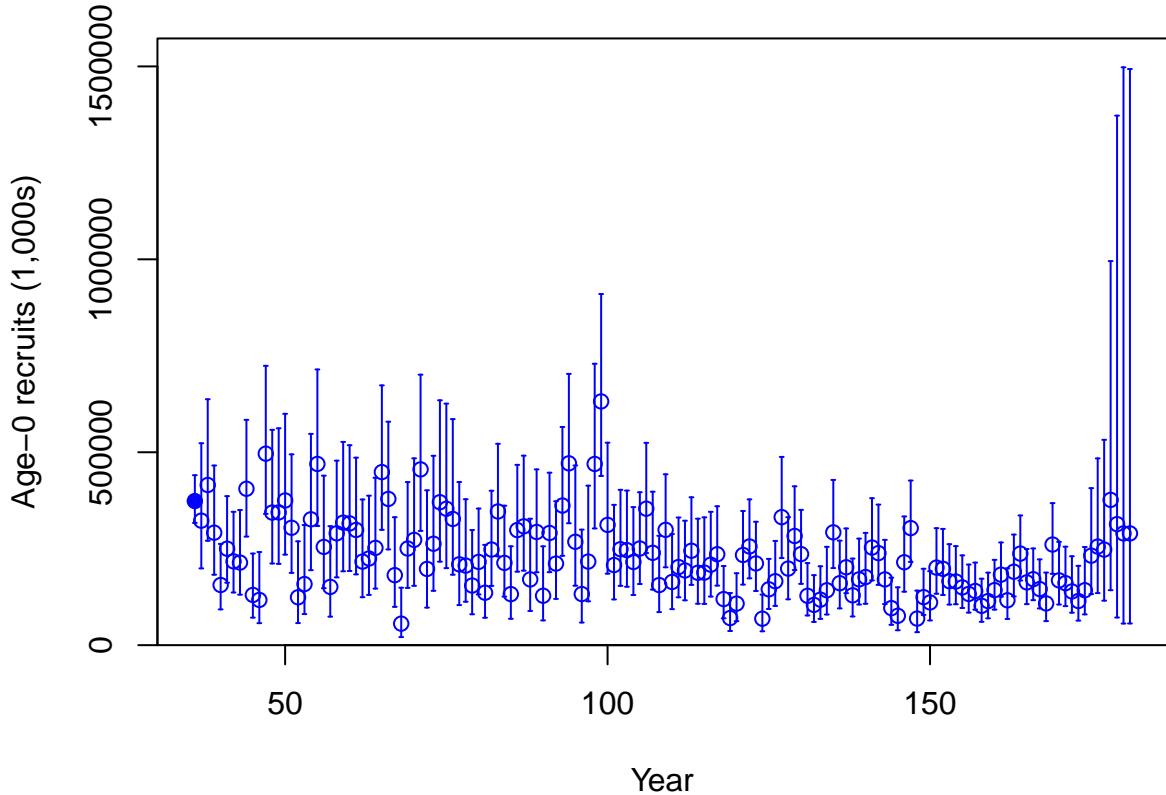




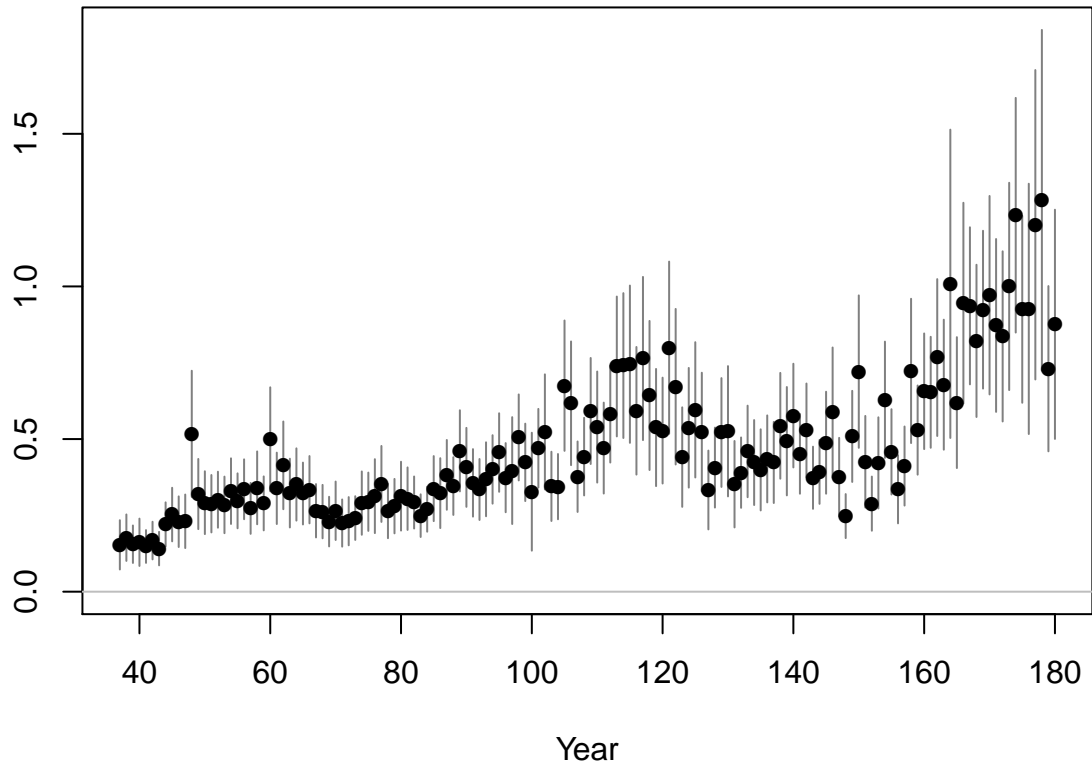
### Age-0 recruits (1,000s)

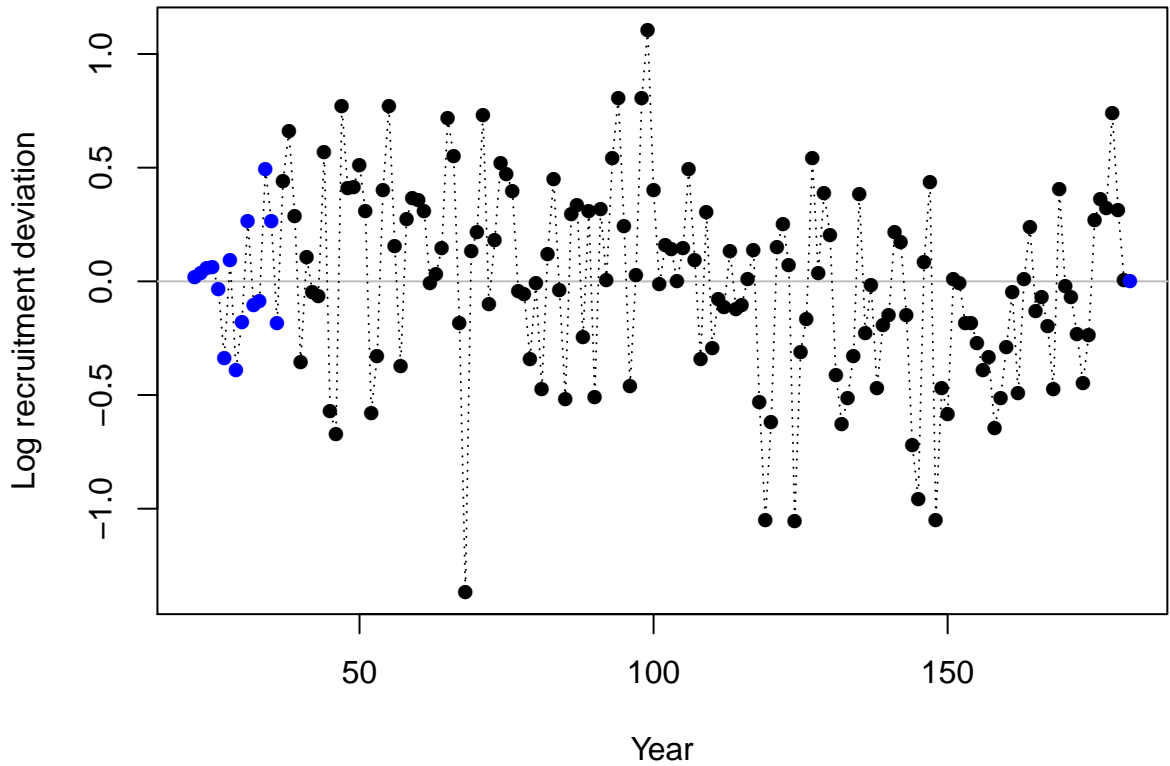


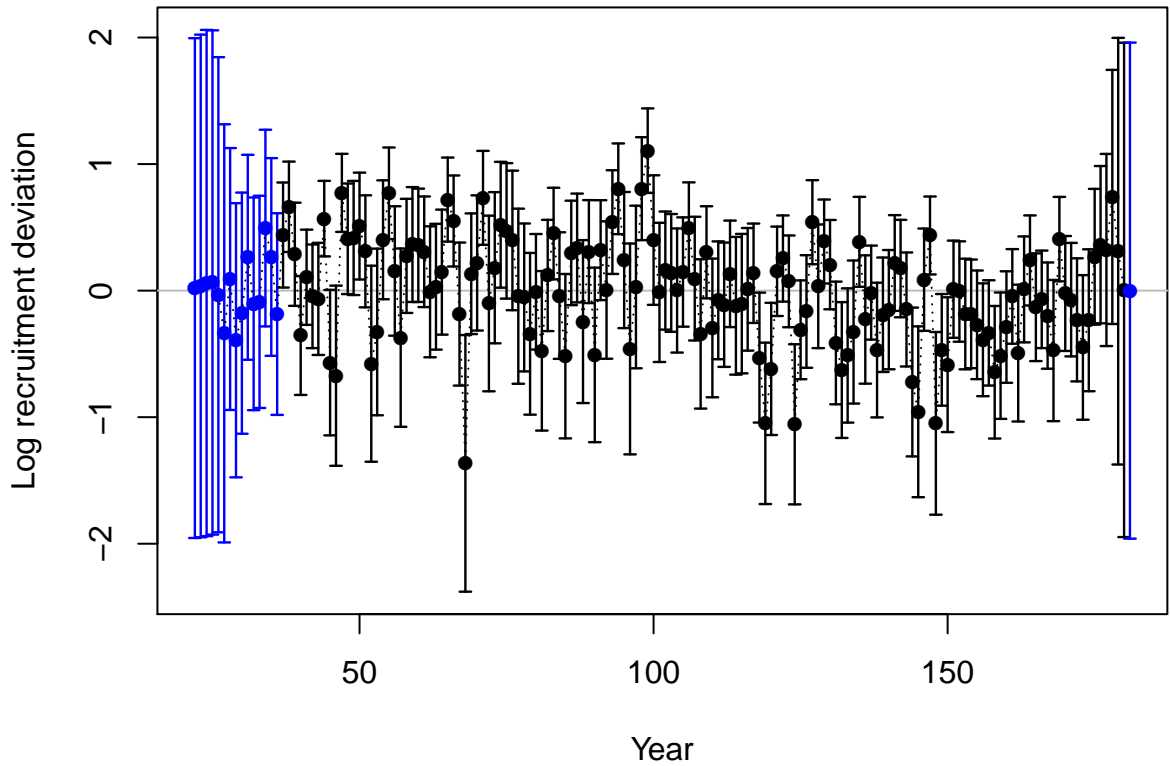
# Age-0 recruits (1,000s) with ~95% asymptotic intervals



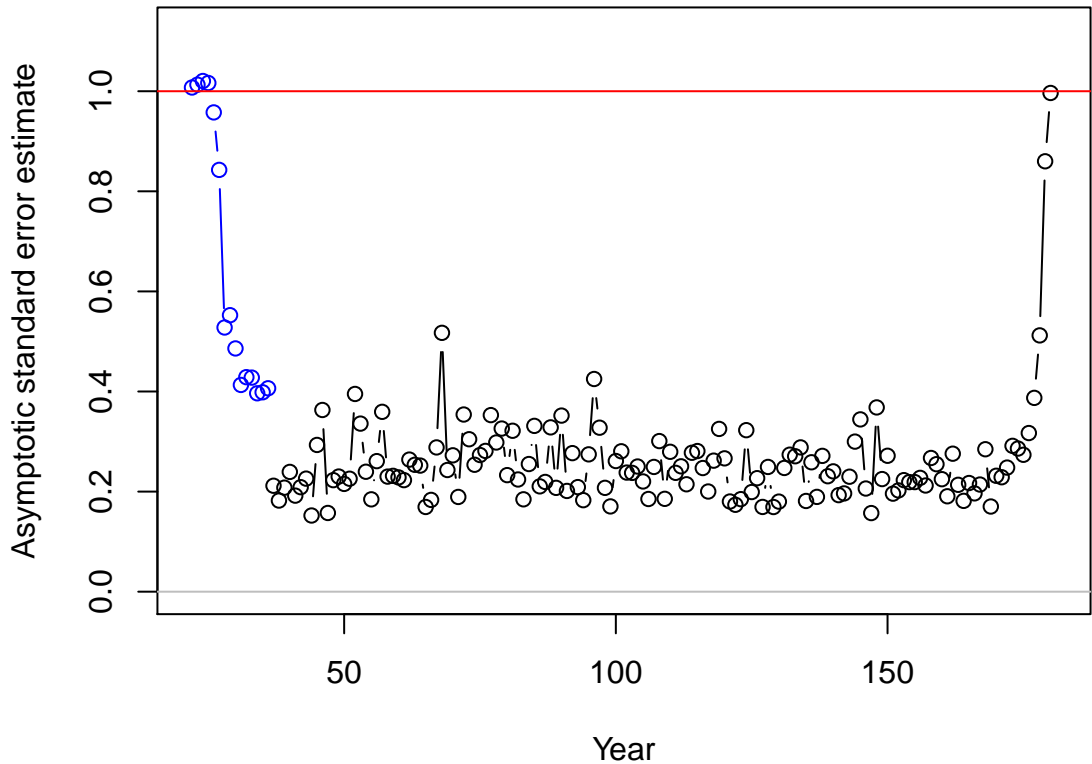
Summary Fishing Mortality

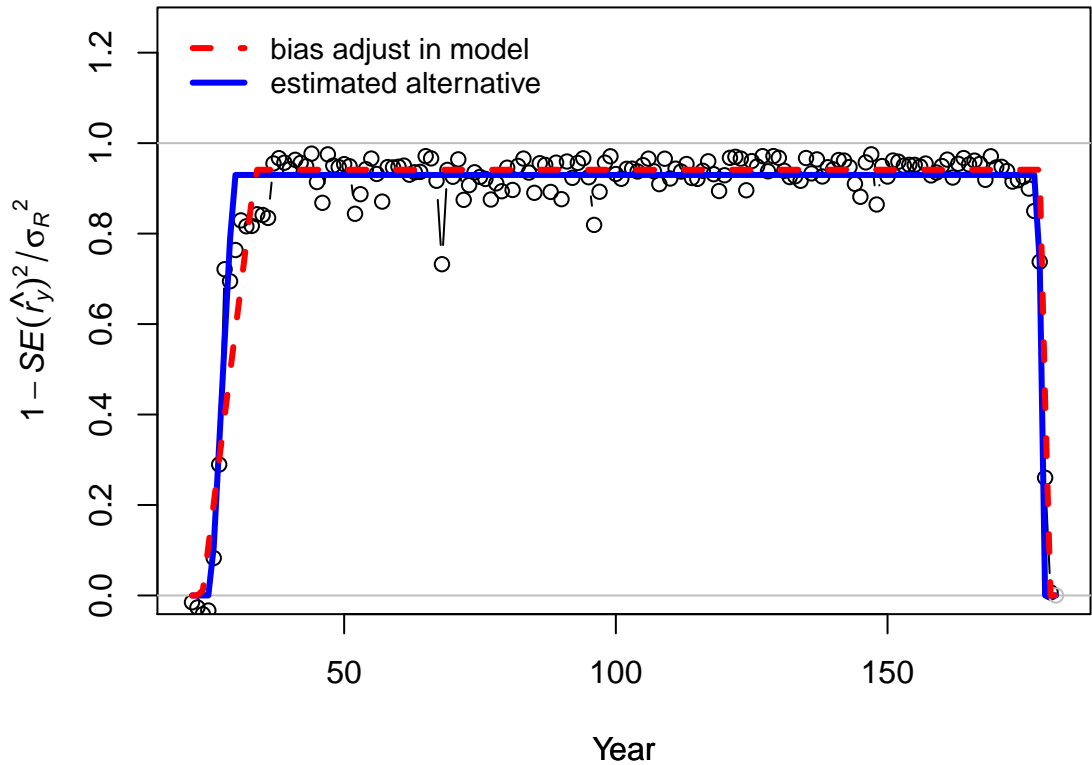






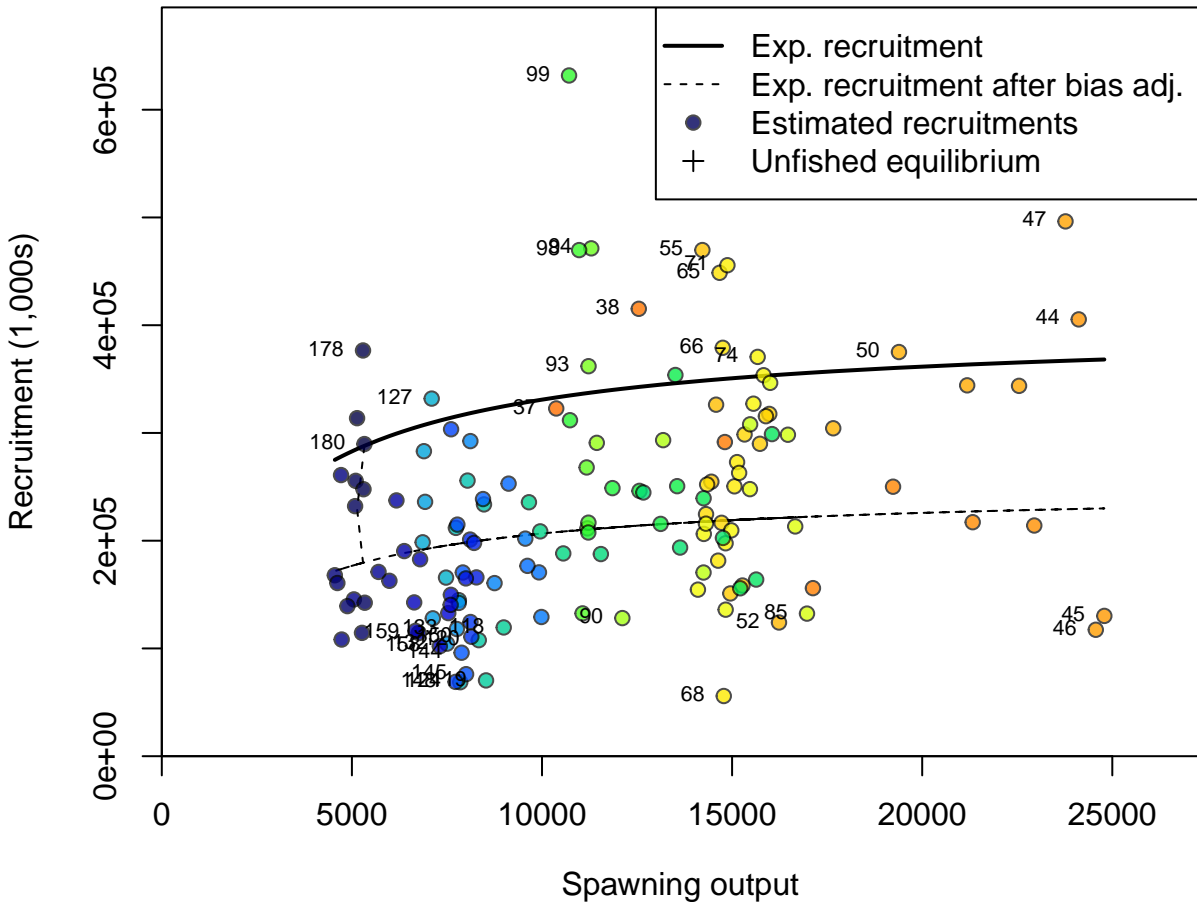
# Recruitment deviation variance



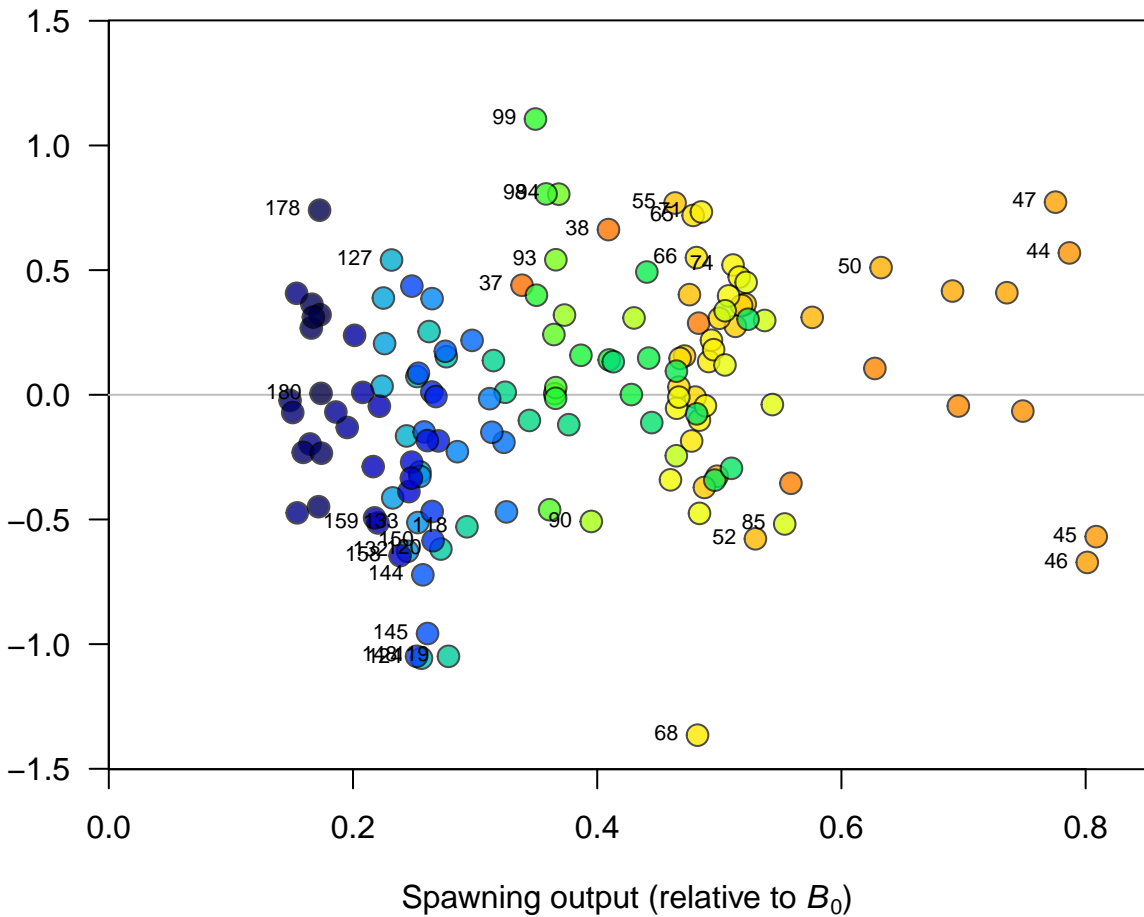




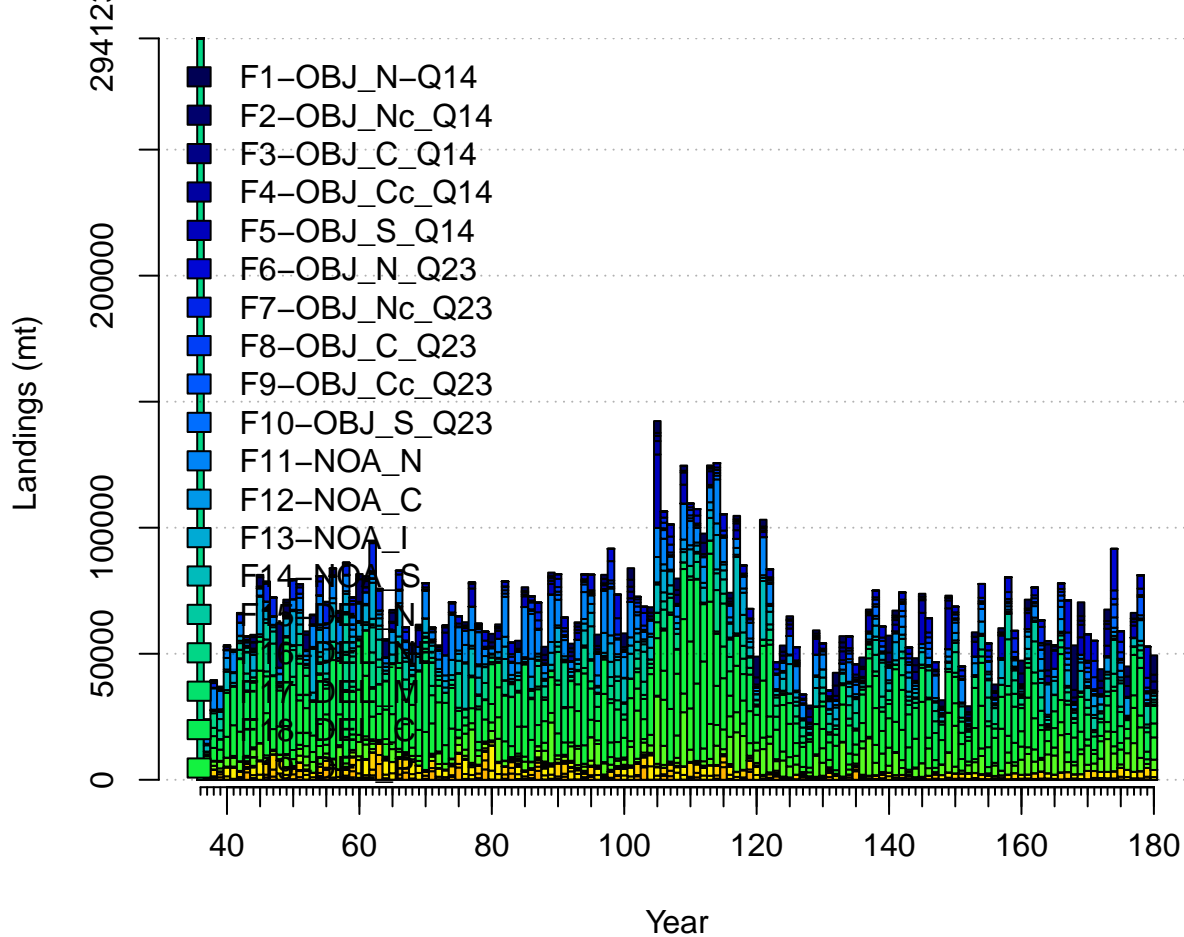




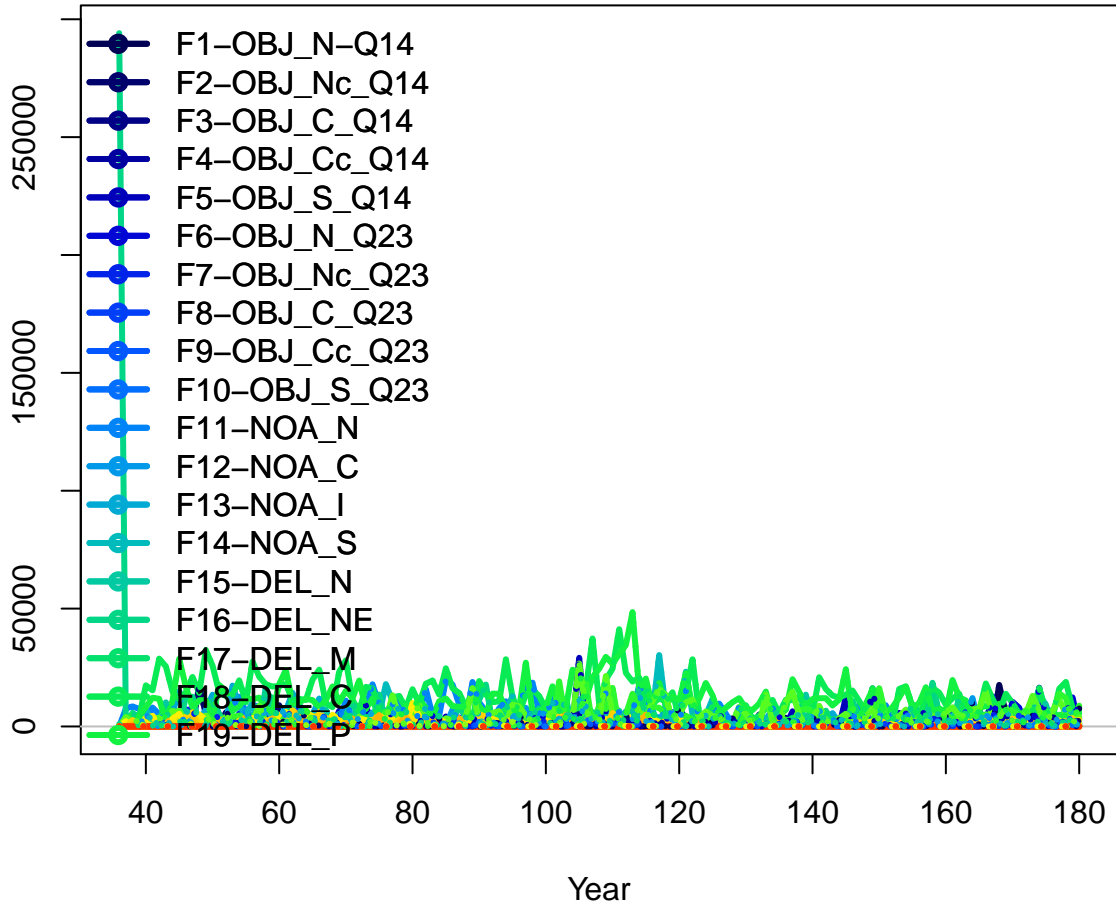
Log recruitment deviation



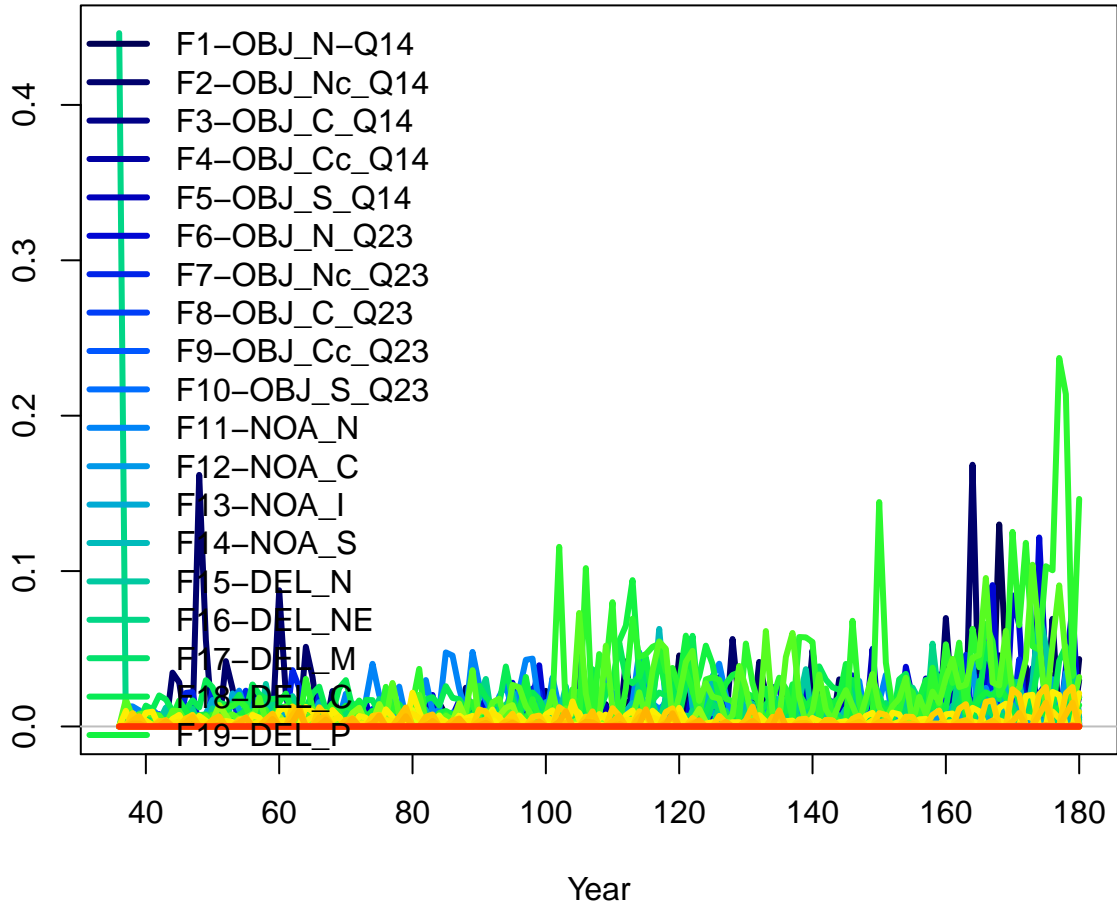




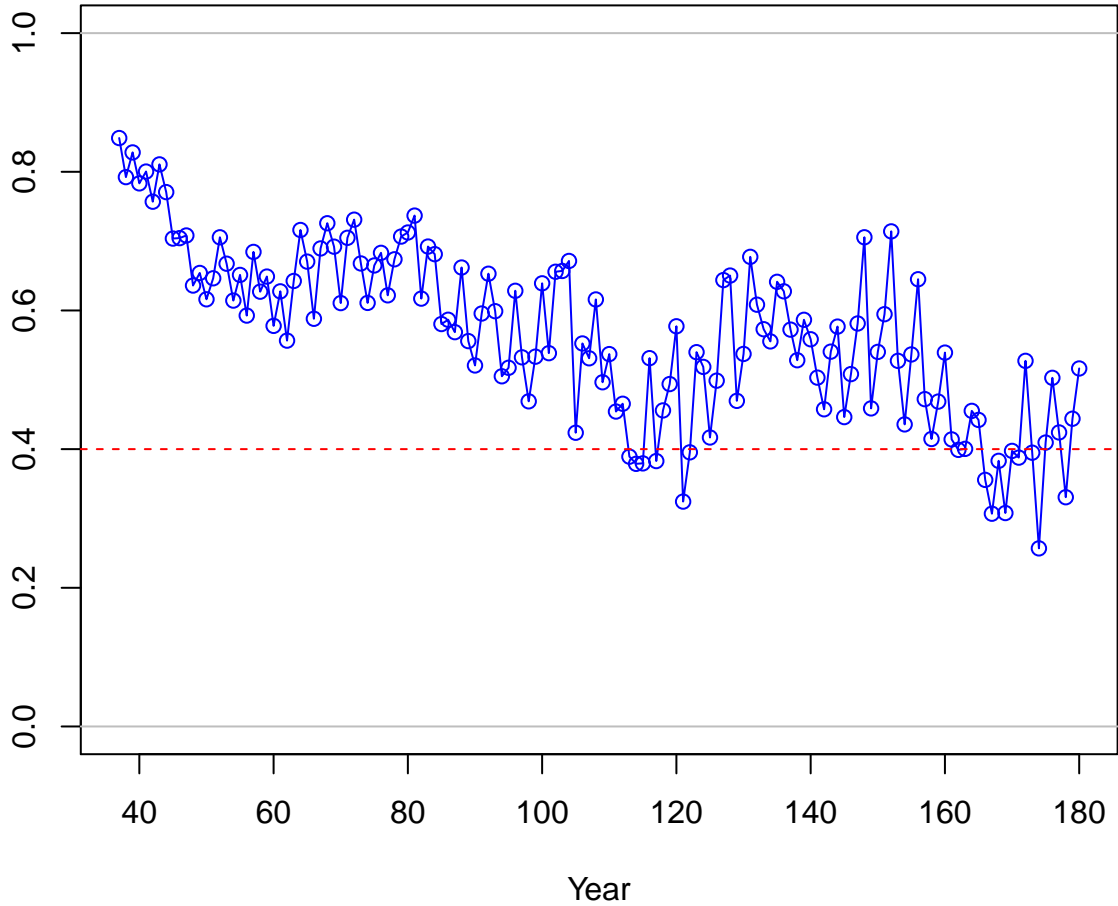
Observed and expected Landings (mt)



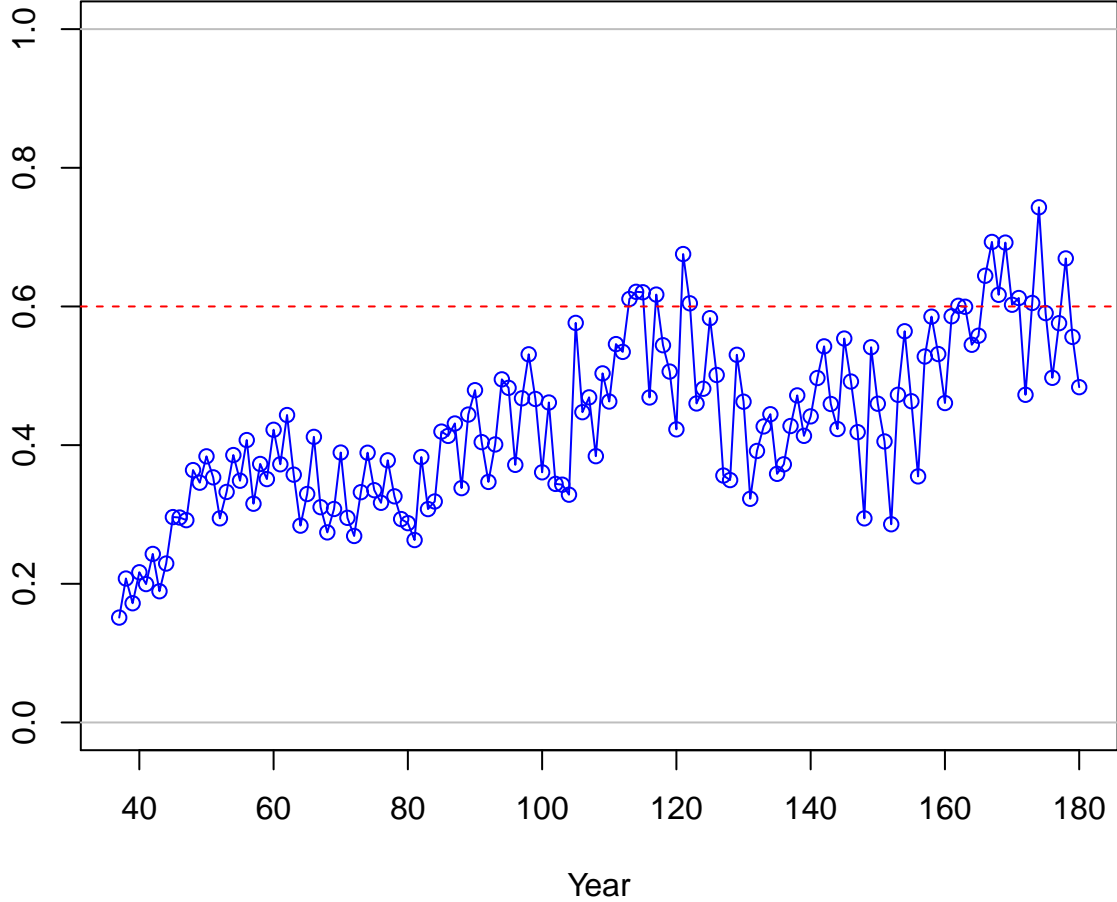
Continuous F



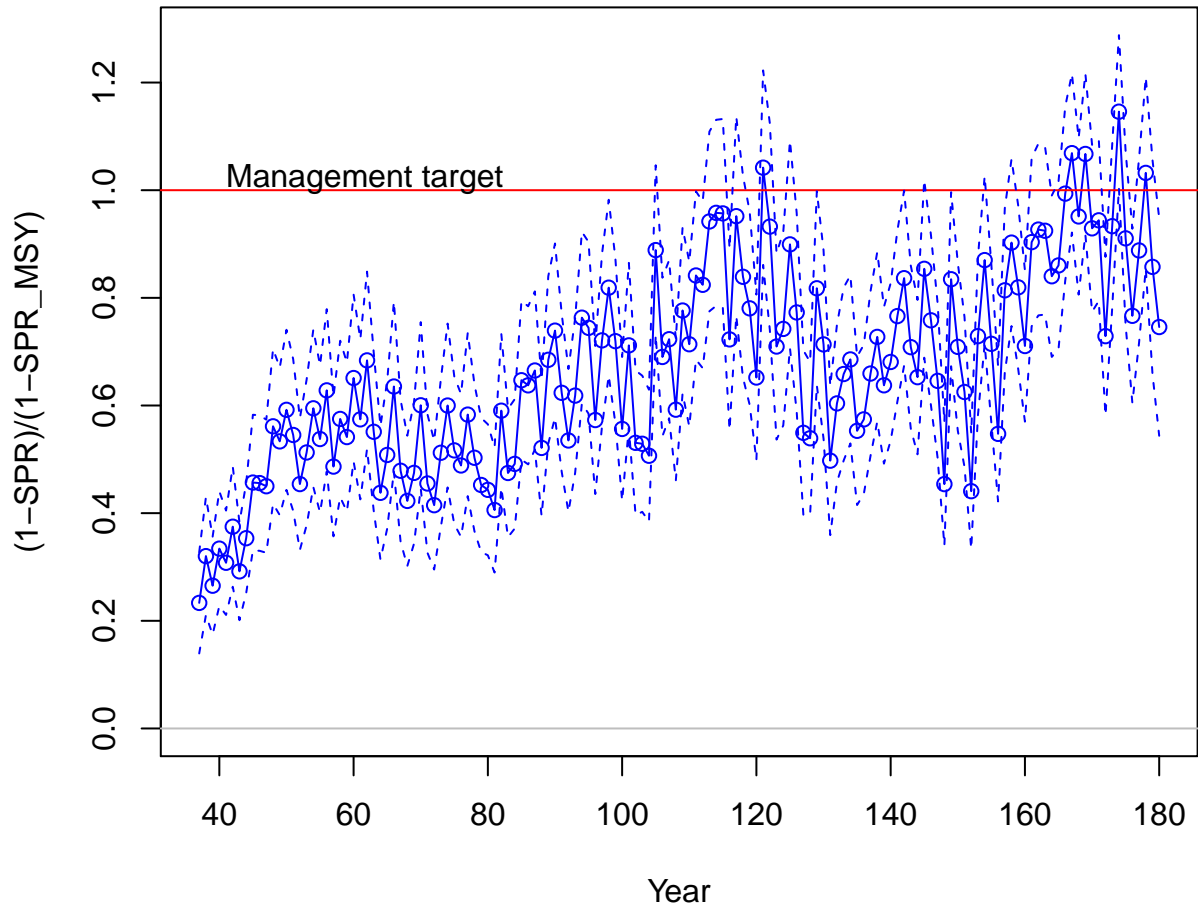
SPR

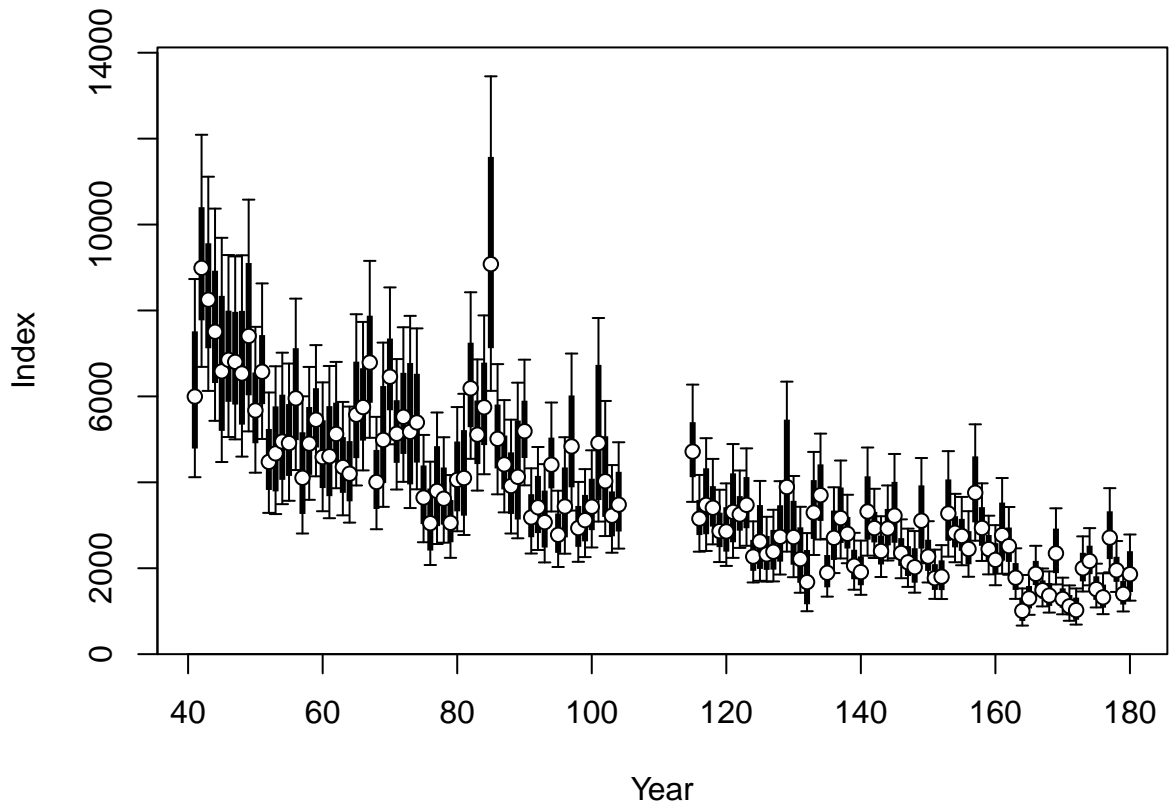


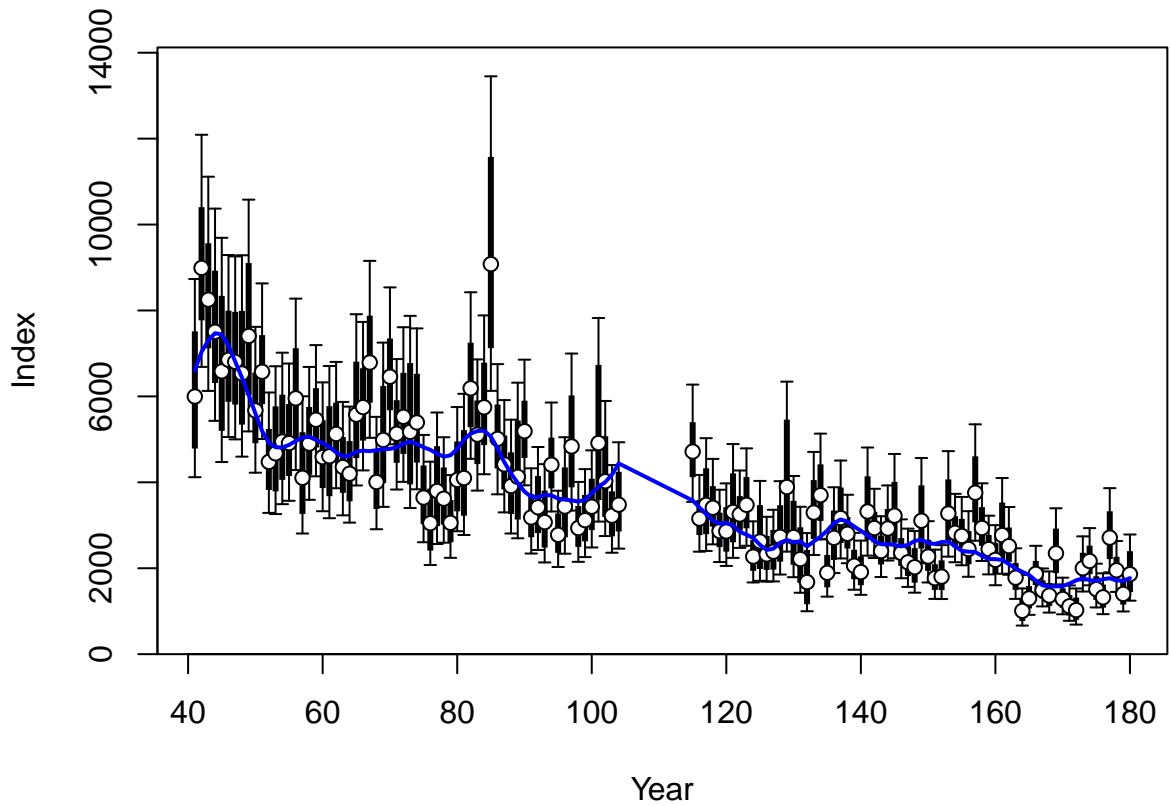
1-SPR

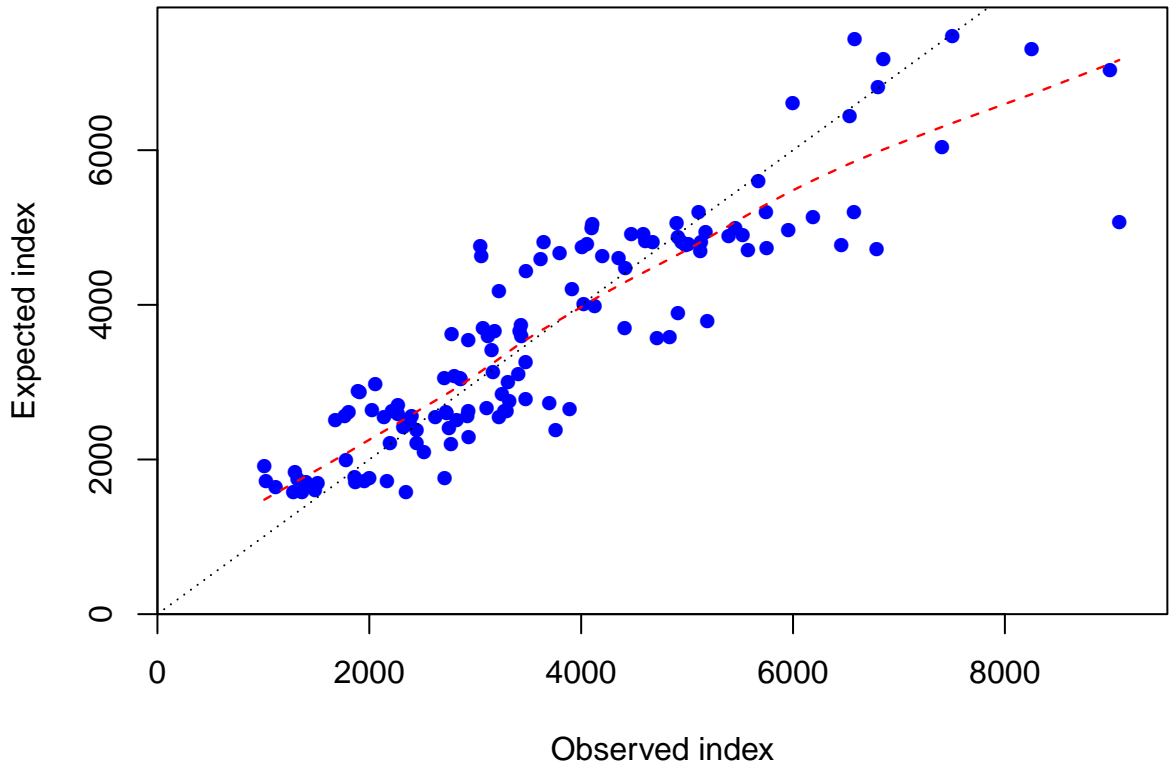


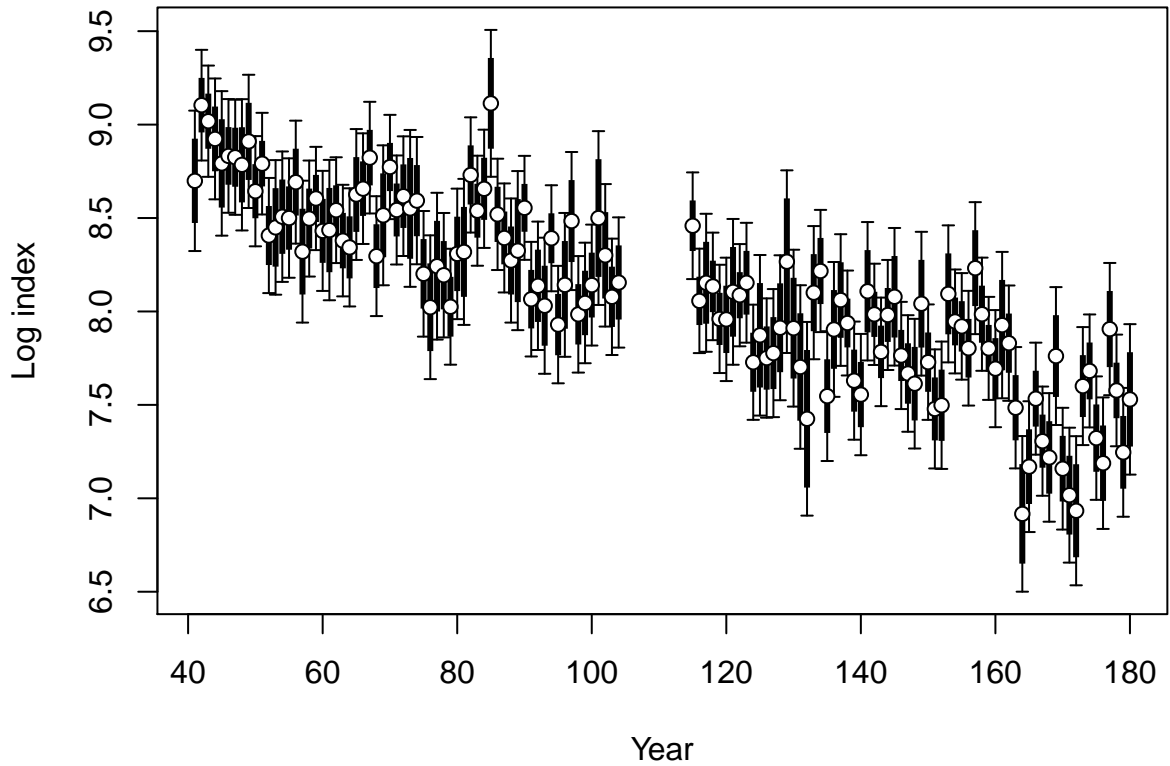


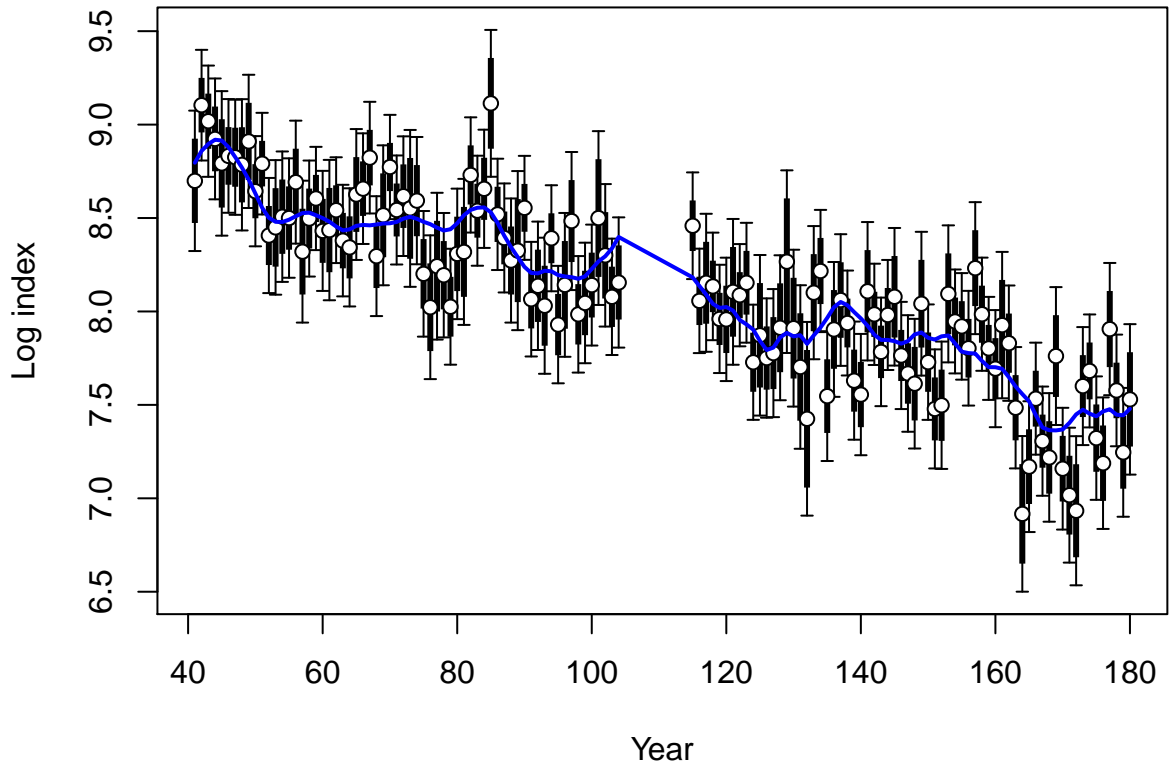


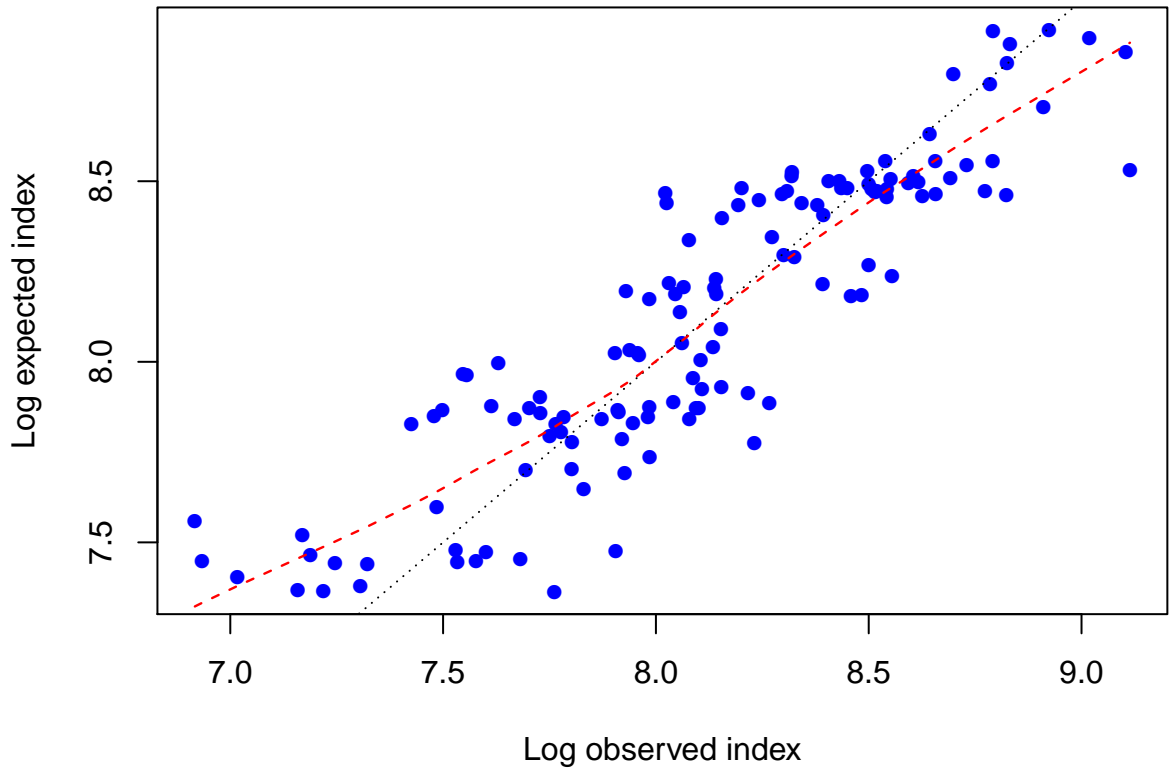


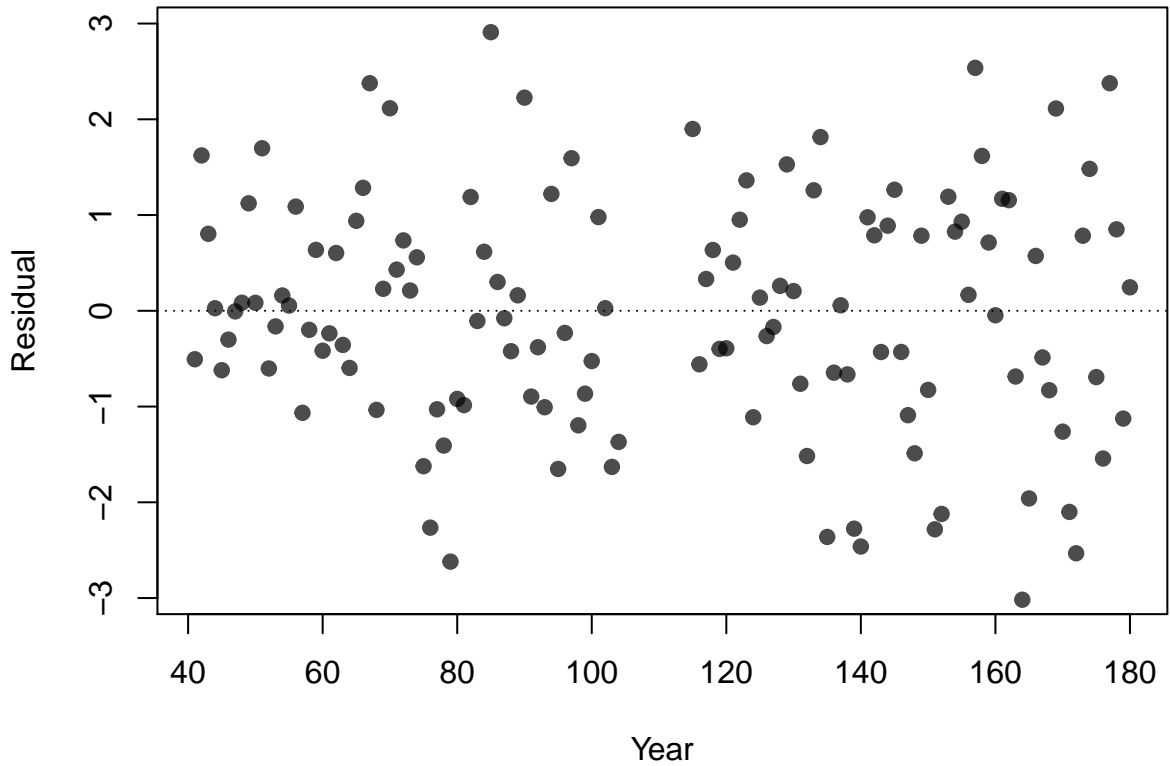




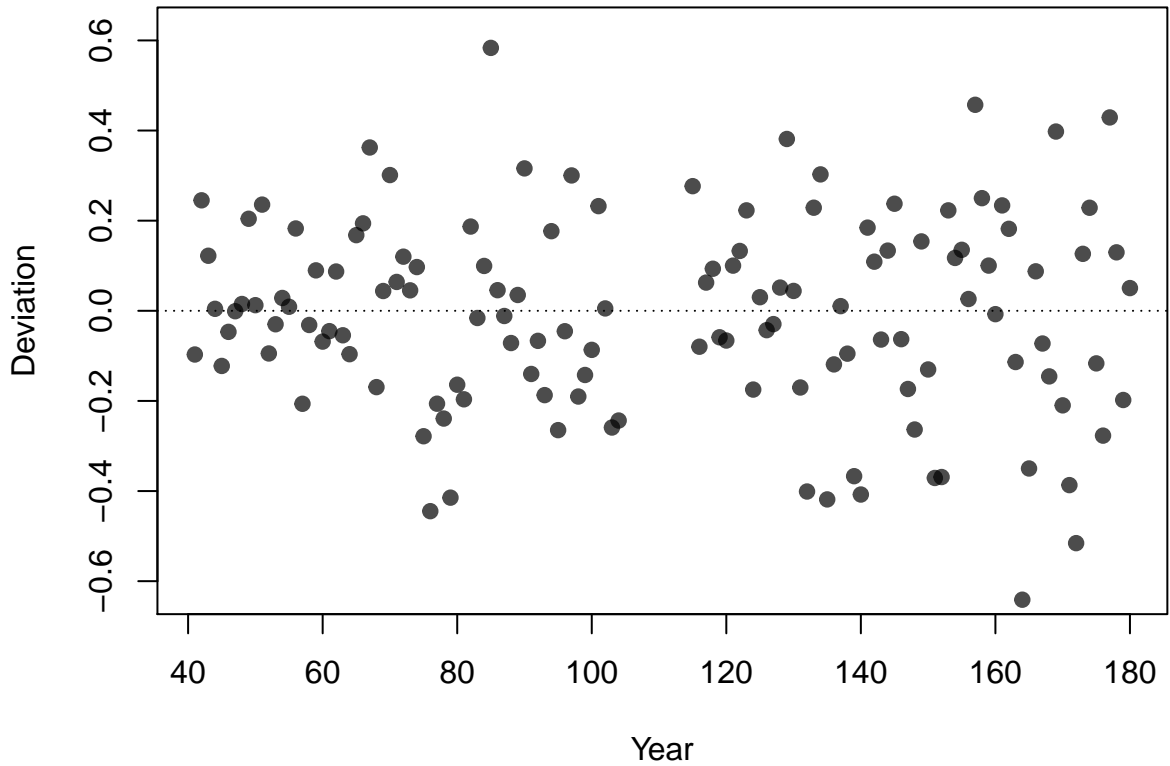


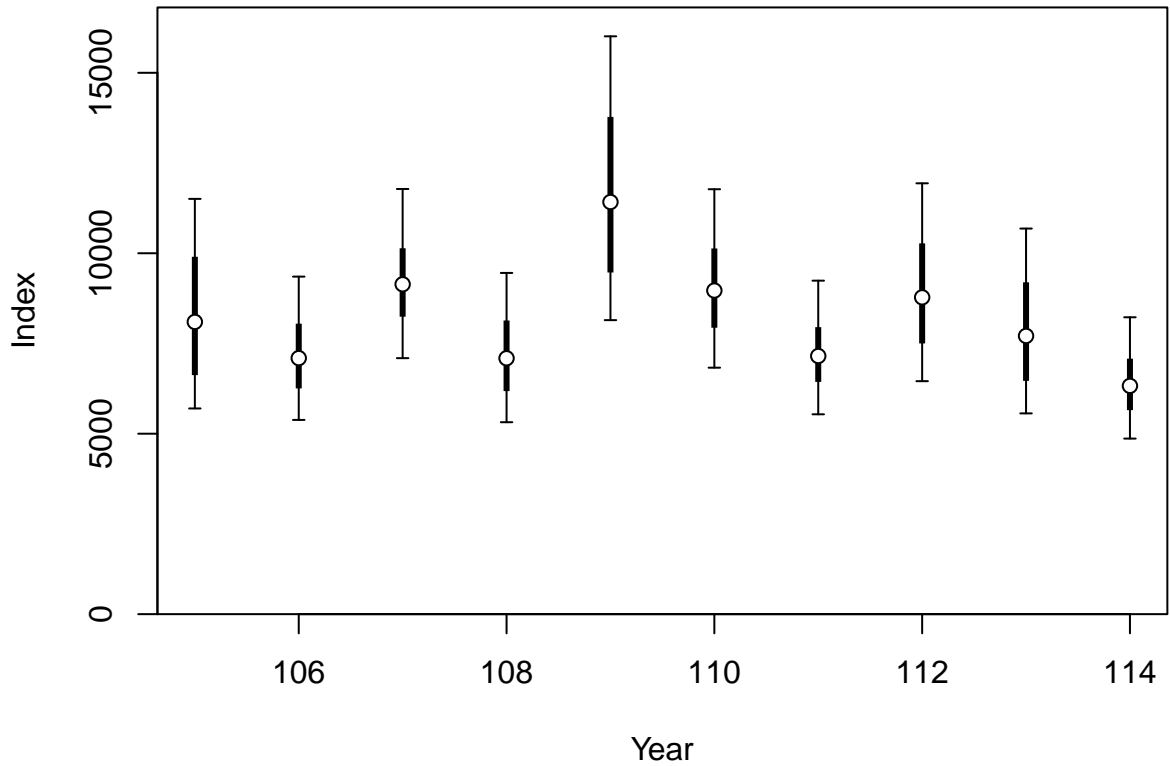


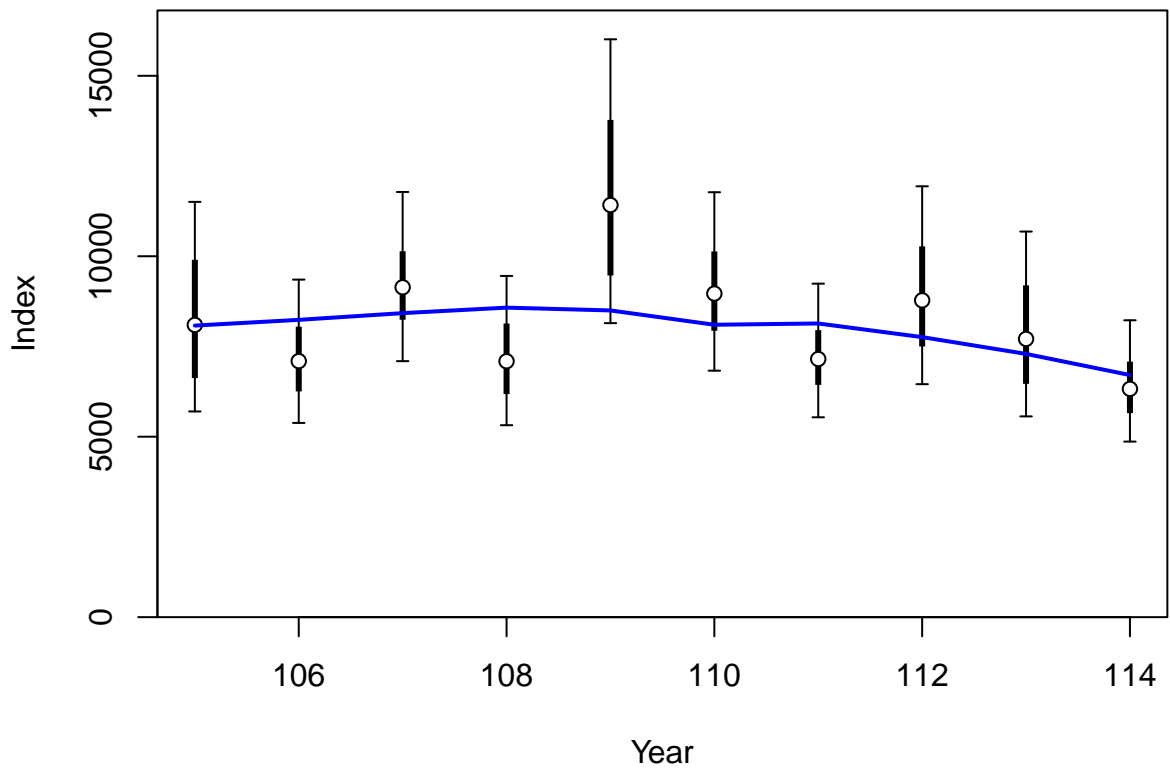


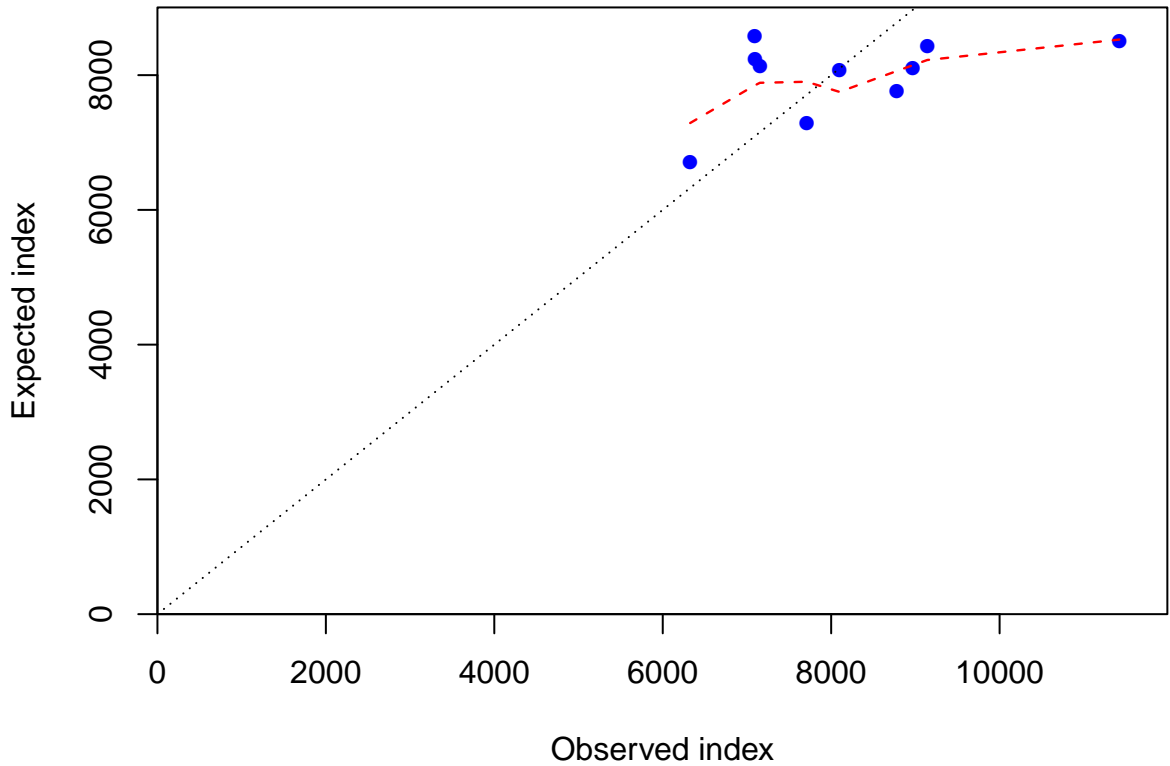


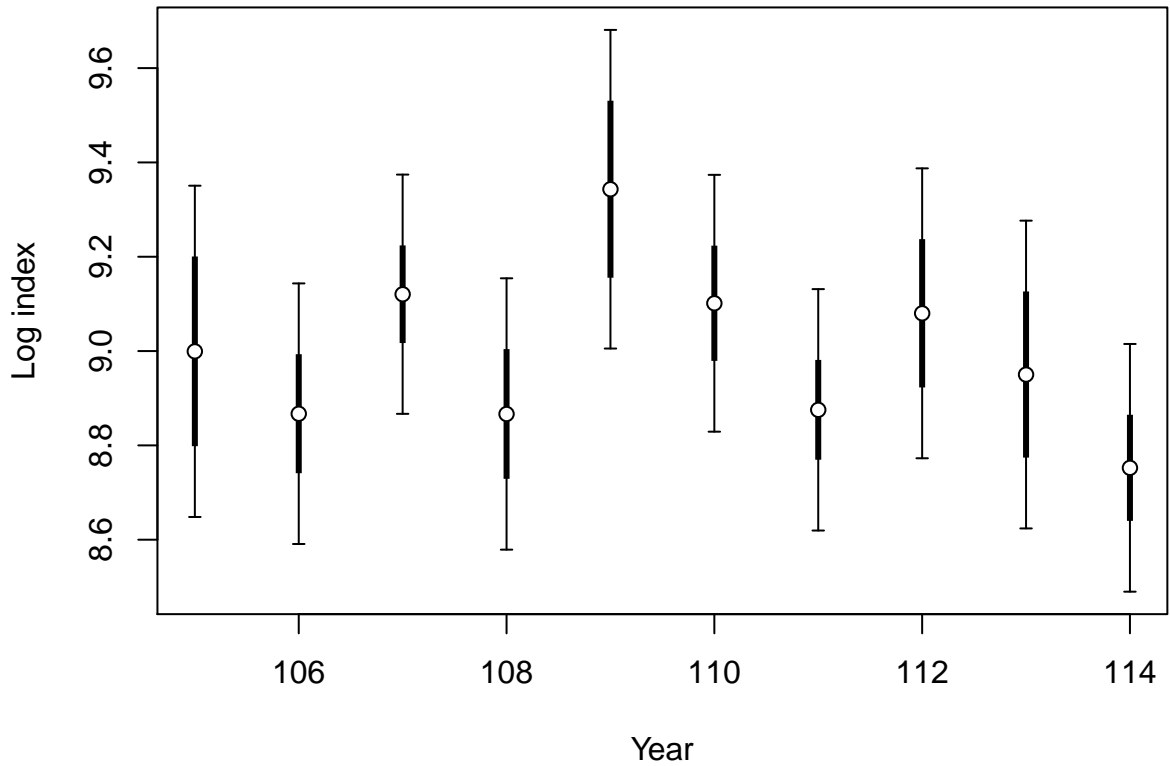


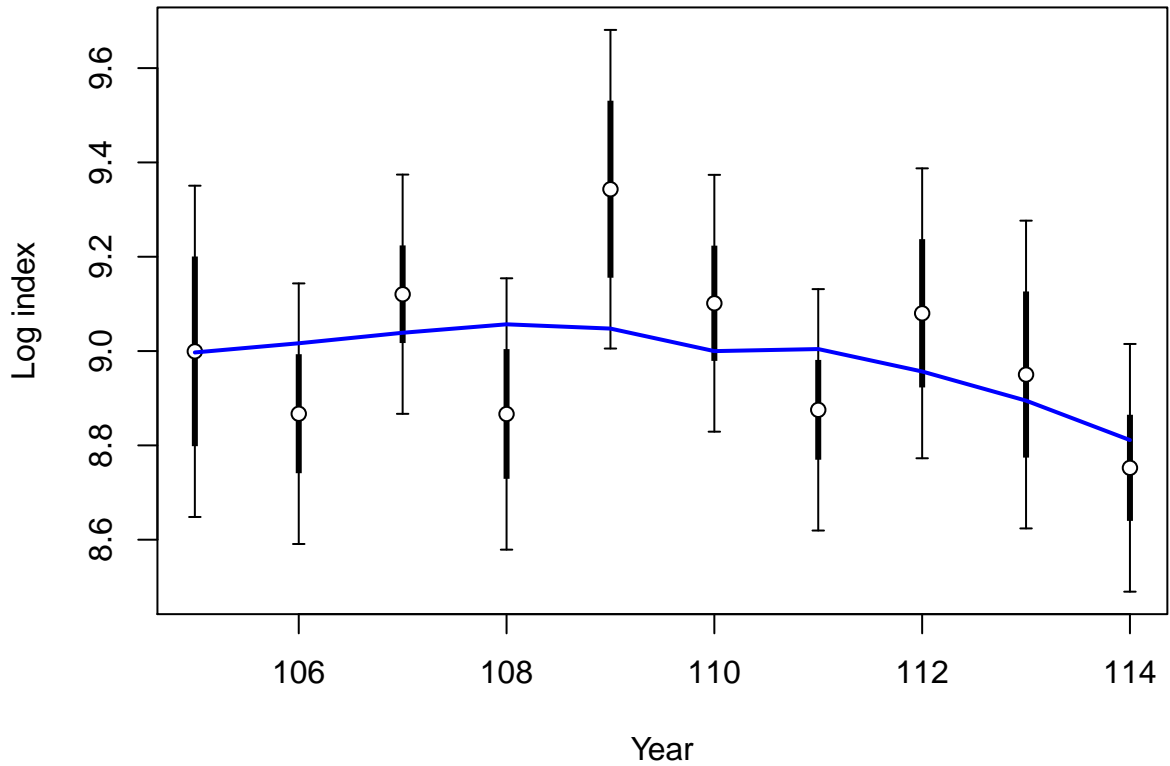


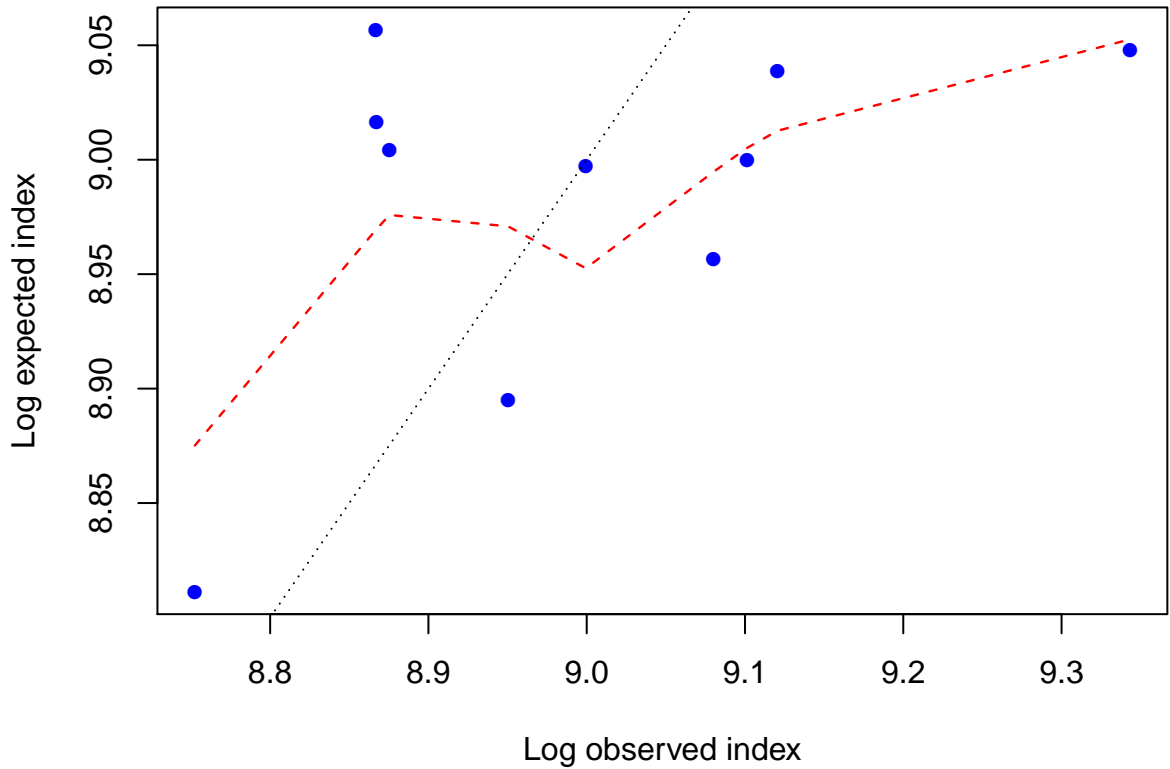


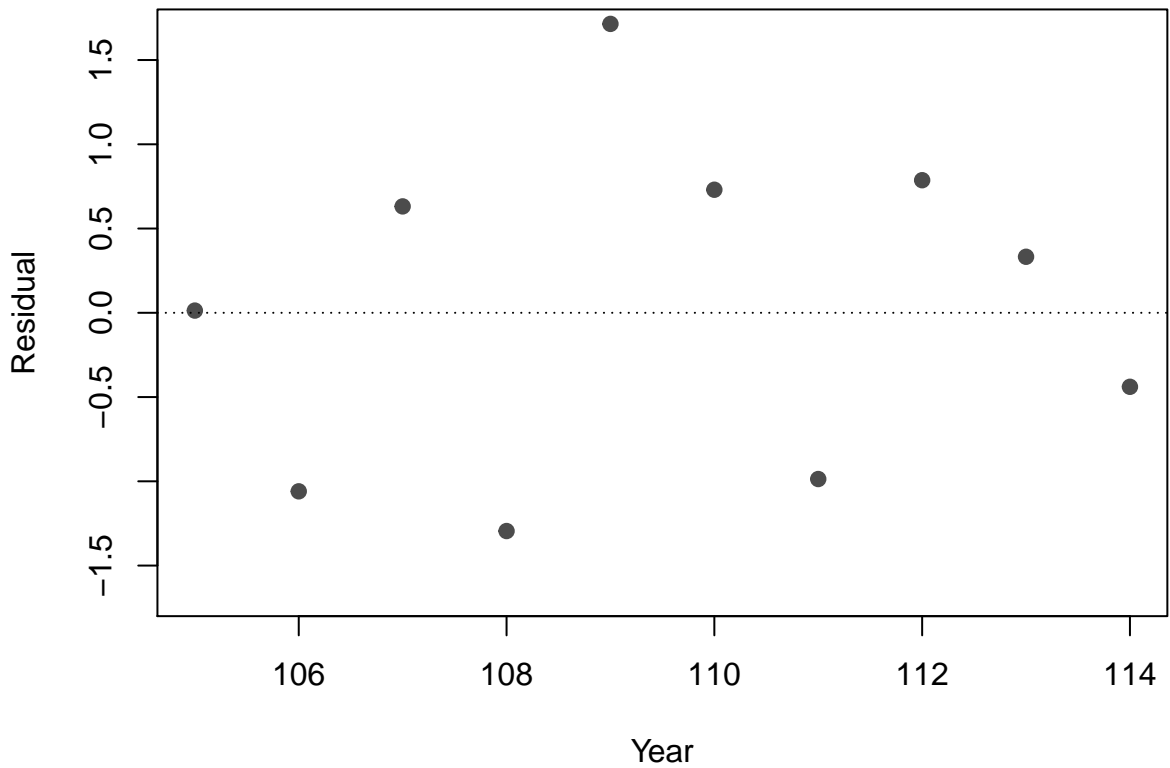




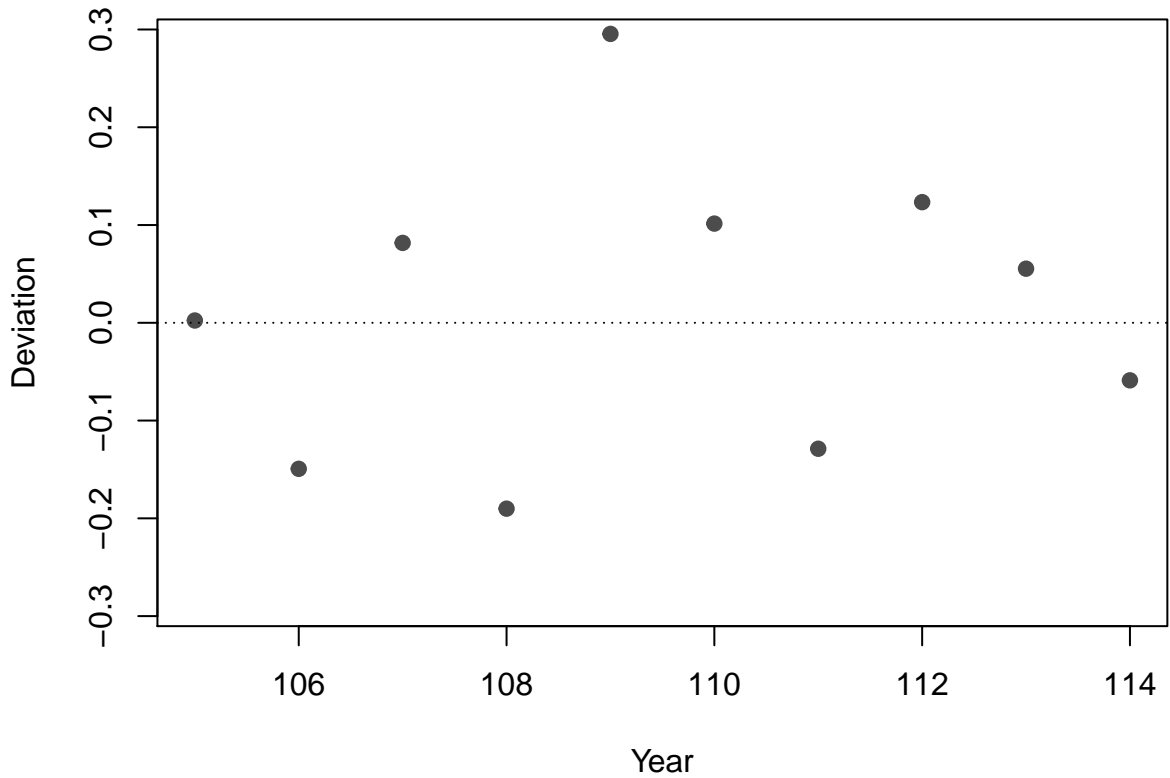


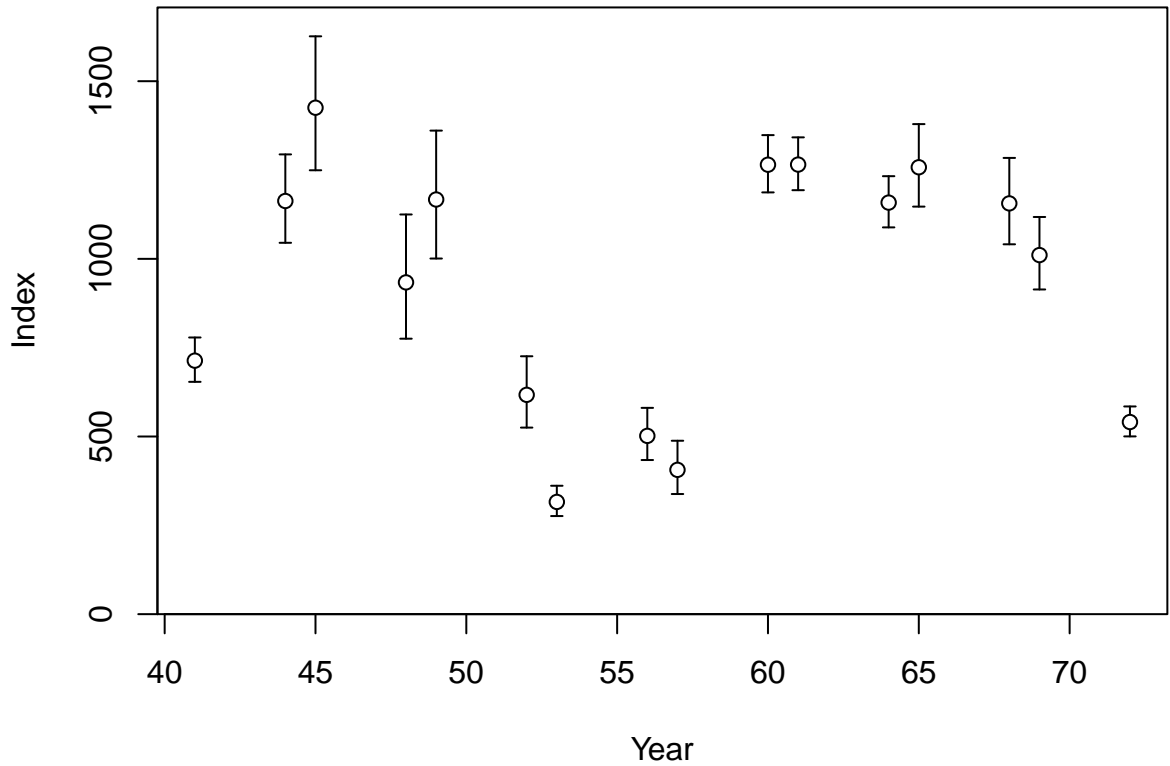


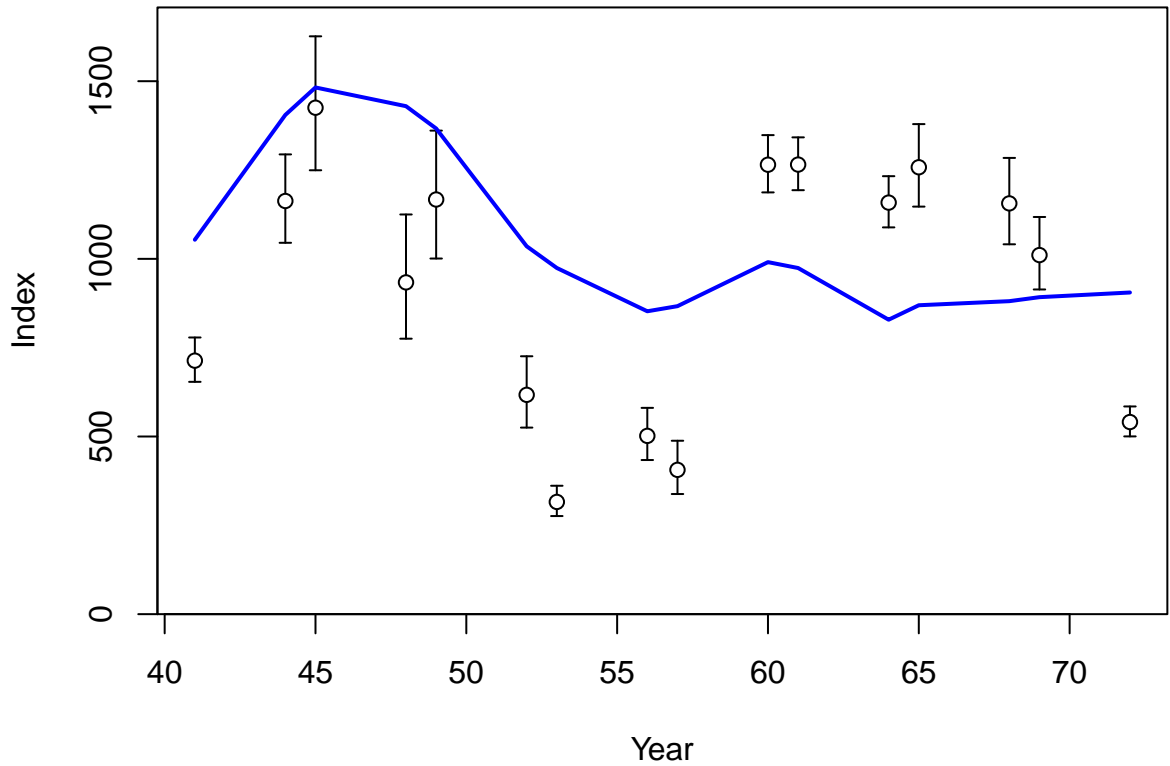


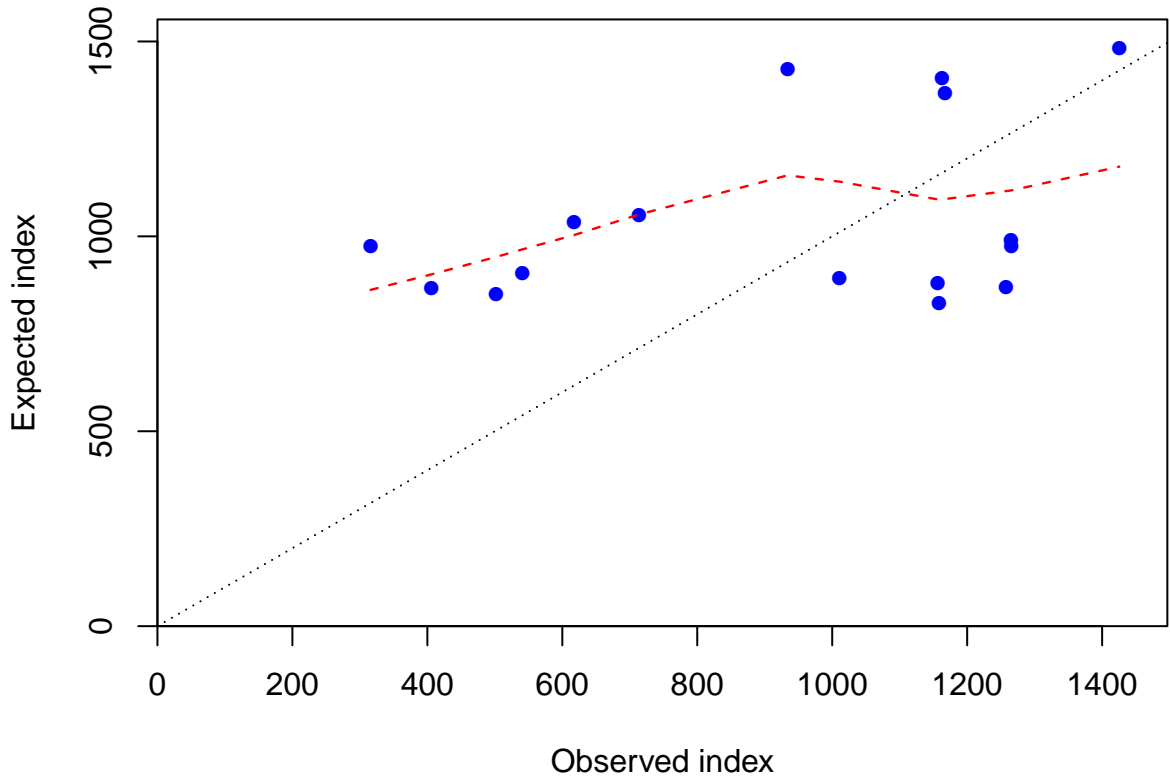


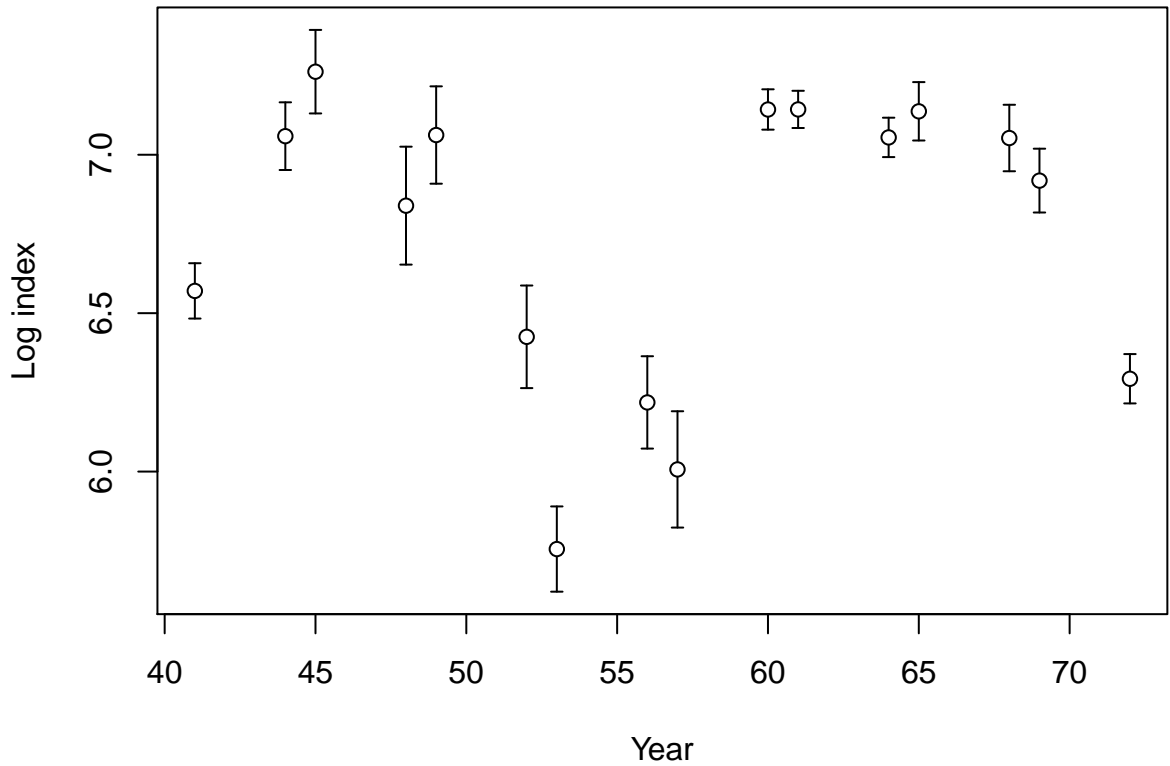


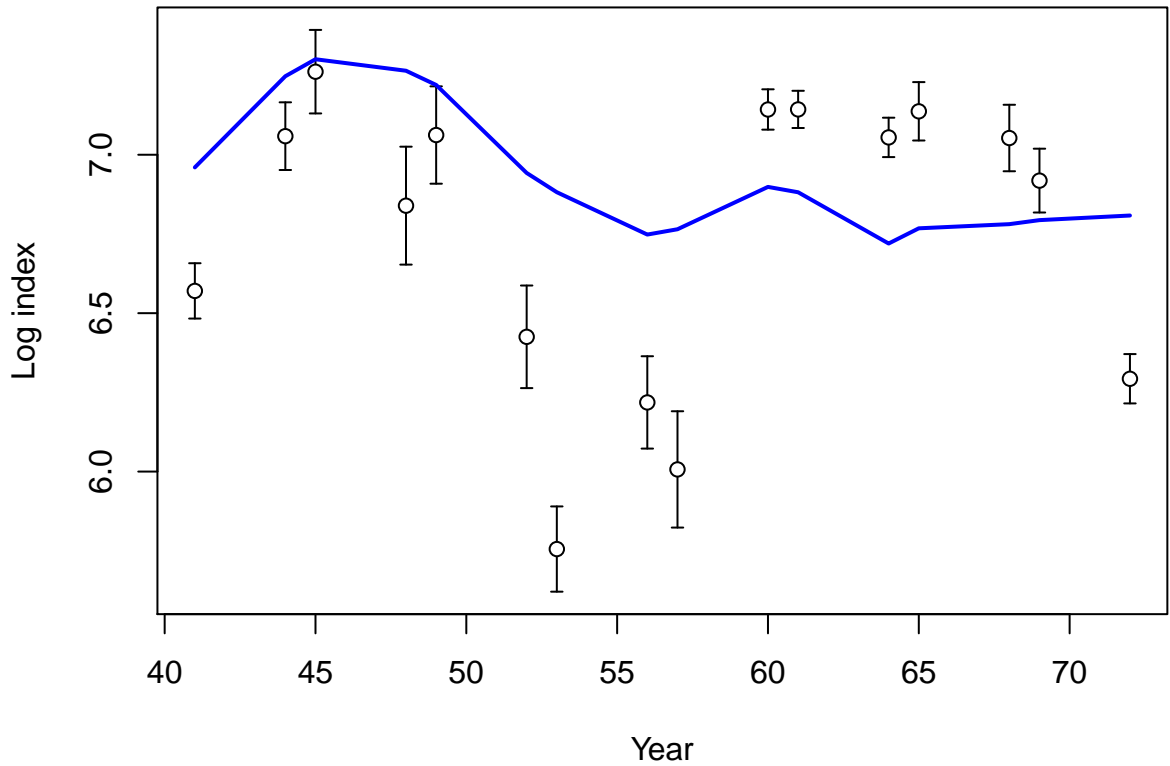


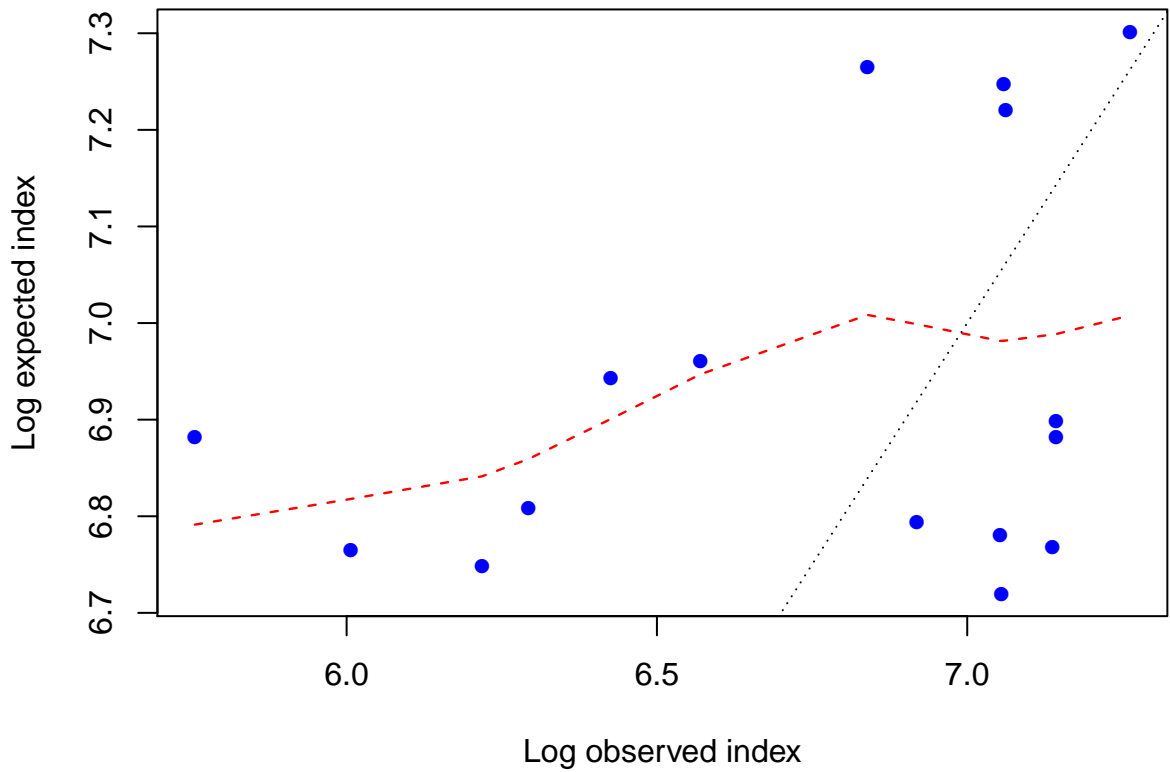


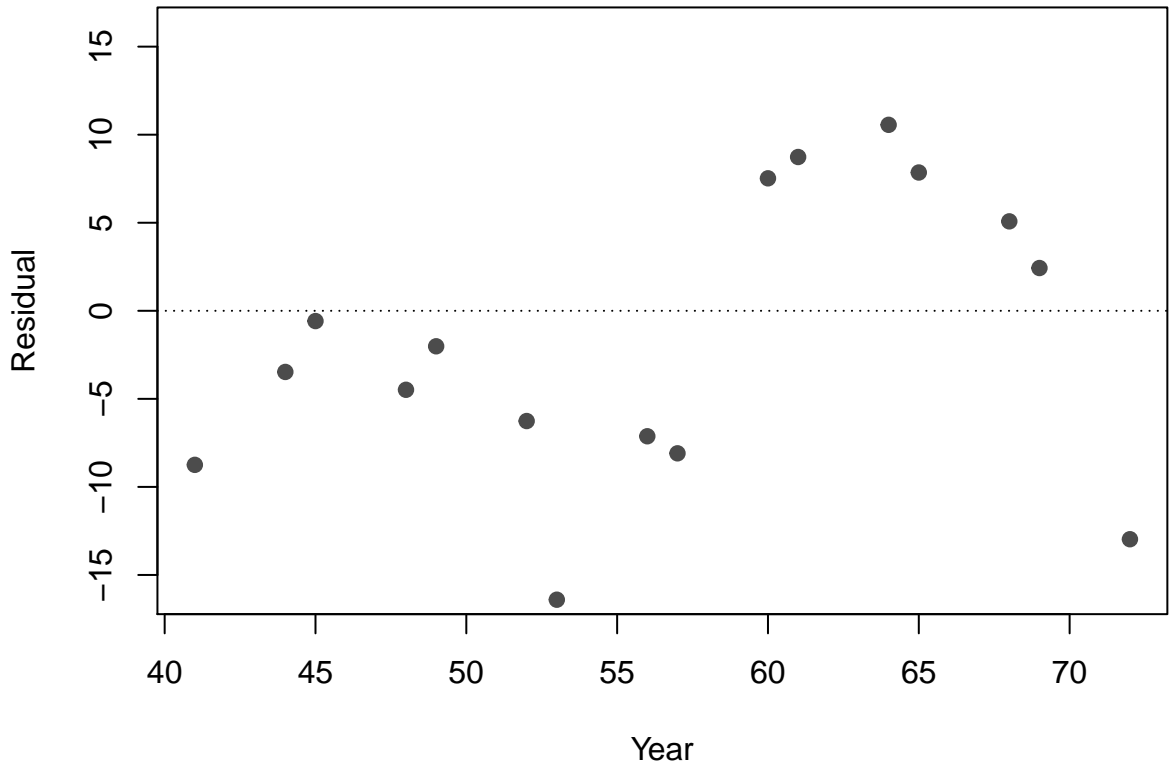




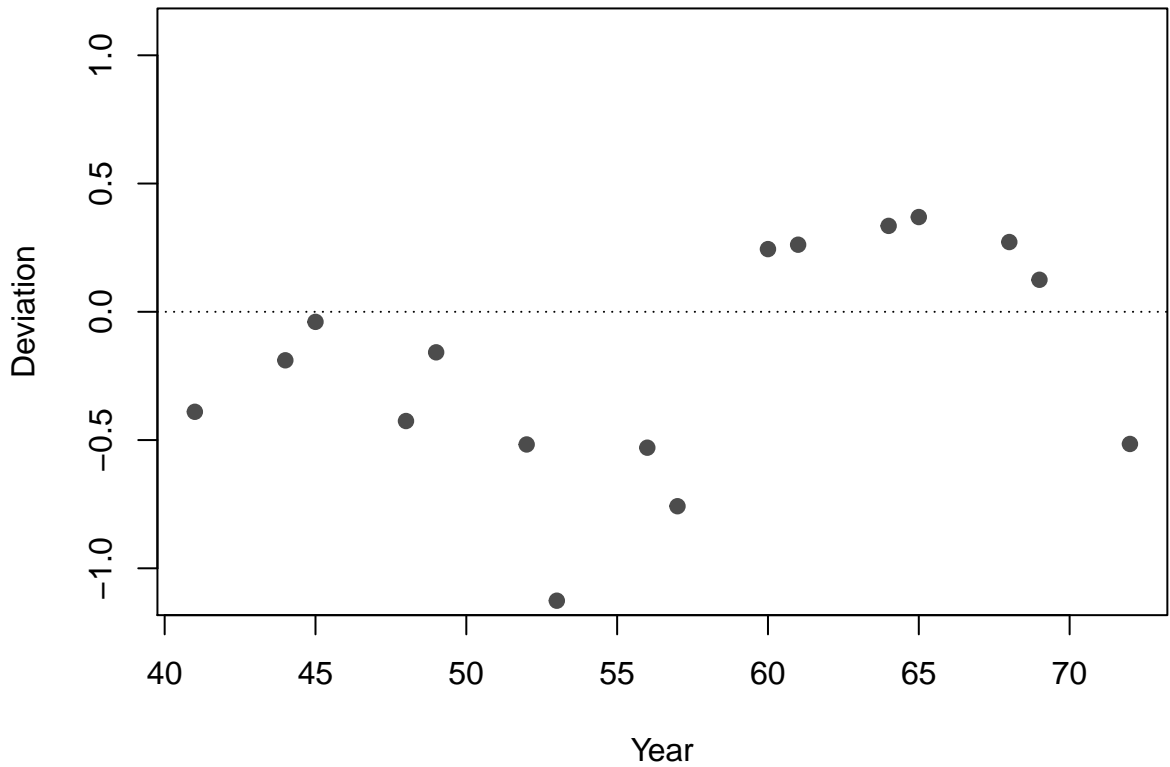


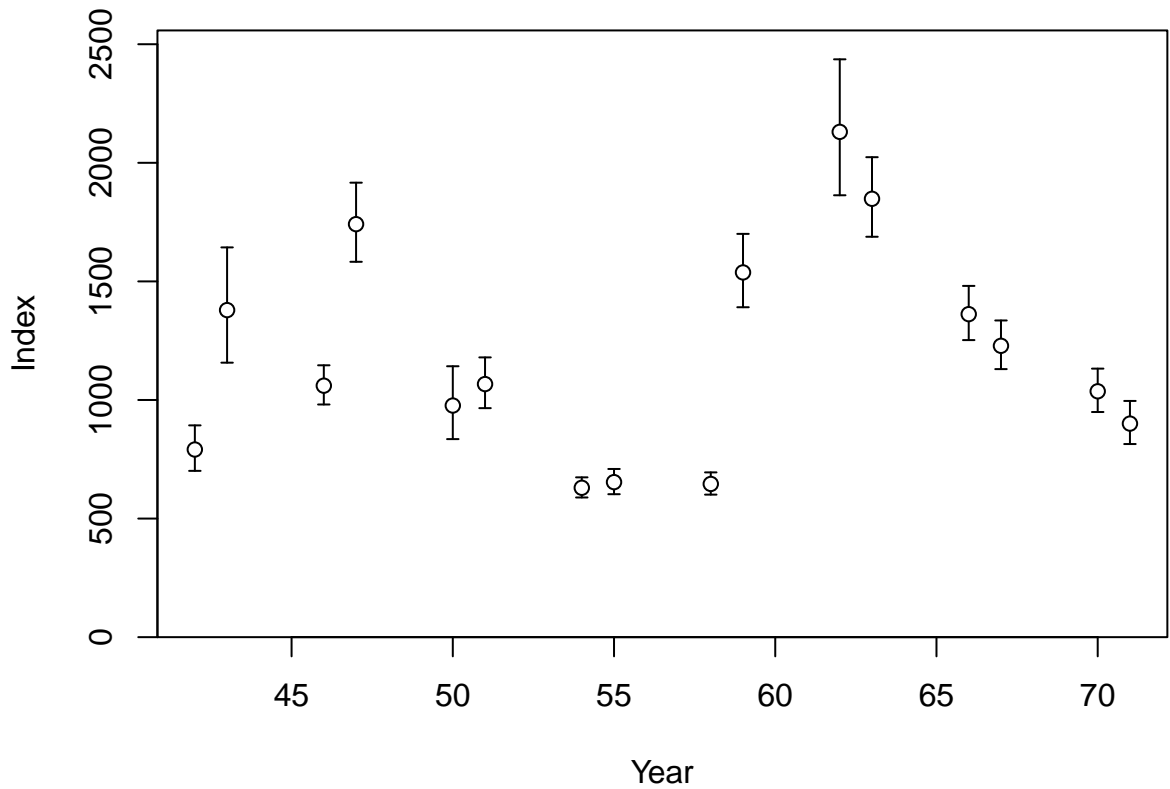


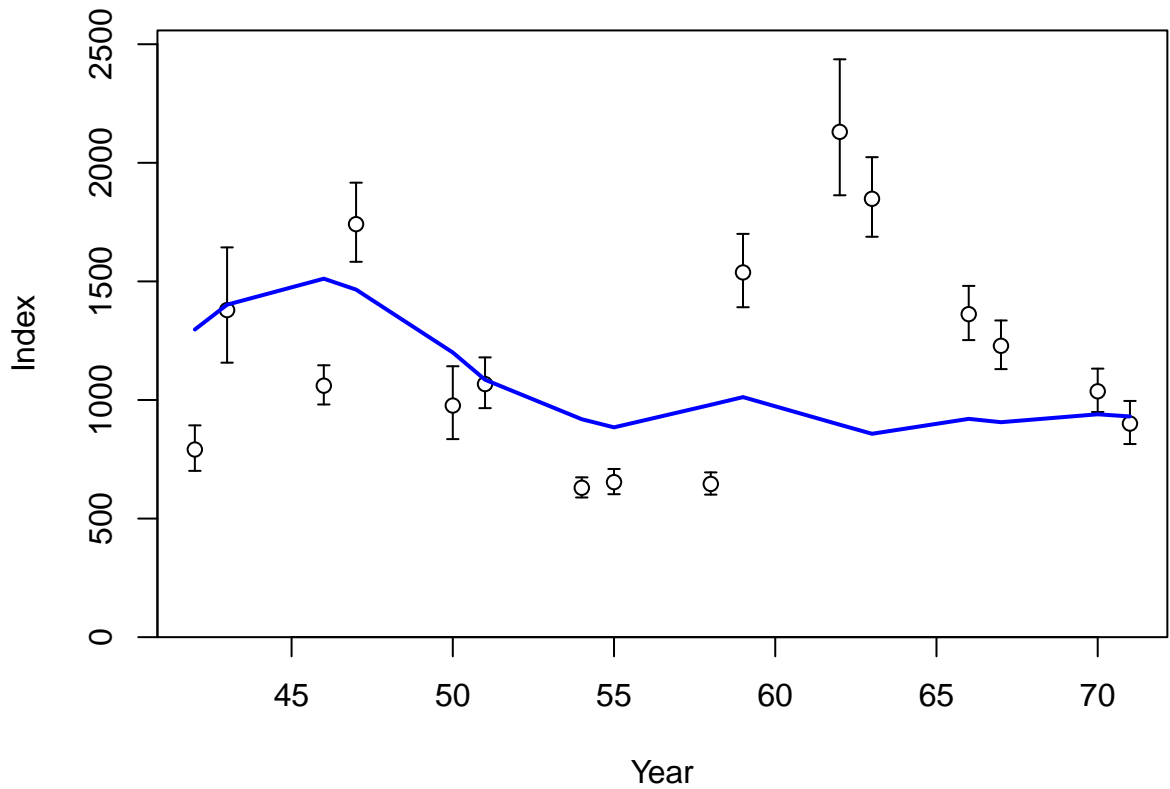


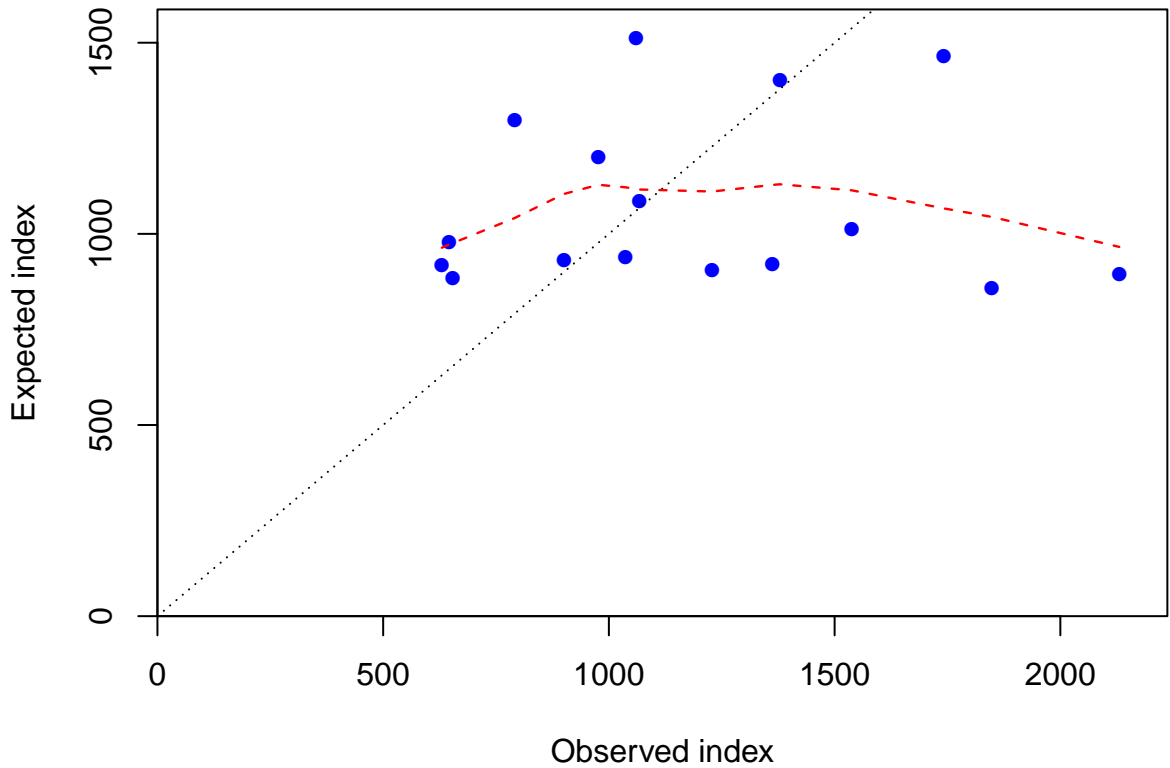


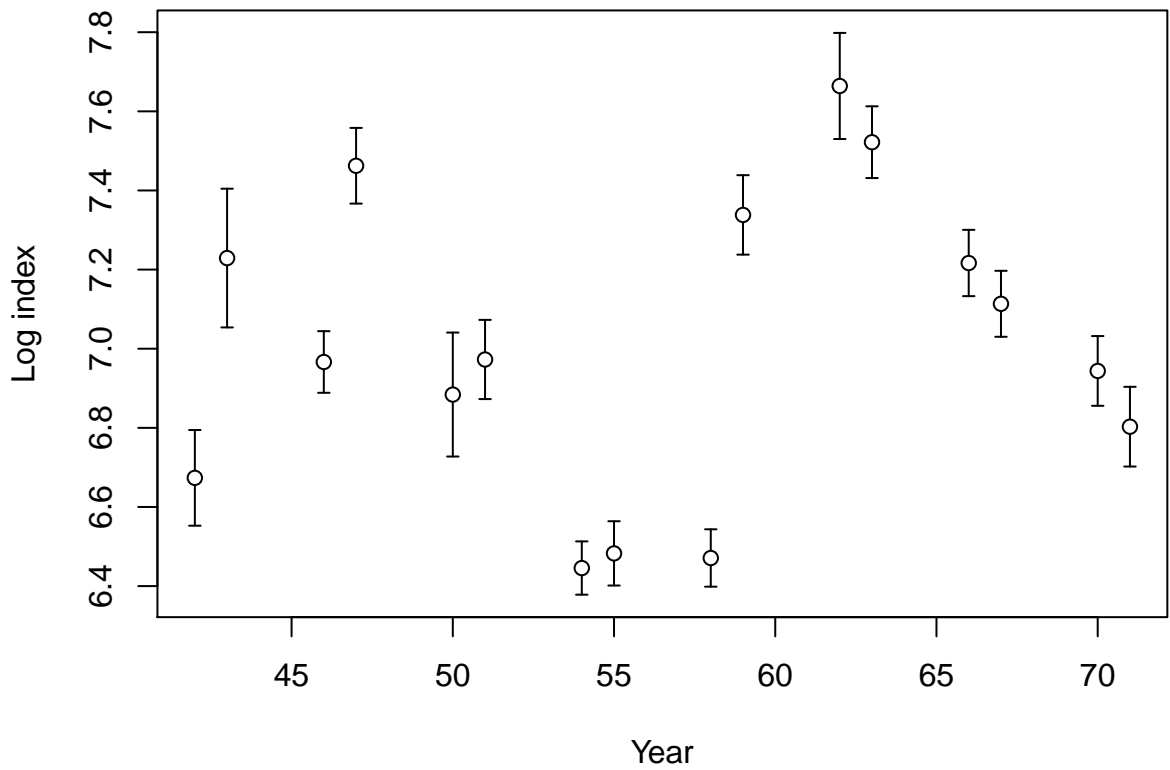


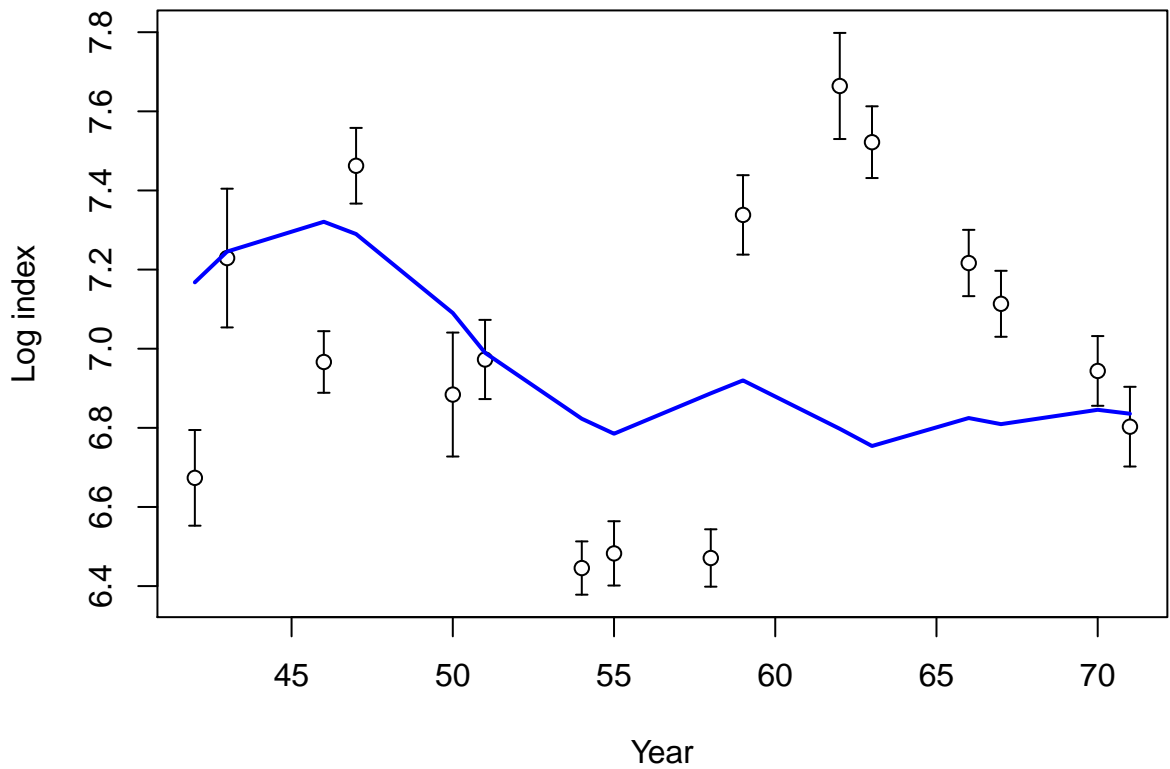


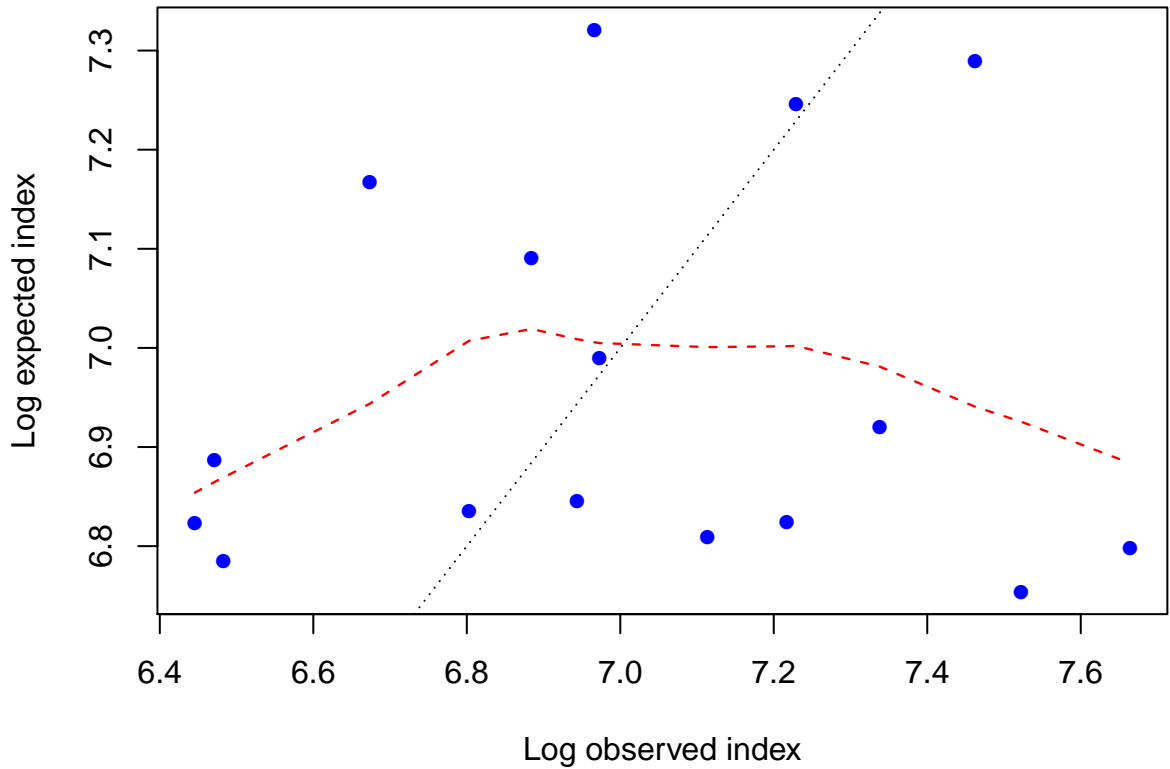


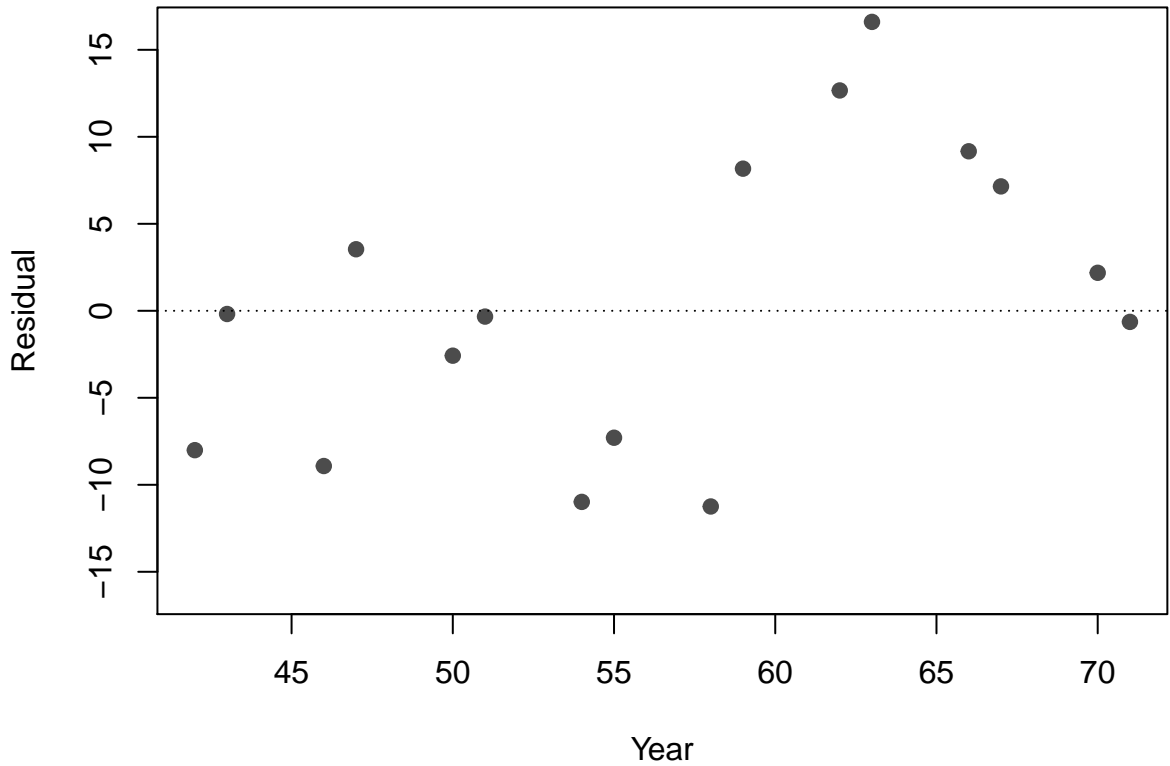




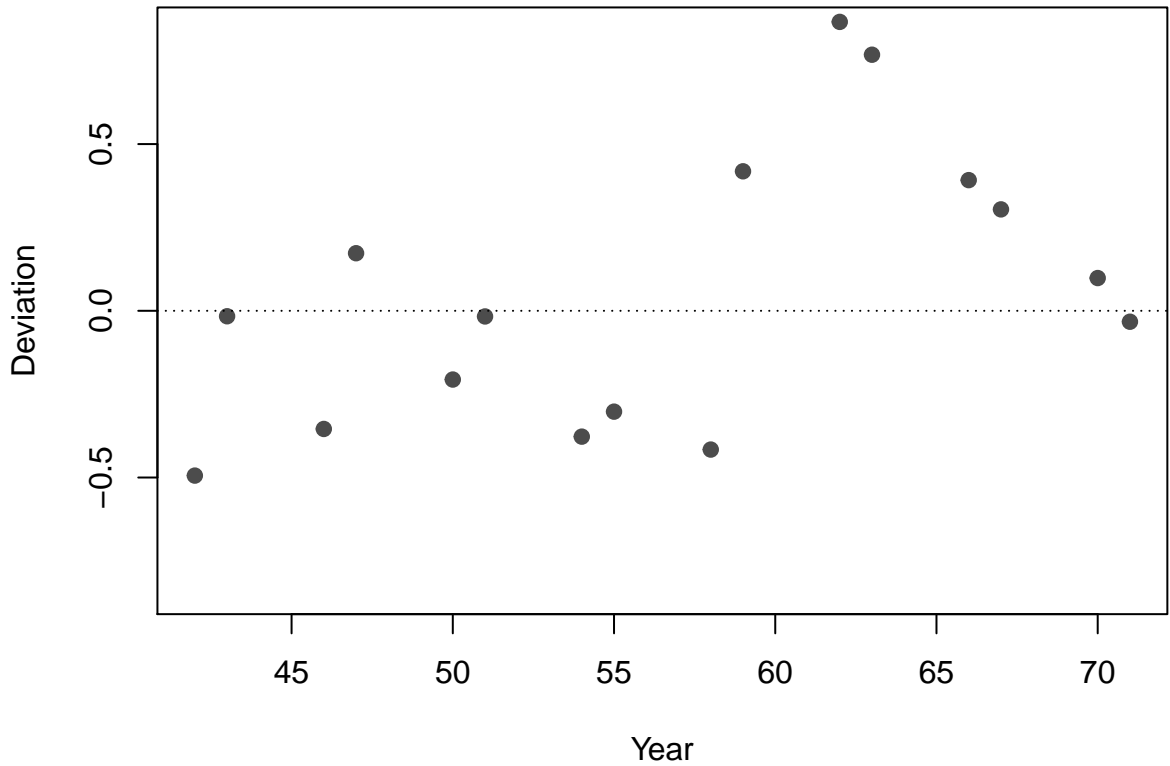


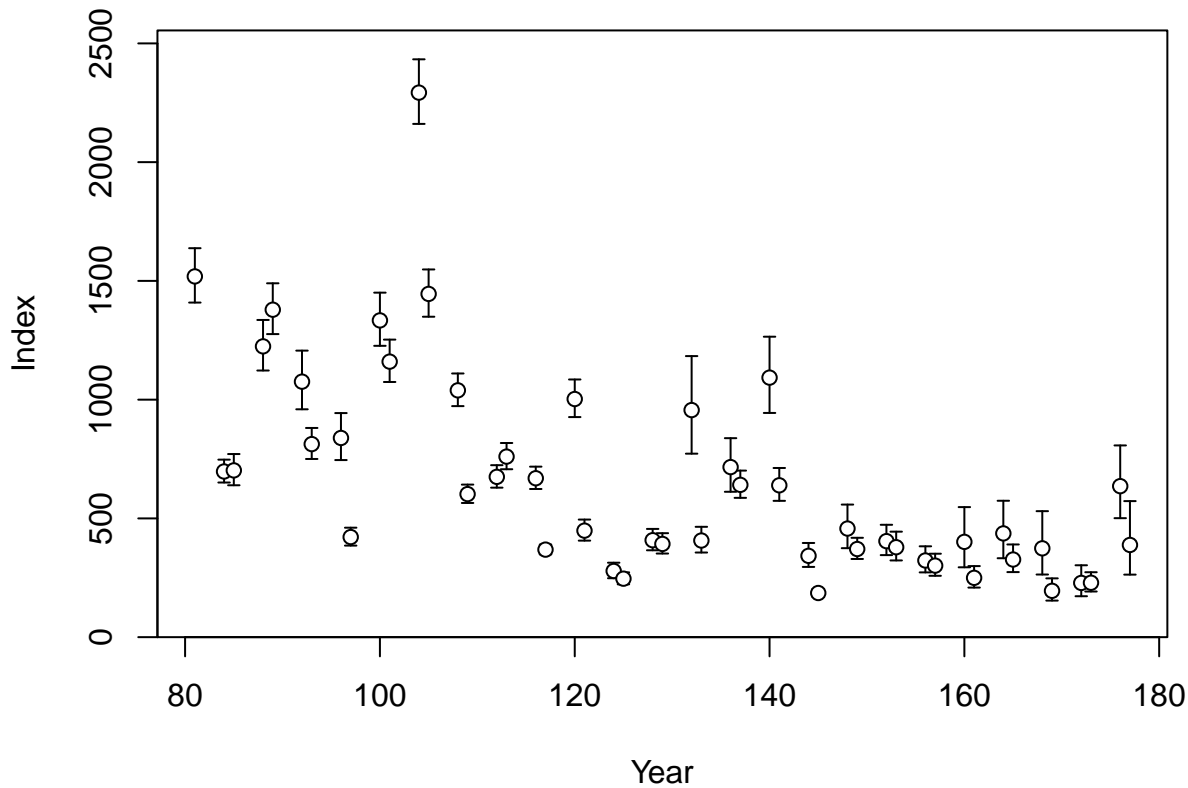


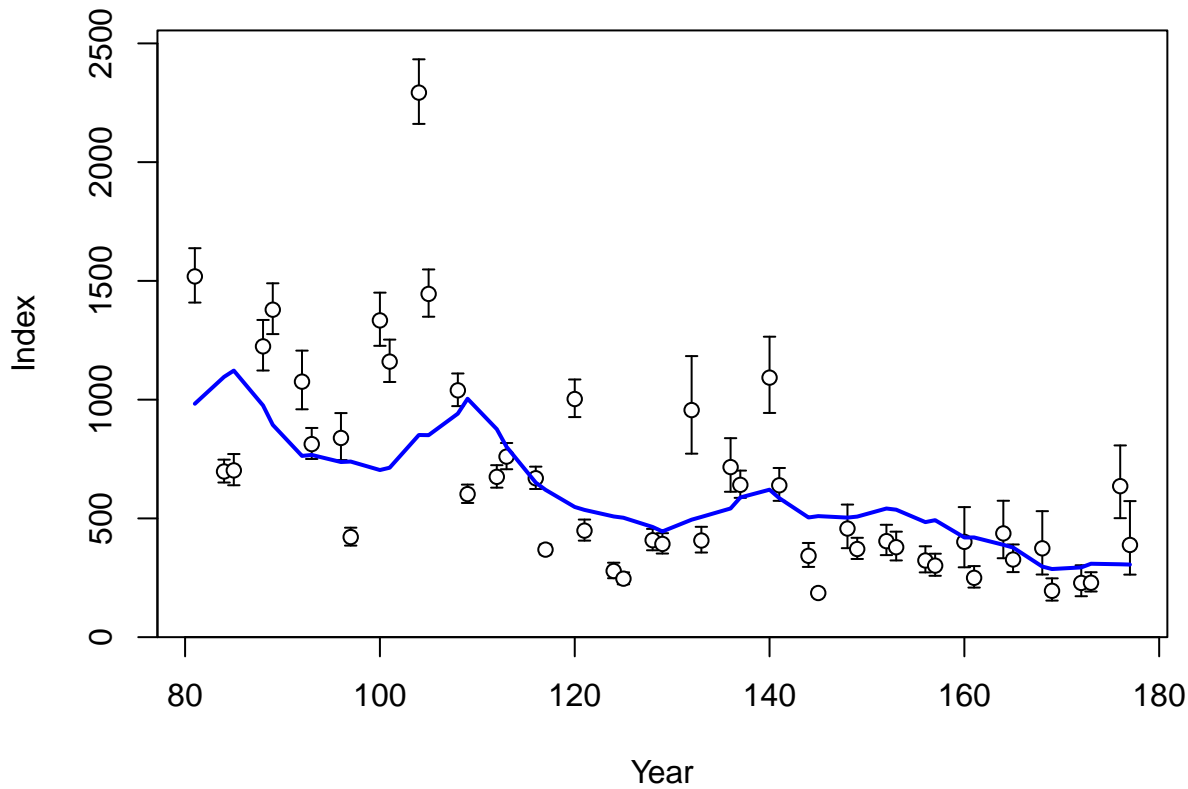


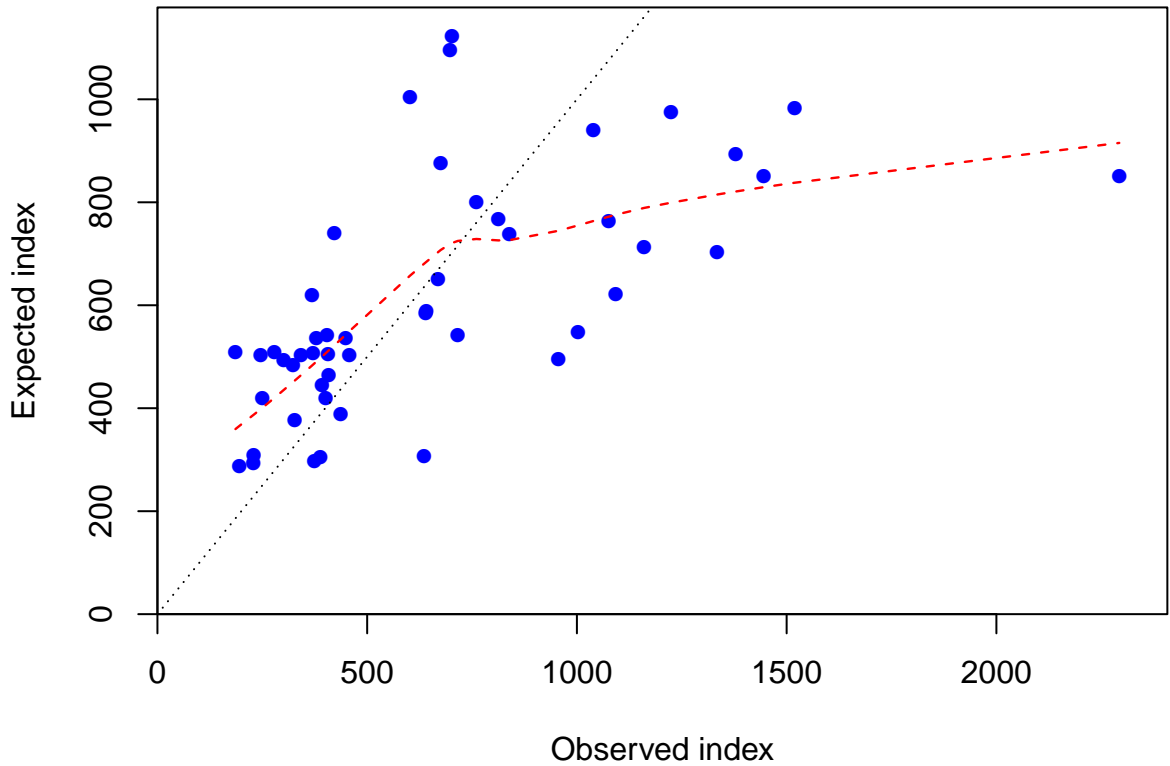


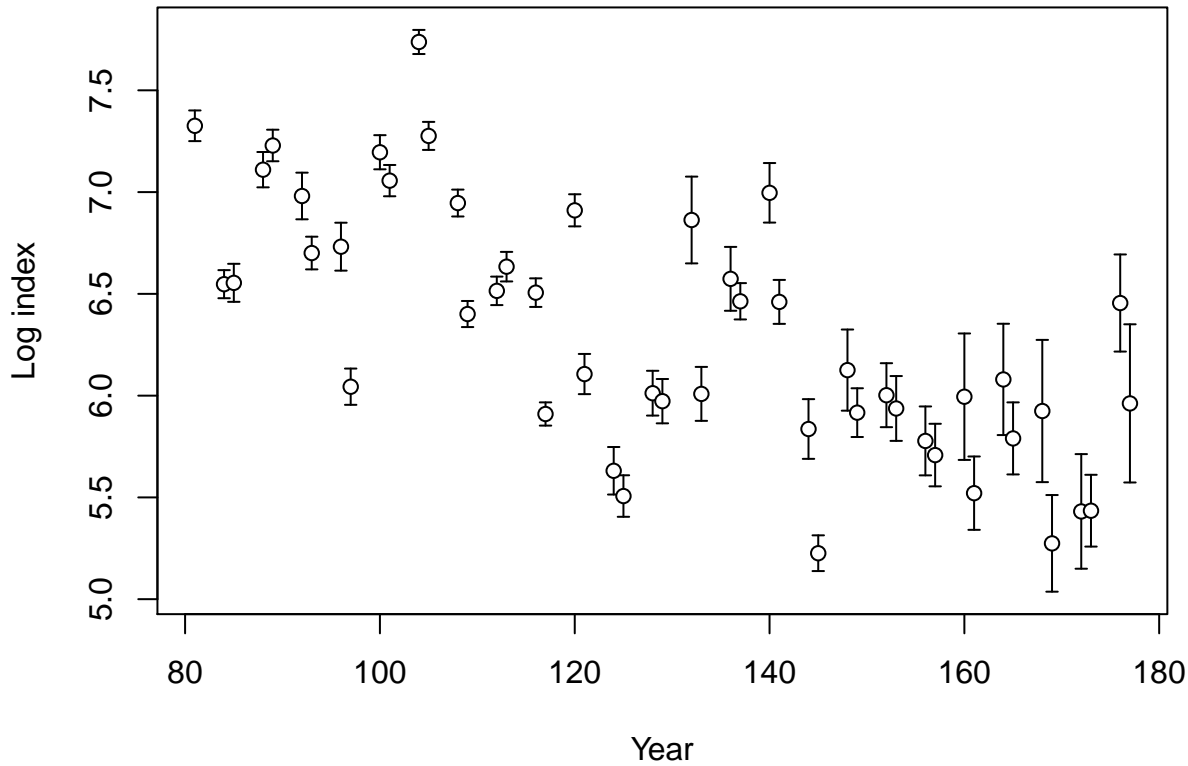


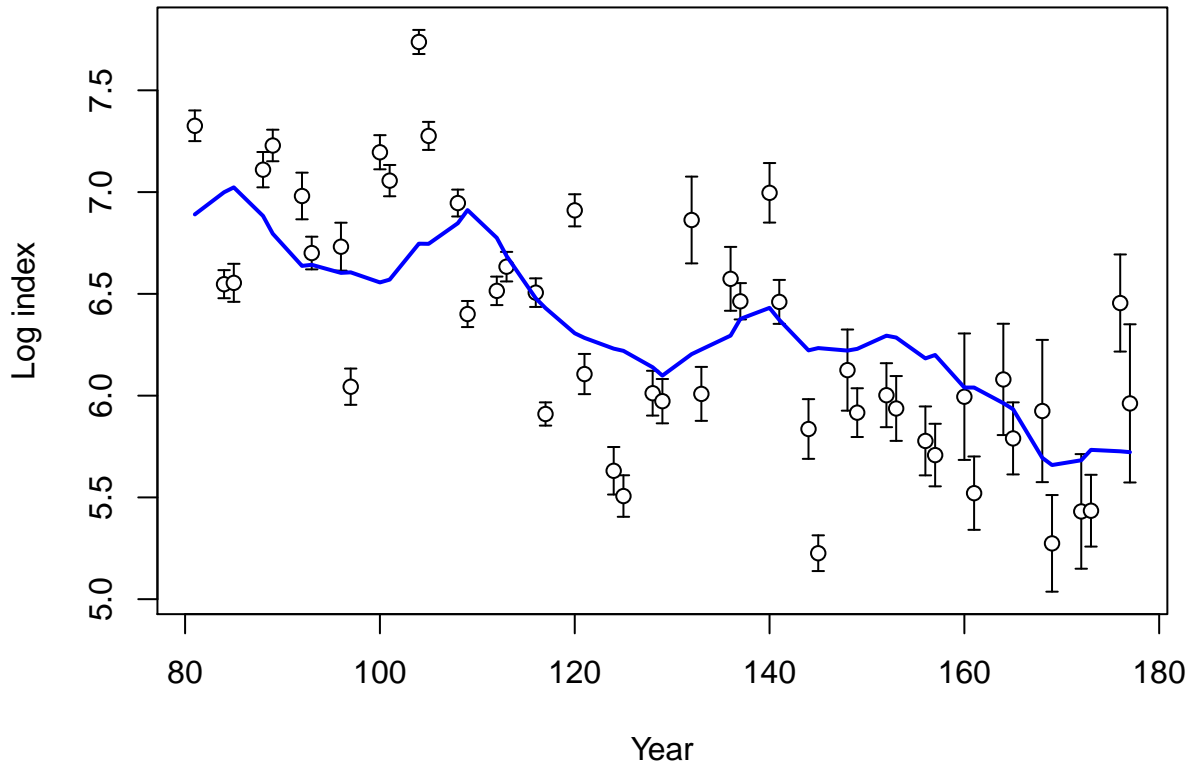


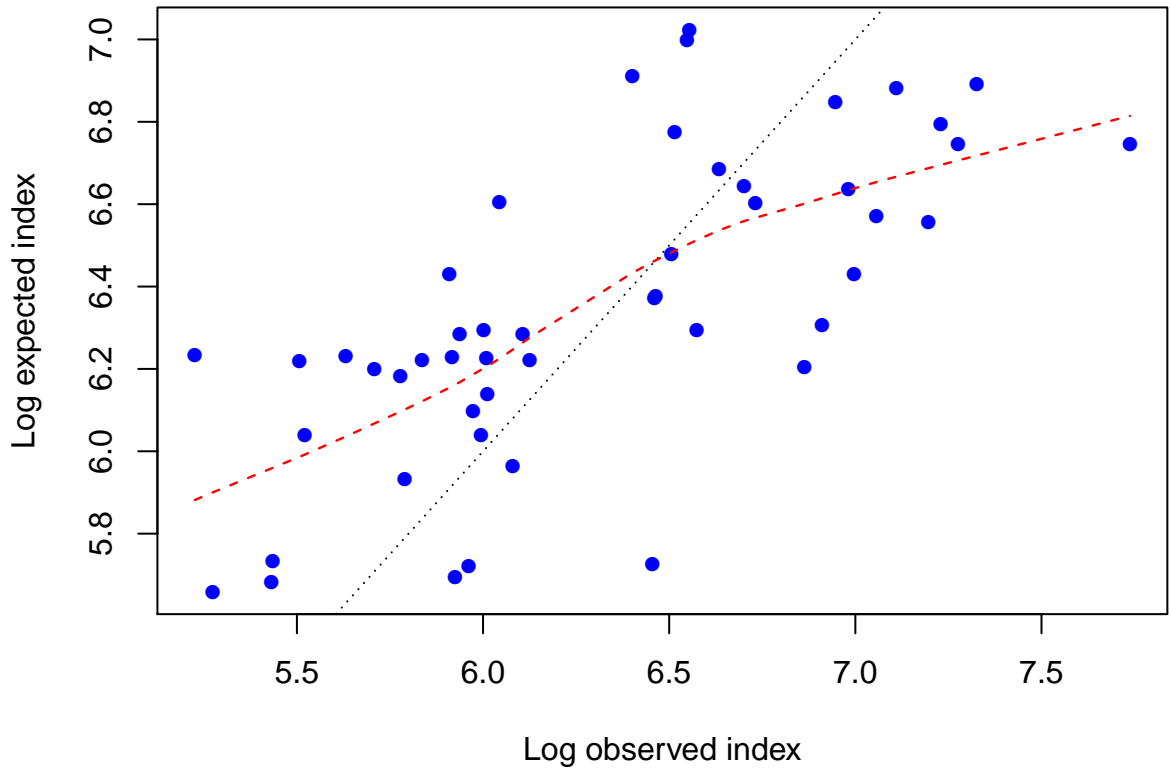


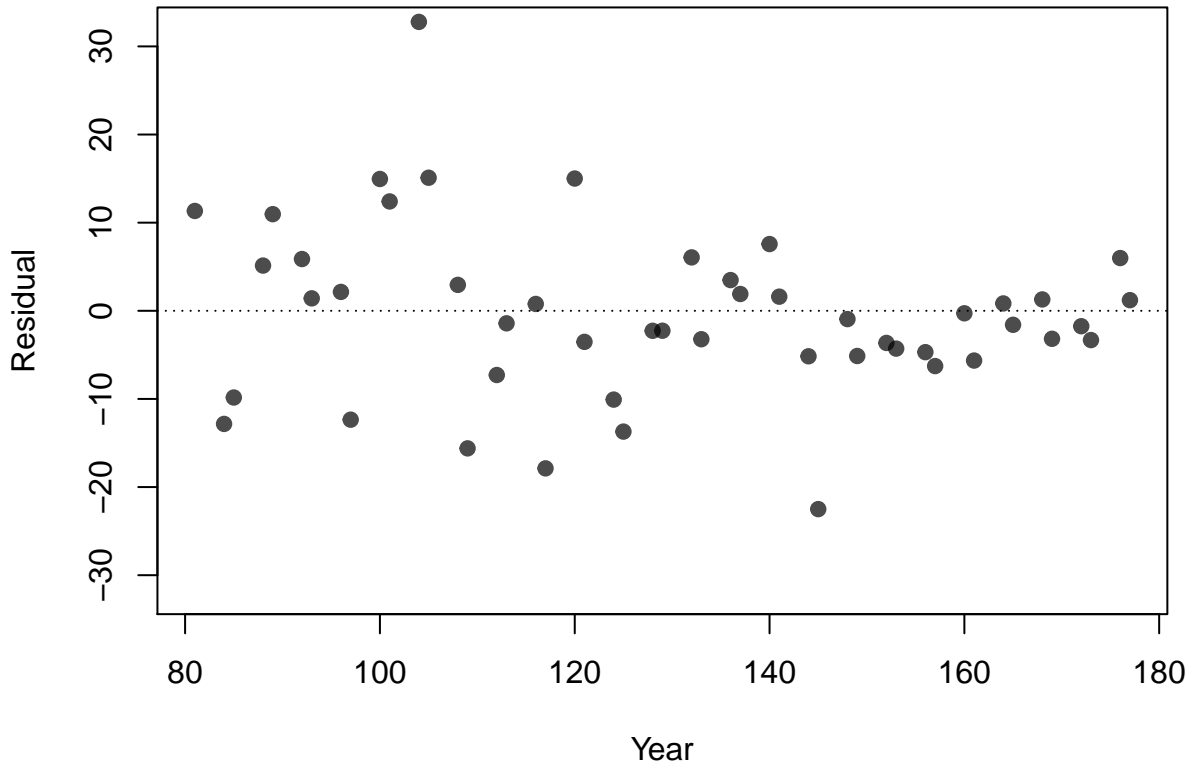




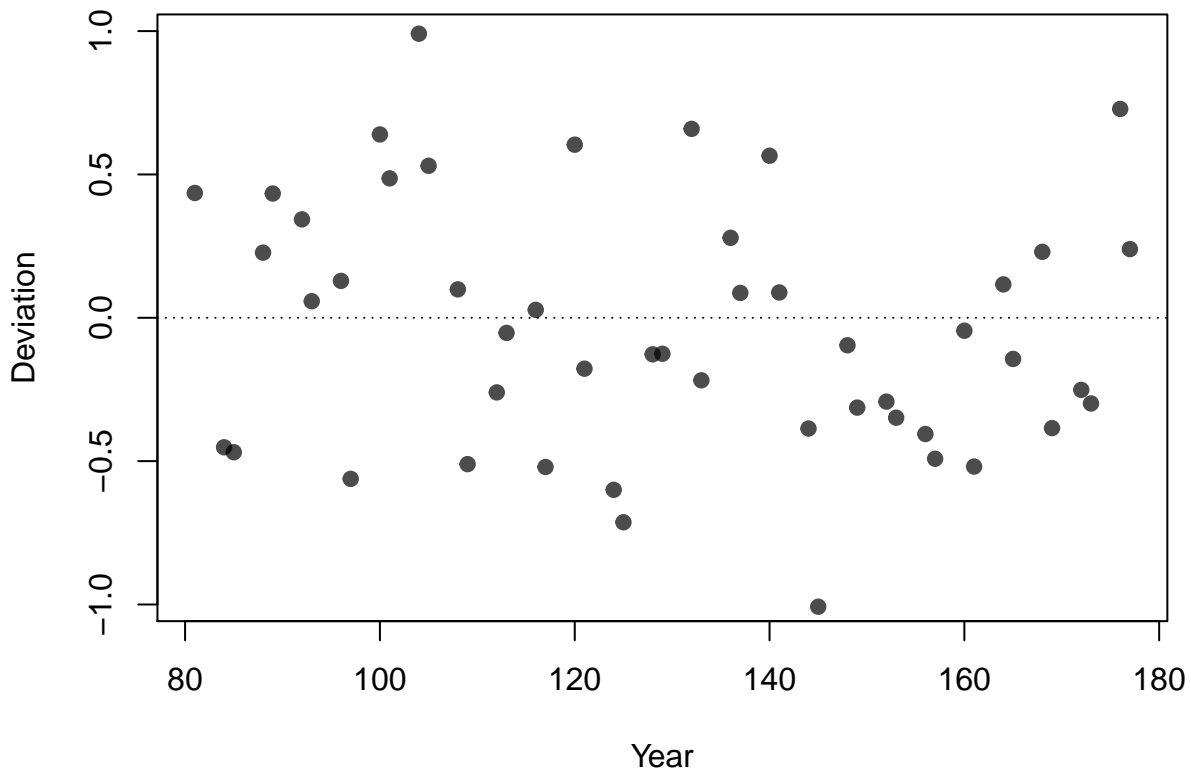


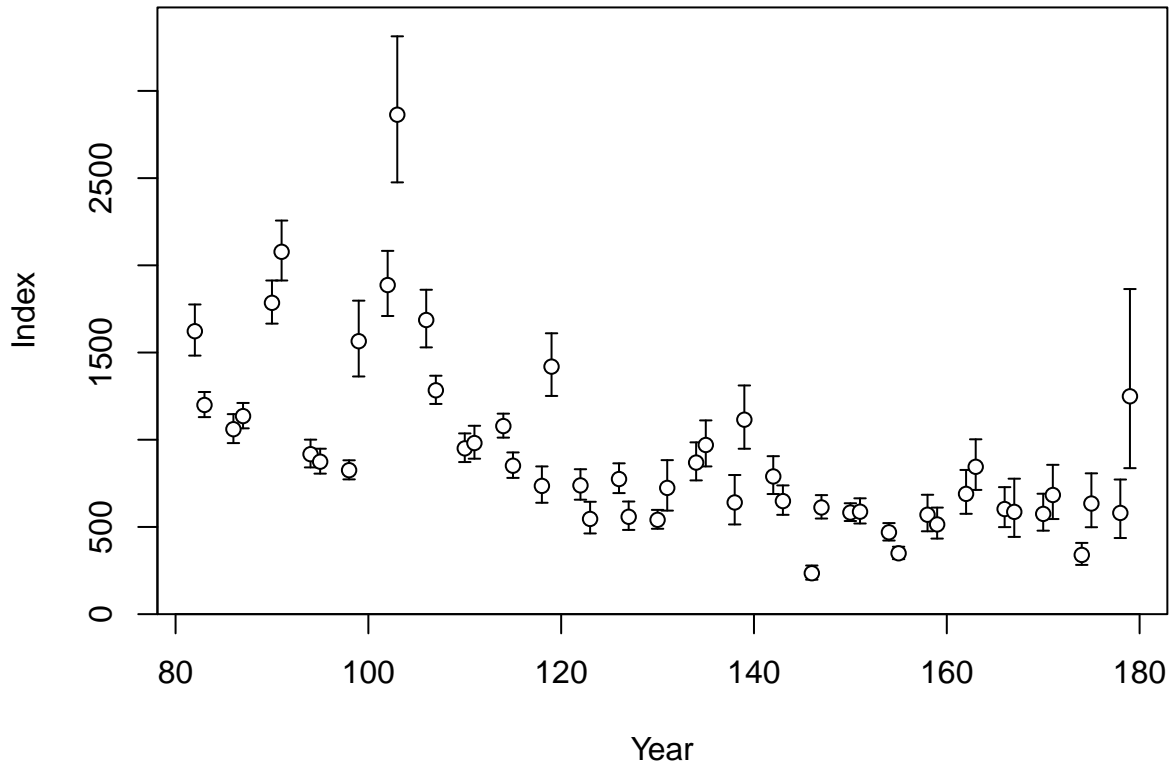


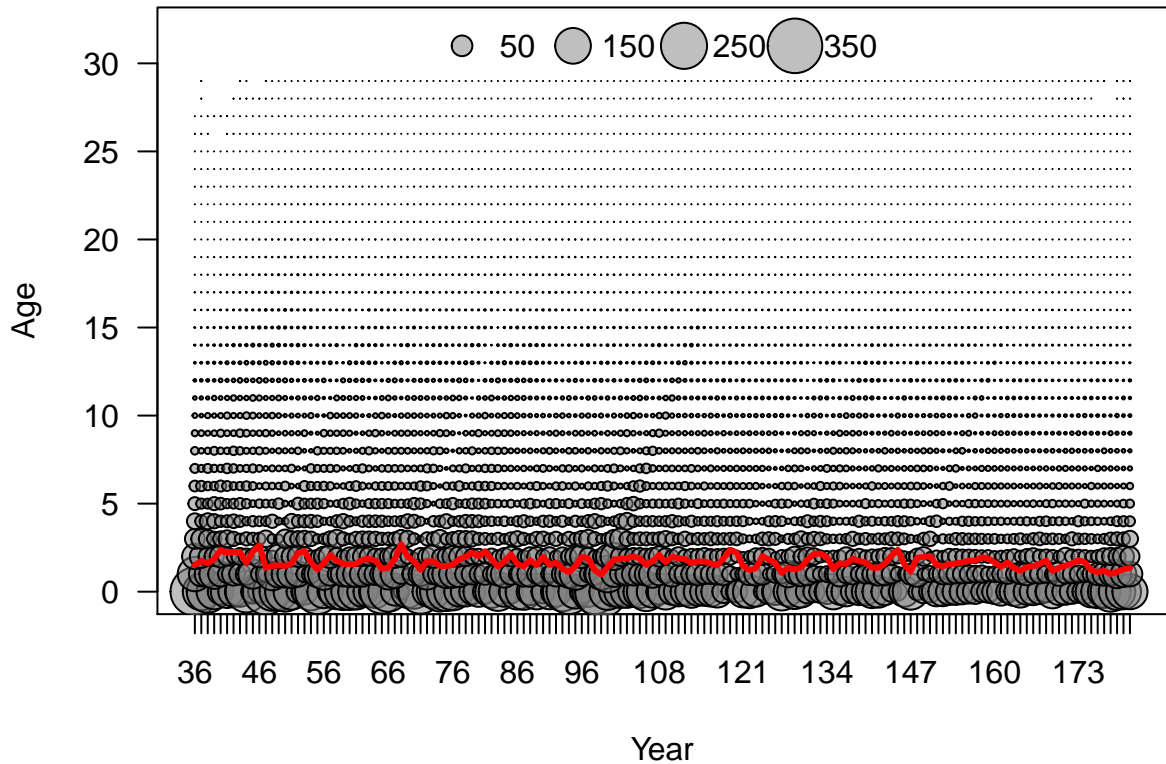


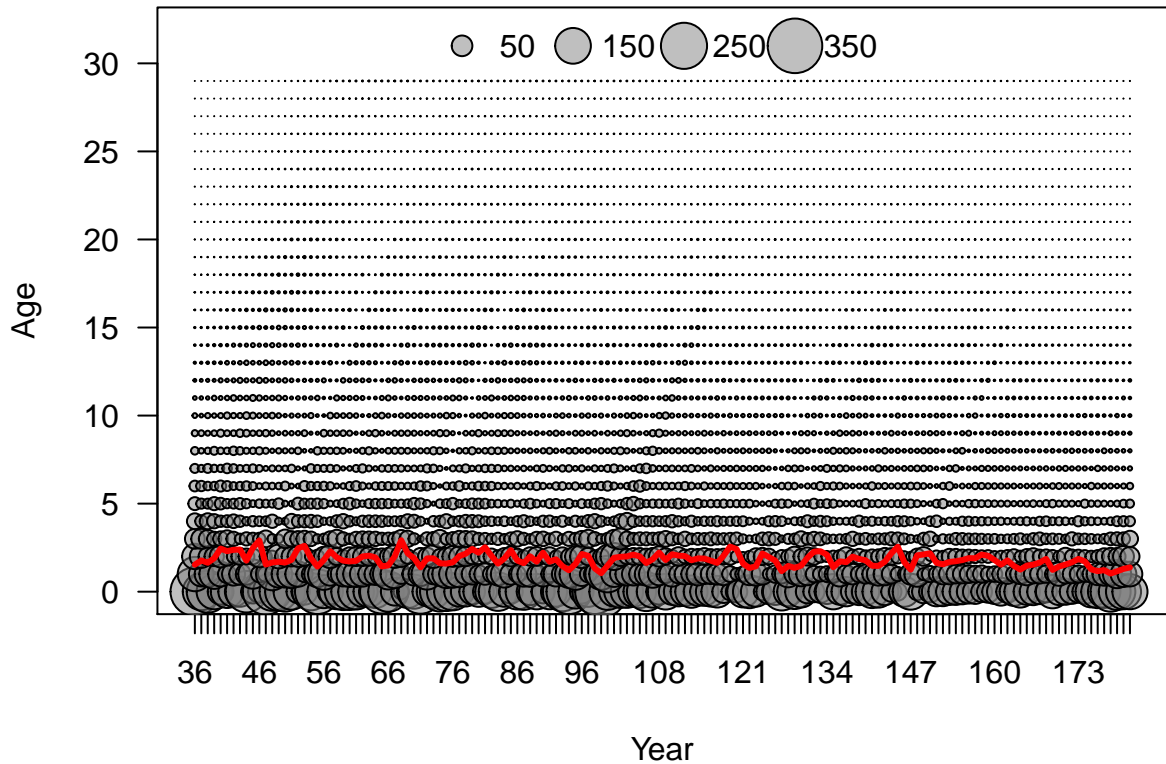


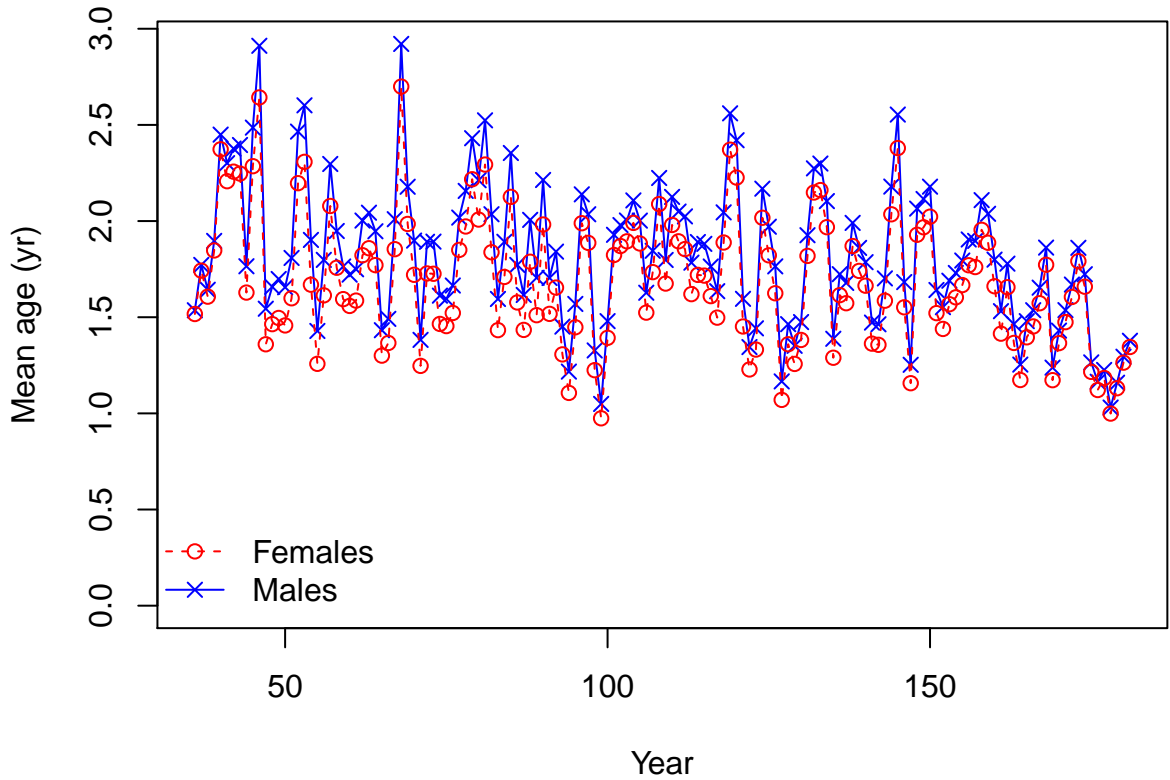


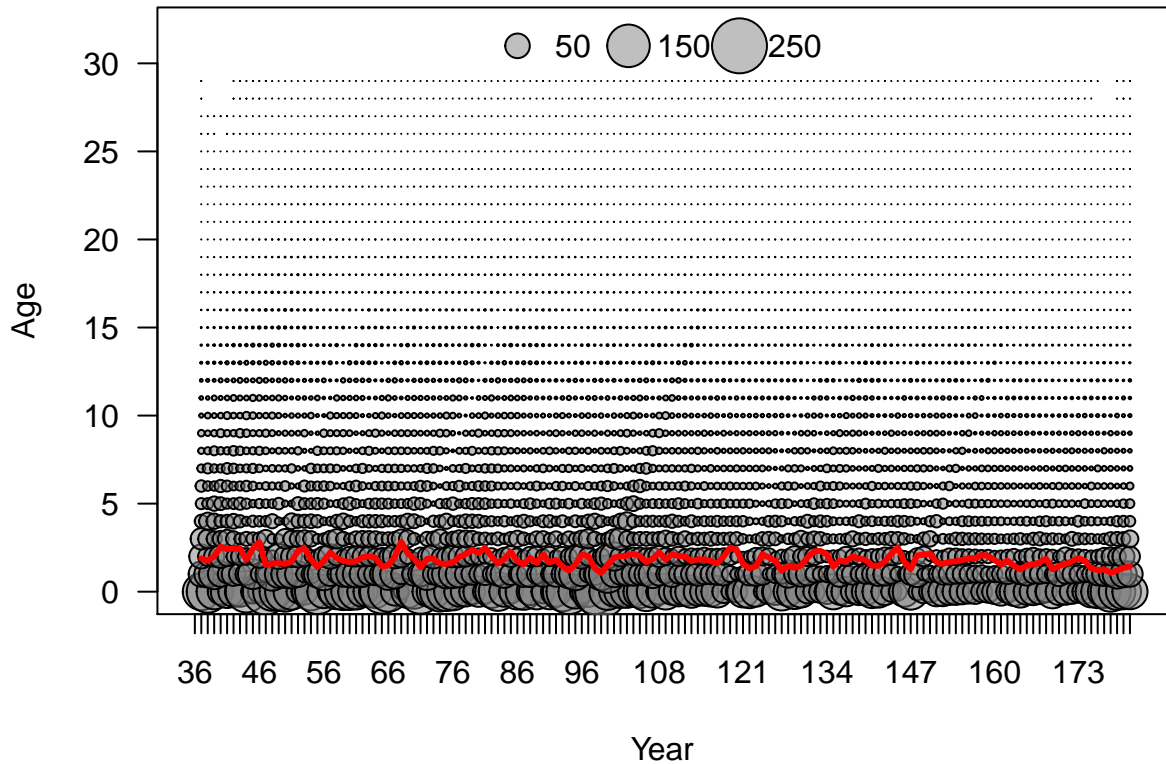




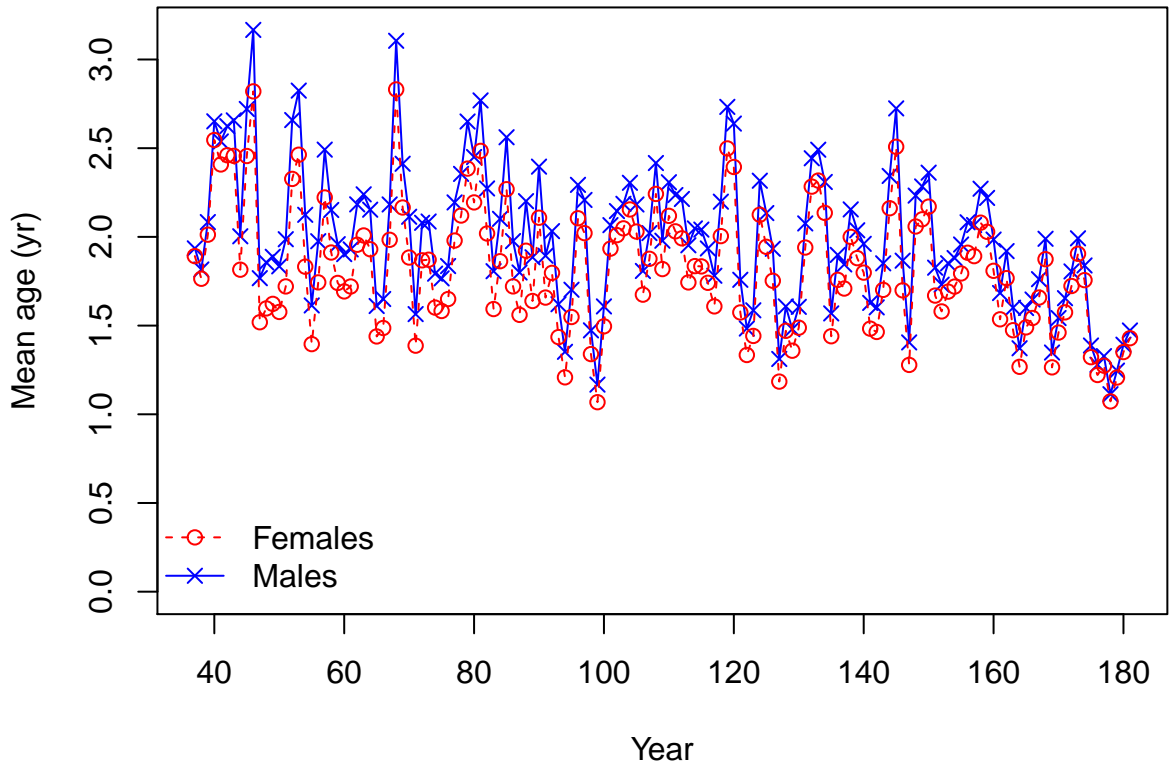




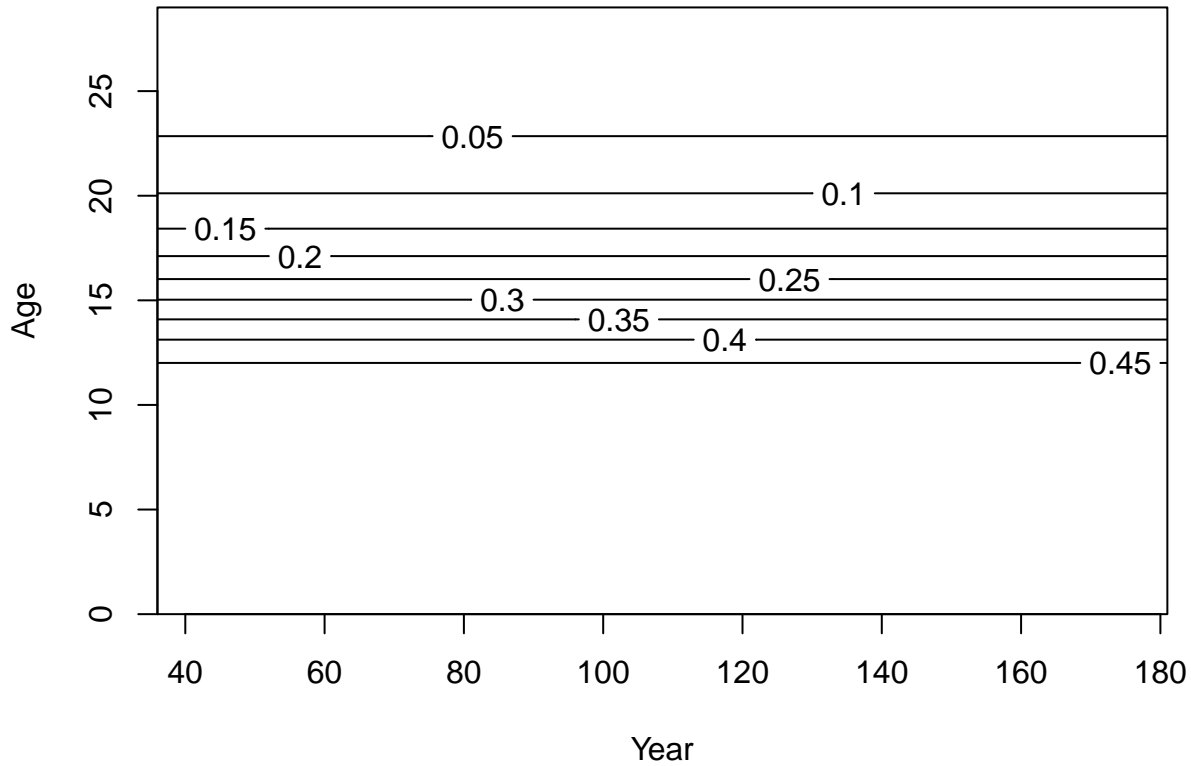


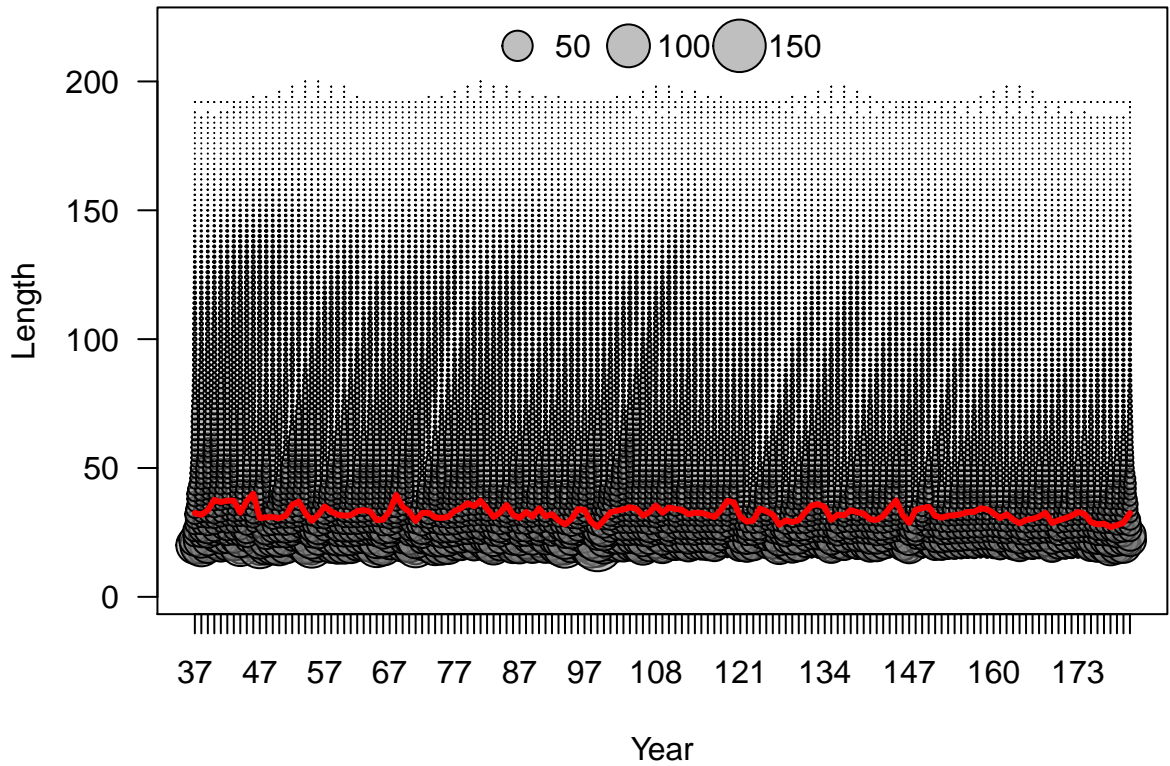


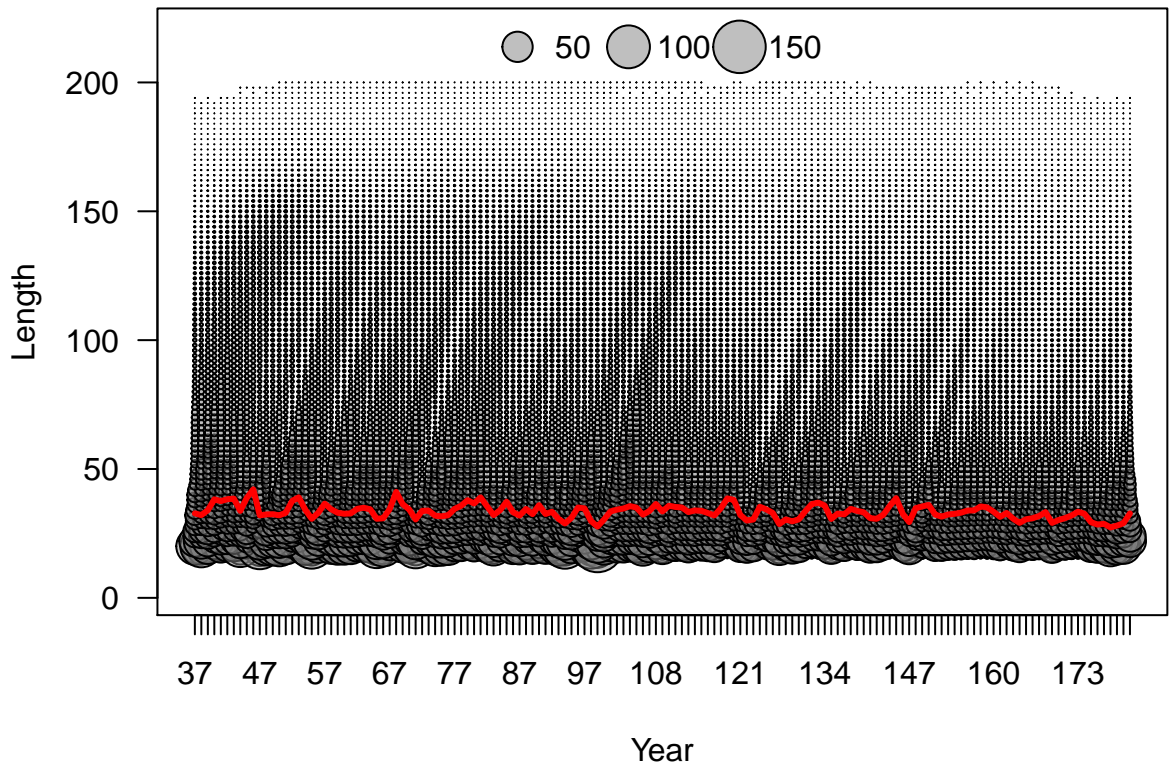


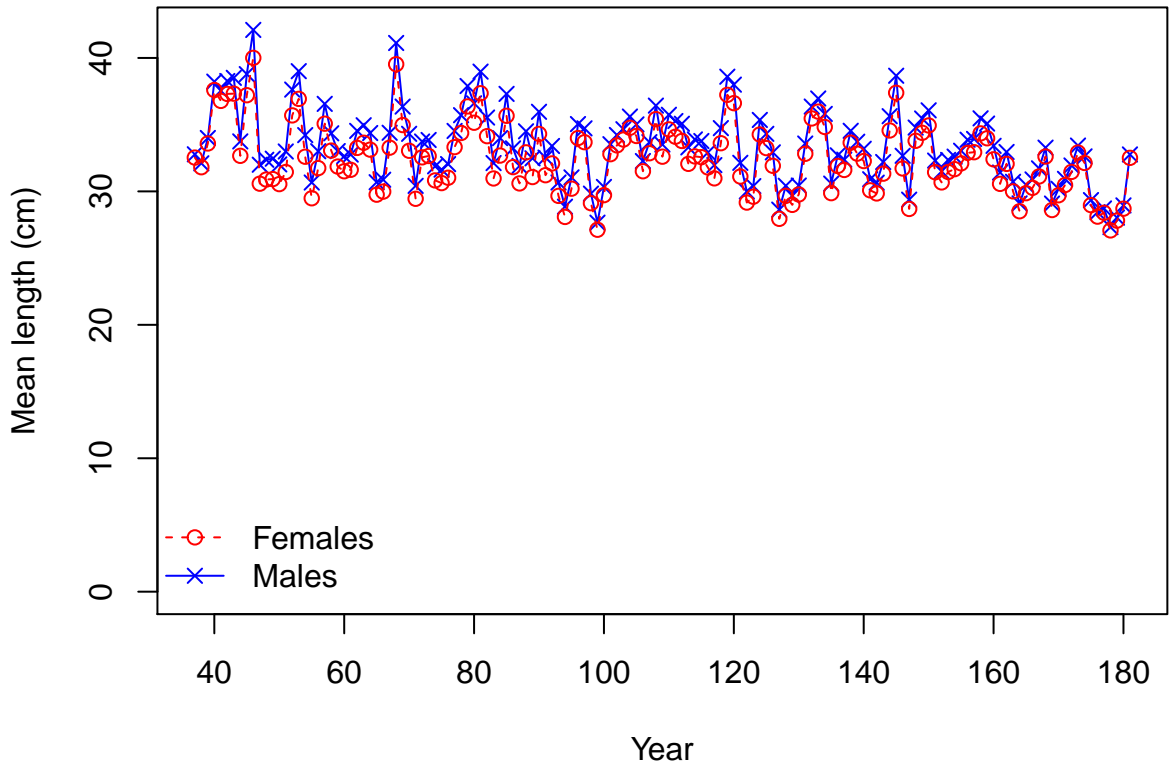


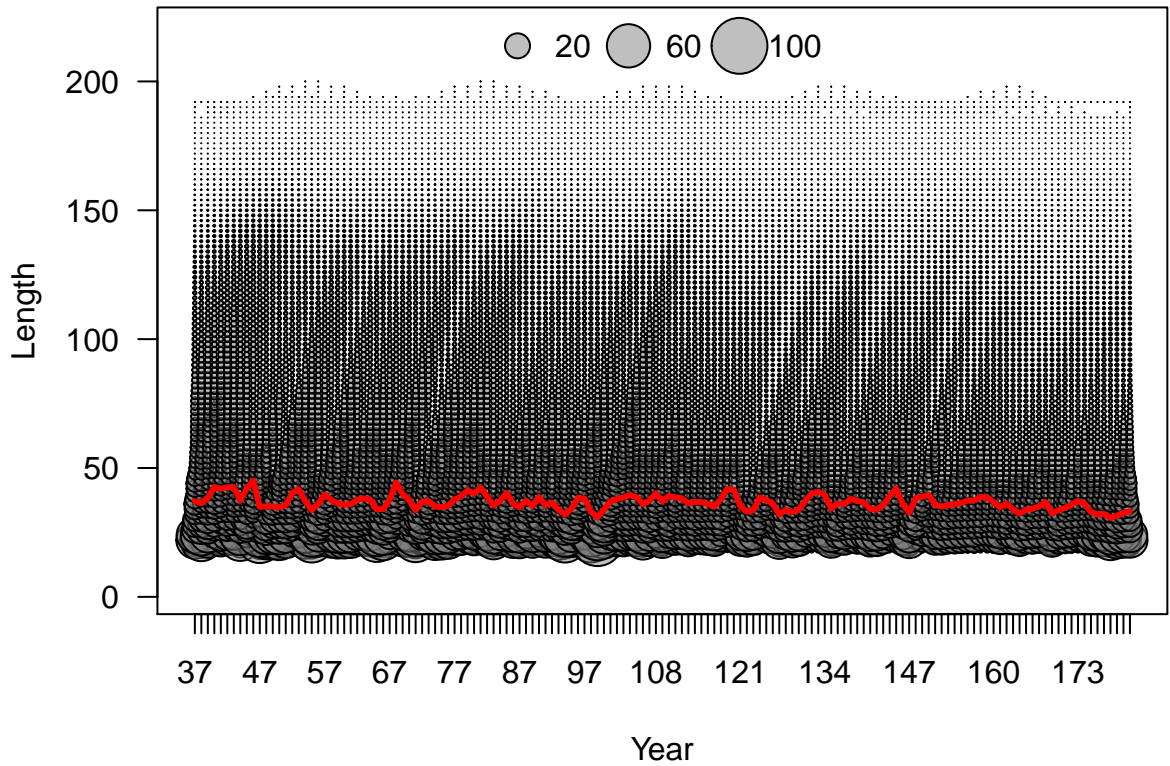


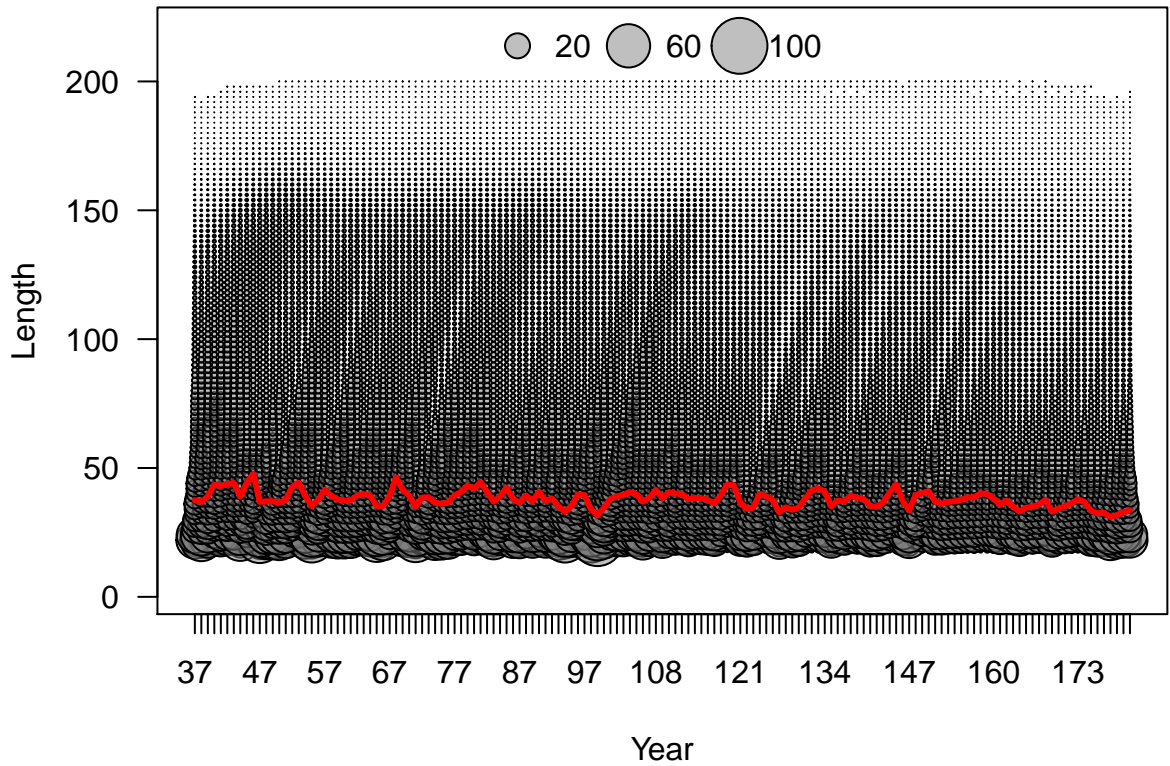


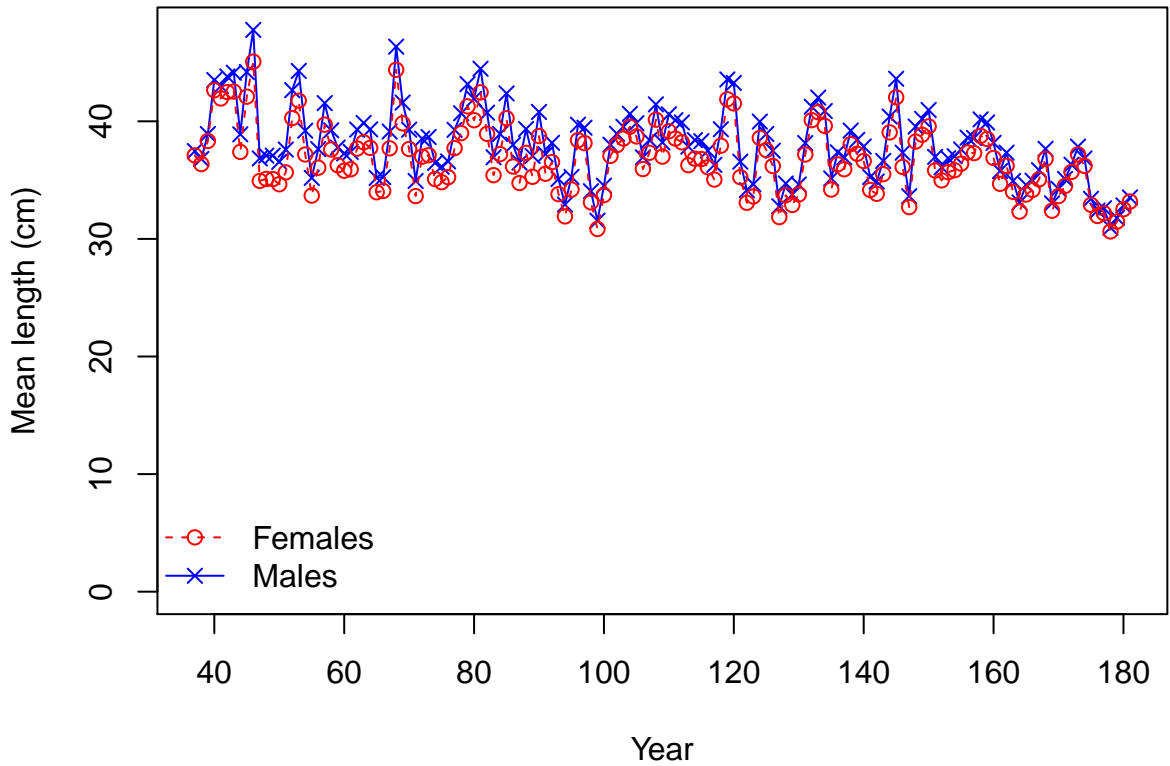


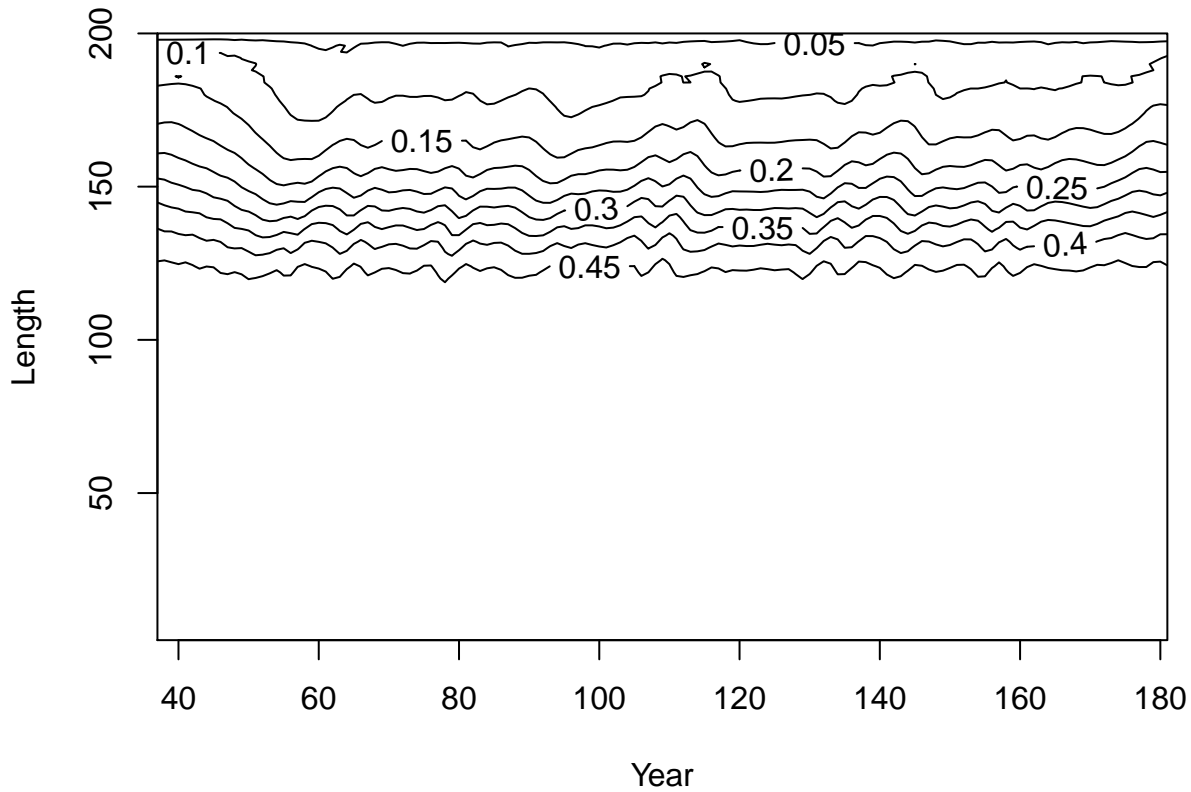




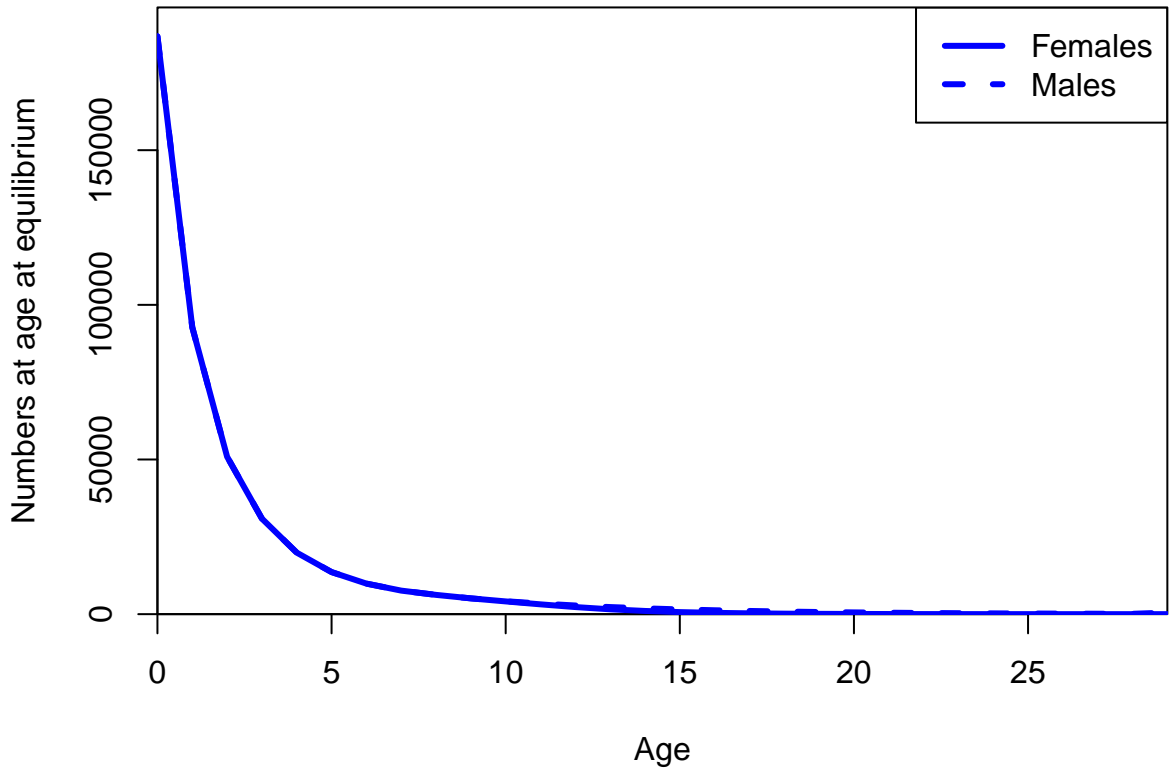


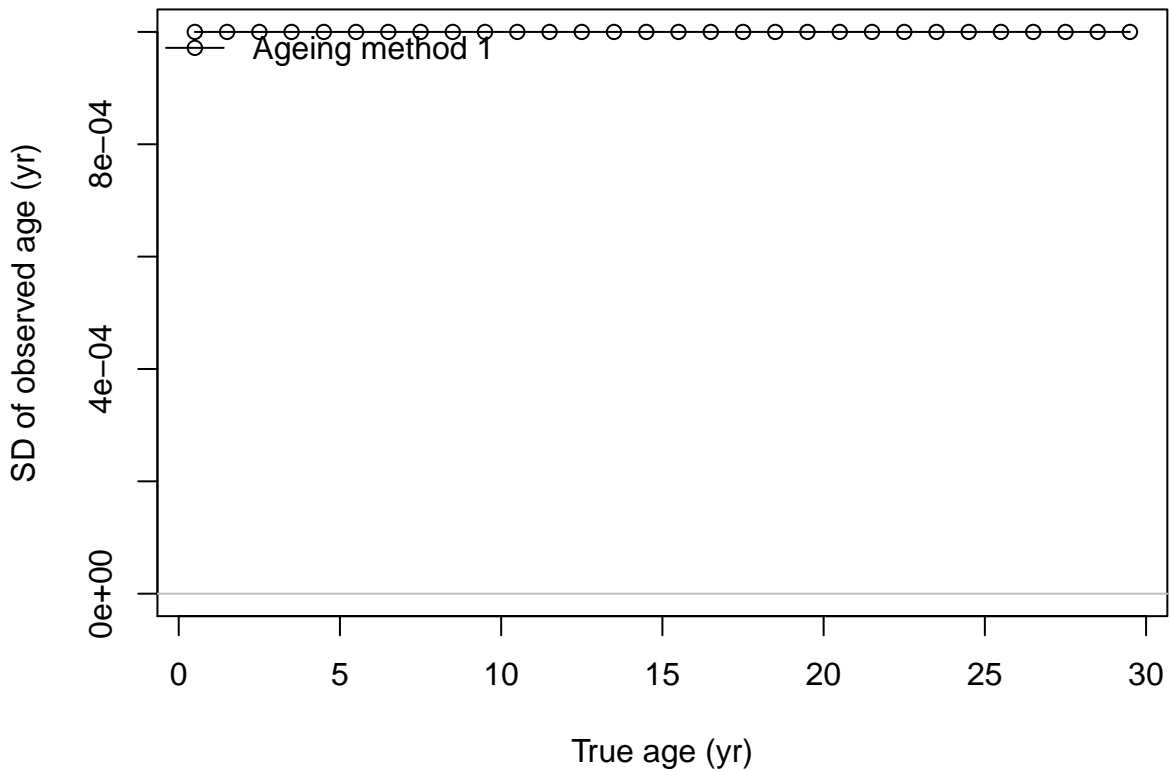


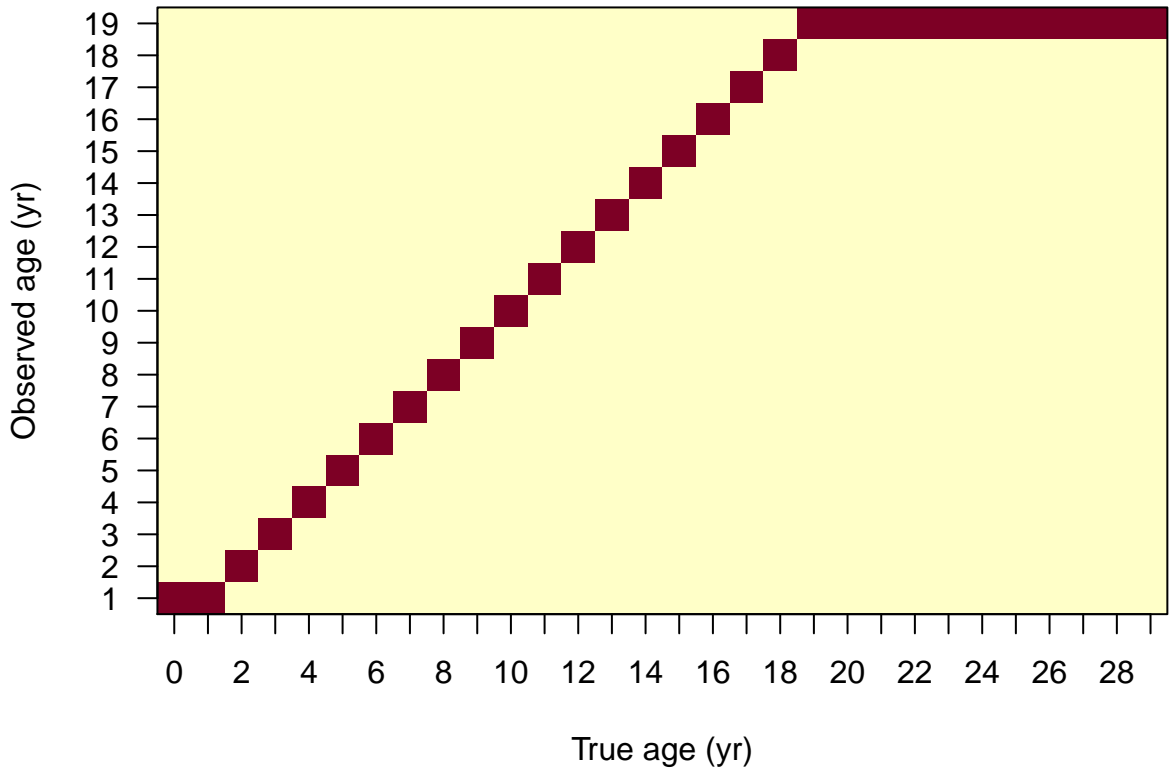


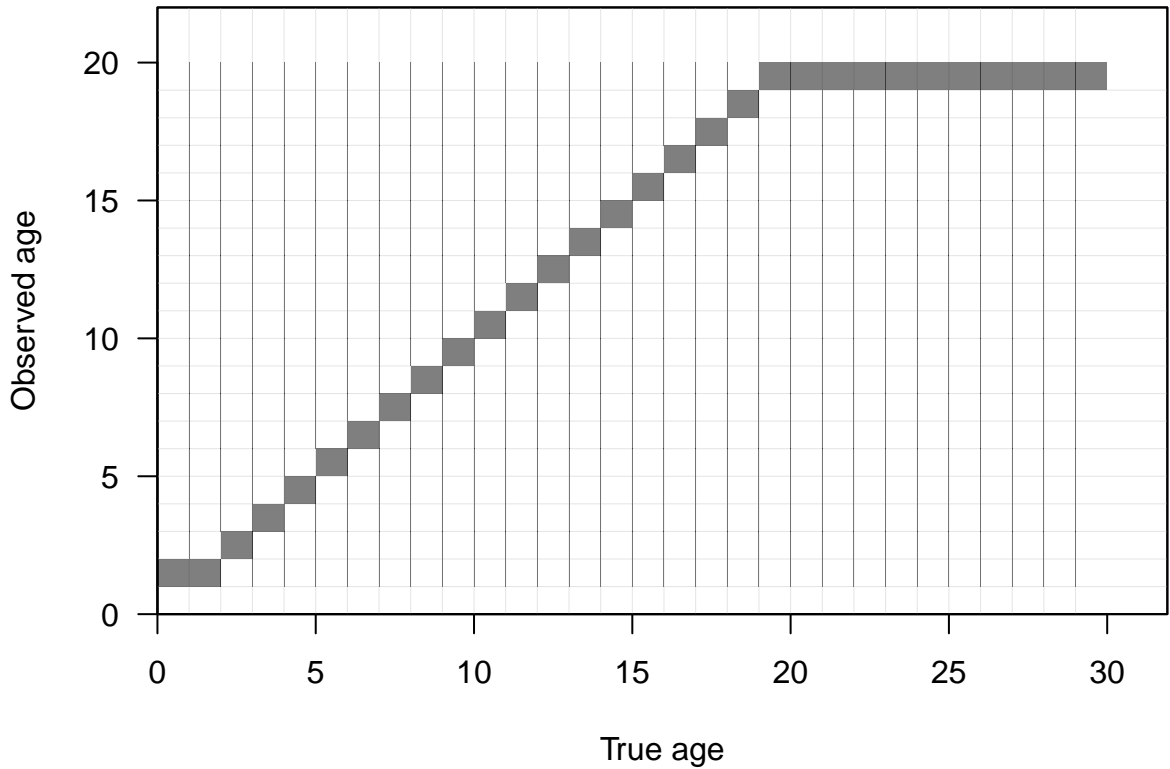


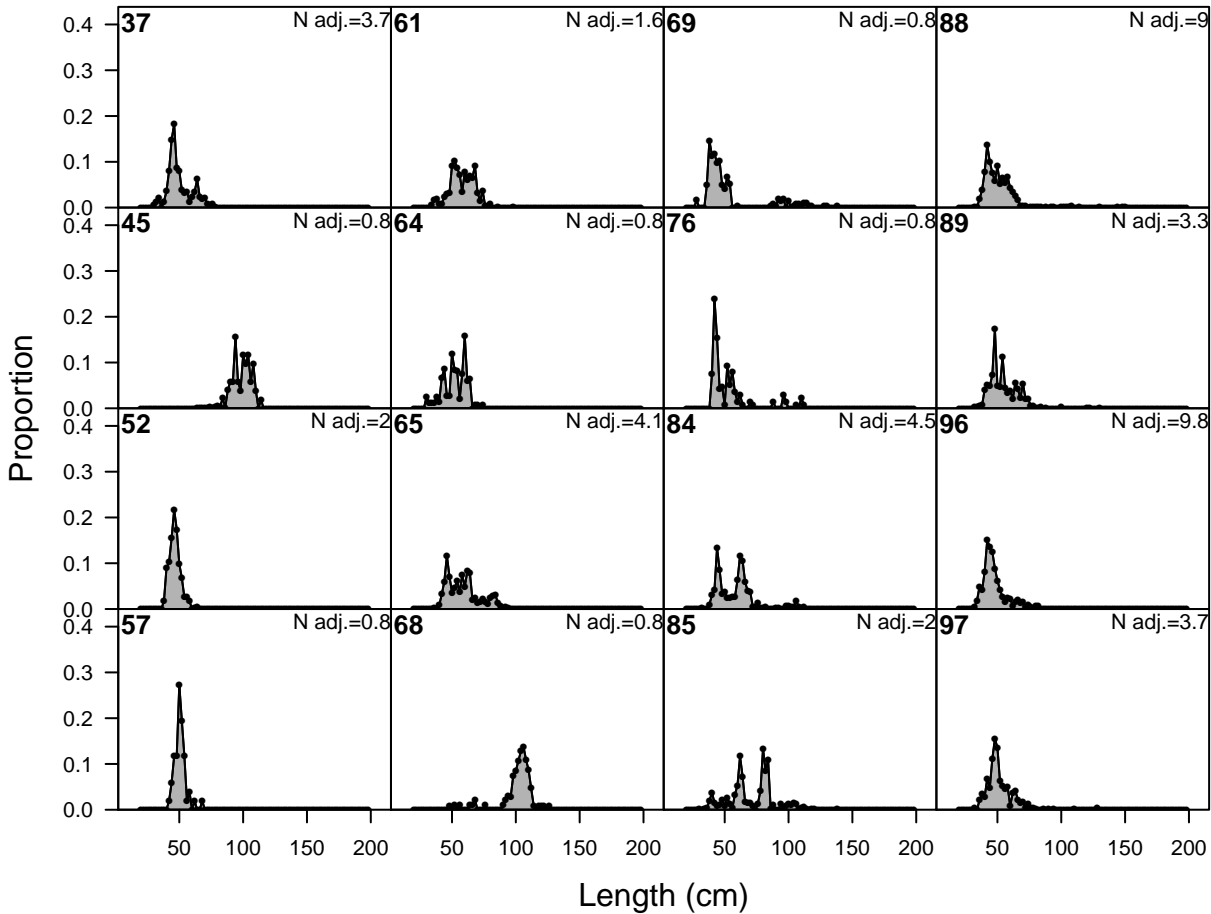


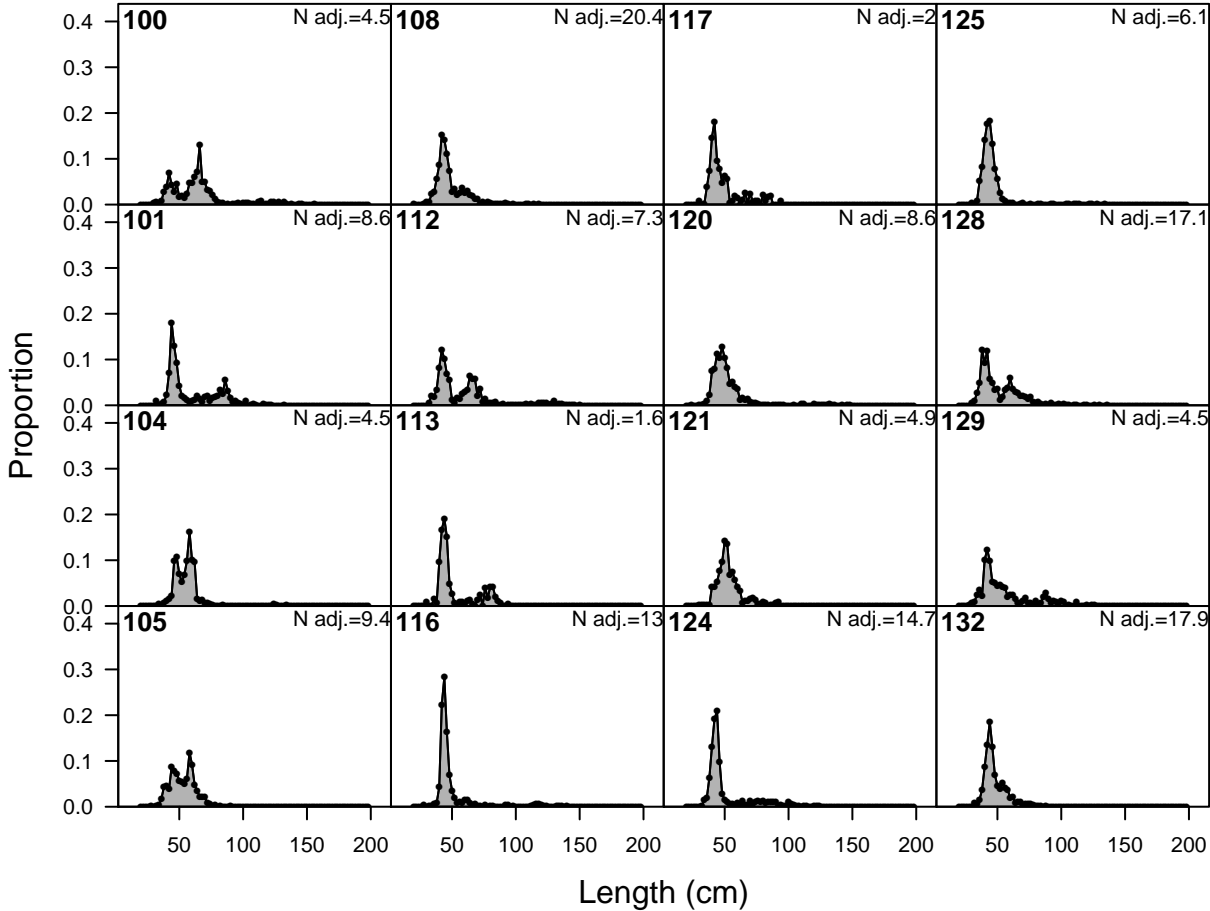




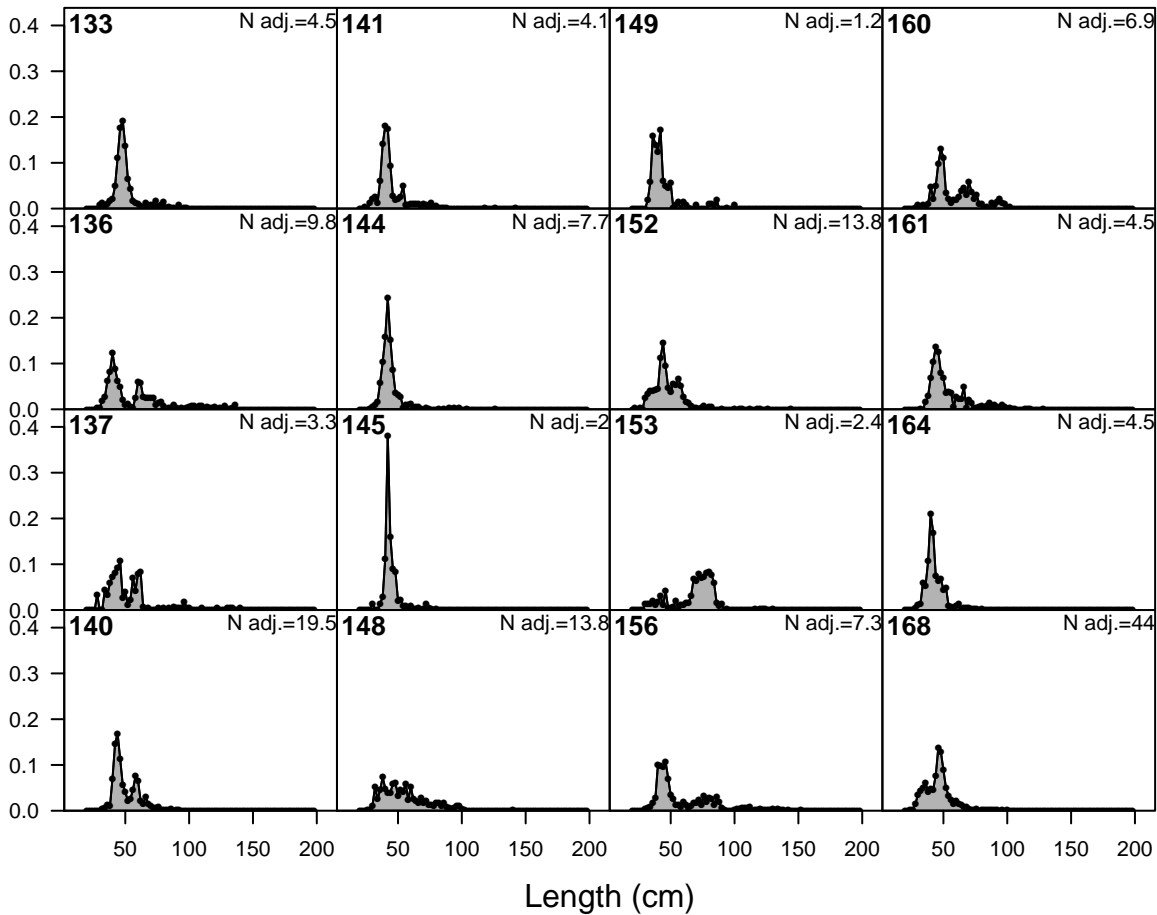


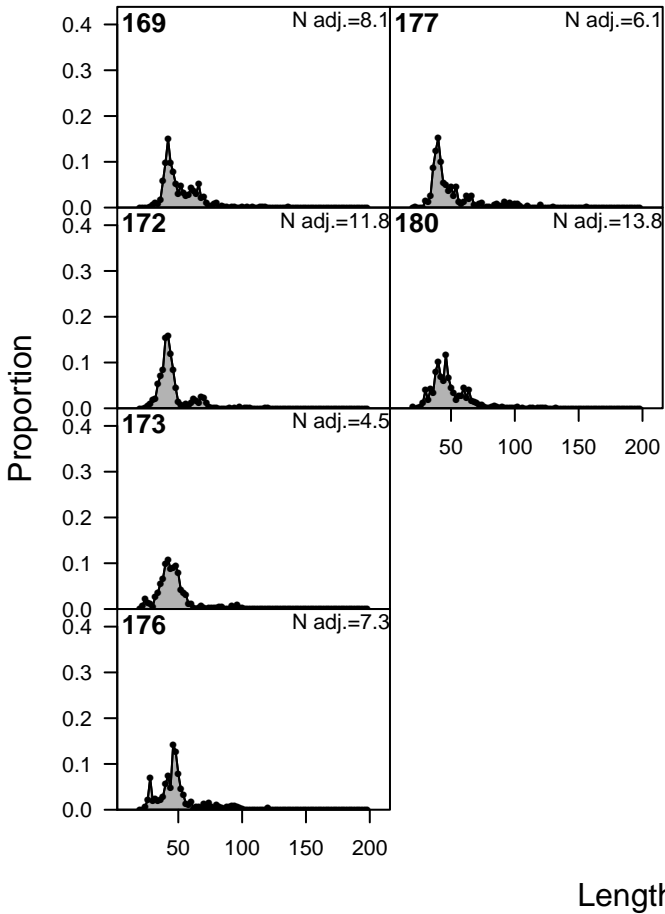




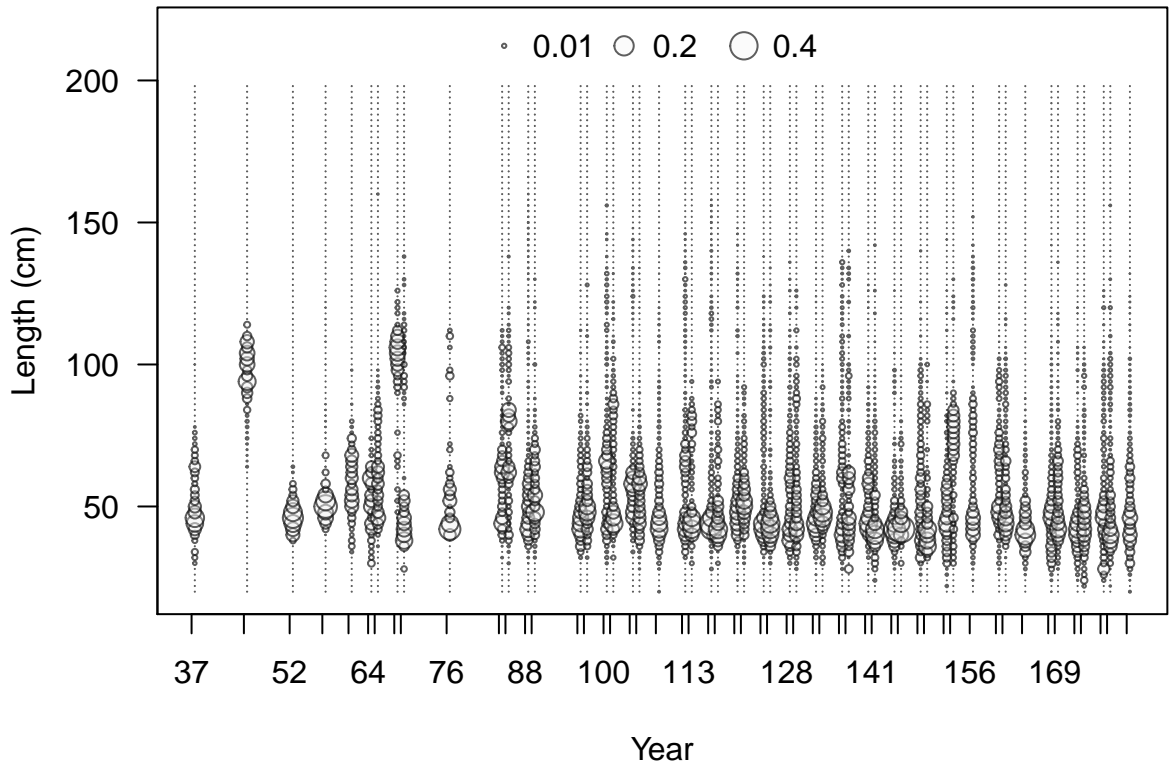


Proportion

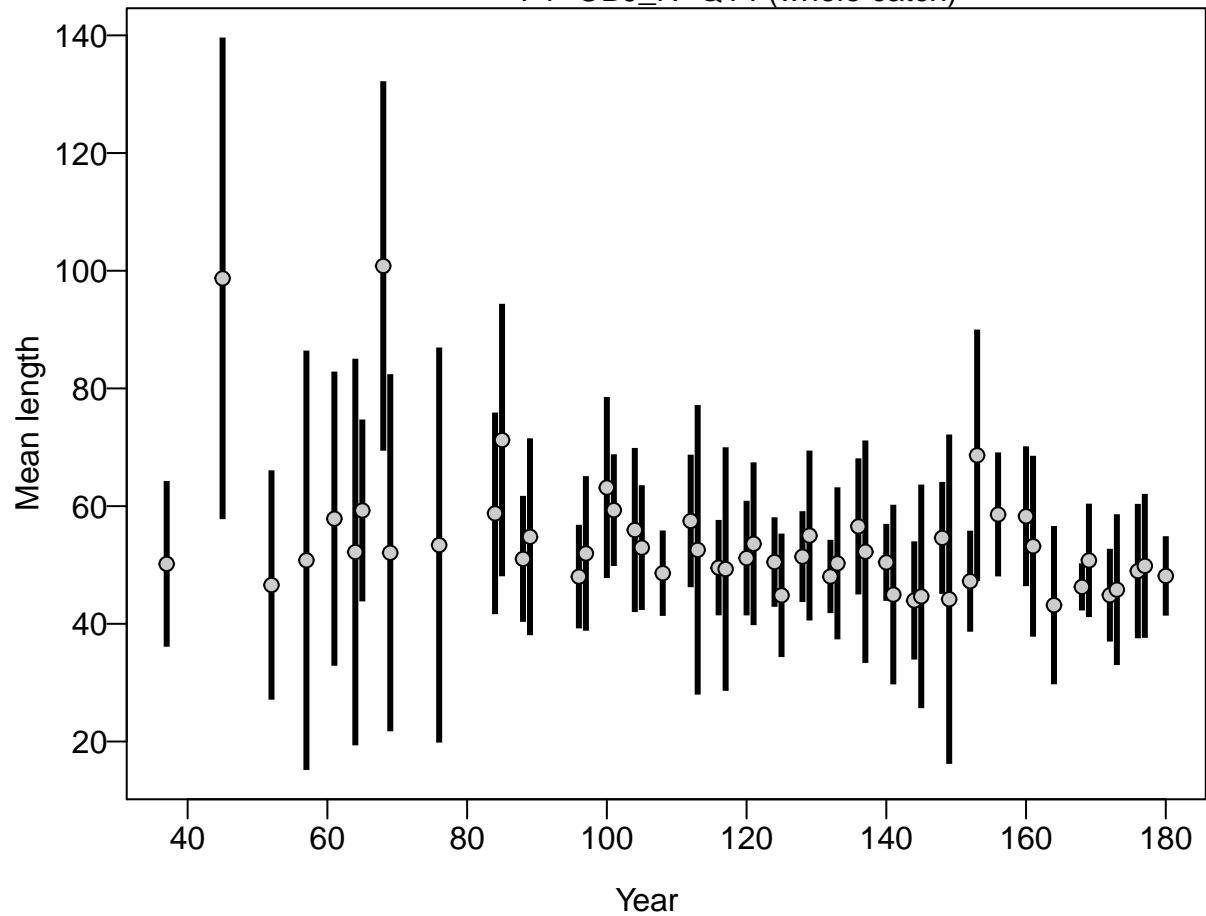


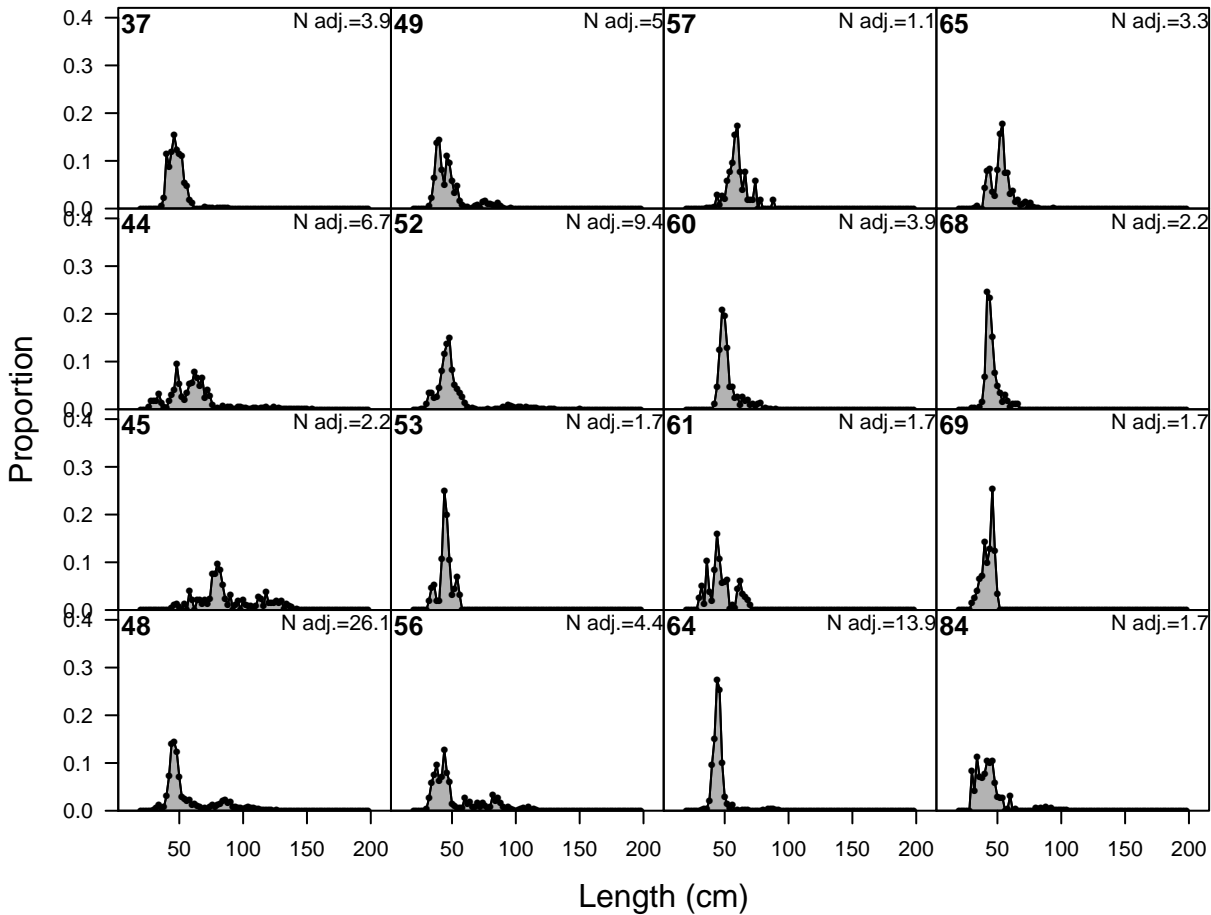


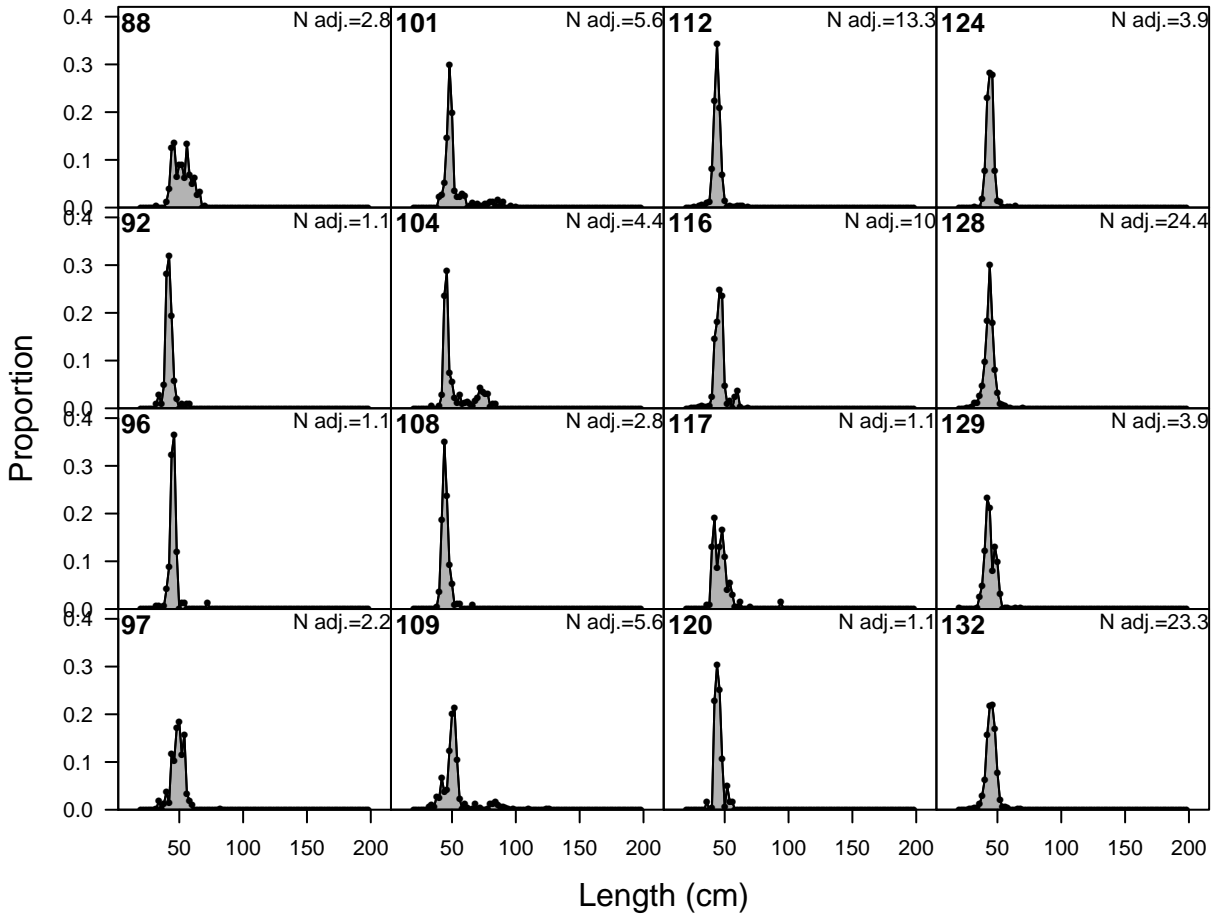


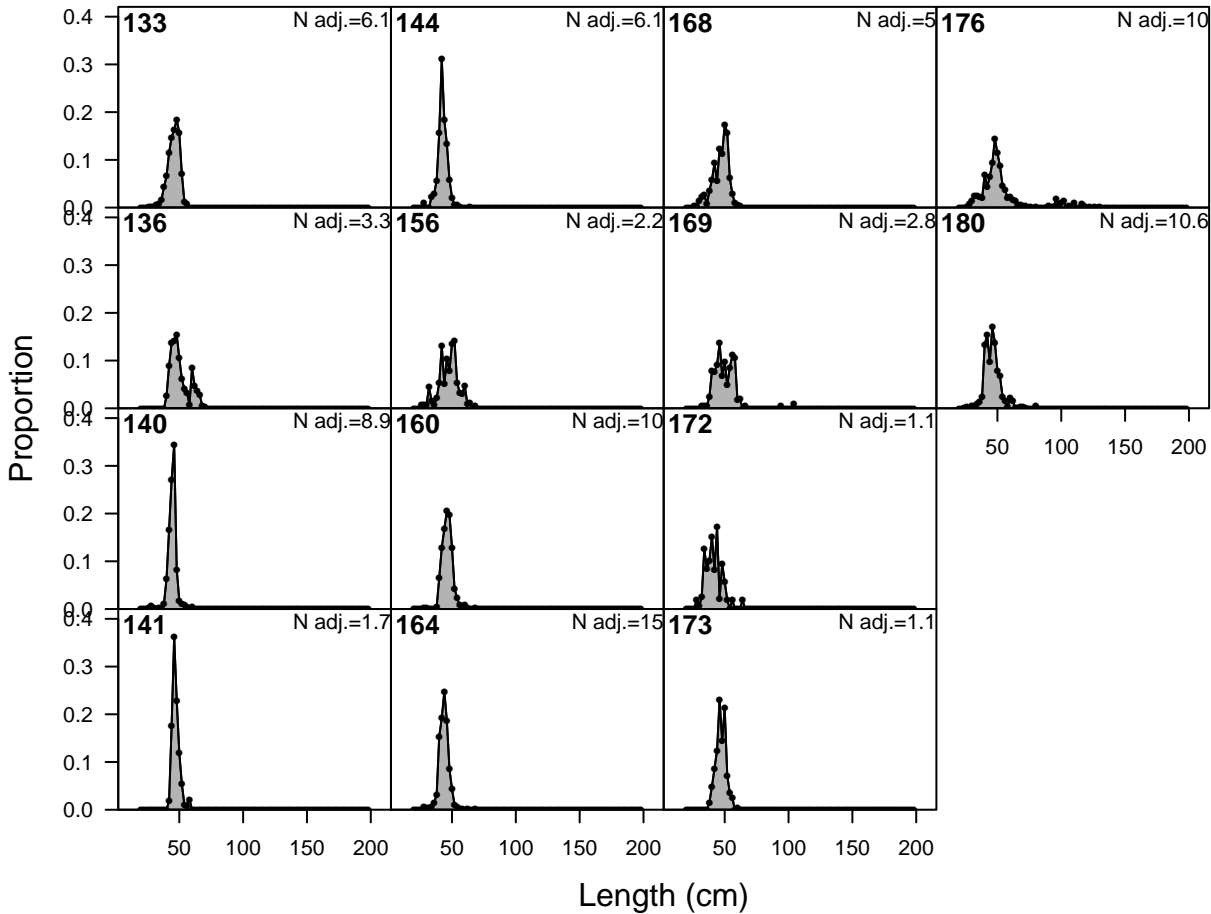


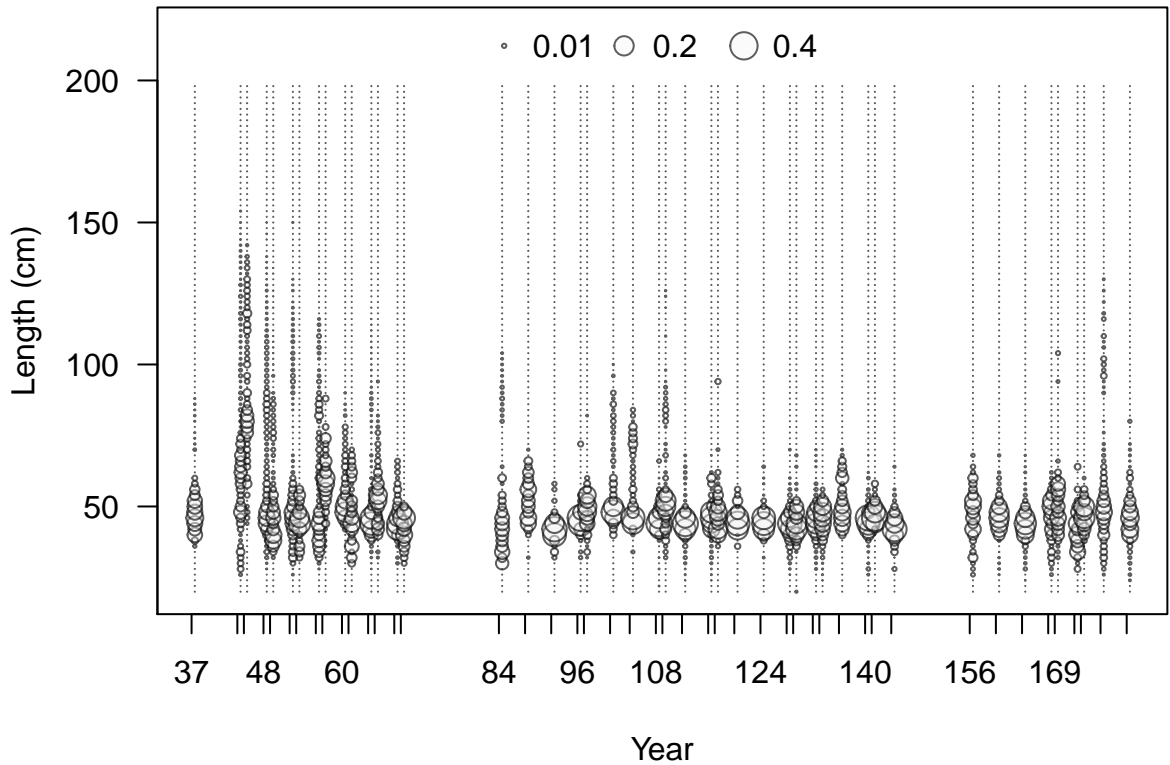
F1-OBJ\_N-Q14 (whole catch)



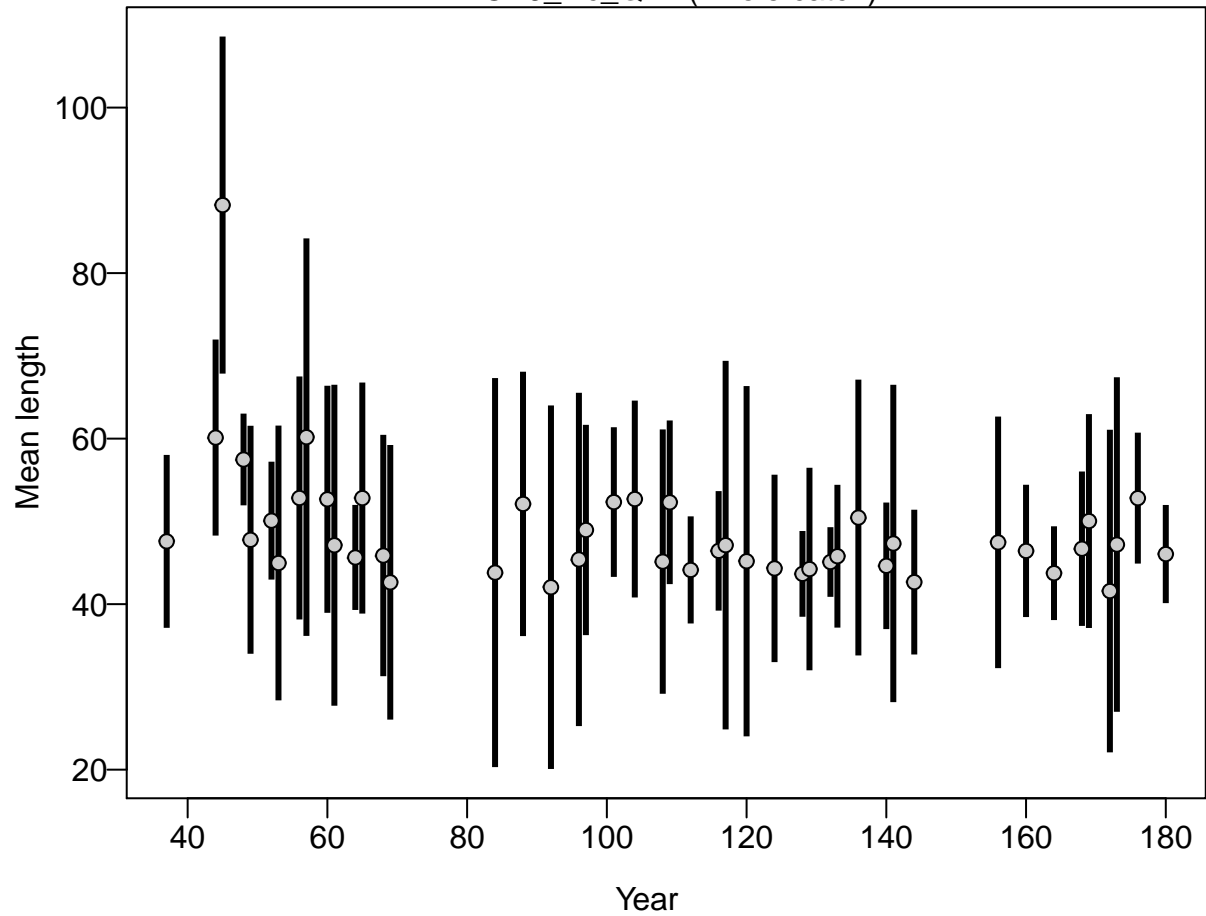


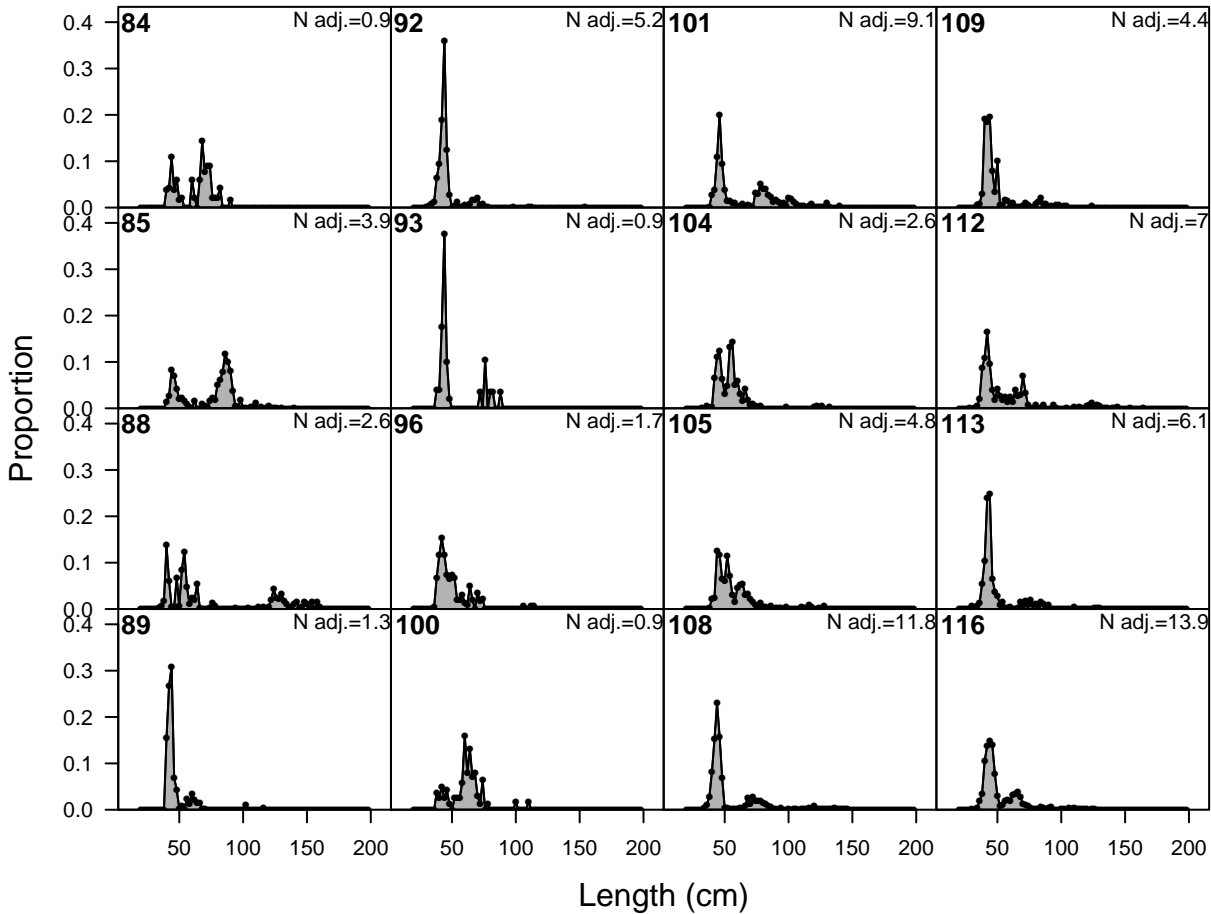




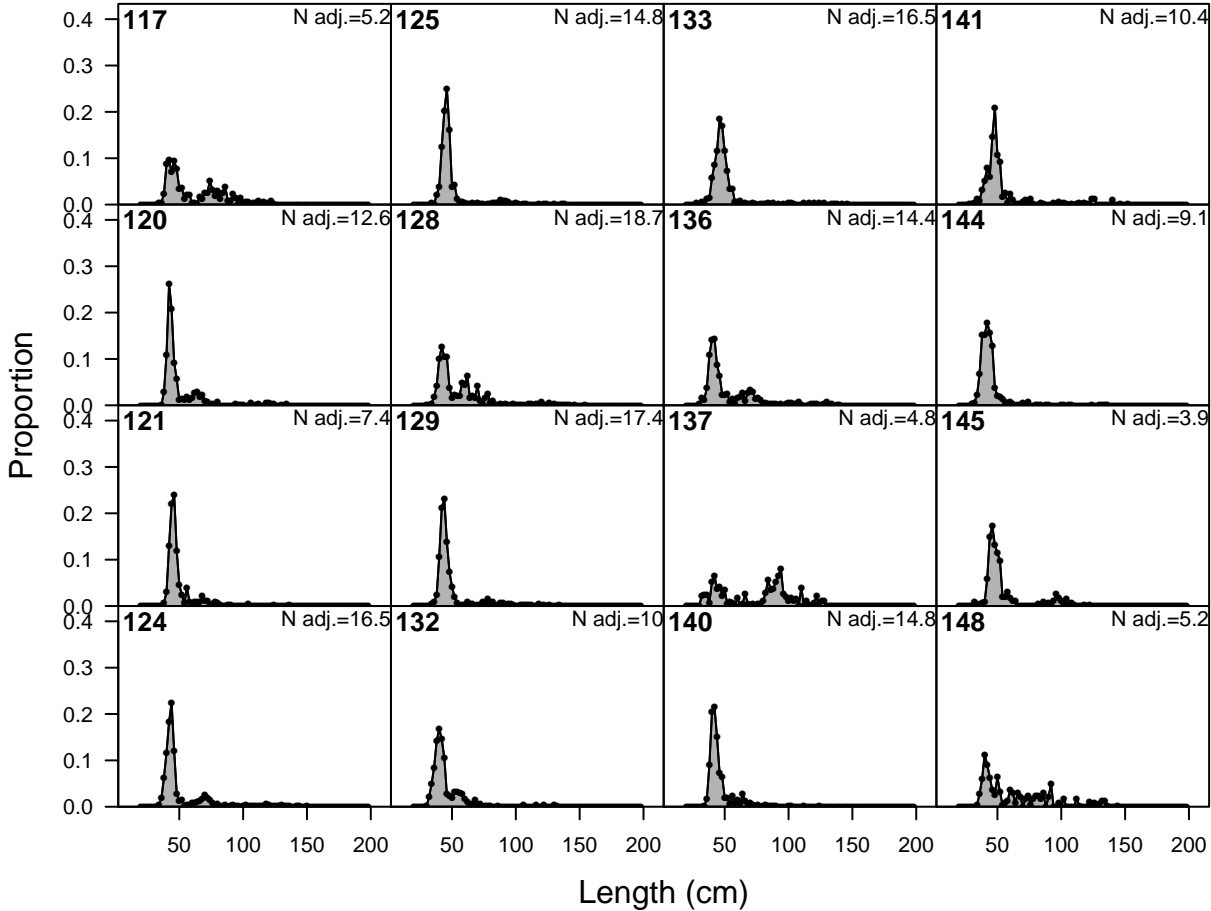


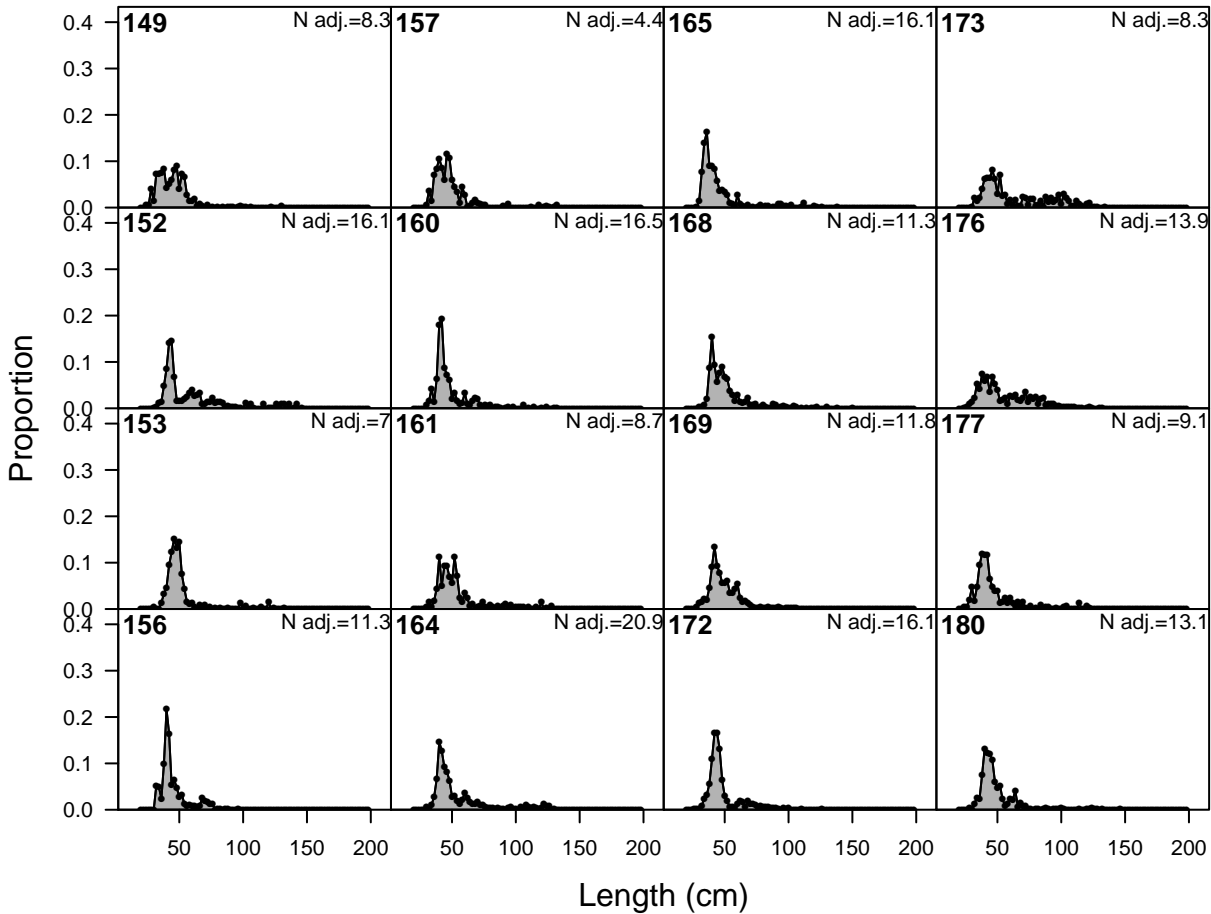
F2-OBJ\_Nc\_Q14 (whole catch)

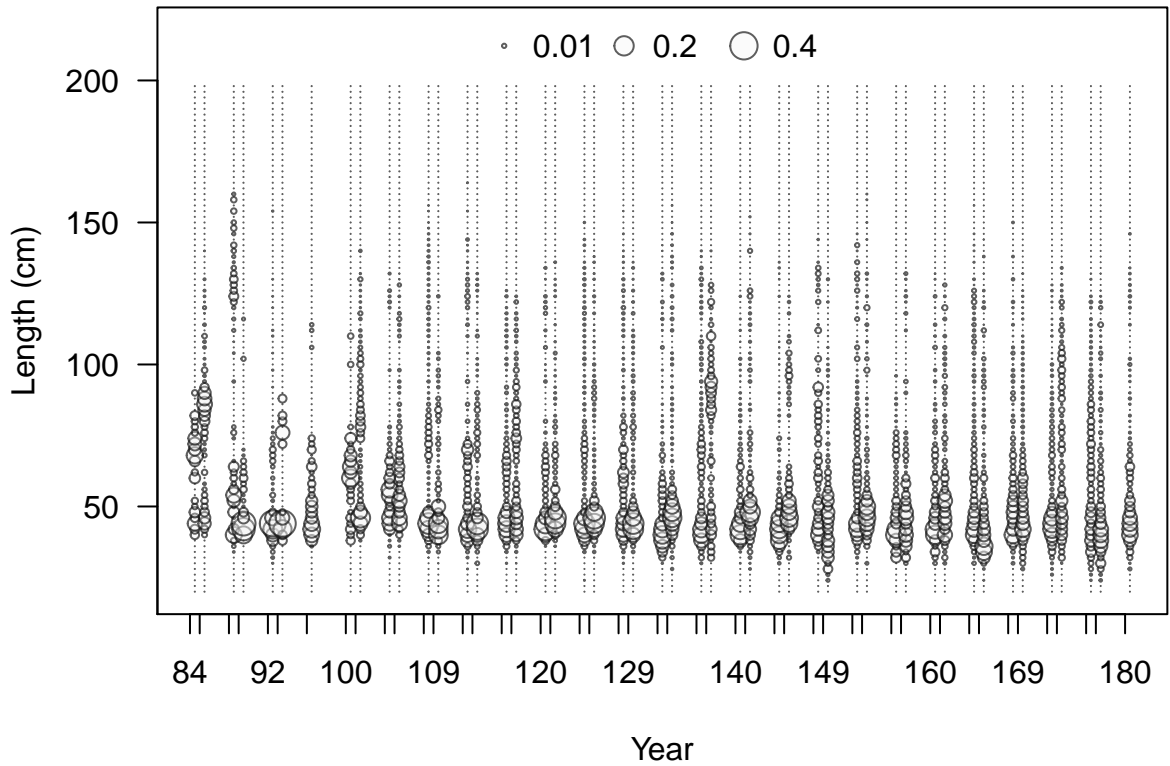




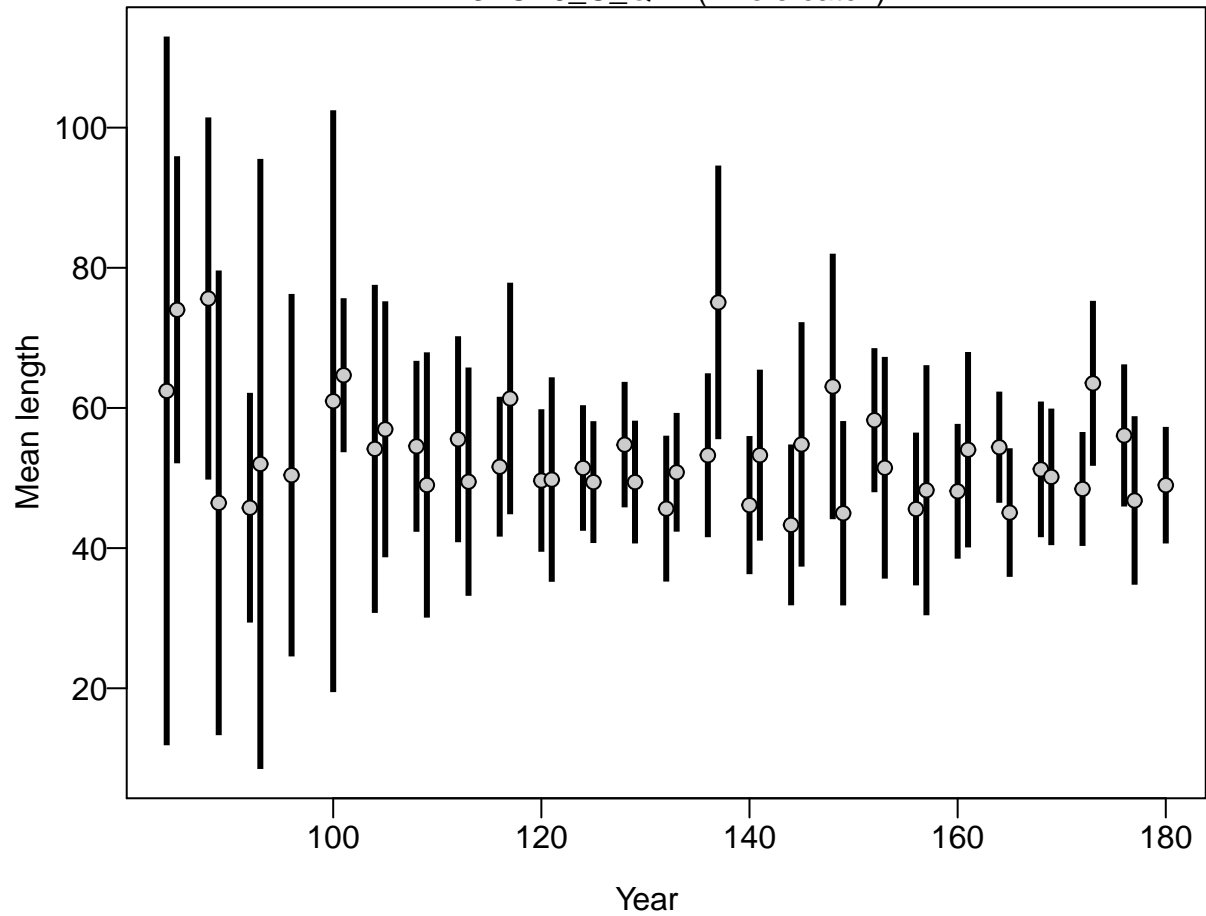


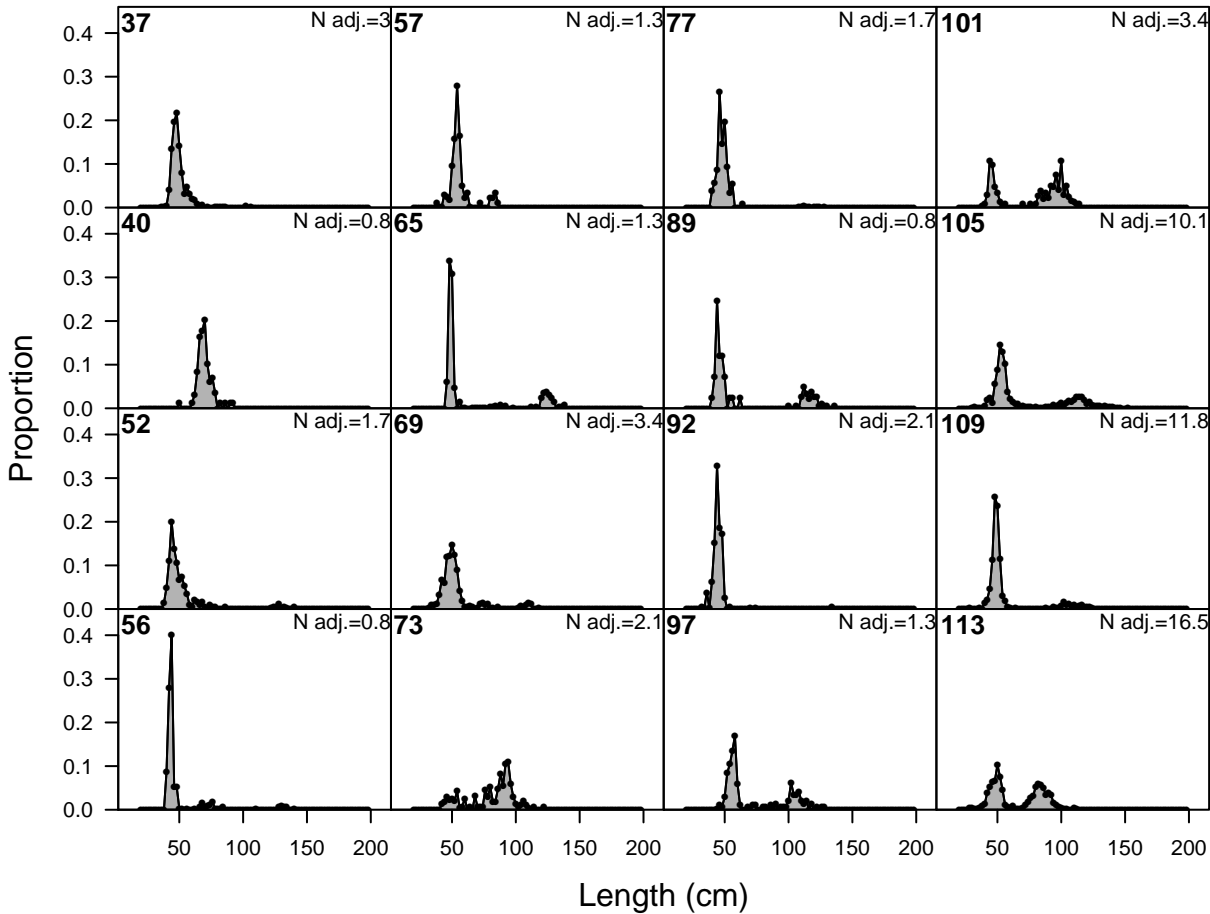


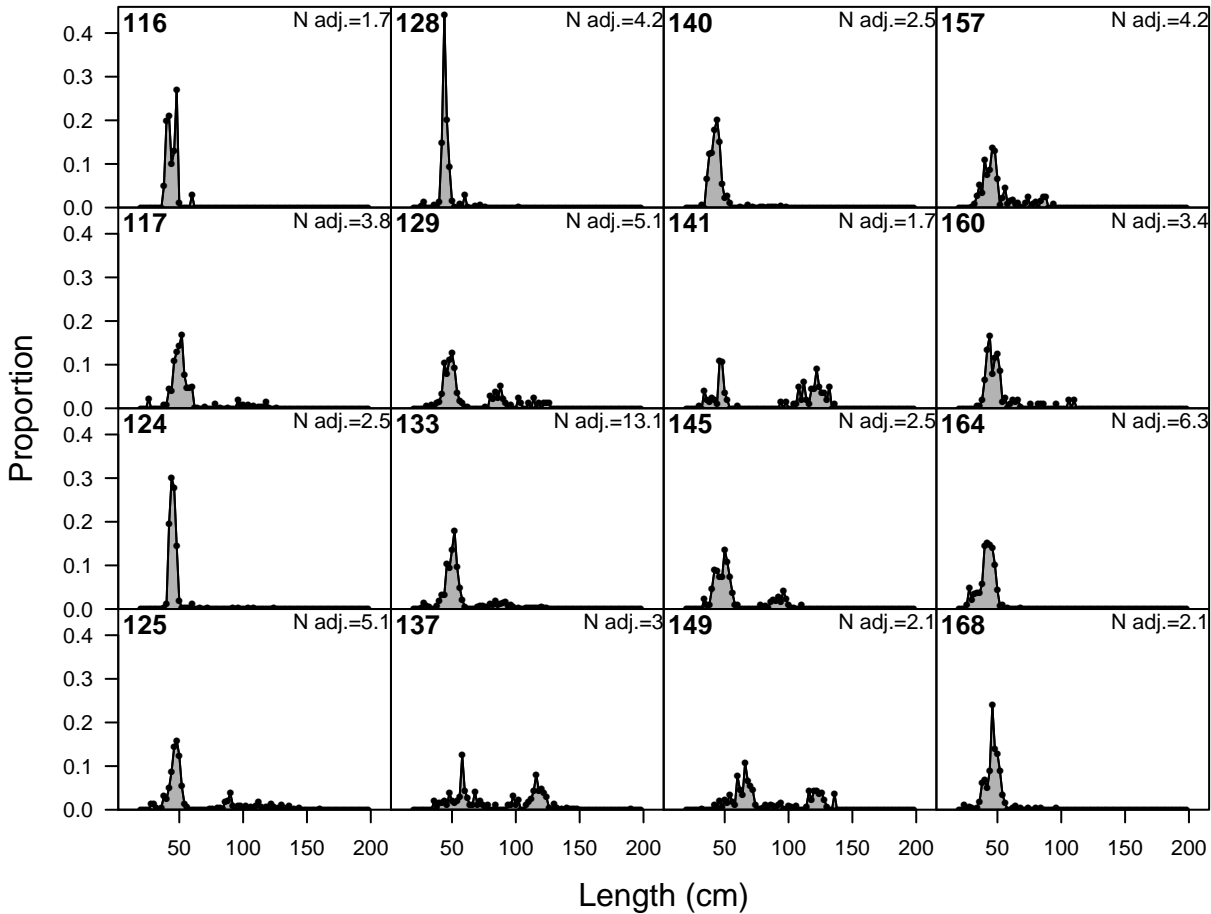


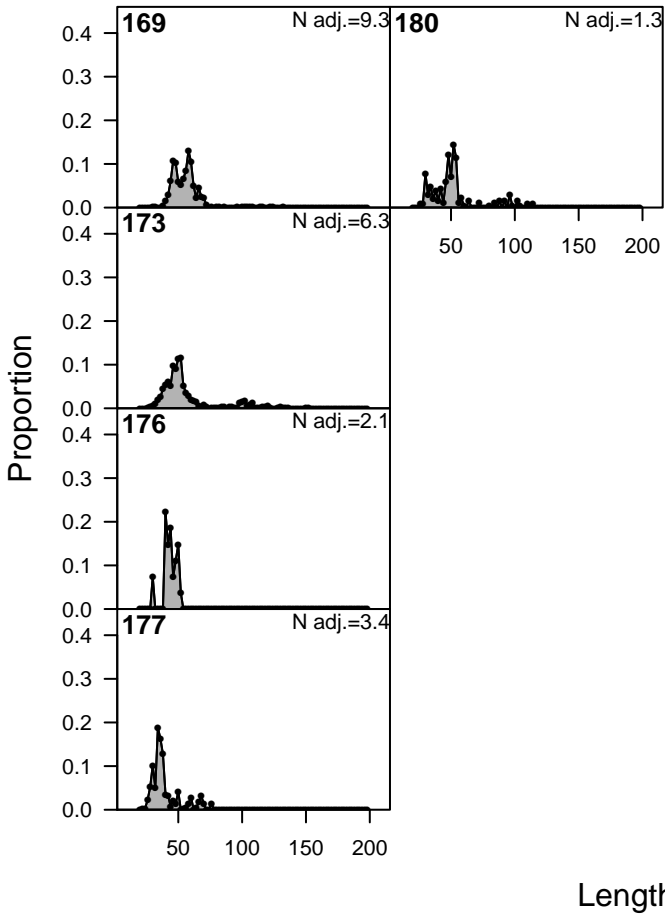


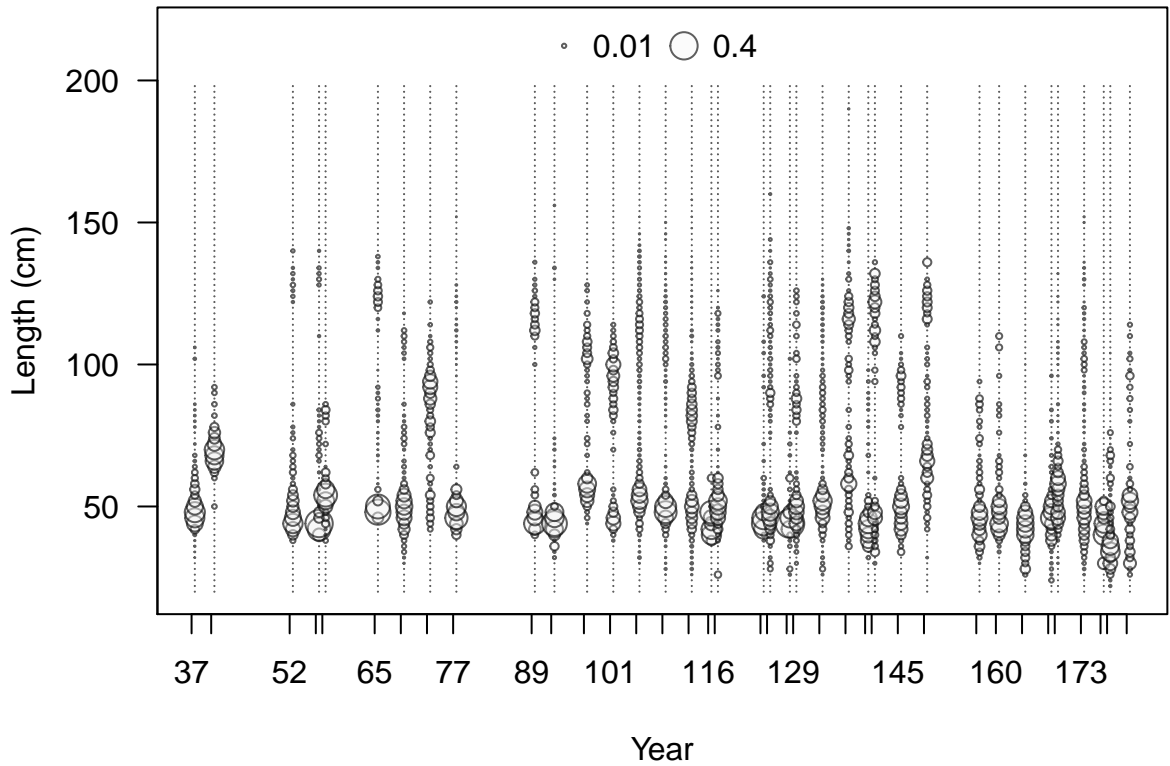
F3-OBJ\_C\_Q14 (whole catch)





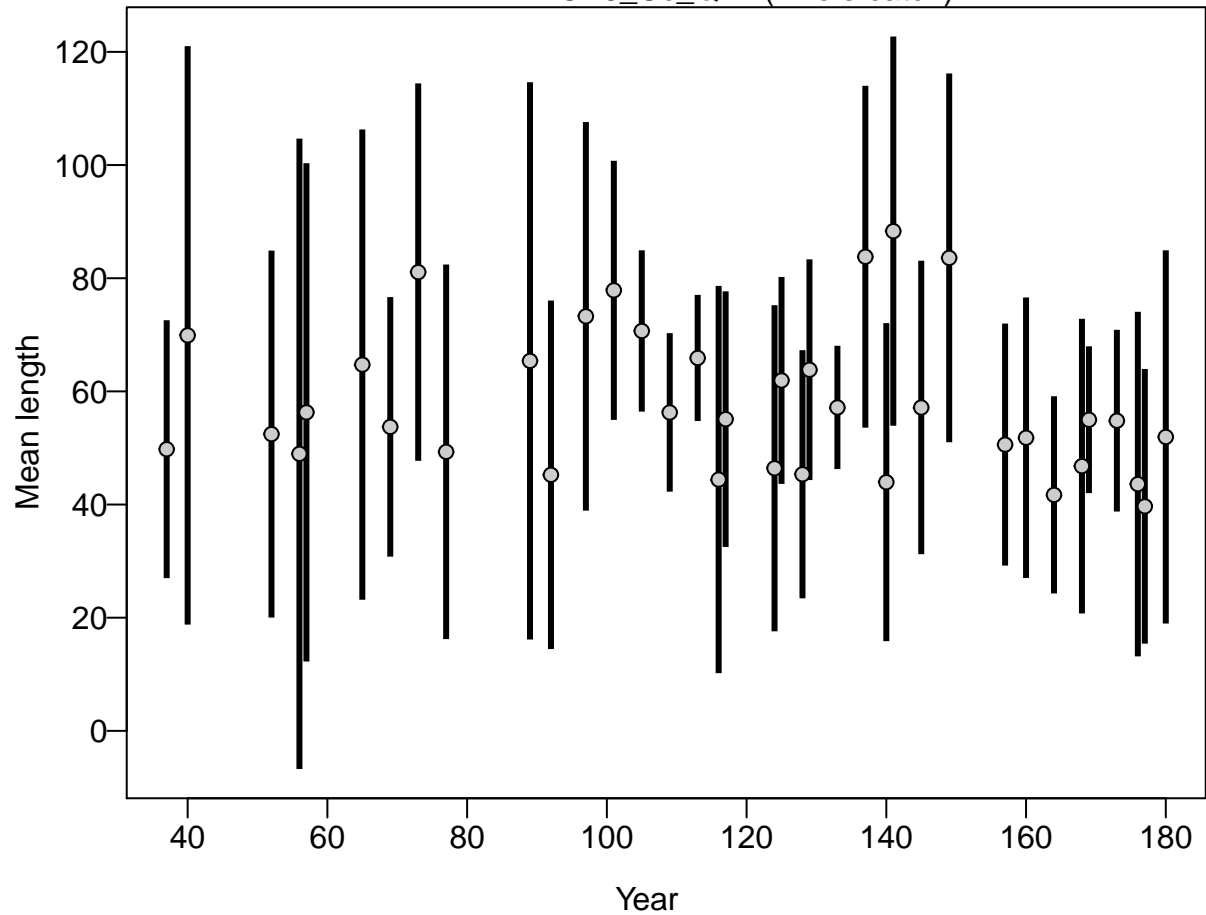


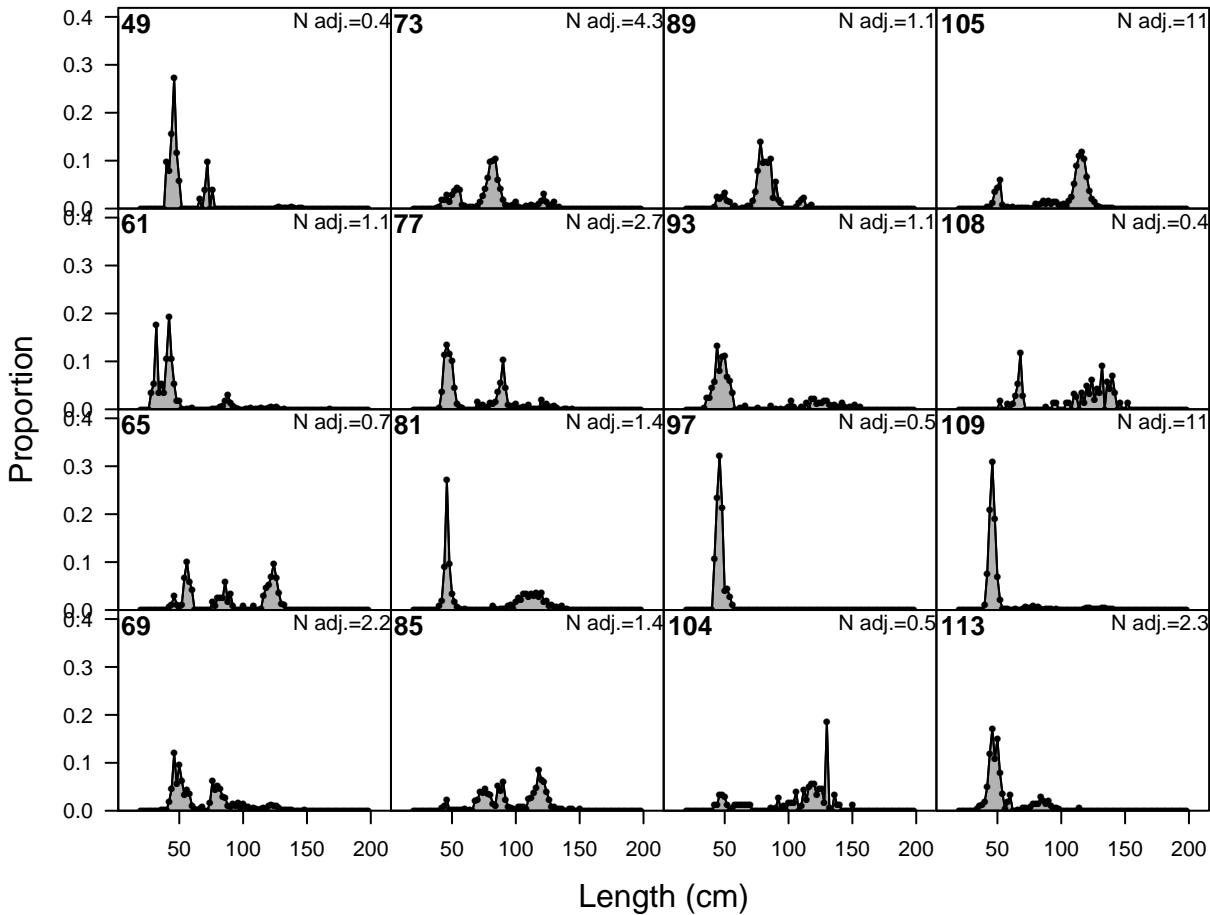


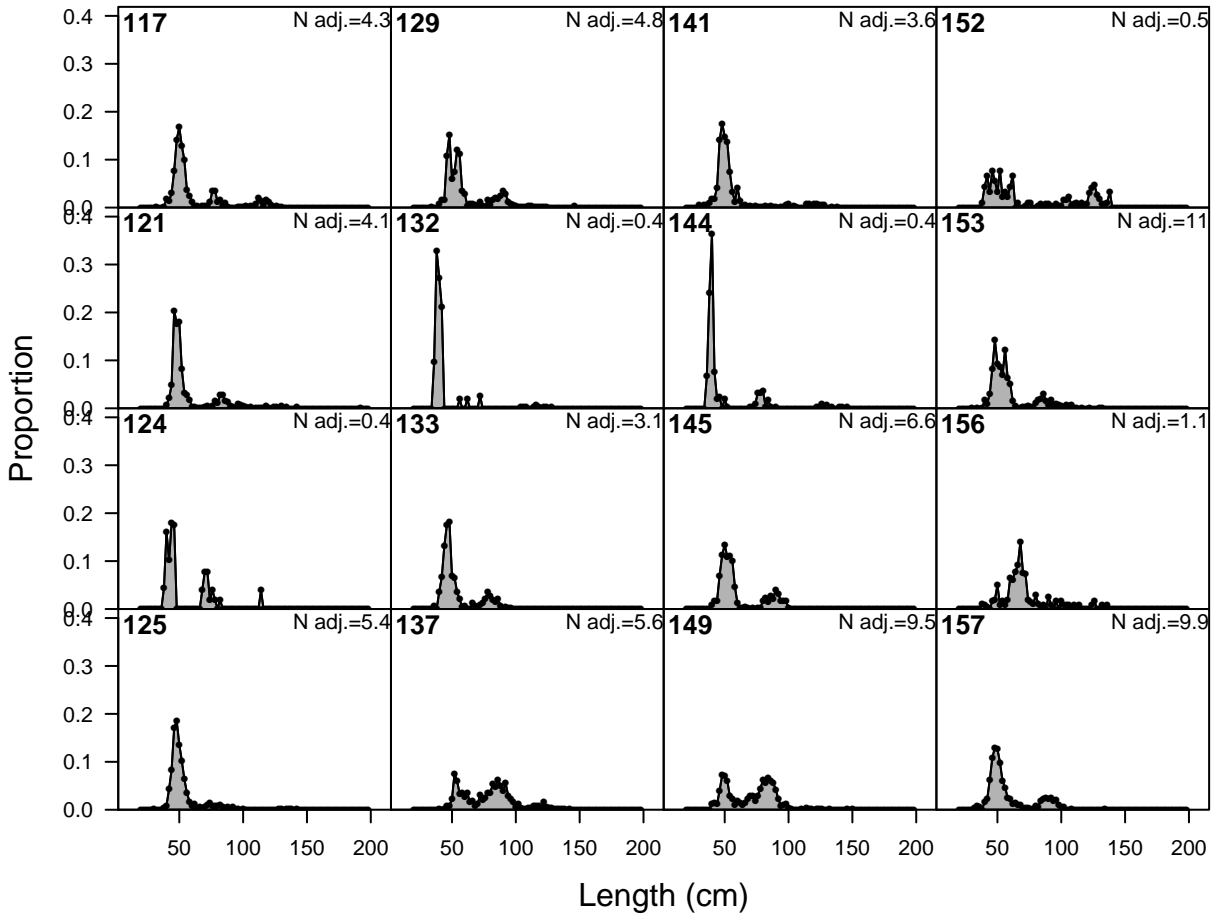


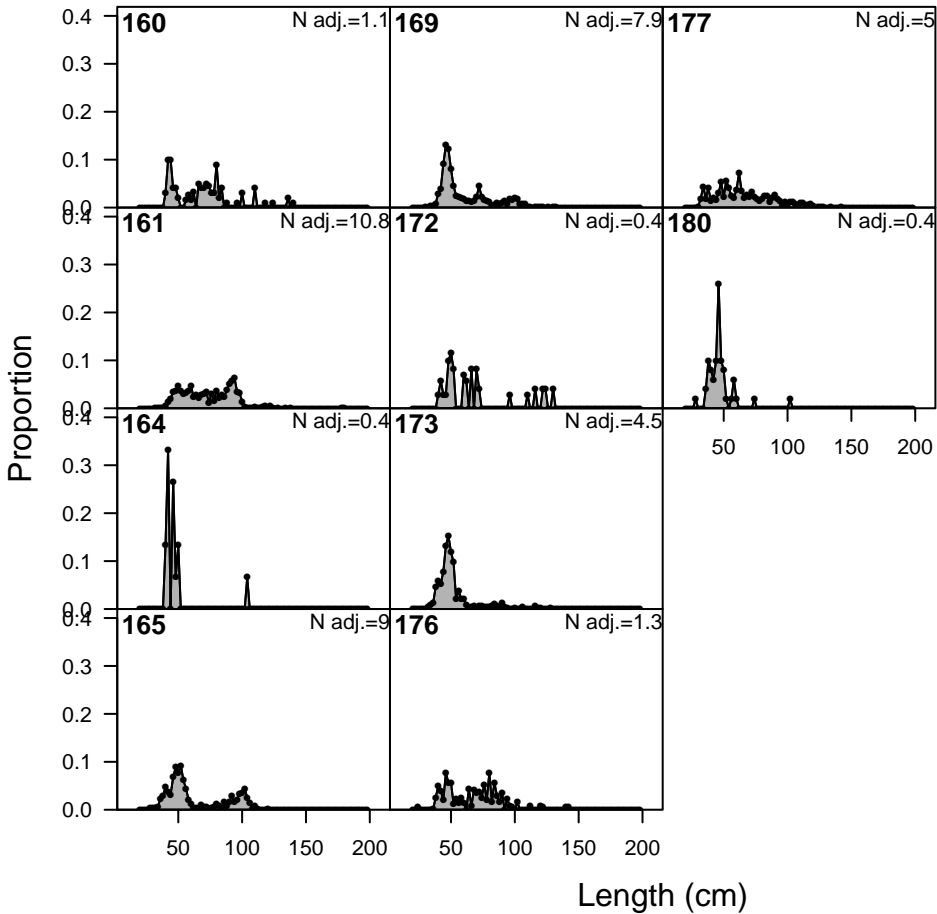


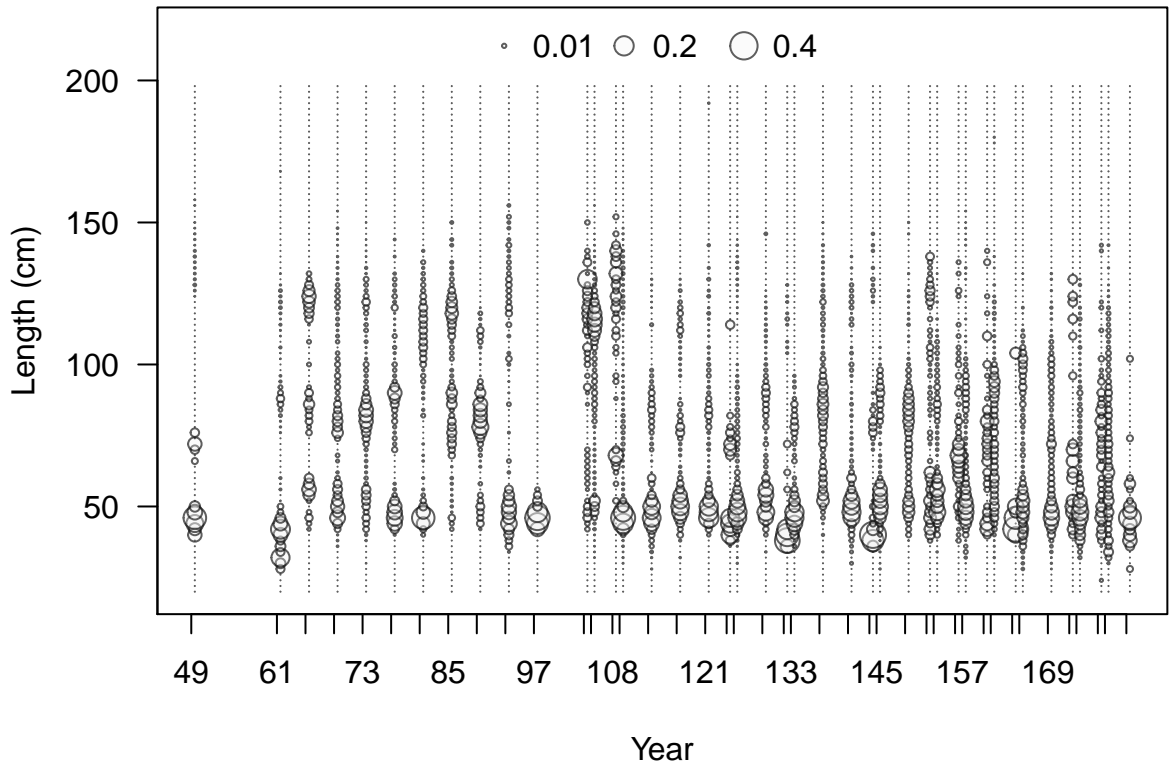
## F4-Obj\_Cc\_Q14 (whole catch)



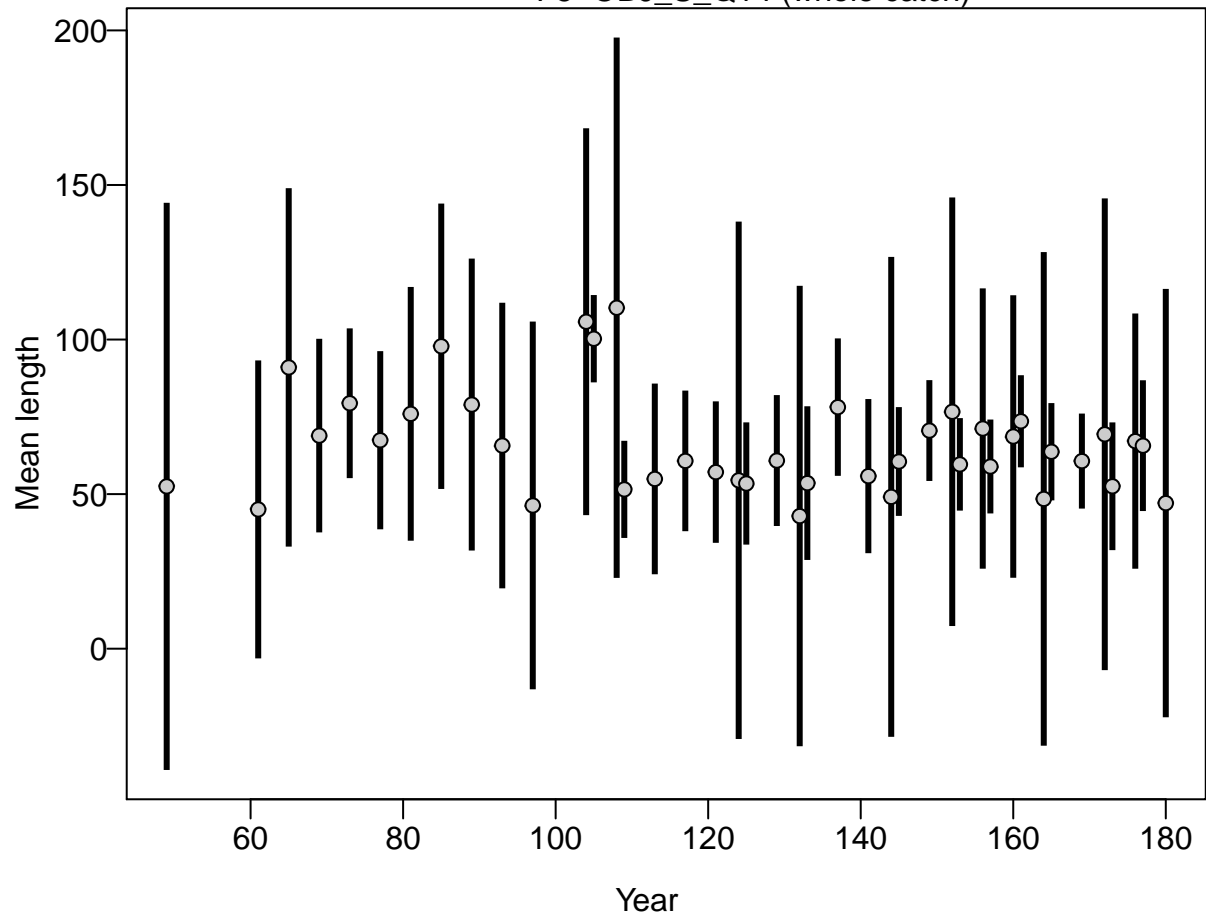


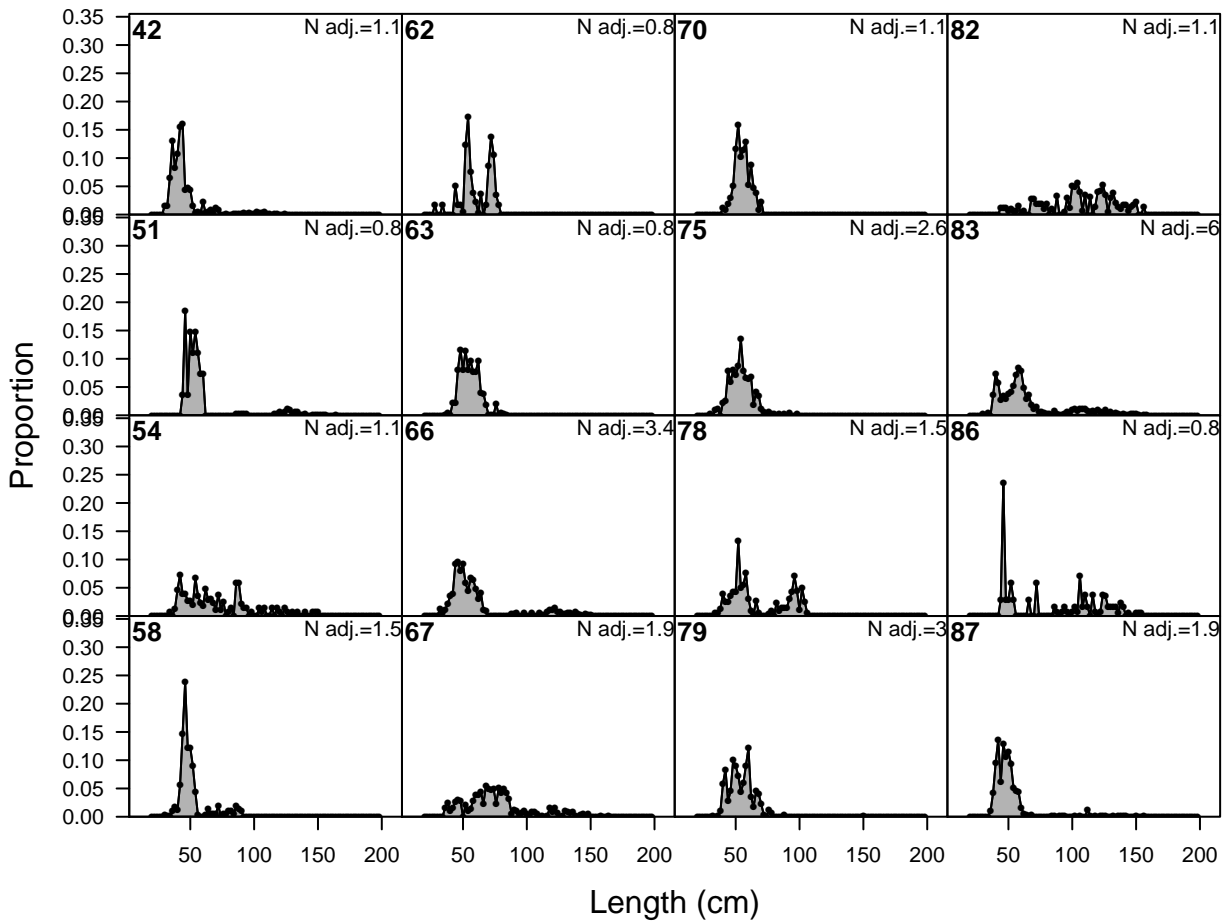




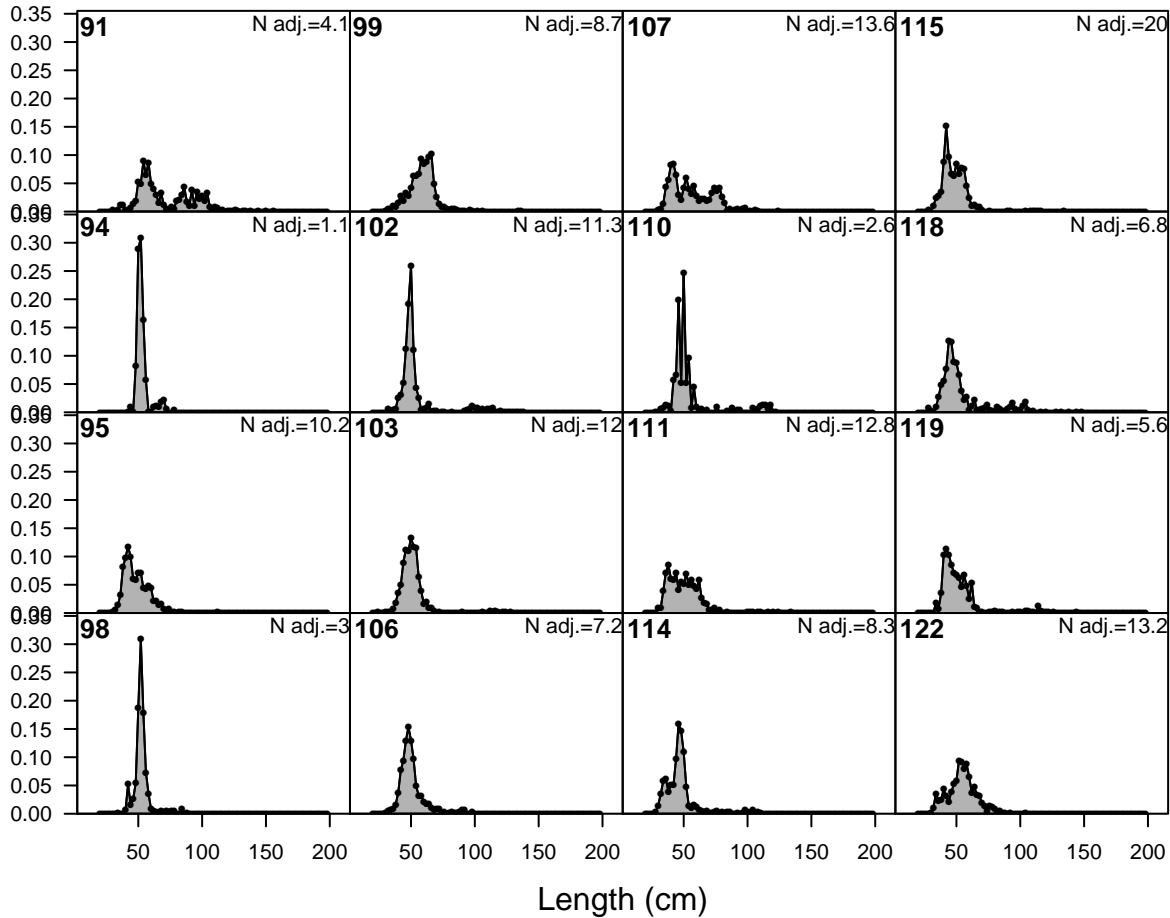


F5-OBJ\_S\_Q14 (whole catch)



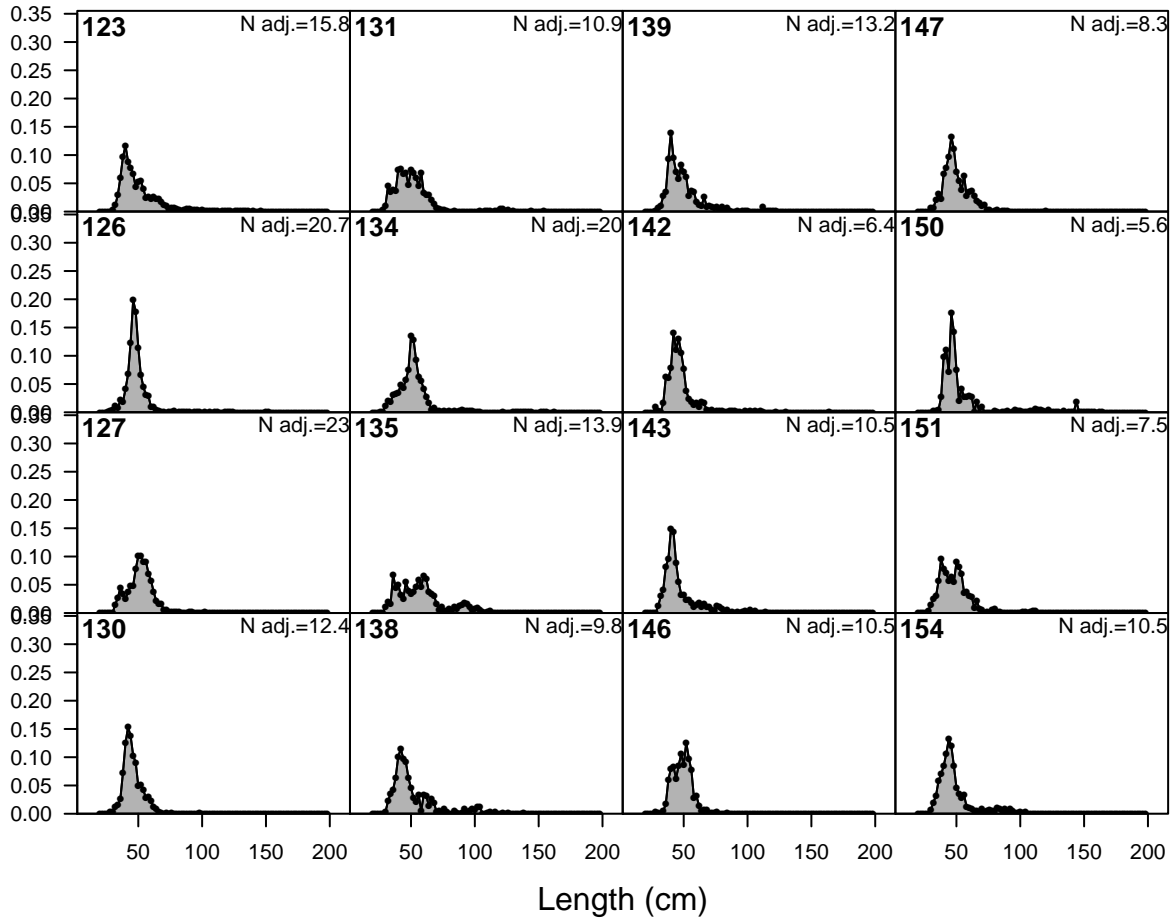


Proportion

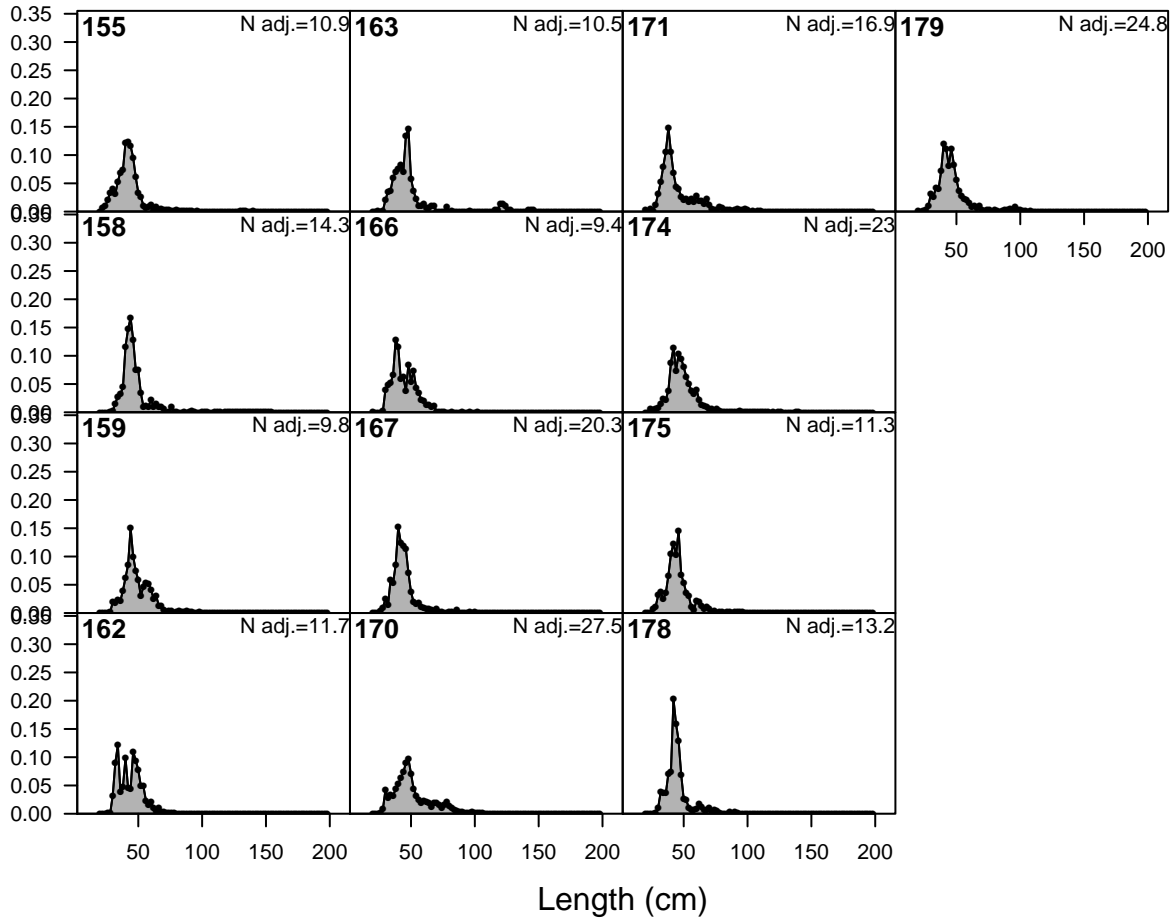


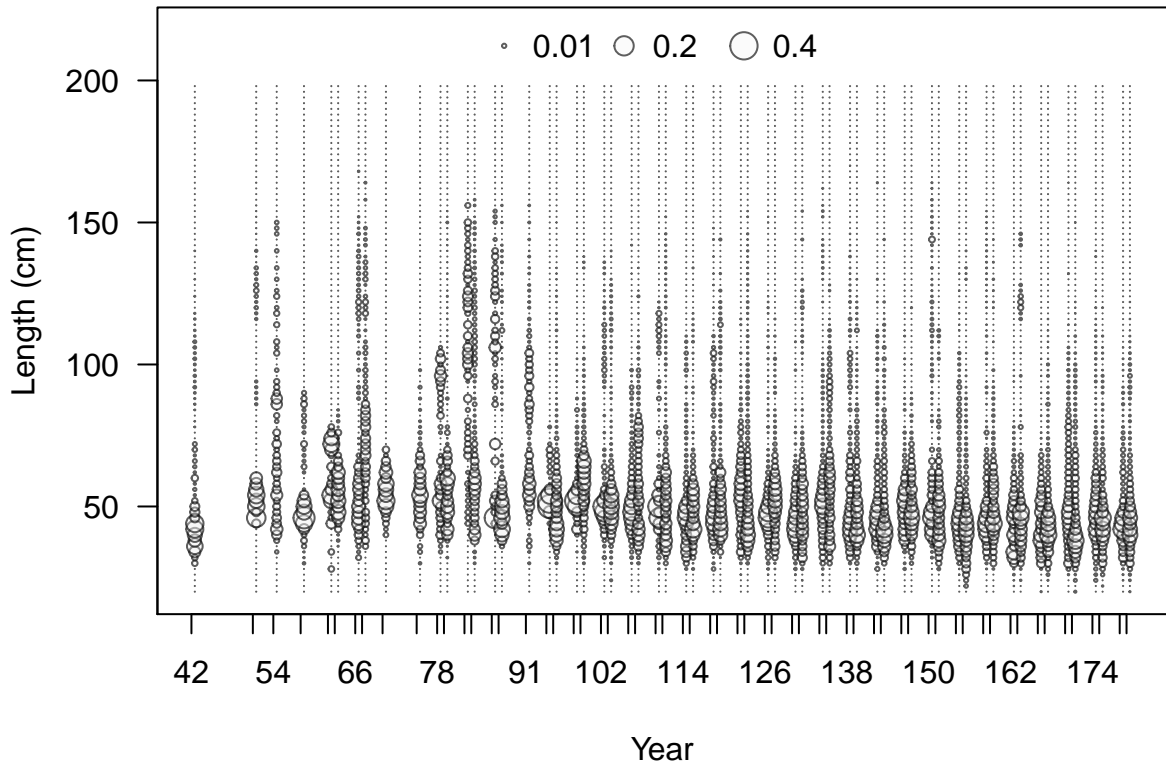


Proportion

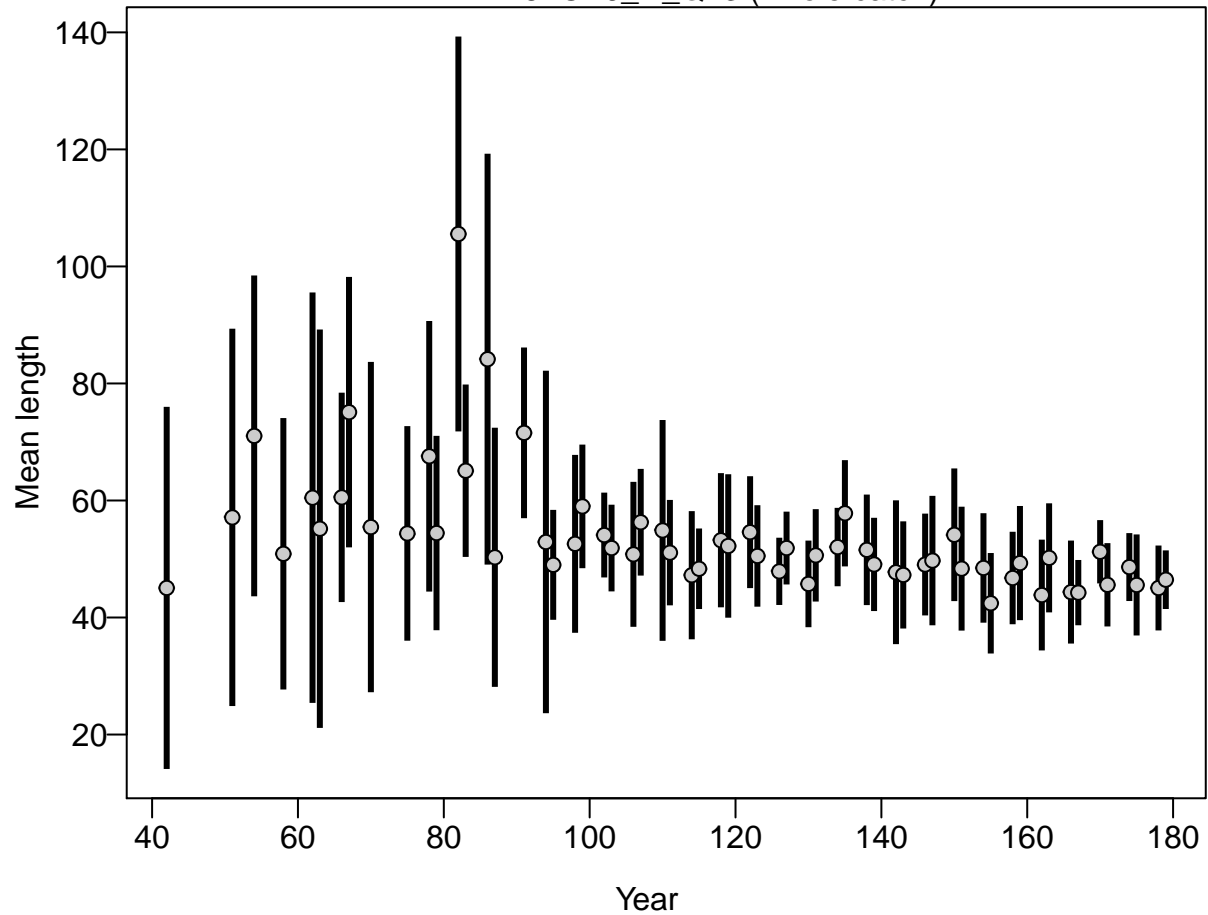


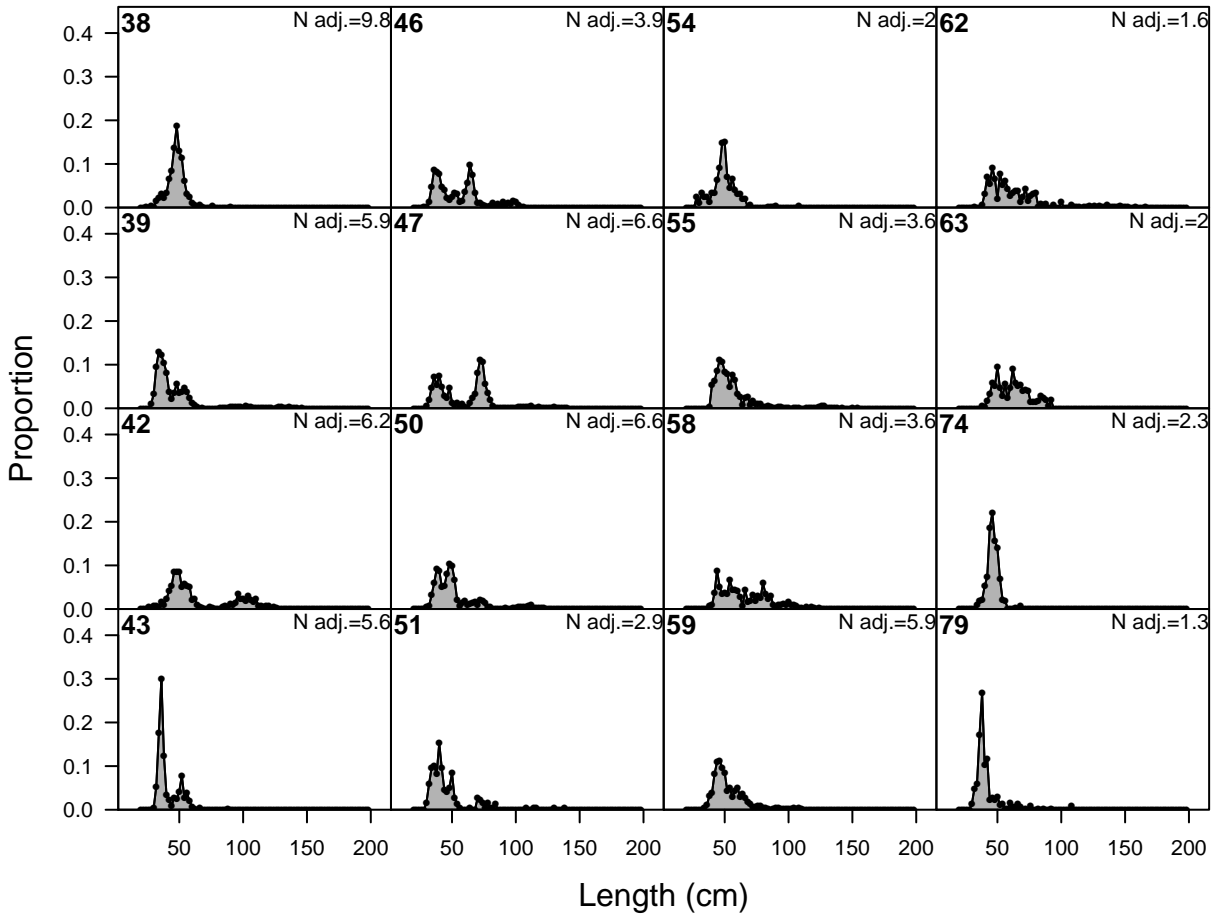
Proportion

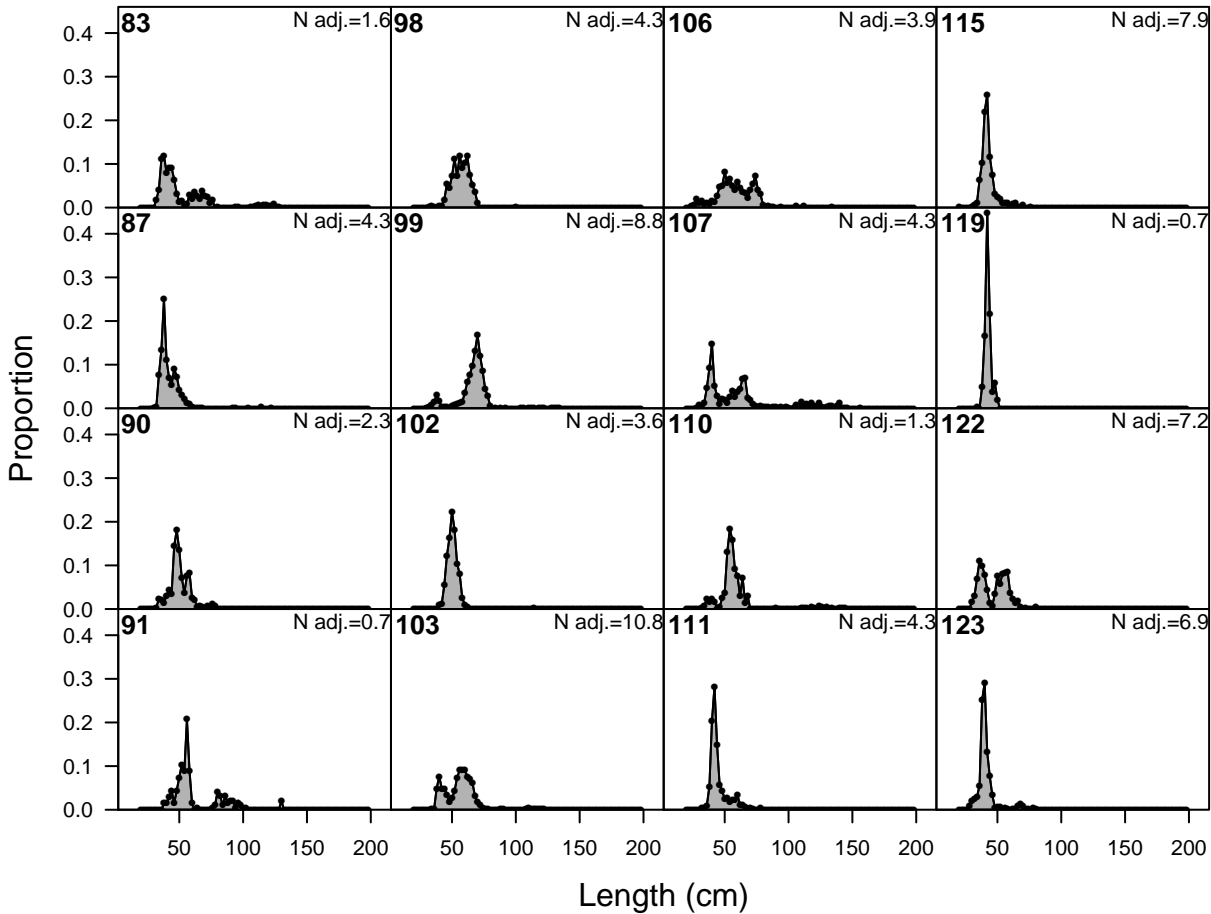


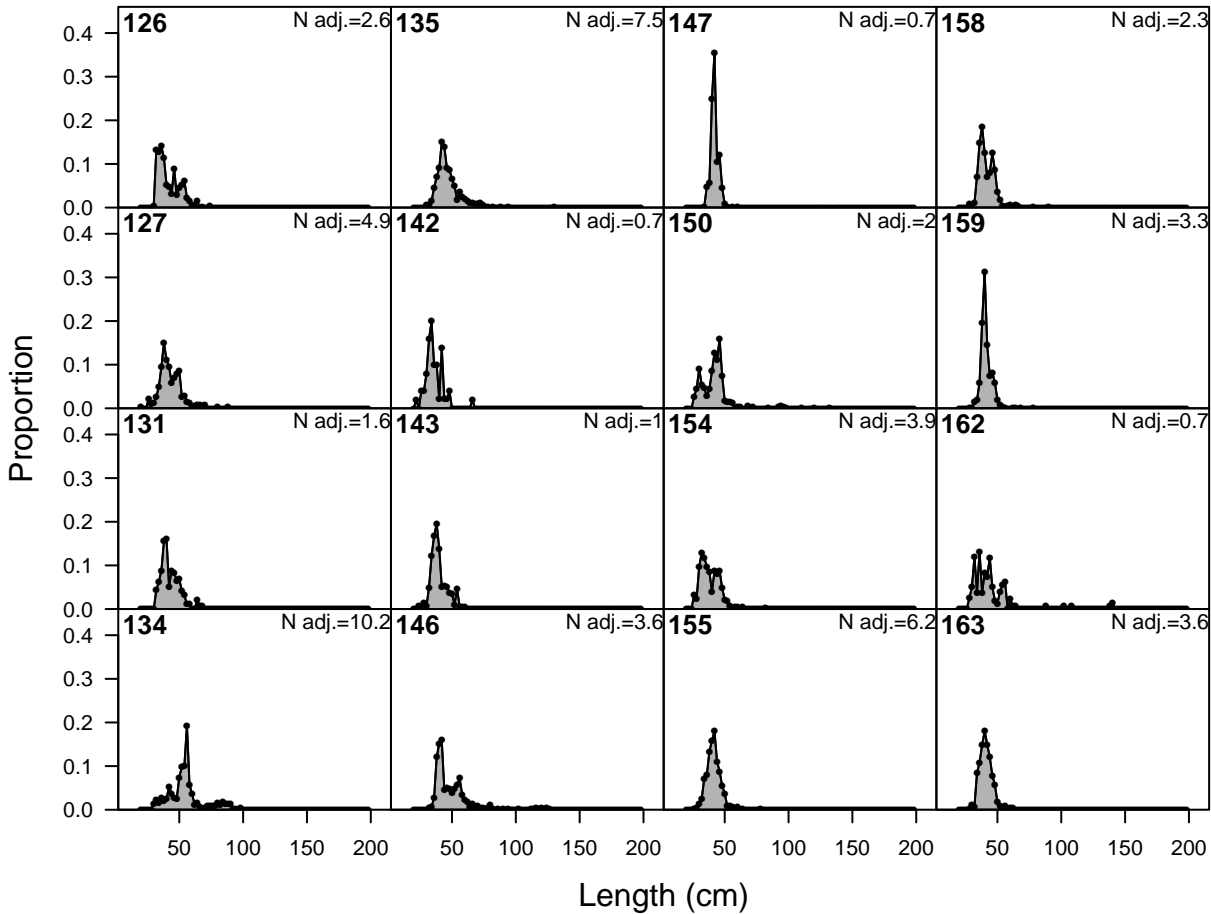


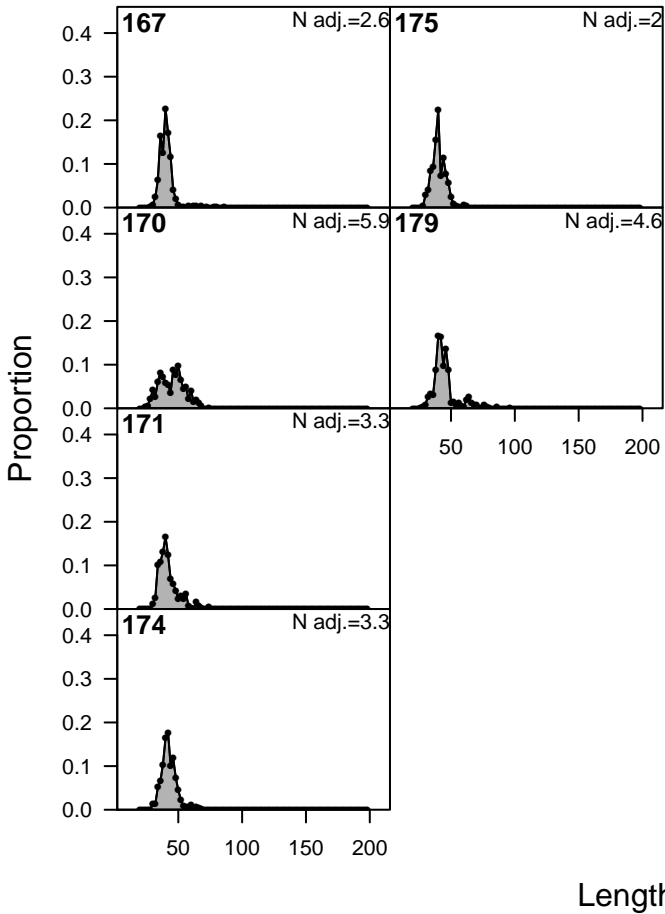
F6-OBJ\_N\_Q23 (whole catch)



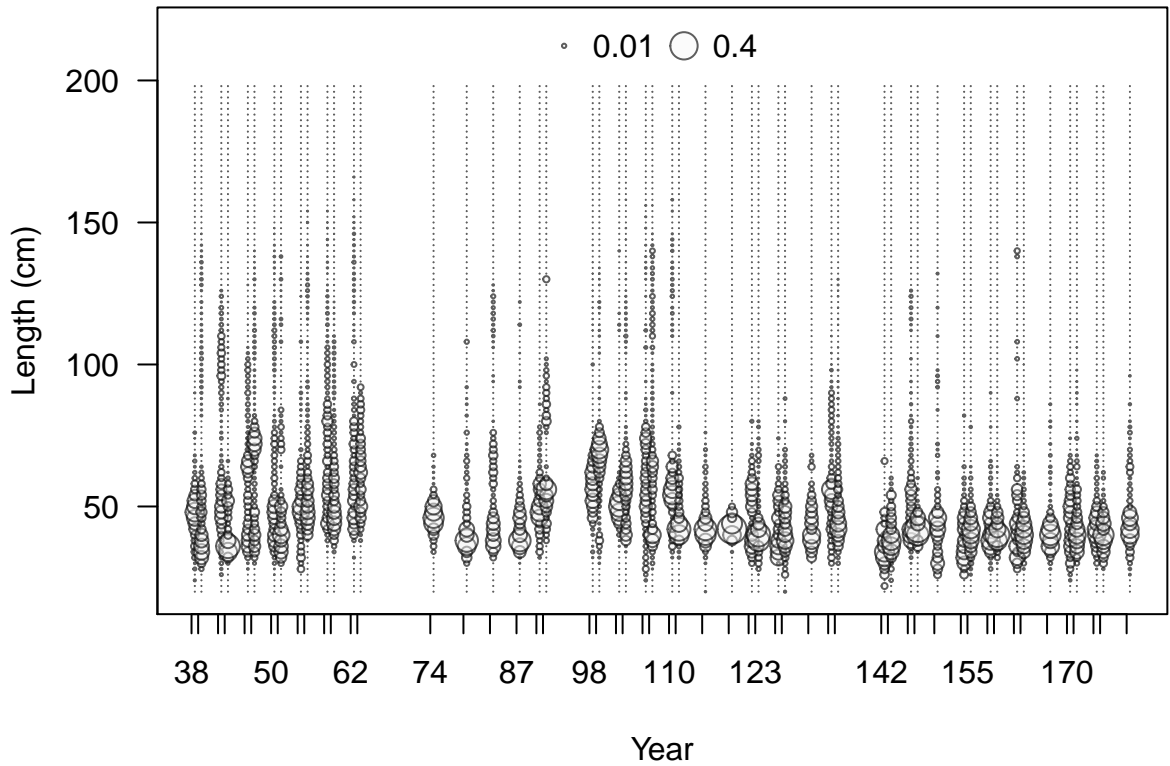




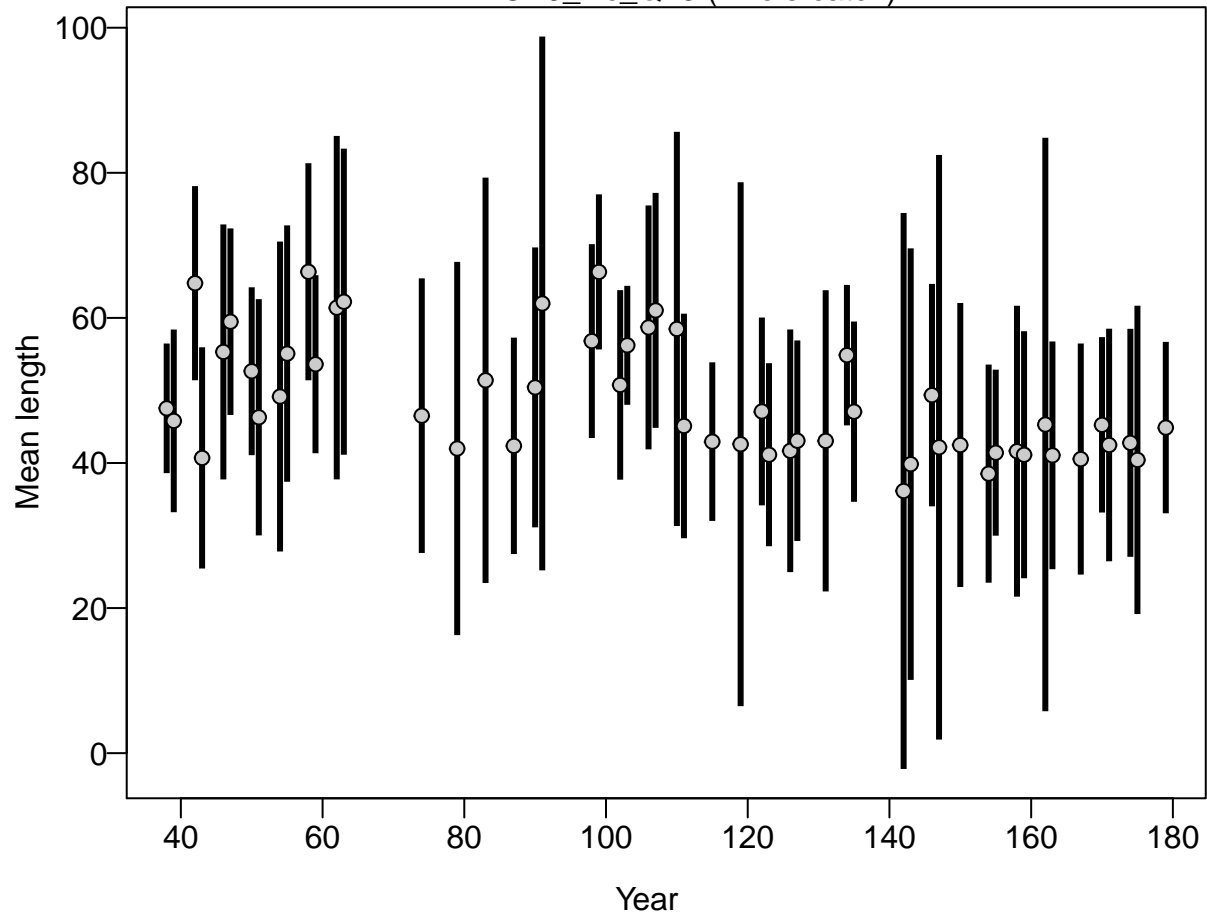


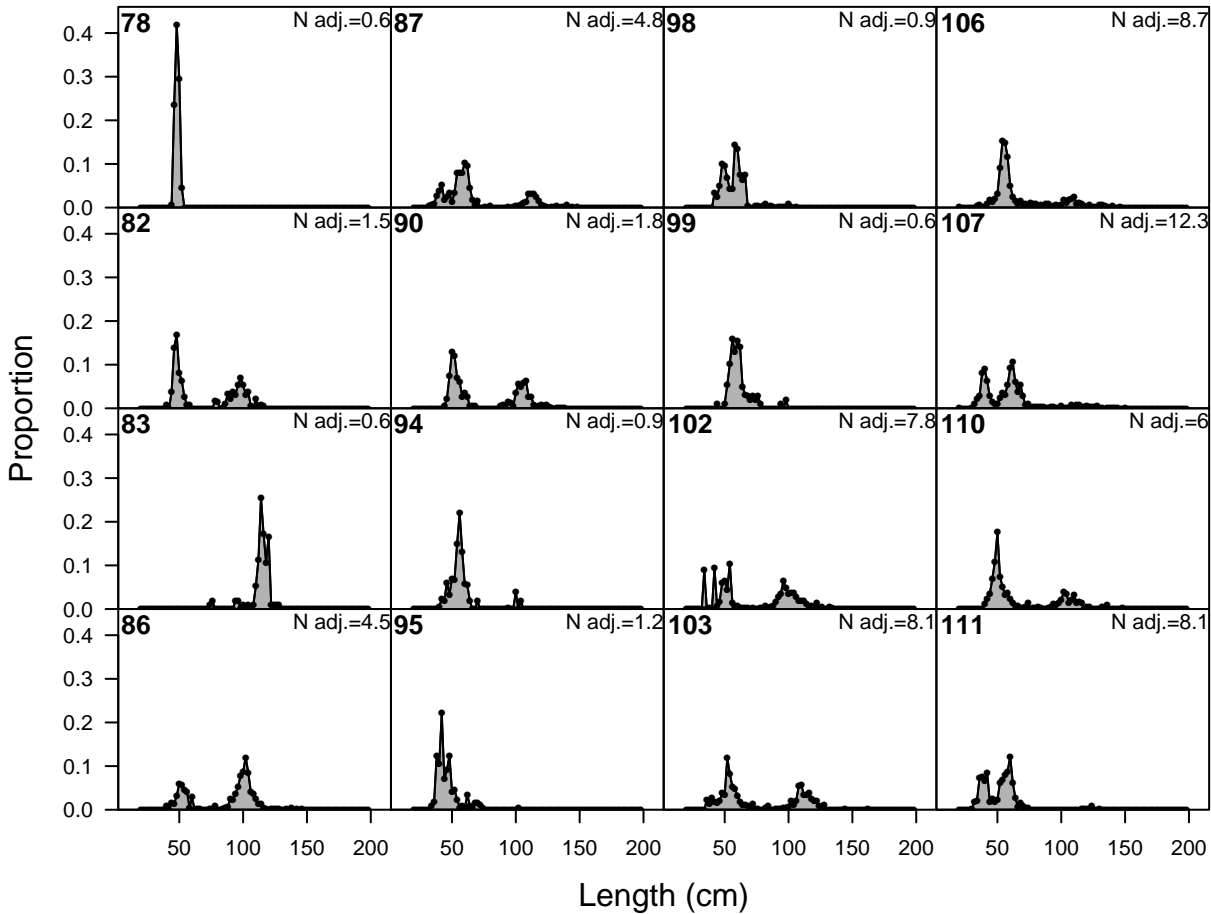


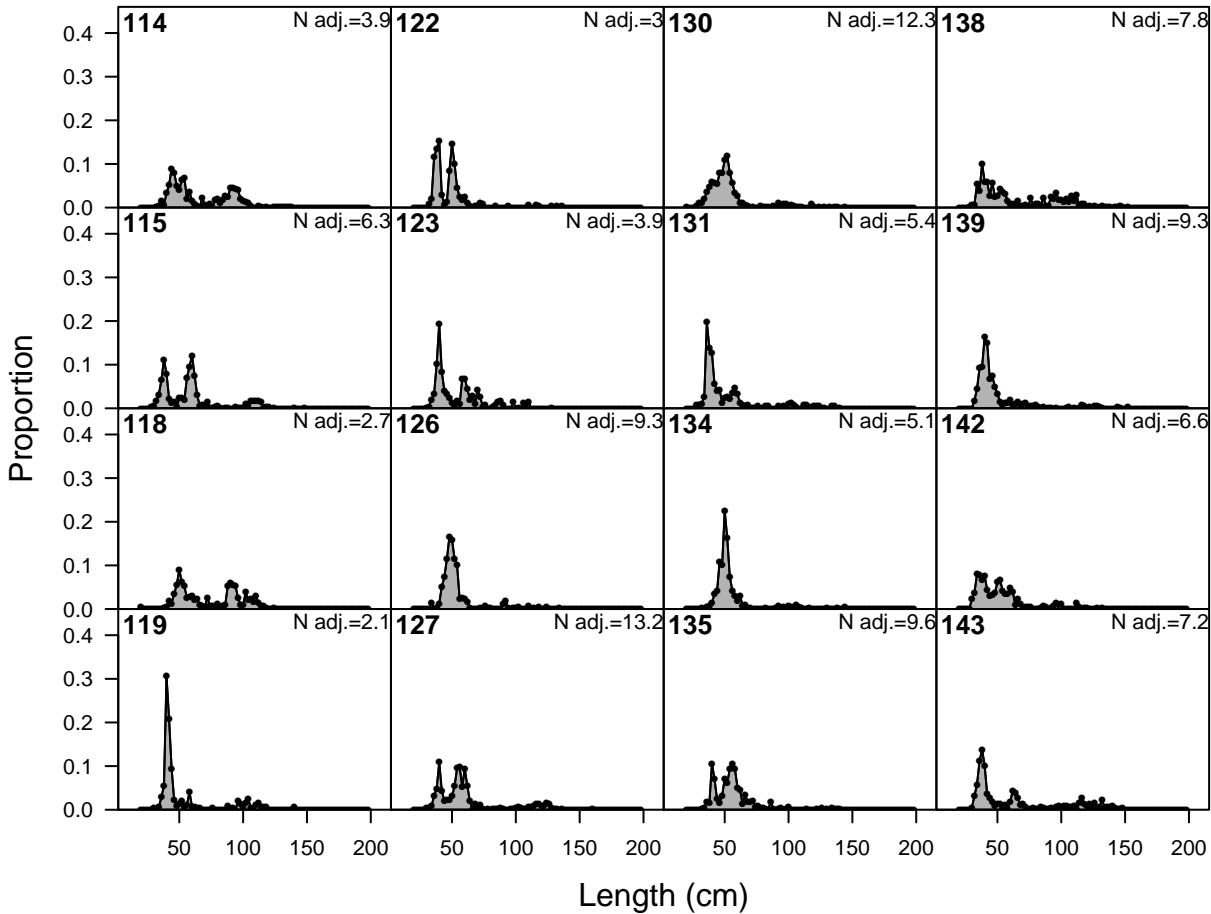


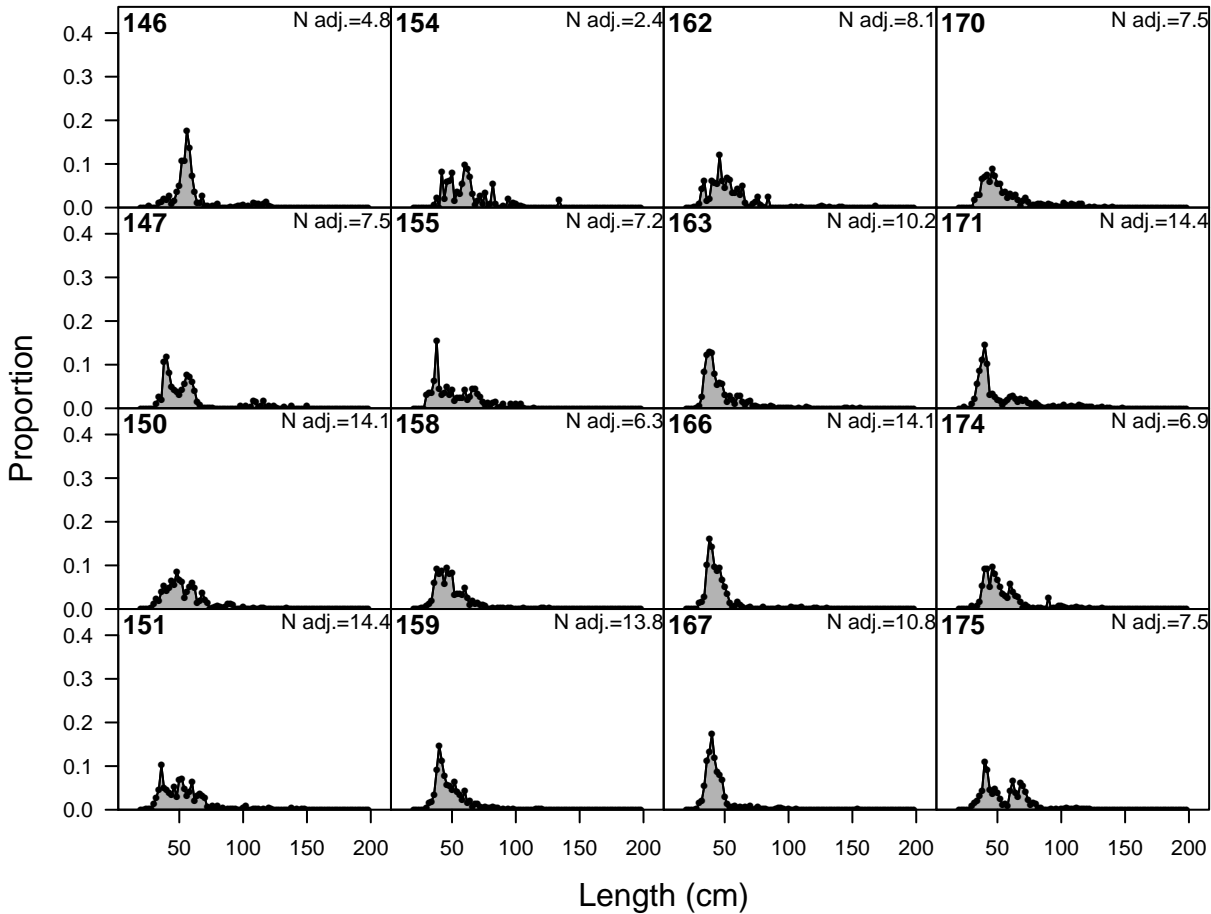


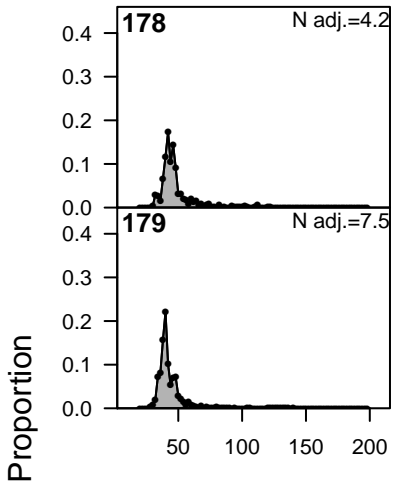
F7-OBJ\_Nc\_Q23 (whole catch)



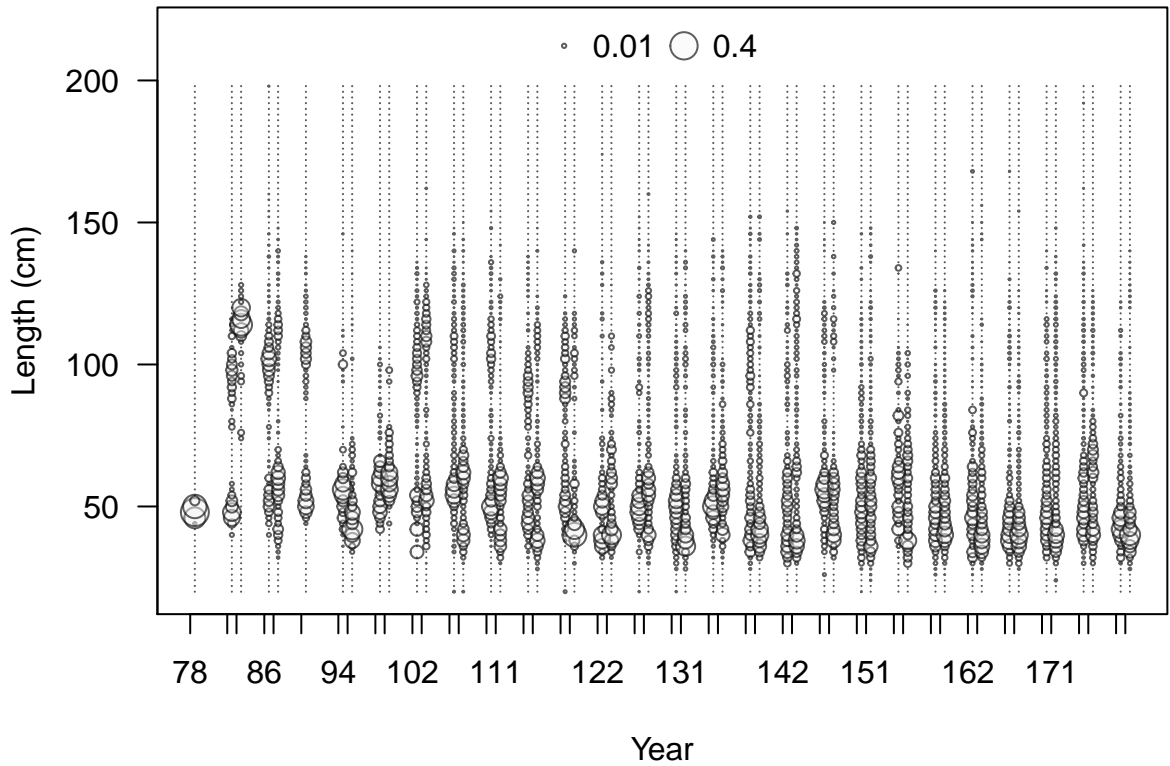




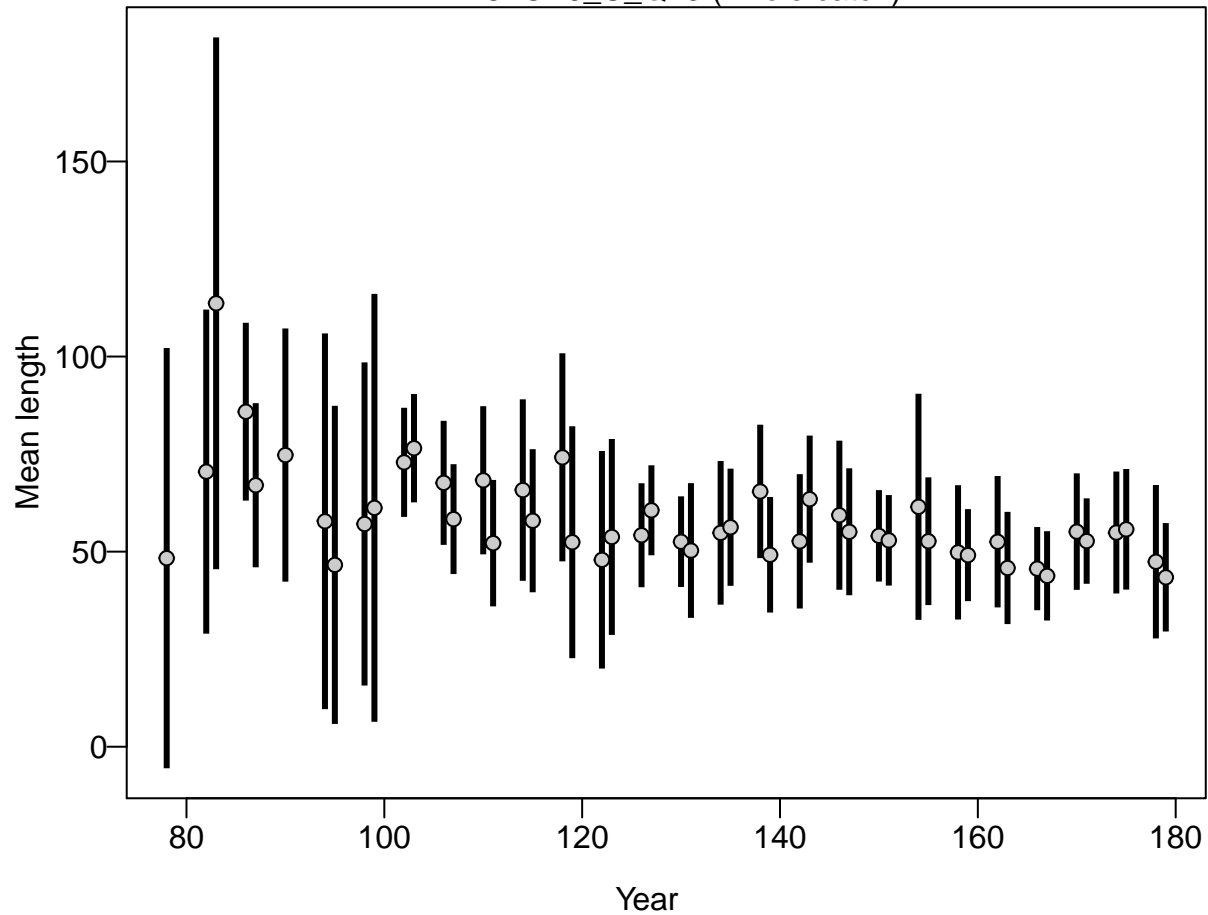




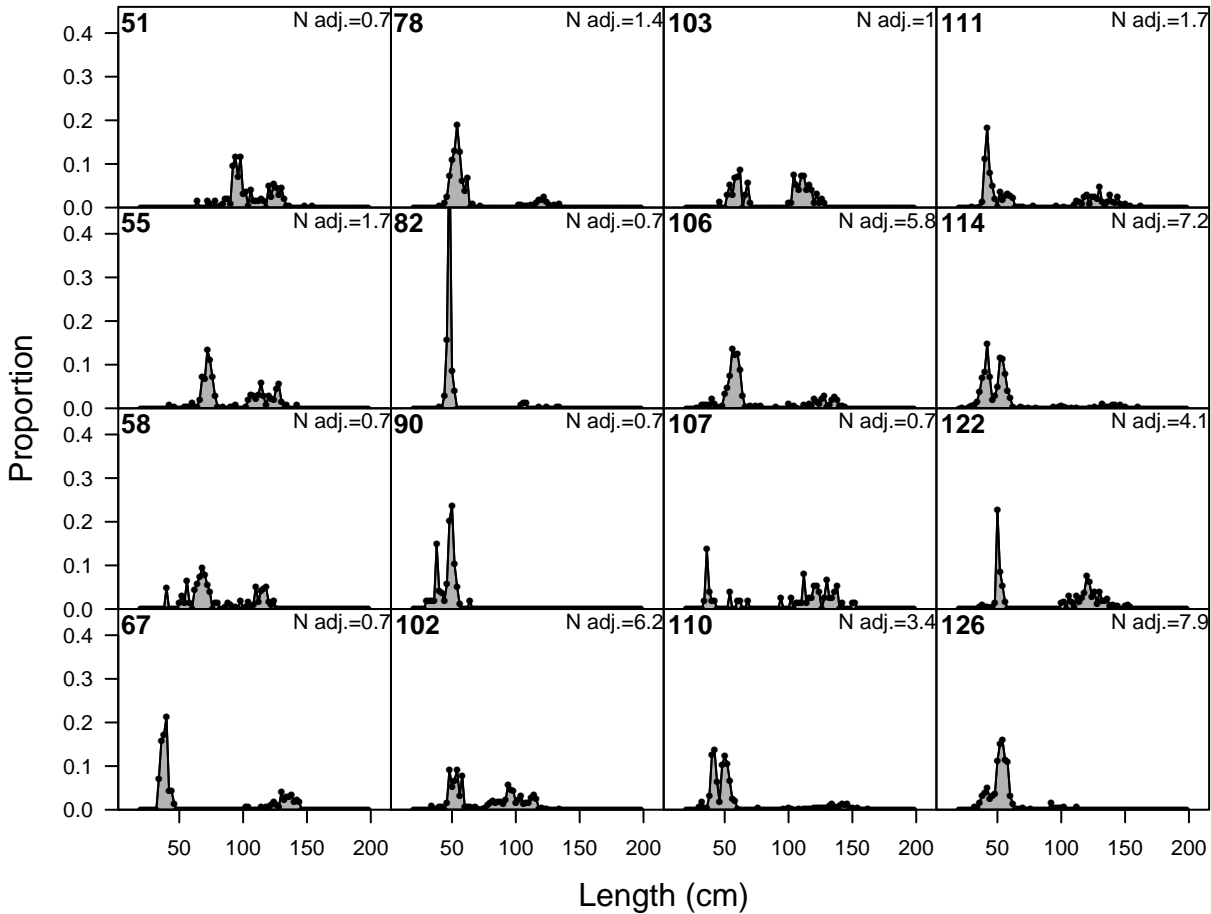
Length (cm)

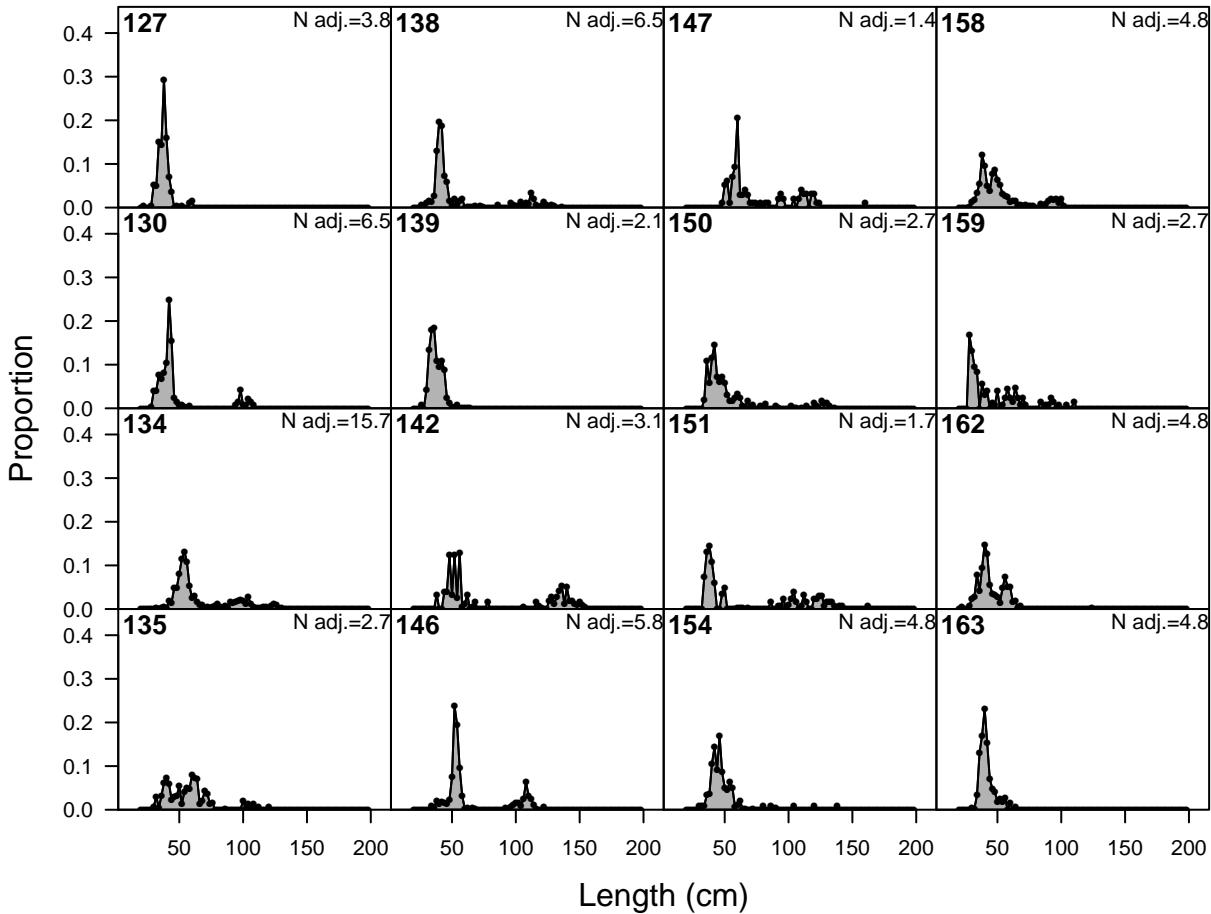


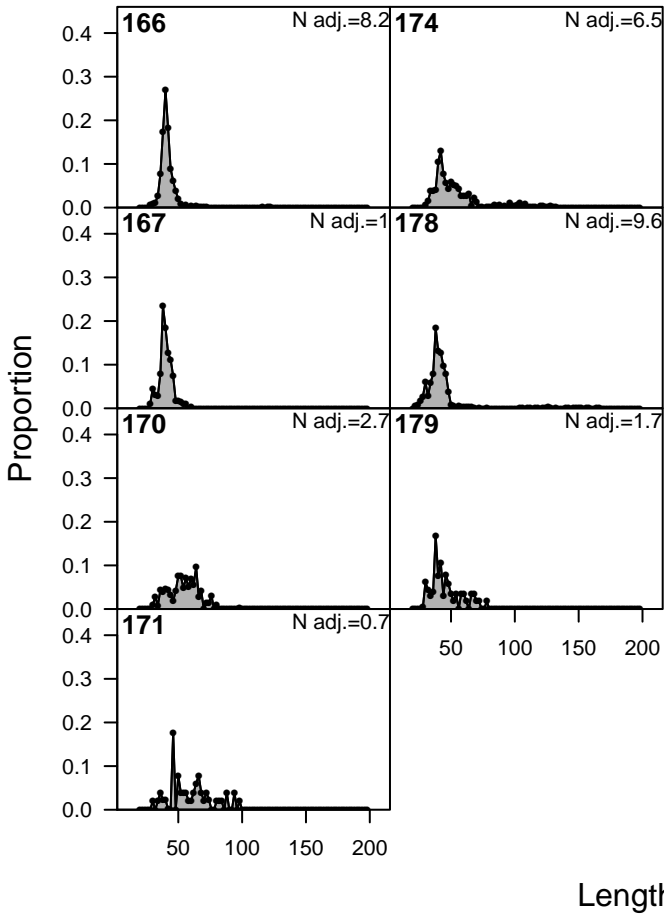
F8-OBJ\_C\_Q23 (whole catch)

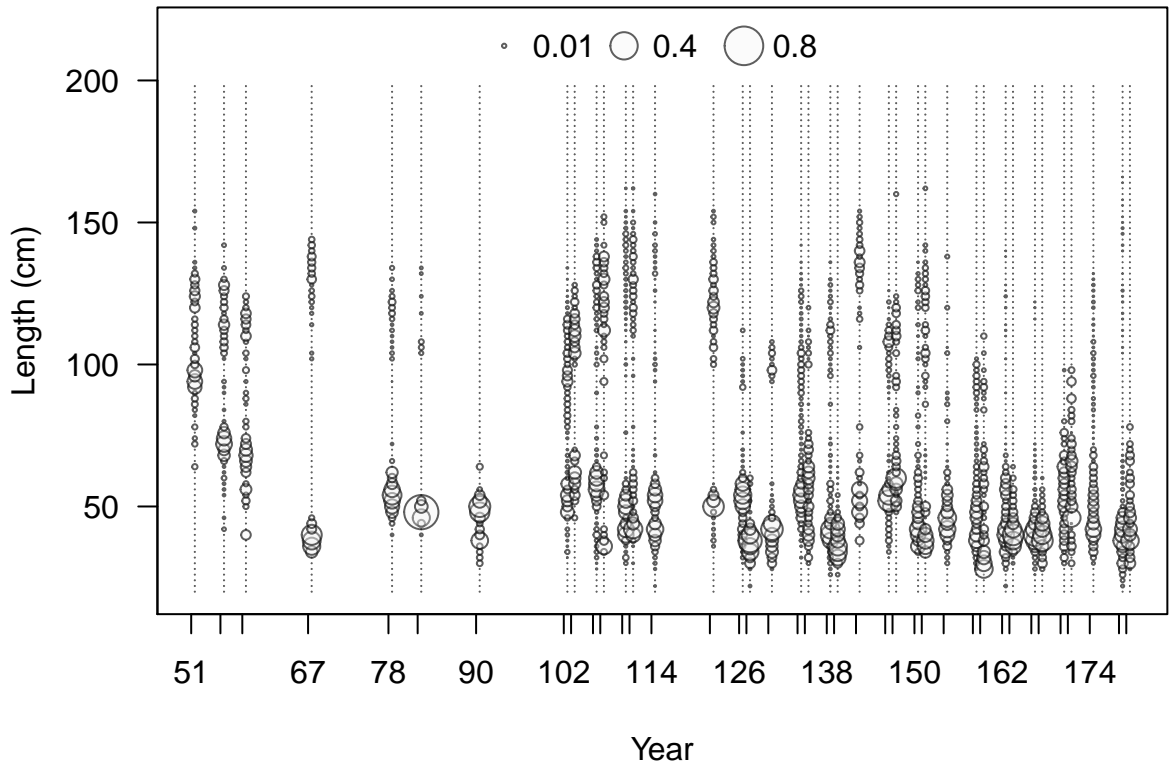




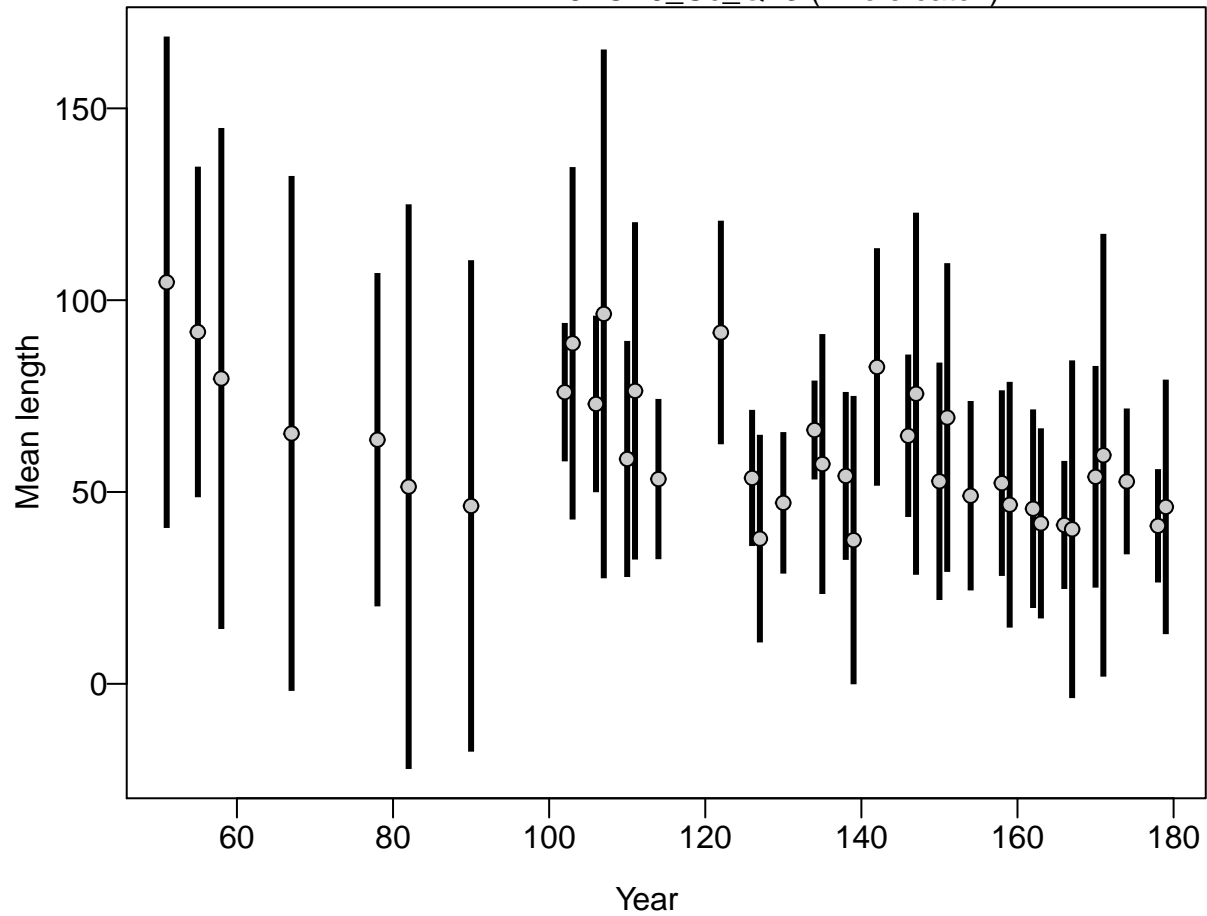




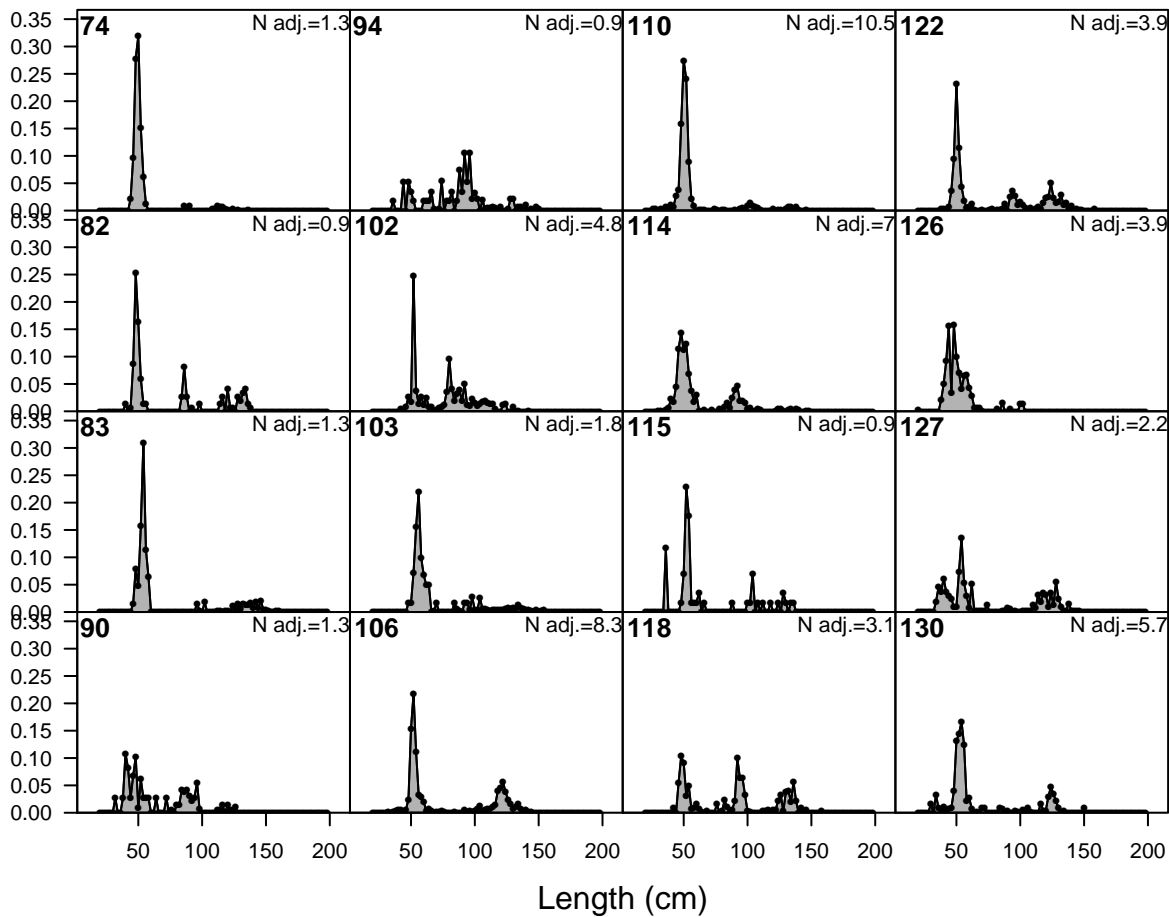




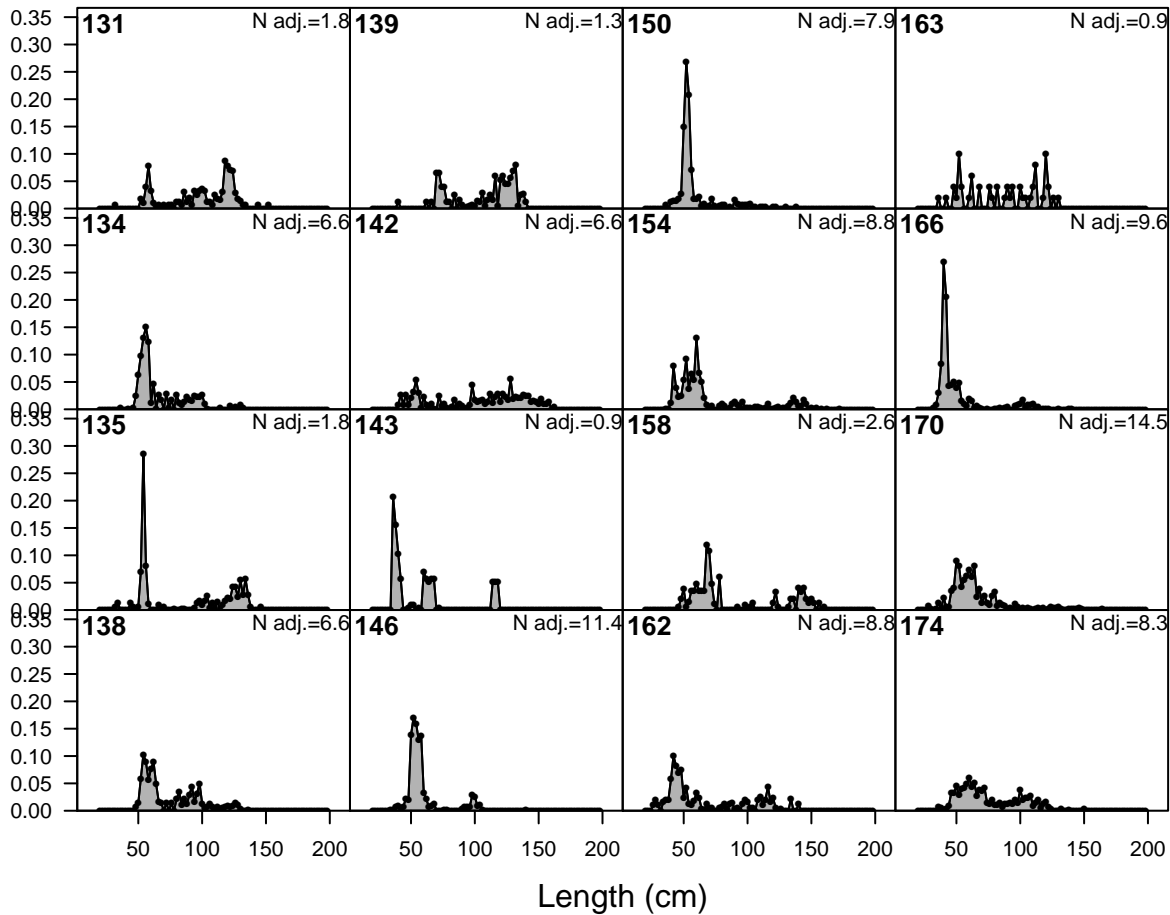
F9-OBJ\_Cc\_Q23 (whole catch)

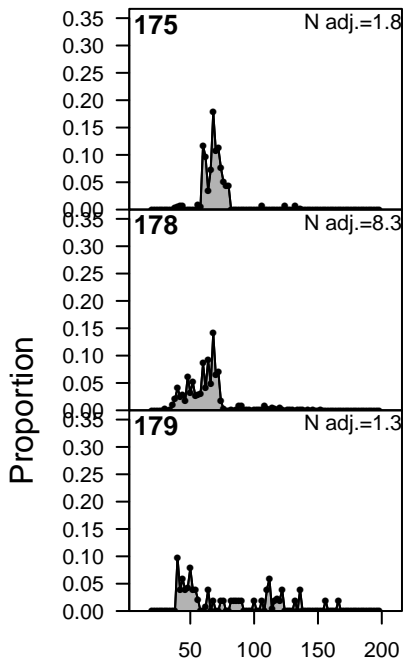


Proportion



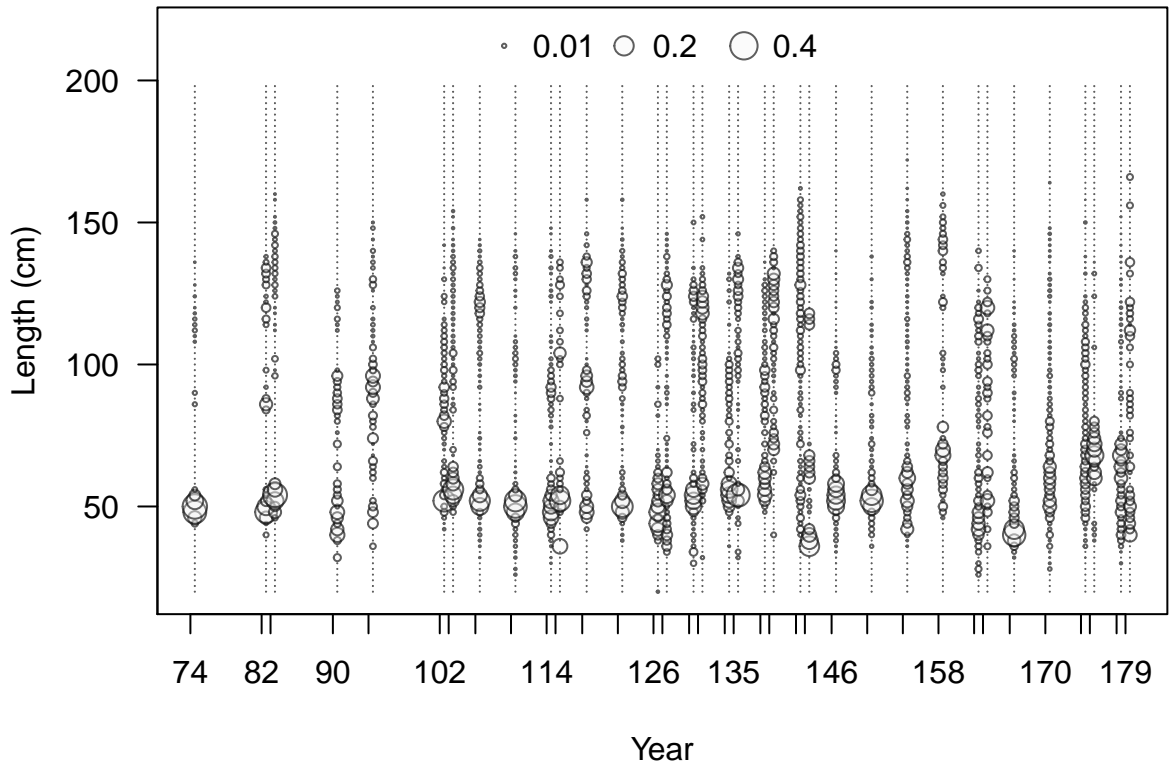
Proportion



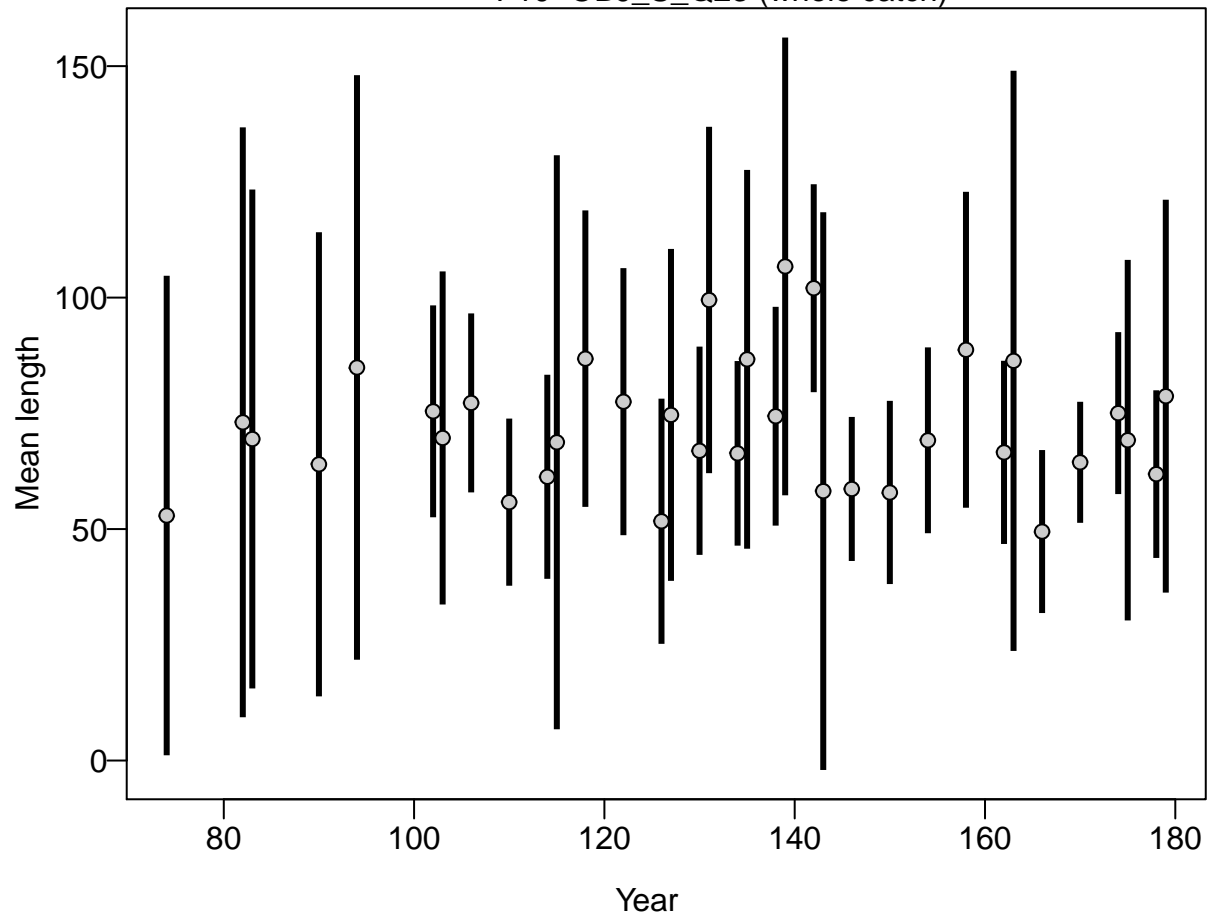


Length (cm)

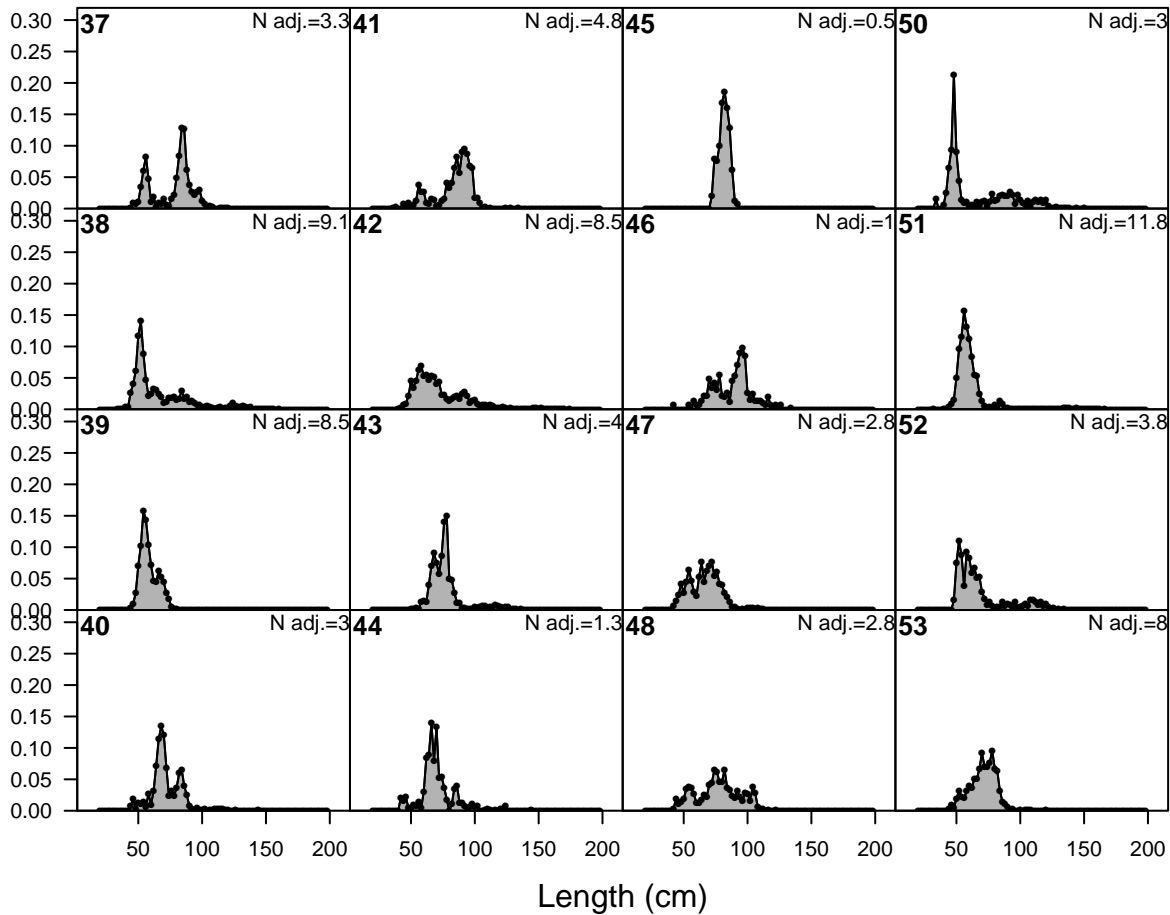




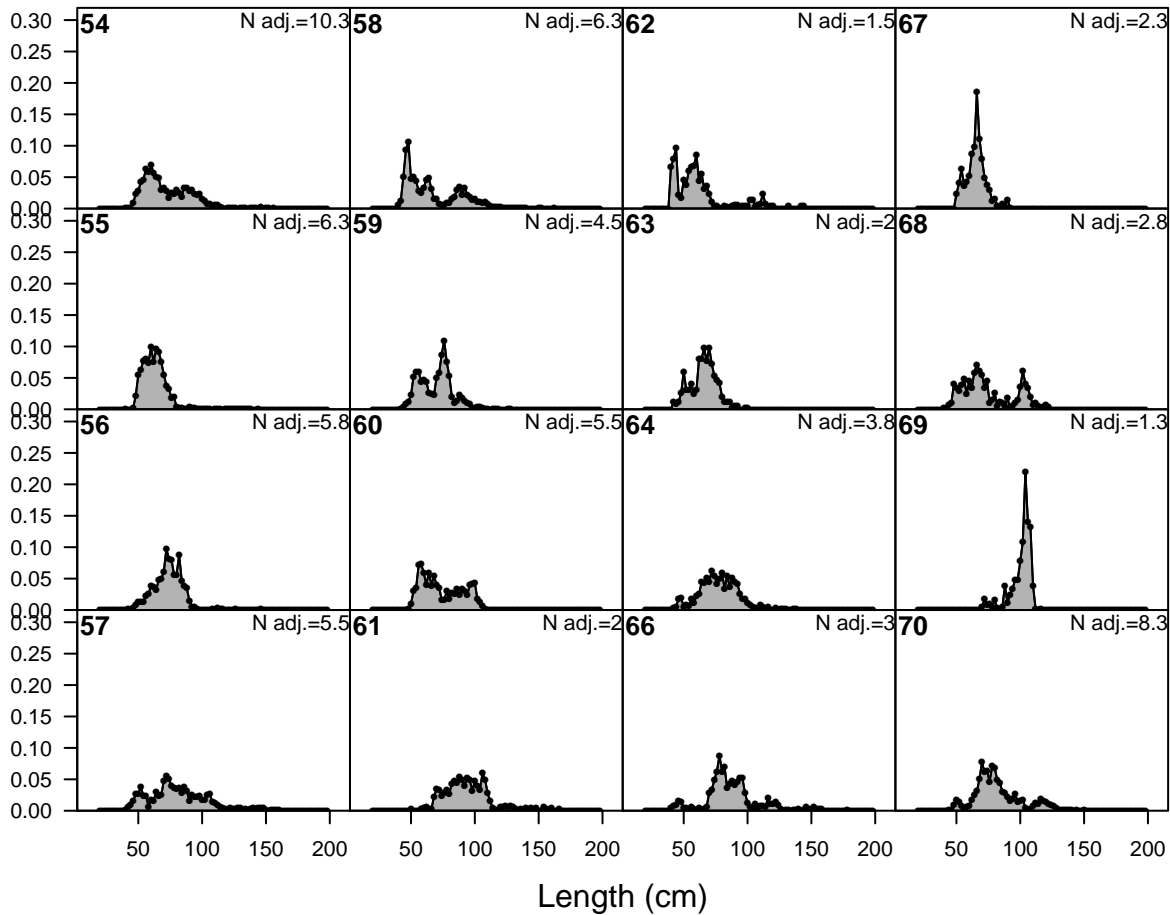
F10-OBJ\_S\_Q23 (whole catch)



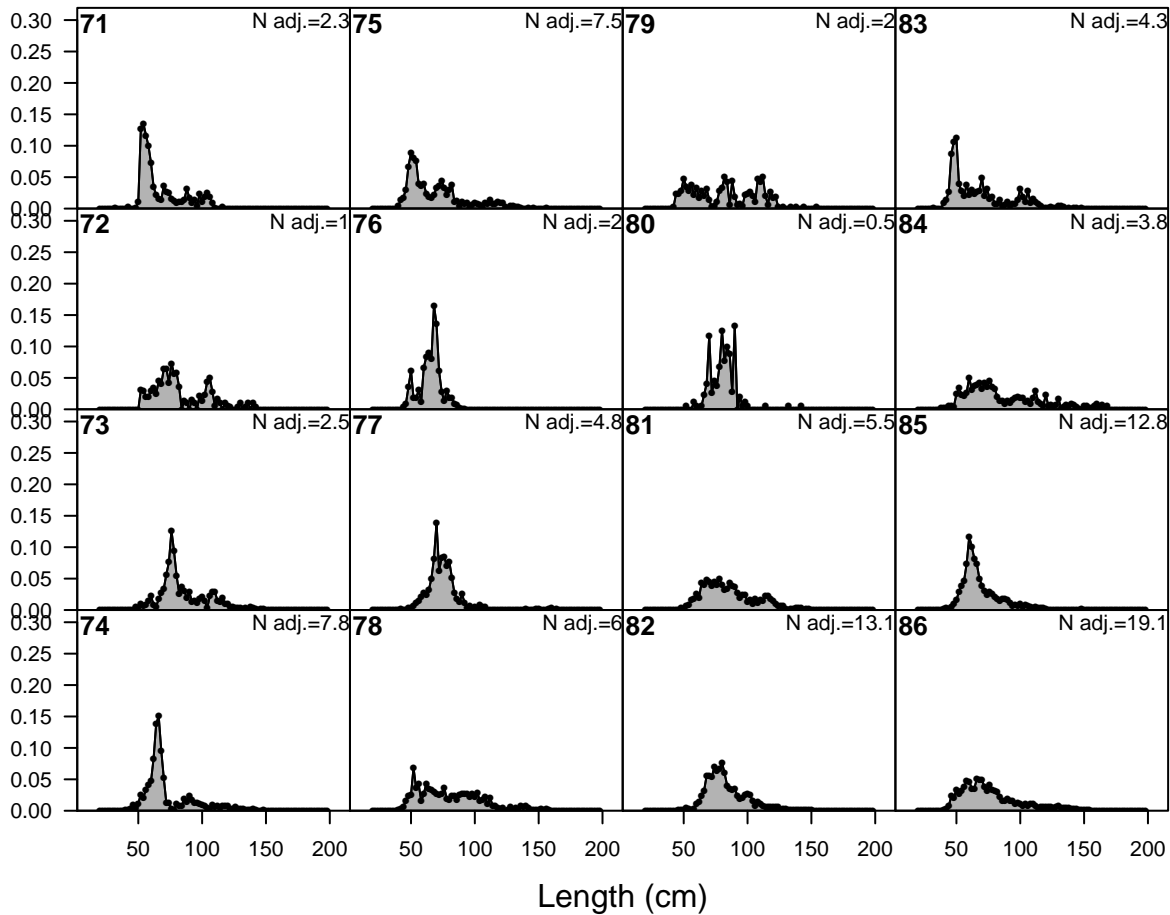
Proportion



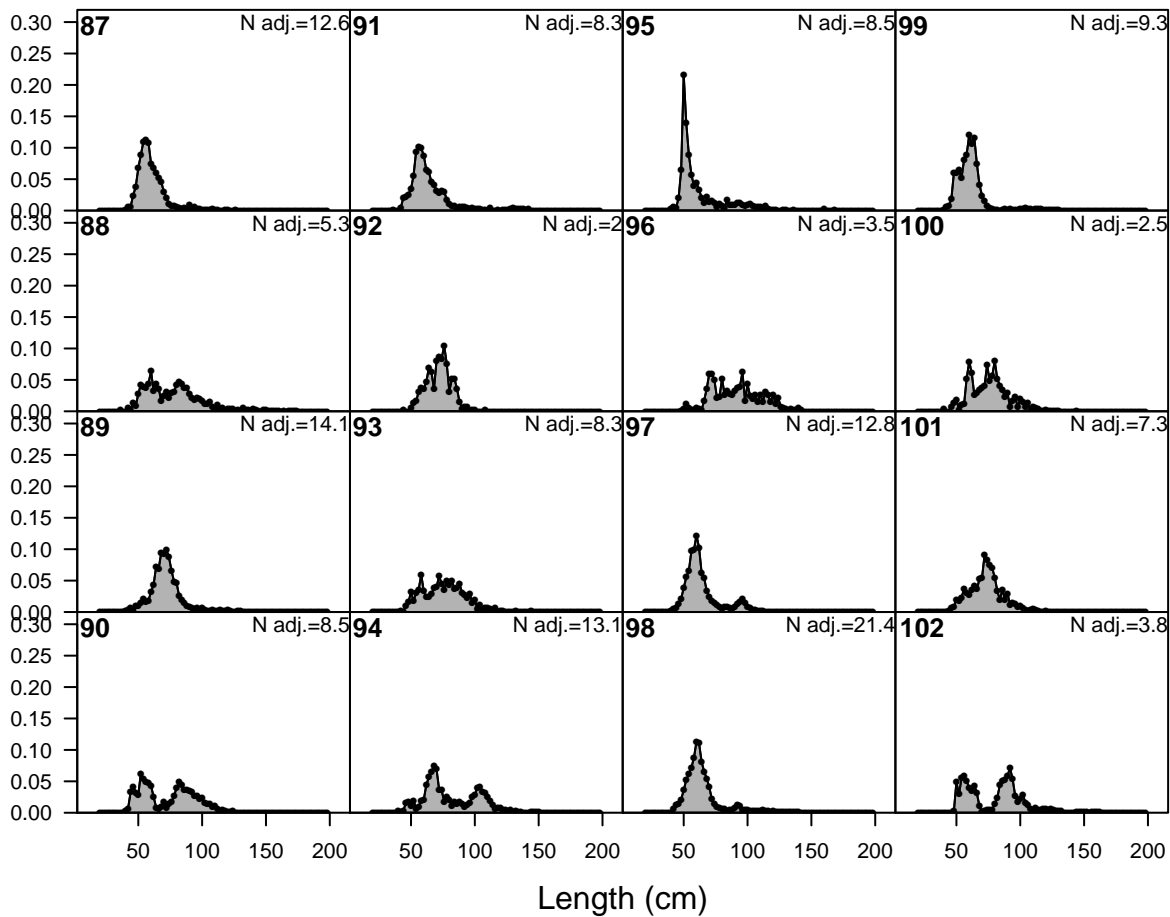
Proportion



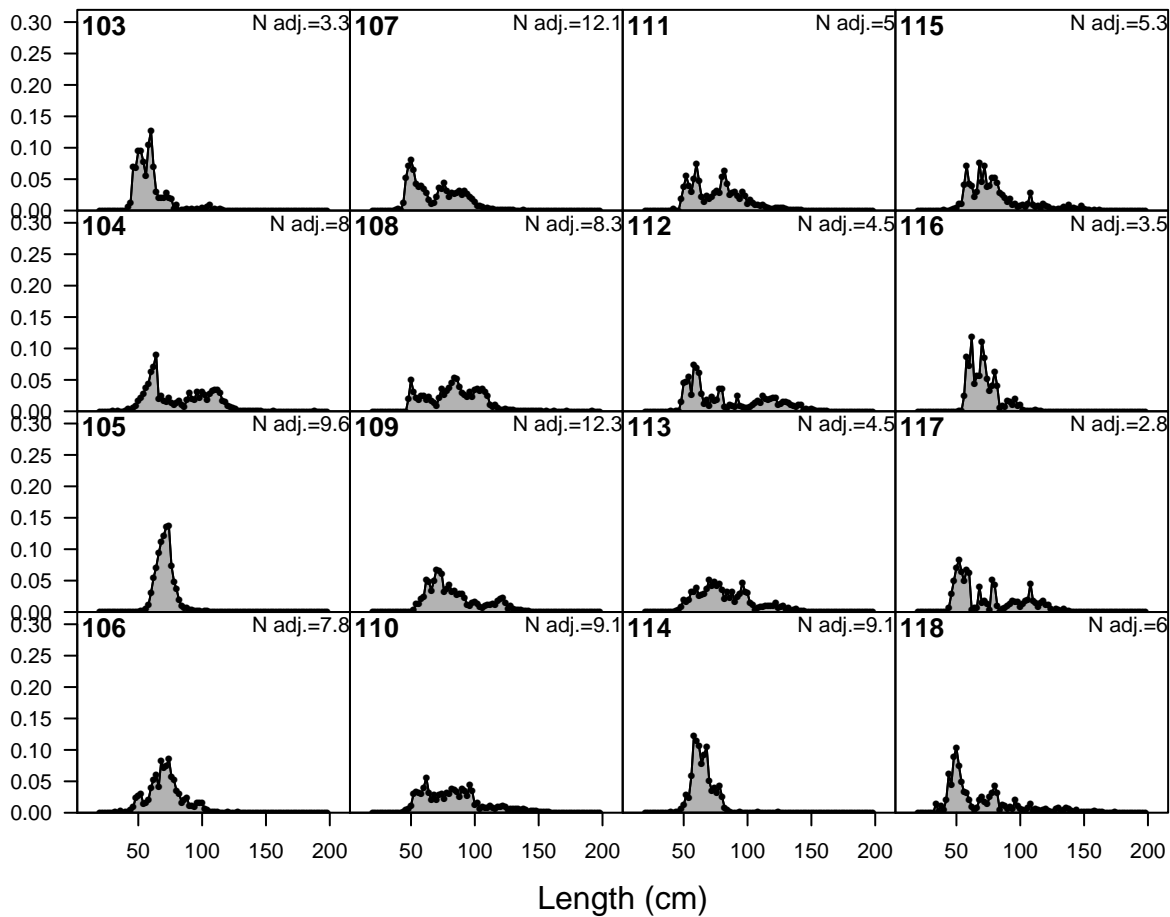
Proportion



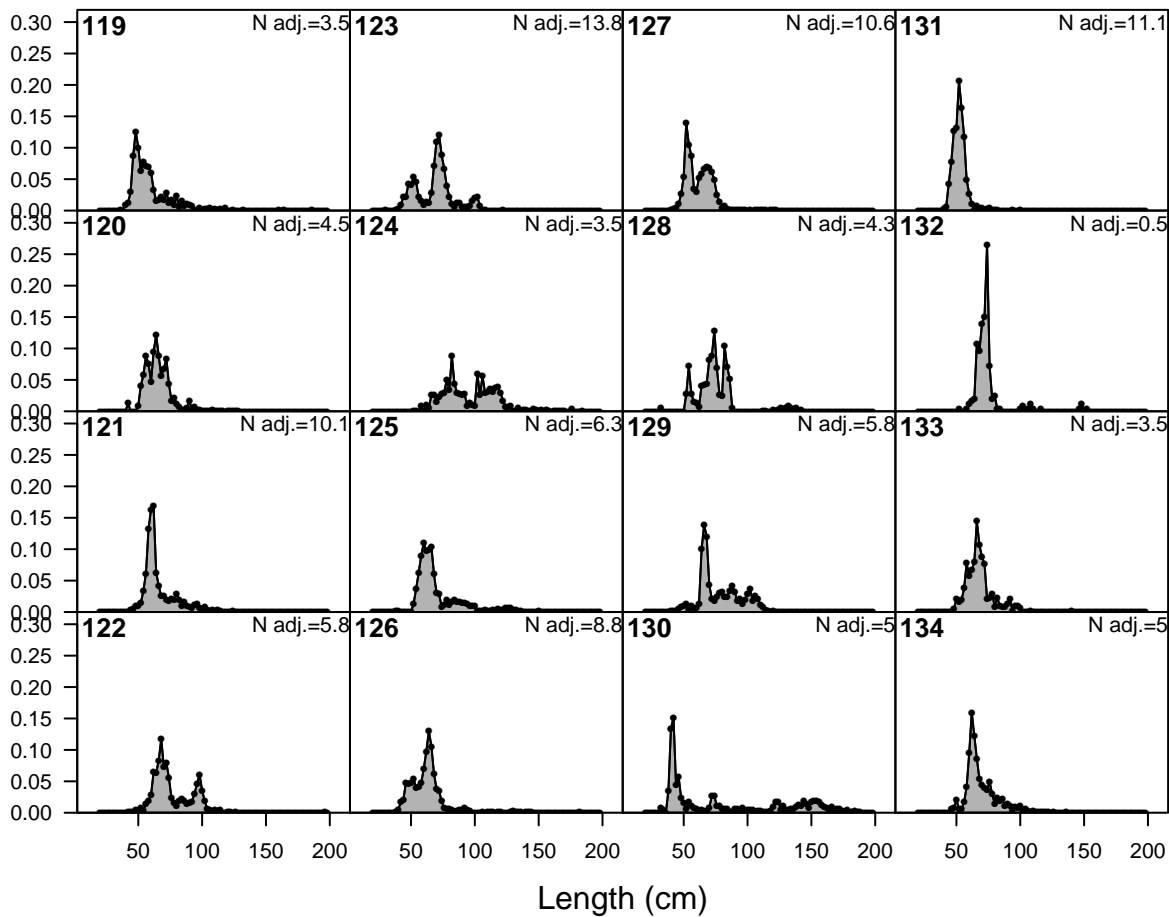
Proportion



Proportion

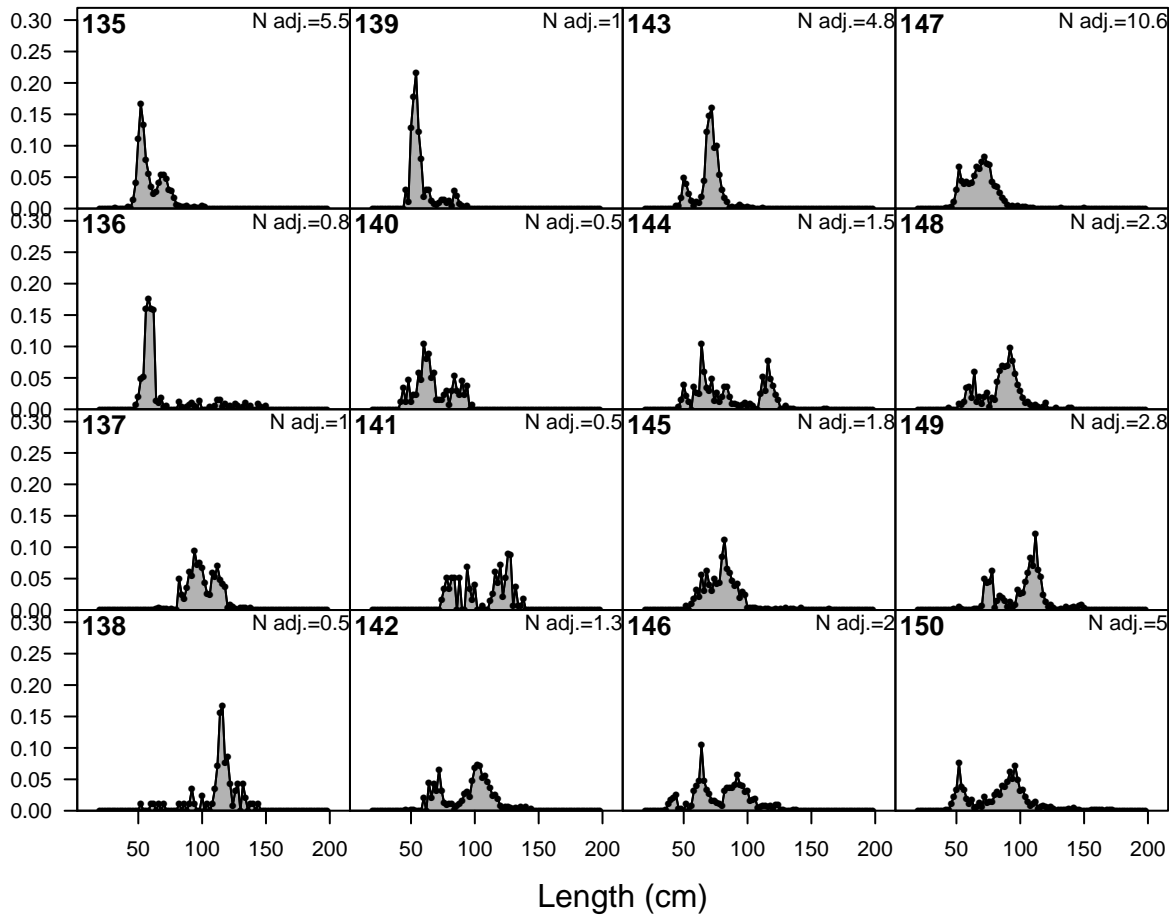


Proportion

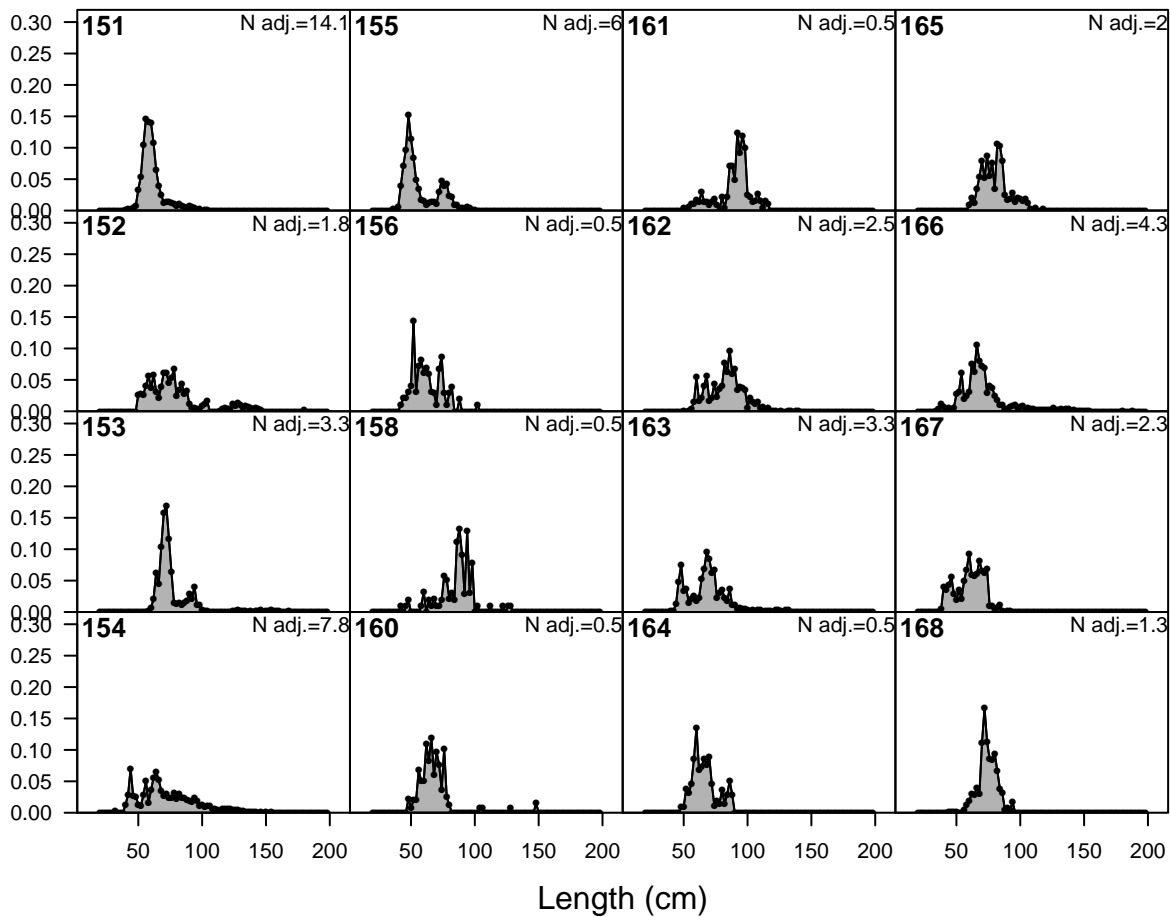


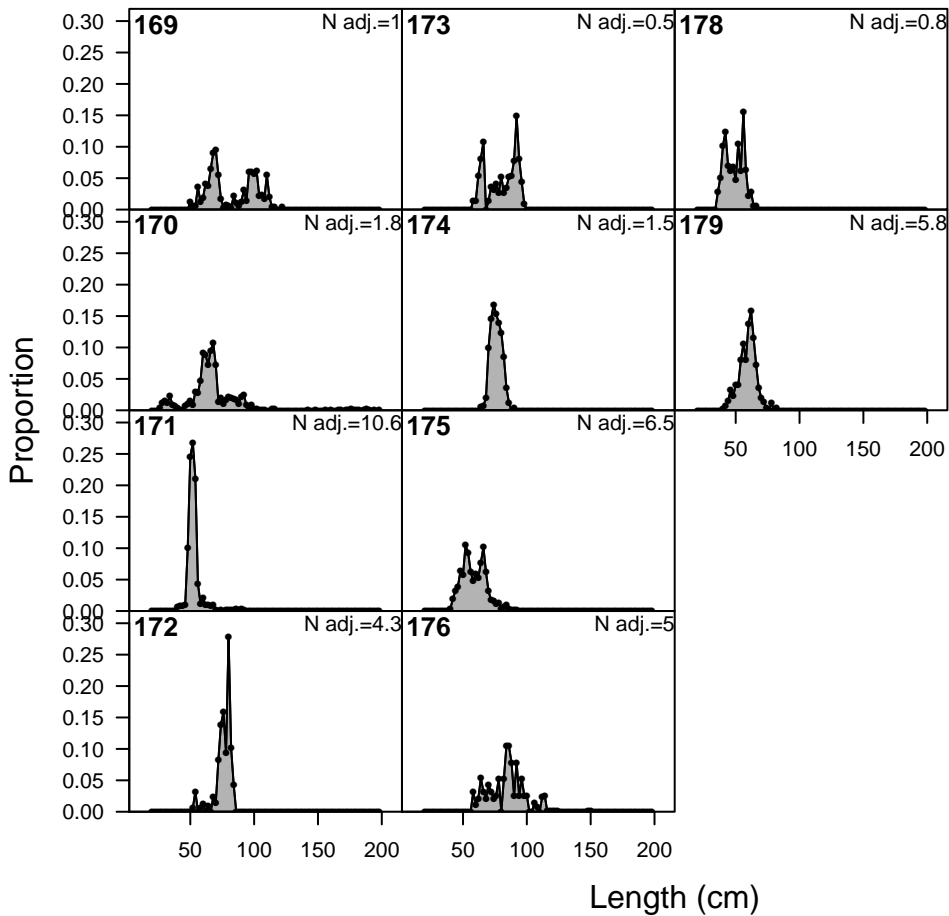


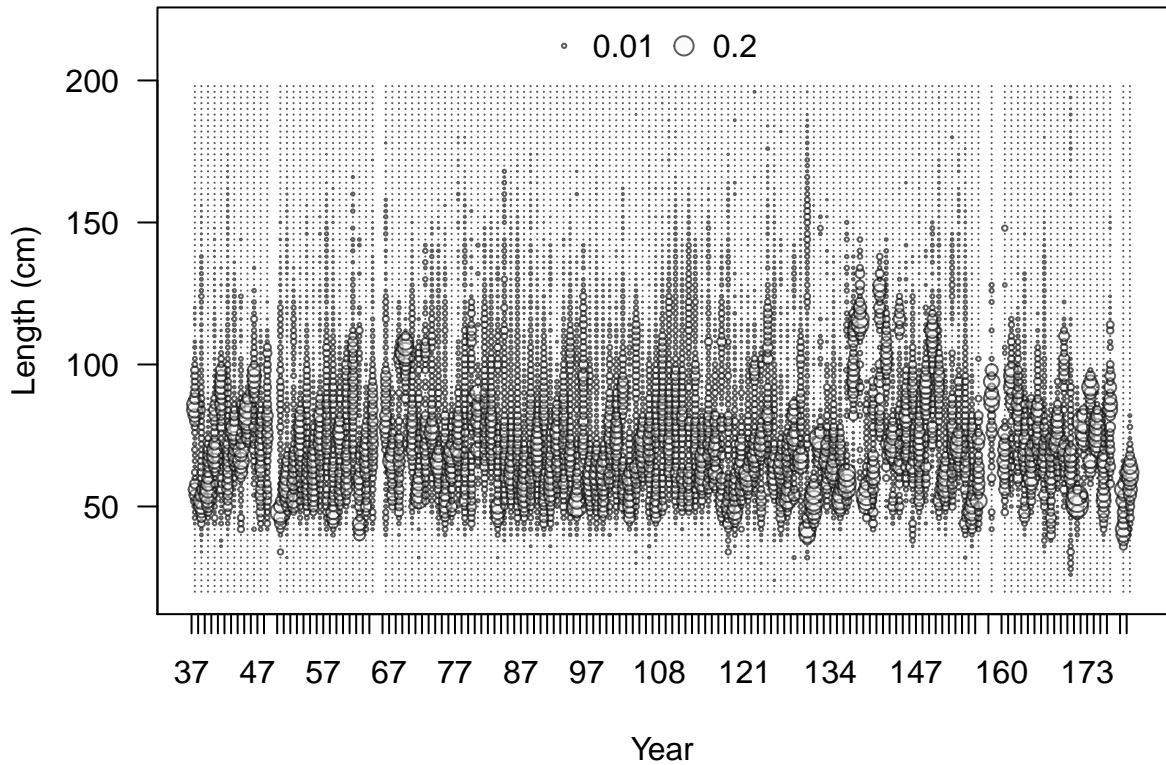
Proportion



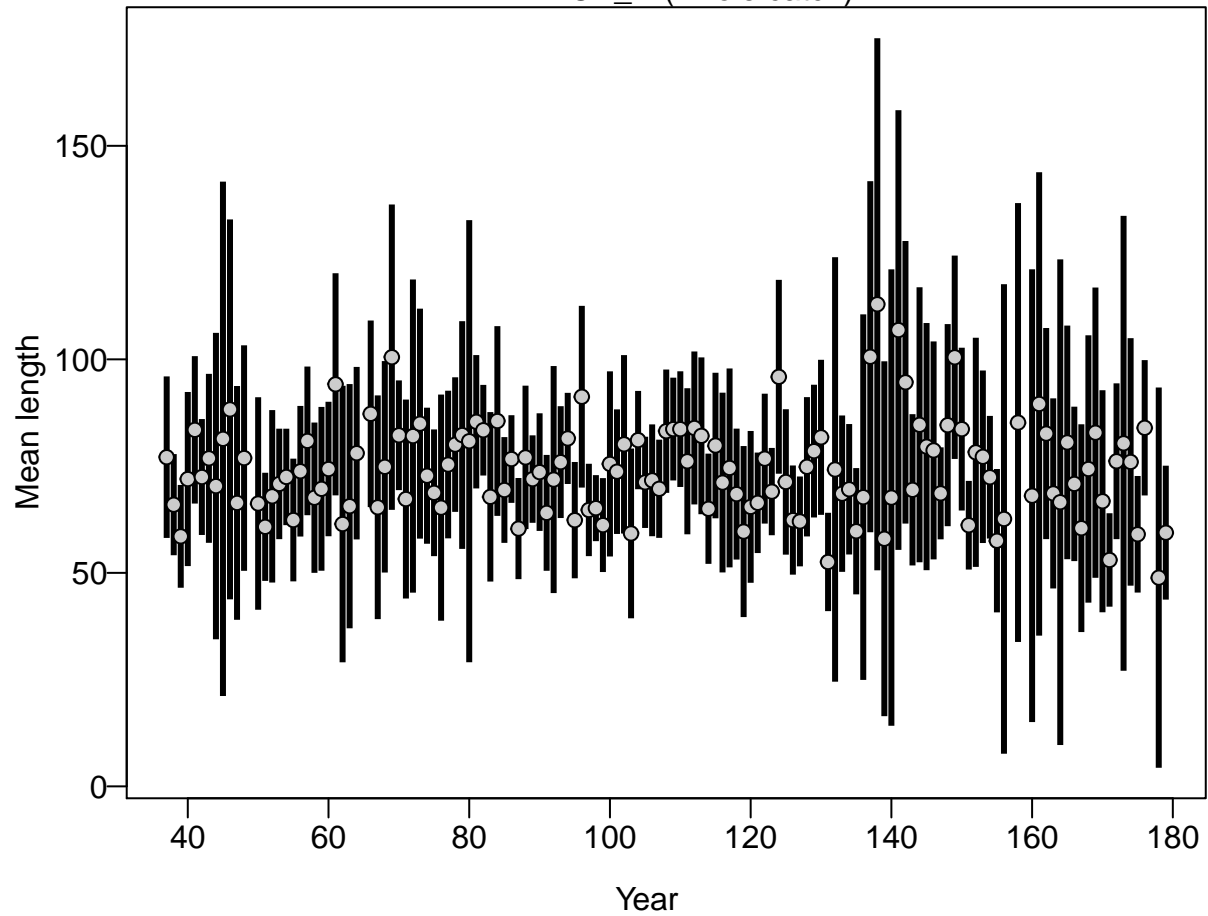
Proportion

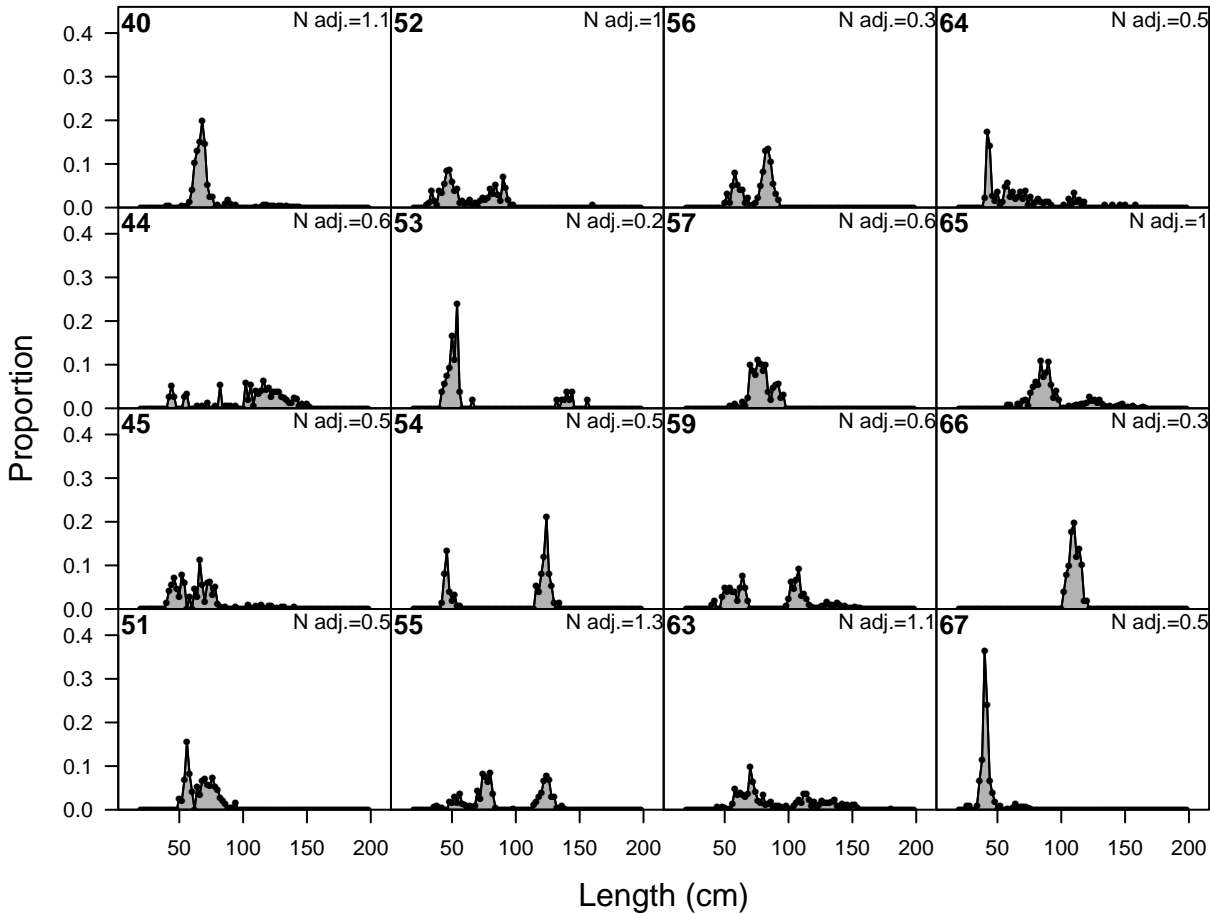


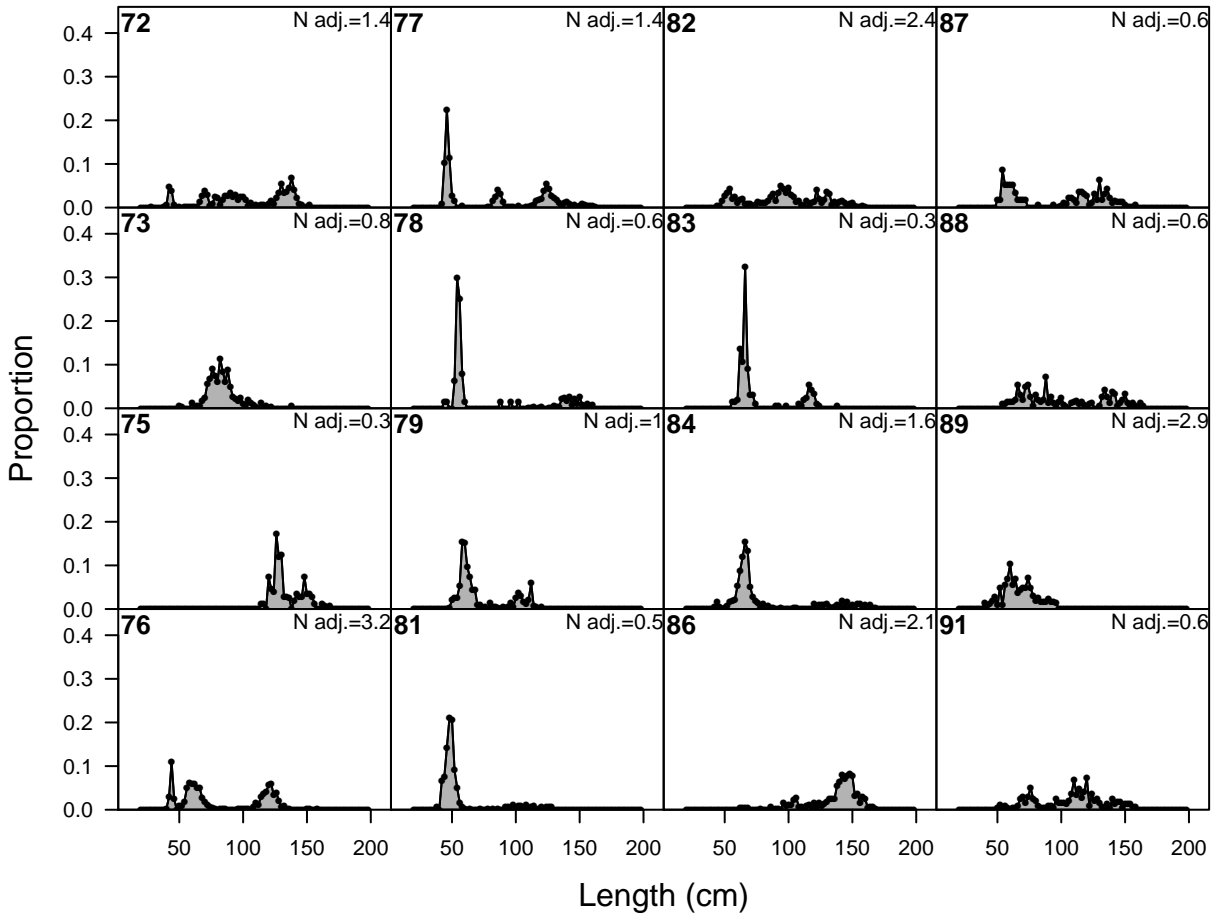


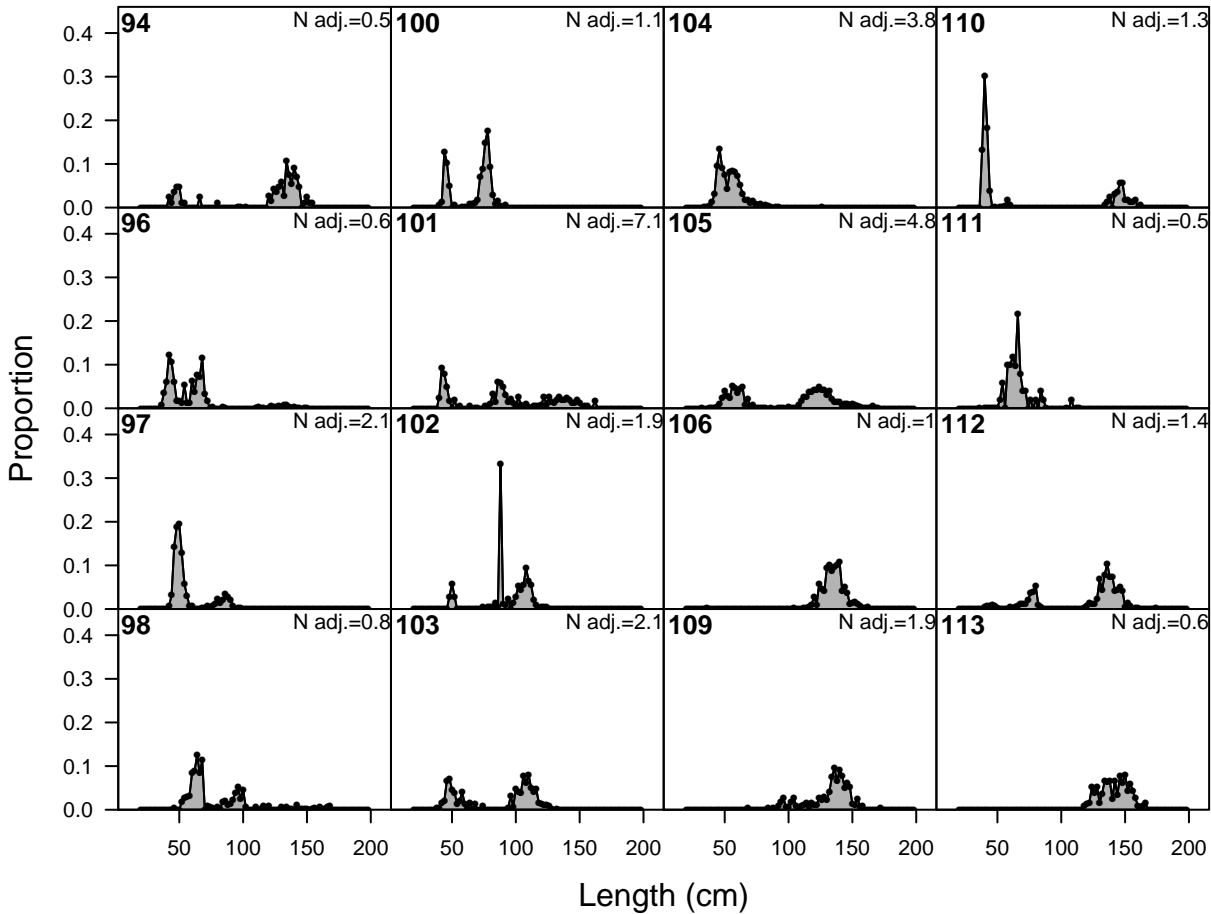


F11-NOA\_N (whole catch)

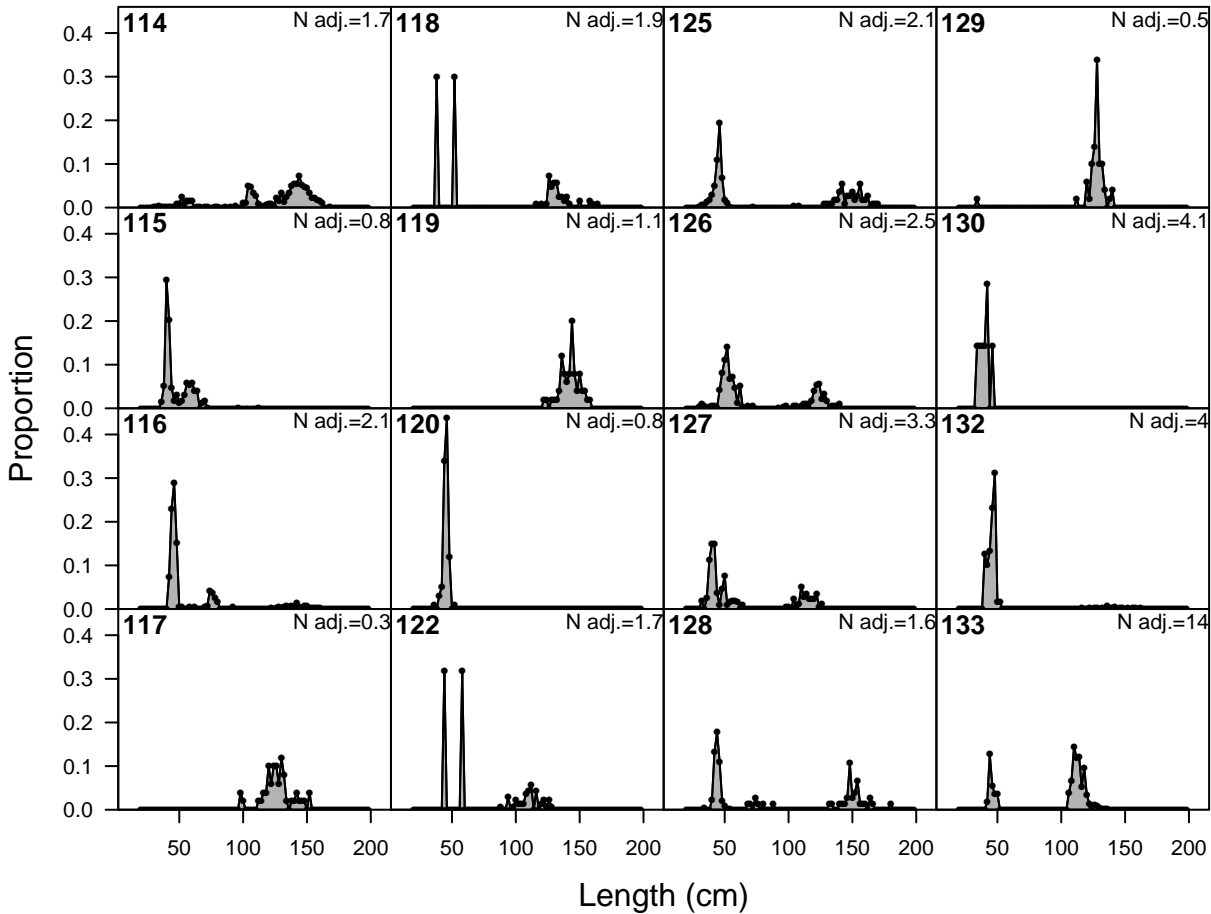


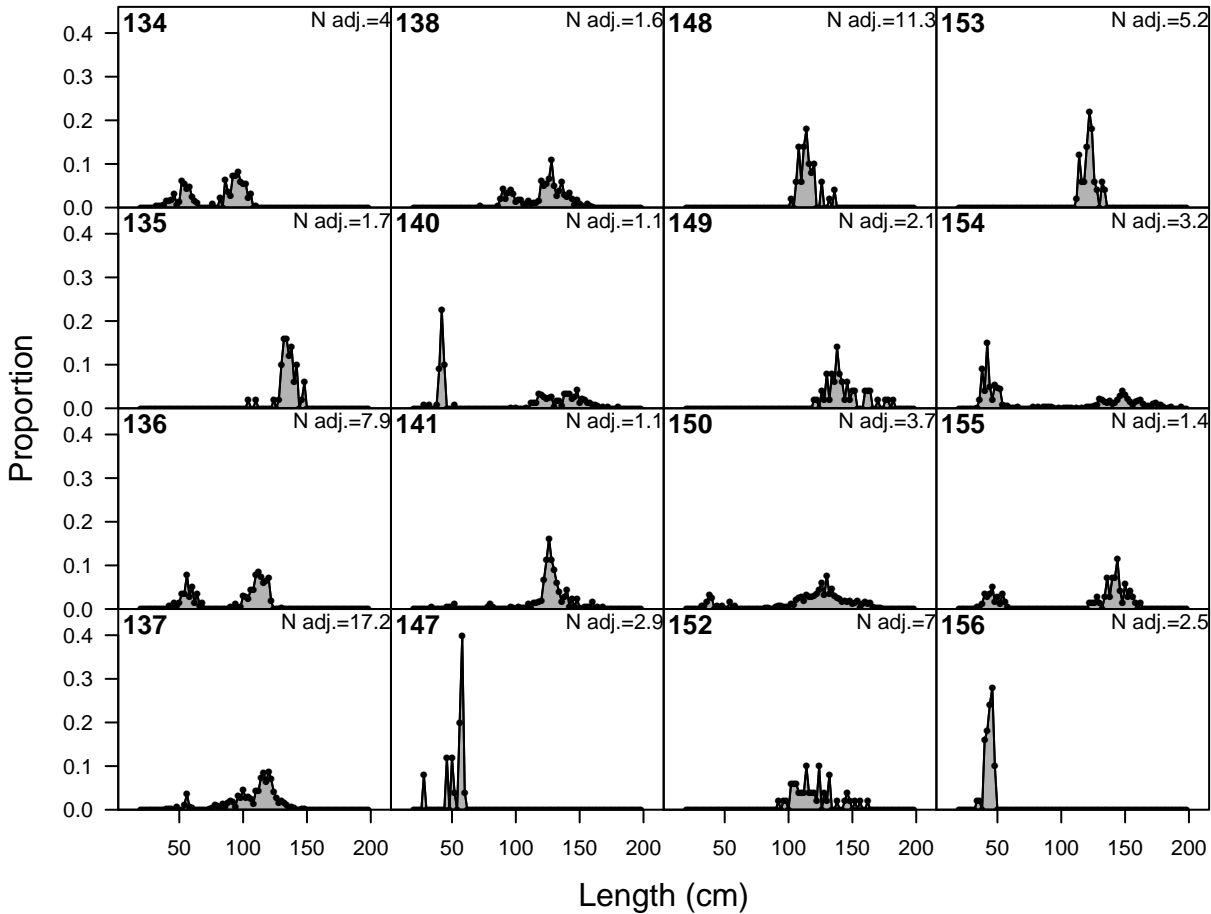


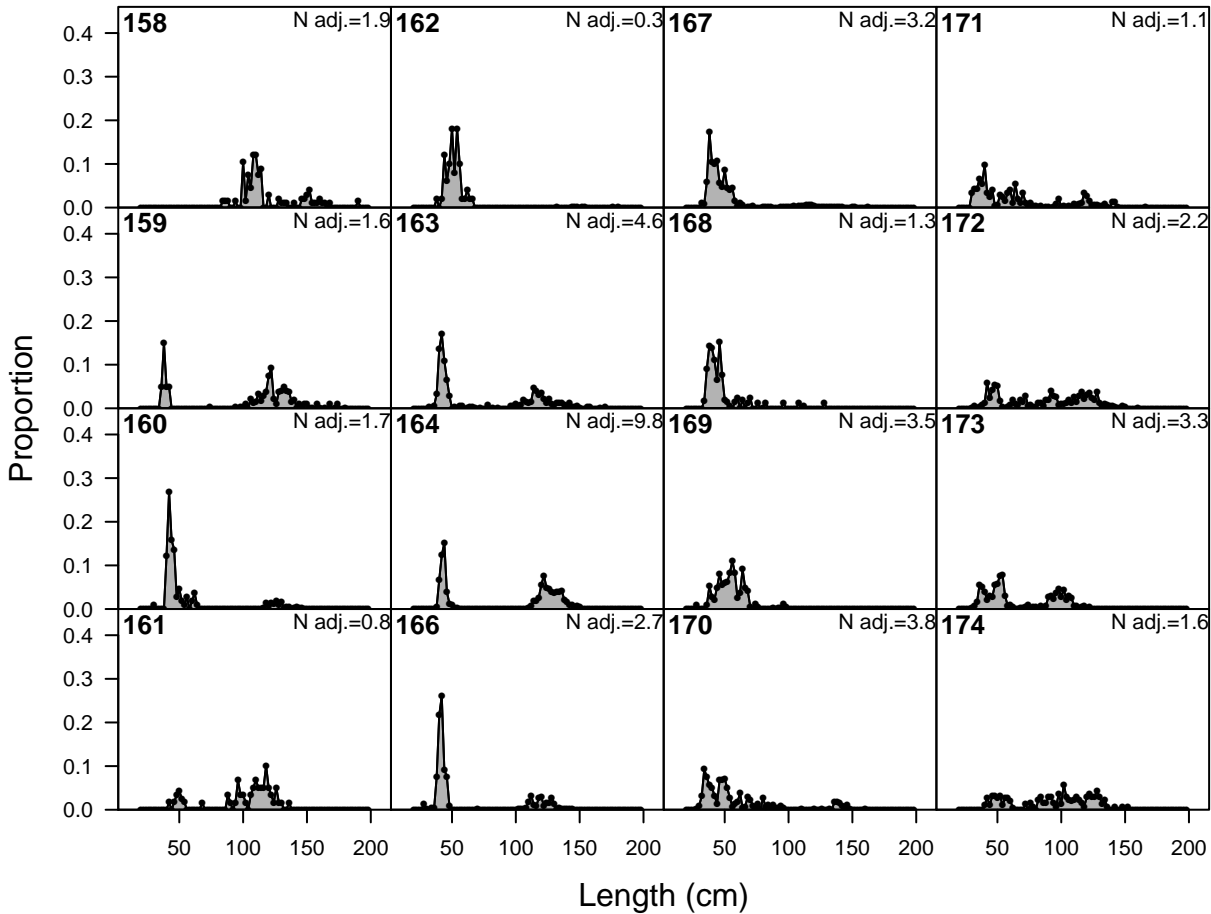


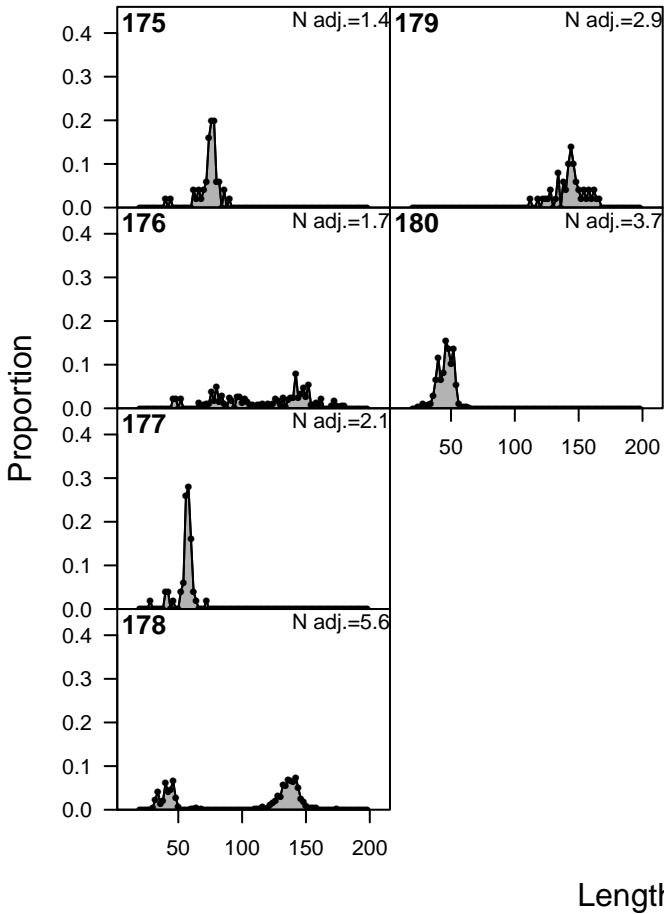


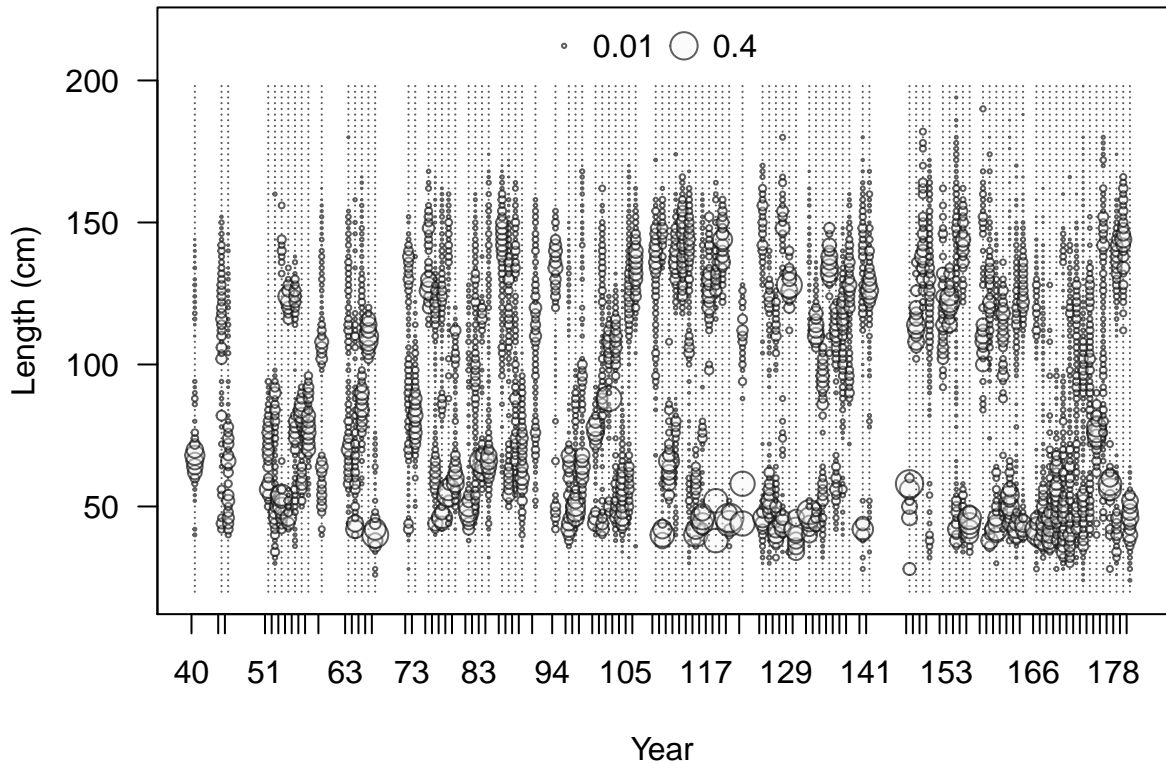




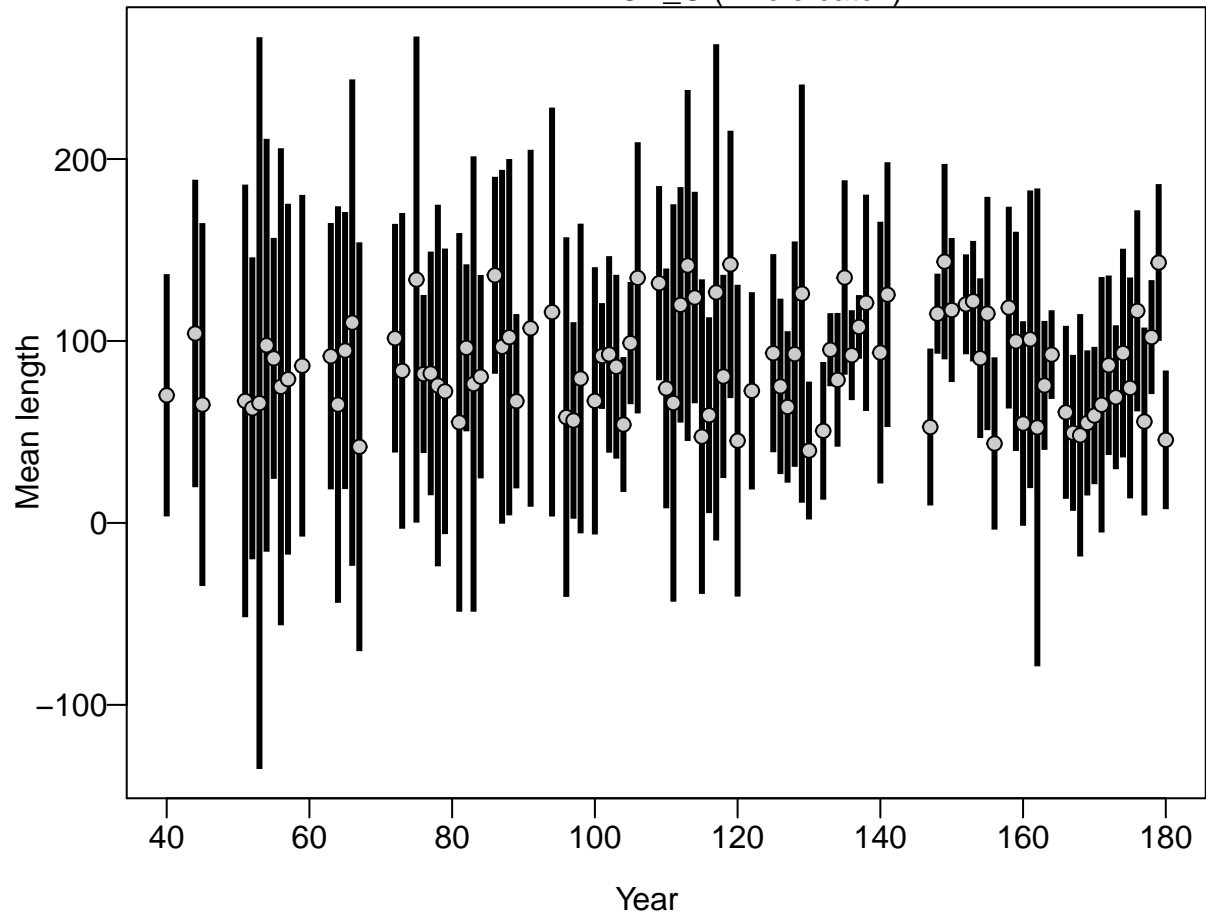


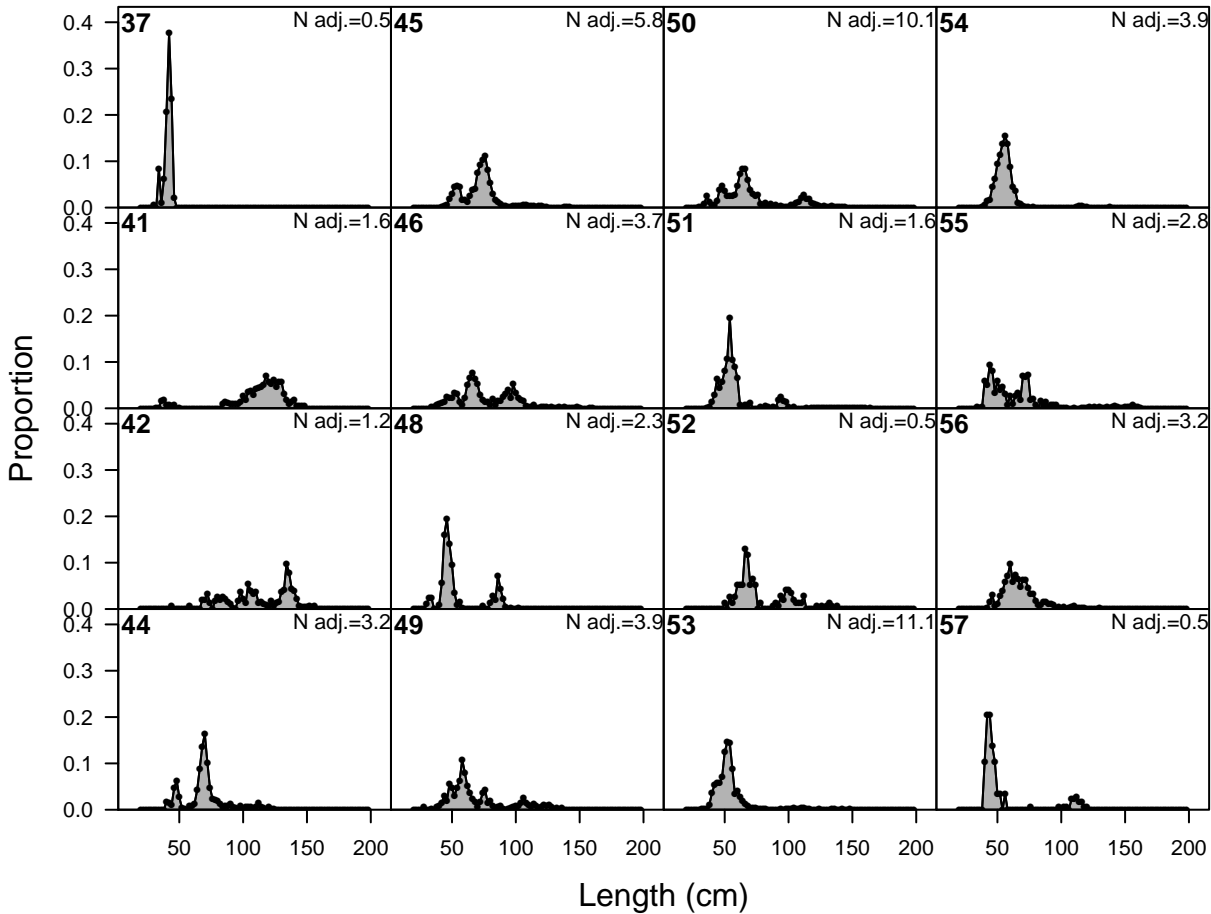


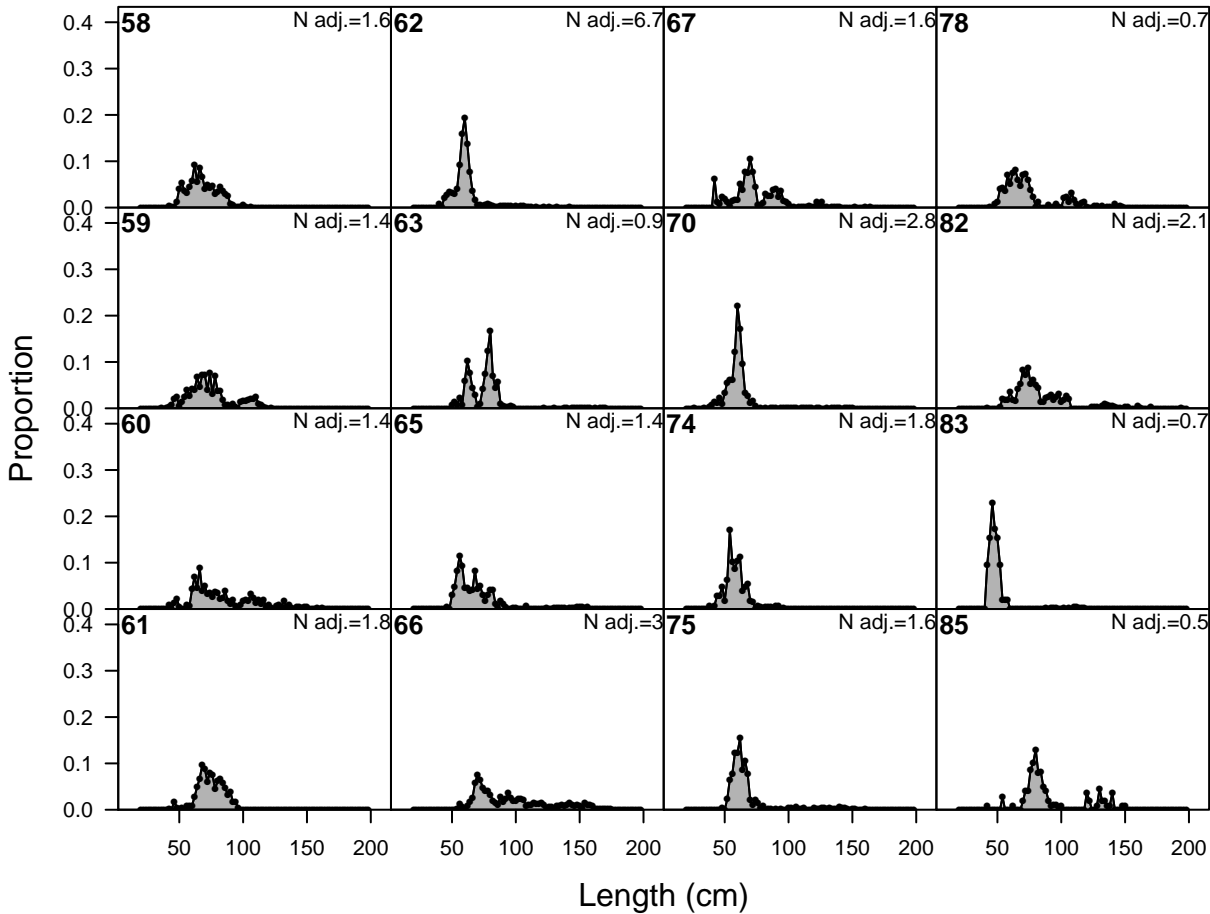




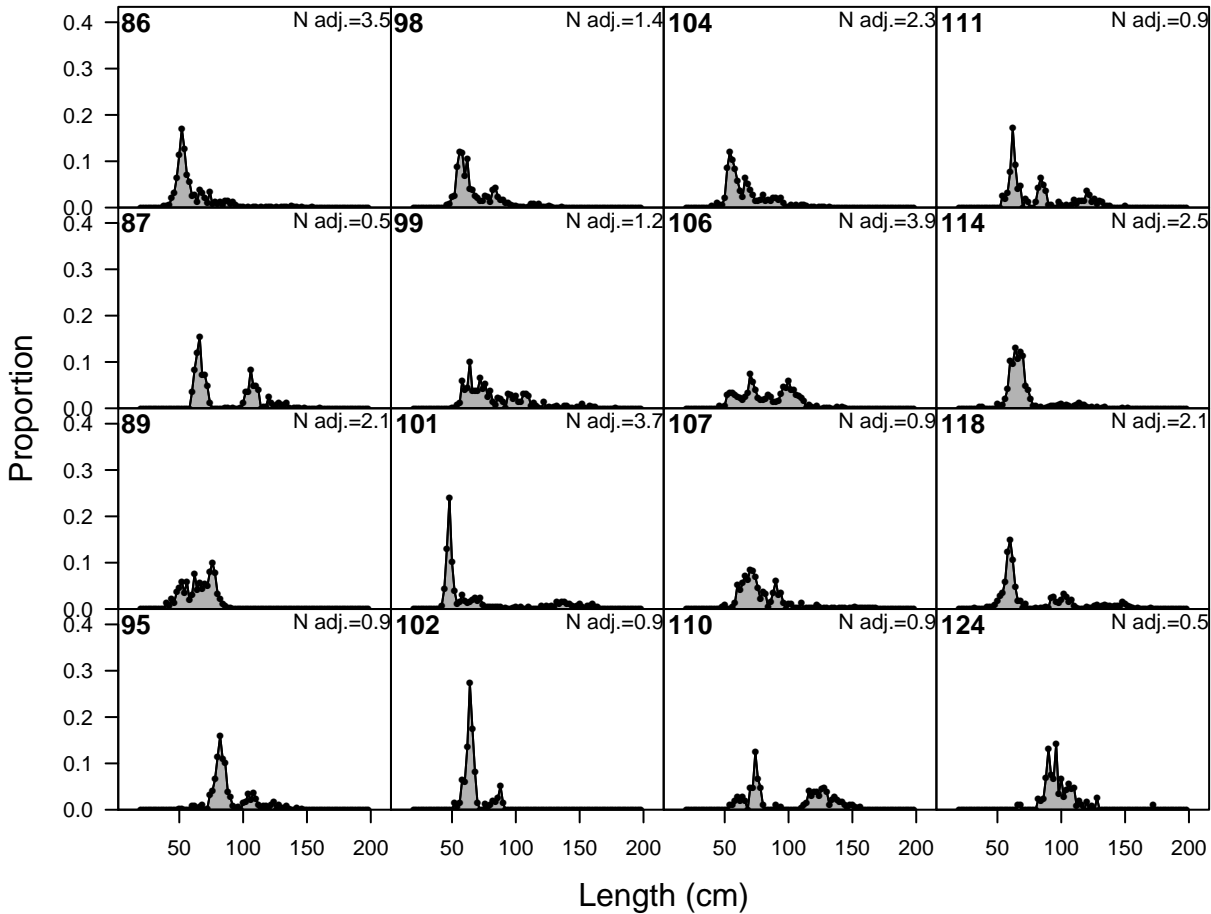
## F12-NOA\_C (whole catch)

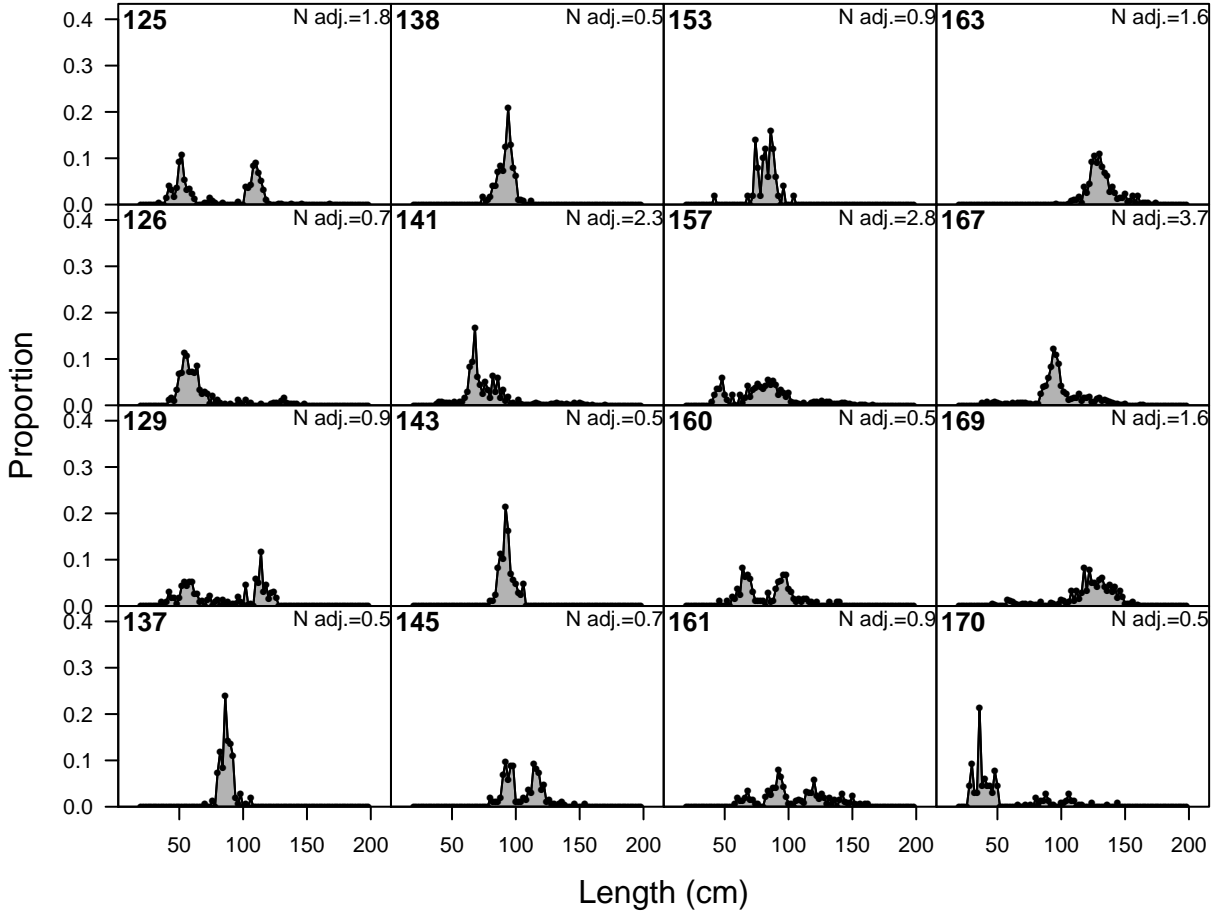


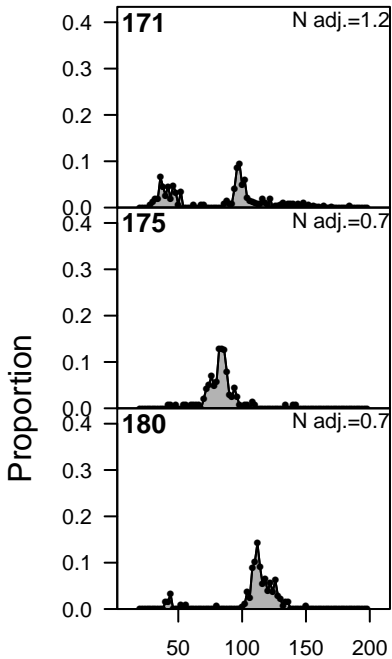




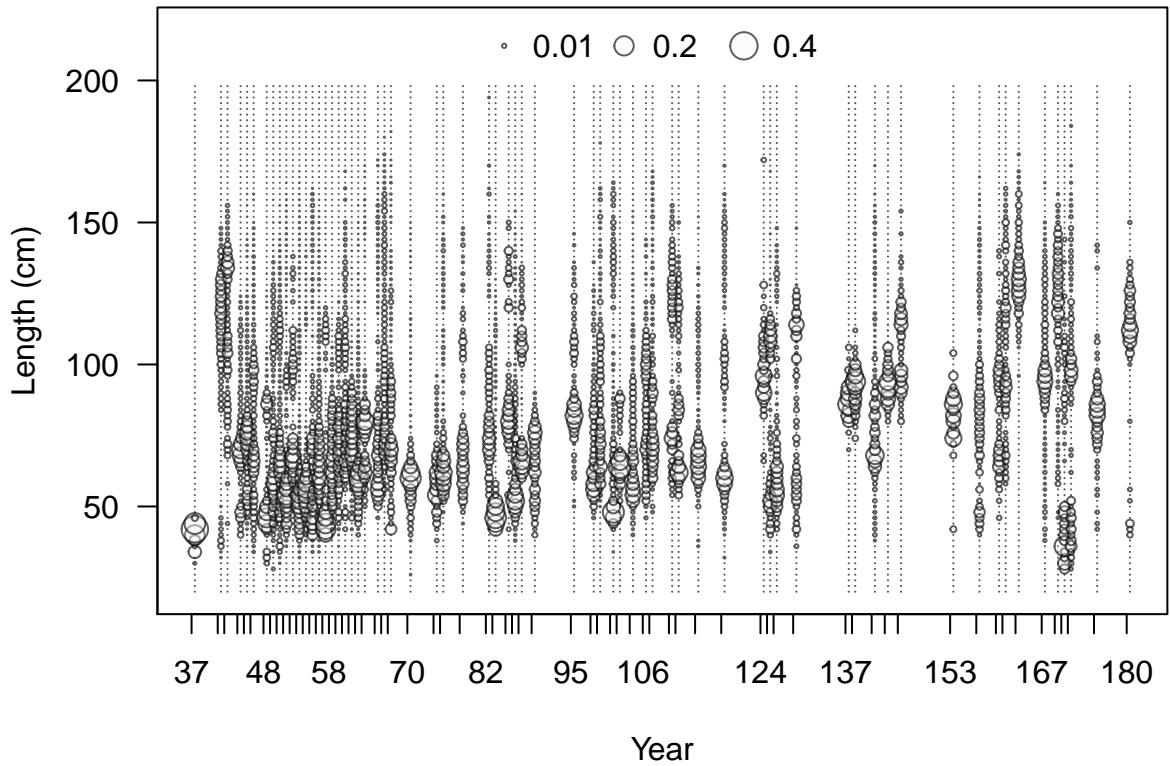




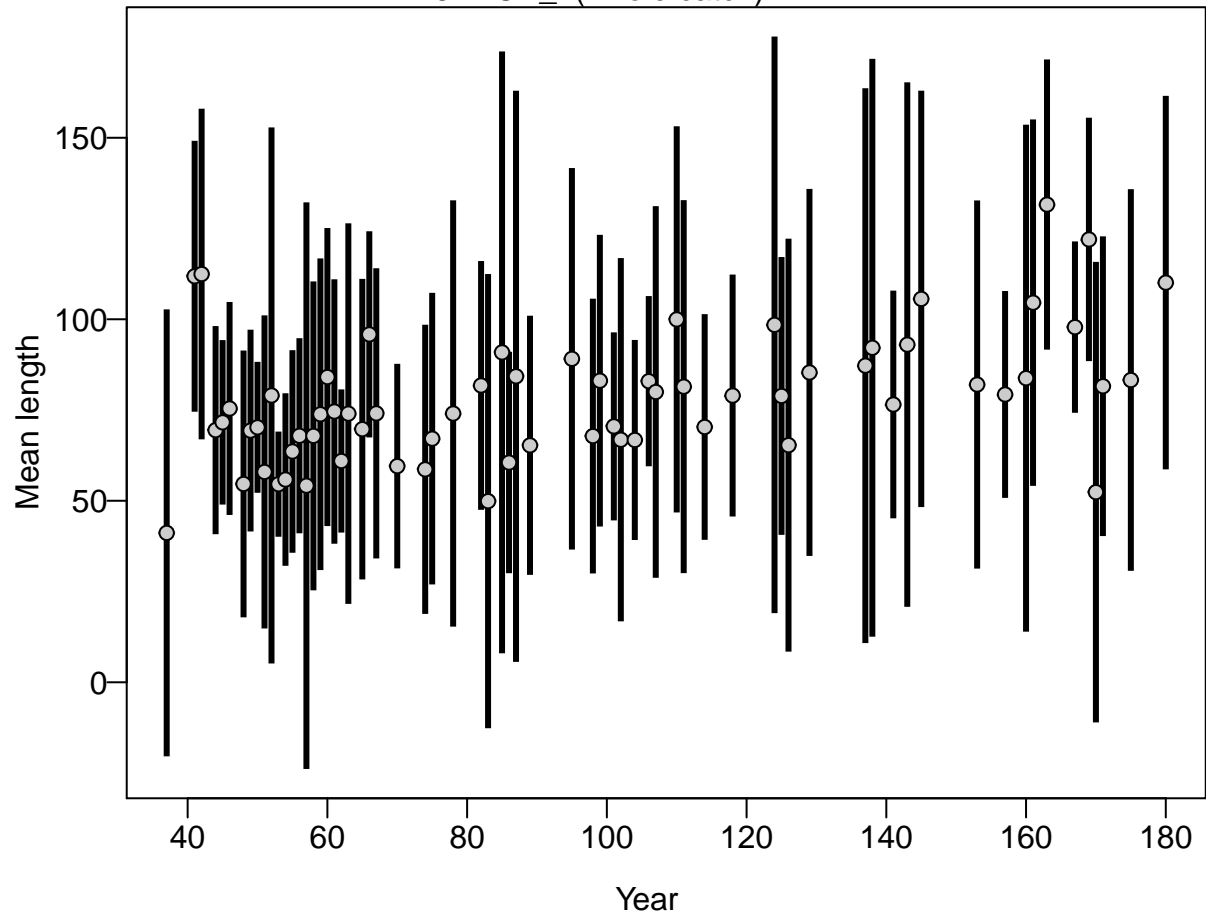


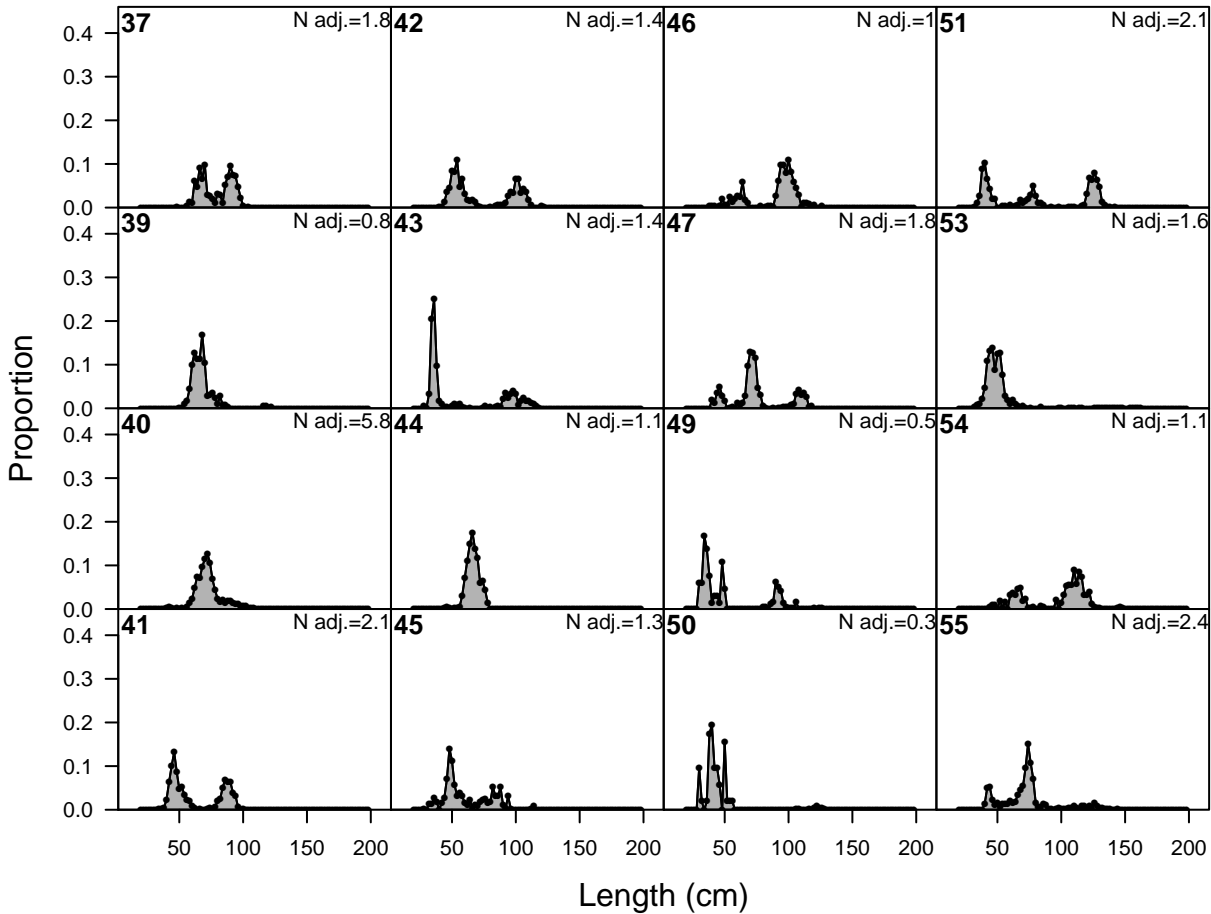


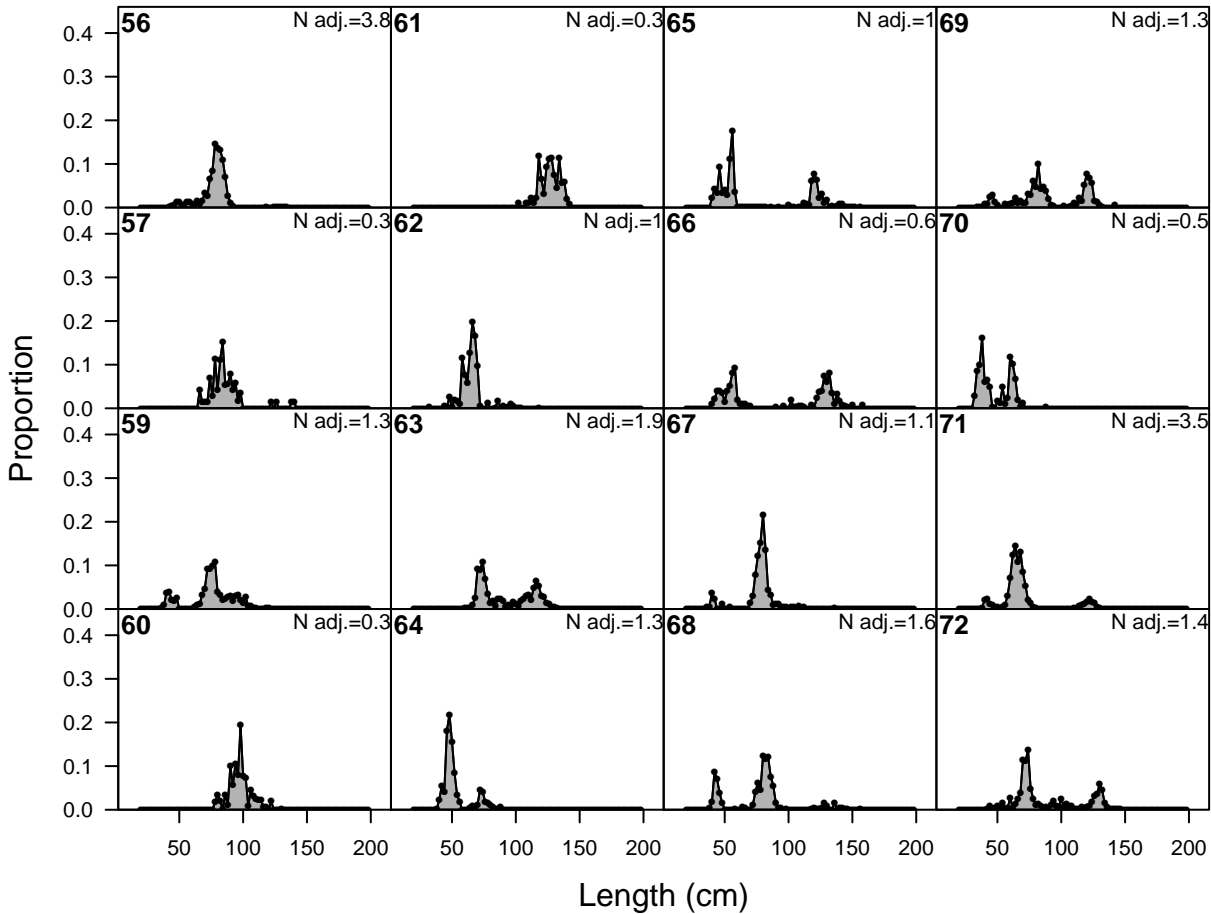
Length (cm)

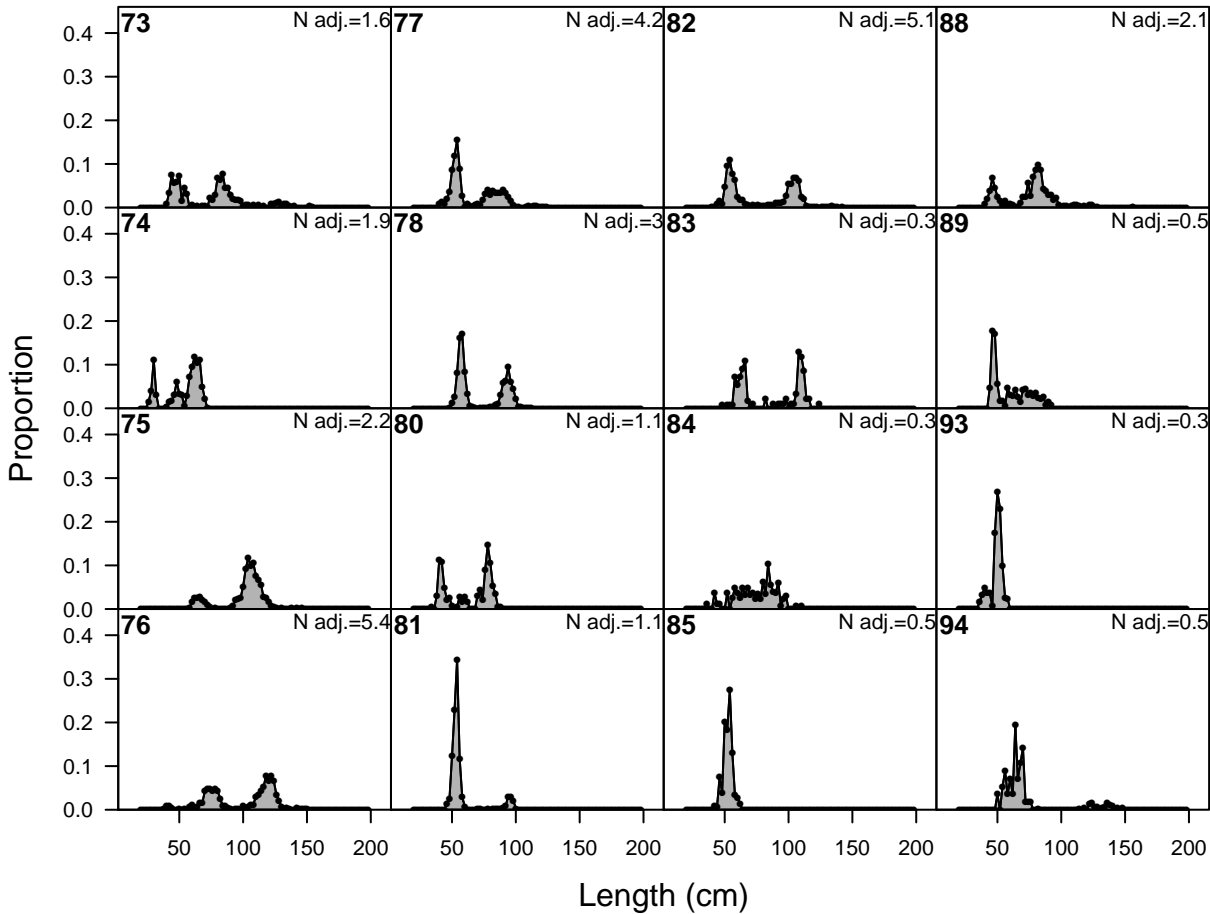


F13-NOA\_I (whole catch)

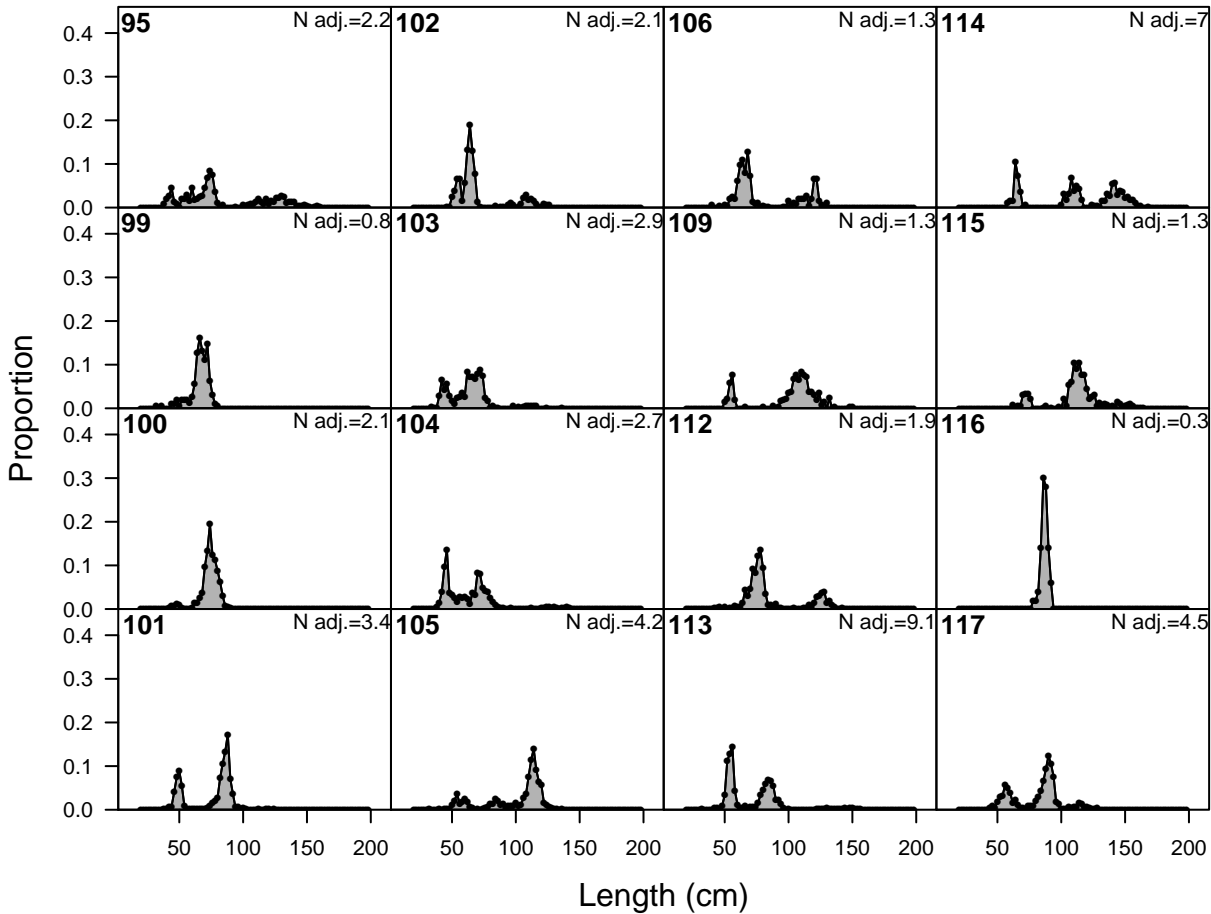


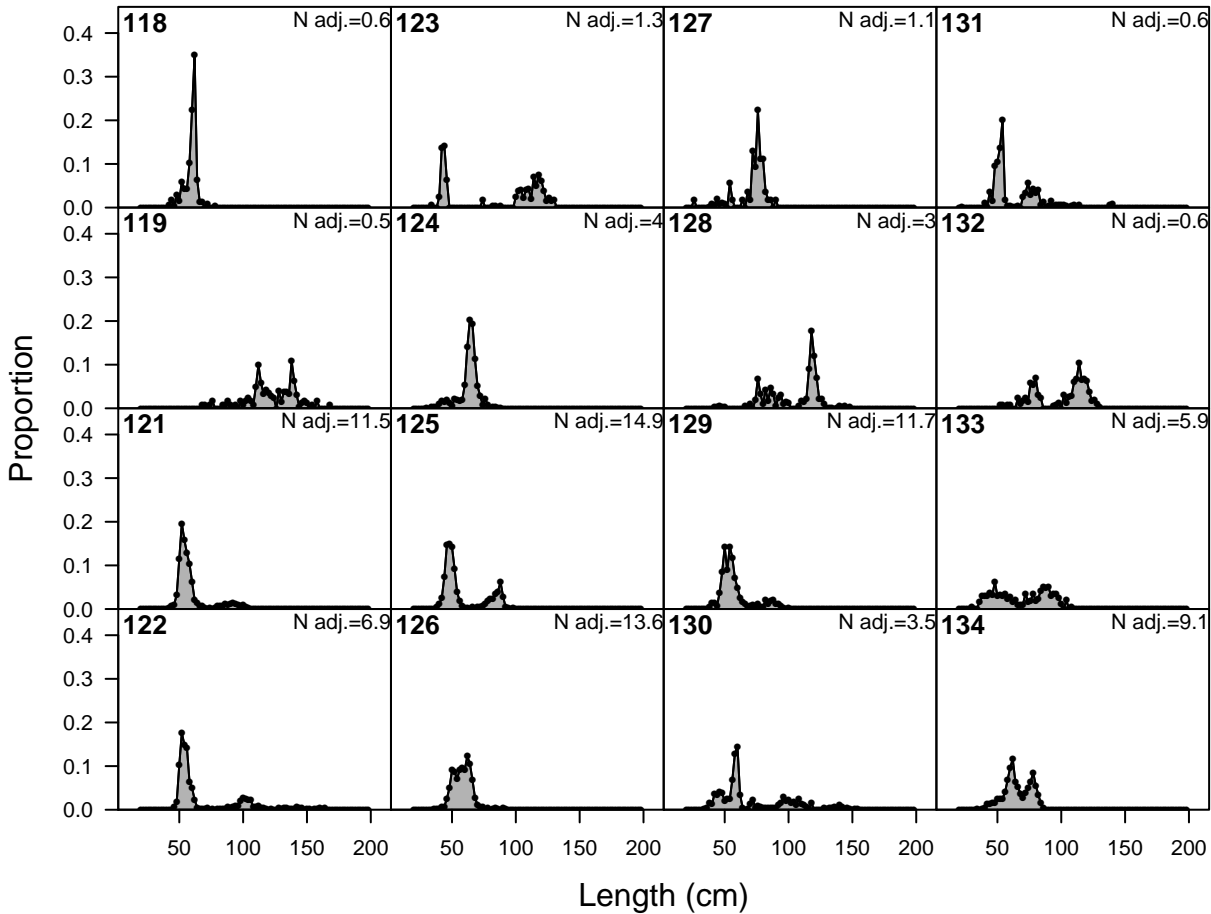


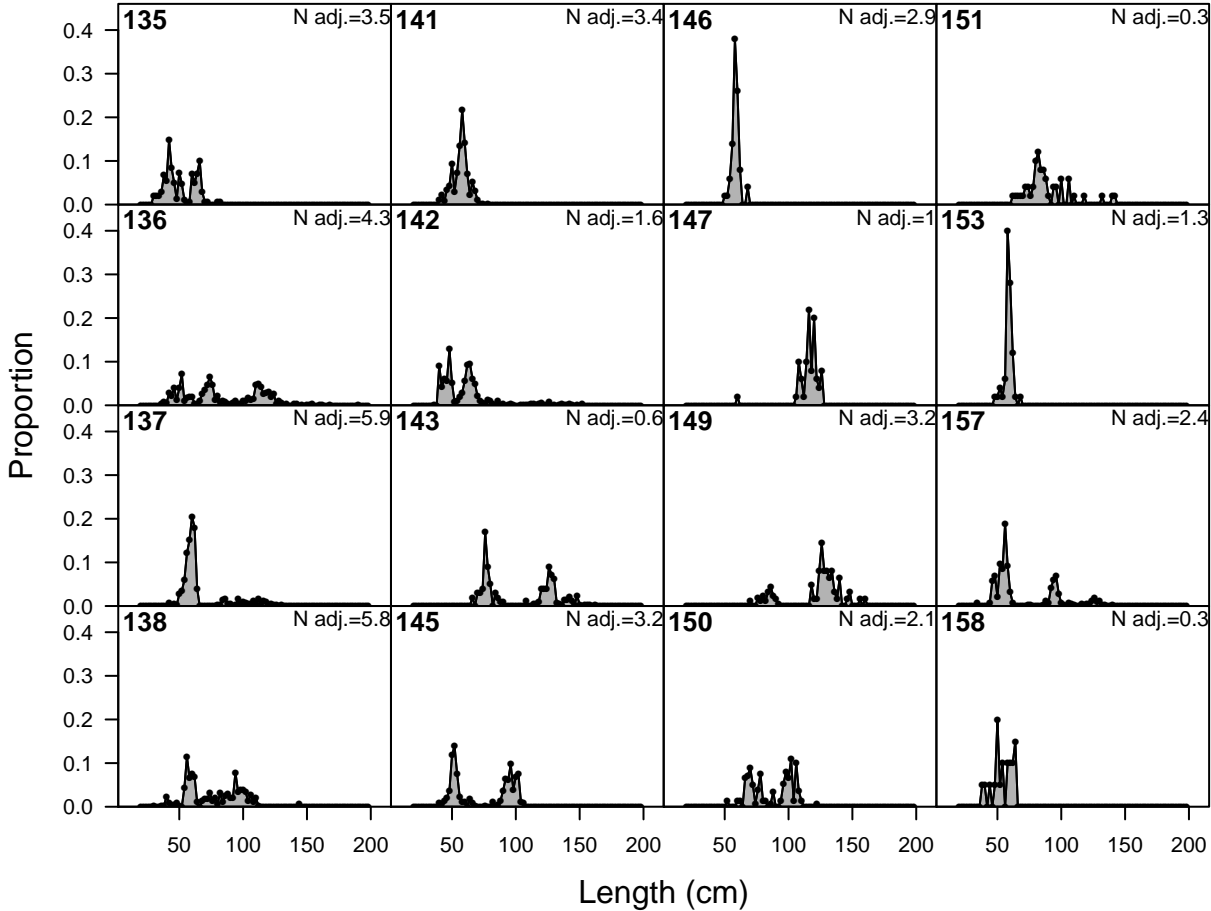


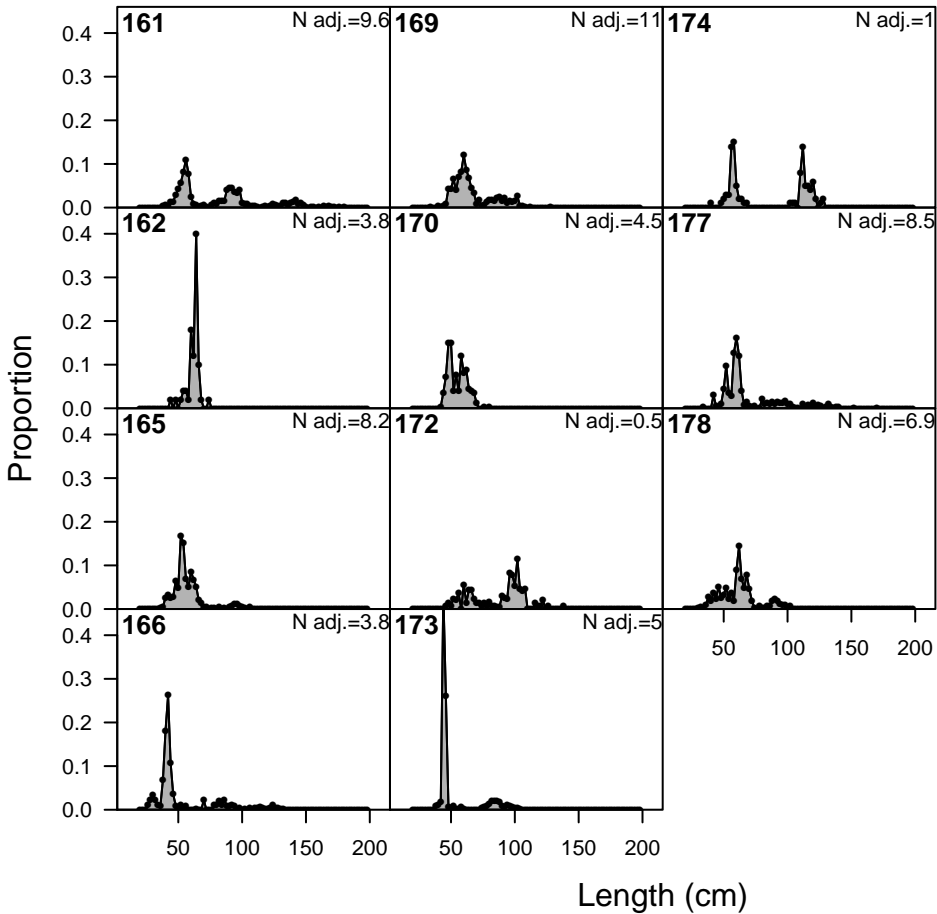


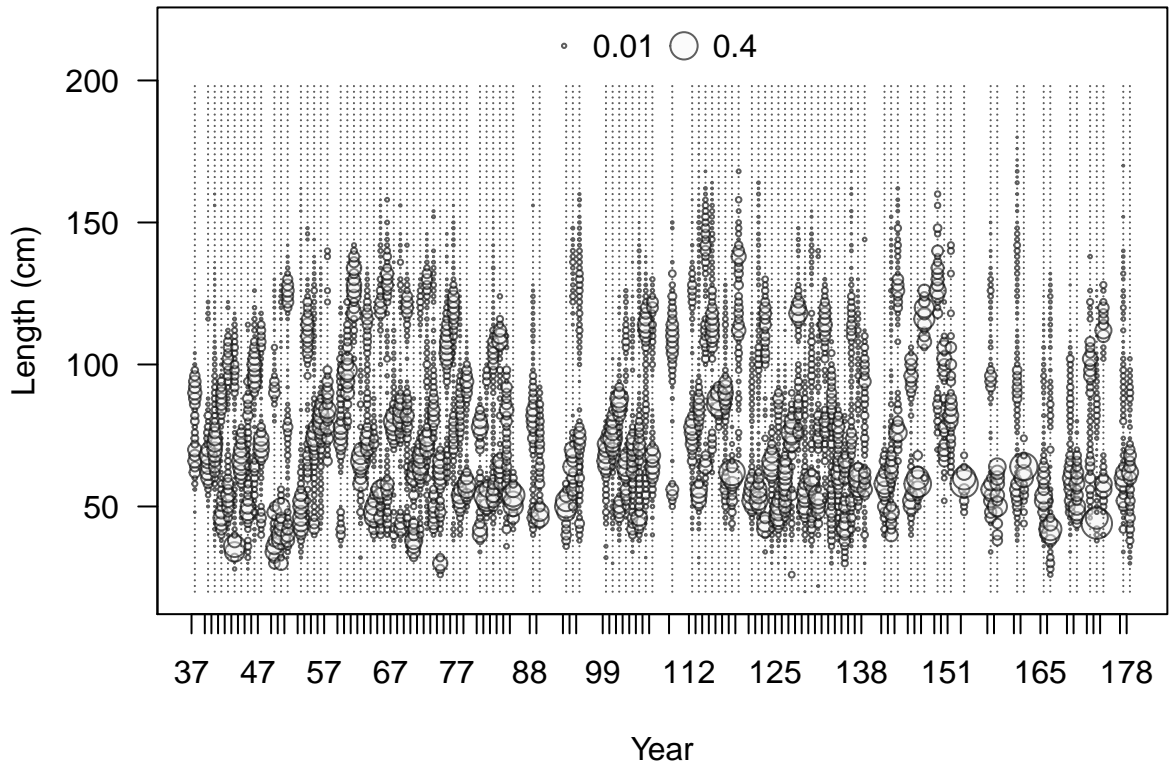




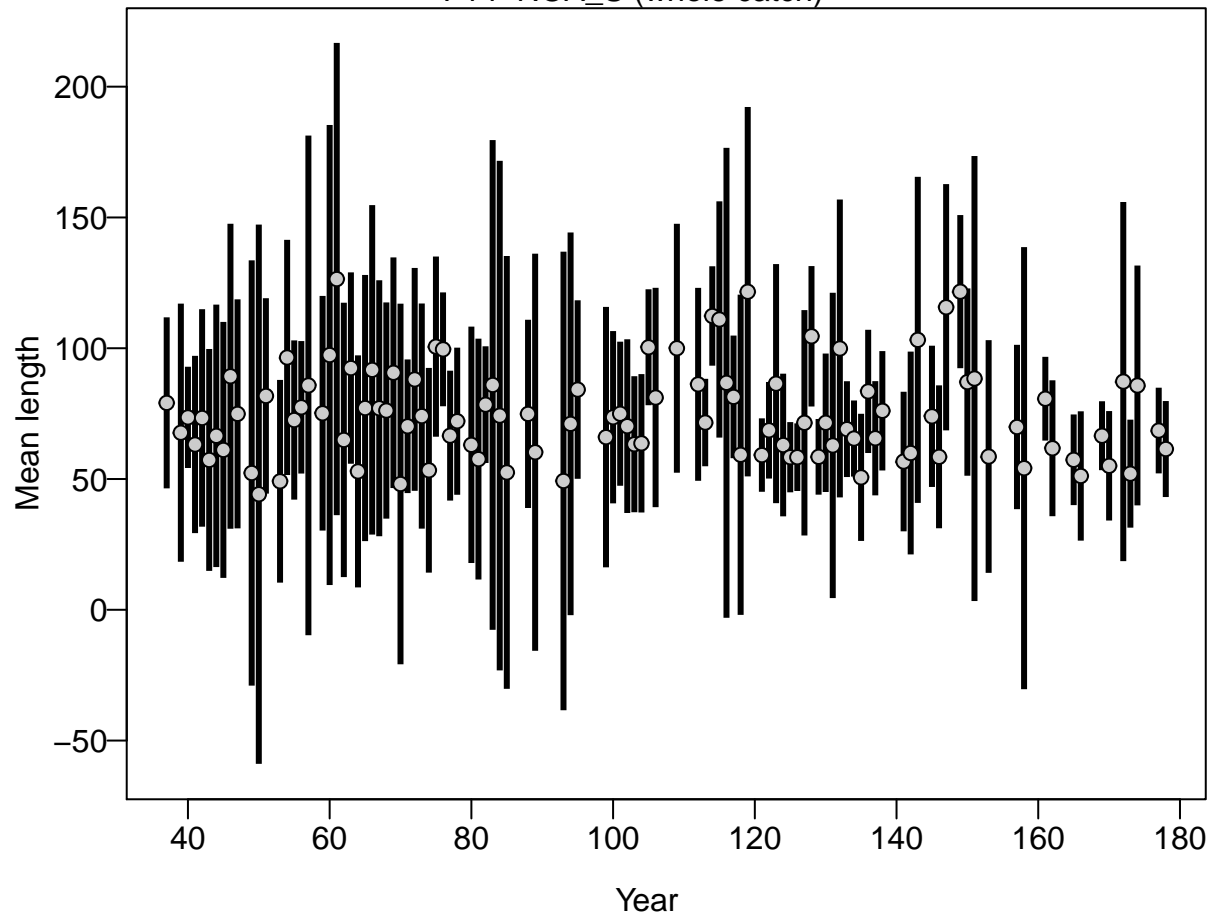


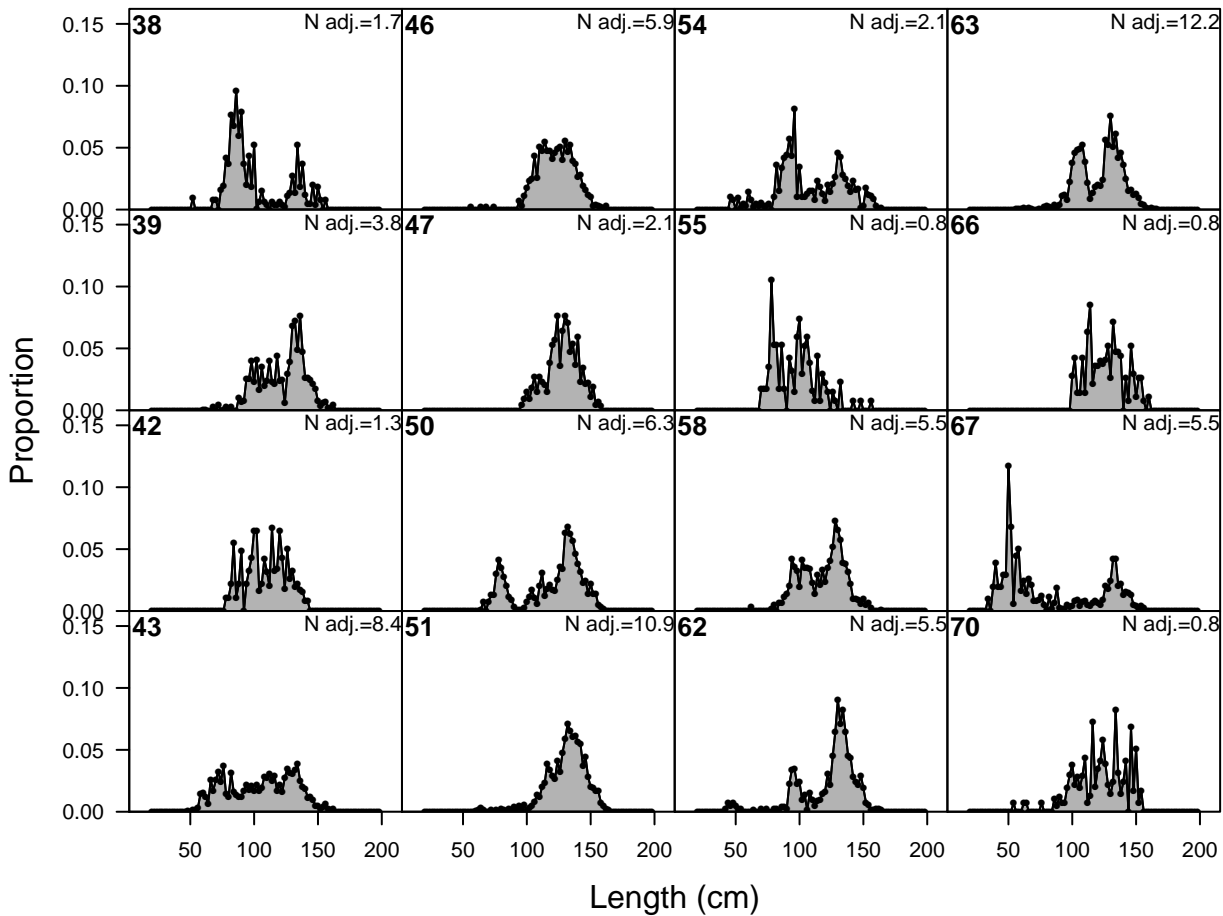




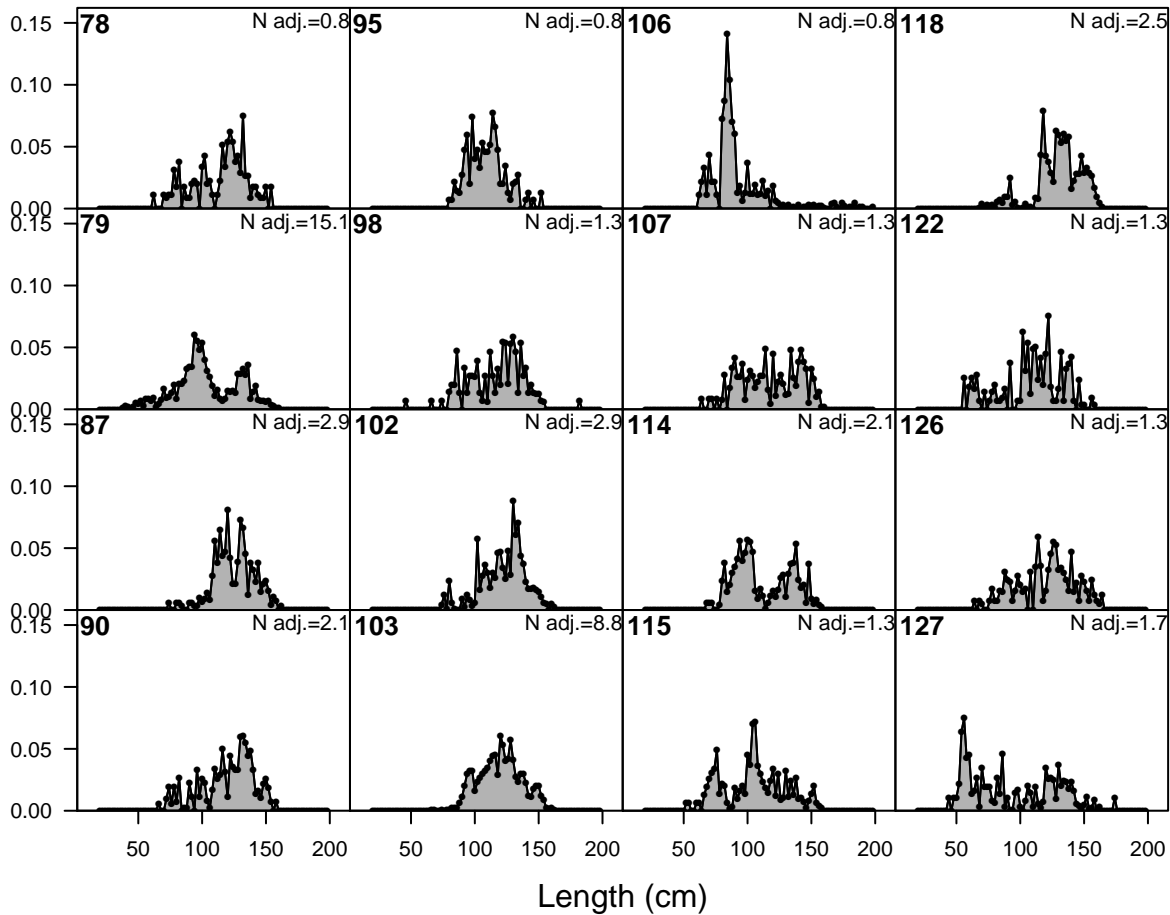


F14-NOA\_S (whole catch)

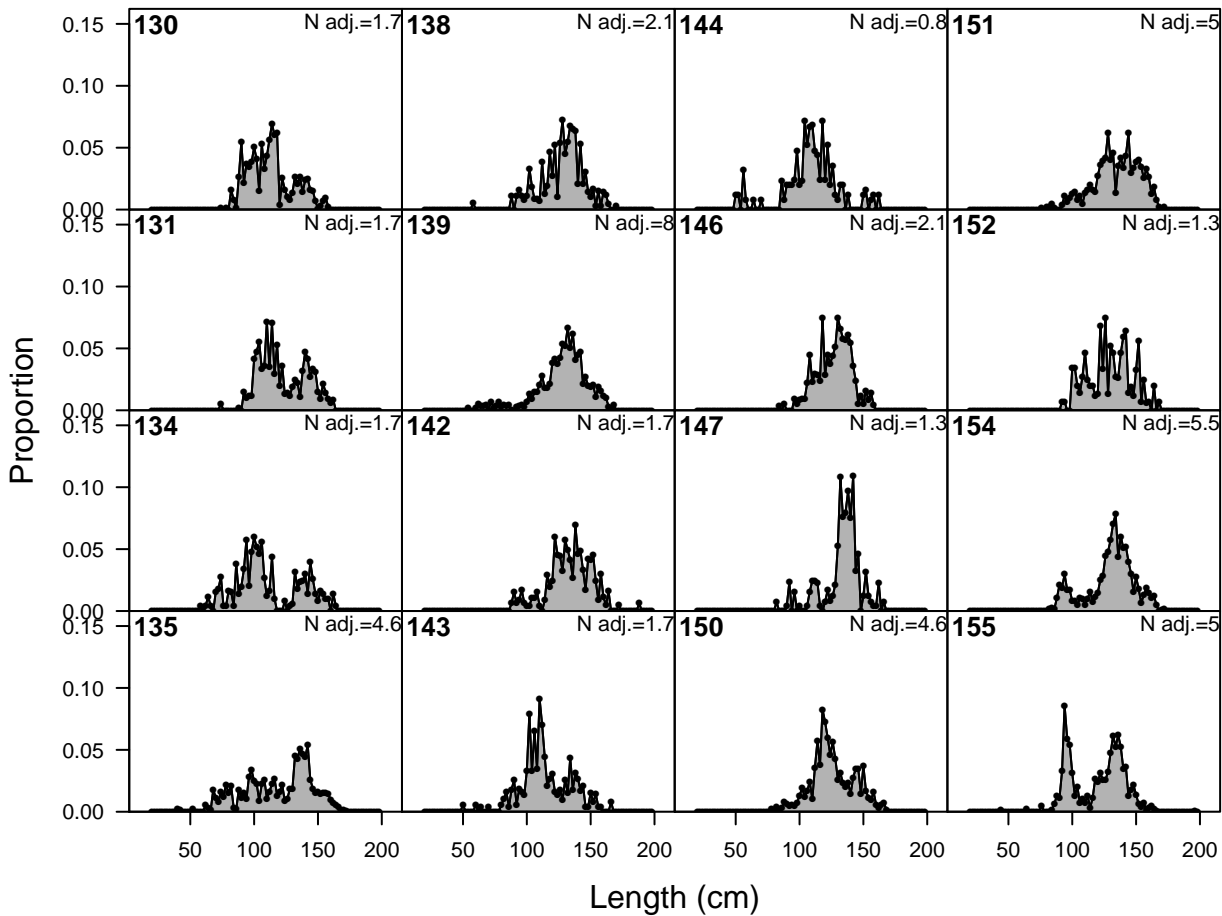




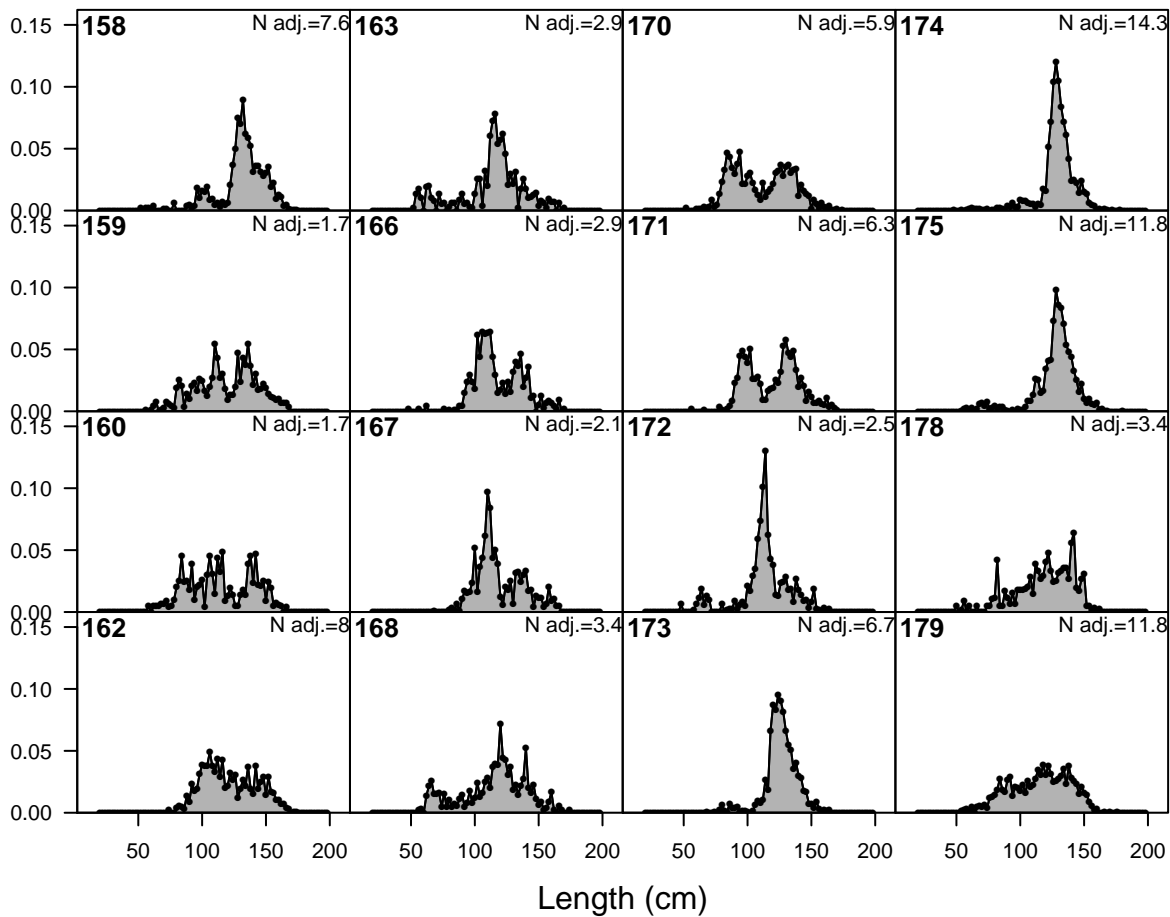
Proportion

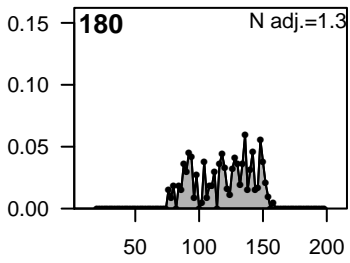






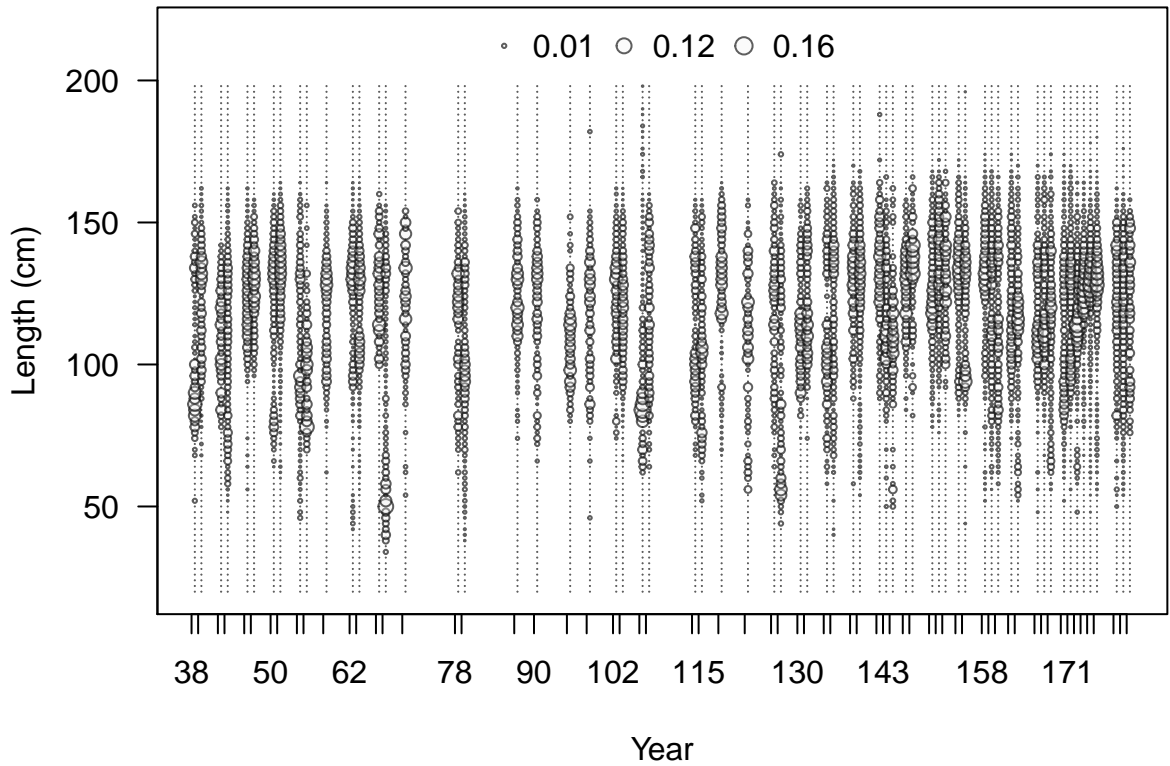
Proportion



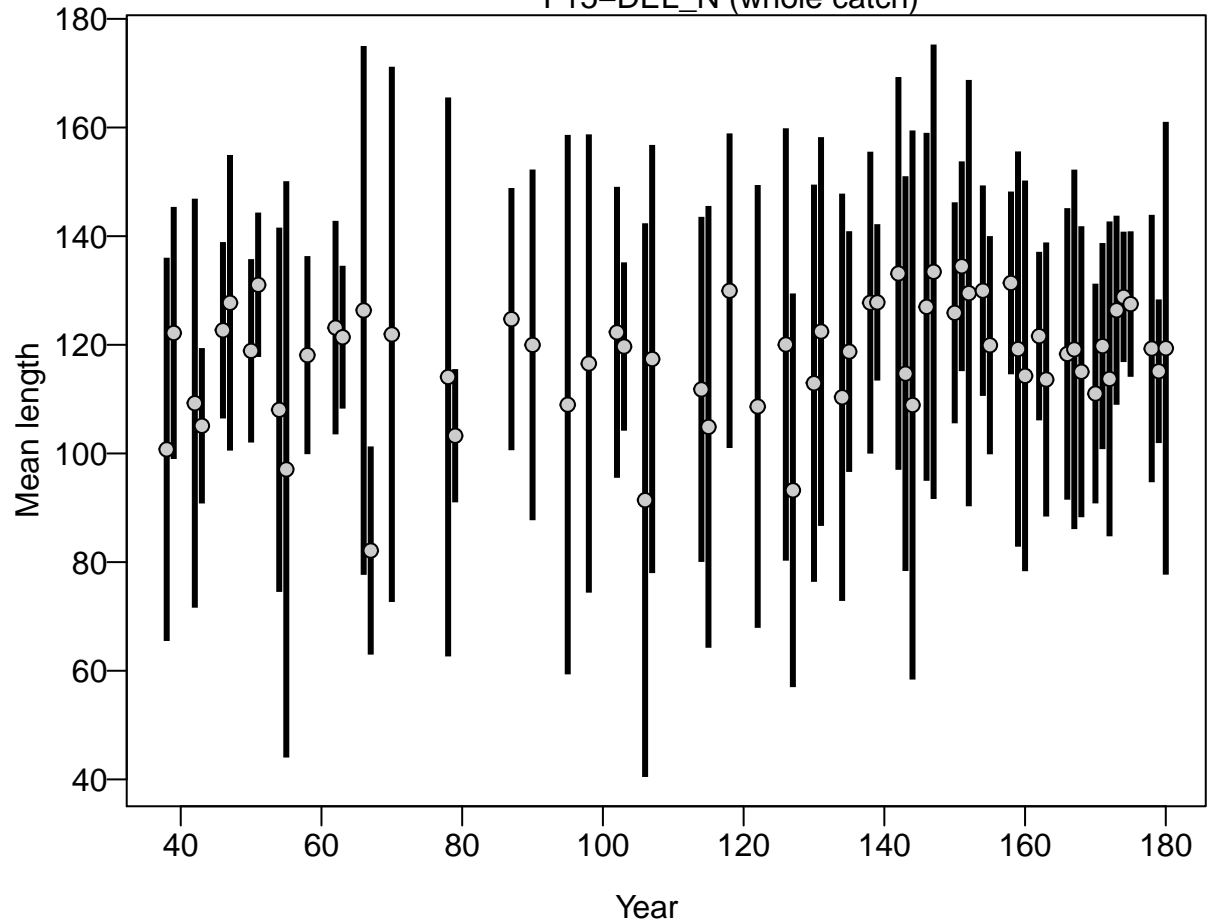


Proportion

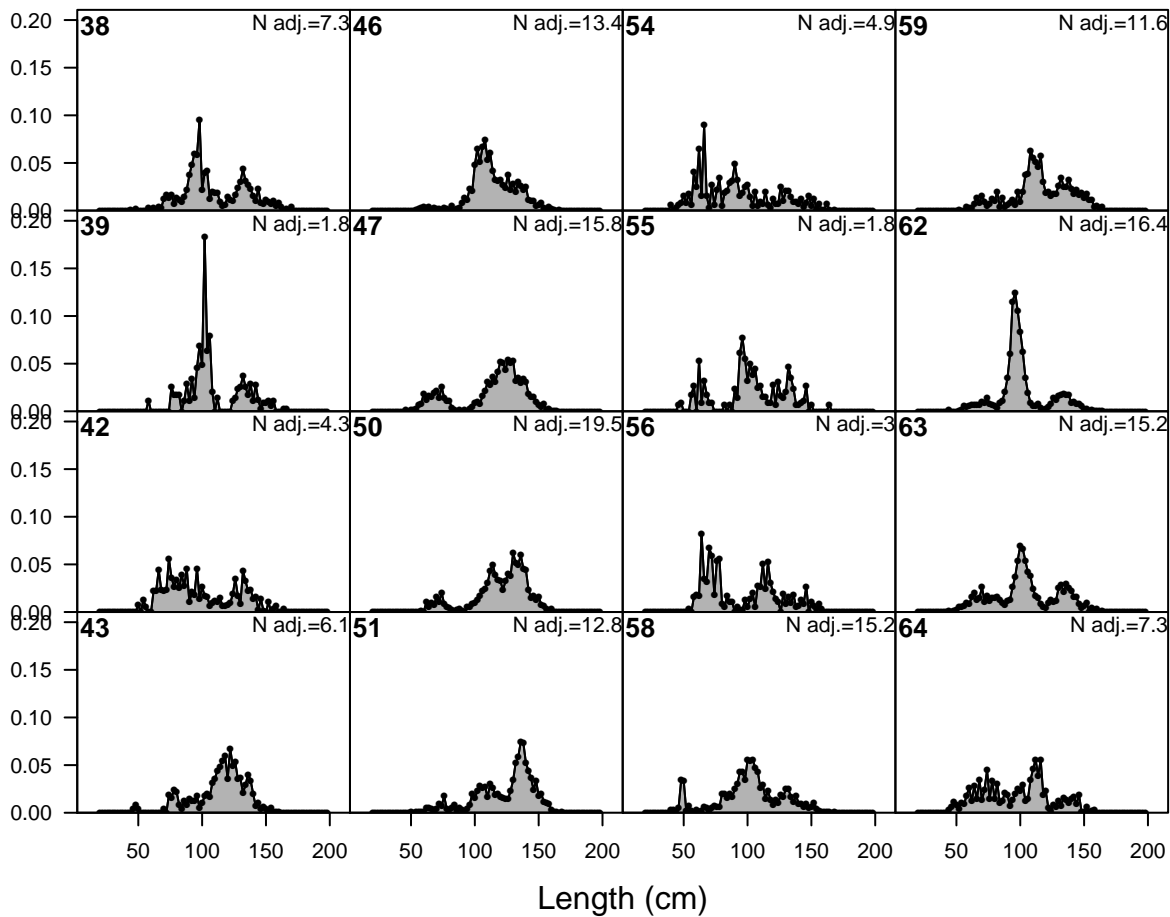
Length (cm)



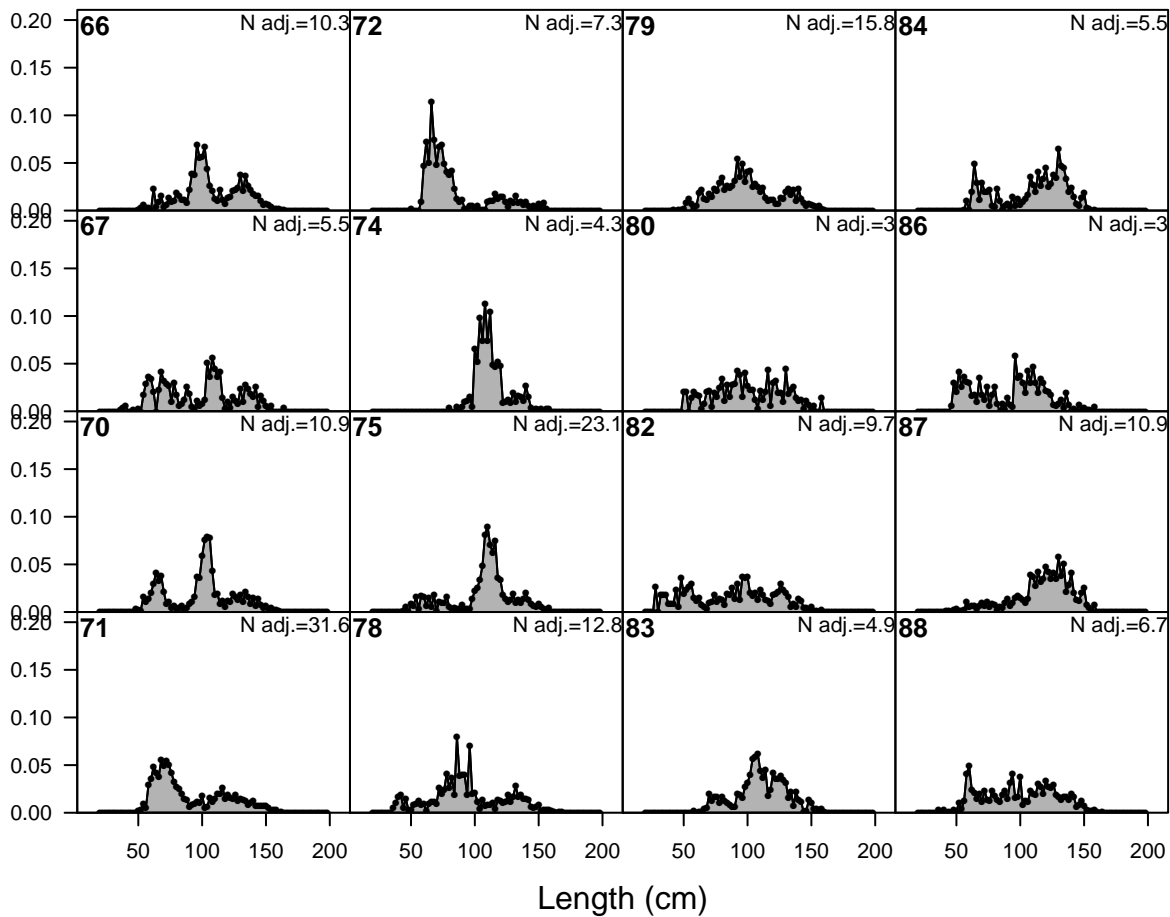
F15-DEL\_N (whole catch)



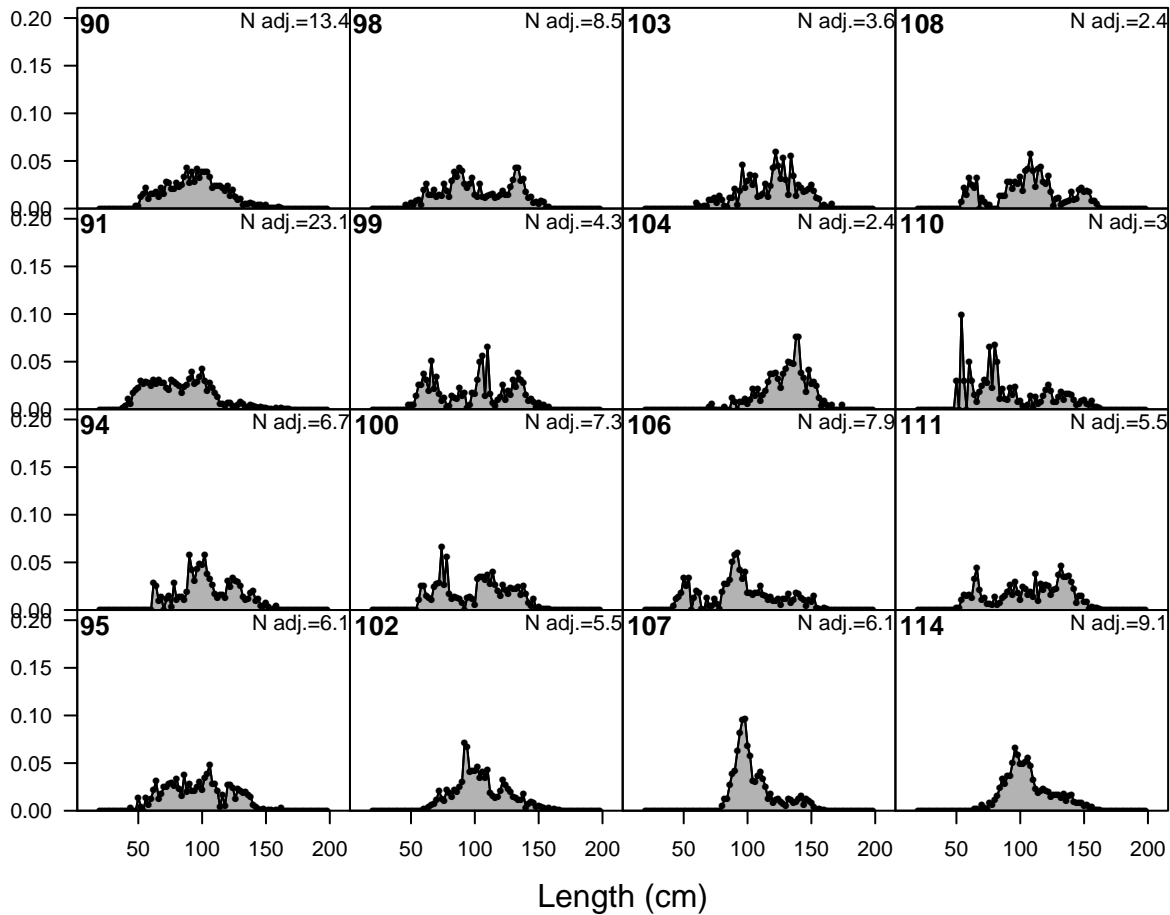
Proportion



Proportion

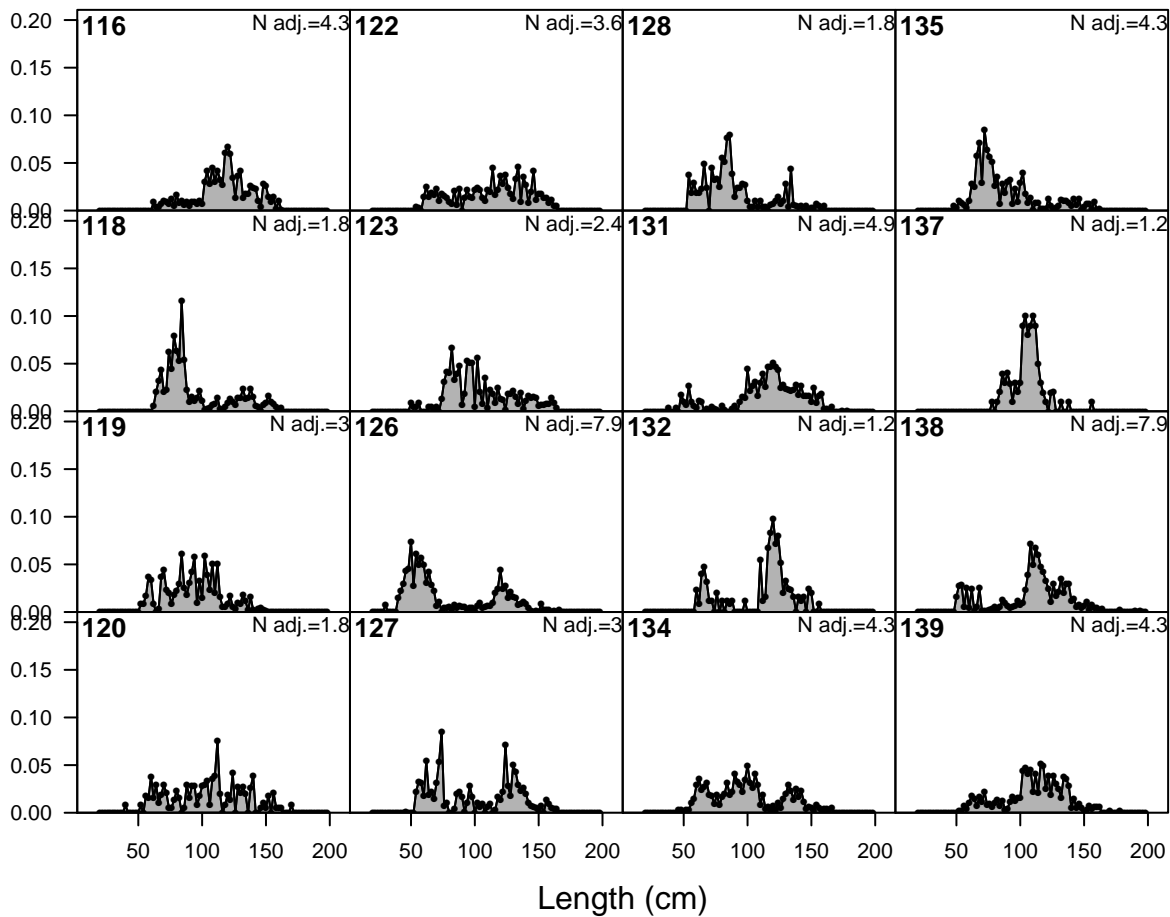


Proportion

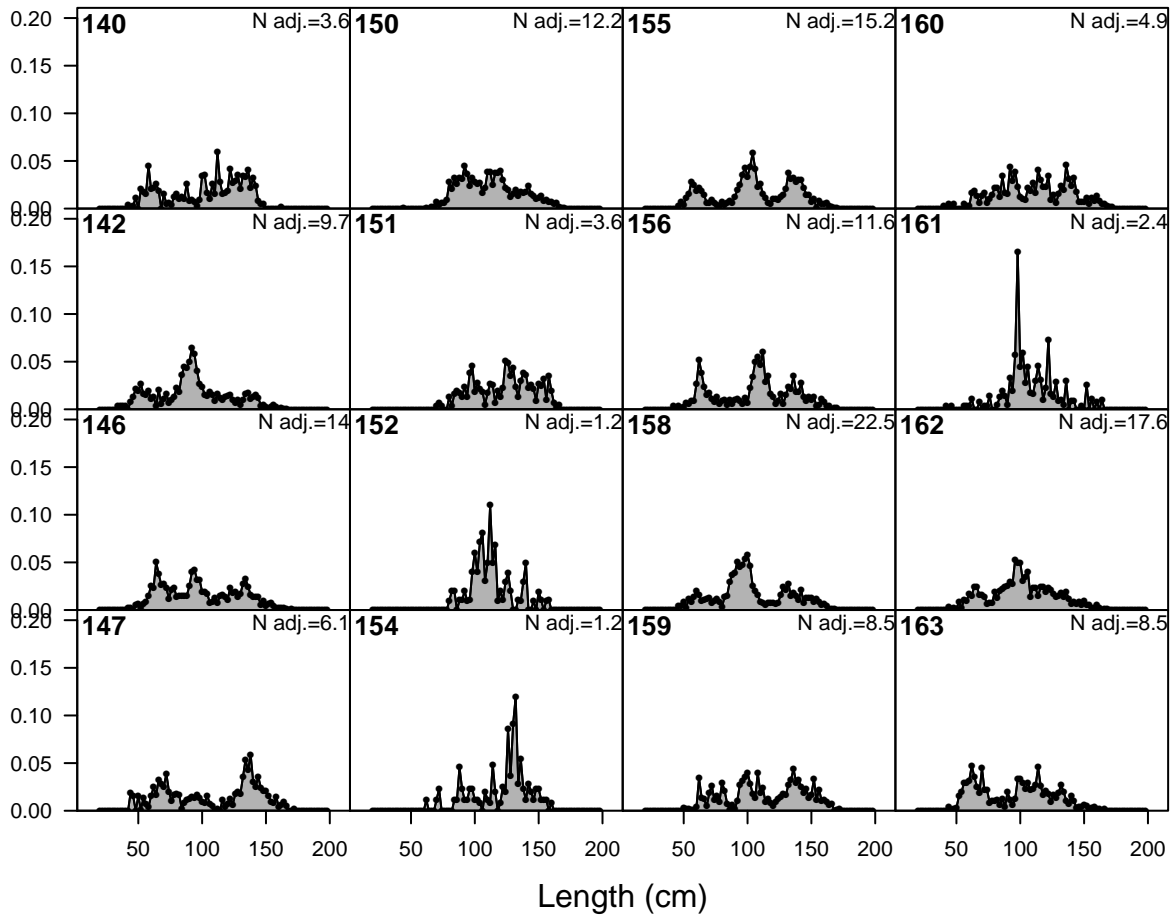




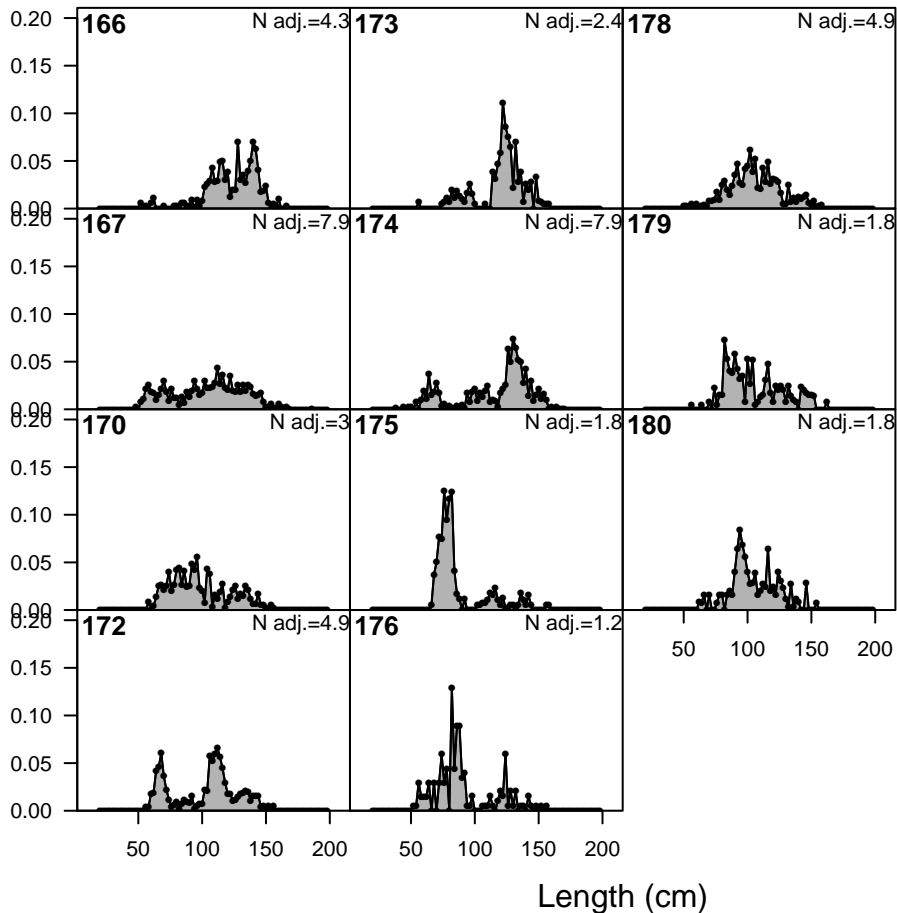
Proportion

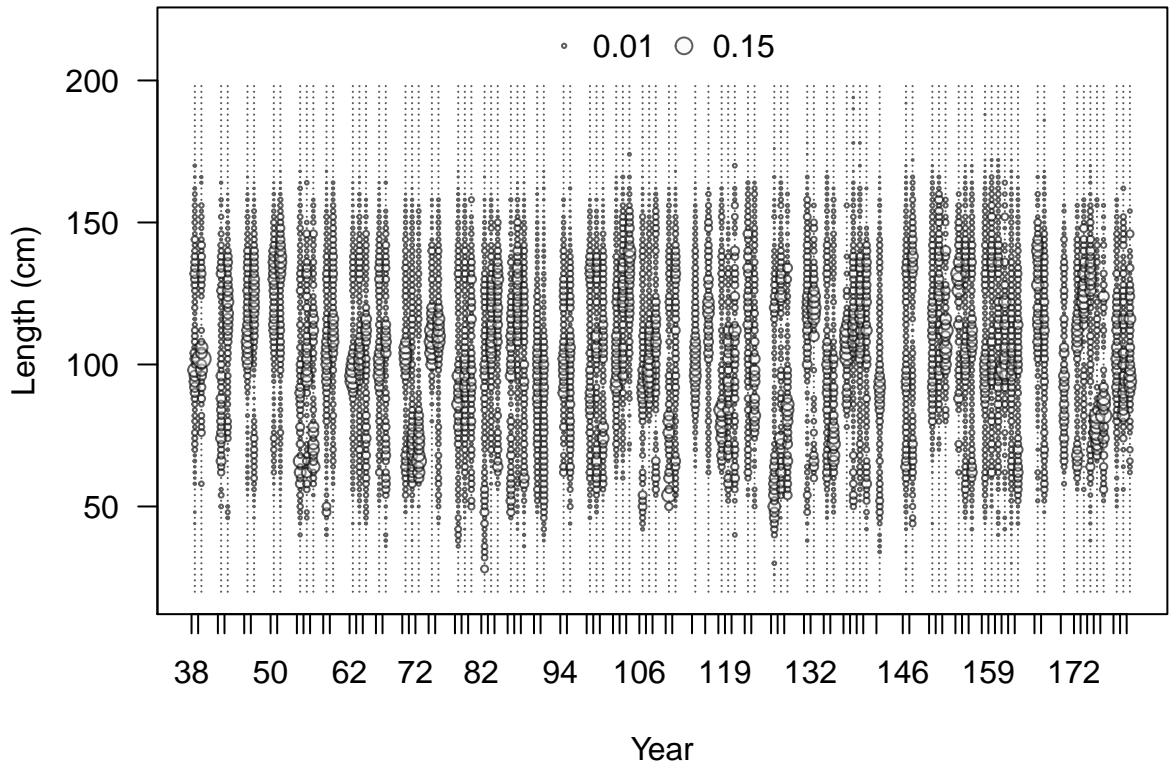


Proportion

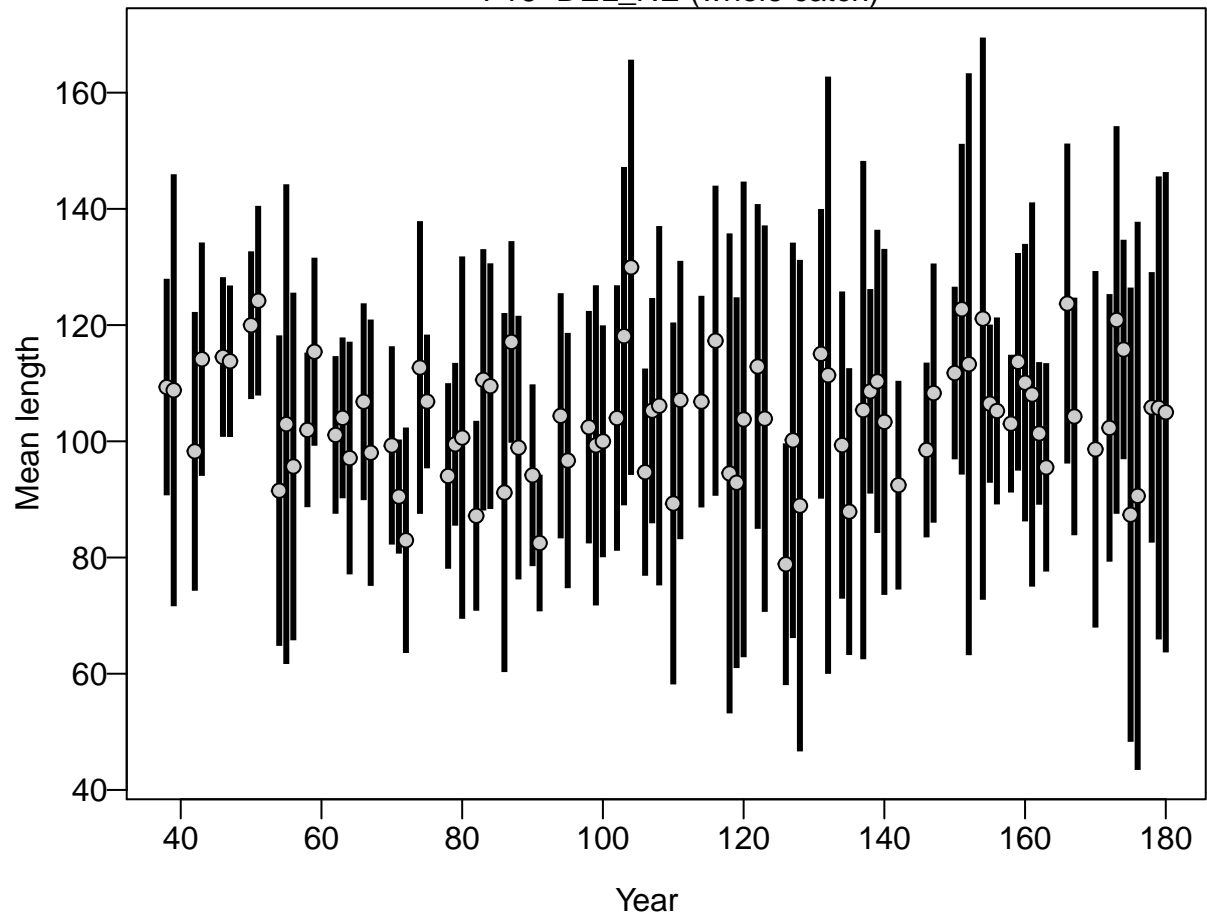


Proportion

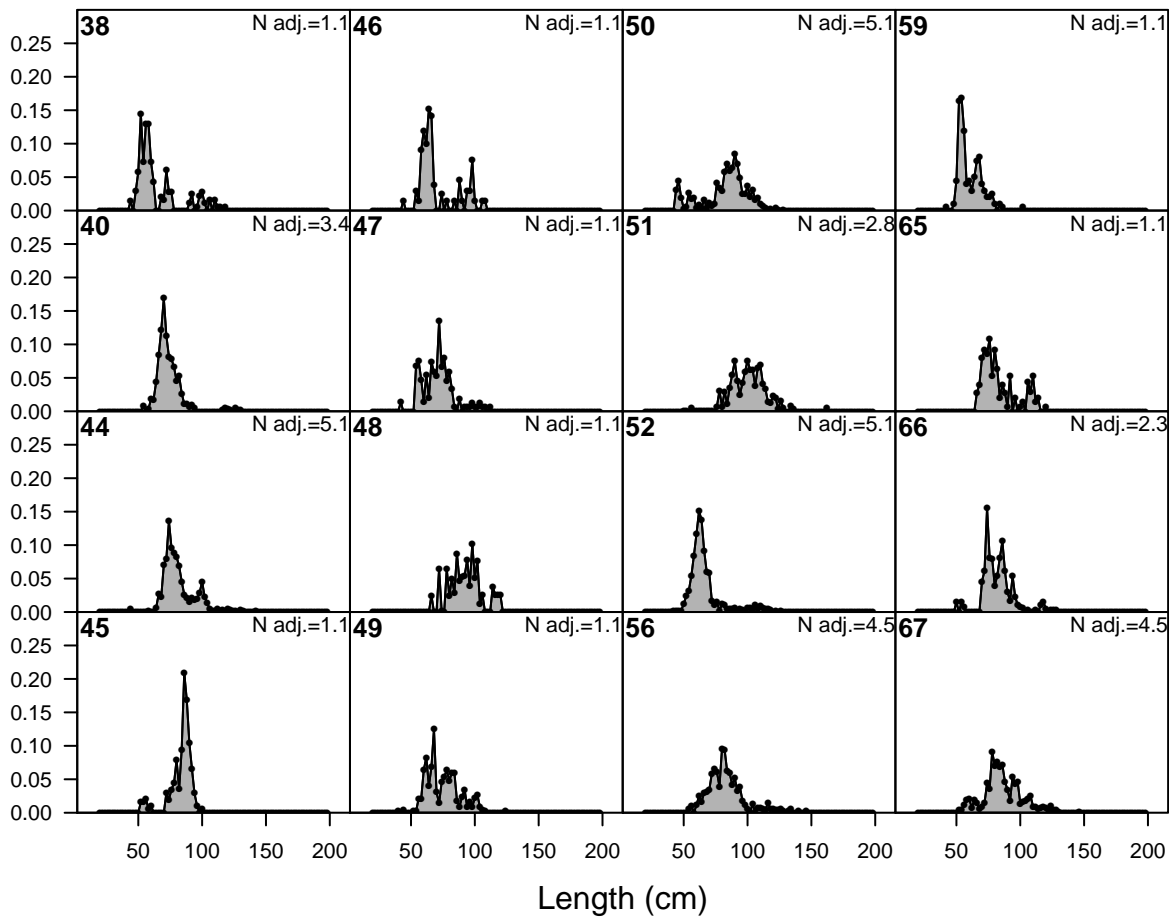




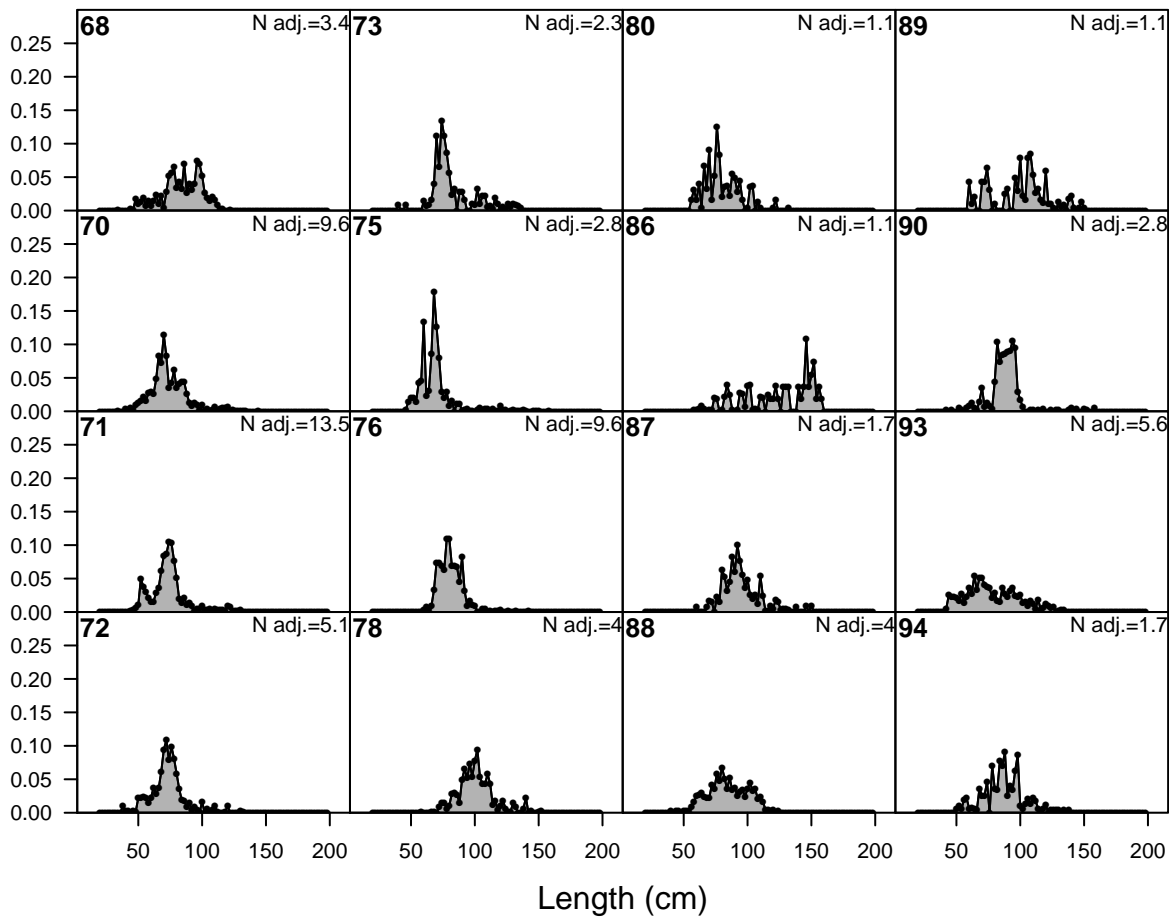
F16-DEL\_NE (whole catch)



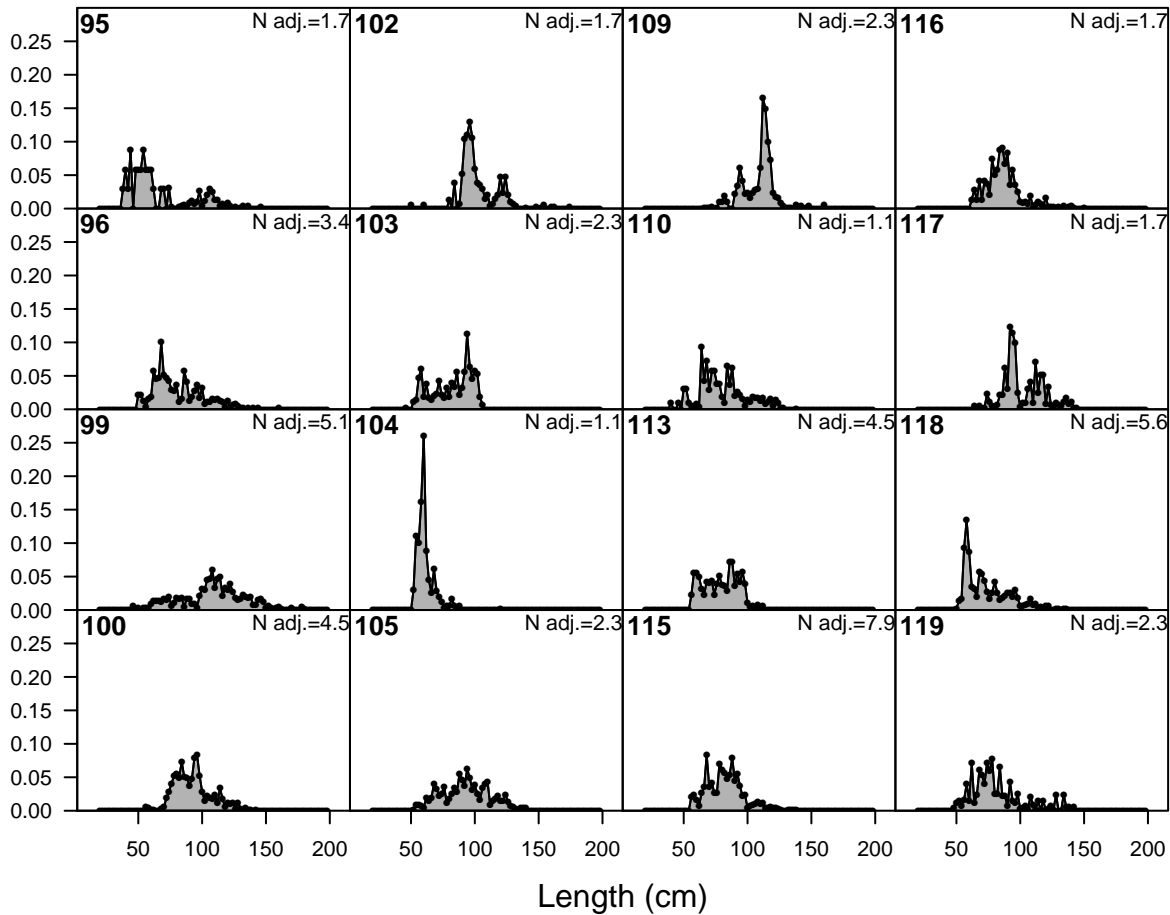
Proportion



Proportion

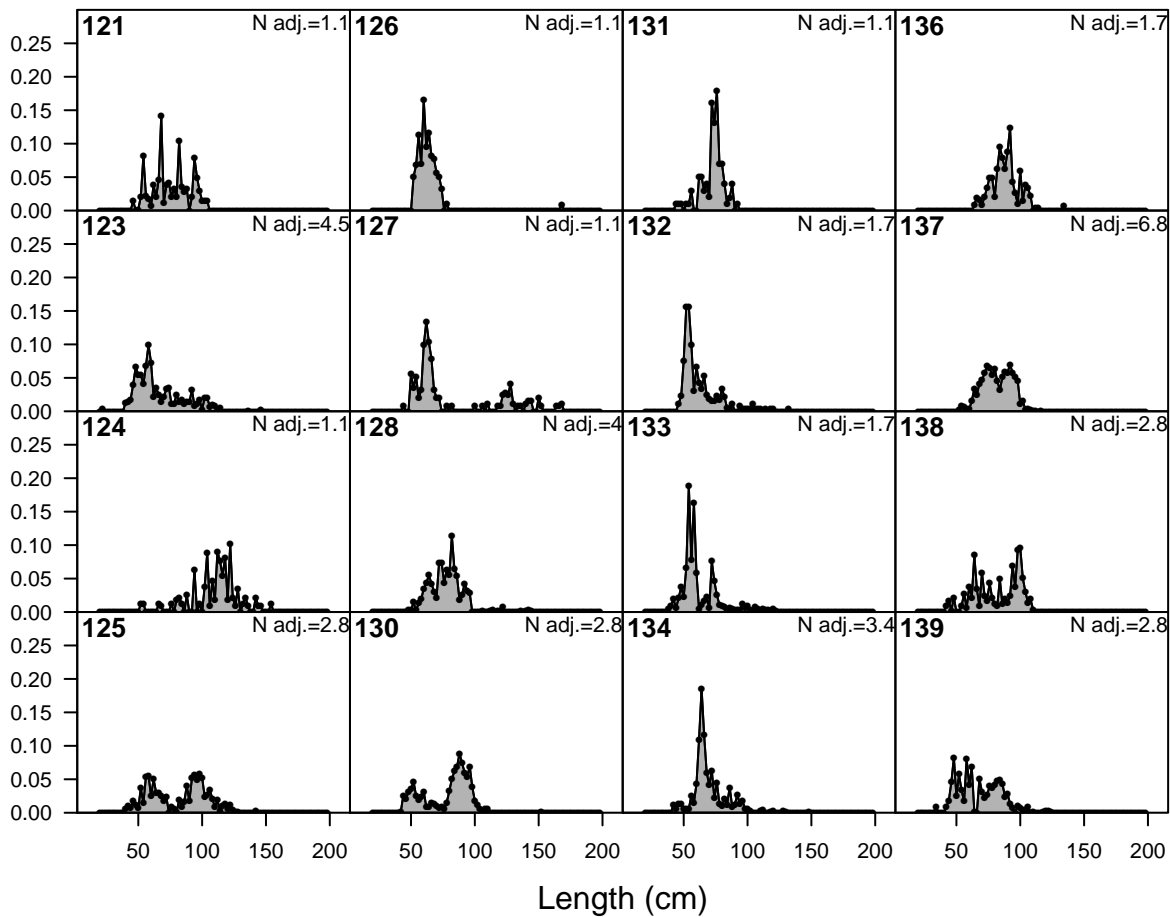


Proportion

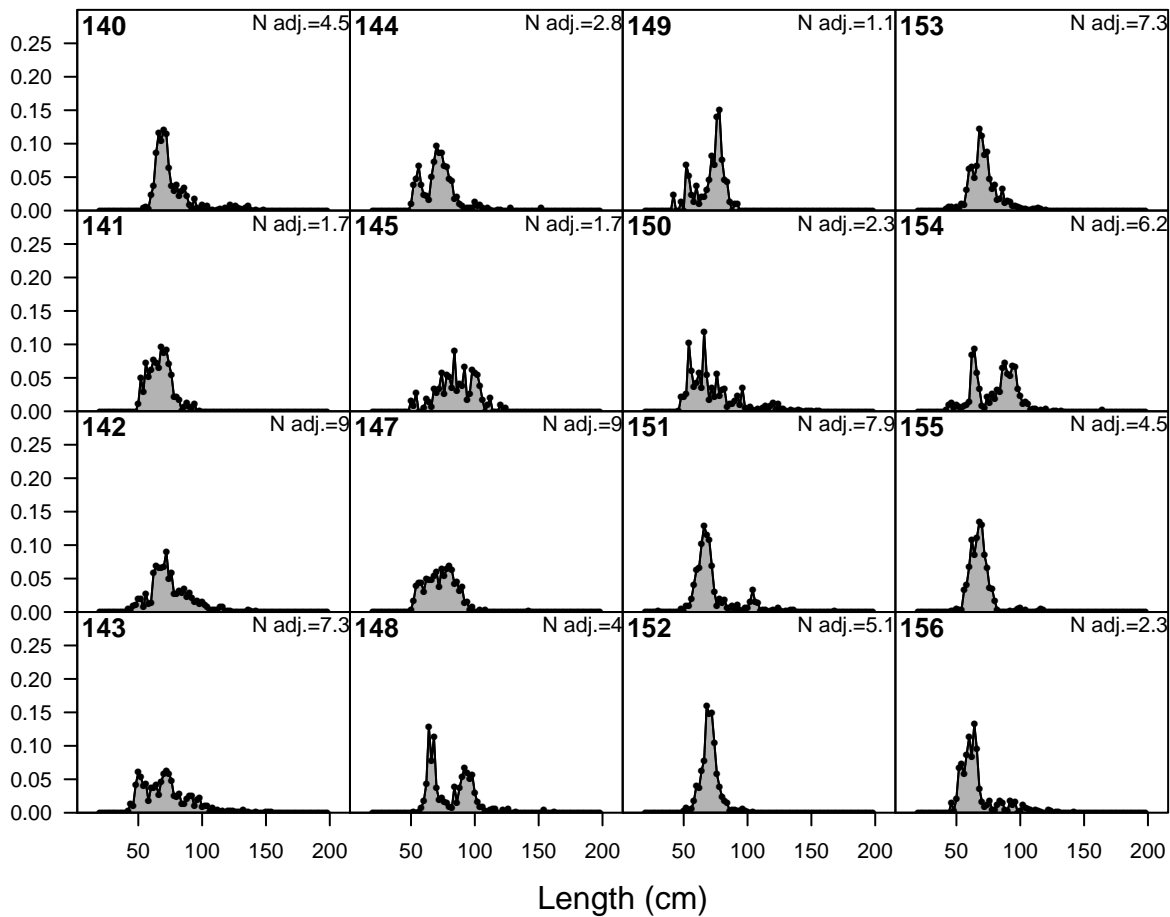




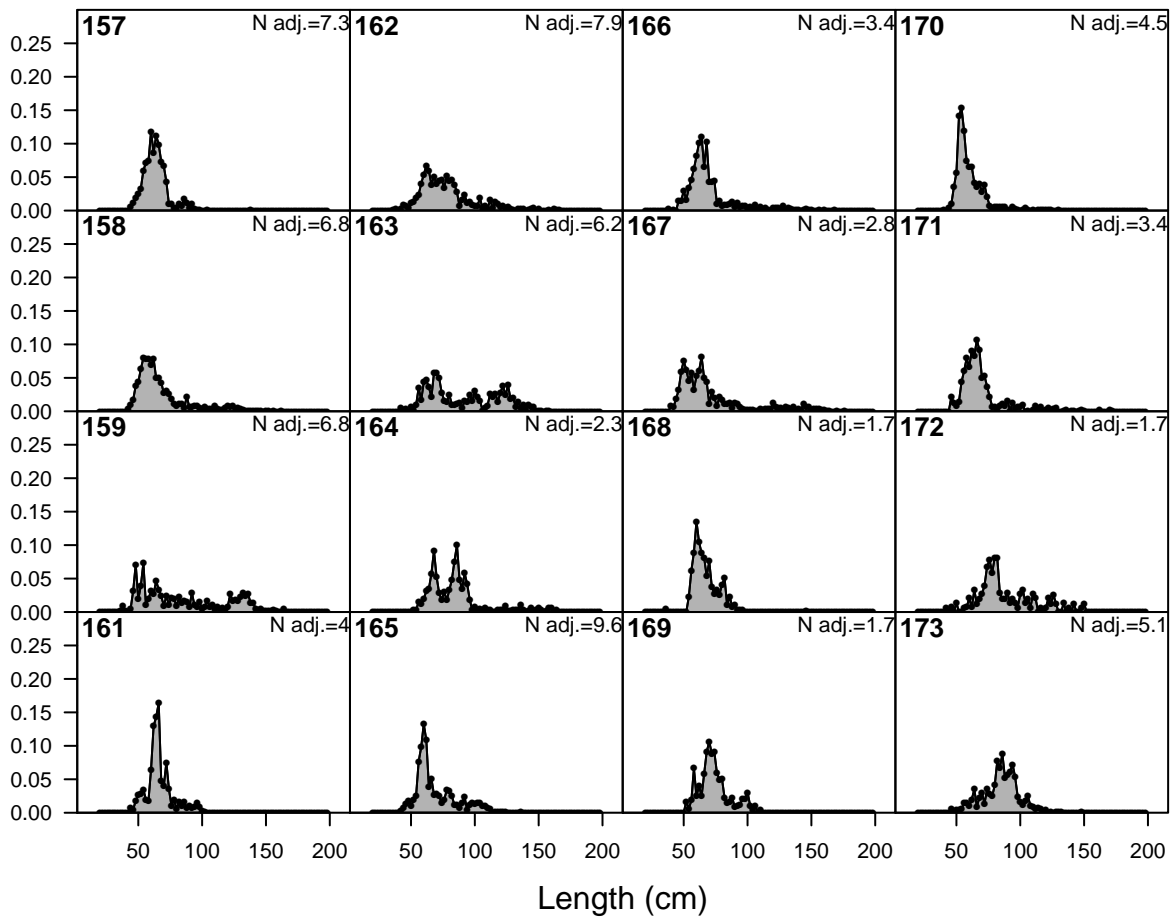
Proportion

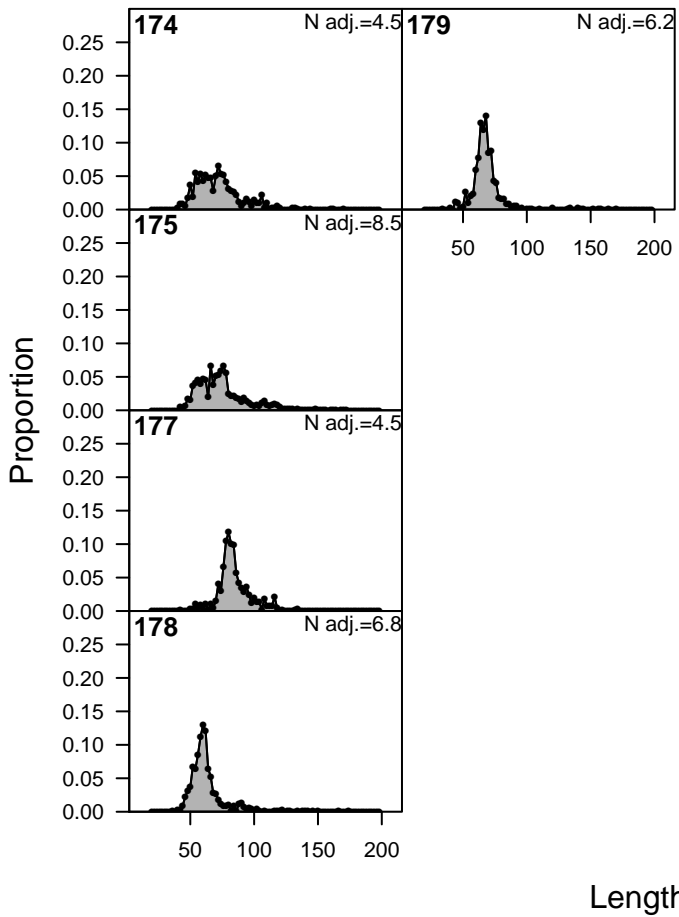


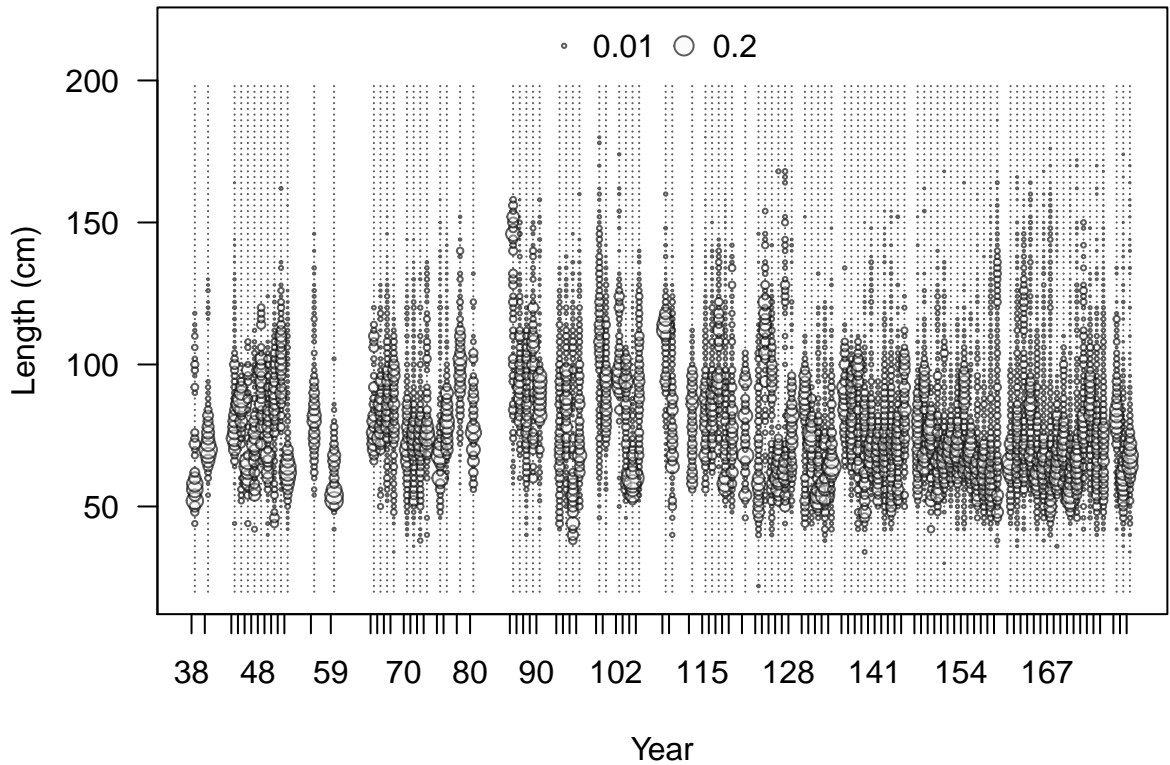
Proportion



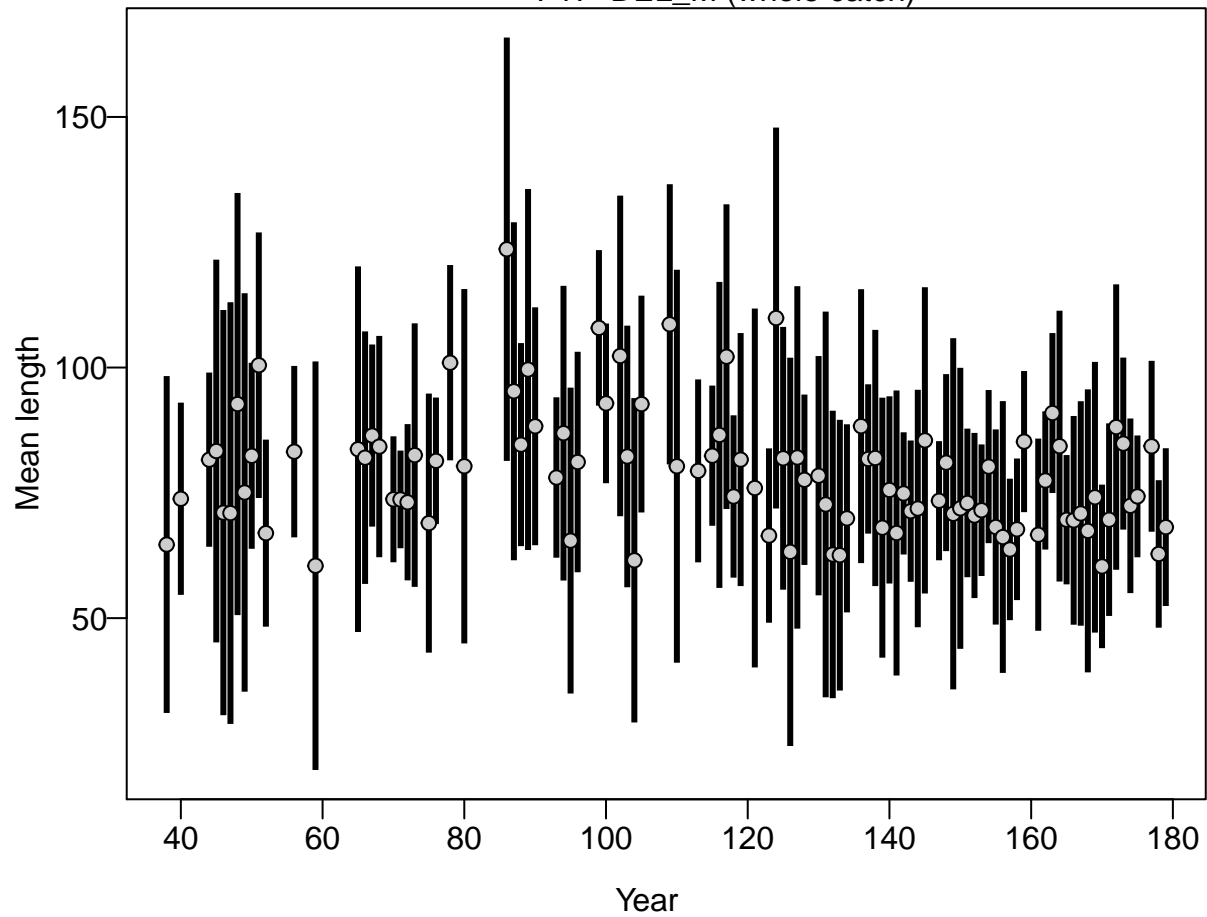
Proportion



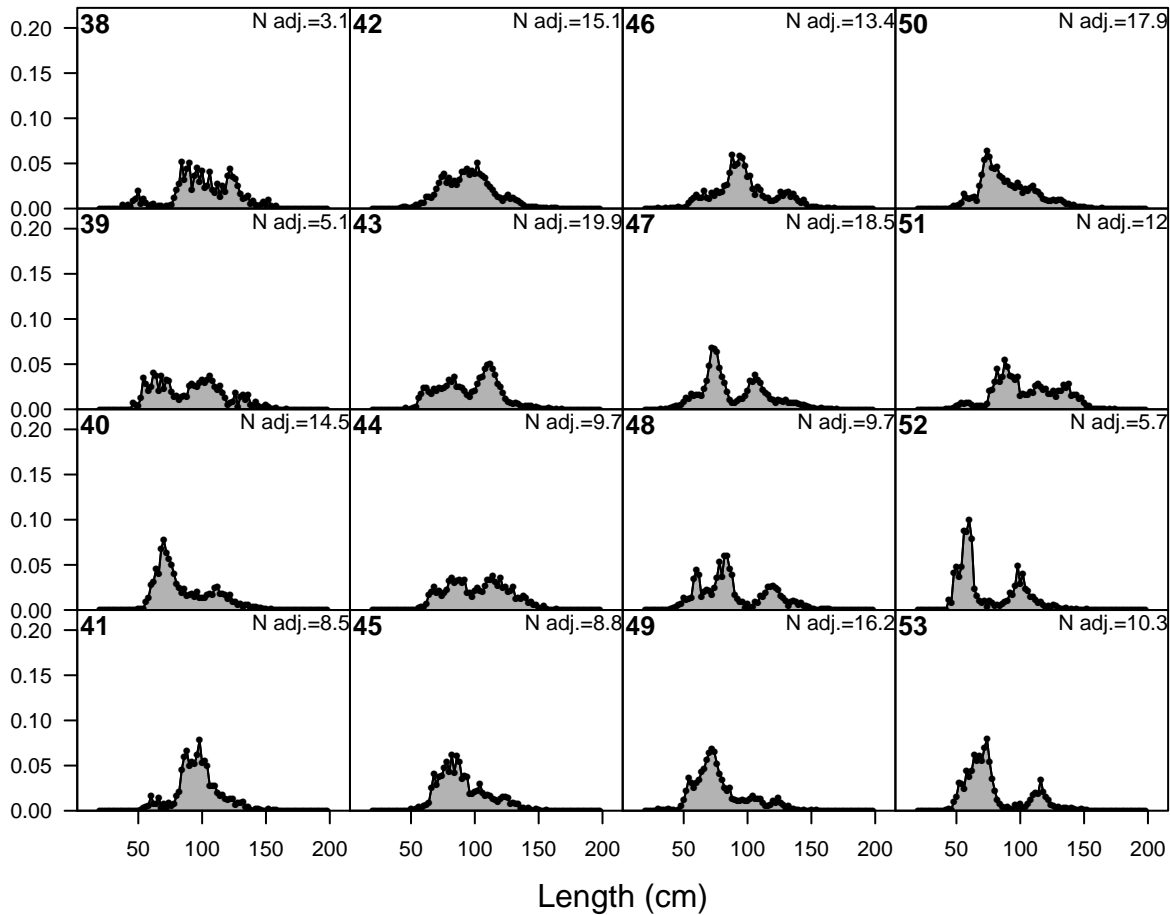




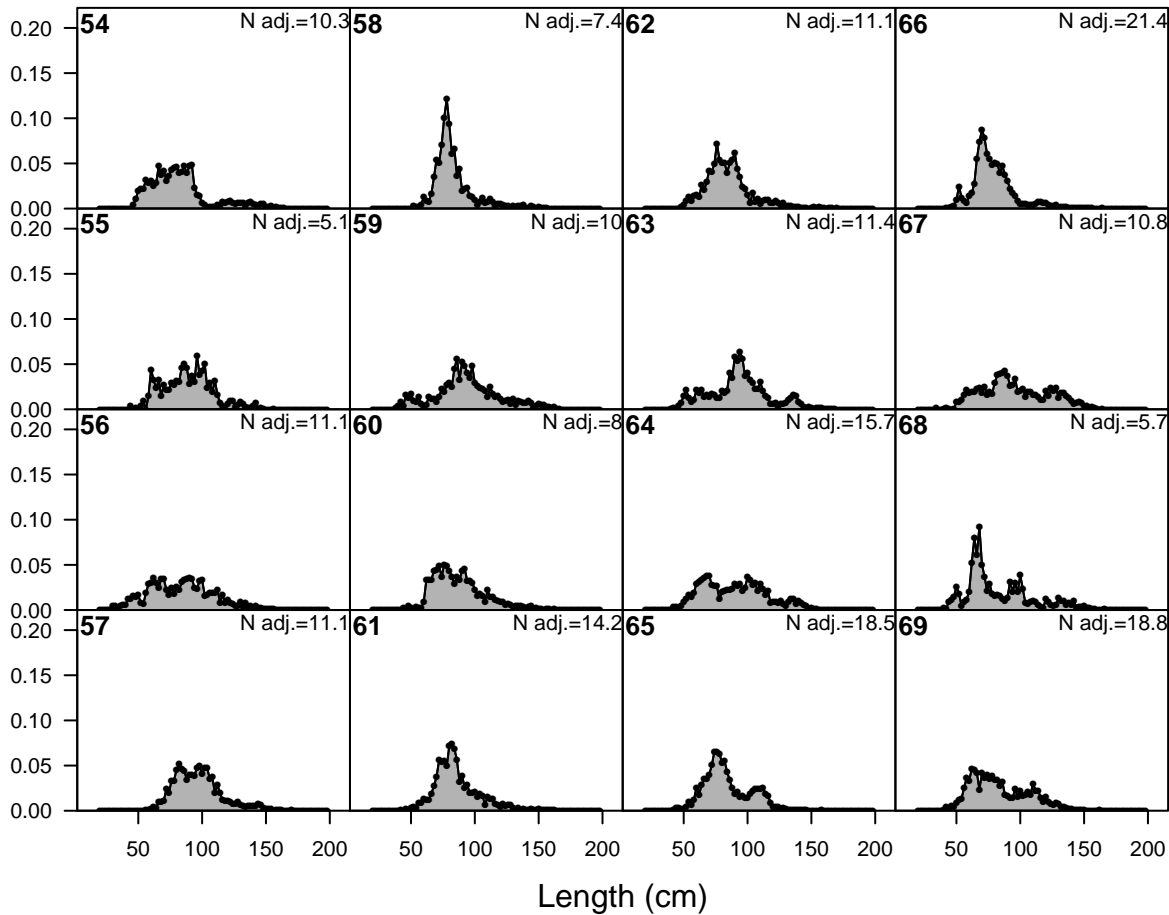
F17-DEL\_M (whole catch)



Proportion

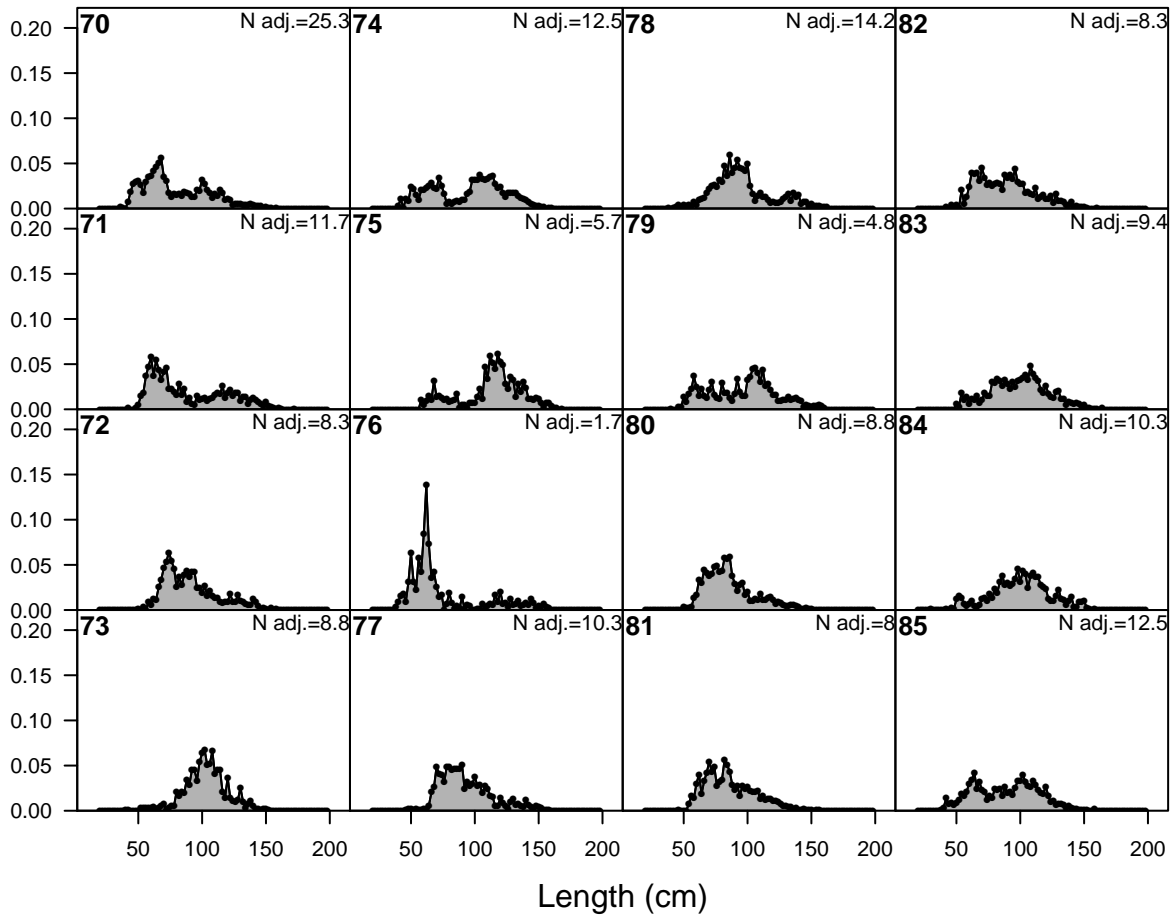


Proportion

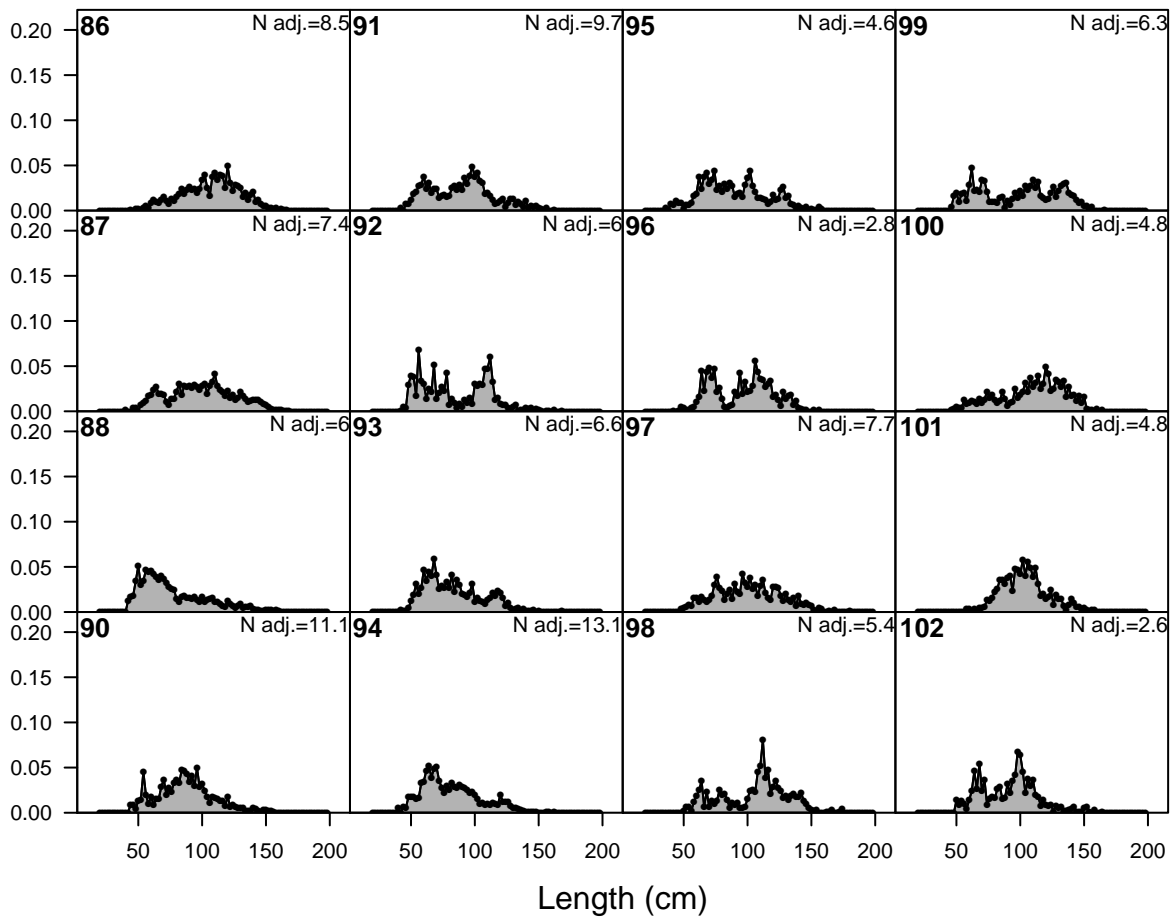




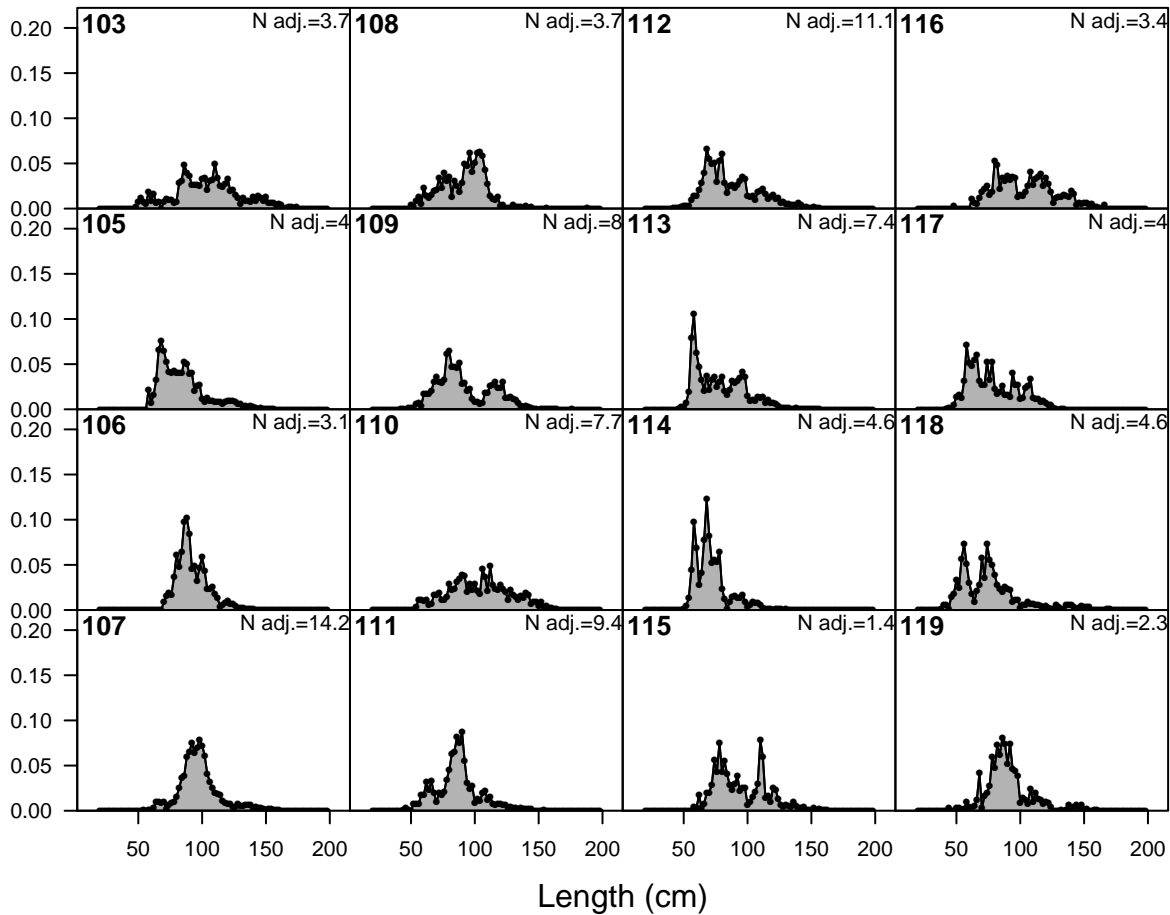
Proportion



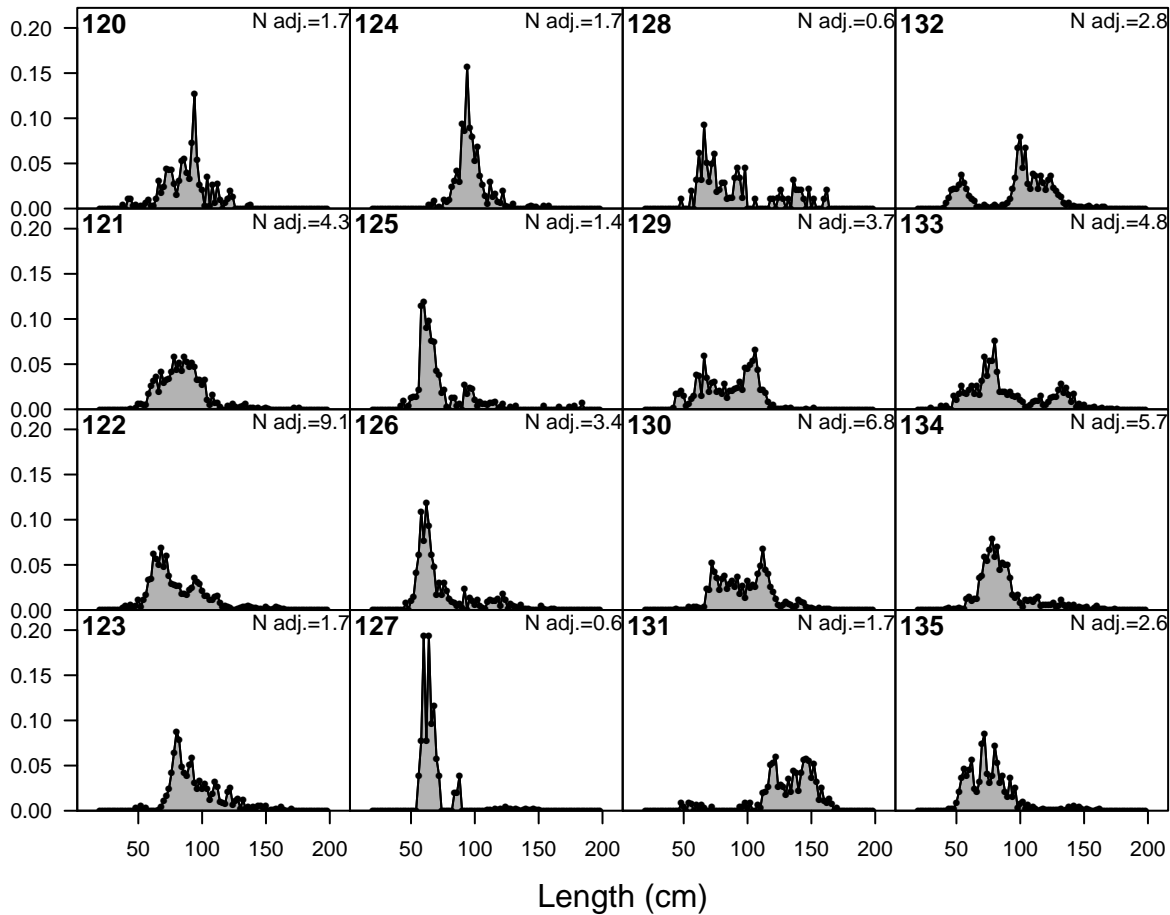
Proportion



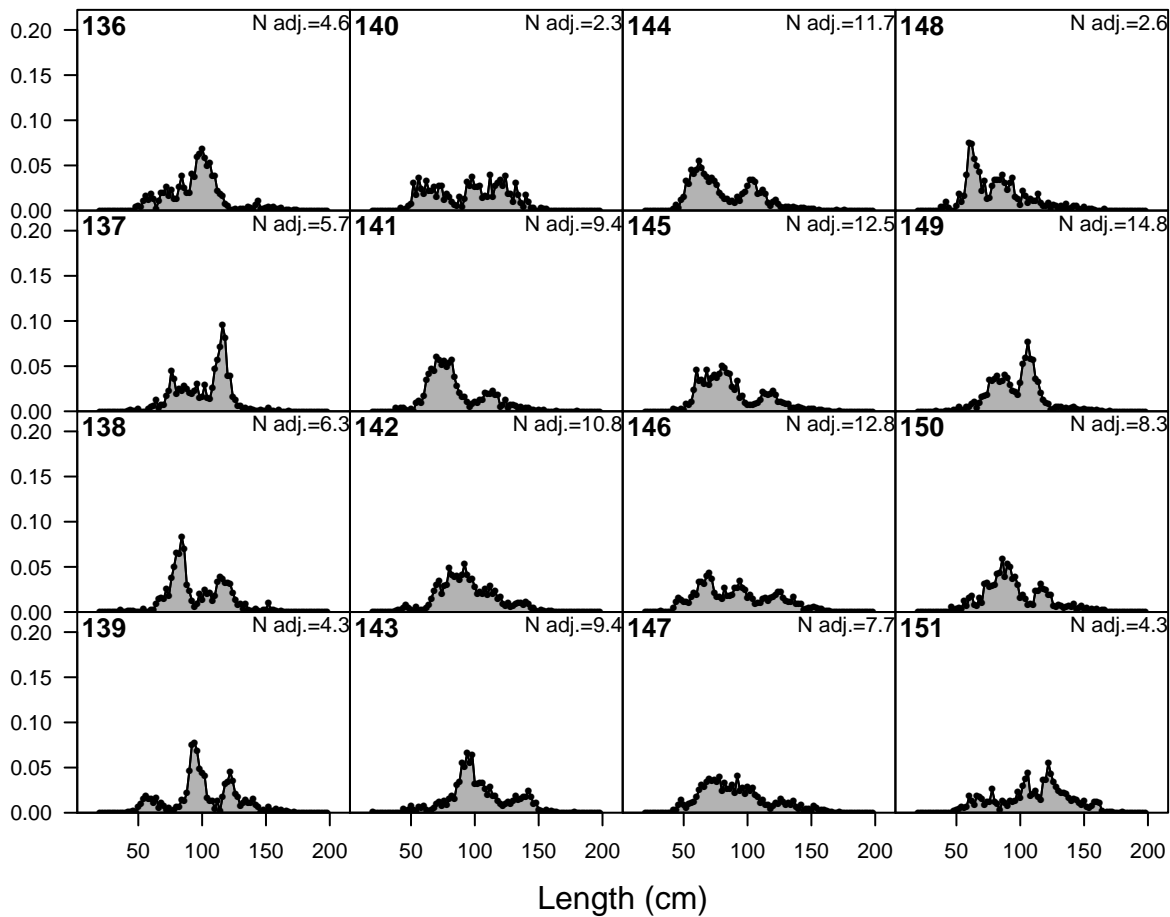
Proportion



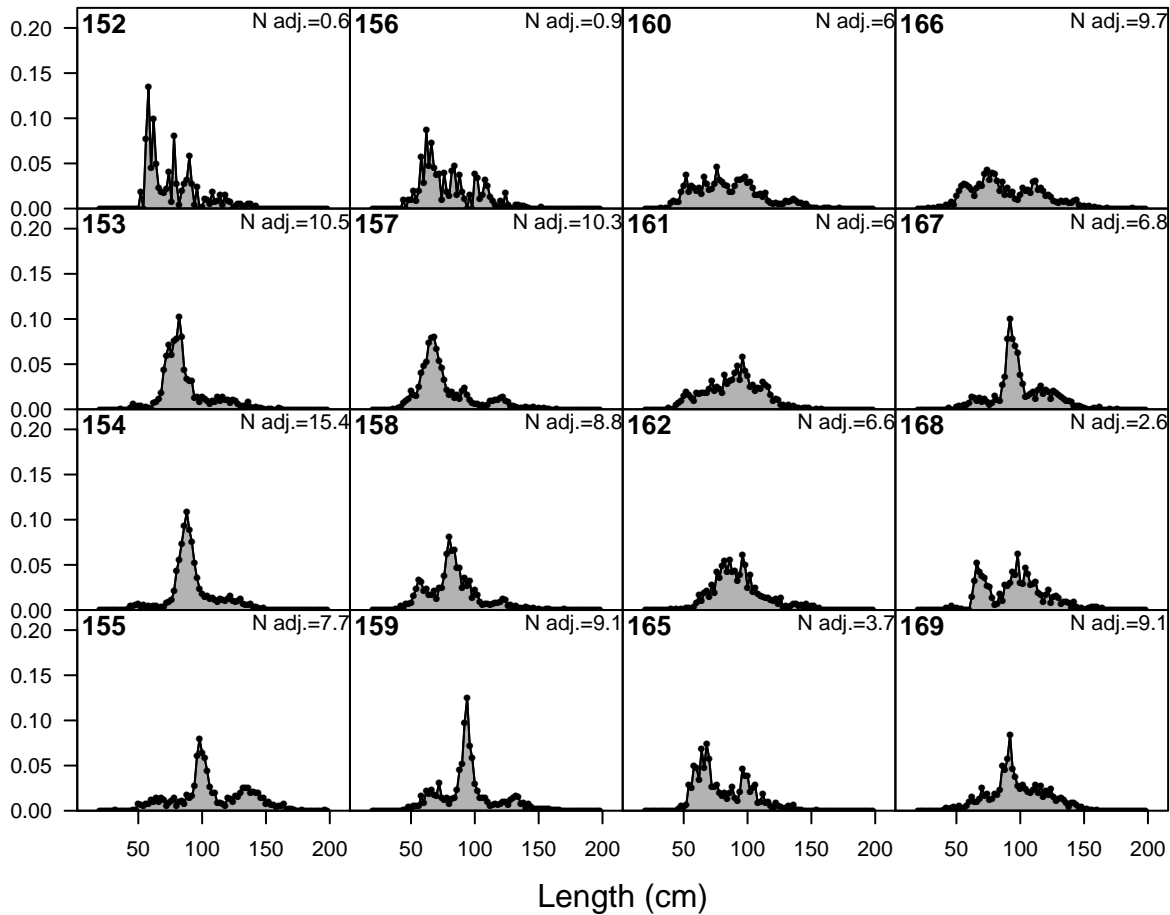
Proportion

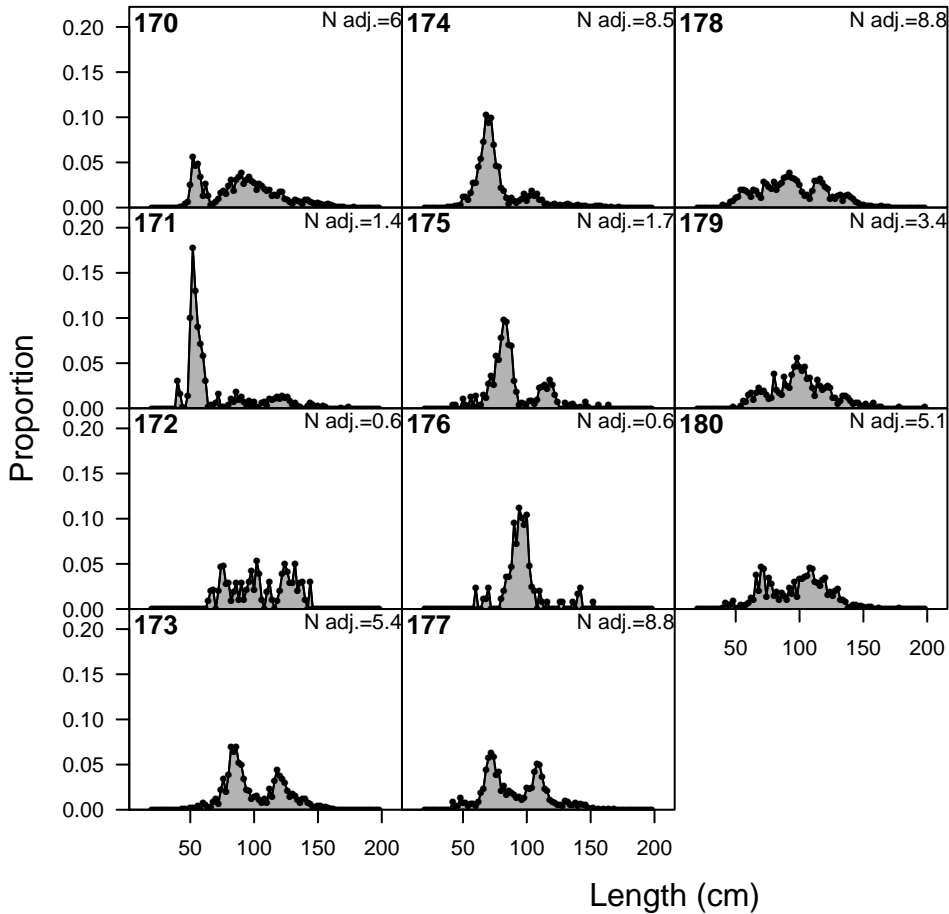


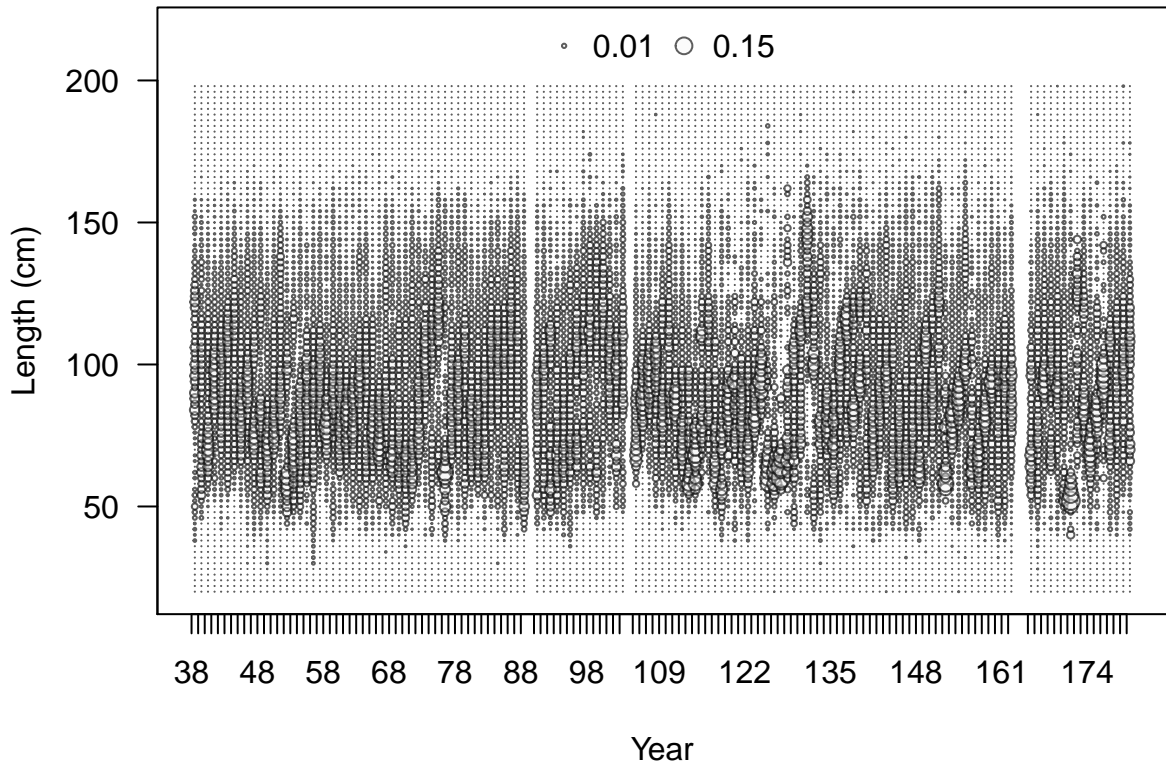
Proportion



Proportion

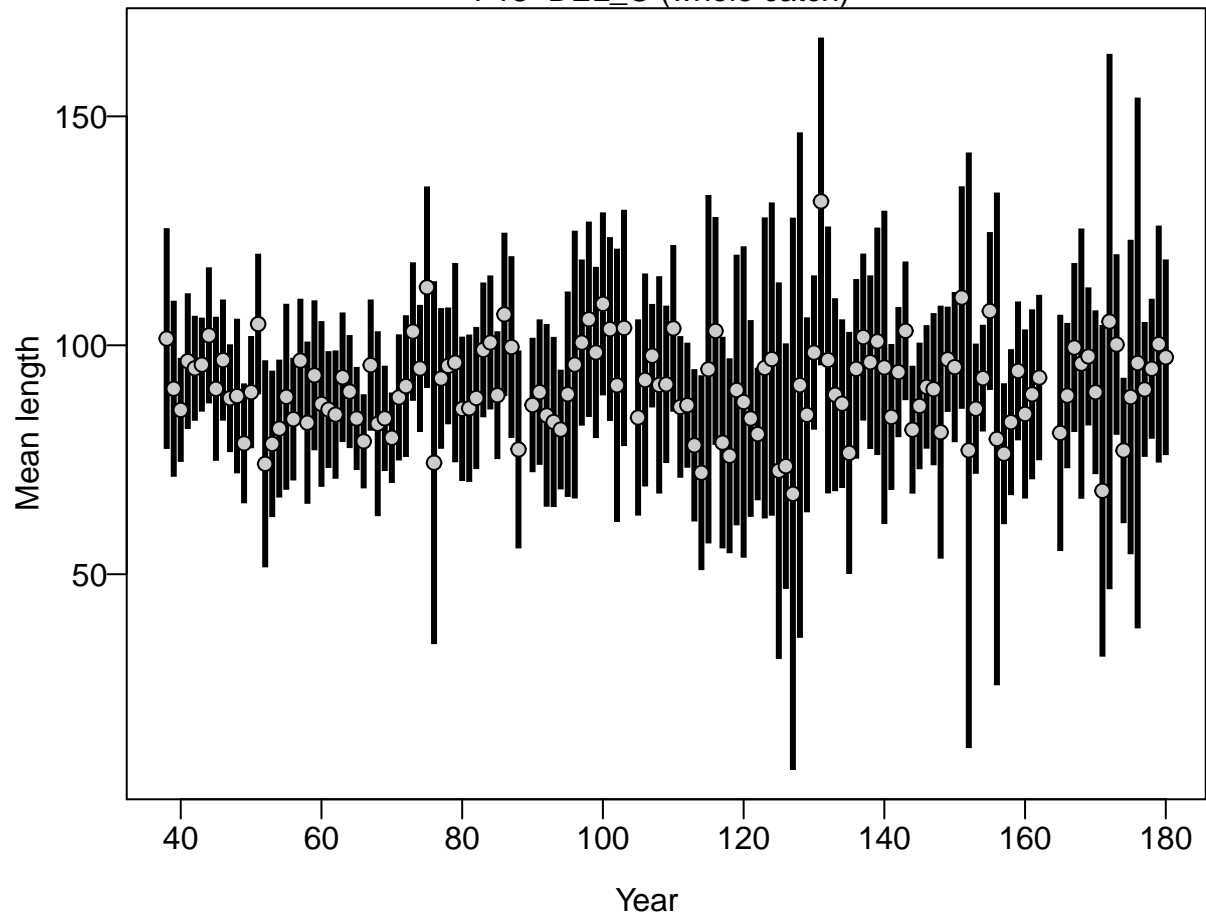




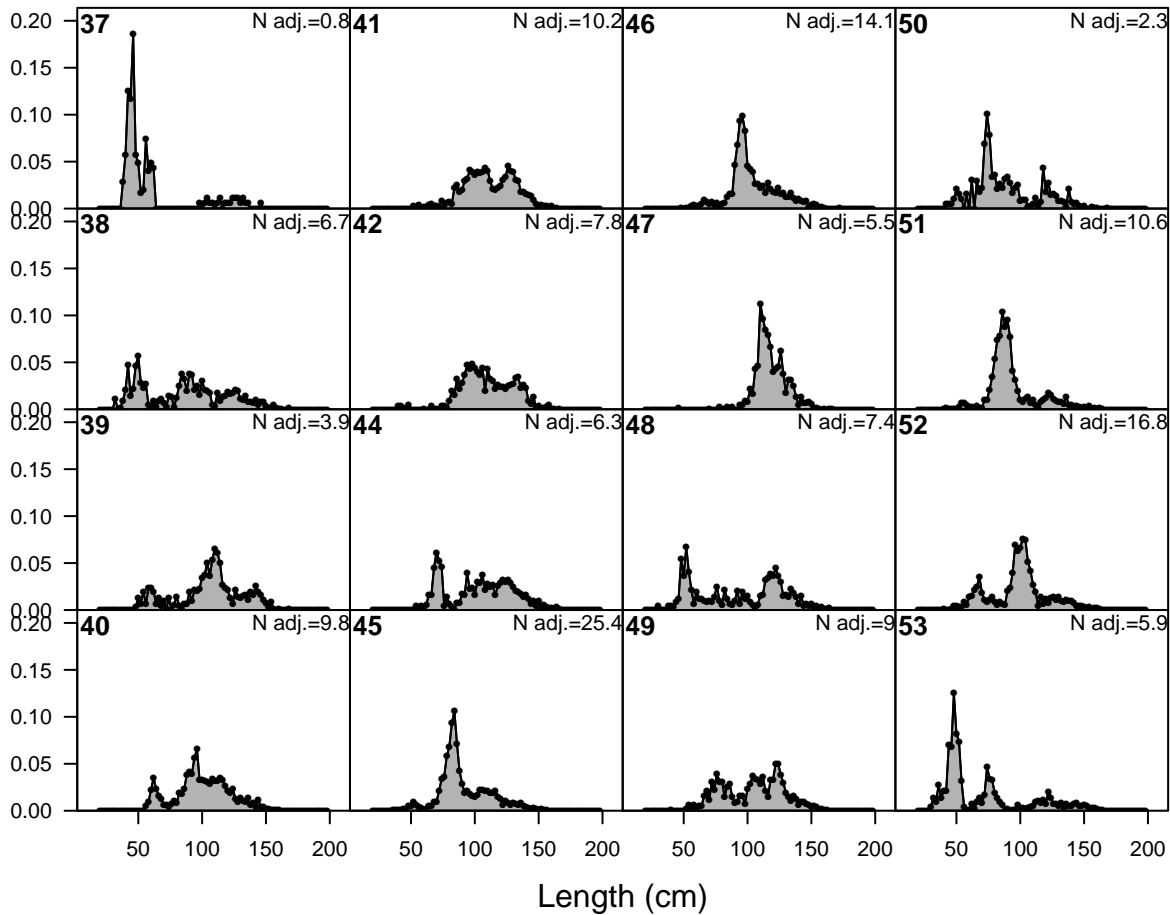




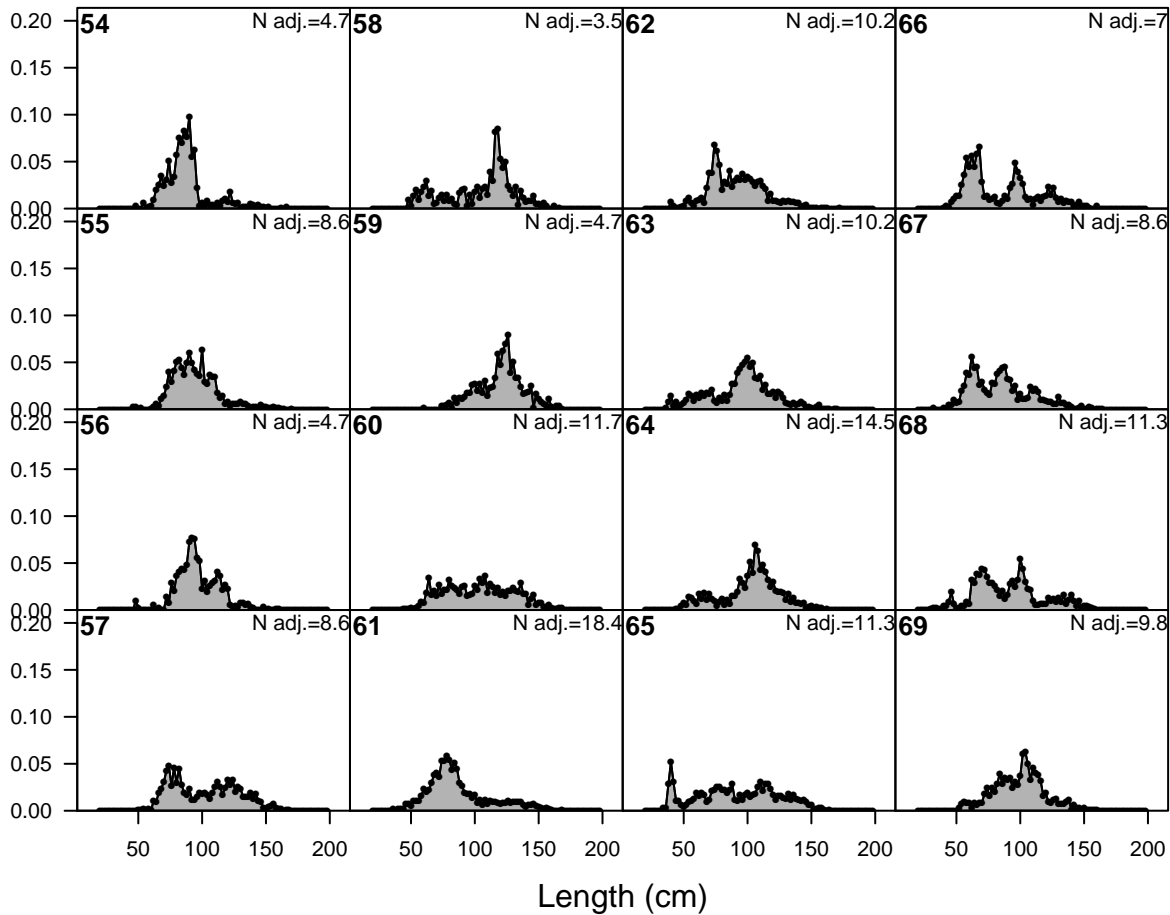
F18-DEL\_C (whole catch)



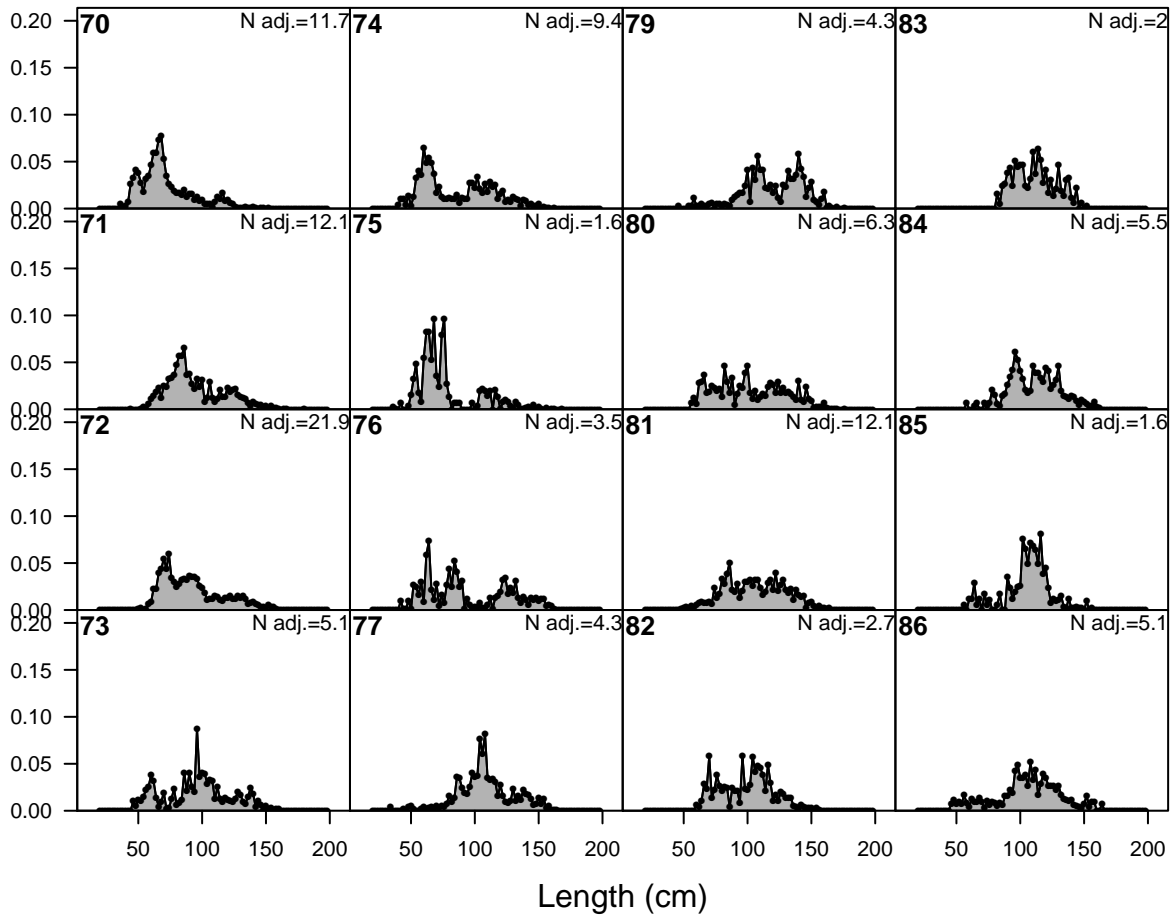
Proportion



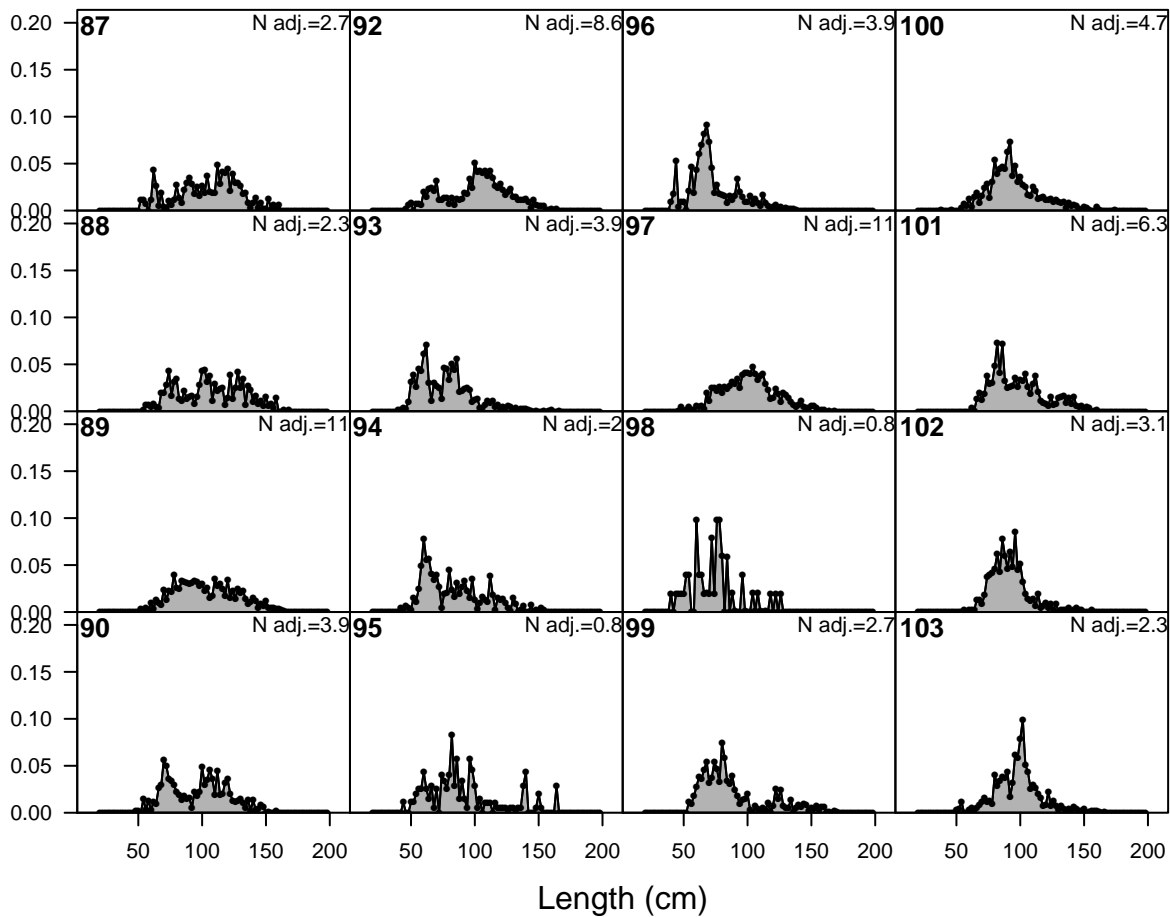
Proportion



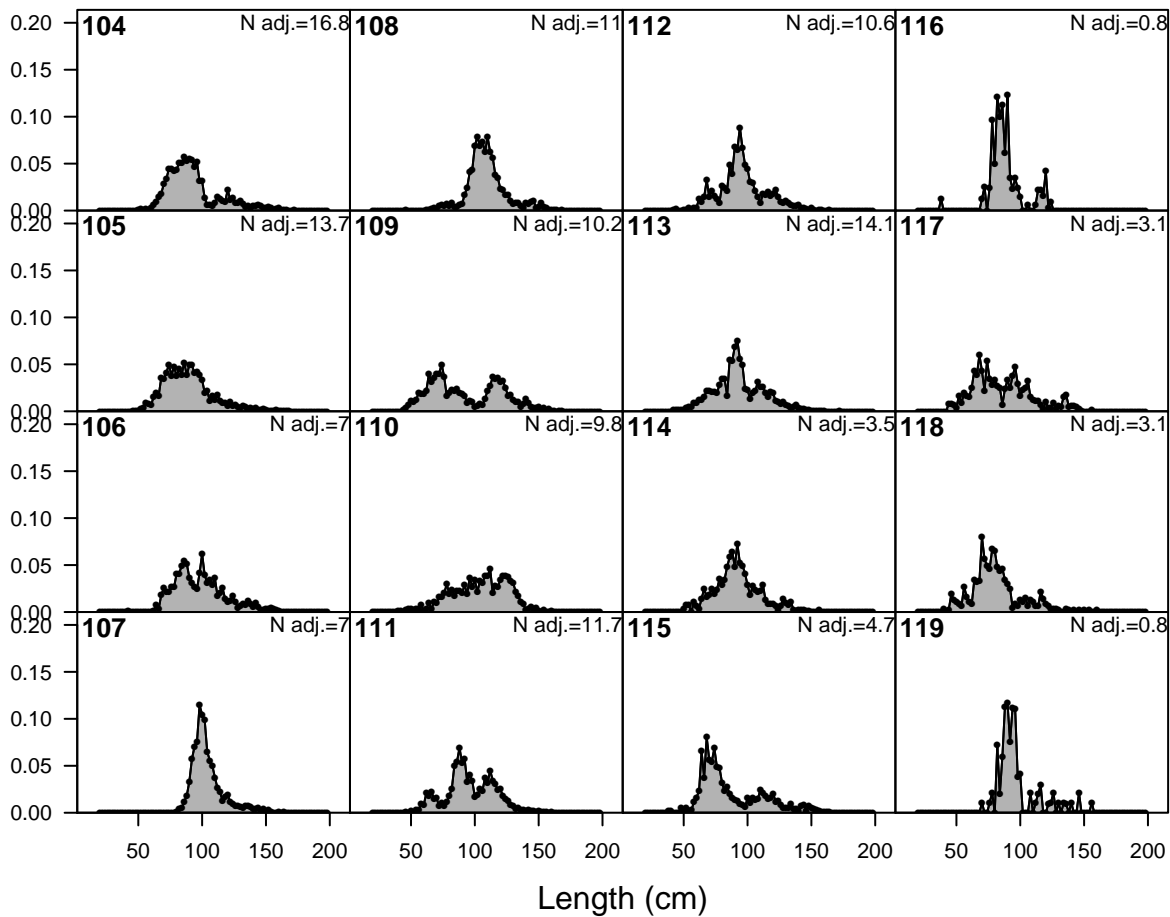
Proportion



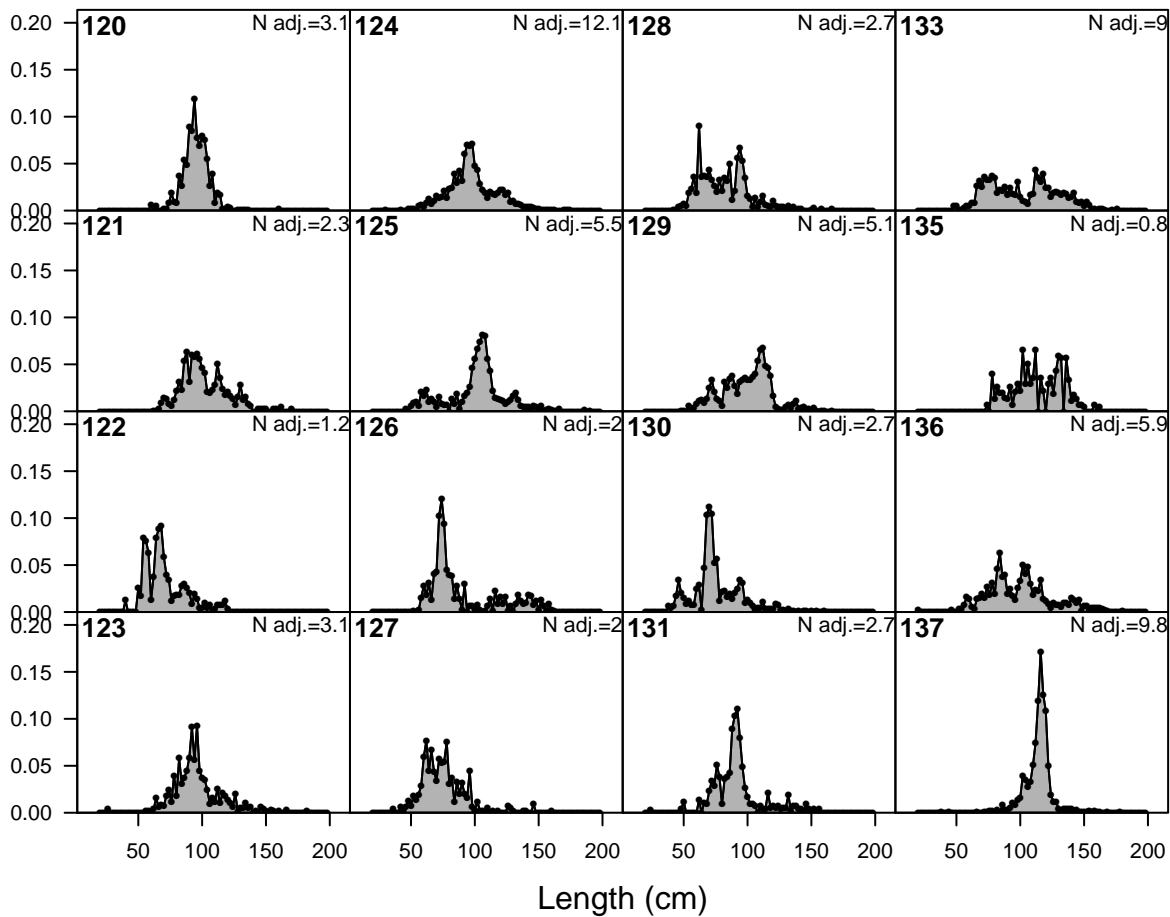
Proportion



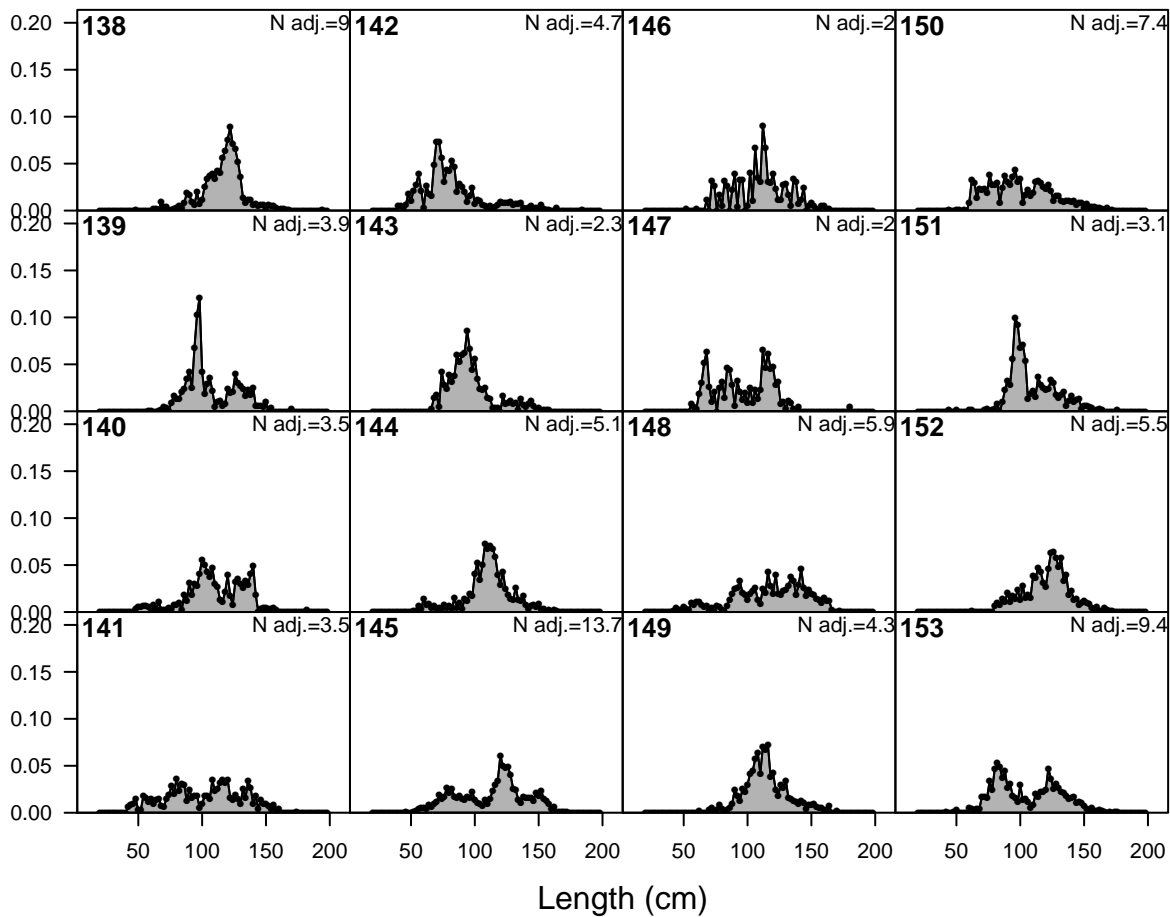
Proportion



Proportion

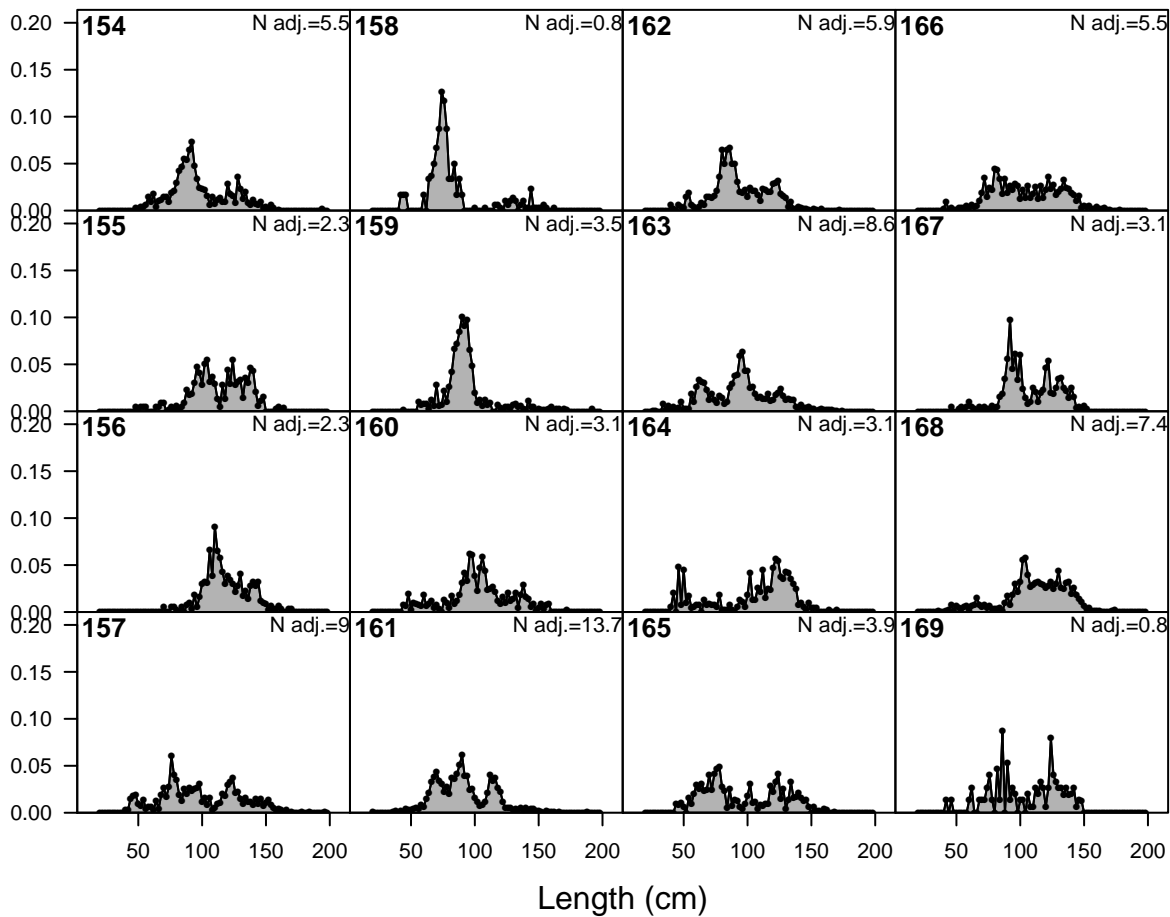


Proportion

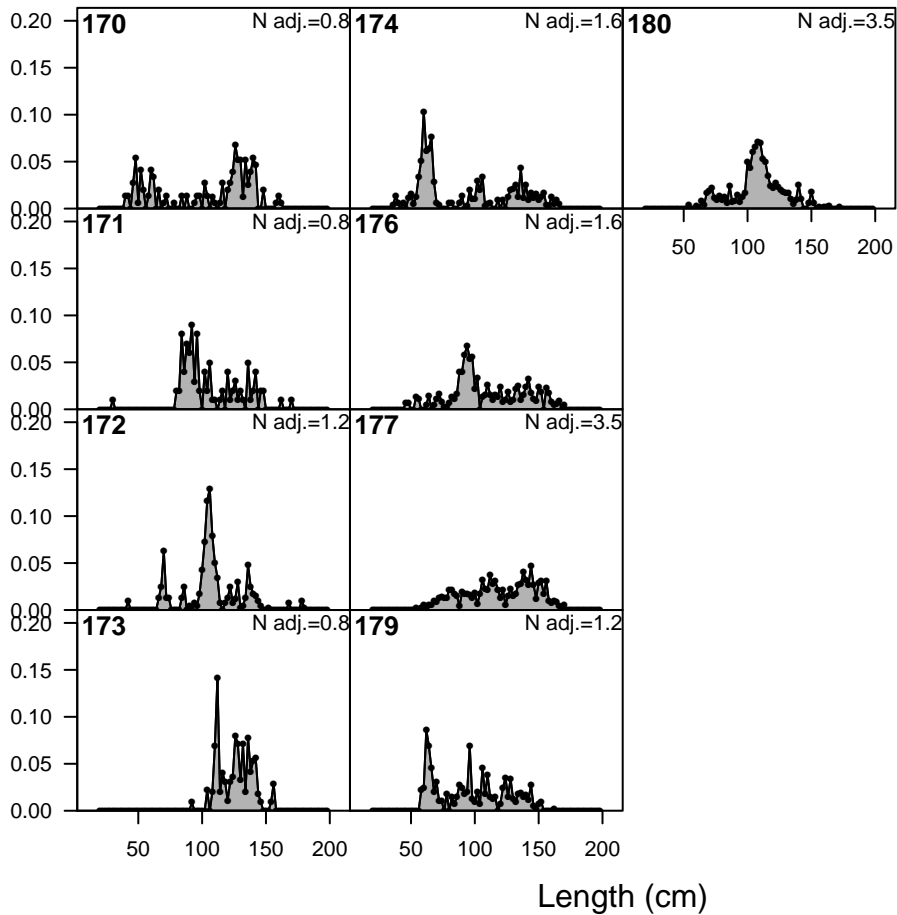


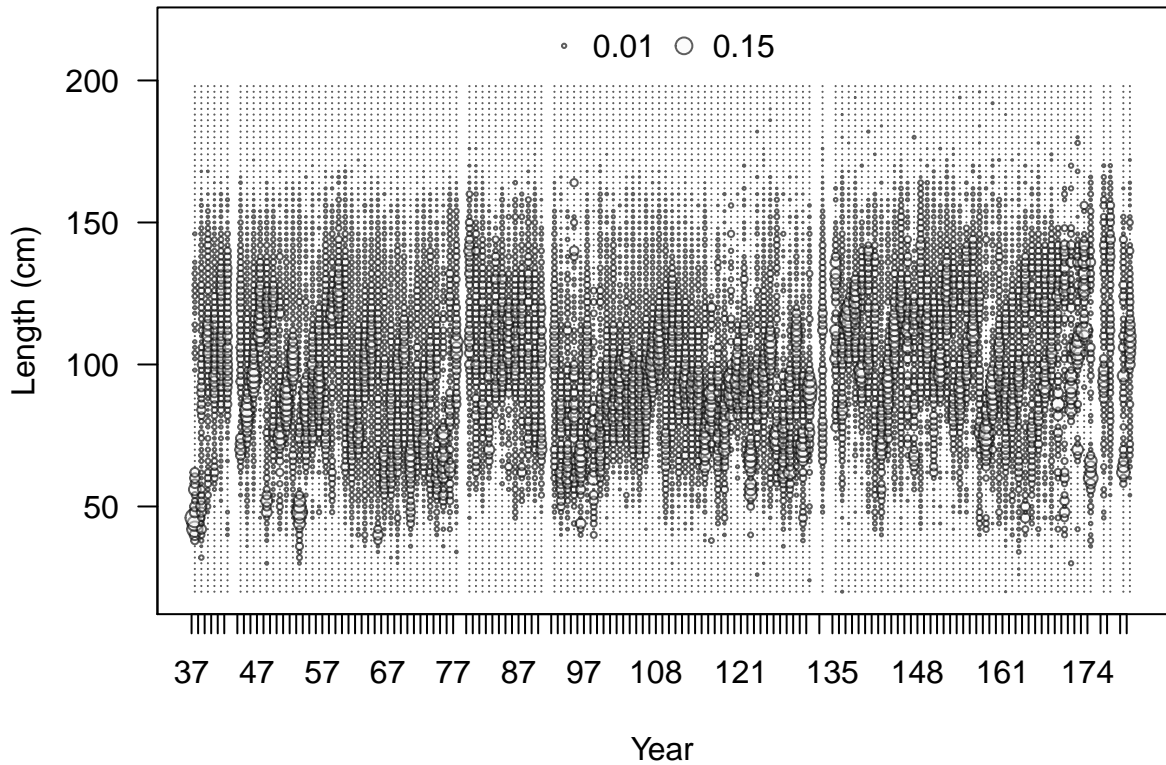


Proportion

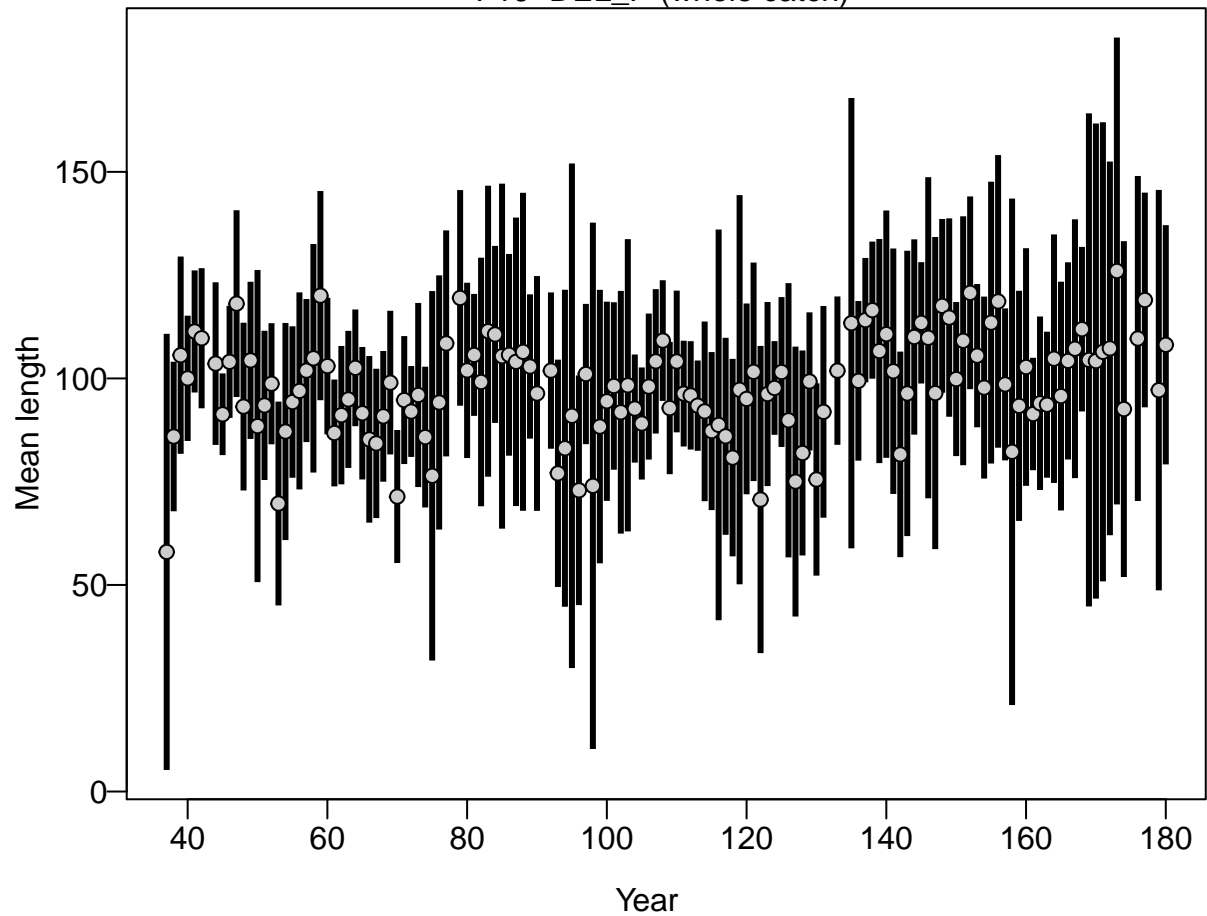


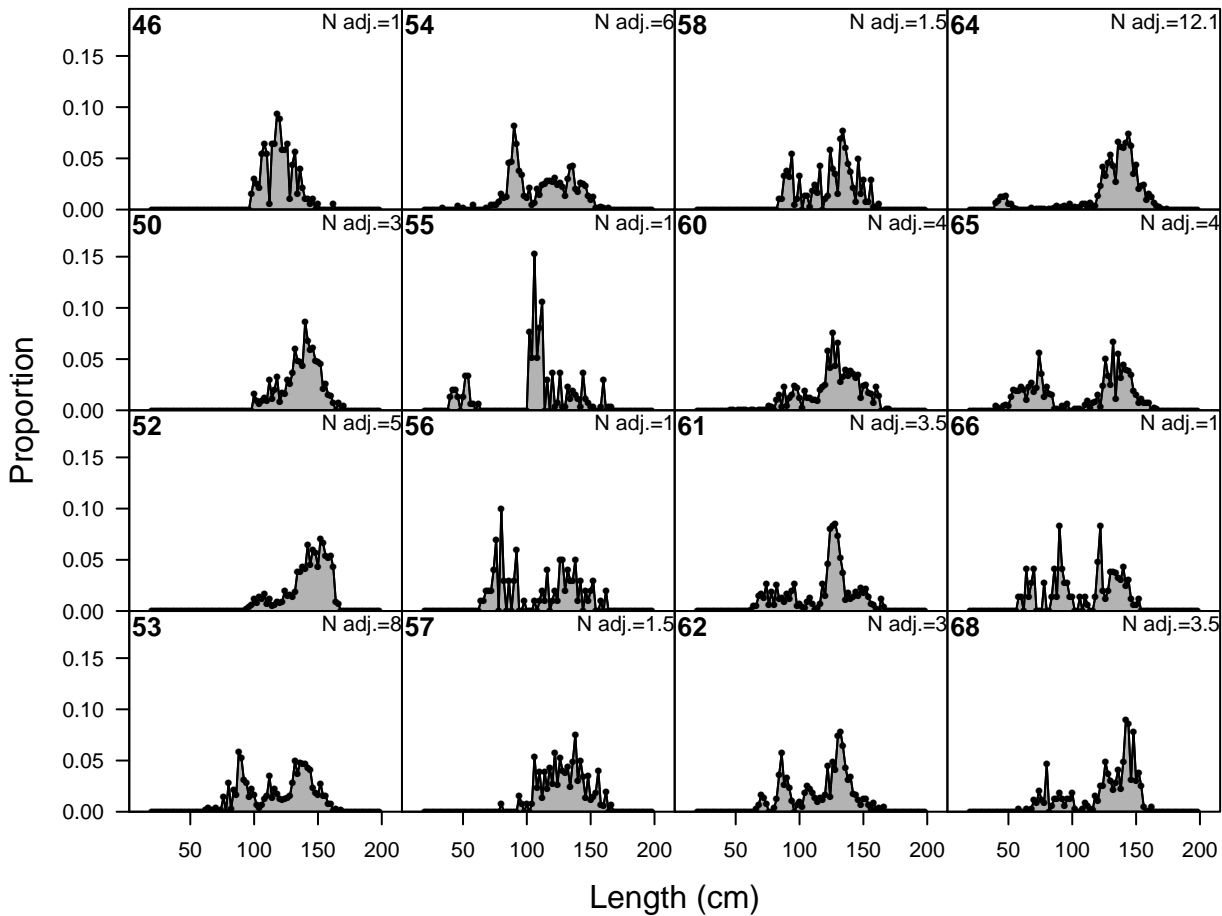
Proportion

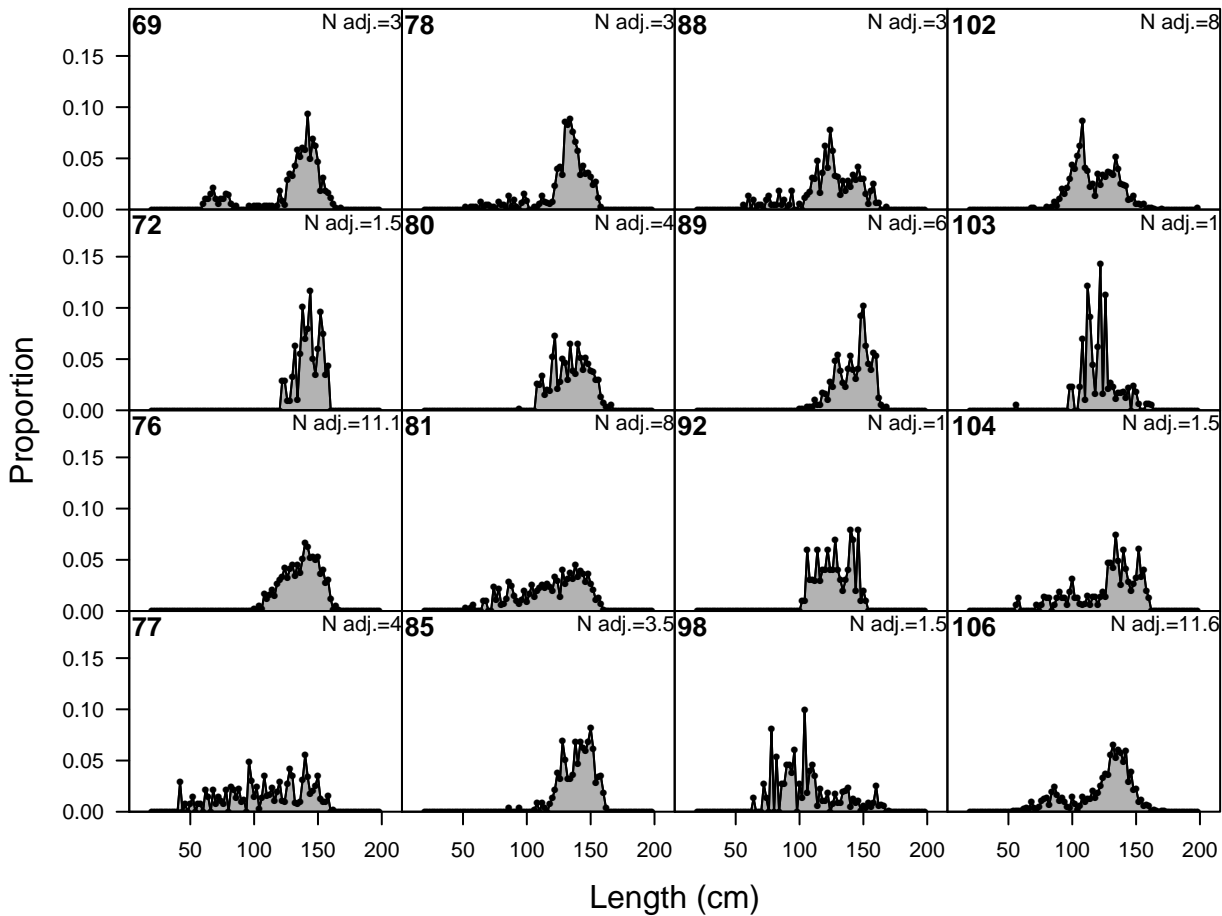




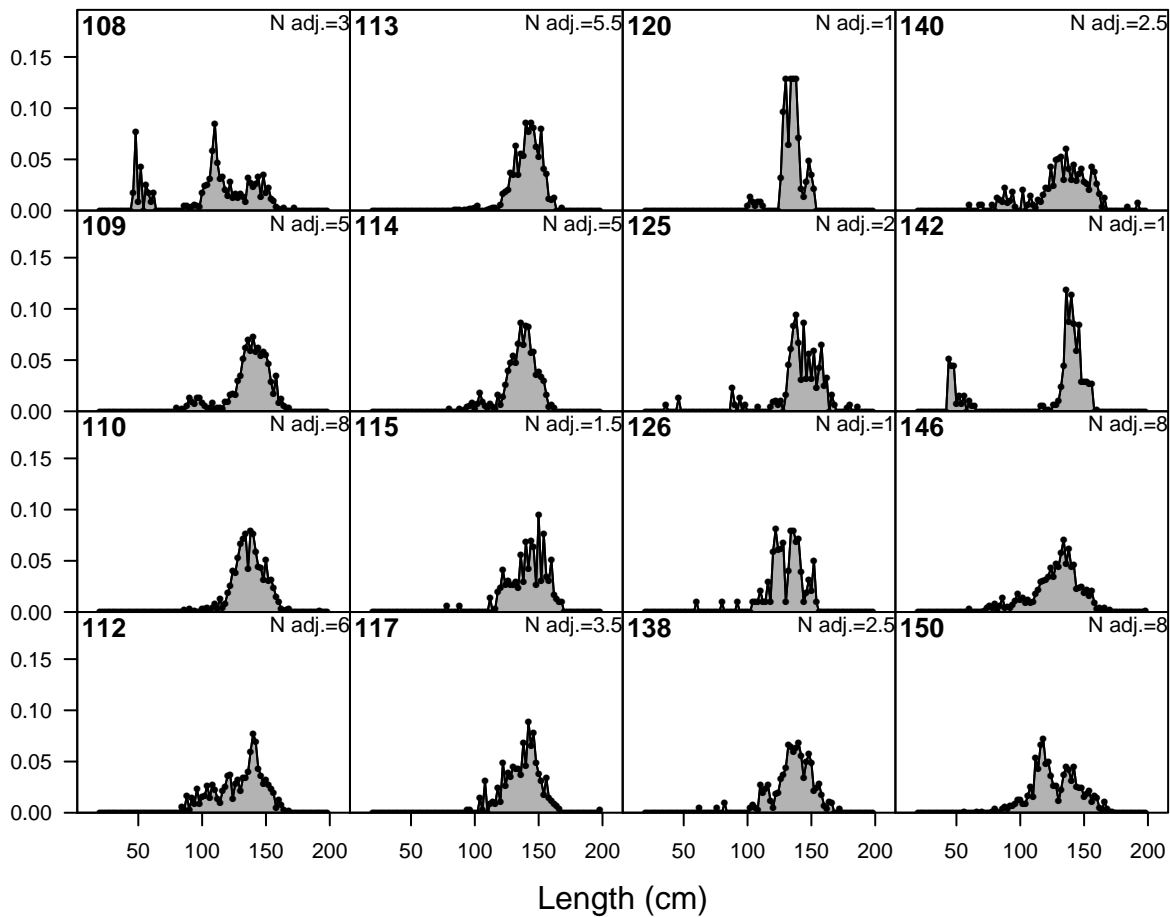
F19-DEL\_P (whole catch)



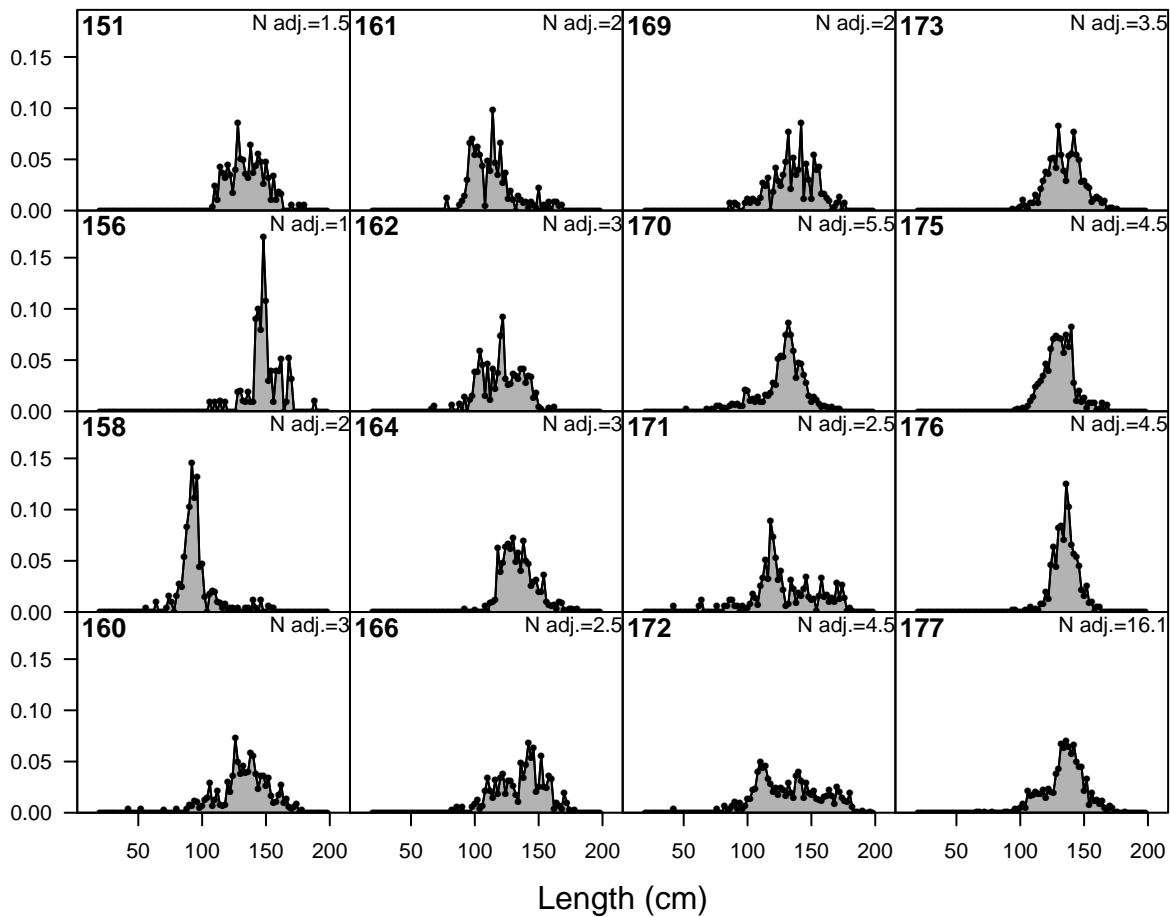




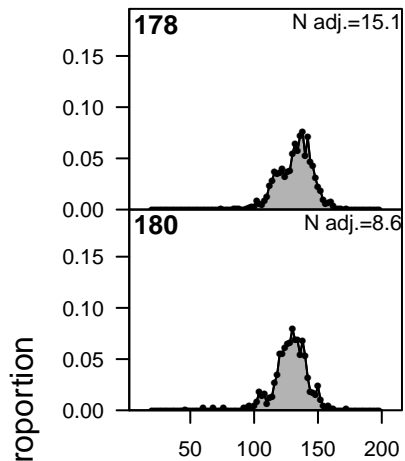
Proportion



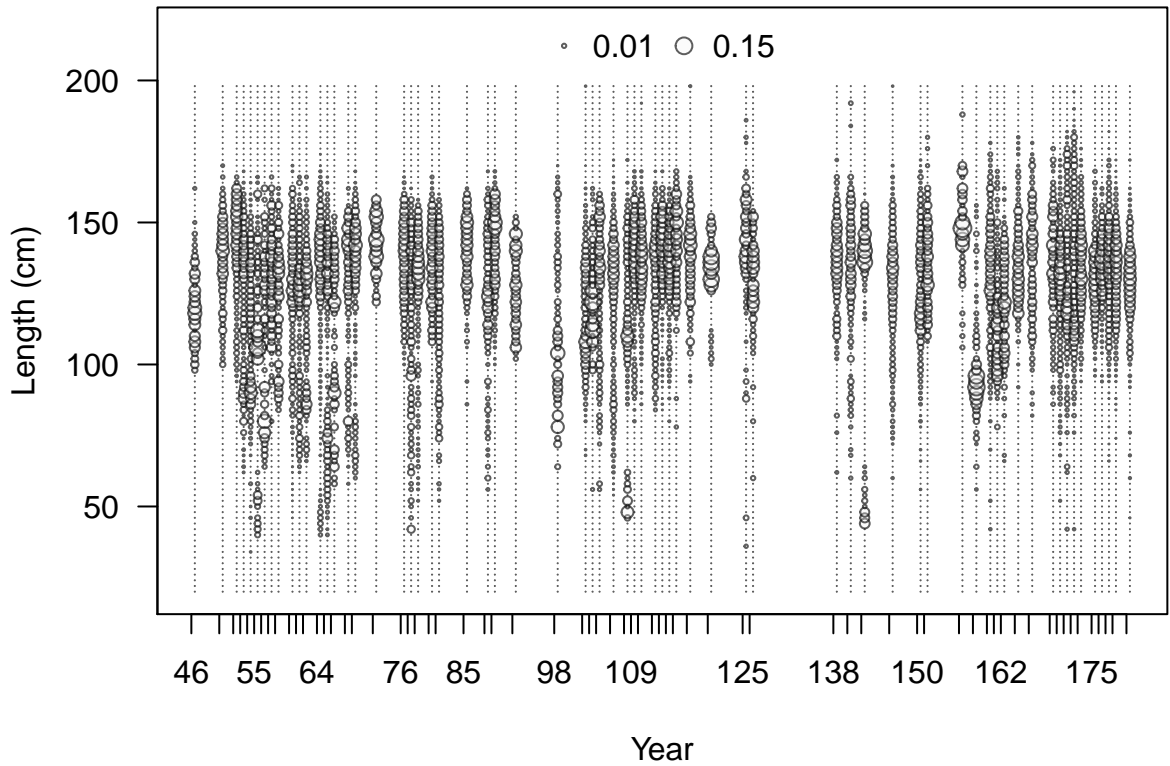
Proportion



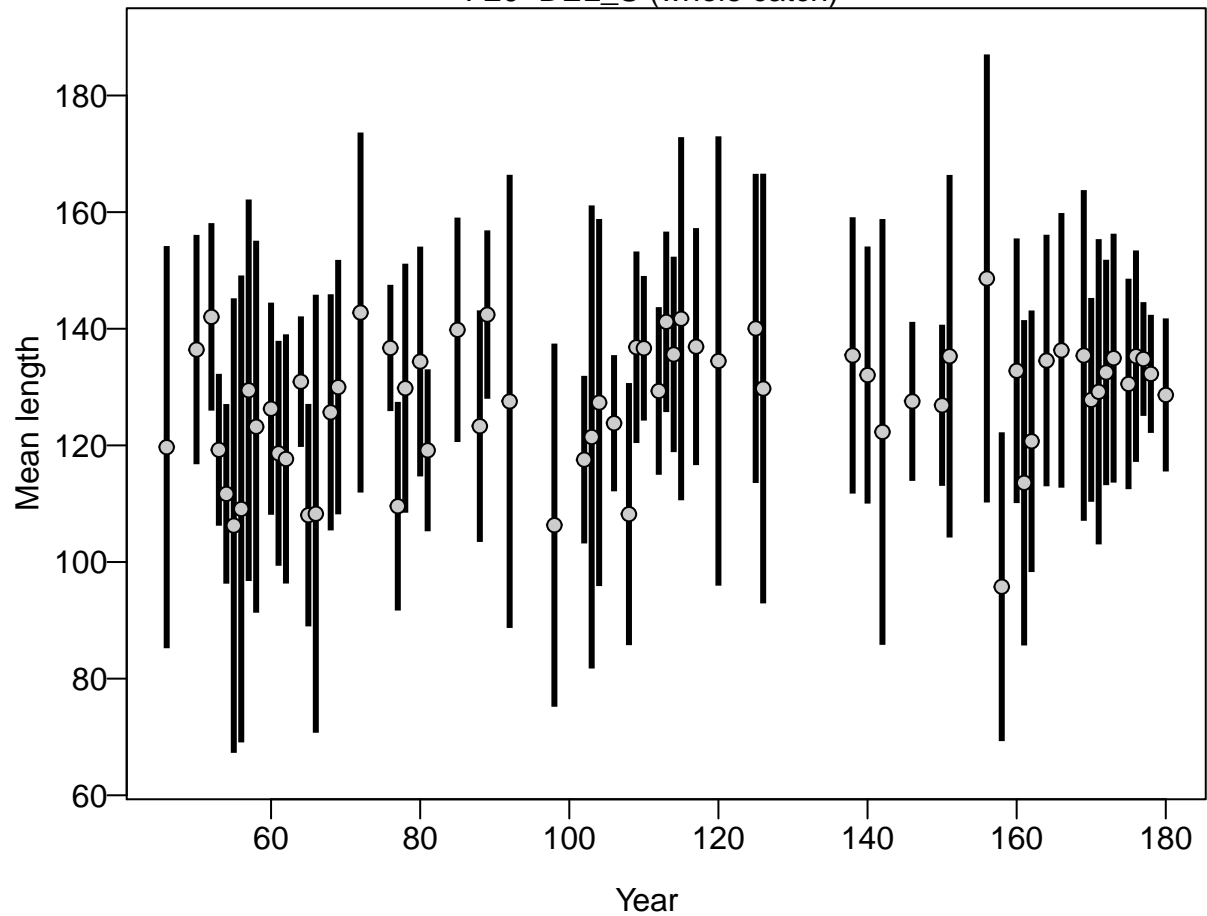


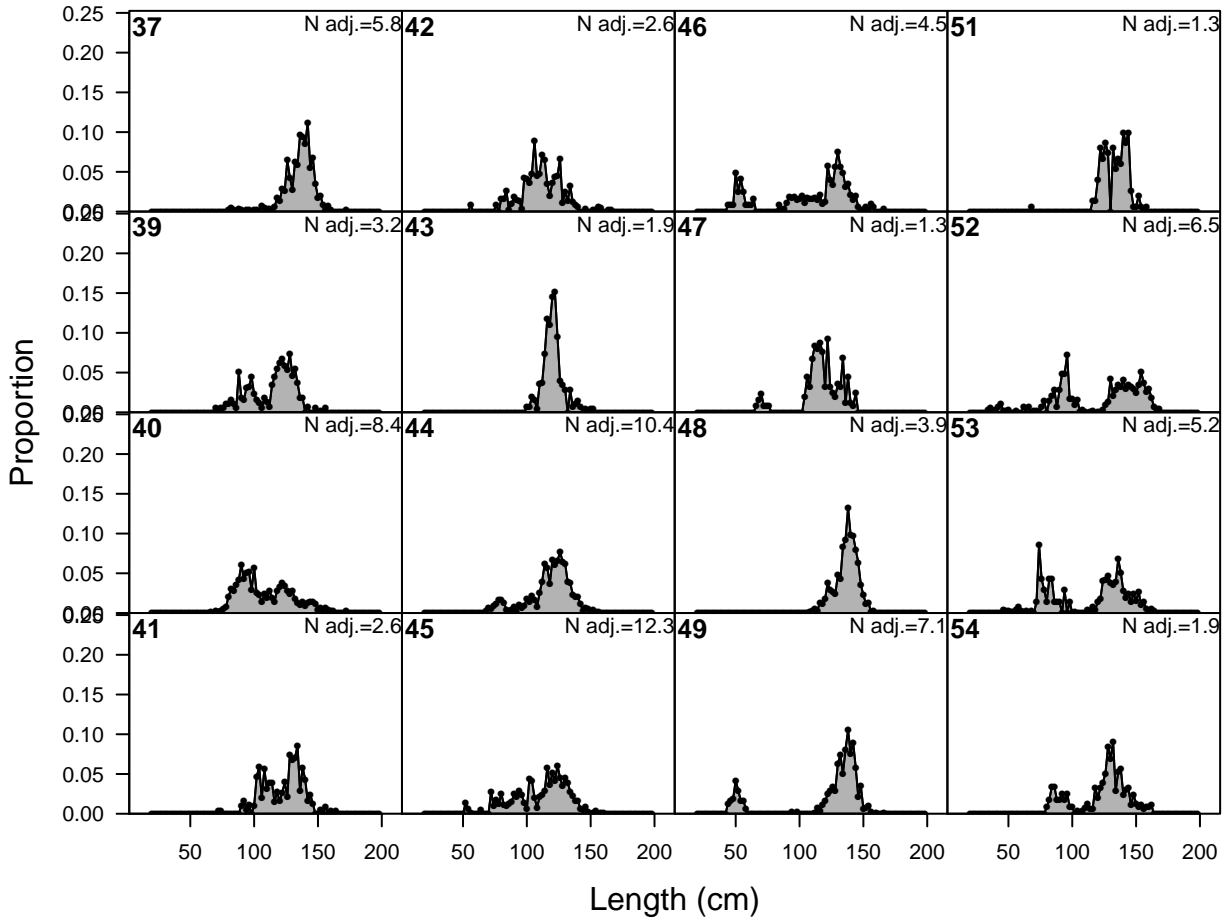


Length (cm)

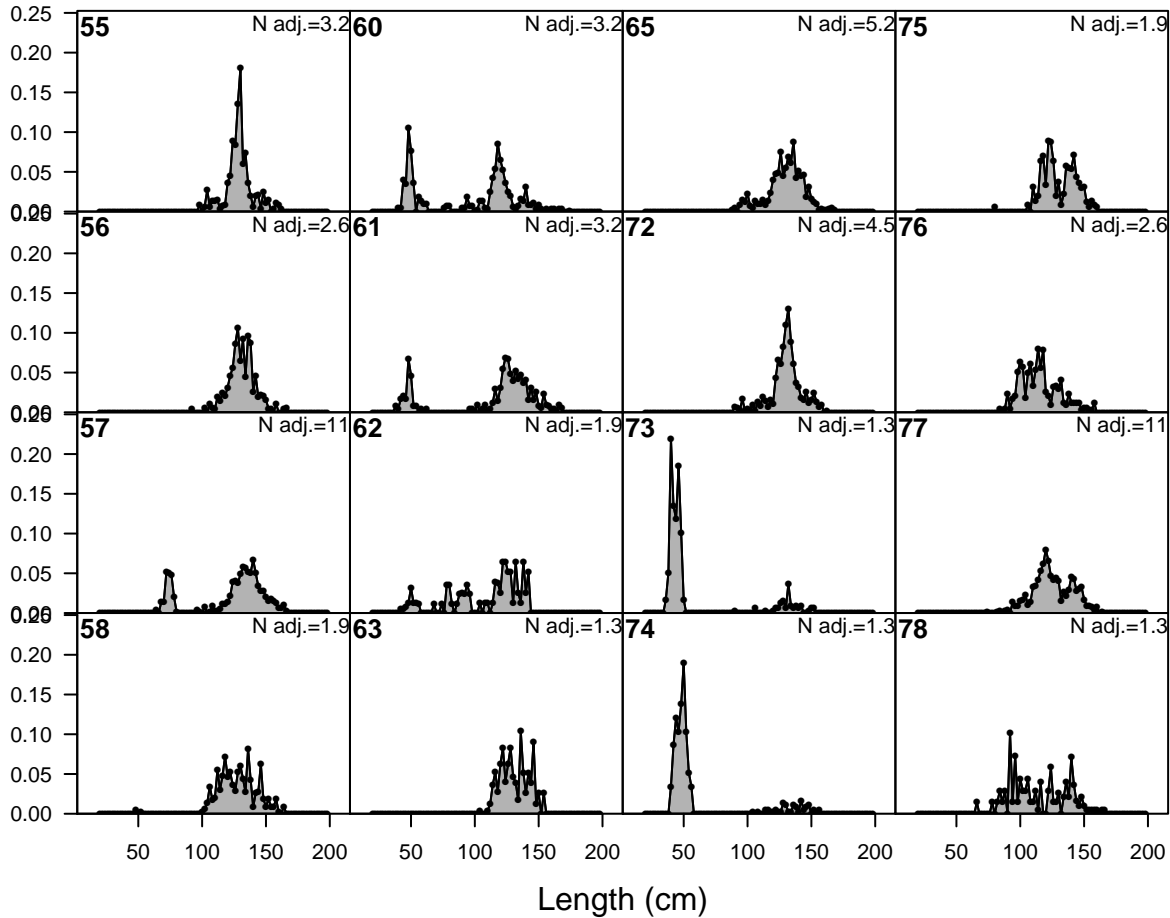


## F20-DEL\_S (whole catch)

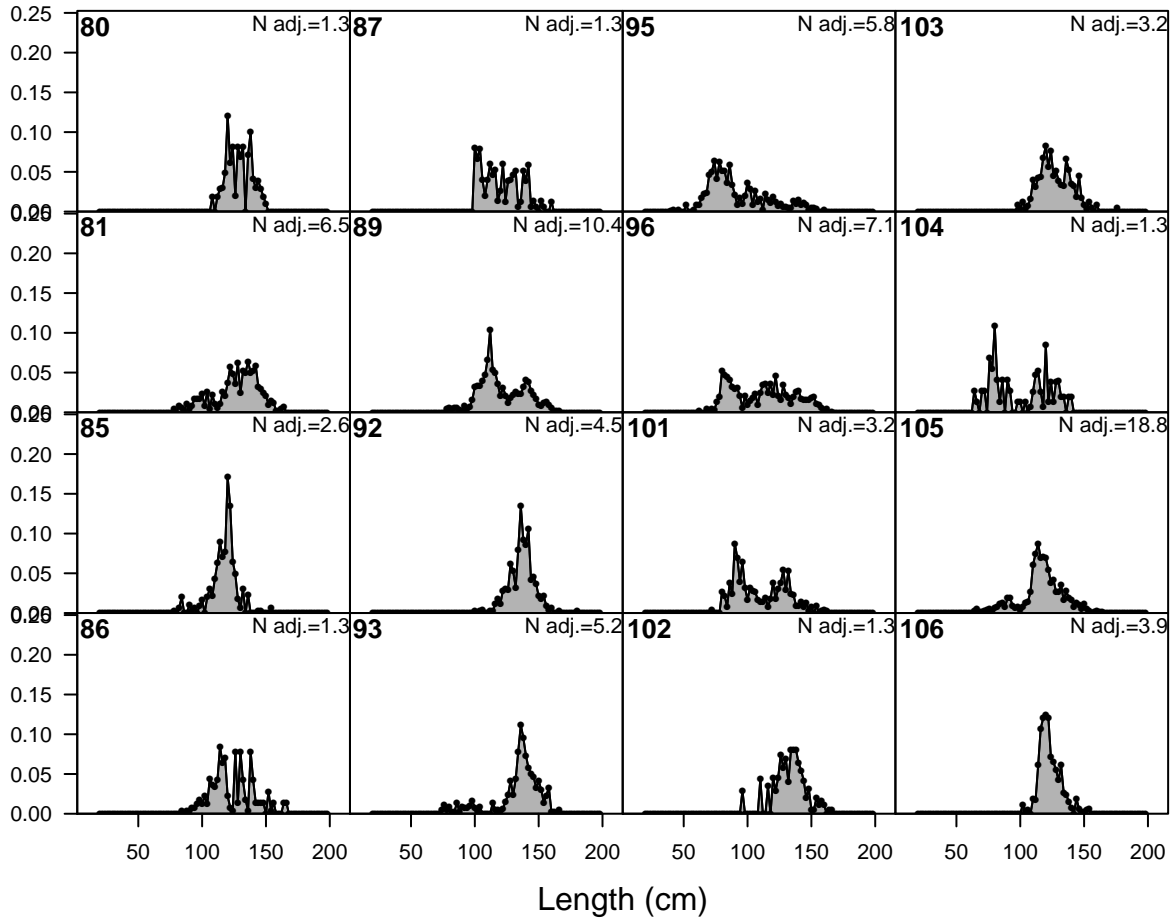




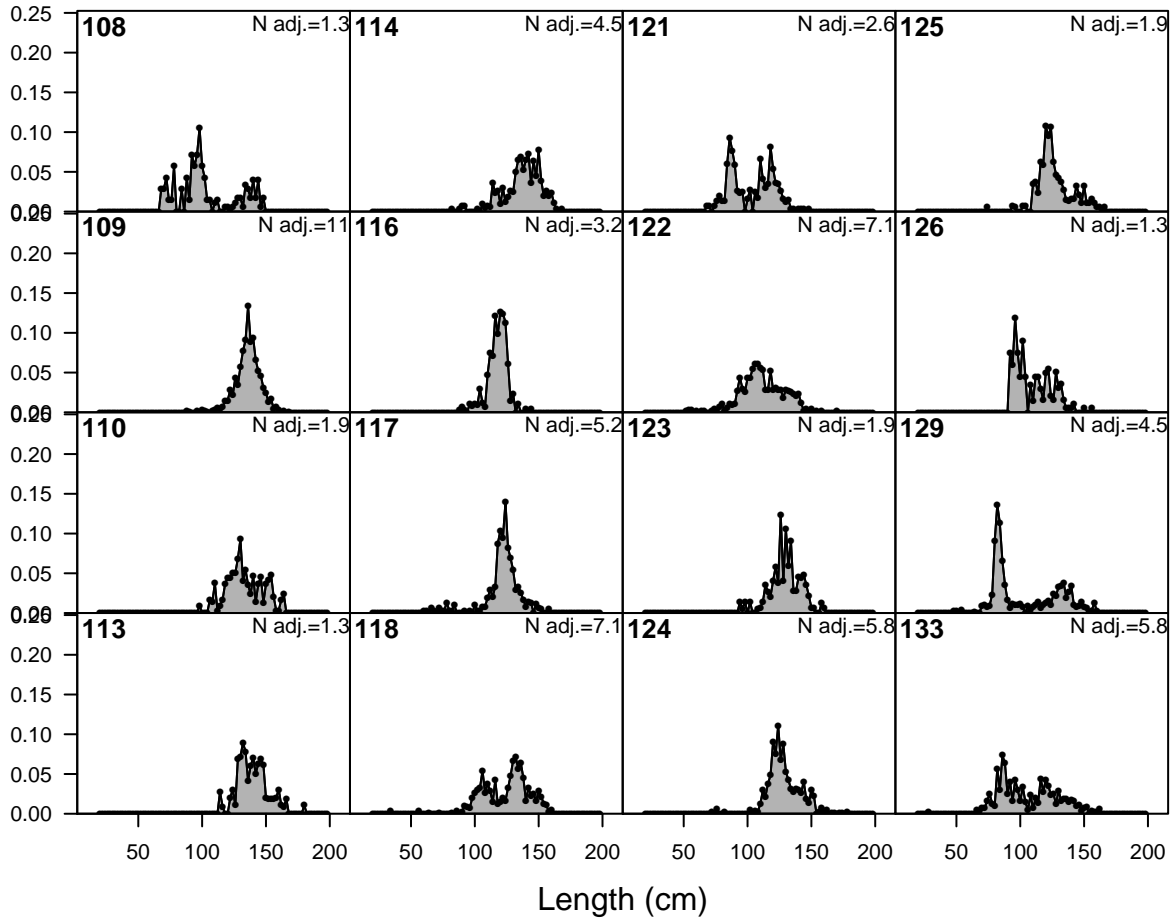
Proportion



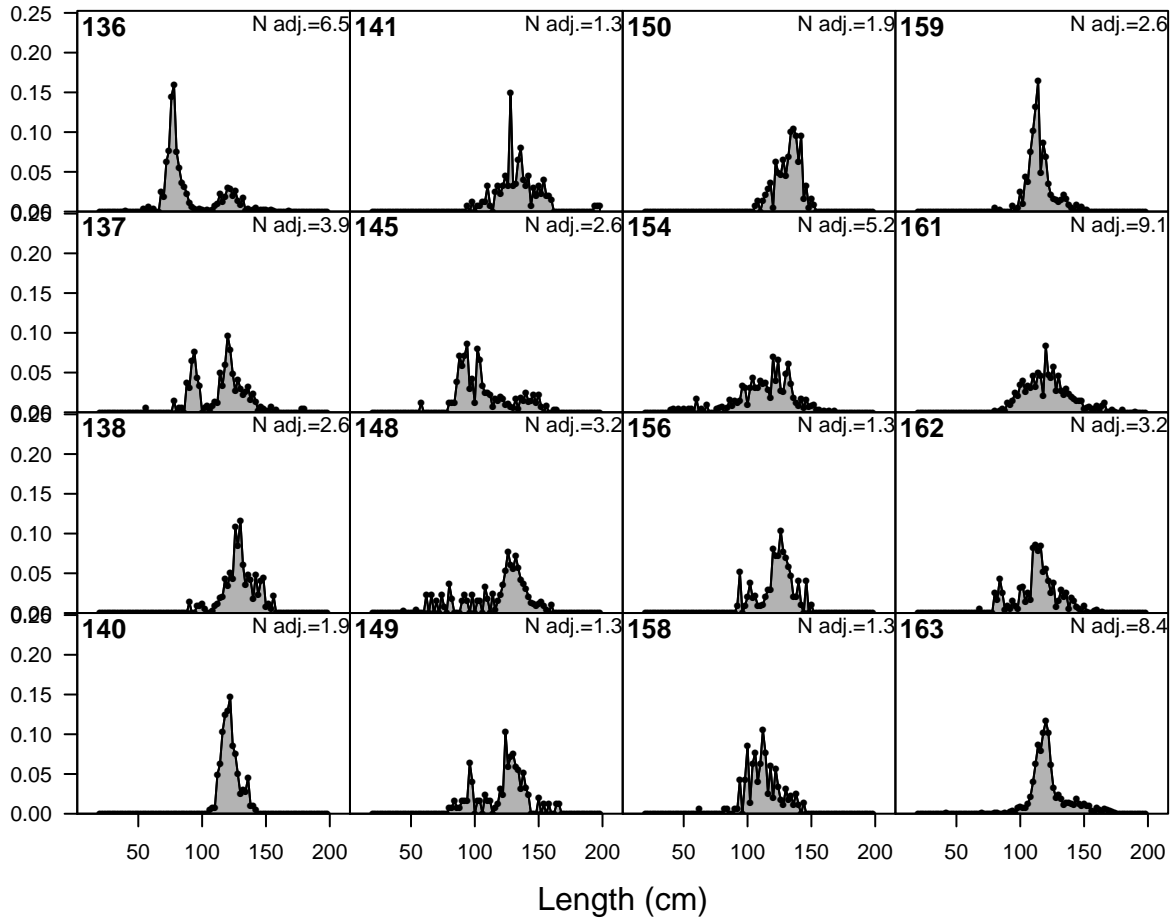
Proportion



Proportion

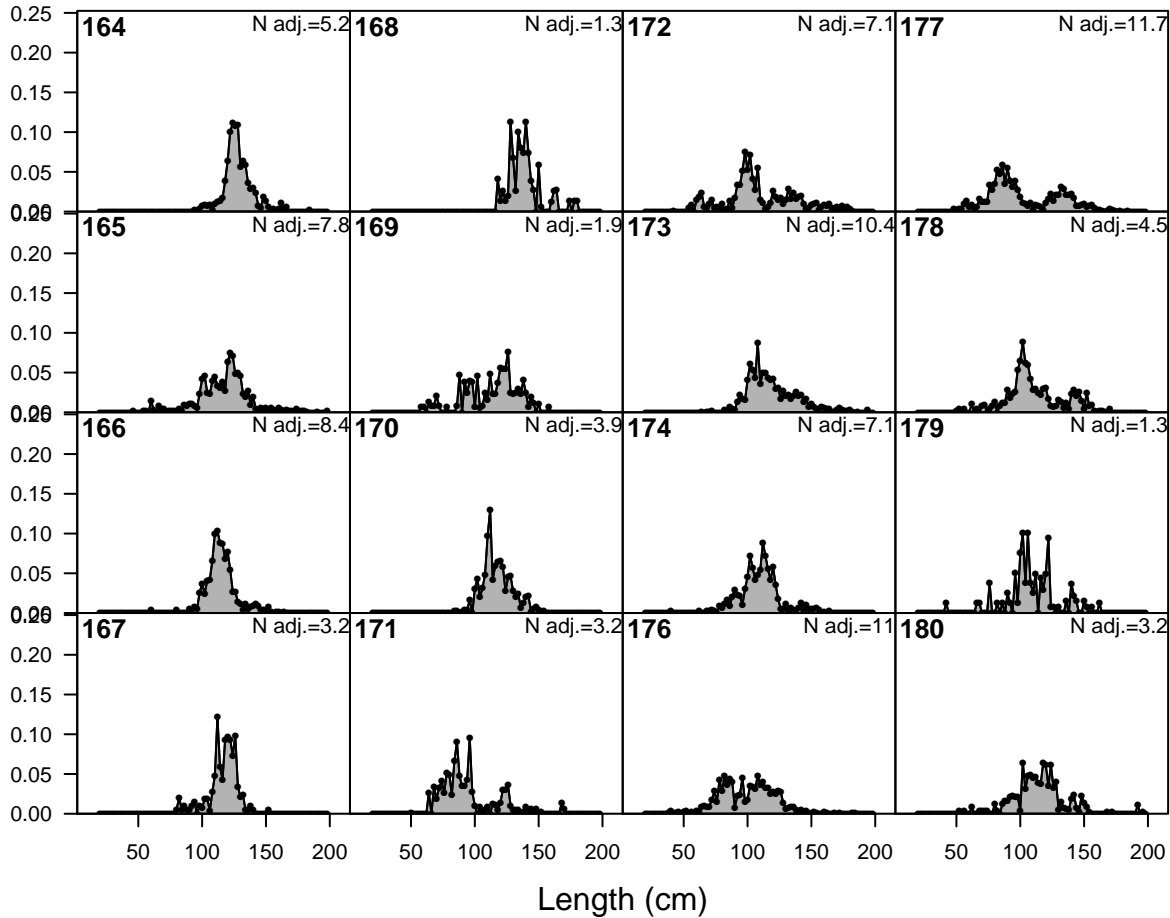


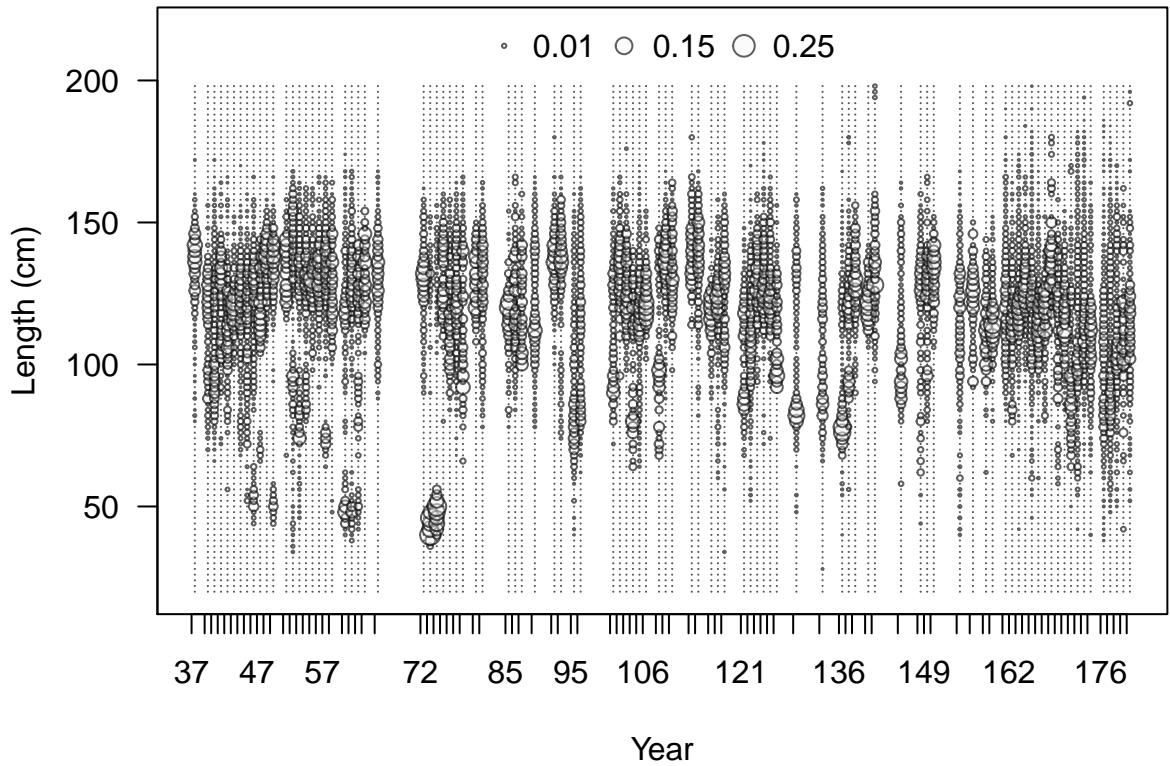
Proportion



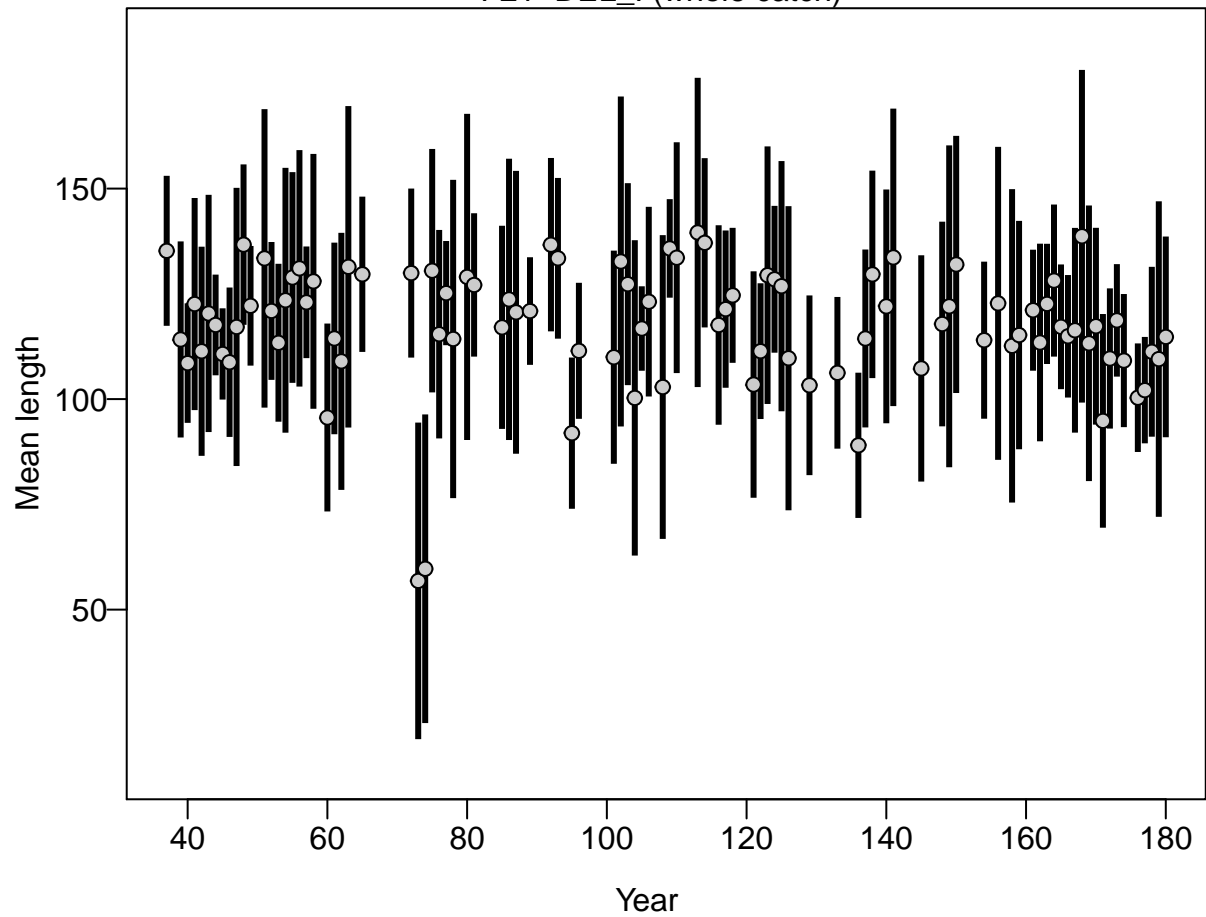


Proportion

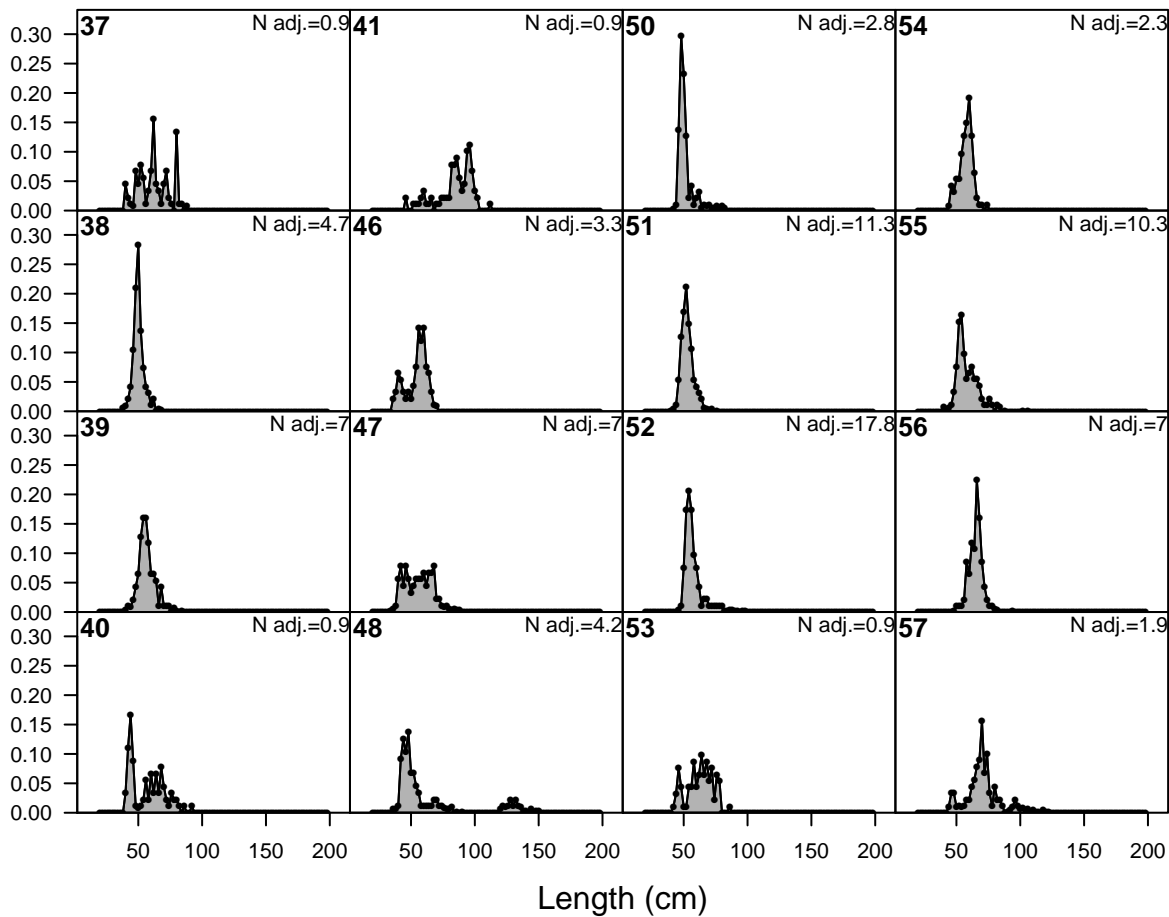




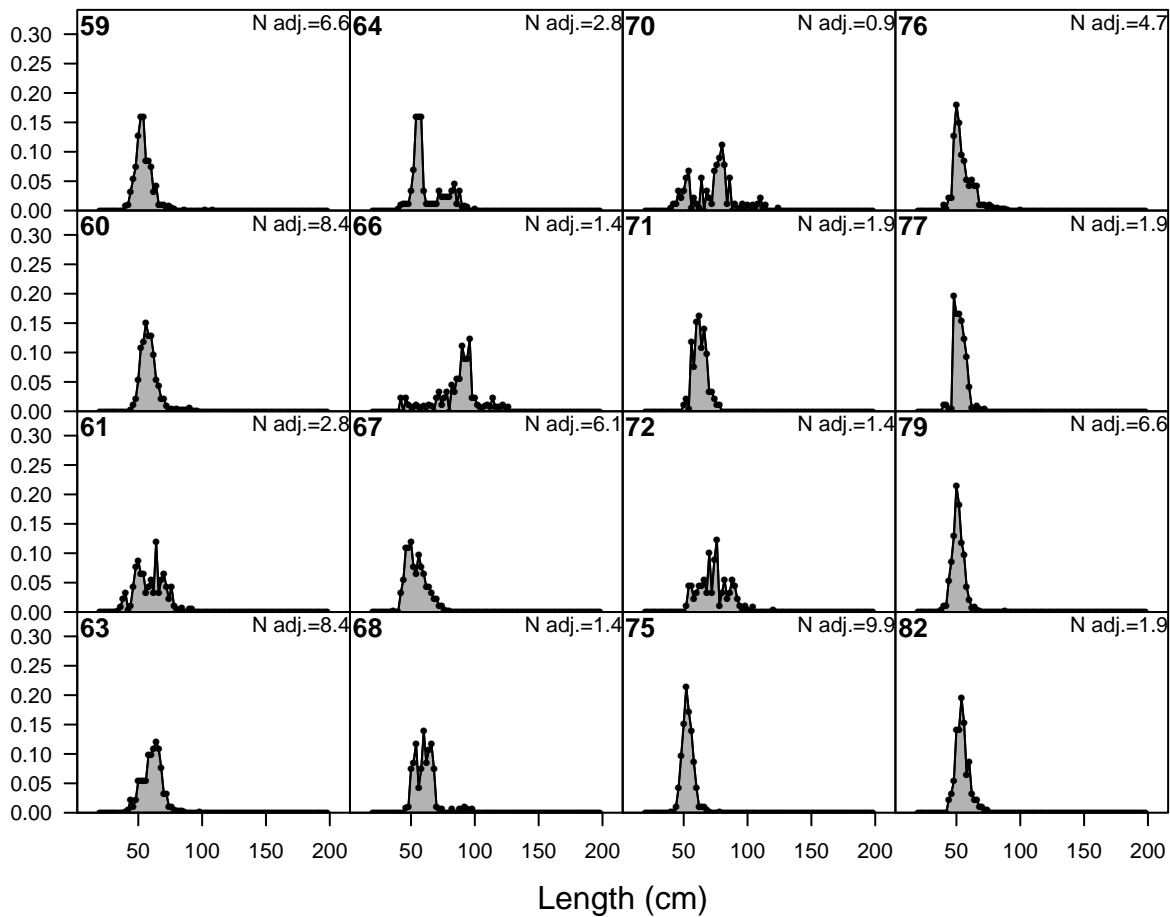
## F21-DEL\_I (whole catch)



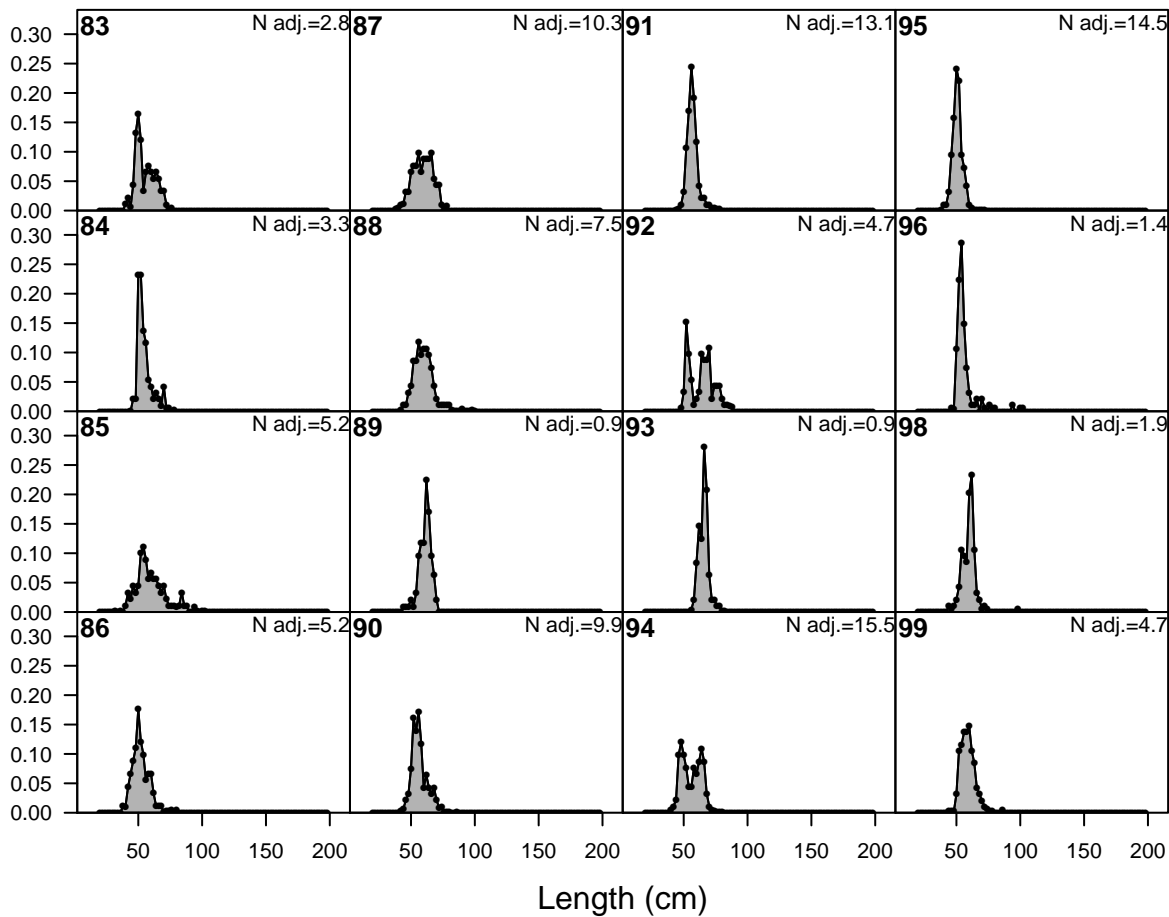
Proportion

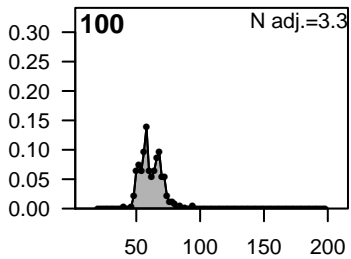


Proportion



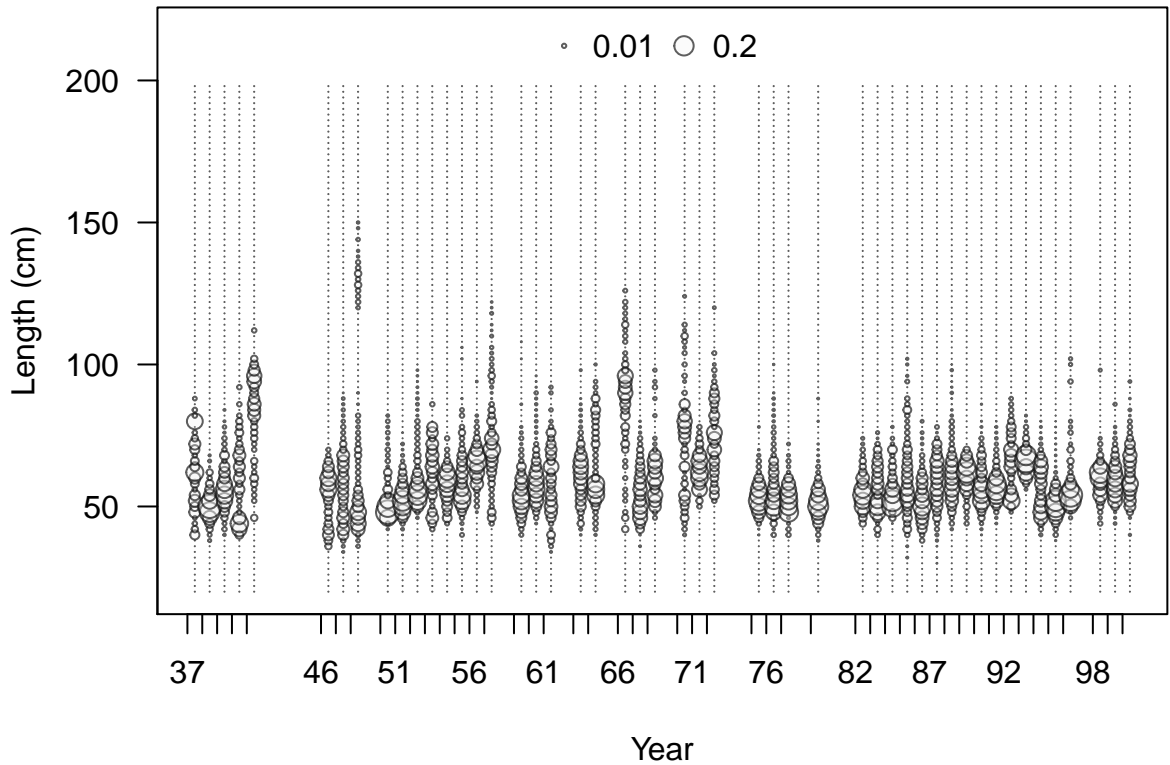
Proportion





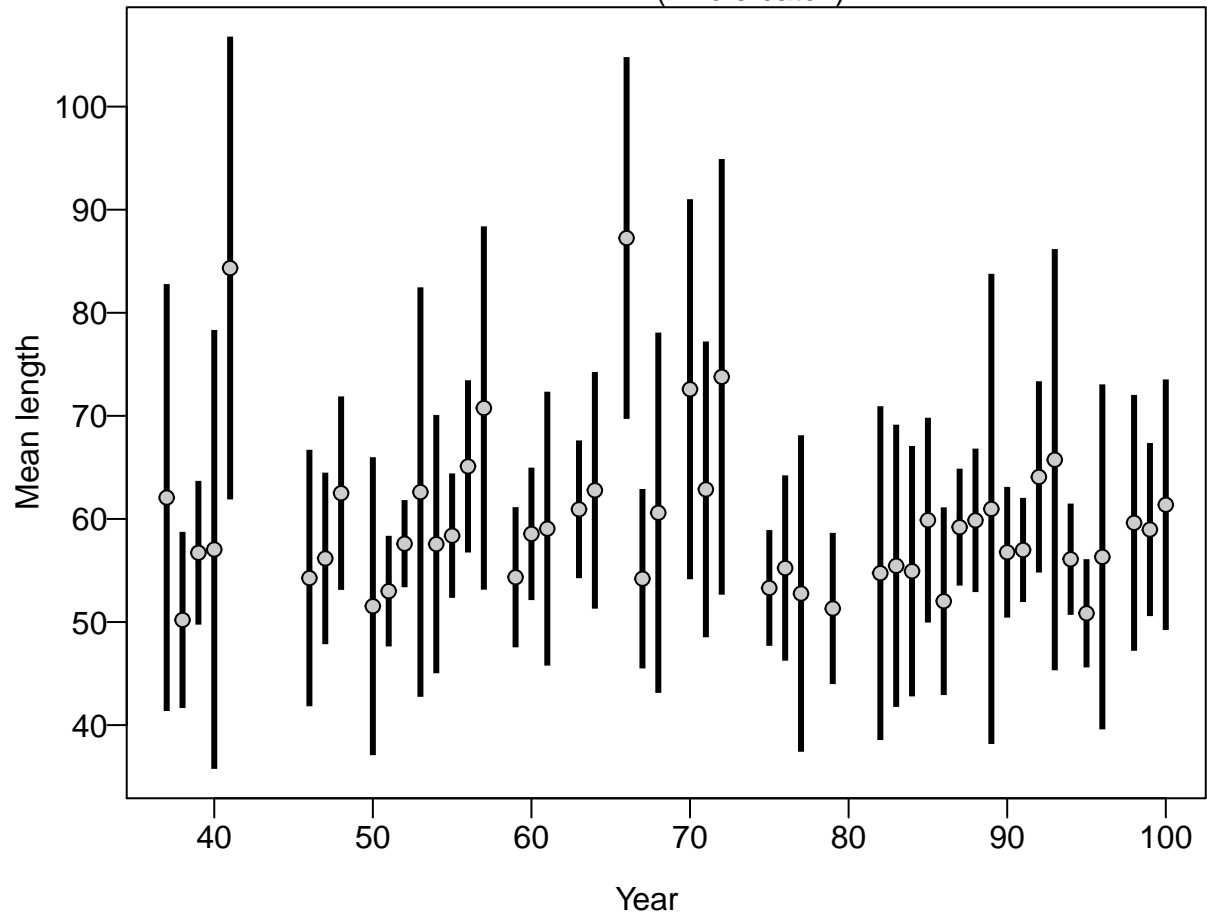
Proportion

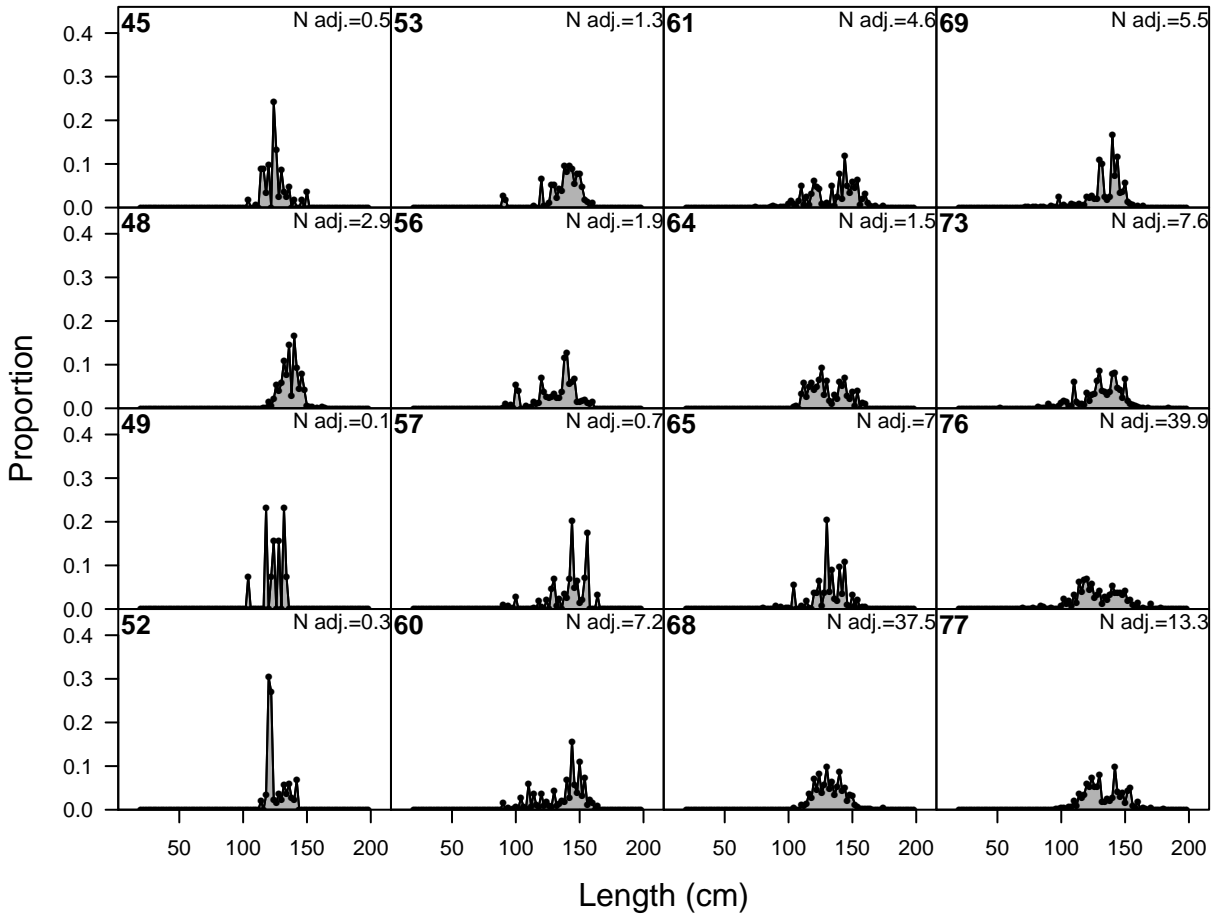
Length (cm)

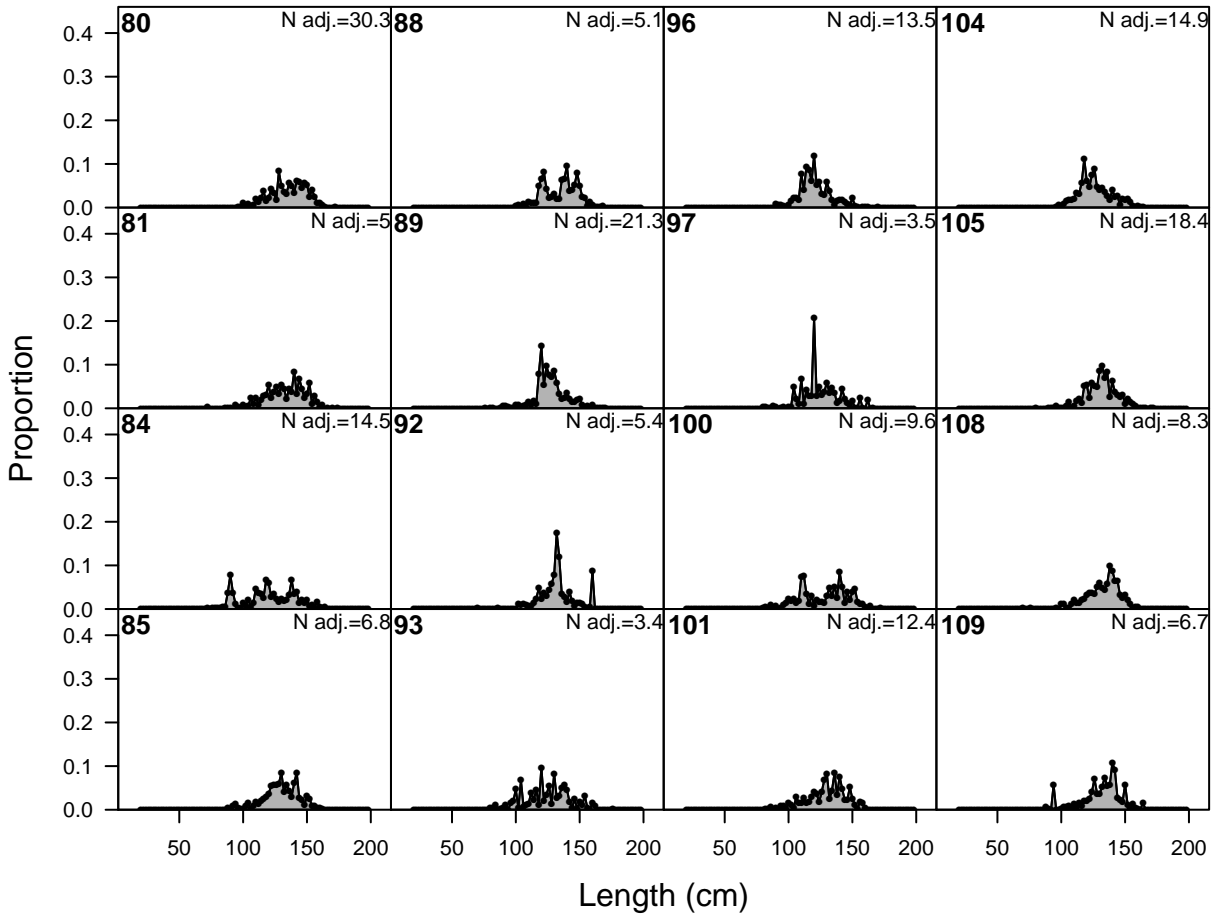


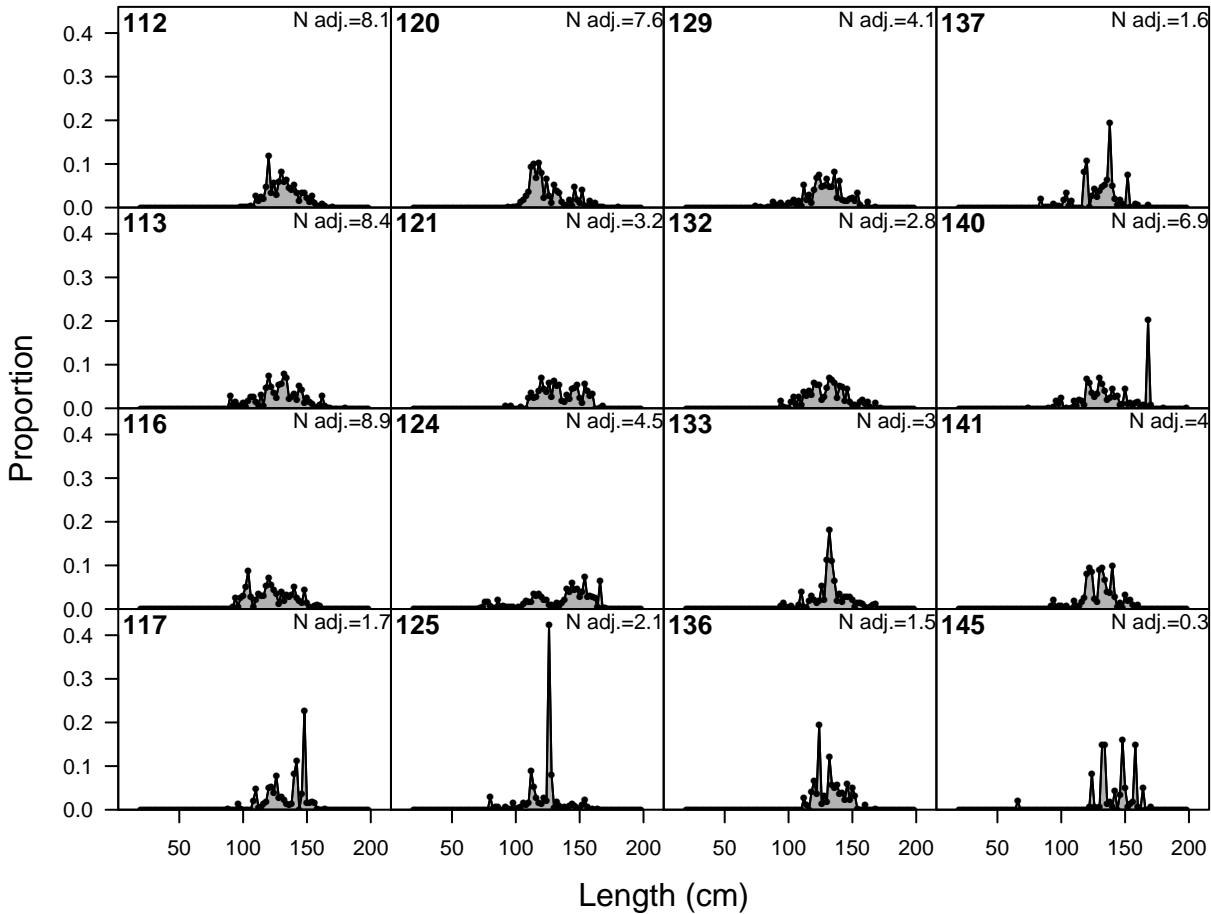


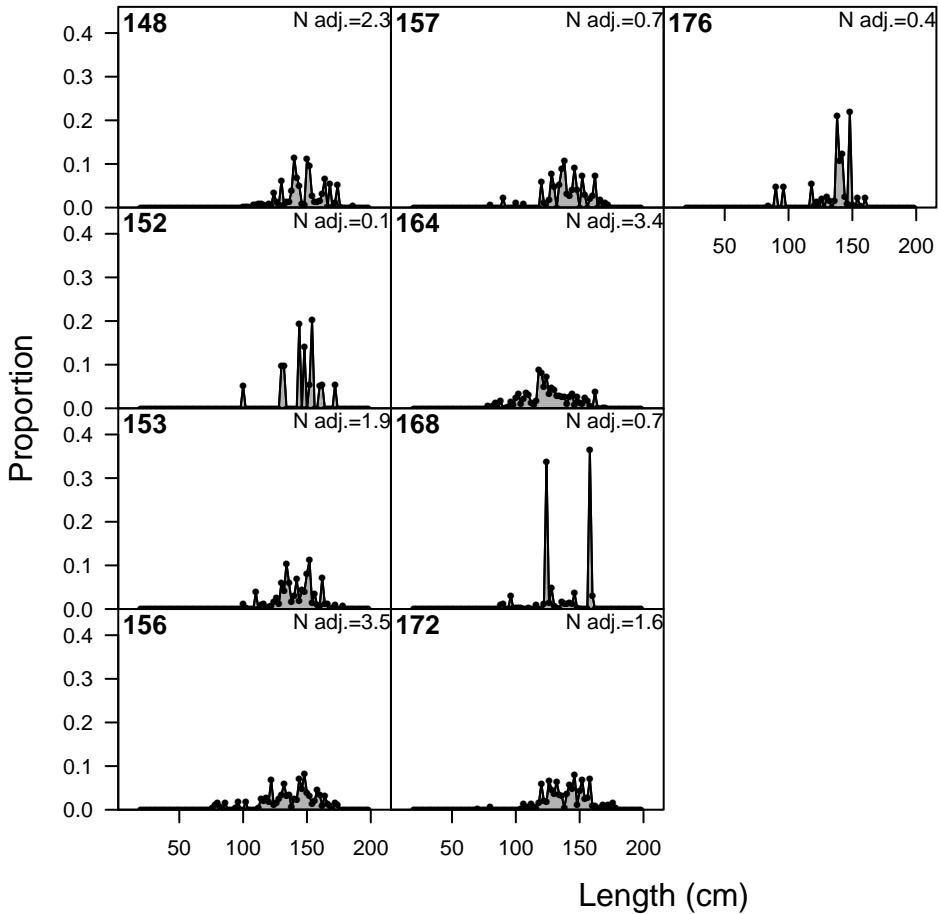
F22-BB (whole catch)

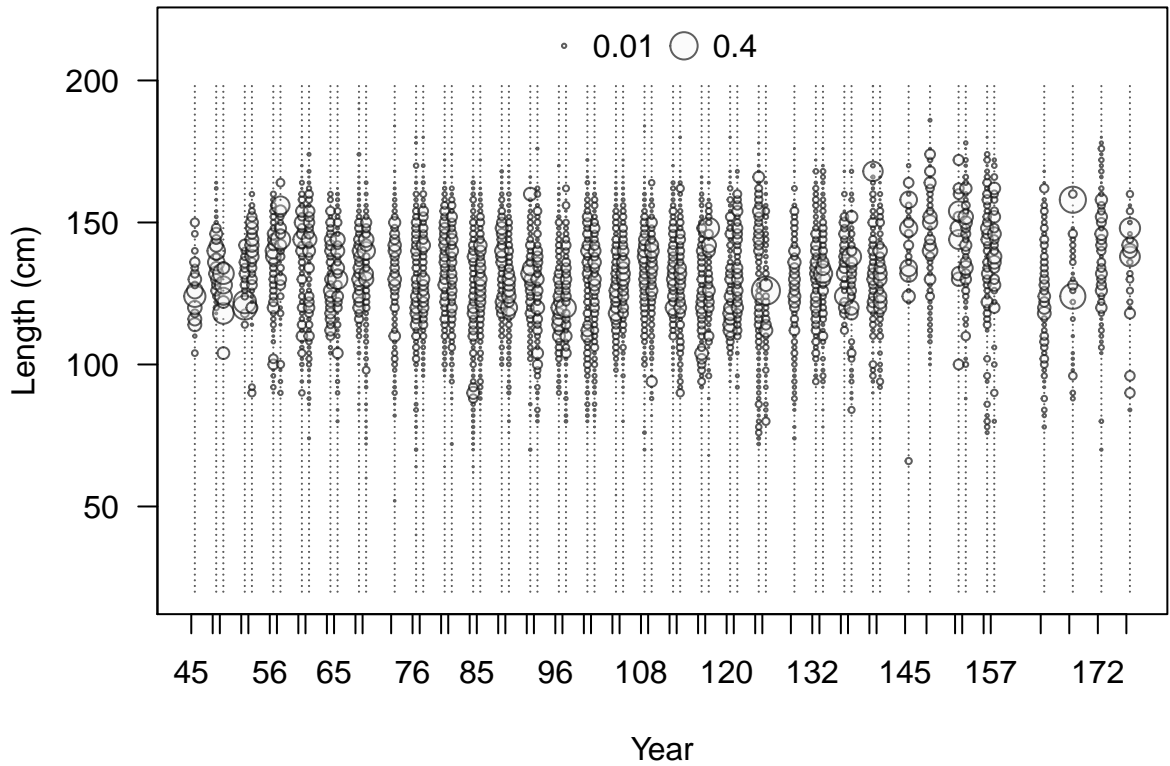




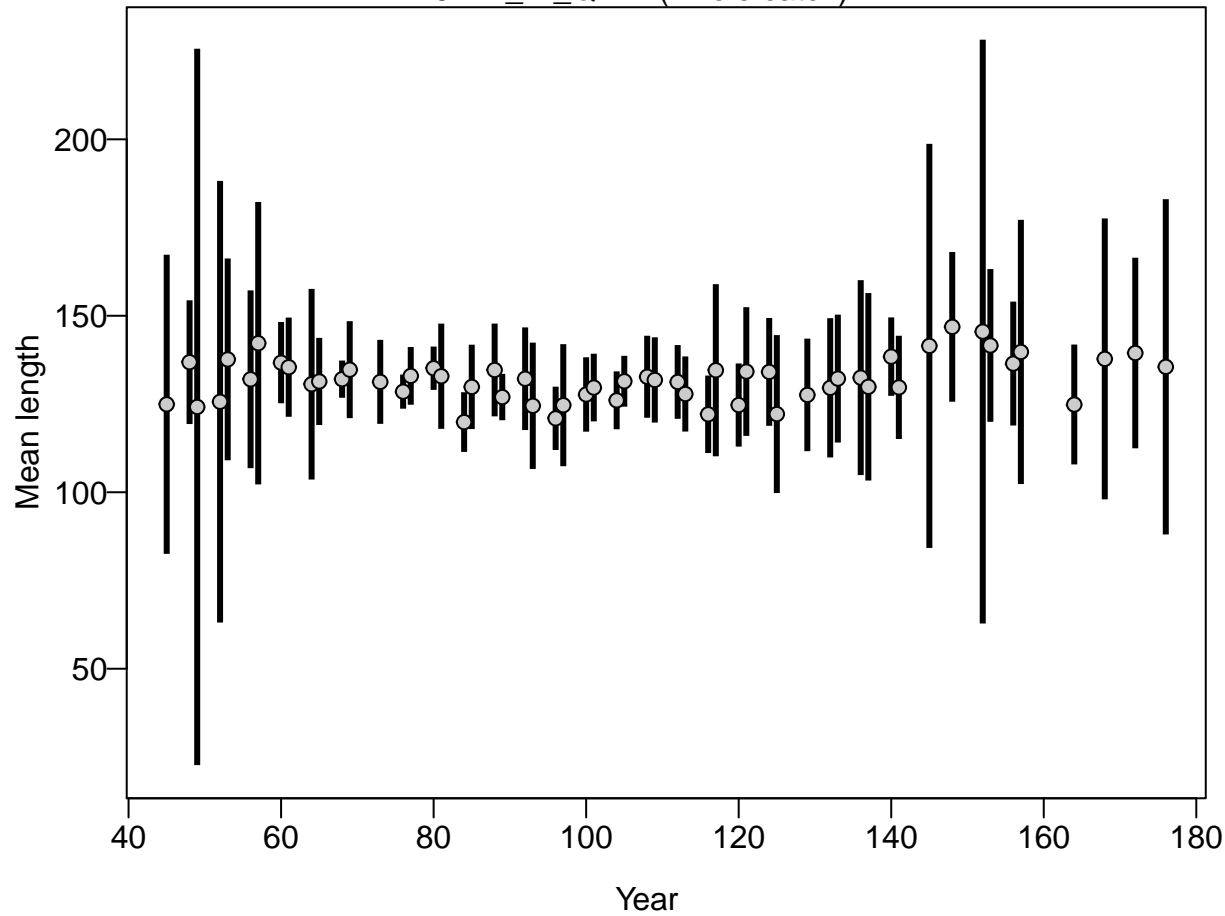




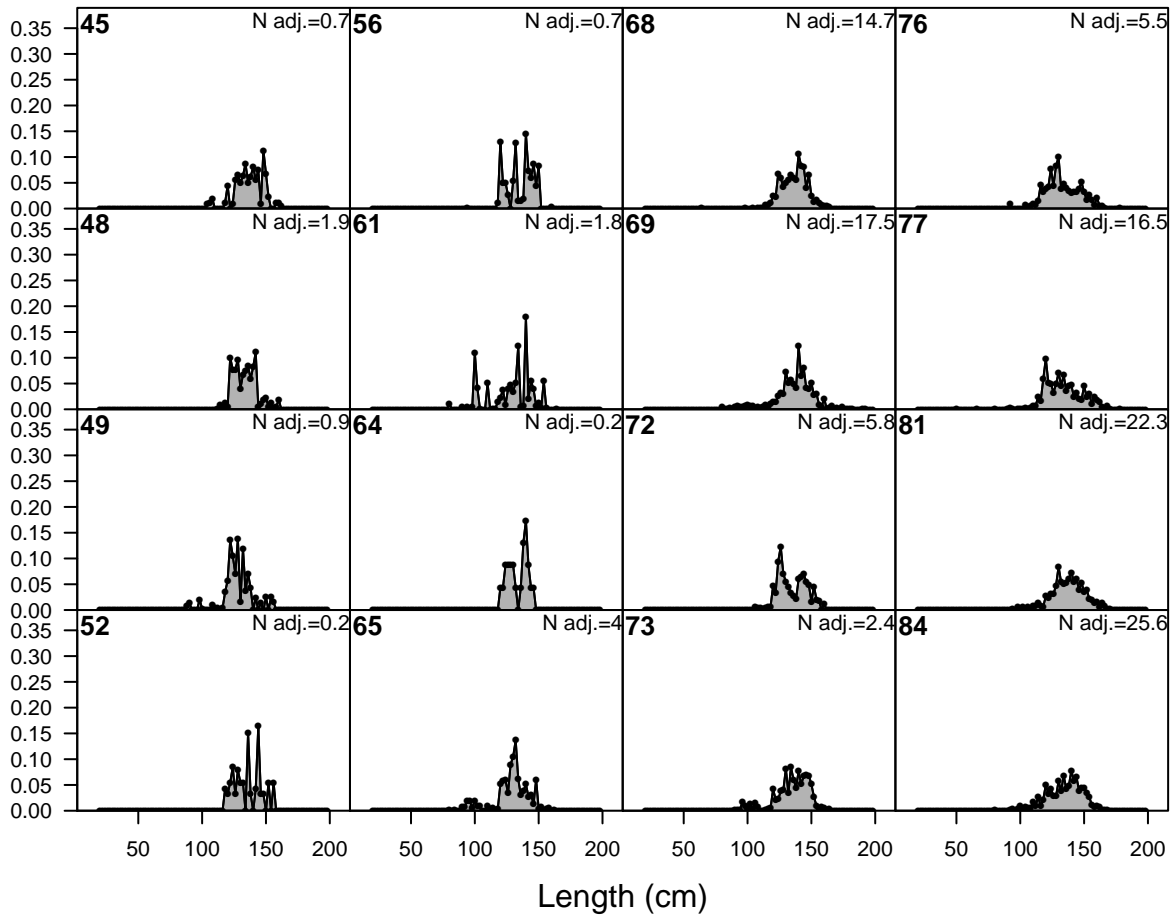




F29-LL\_W\_Q14n (whole catch)

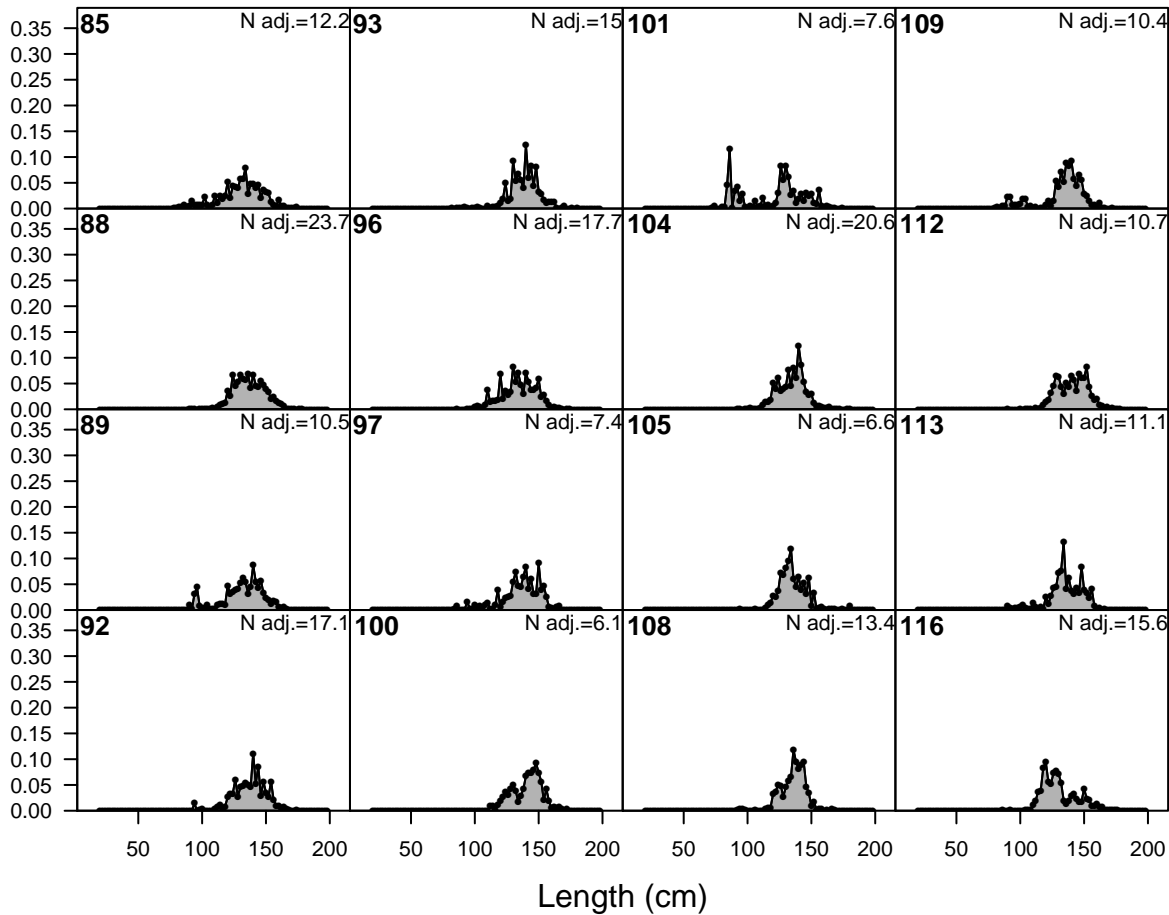


Proportion

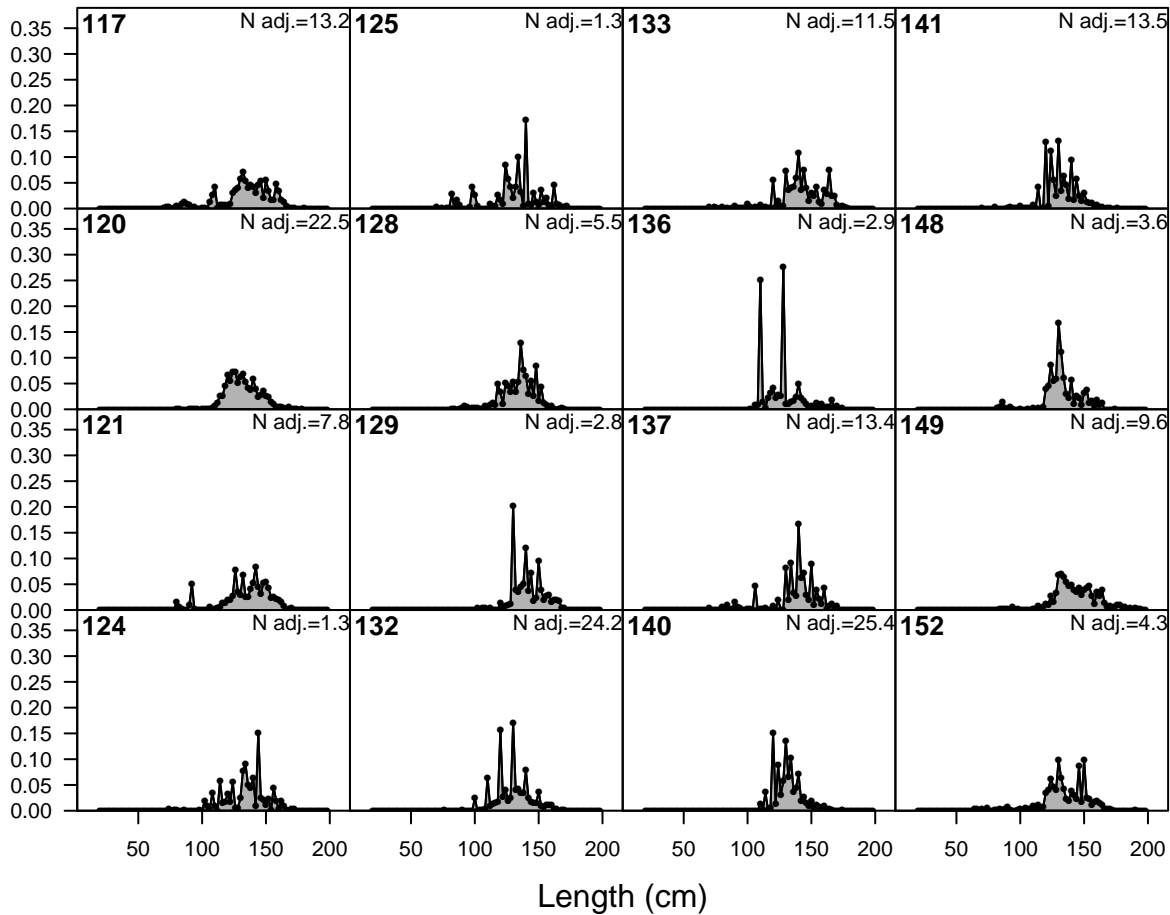




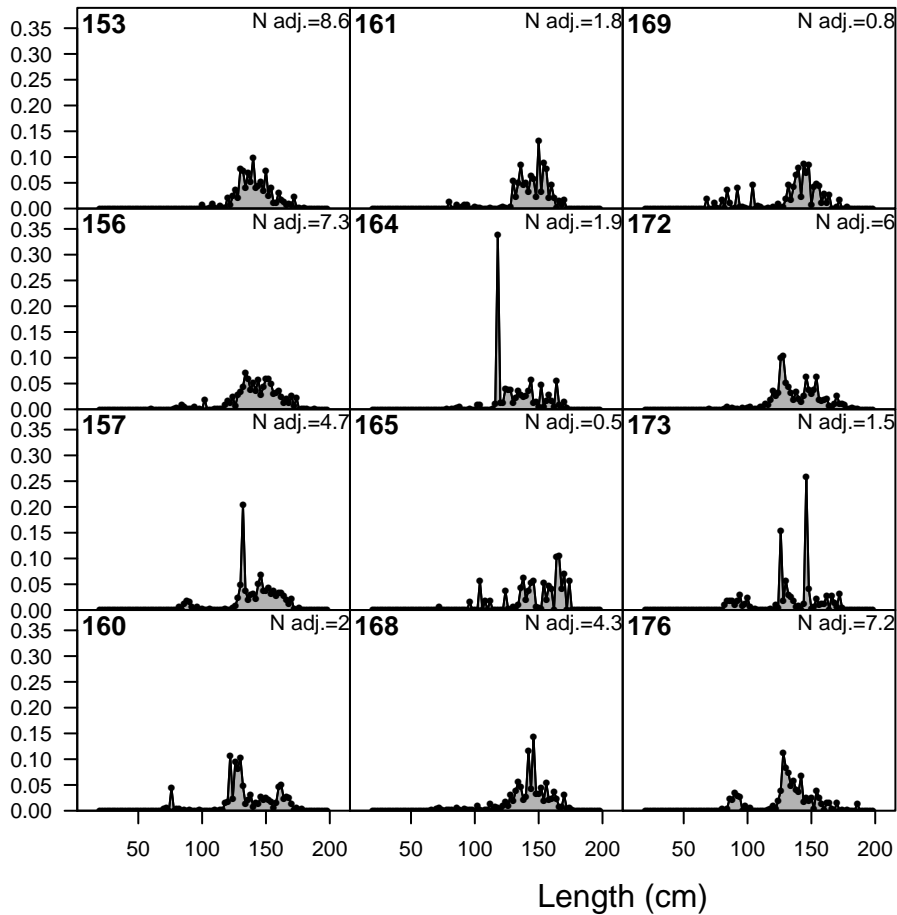
Proportion

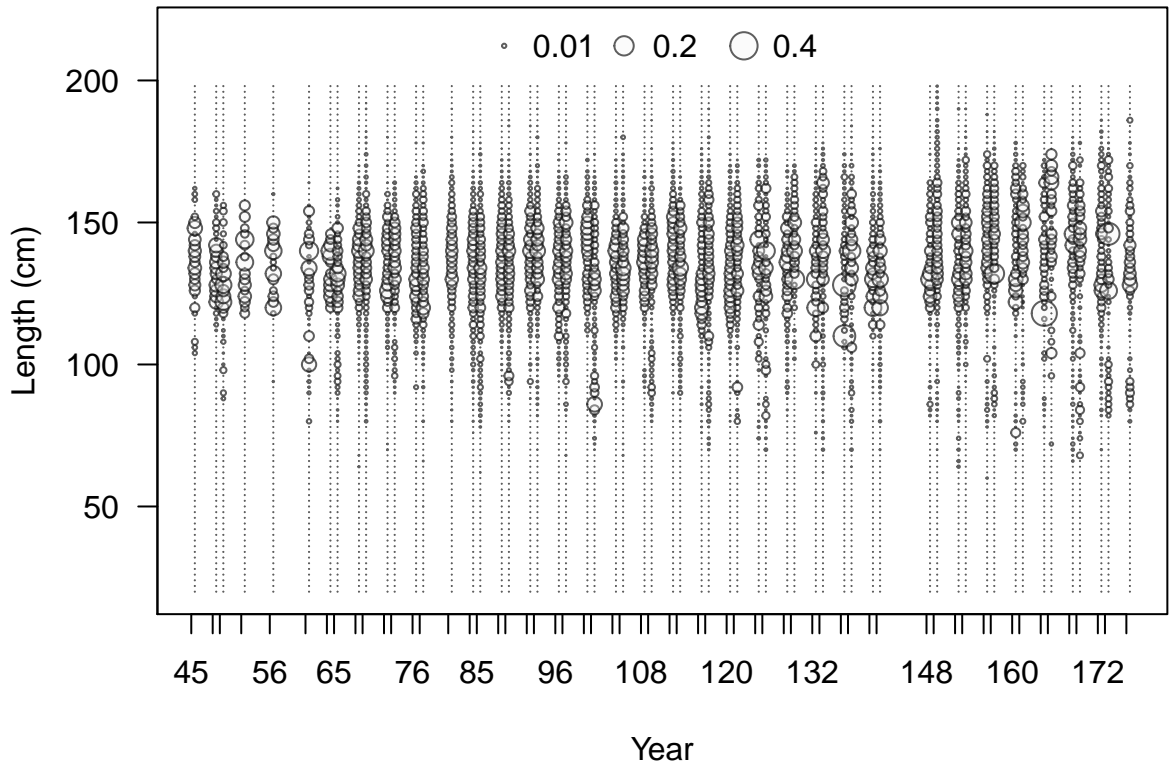


Proportion

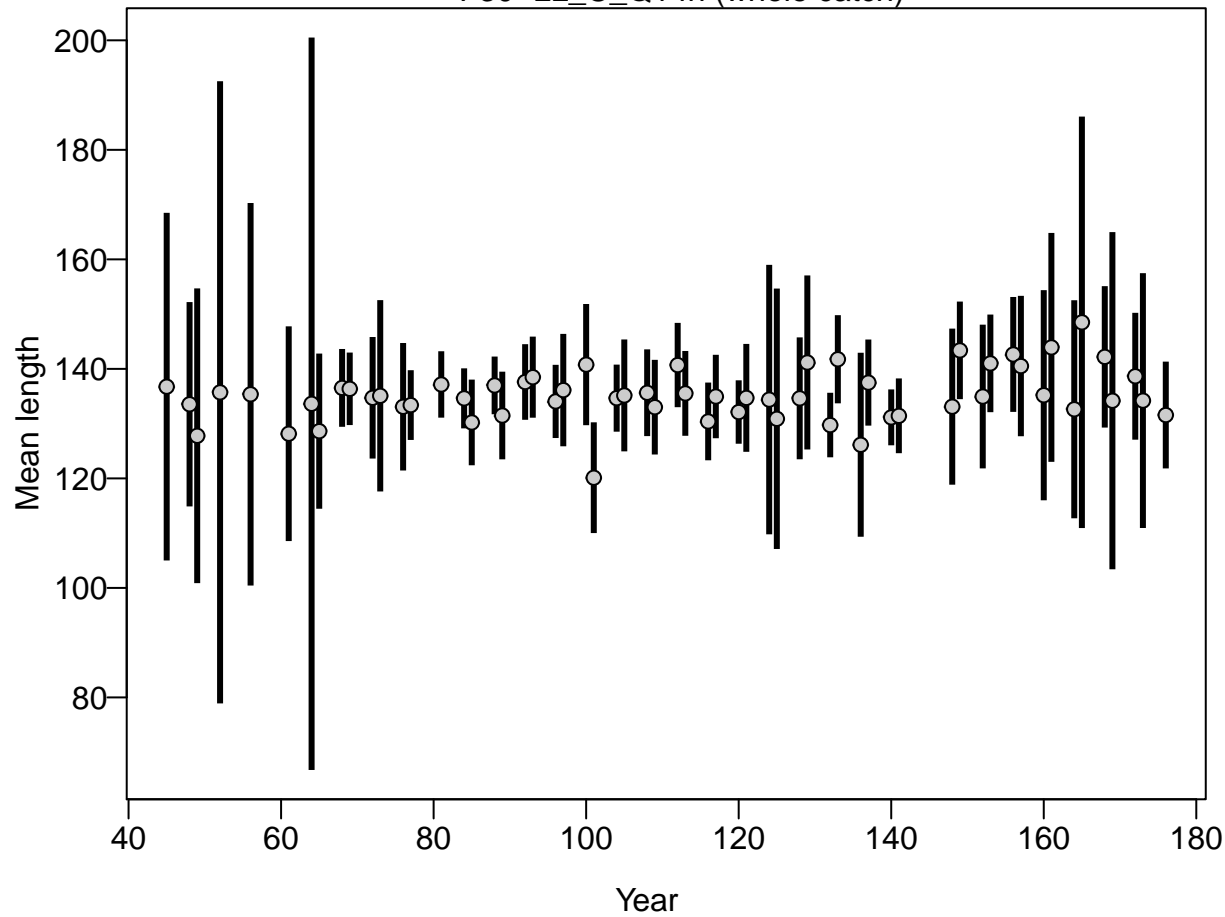


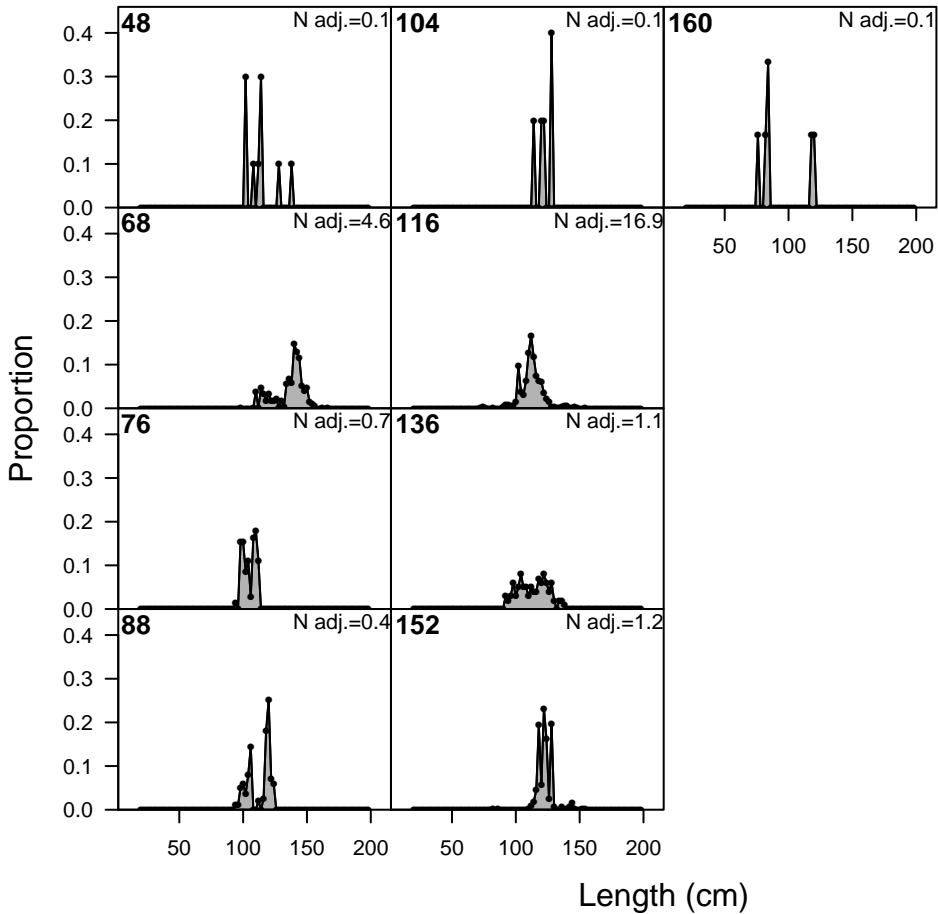
Proportion

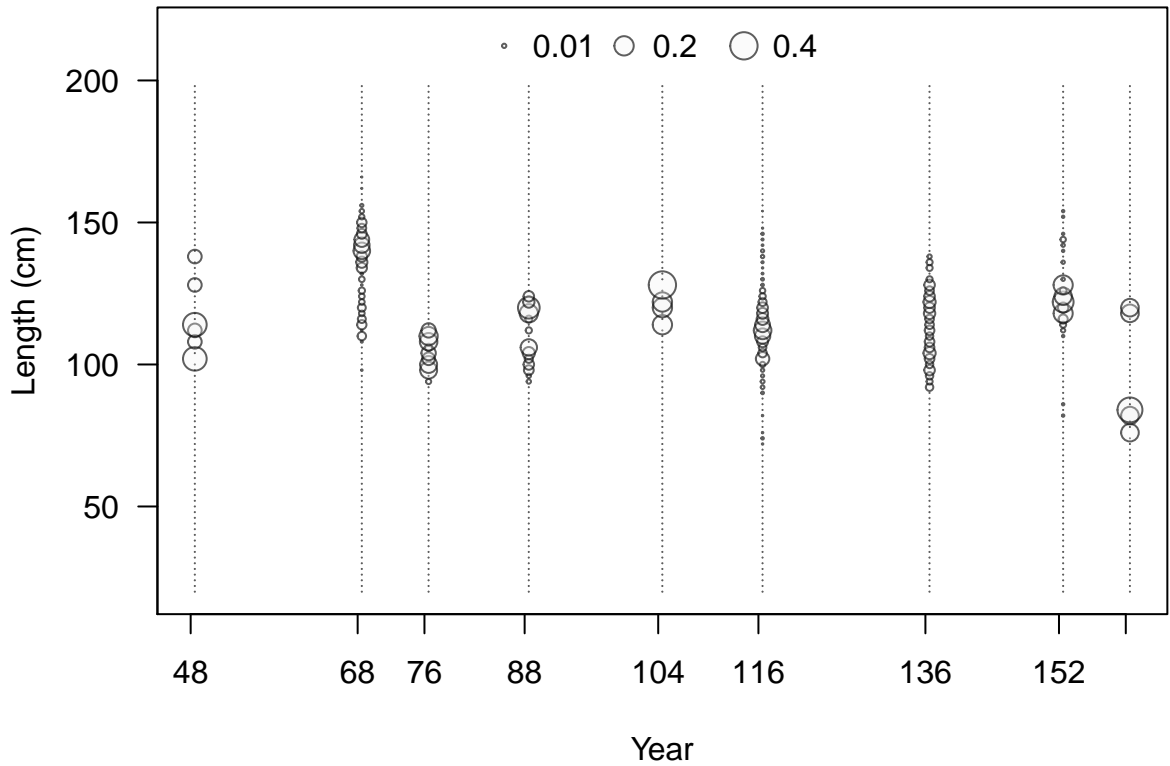




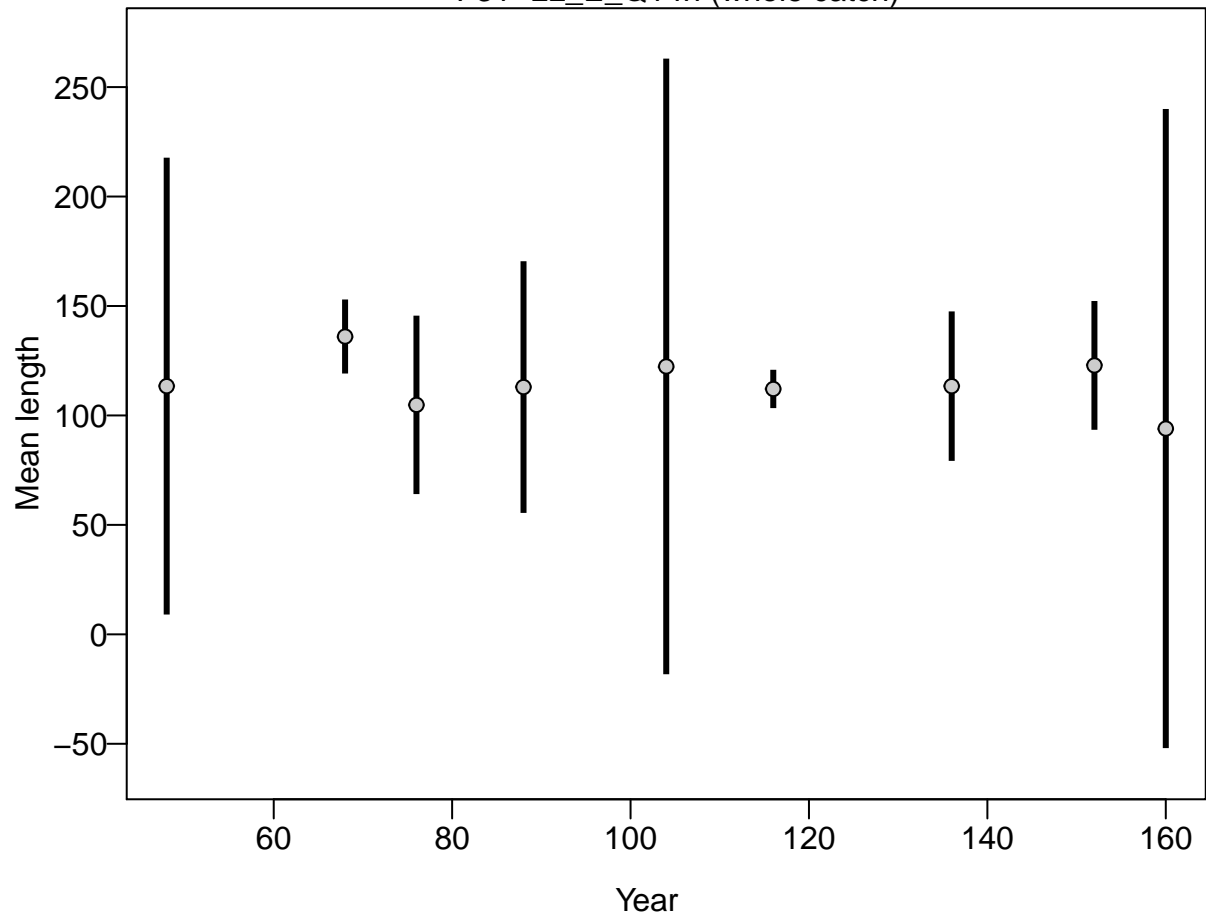
F30-LL\_C\_Q14n (whole catch)





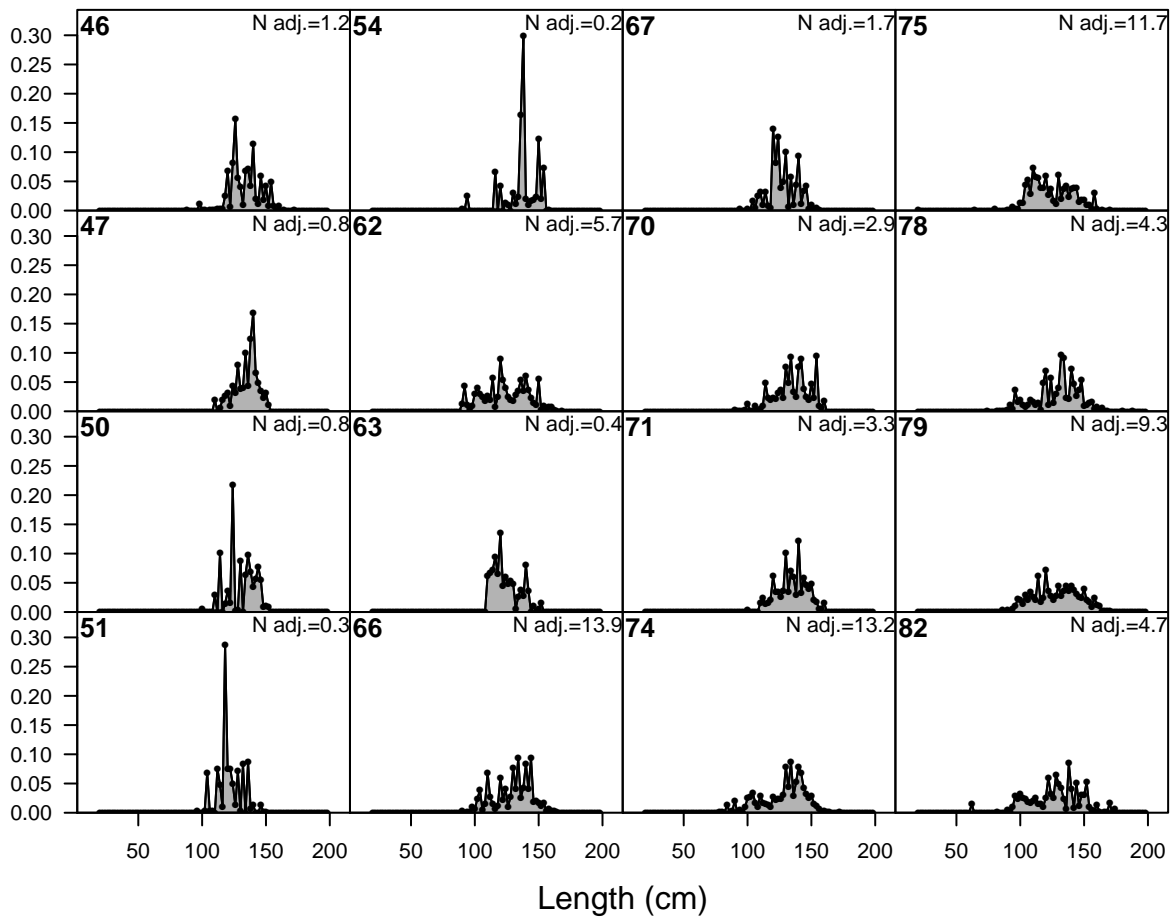


F31-LL\_E\_Q14n (whole catch)

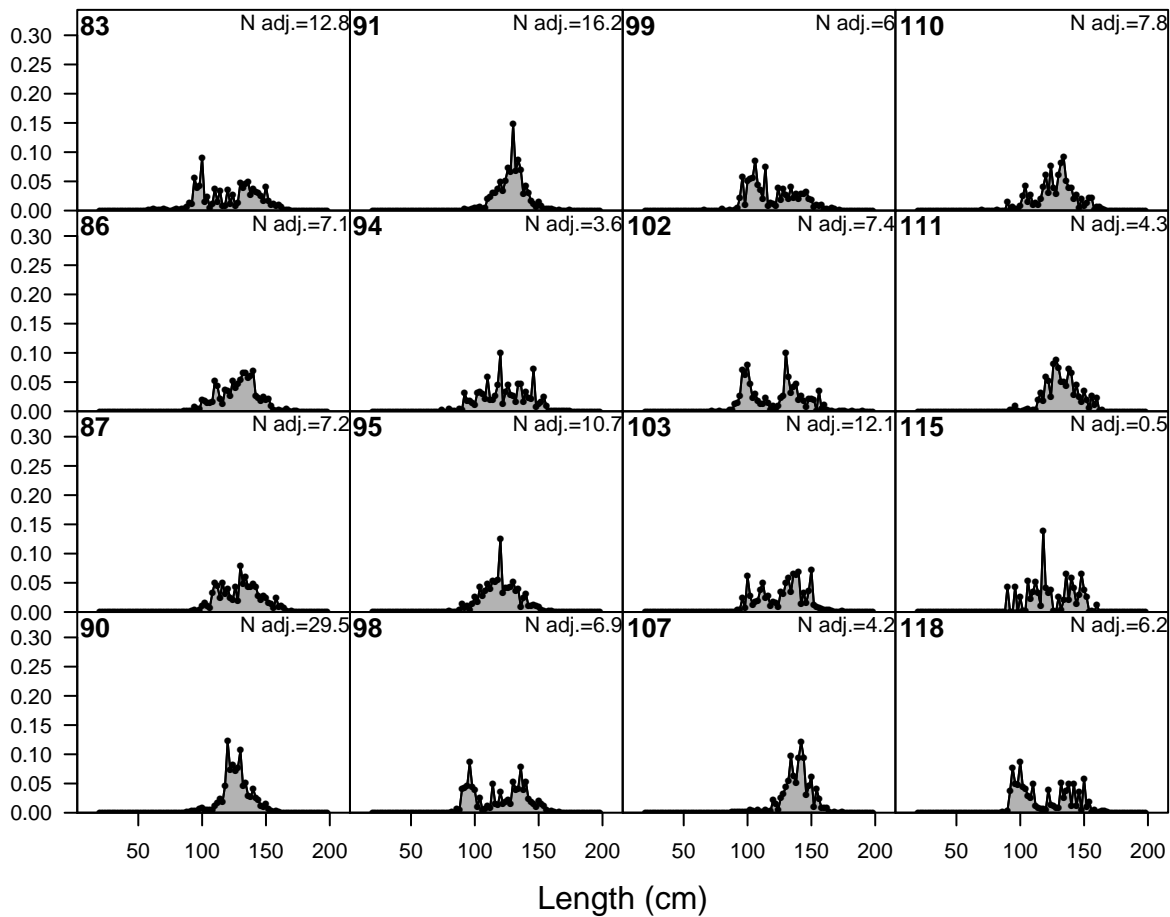




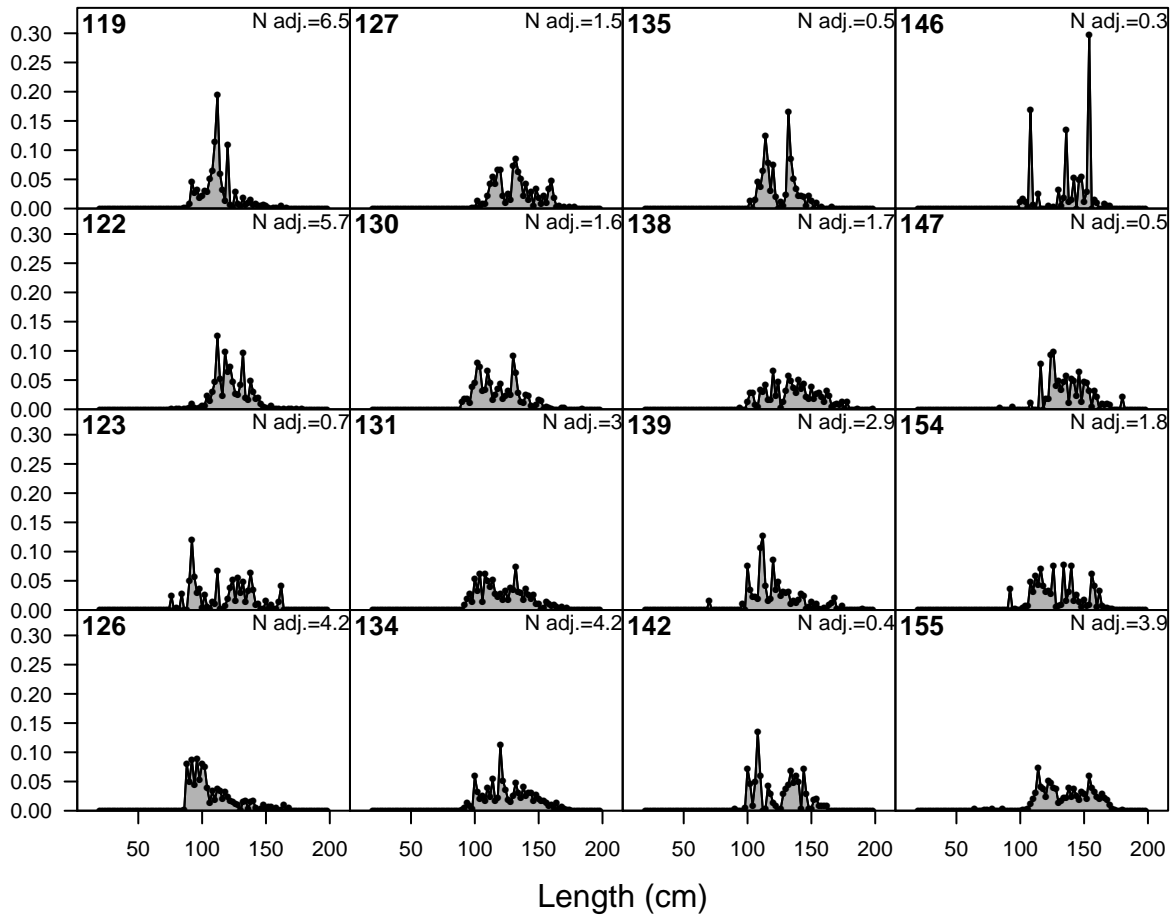
Proportion



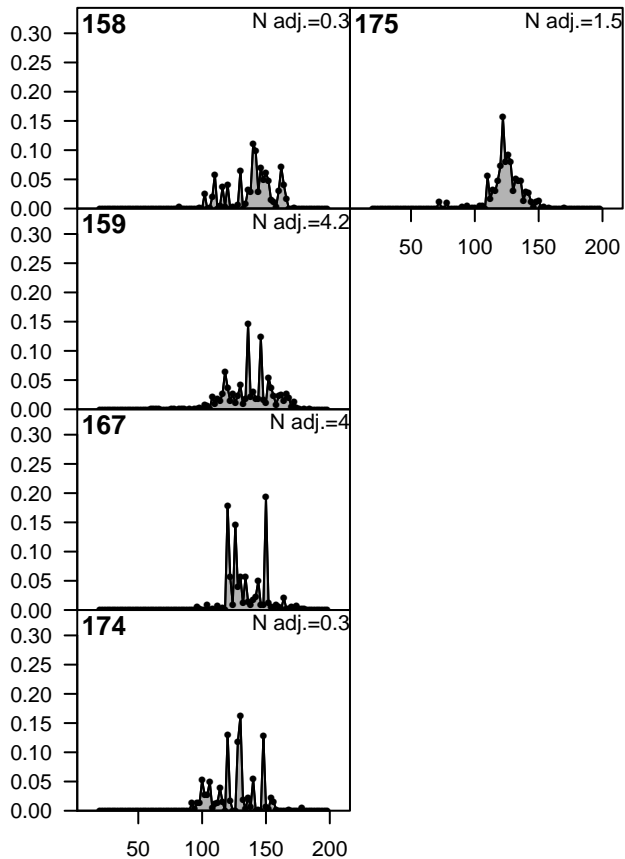
Proportion



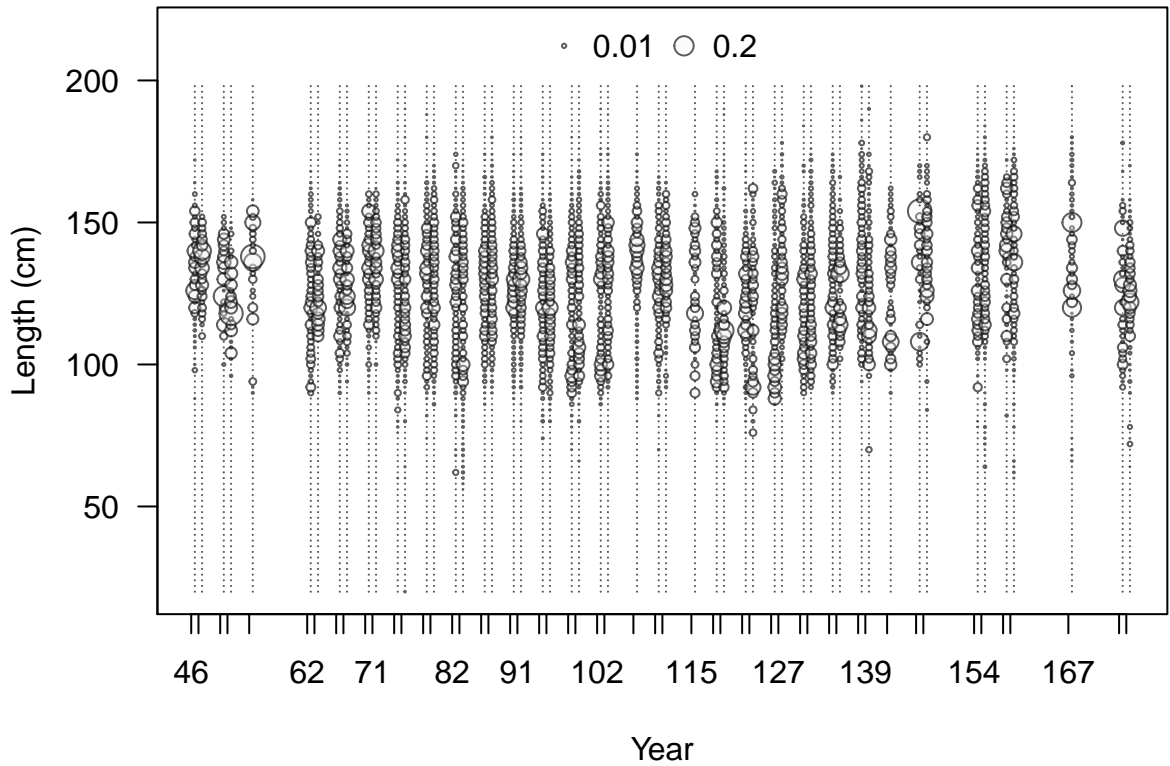
Proportion



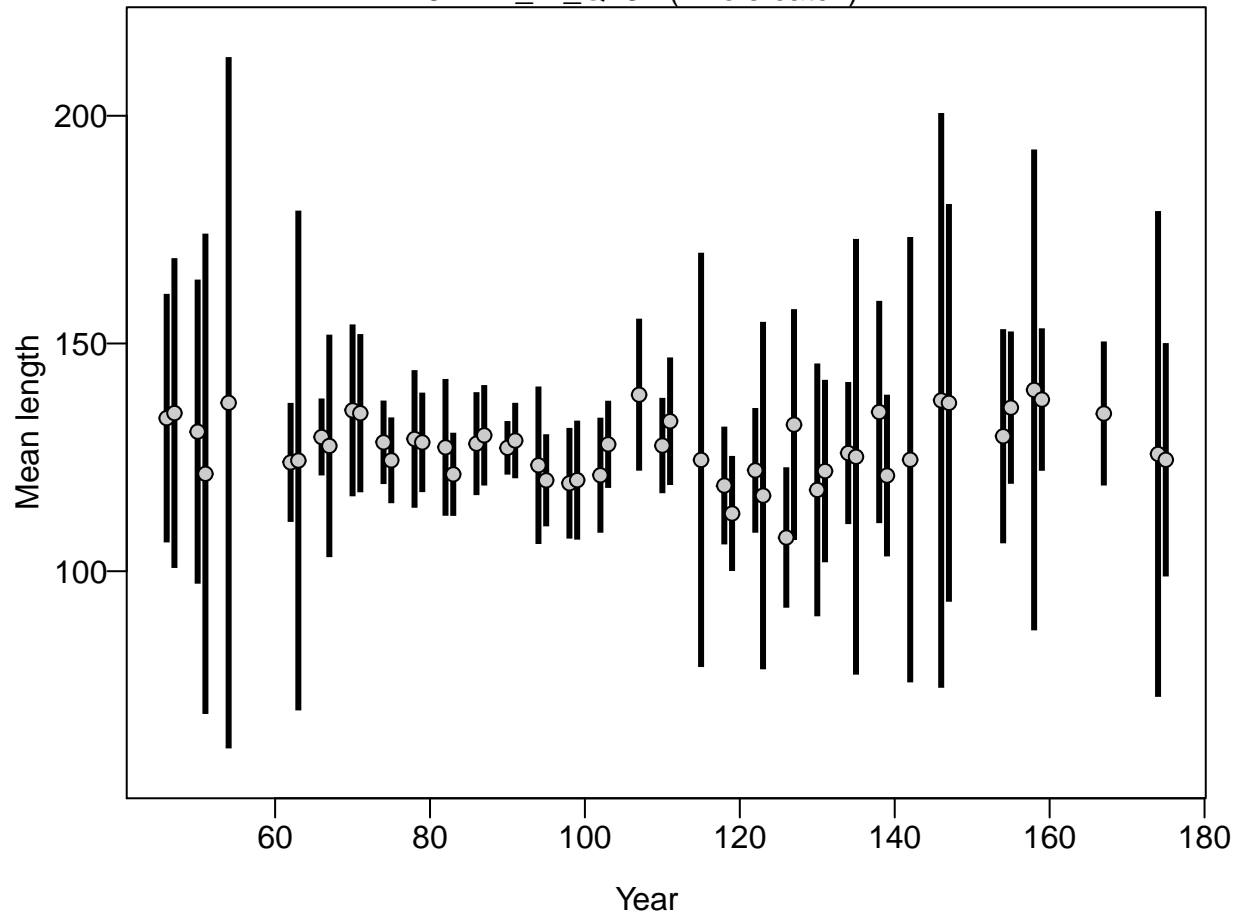
Proportion

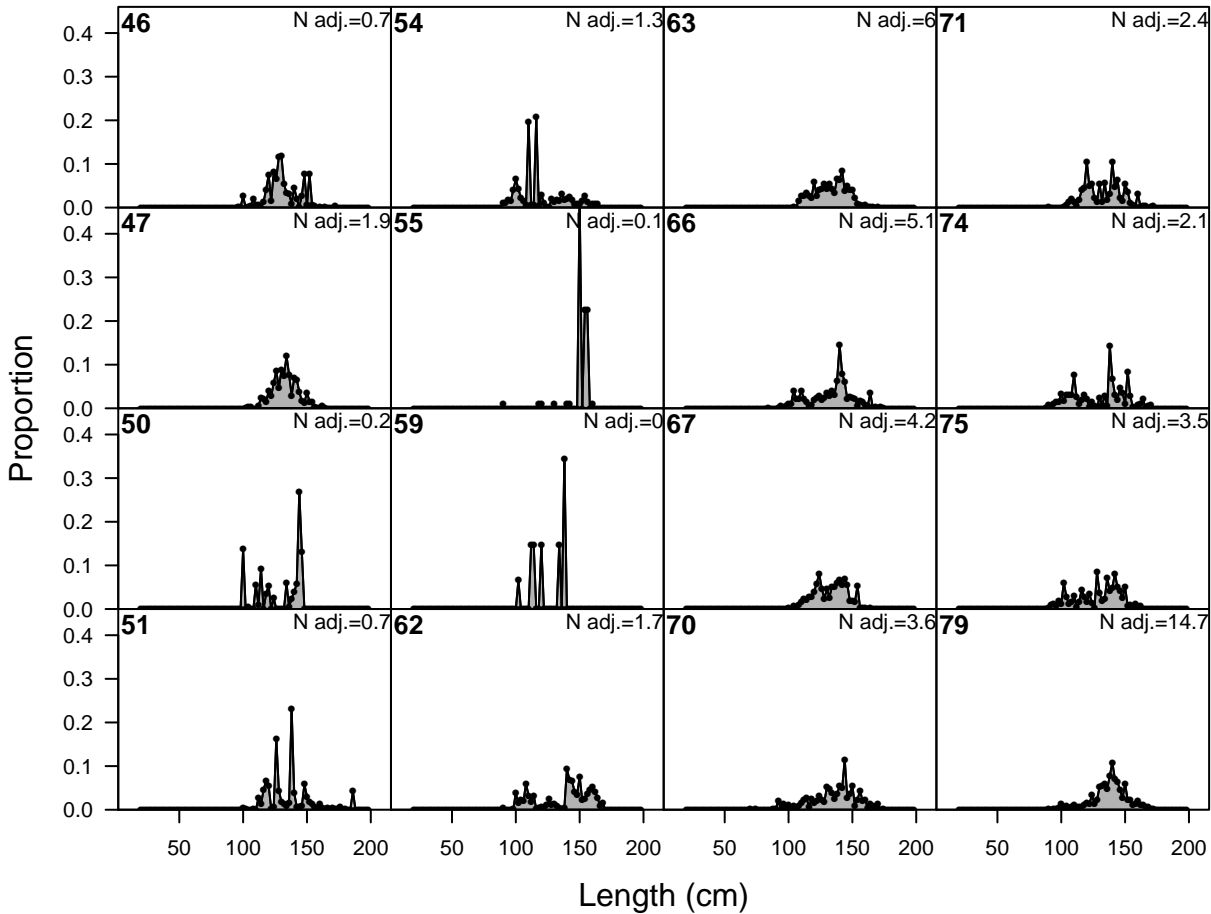


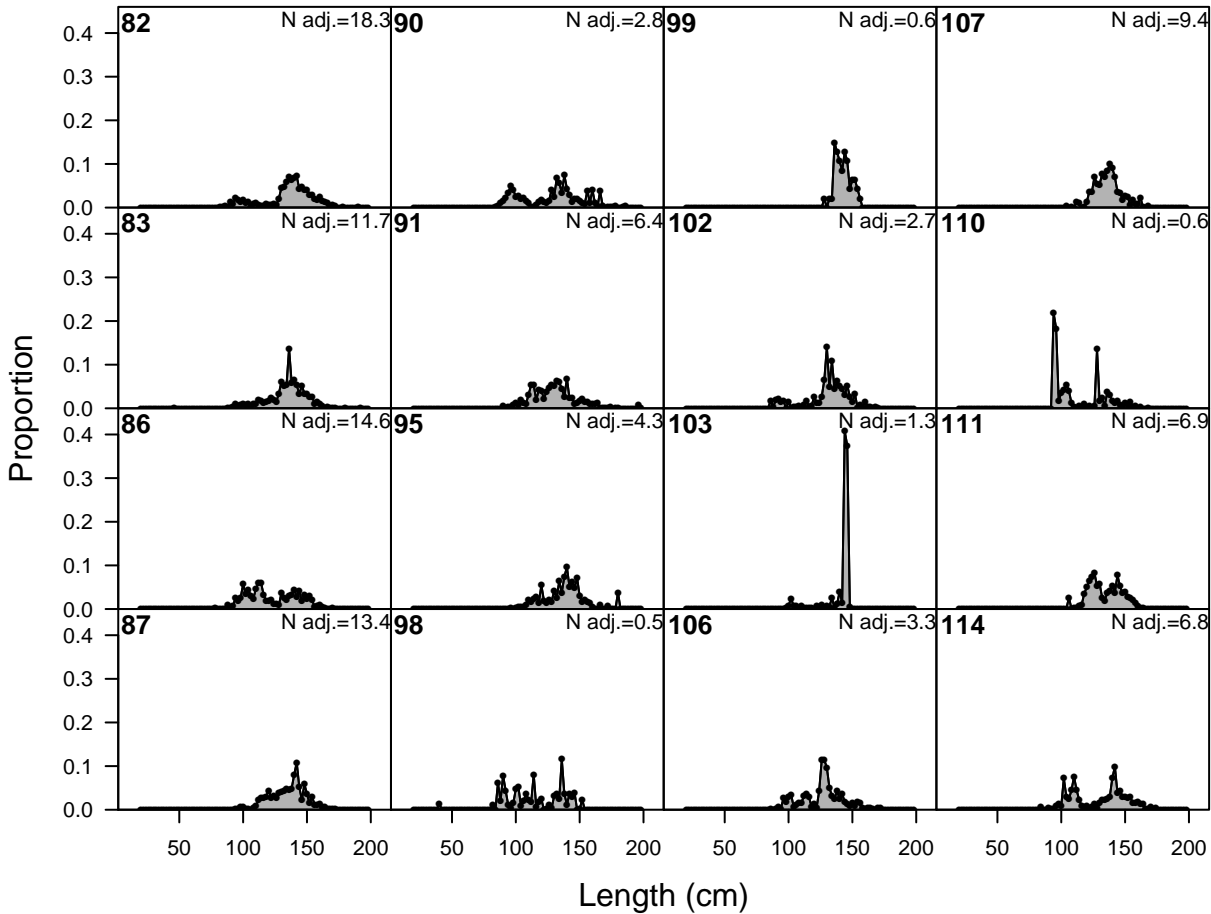
Length (cm)



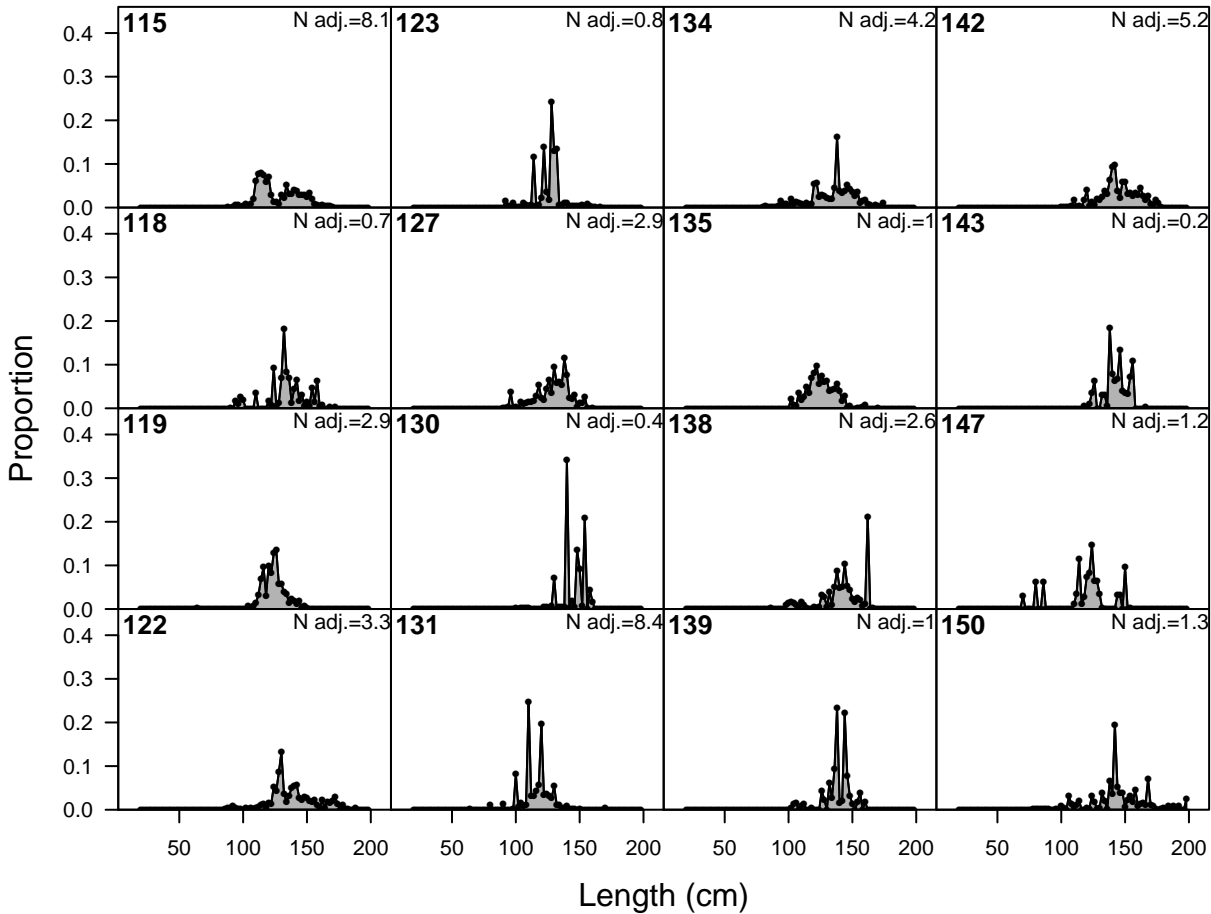
F32-LL\_W\_Q23n (whole catch)

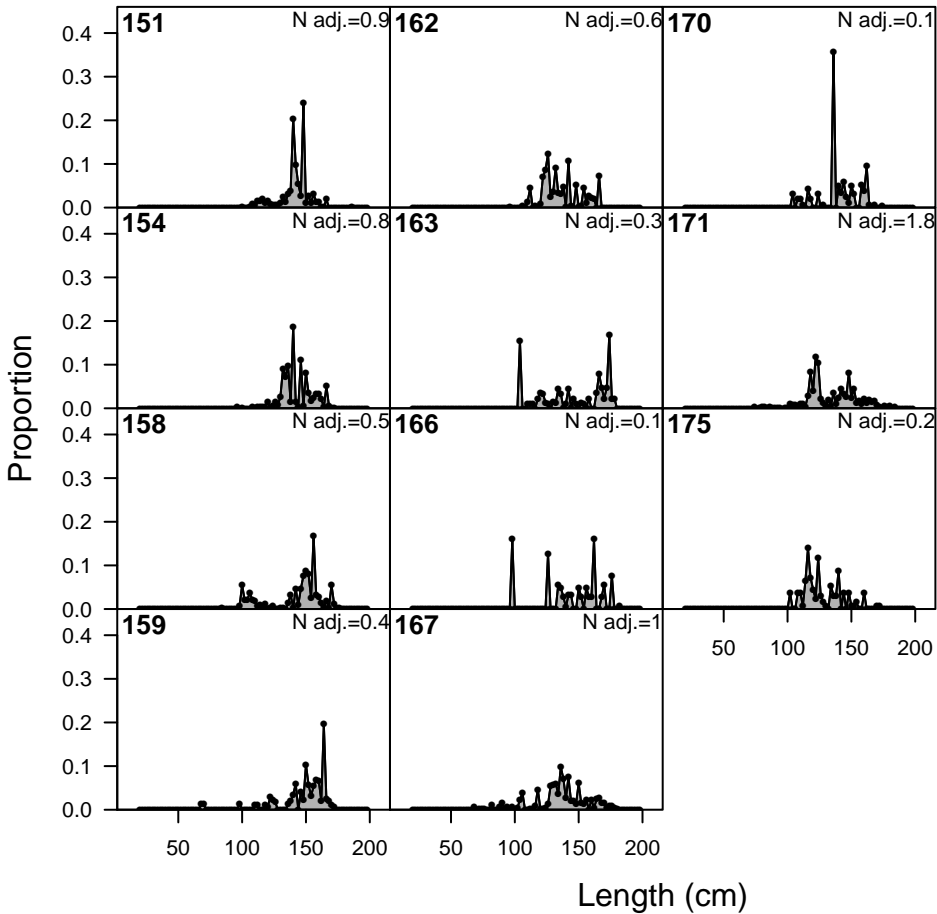


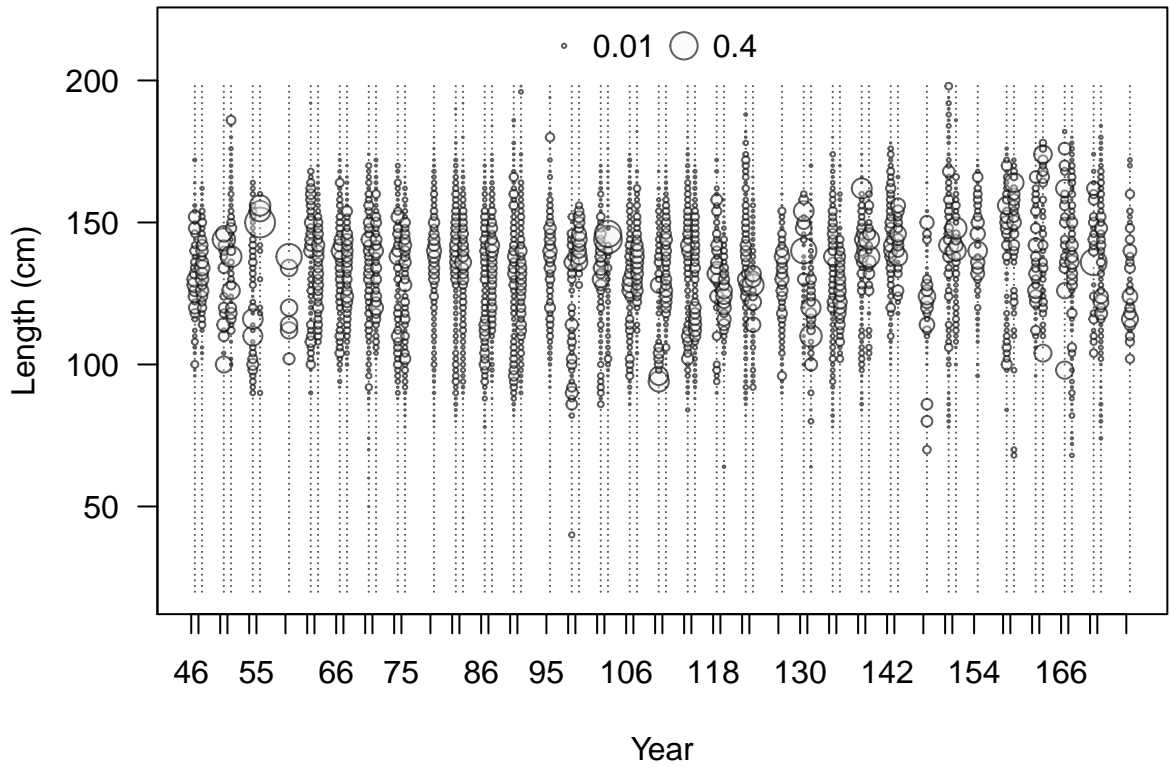




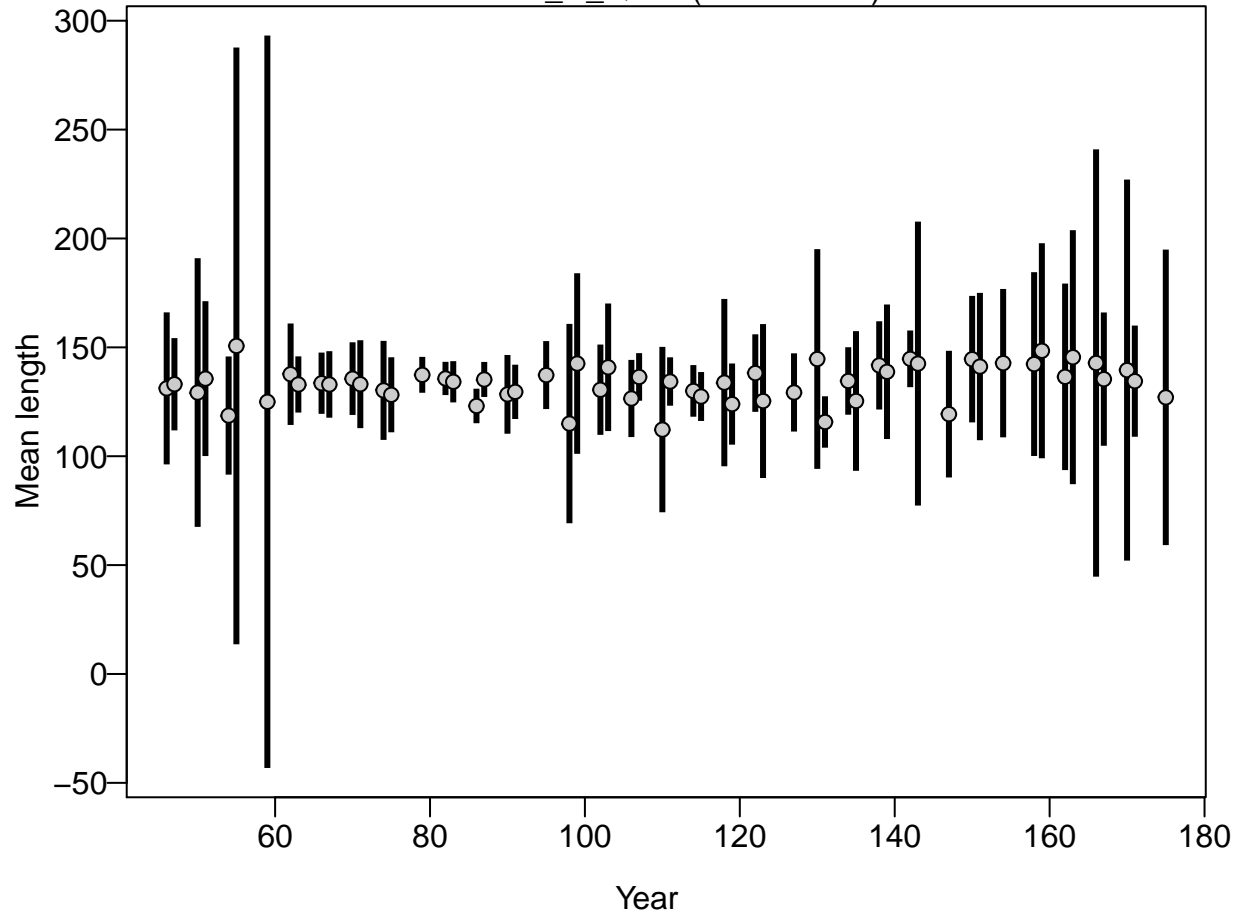


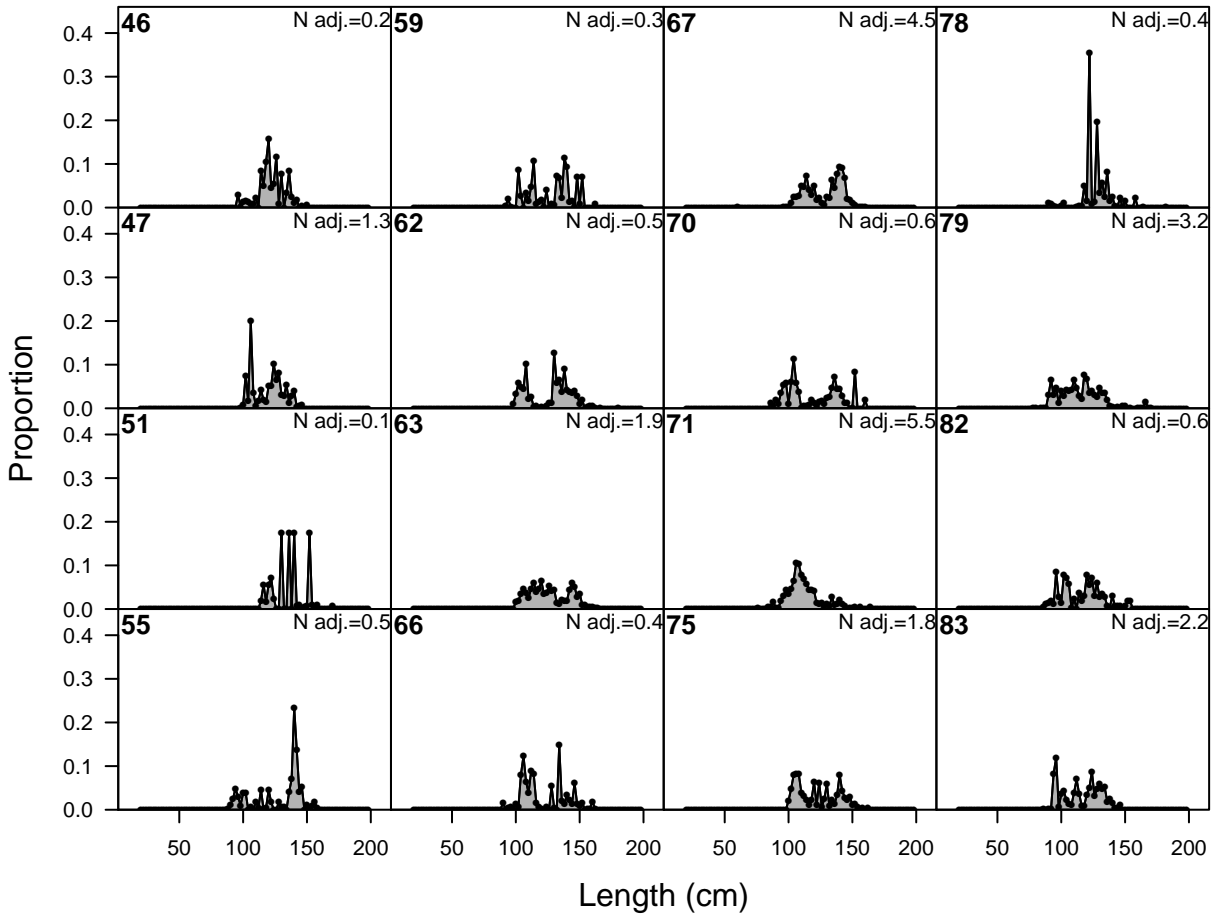


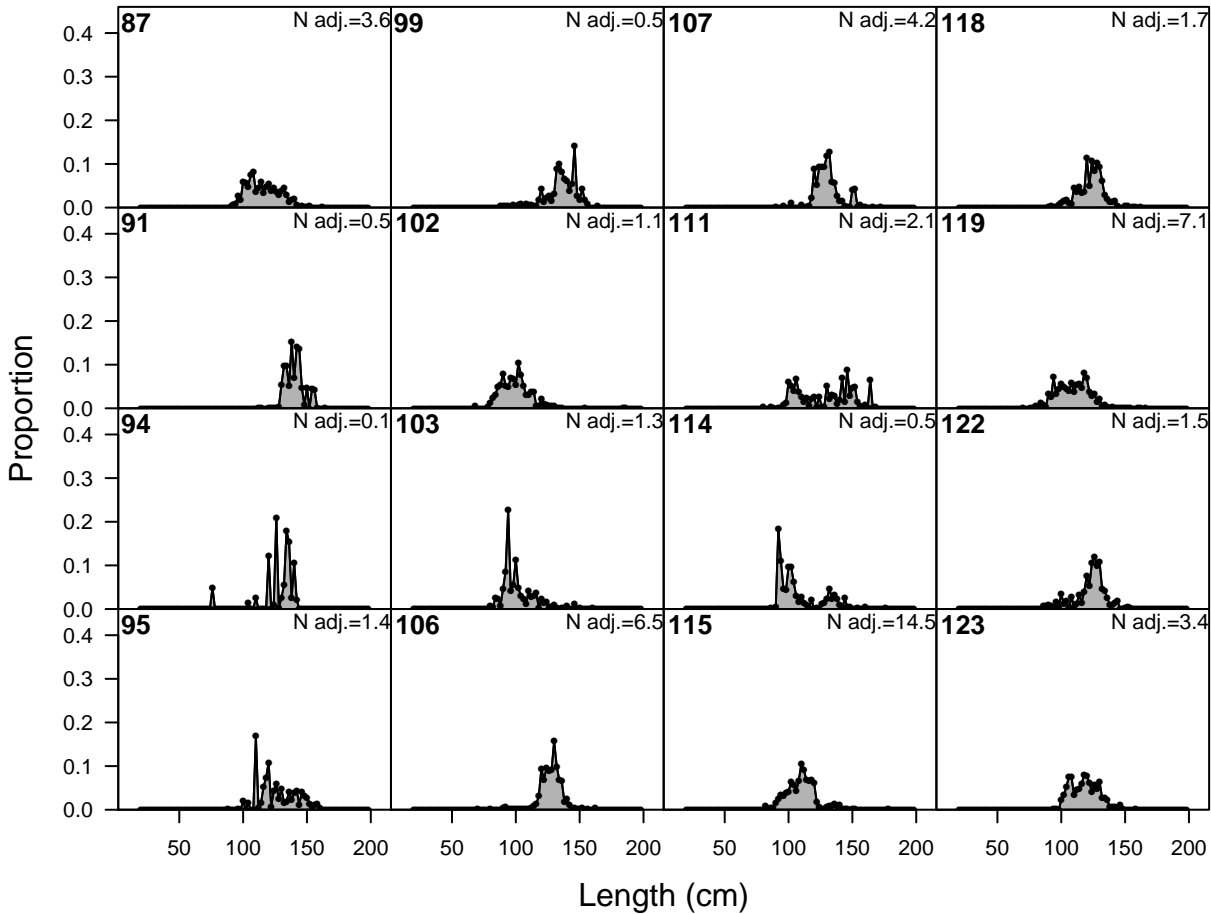


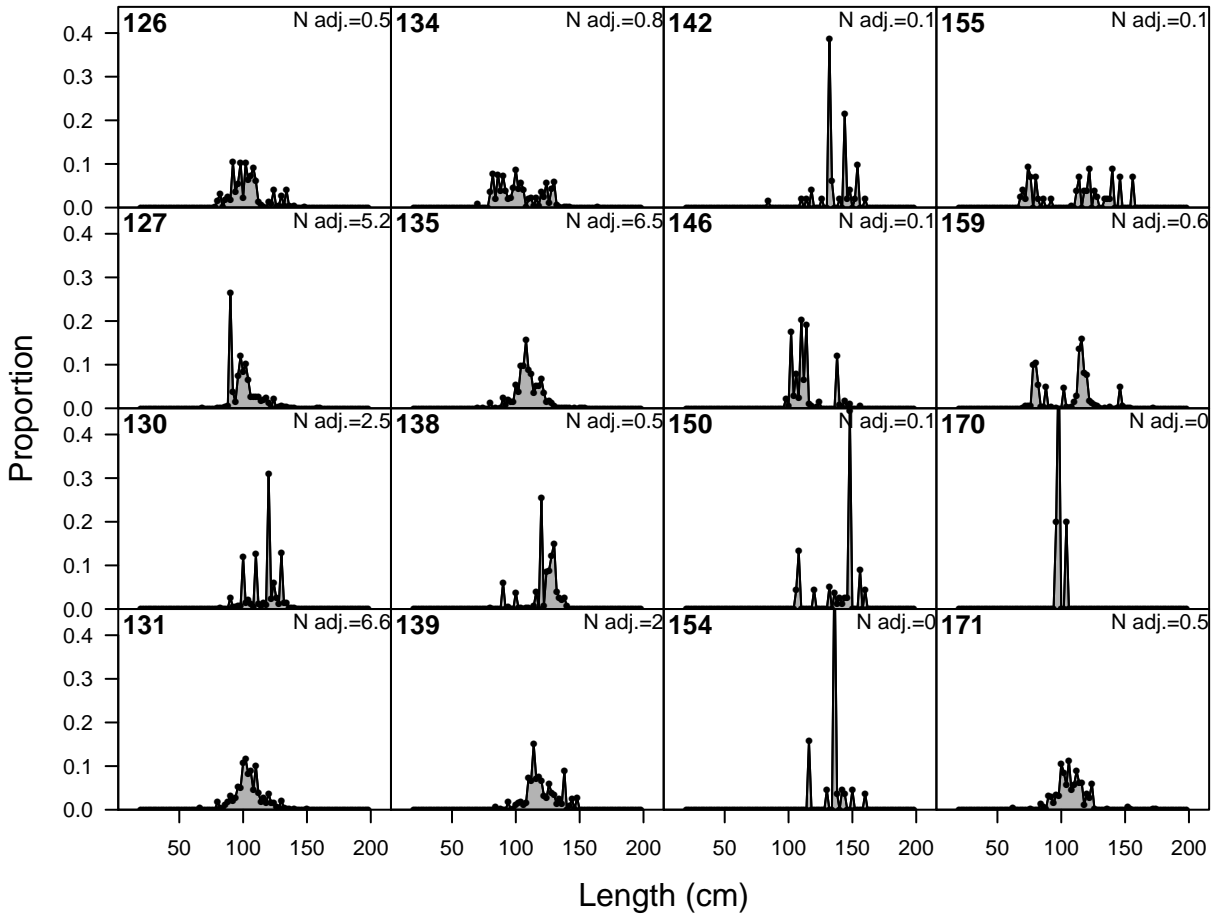


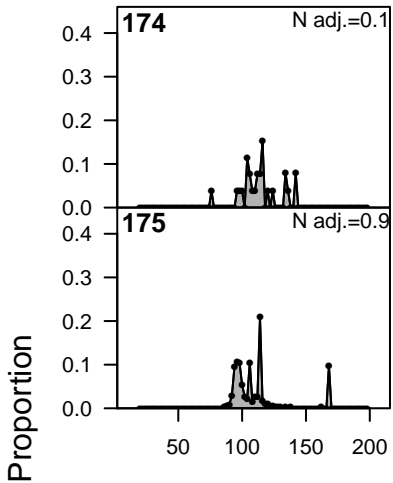
F33-LL\_C\_Q23n (whole catch)





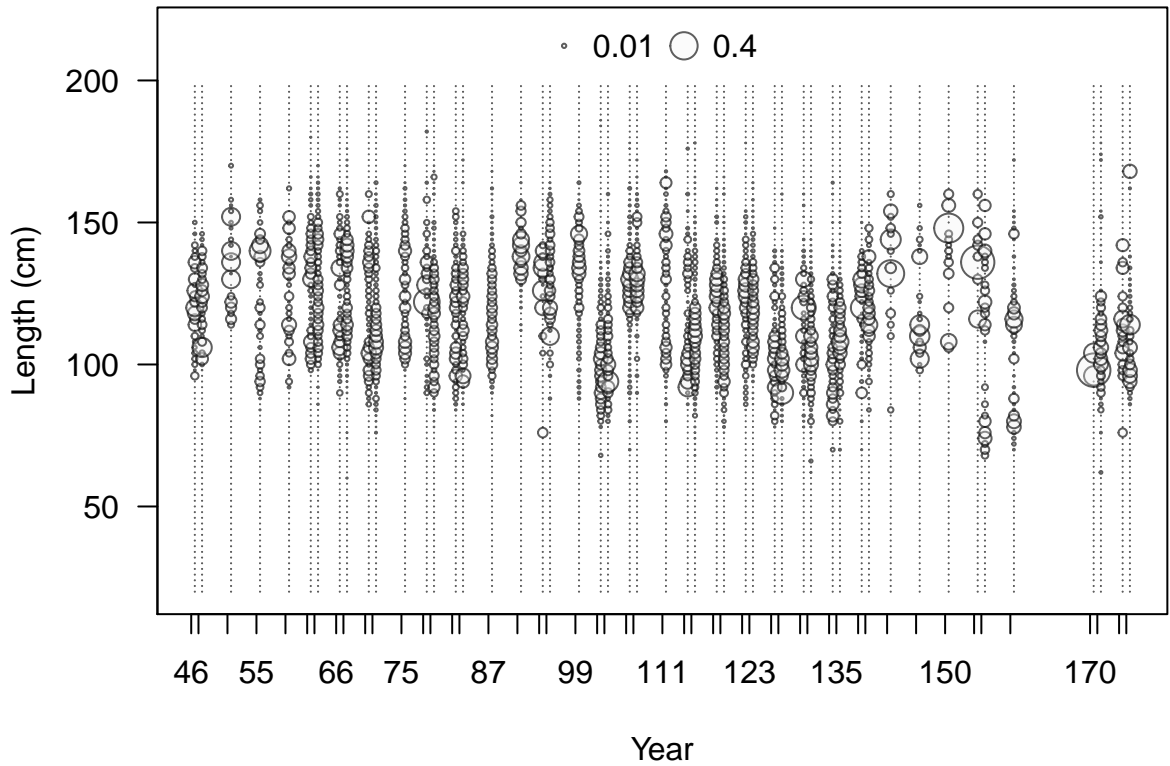




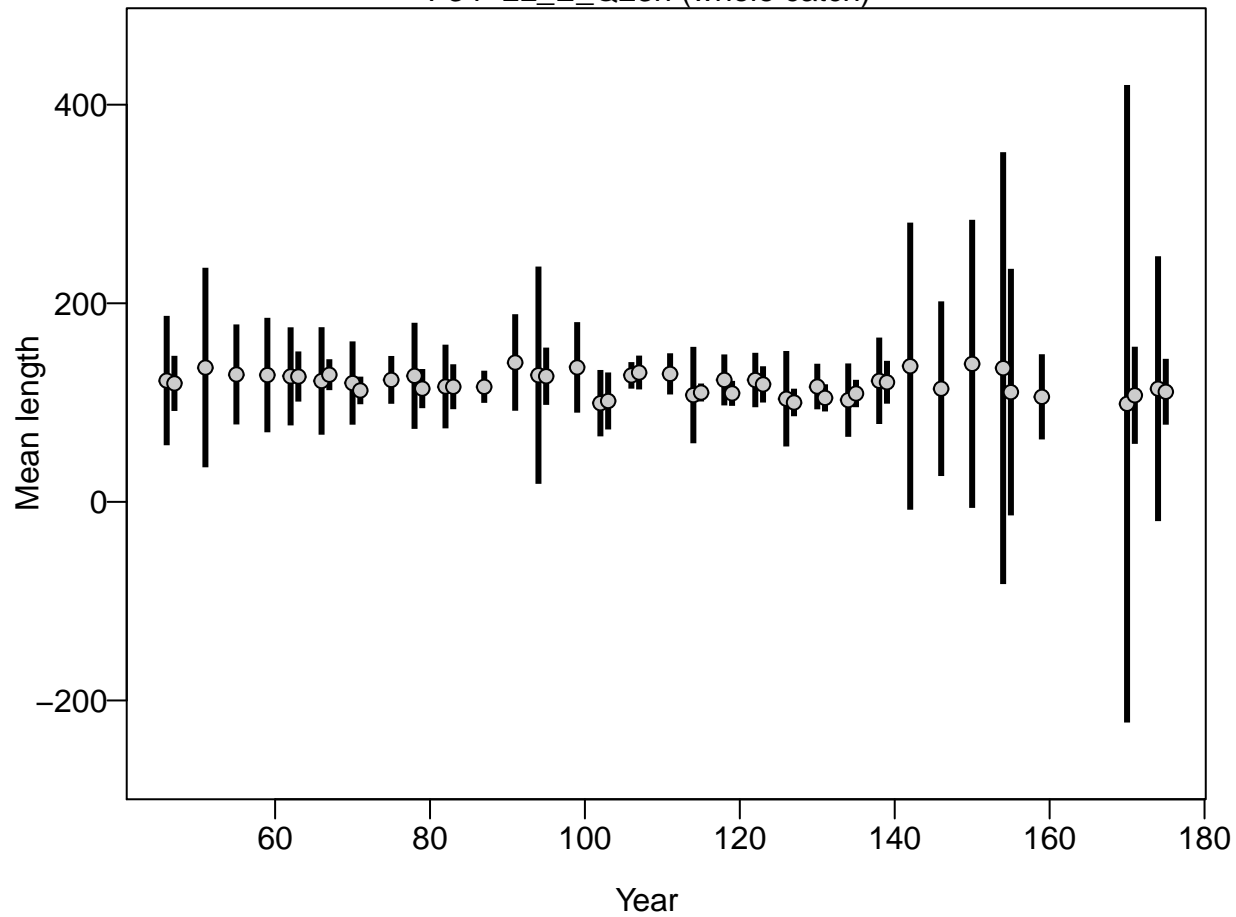


Length (cm)

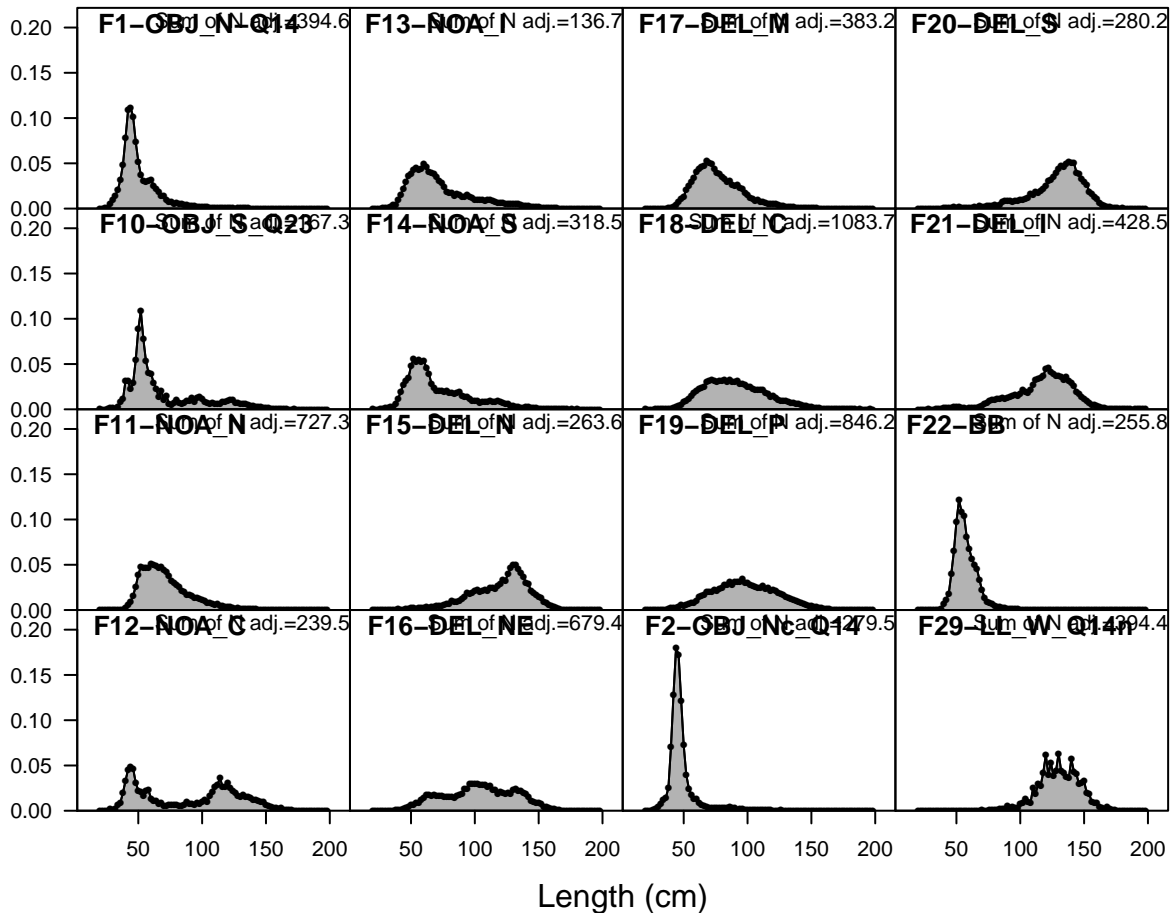




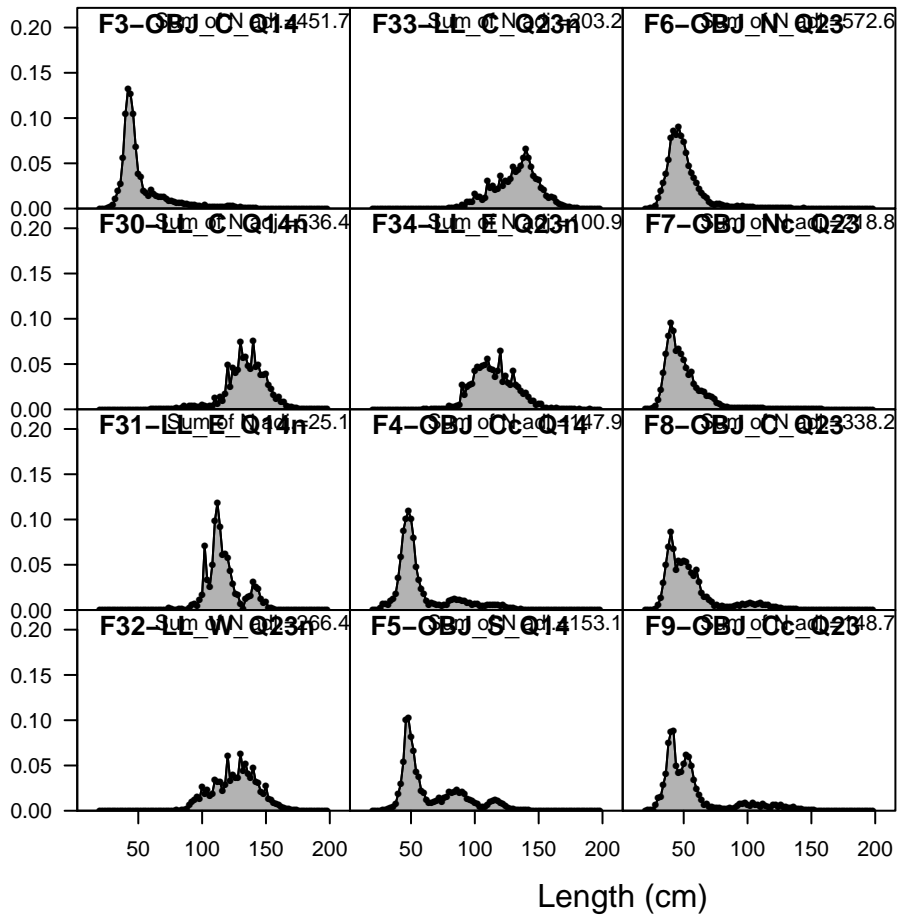
F34-LL\_E\_Q23n (whole catch)

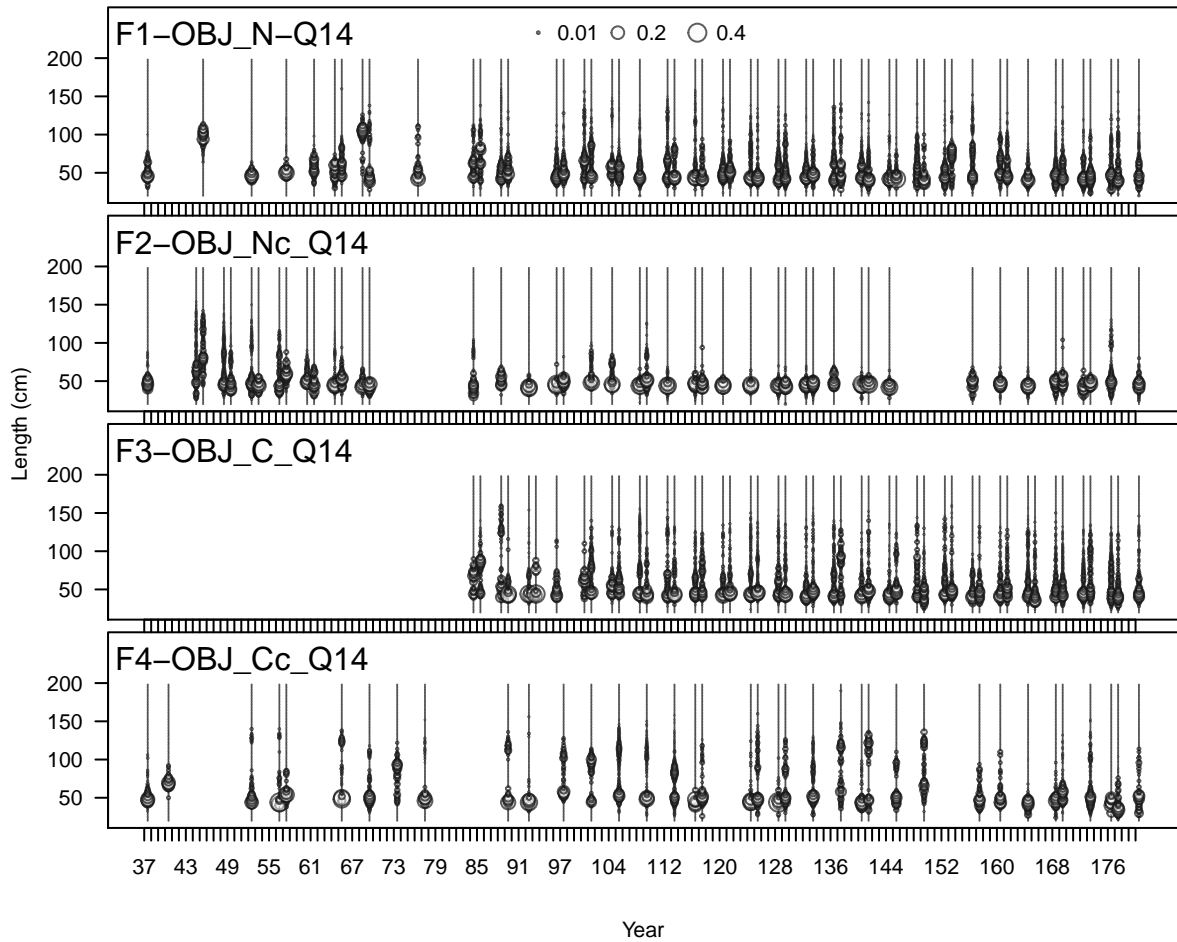


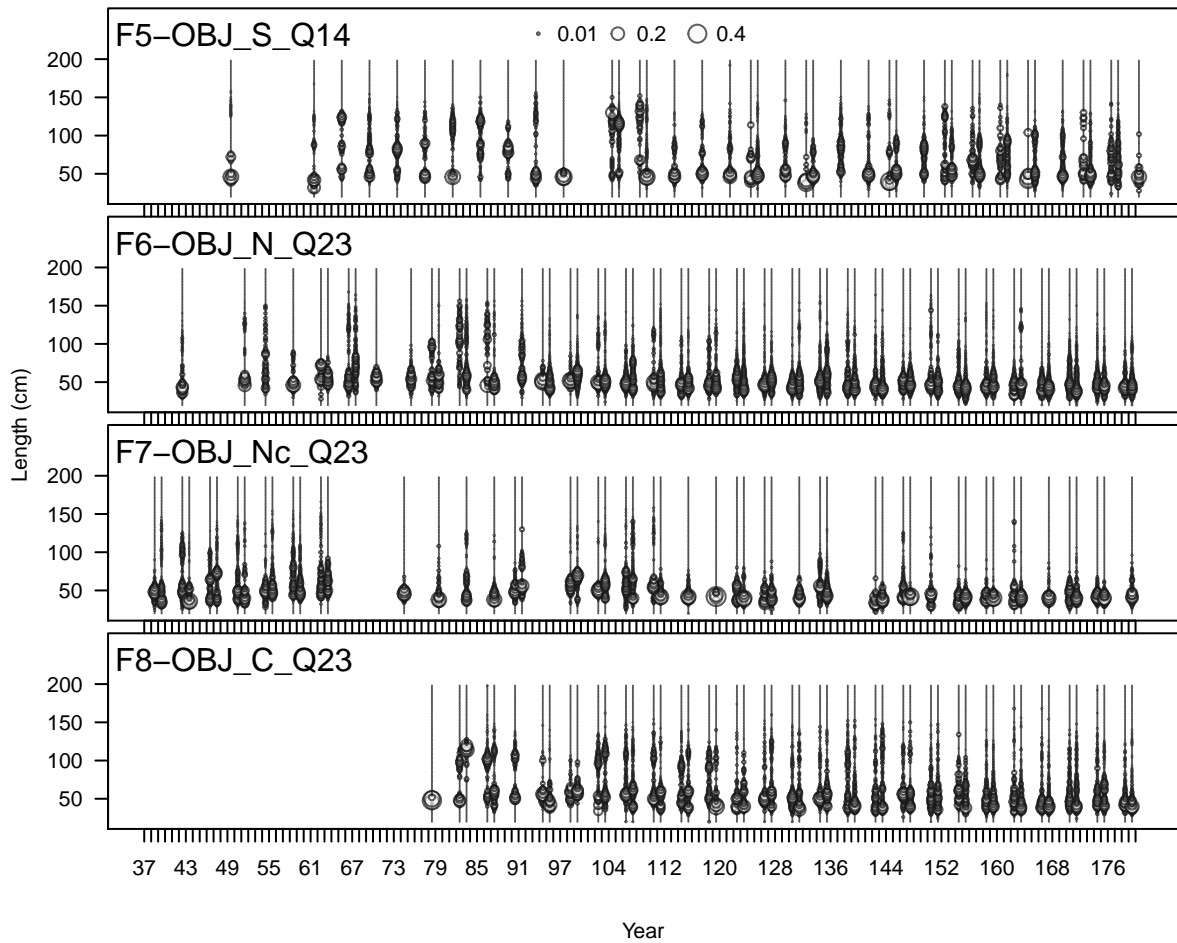
Proportion

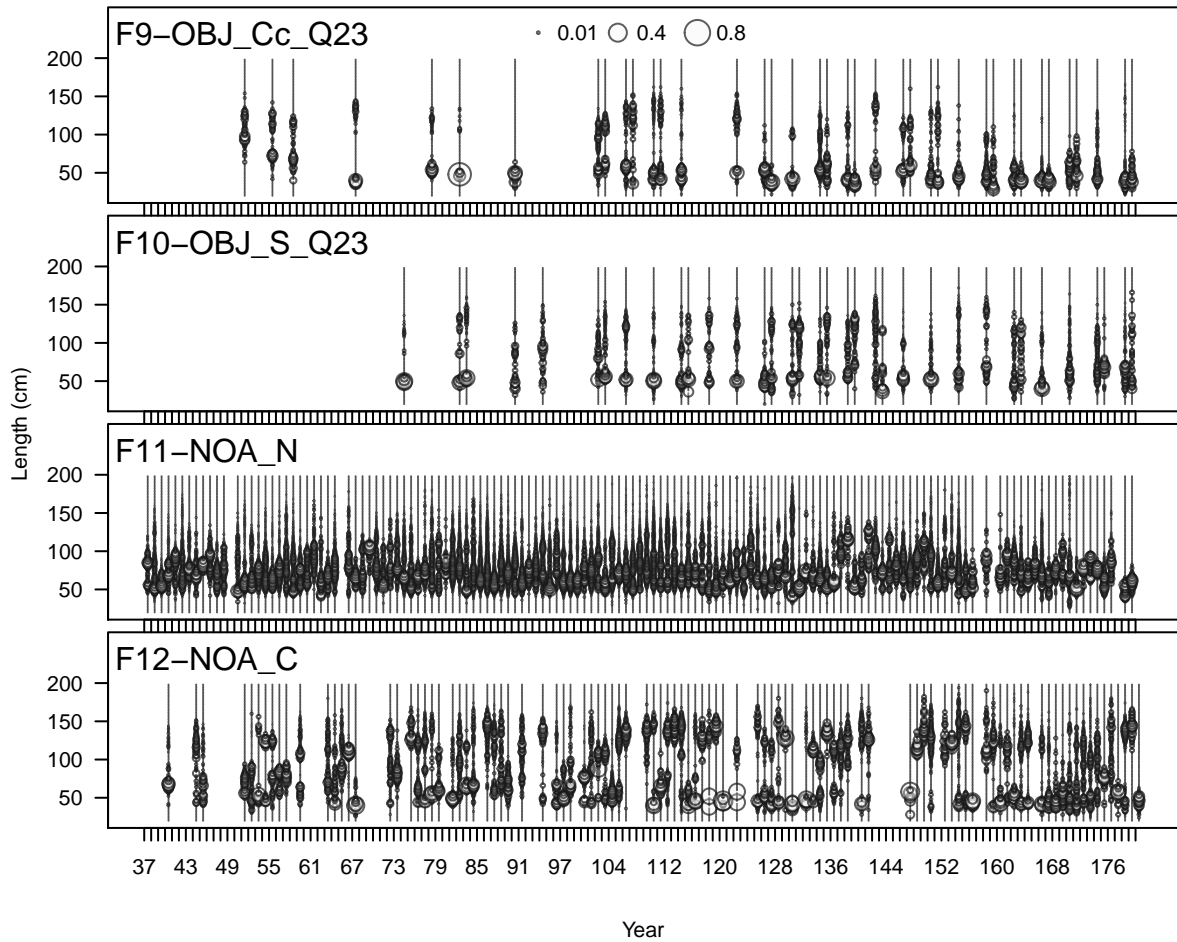


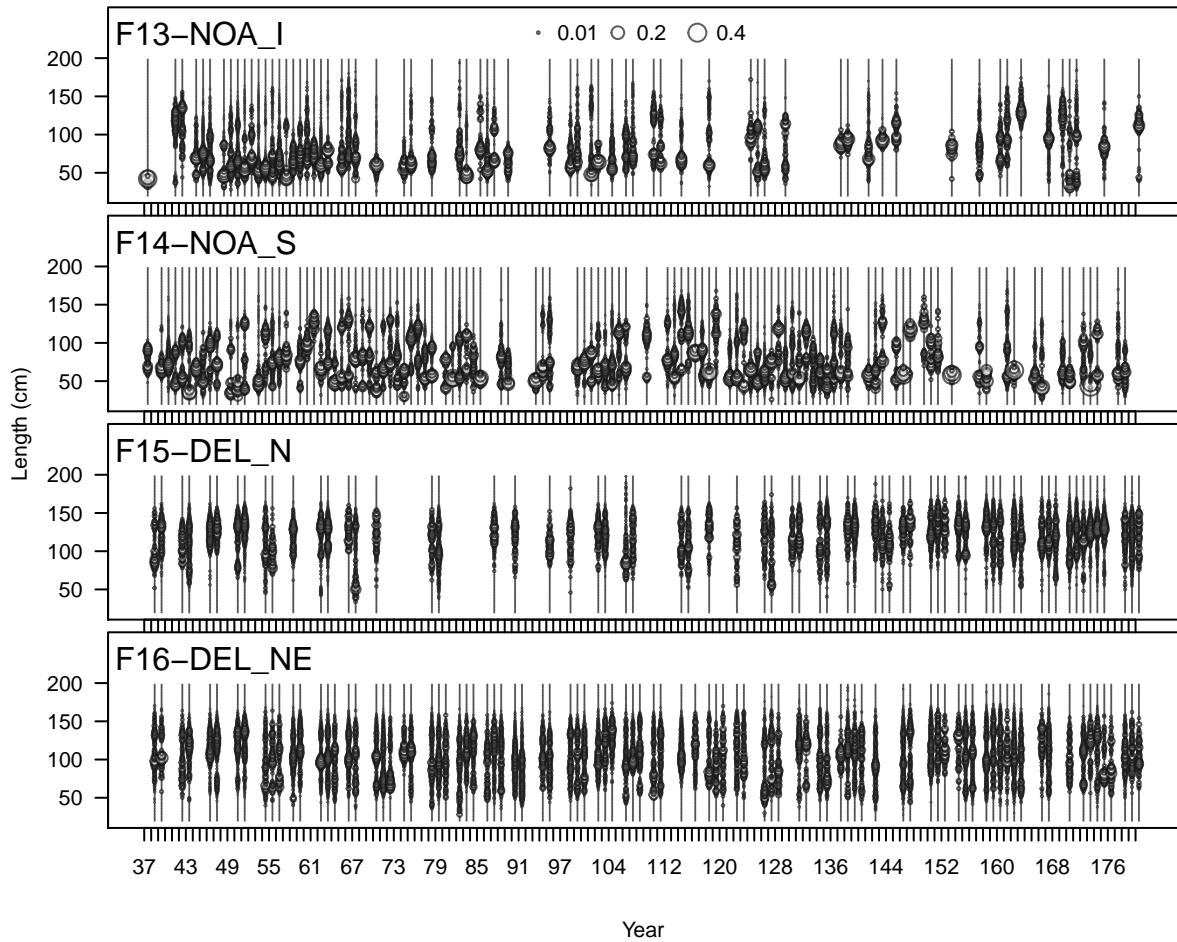
Proportion



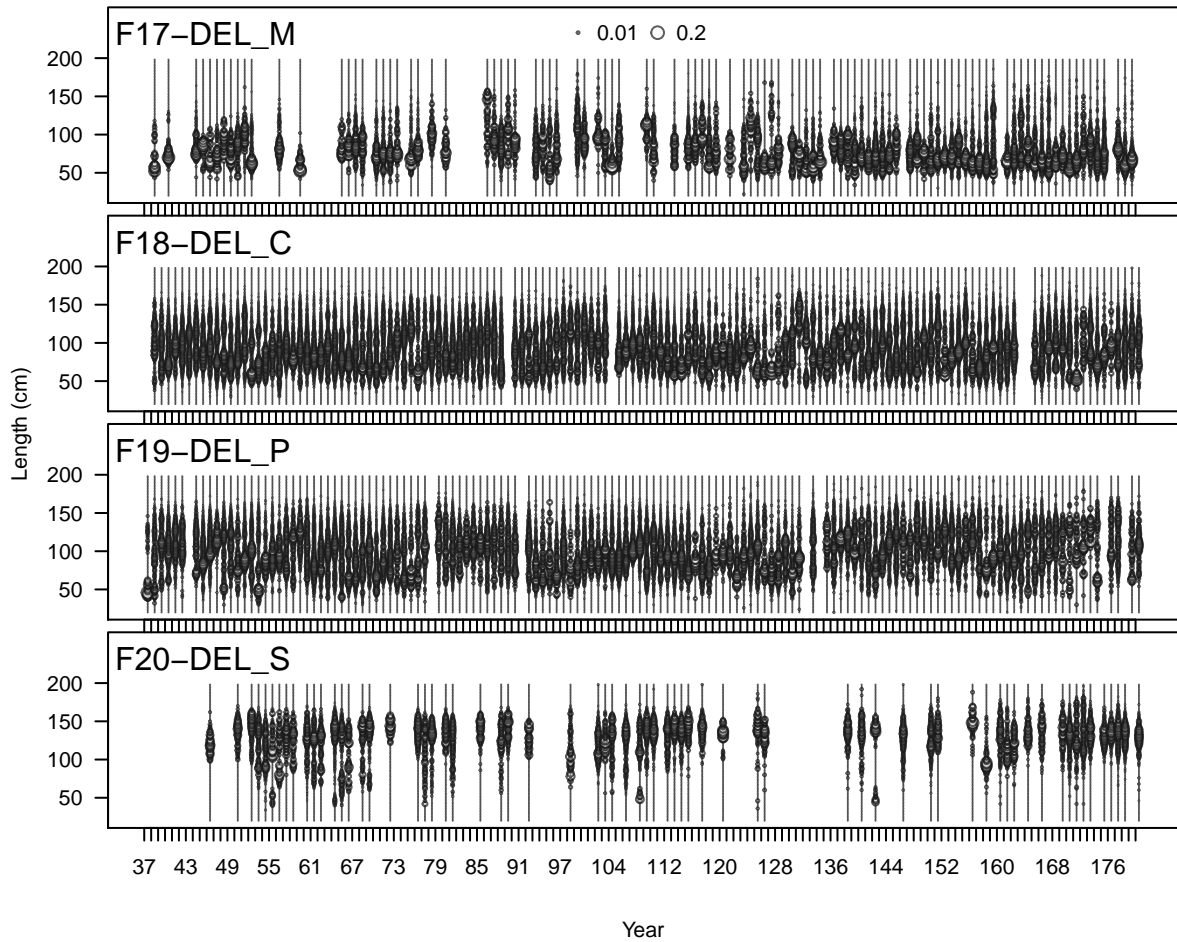


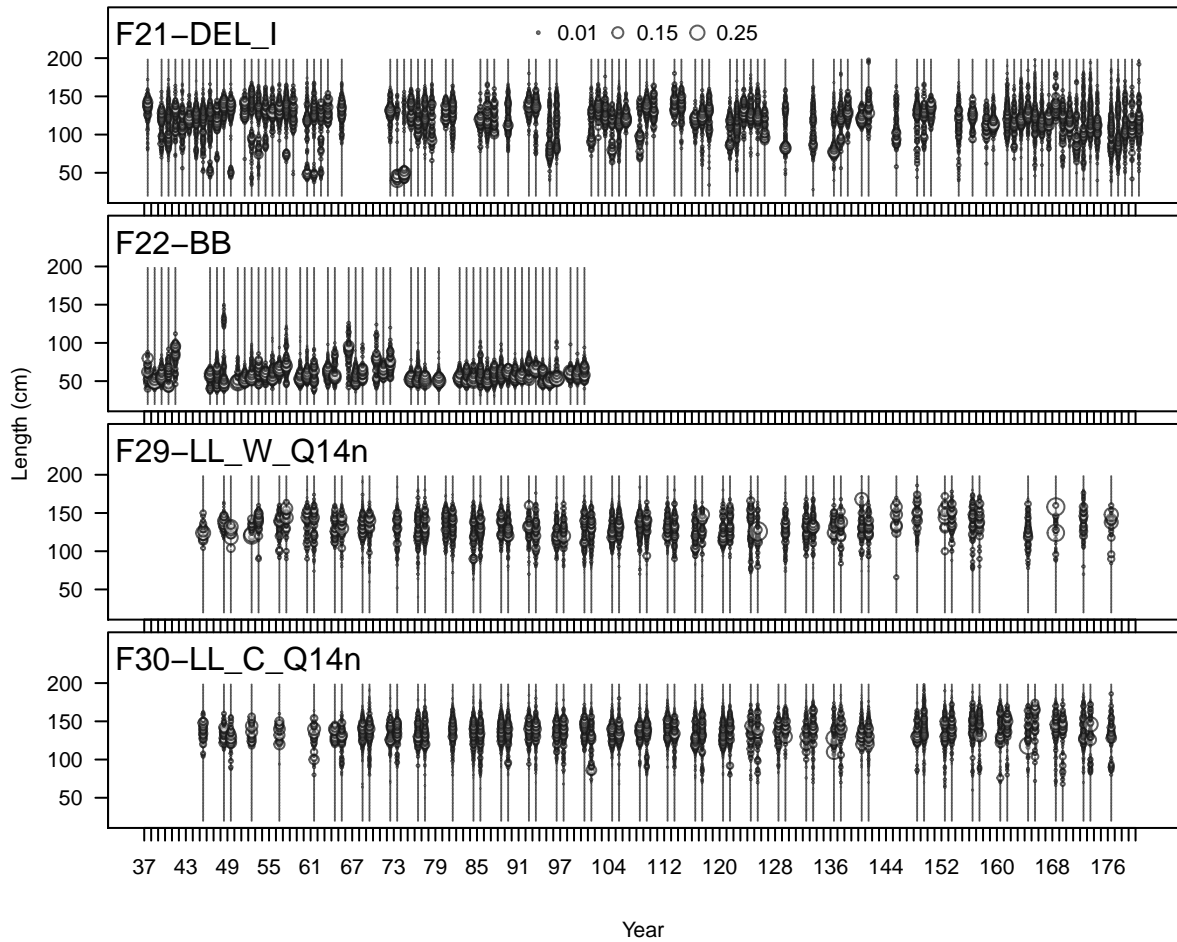


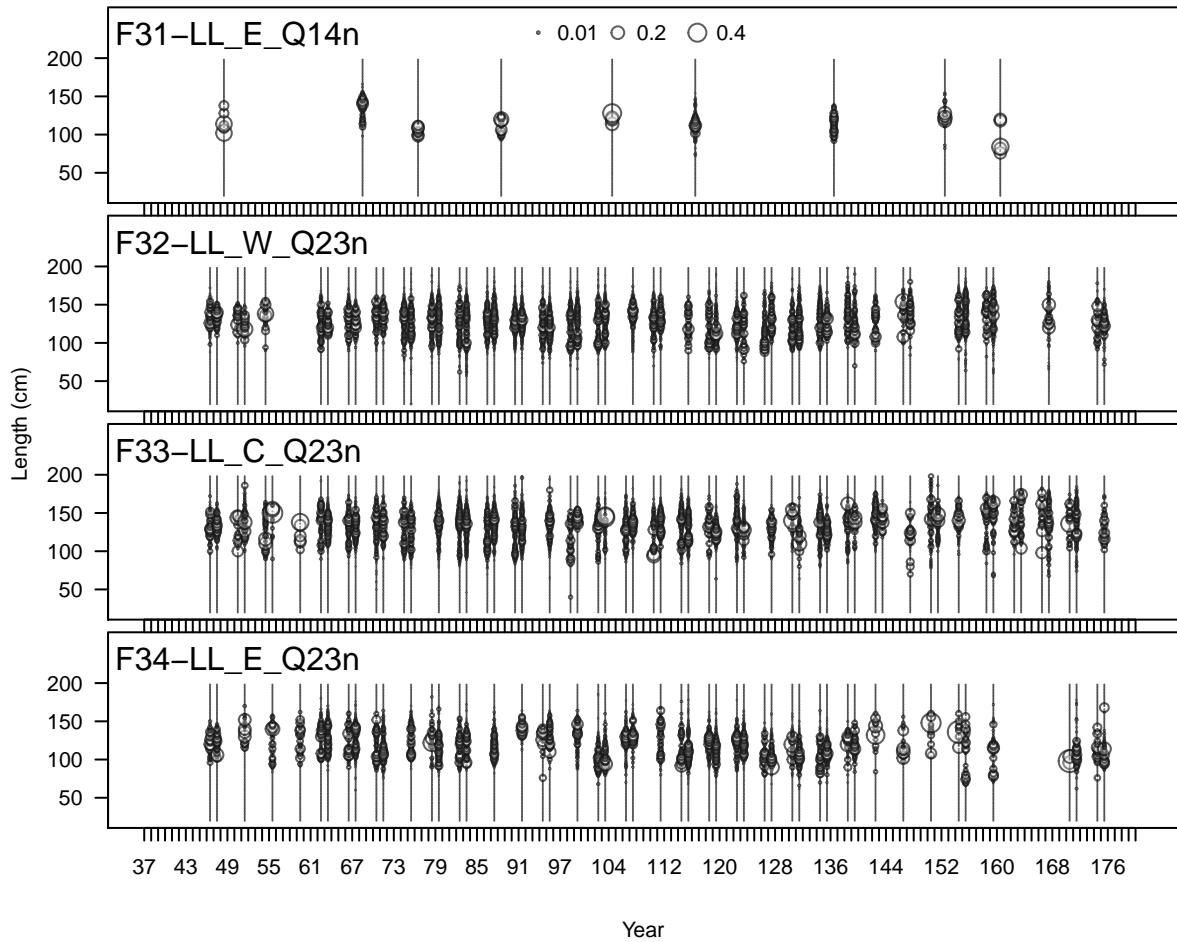


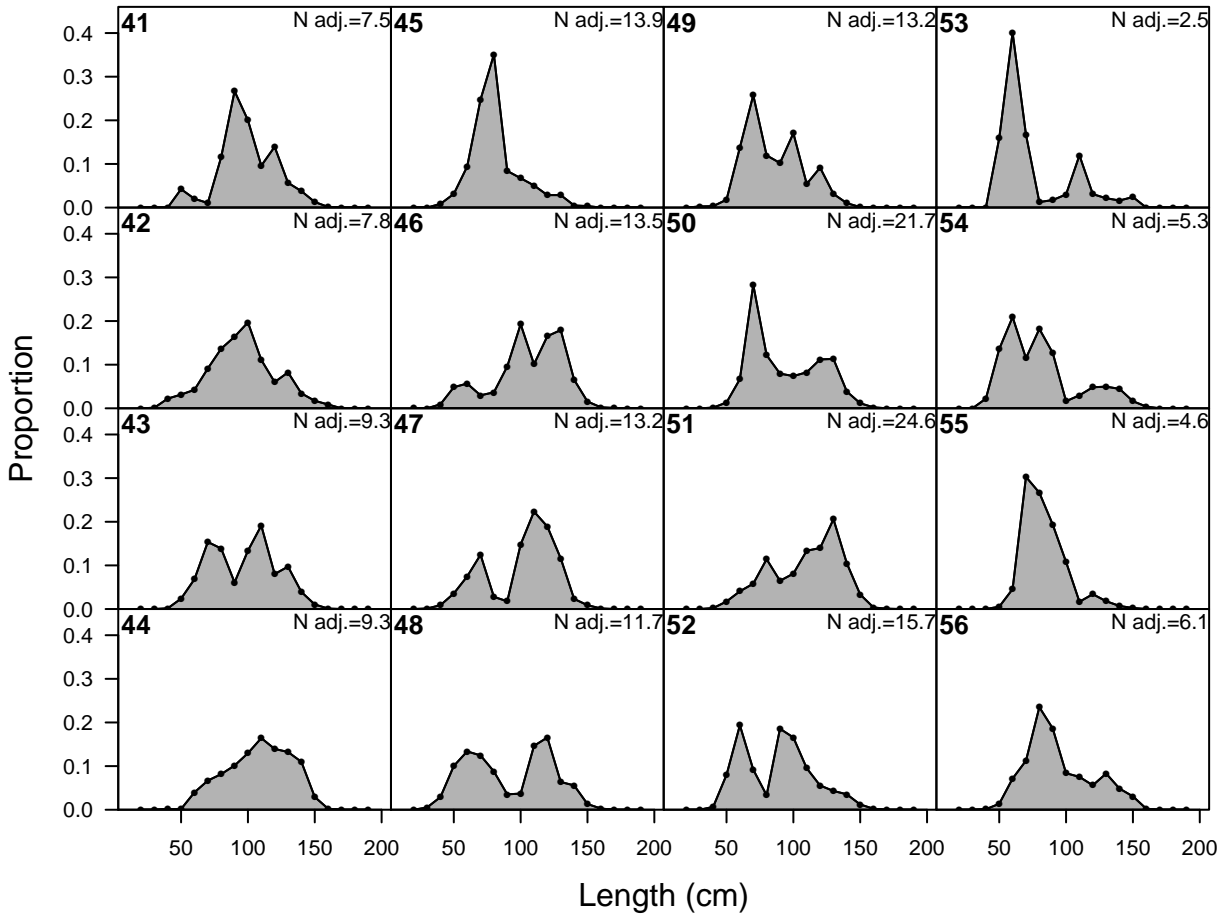


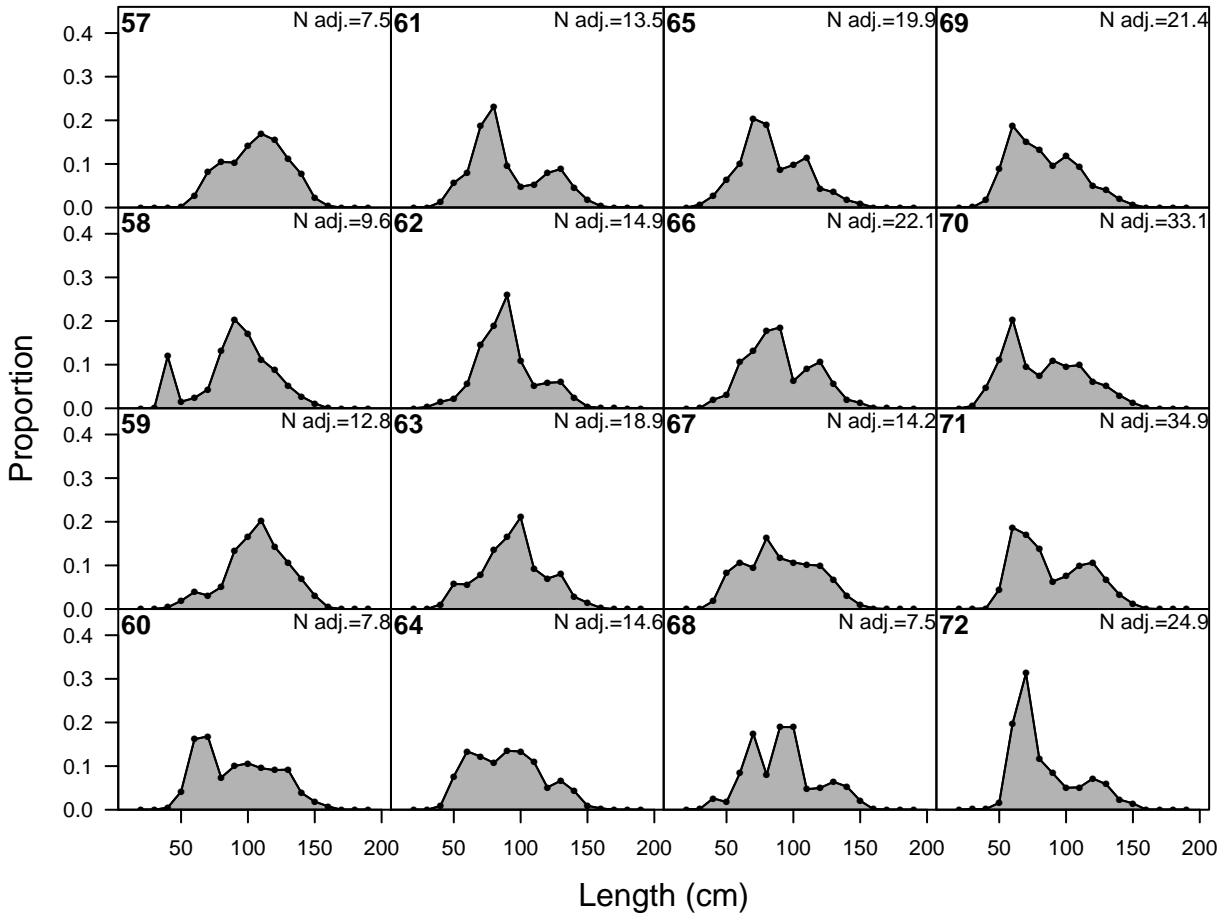


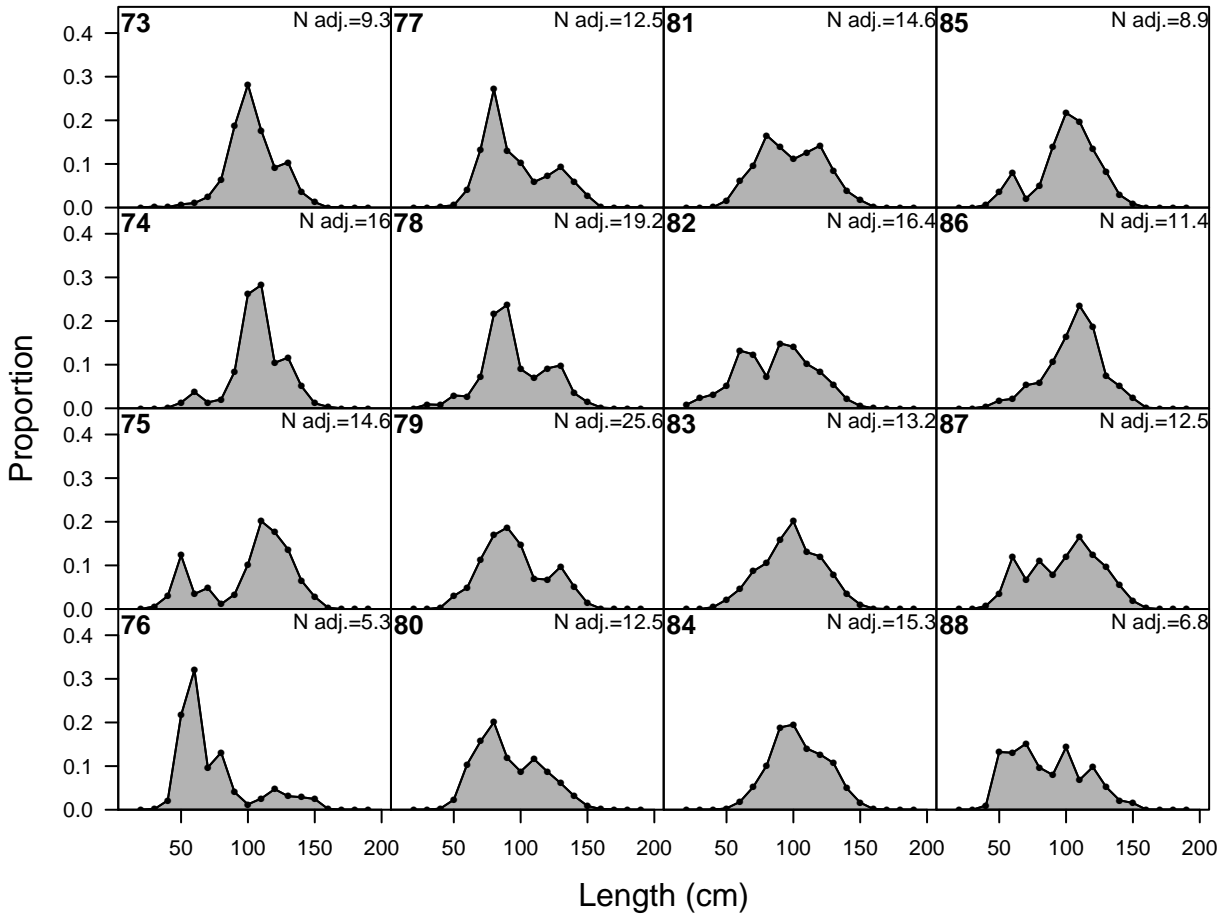


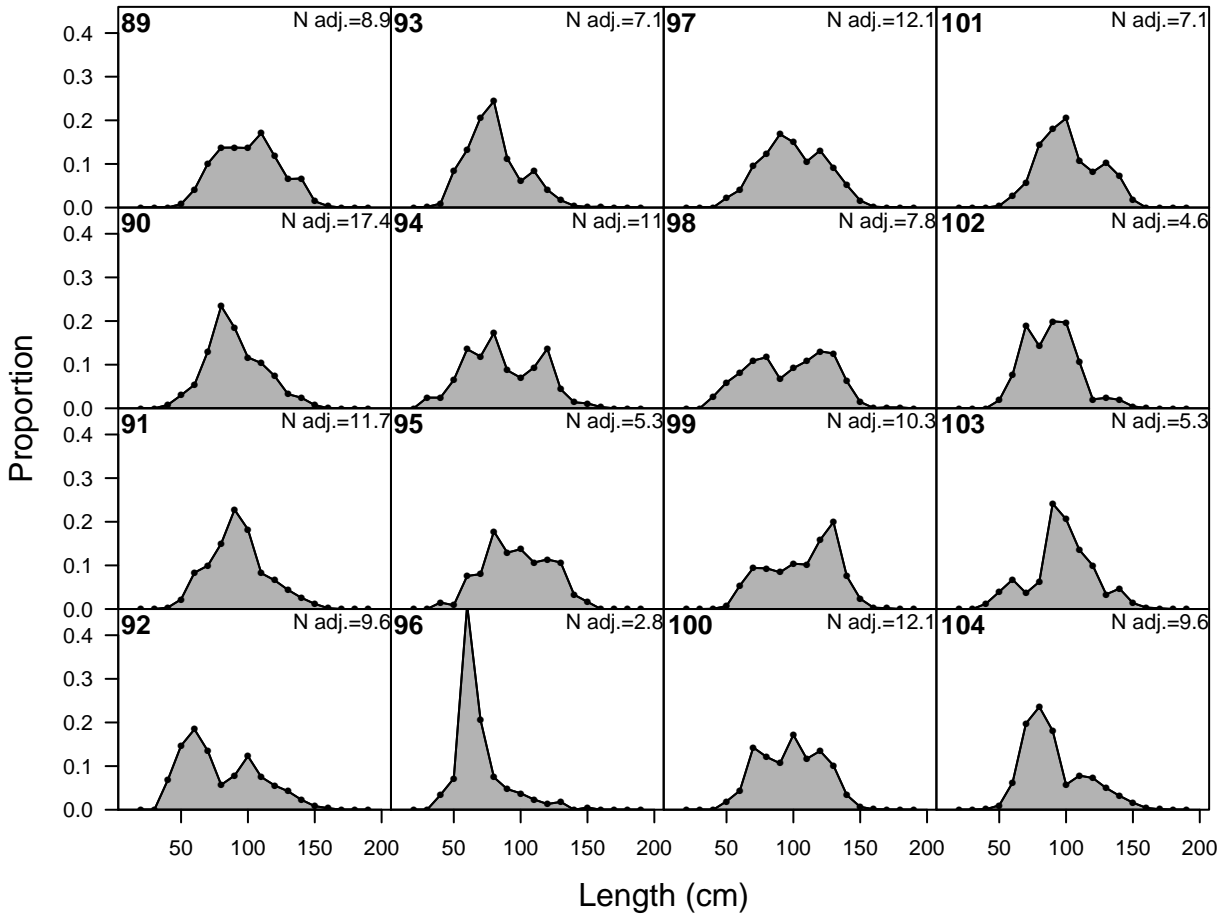


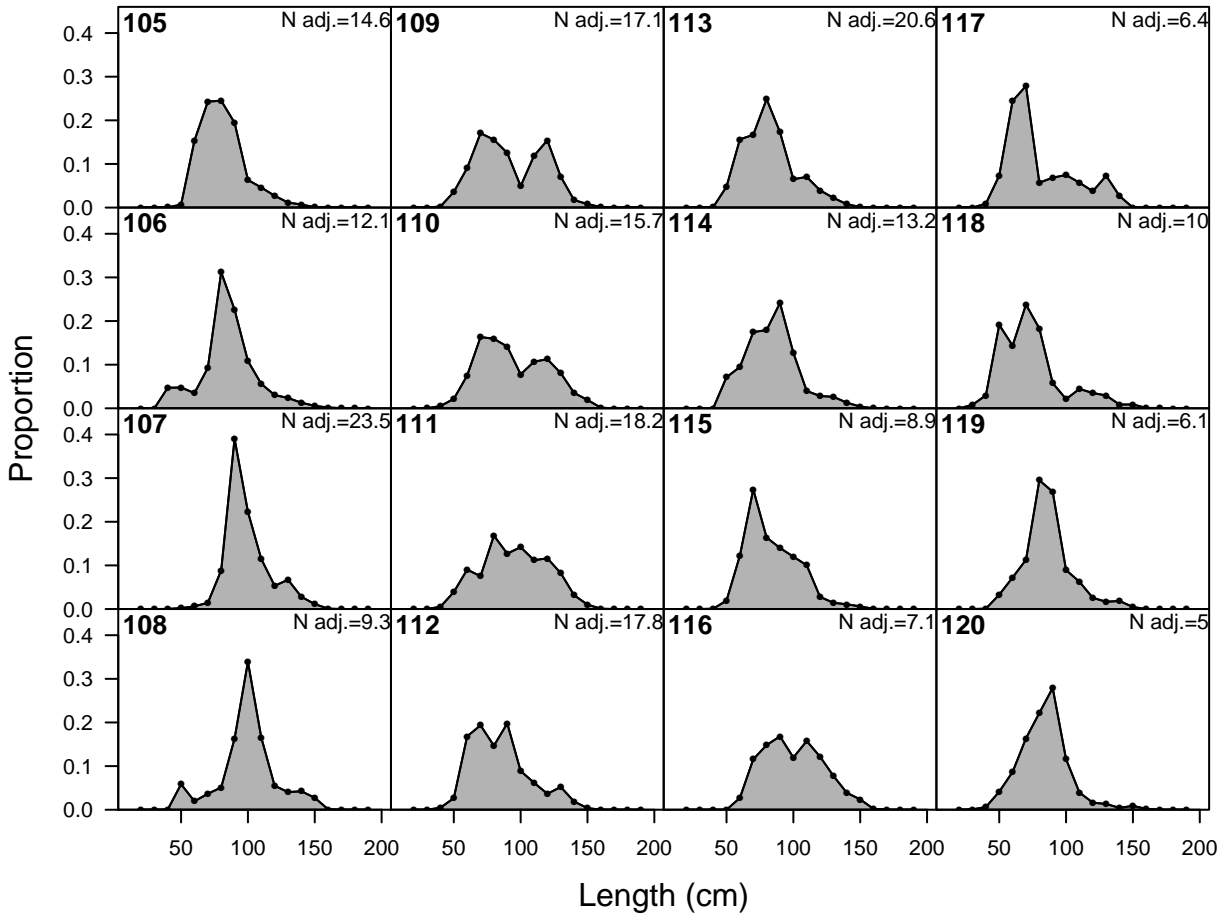




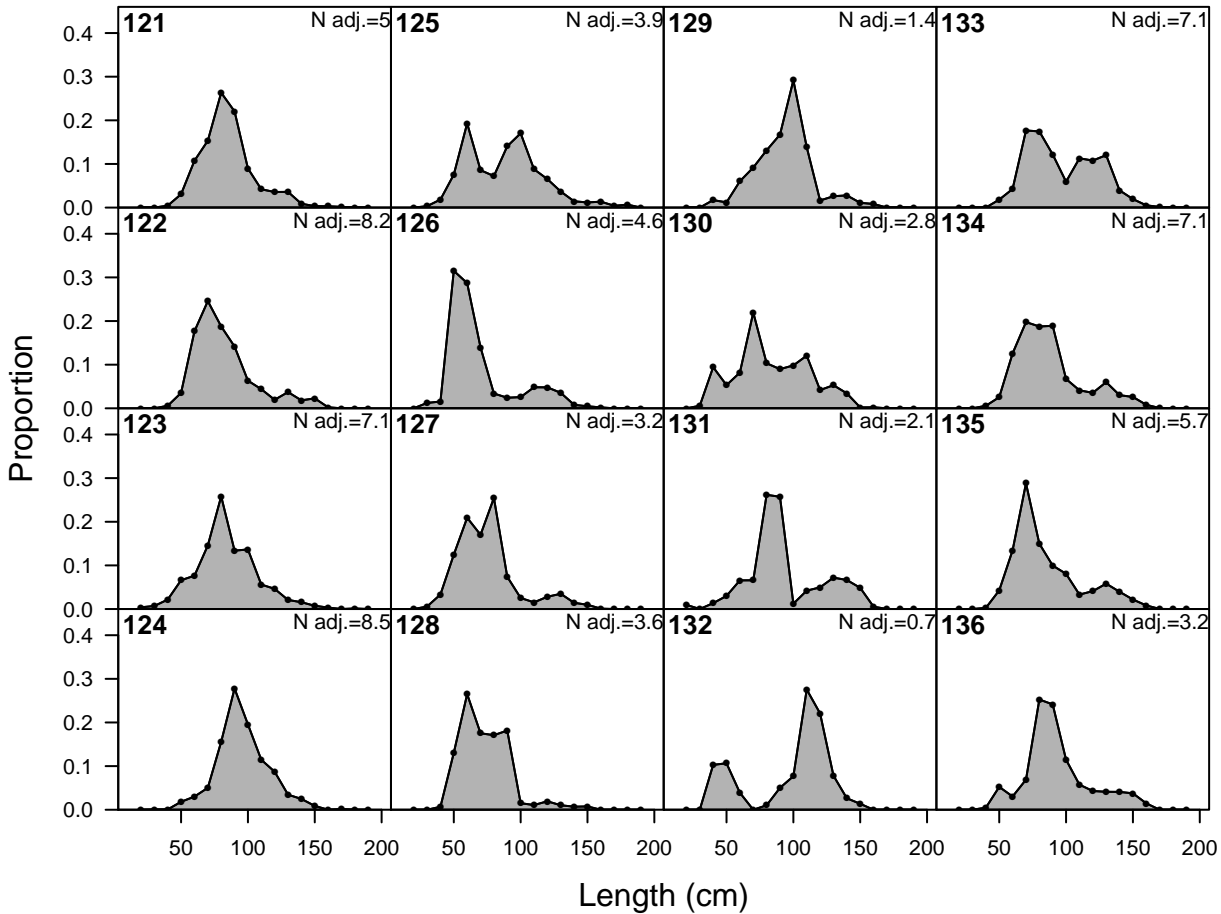


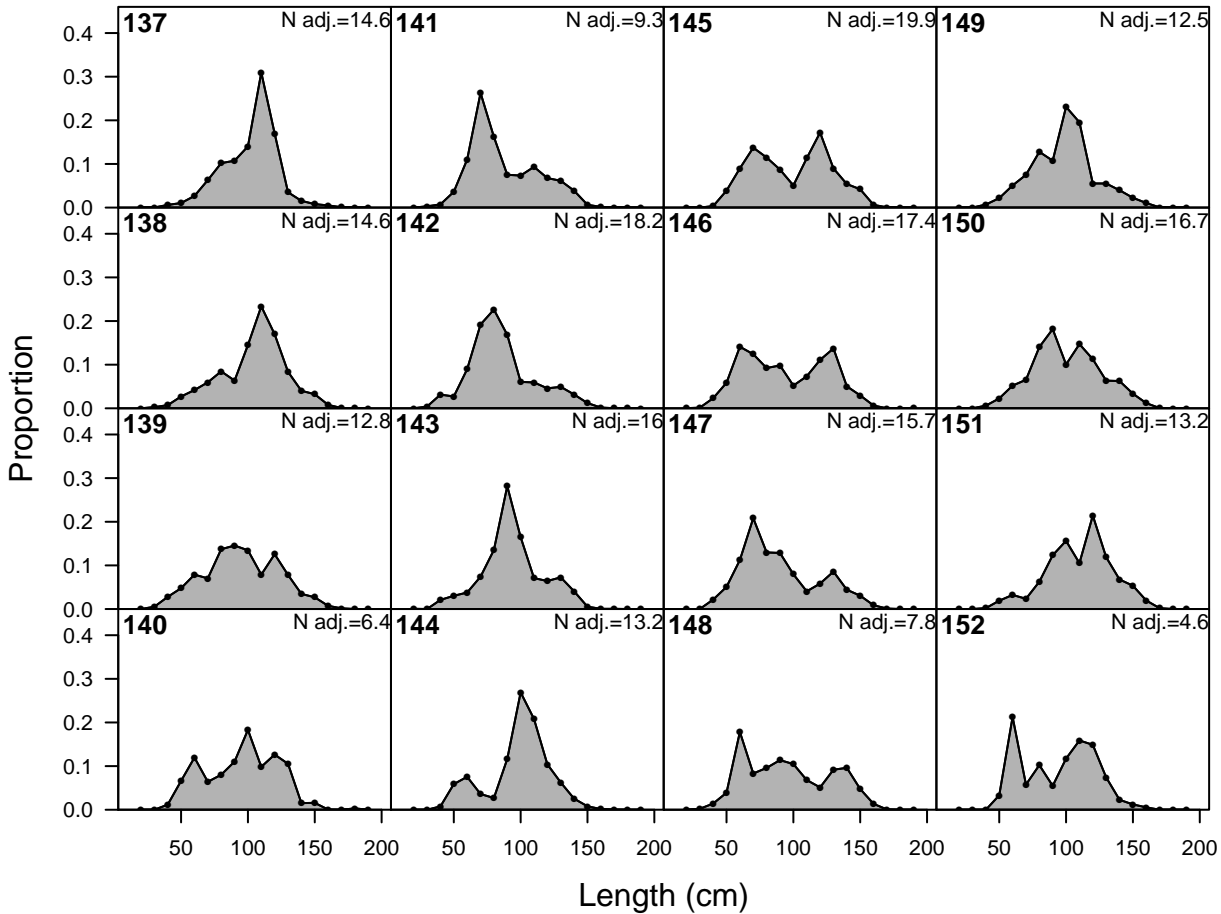


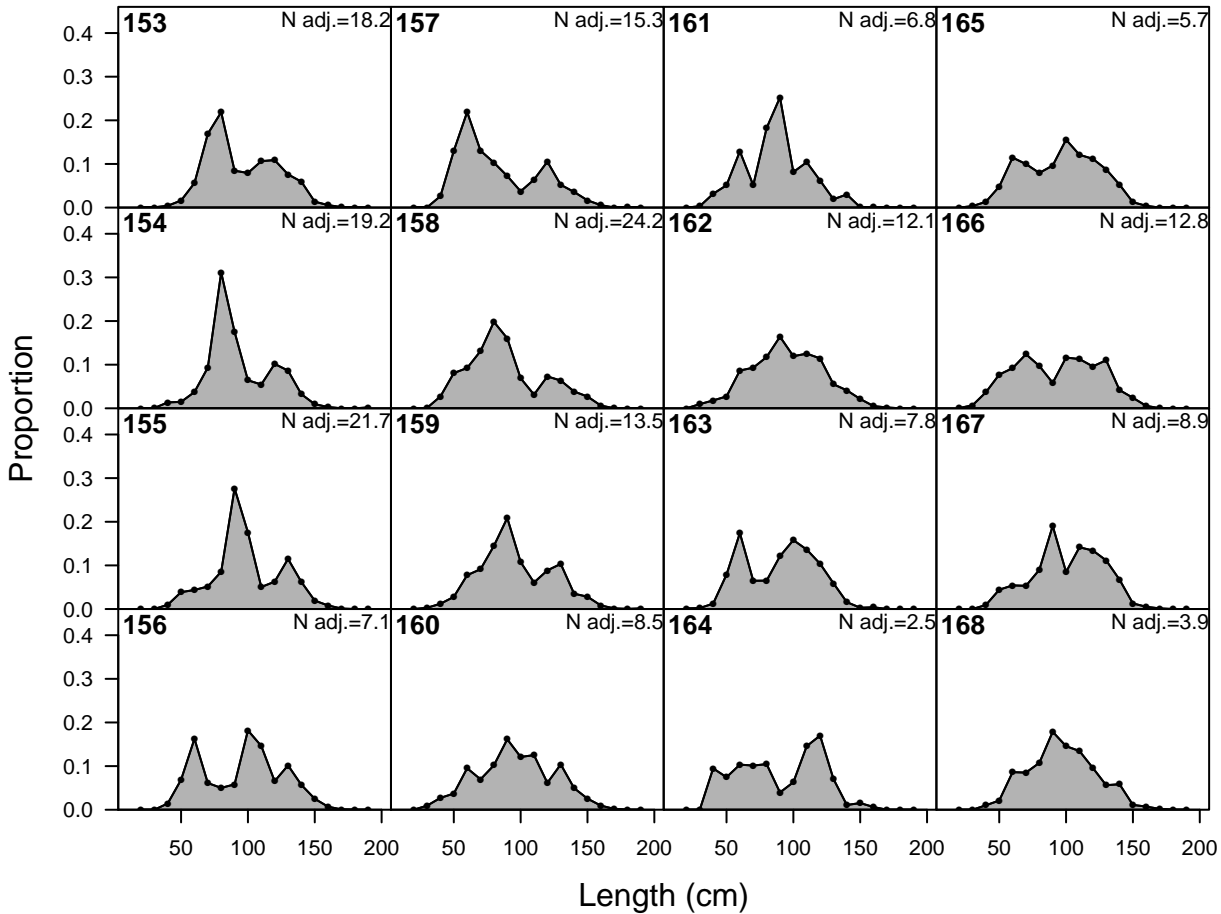


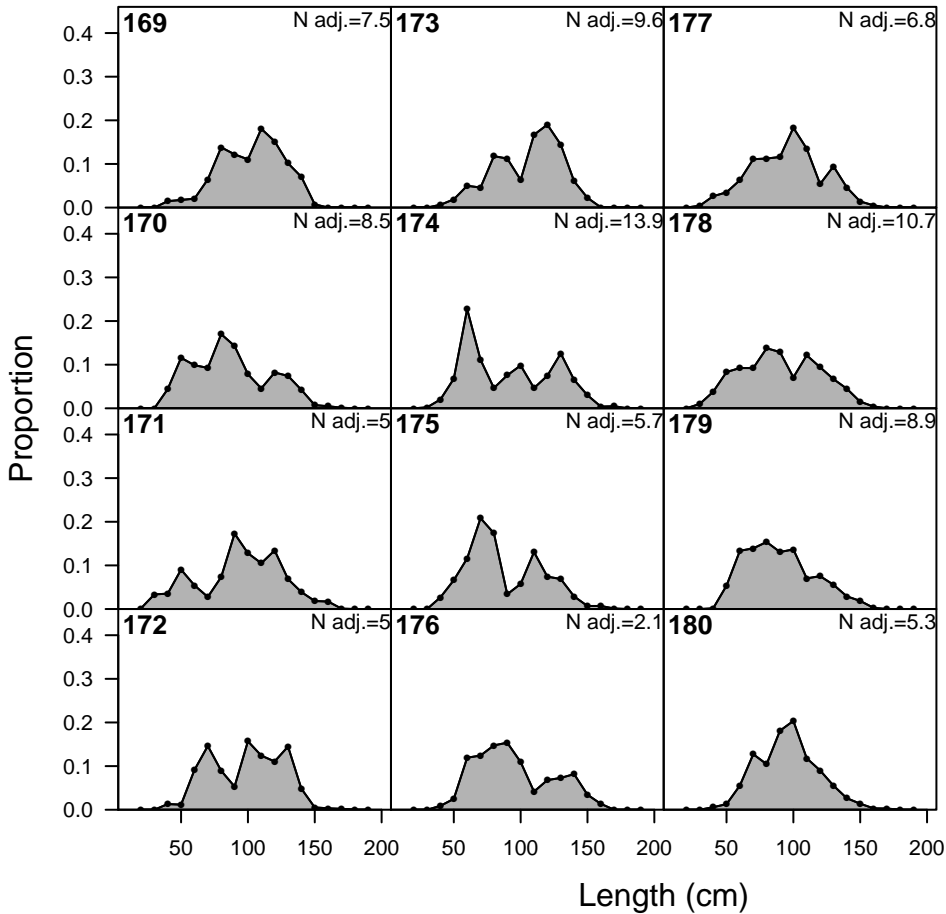


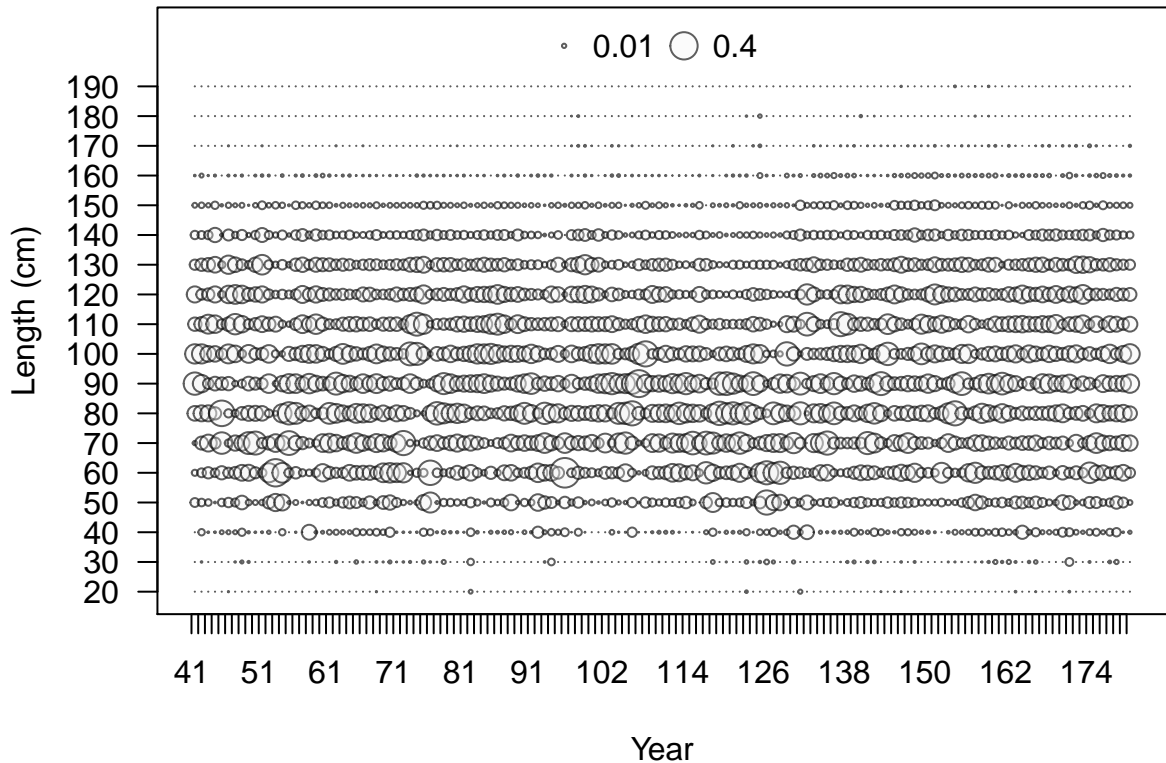




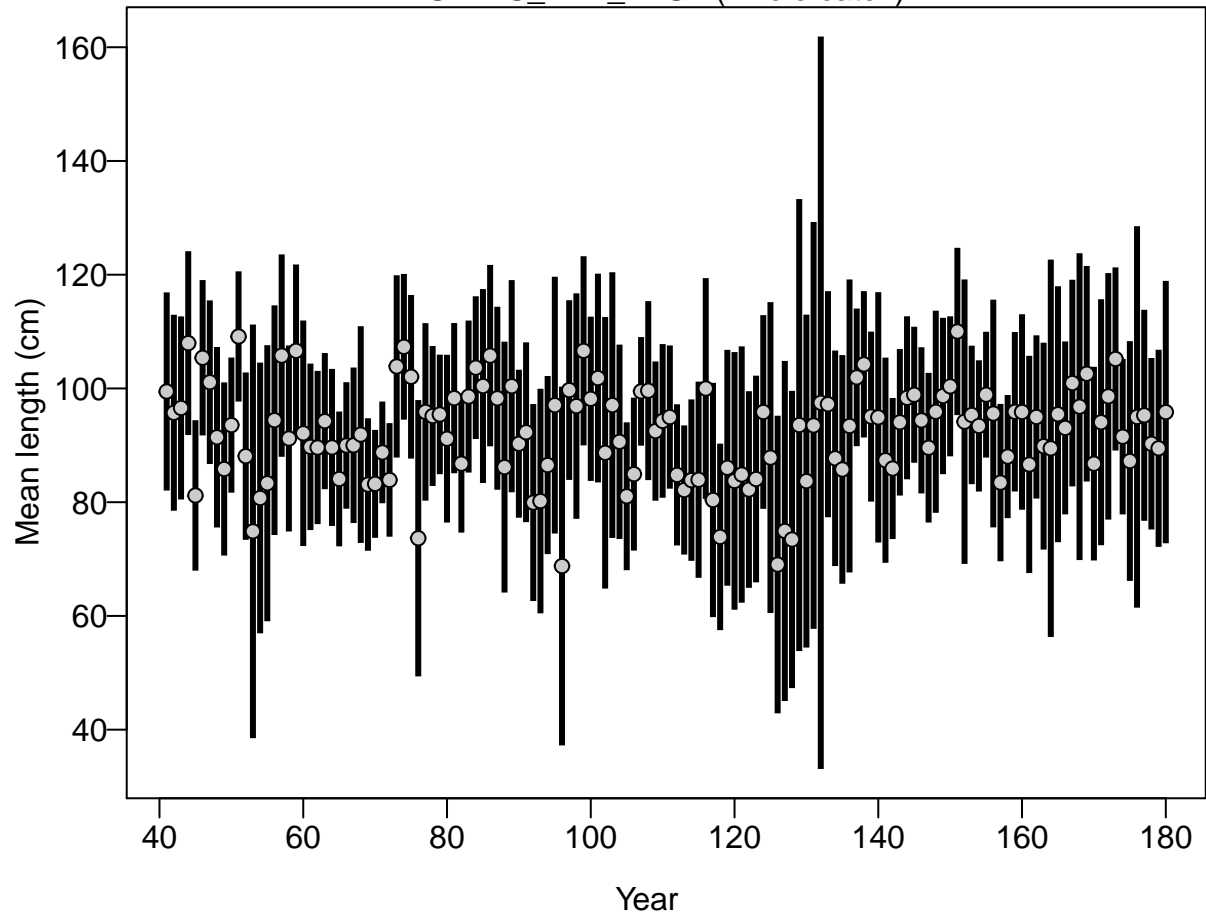






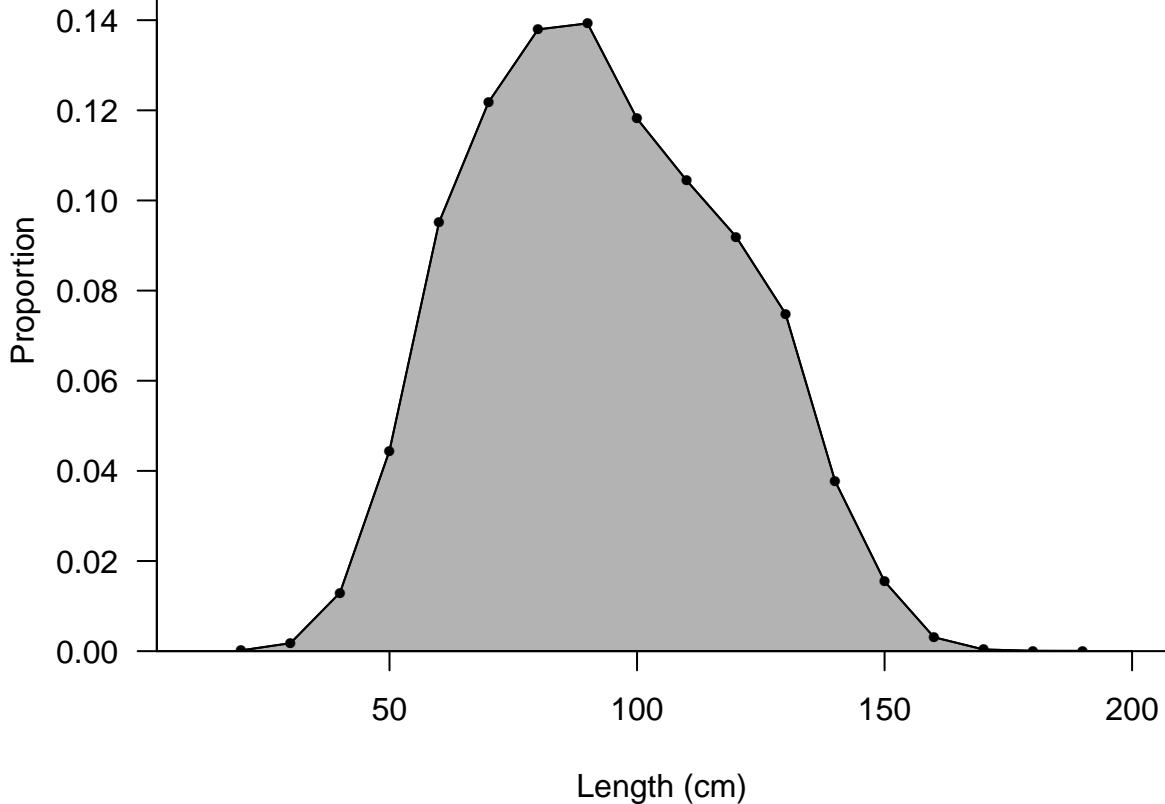


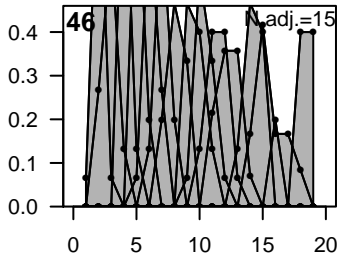
## S1-PS\_DEL\_VAST (whole catch)



**S1-PS\_DEL\_VAST**

Sum of N adj.=1584.1

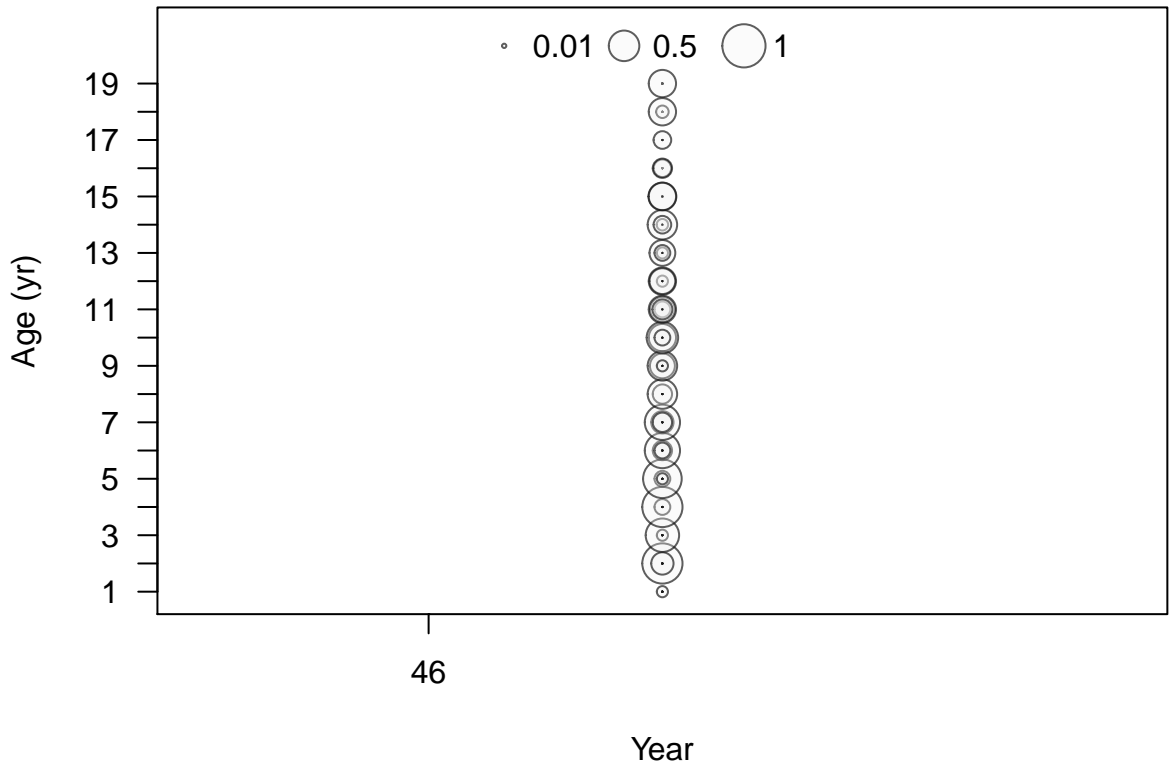




Proportion

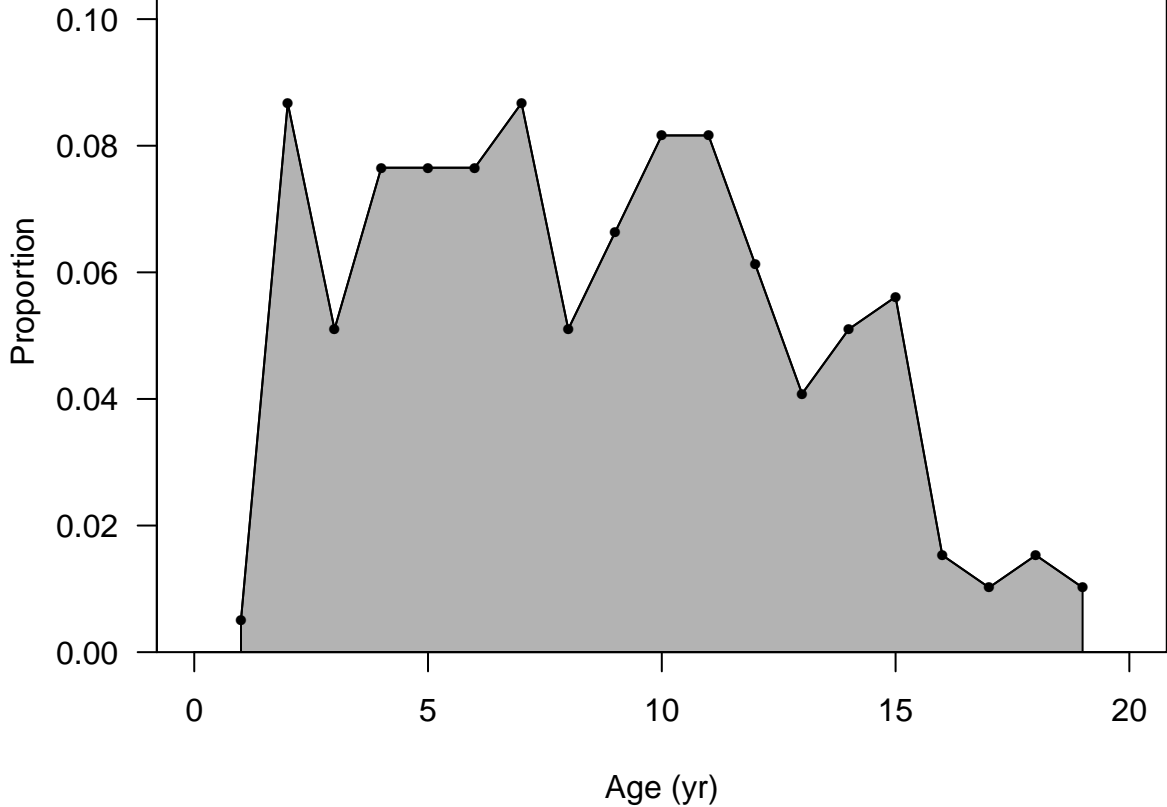
Age (yr)





**F18-DEL\_C**

Sum of N adj.=196



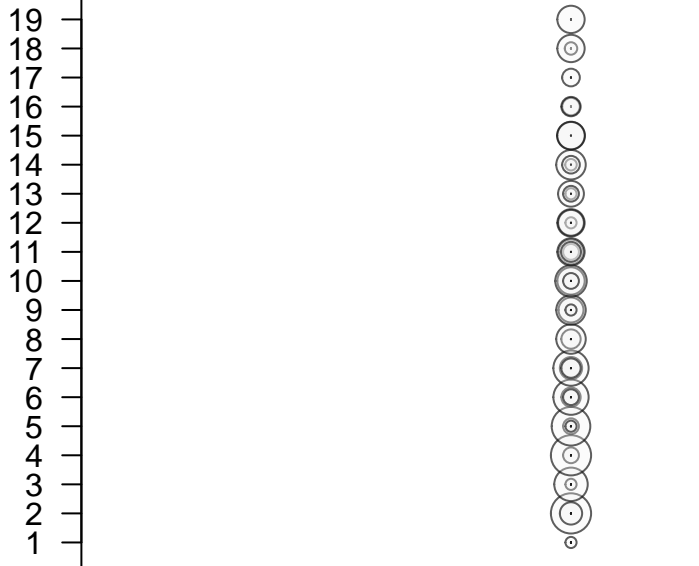
F18-DEL\_C    ◦ 0.01    ○ 0.5    ○ 1

Age (yr)

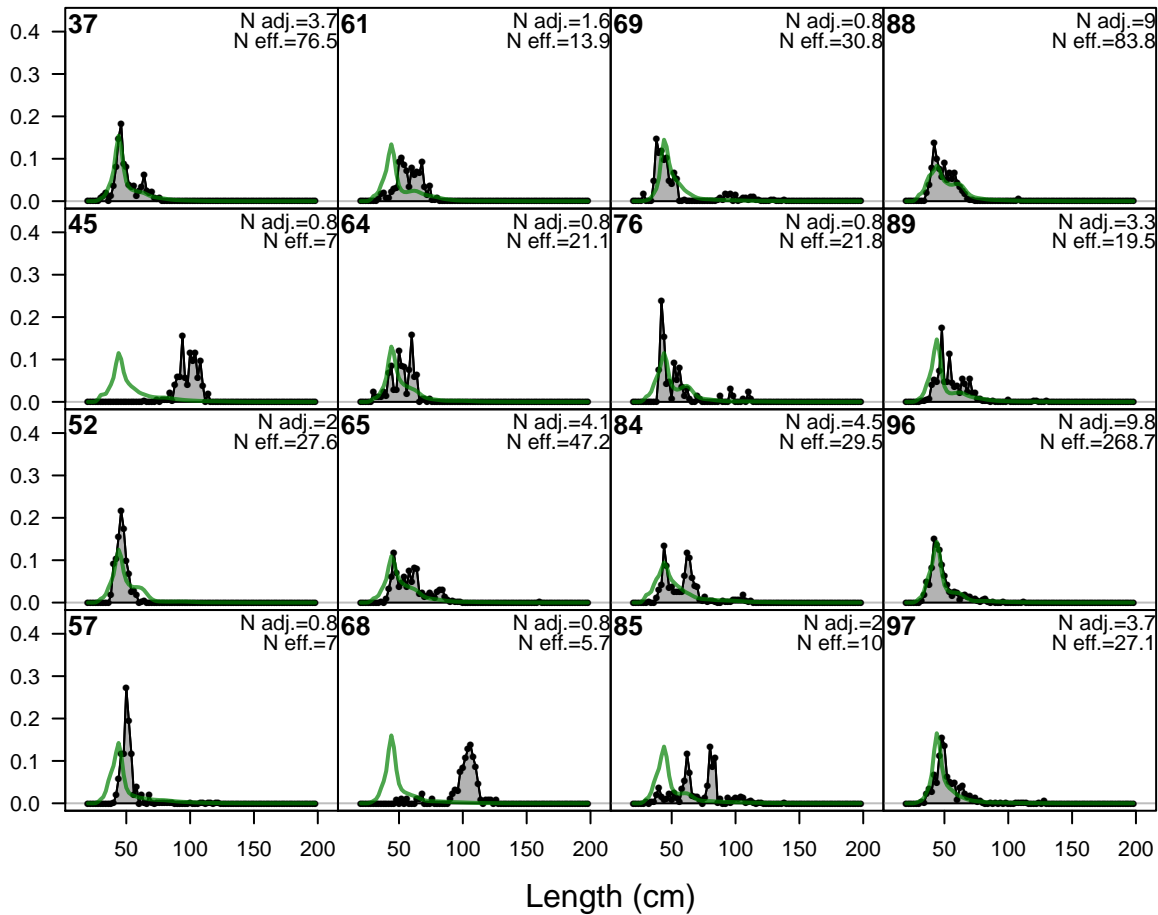
19  
18  
17  
16  
15  
14  
13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1

46

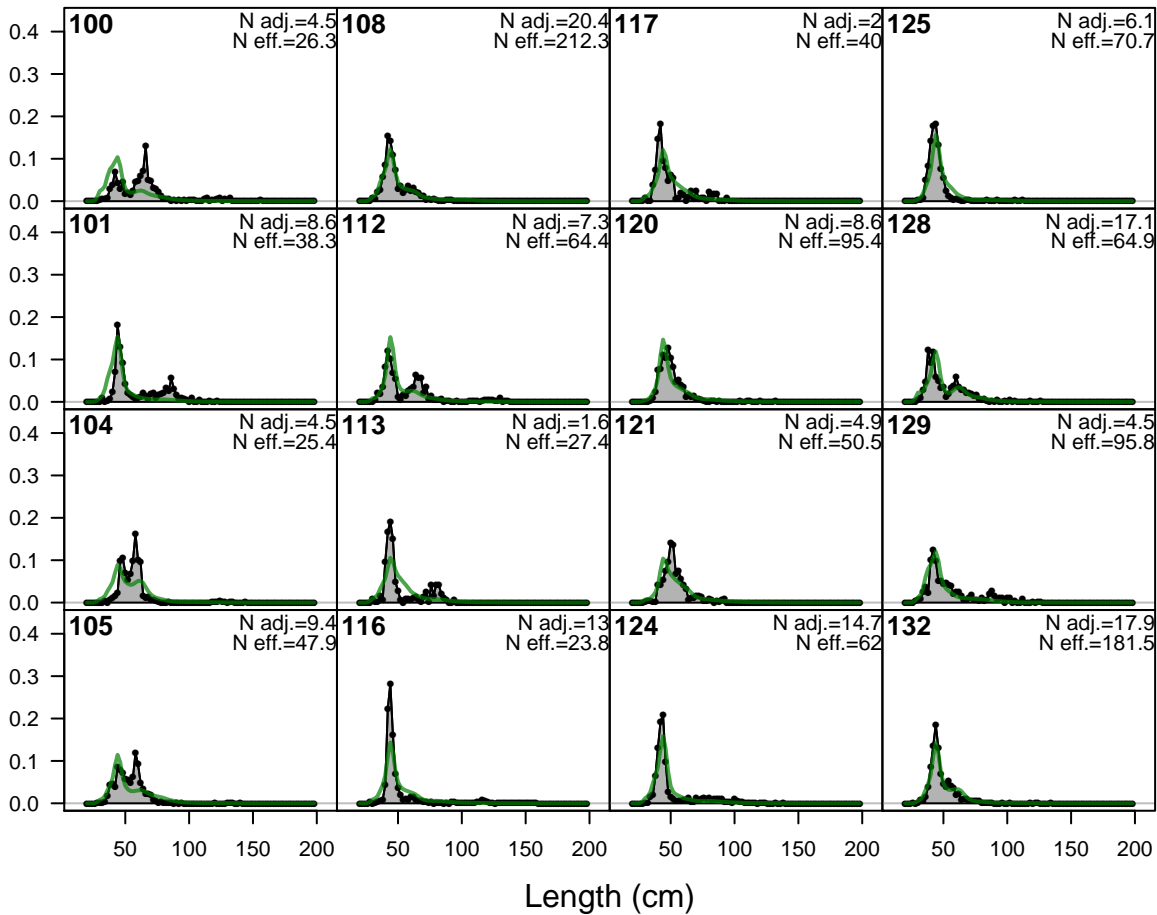
Year



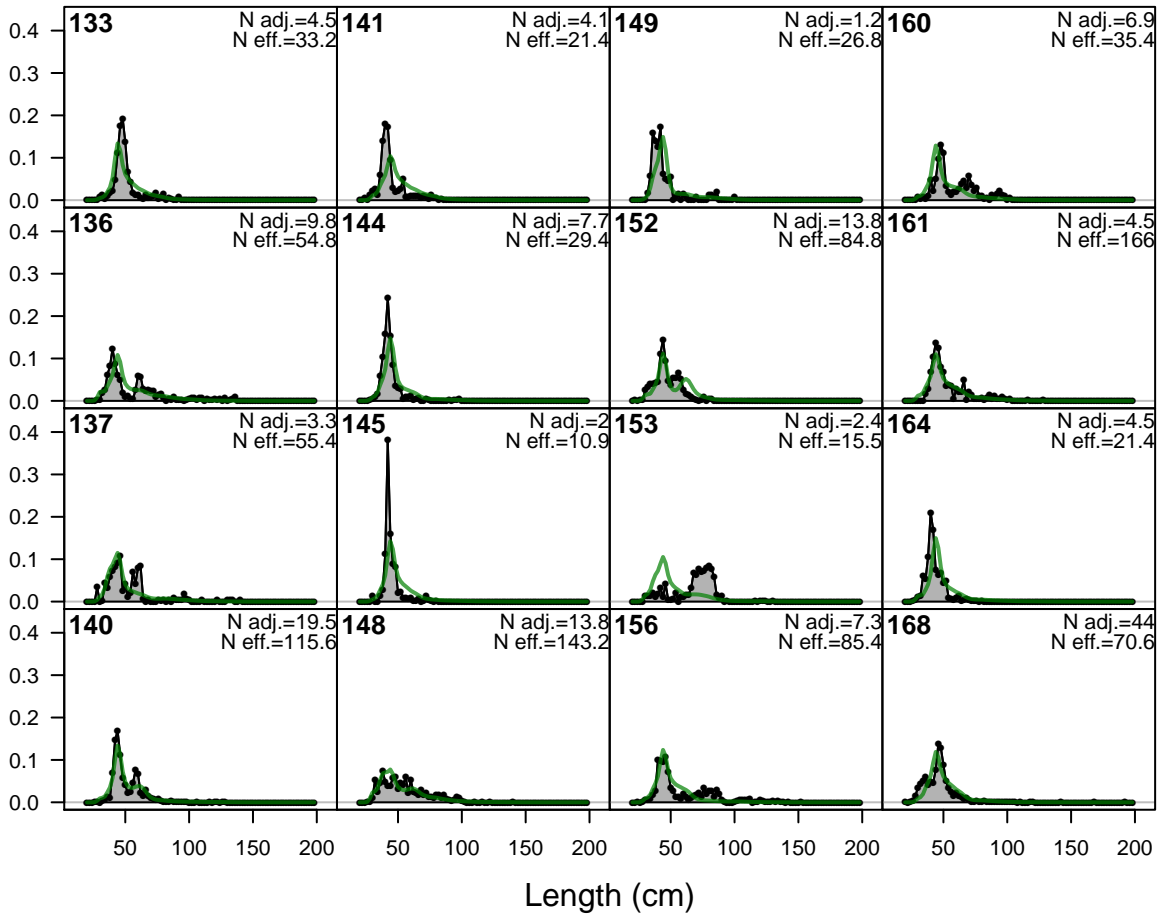
Proportion



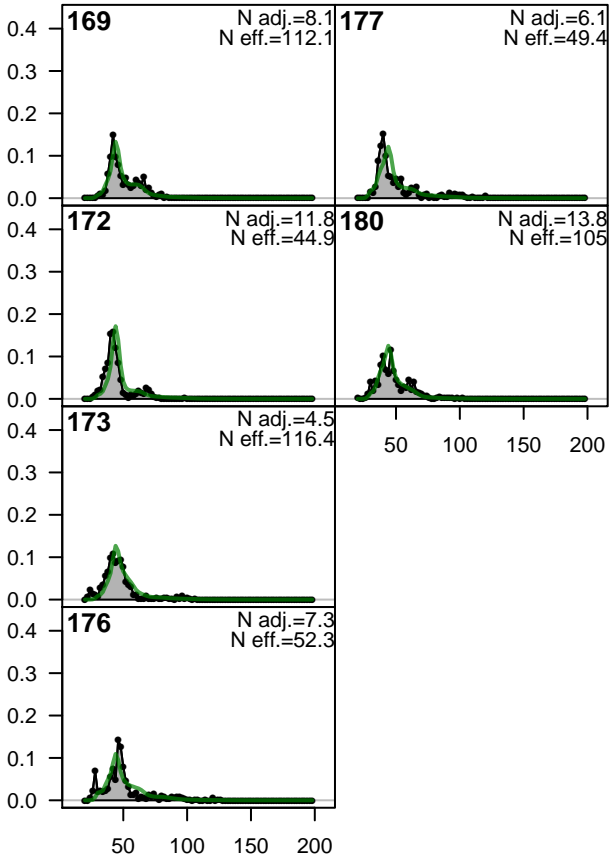
Proportion



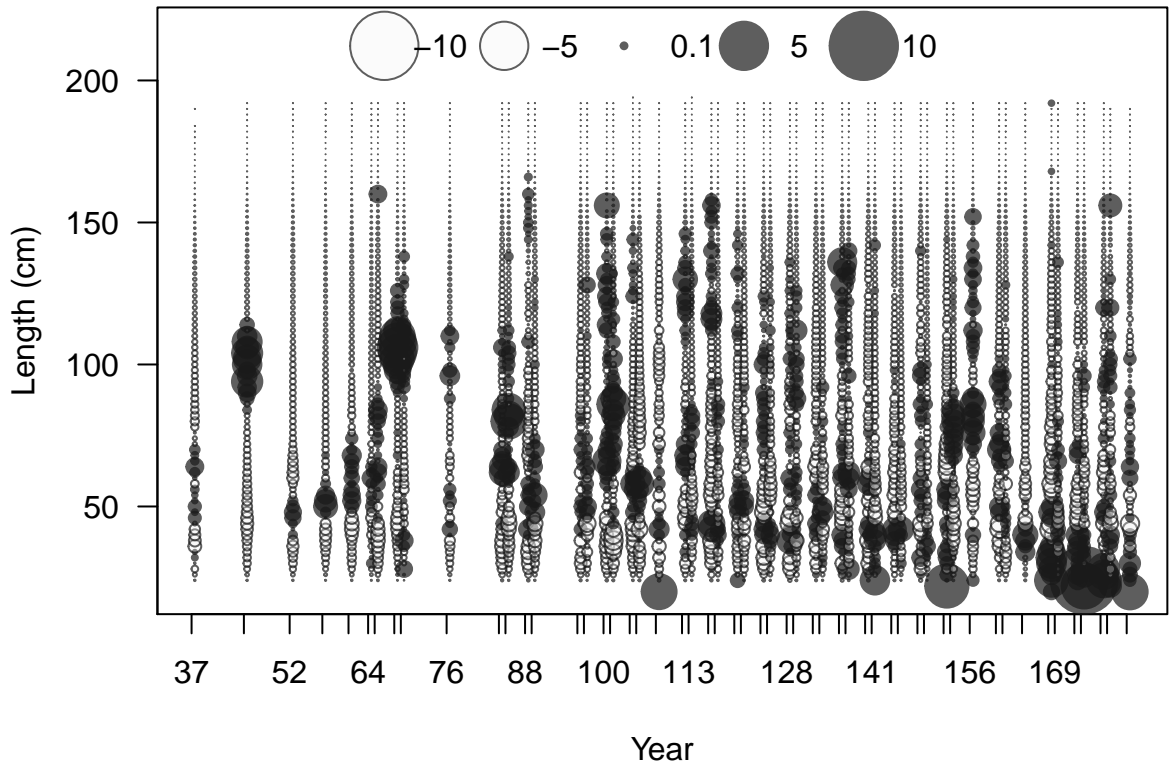
Proportion



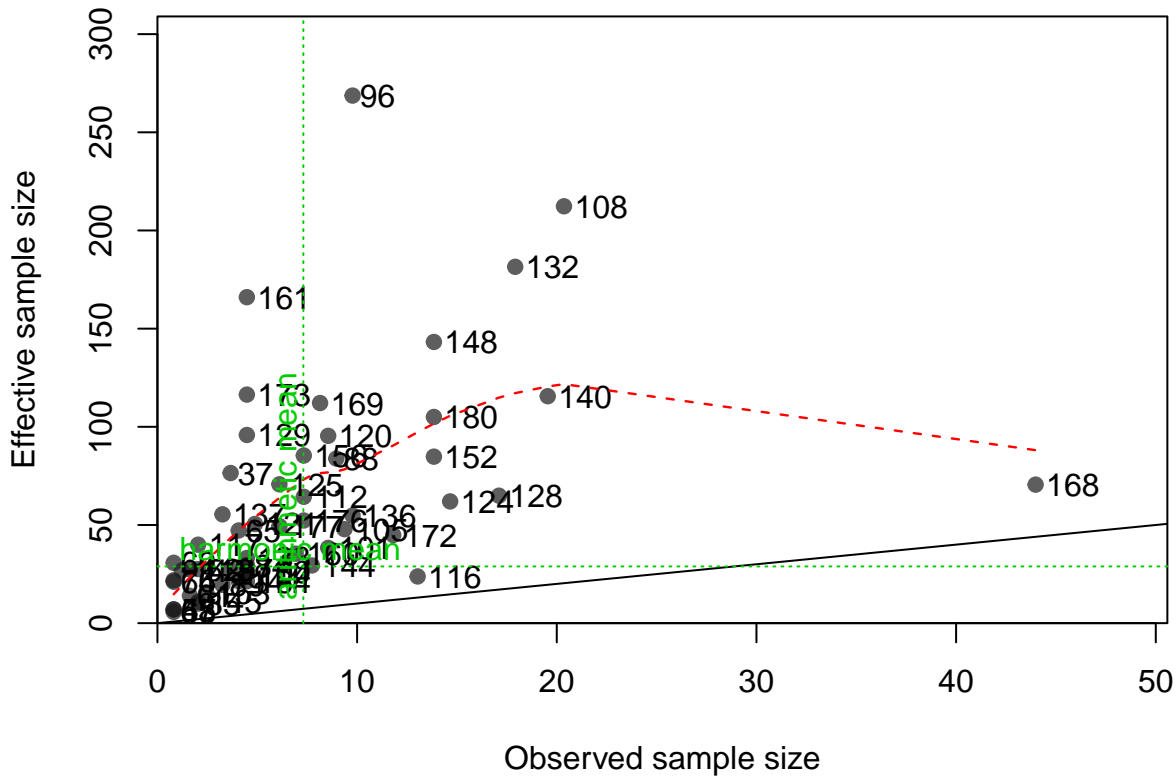
Proportion



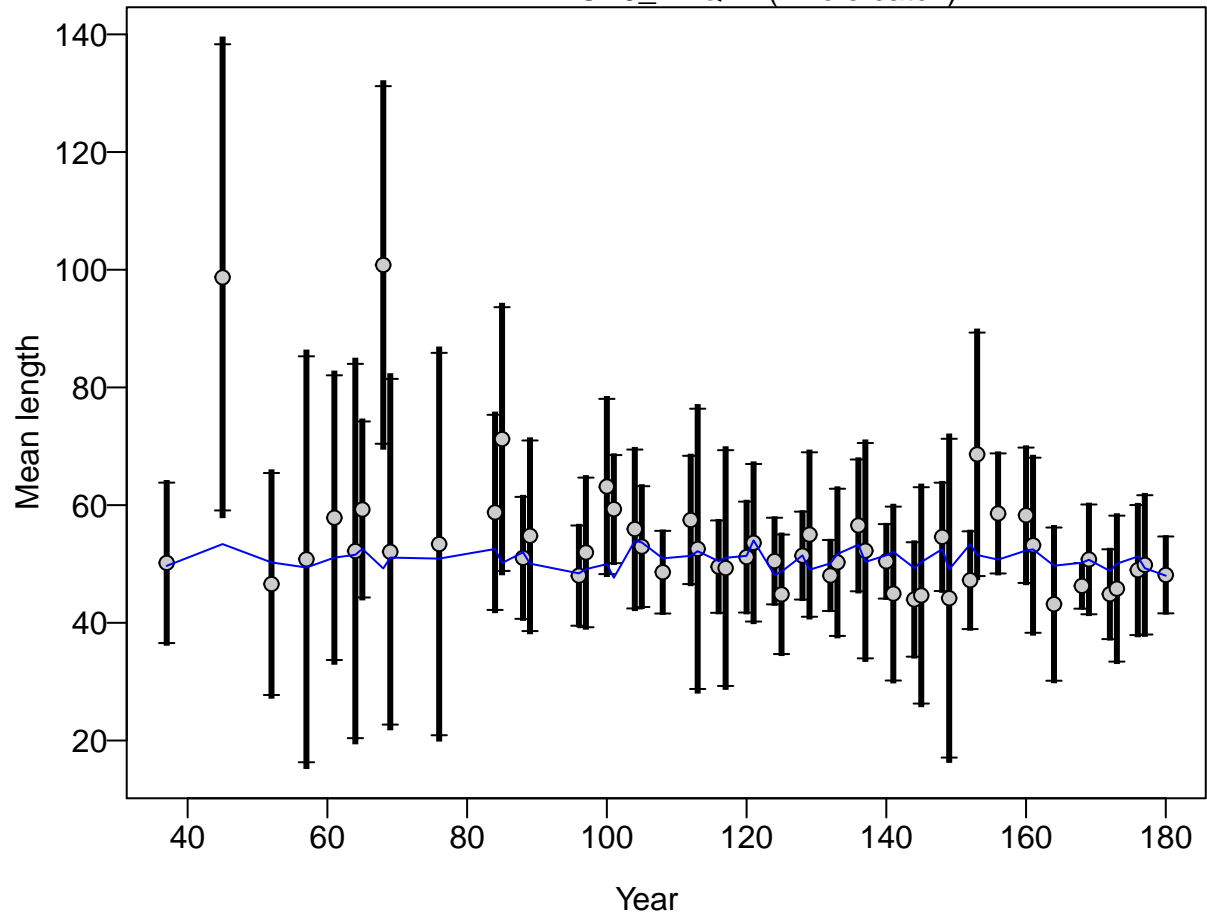
Length (cm)

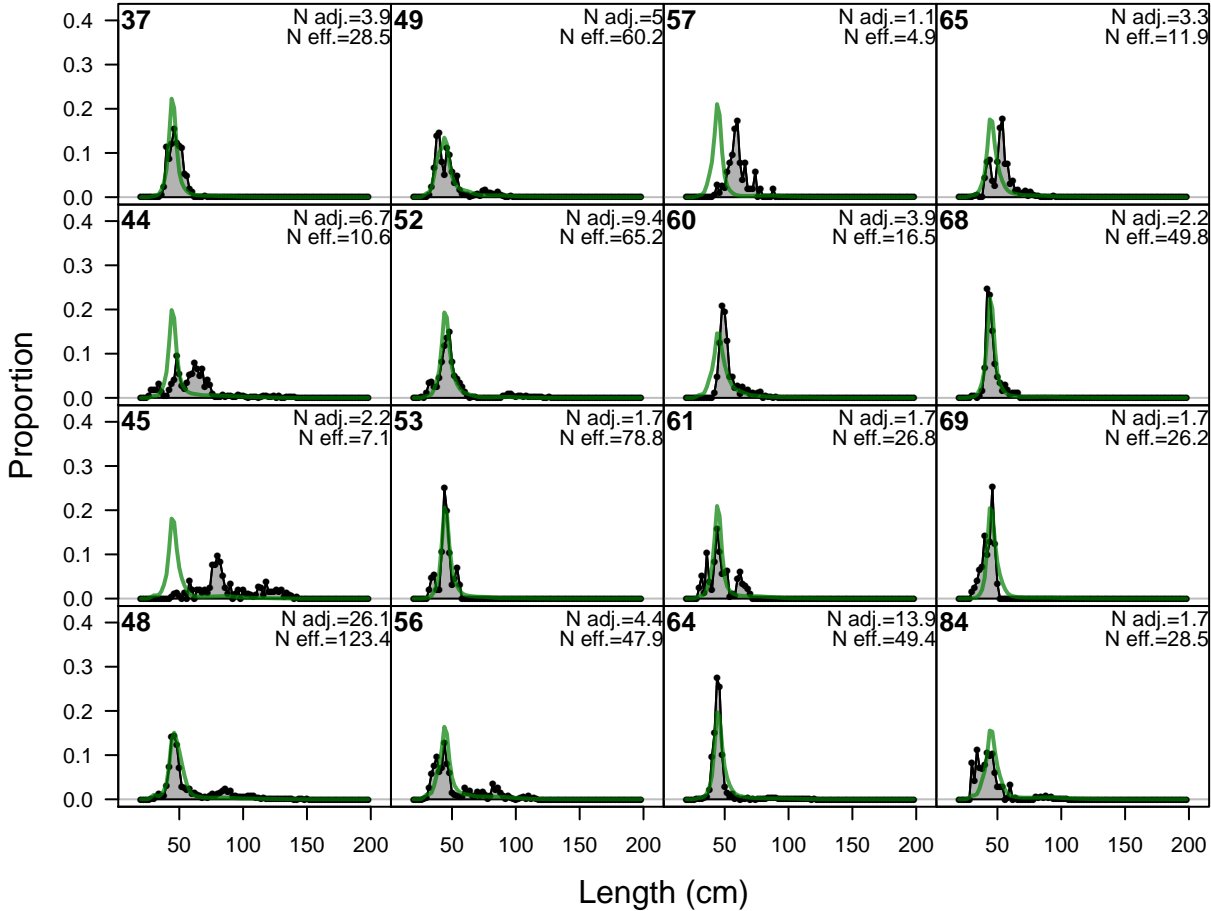




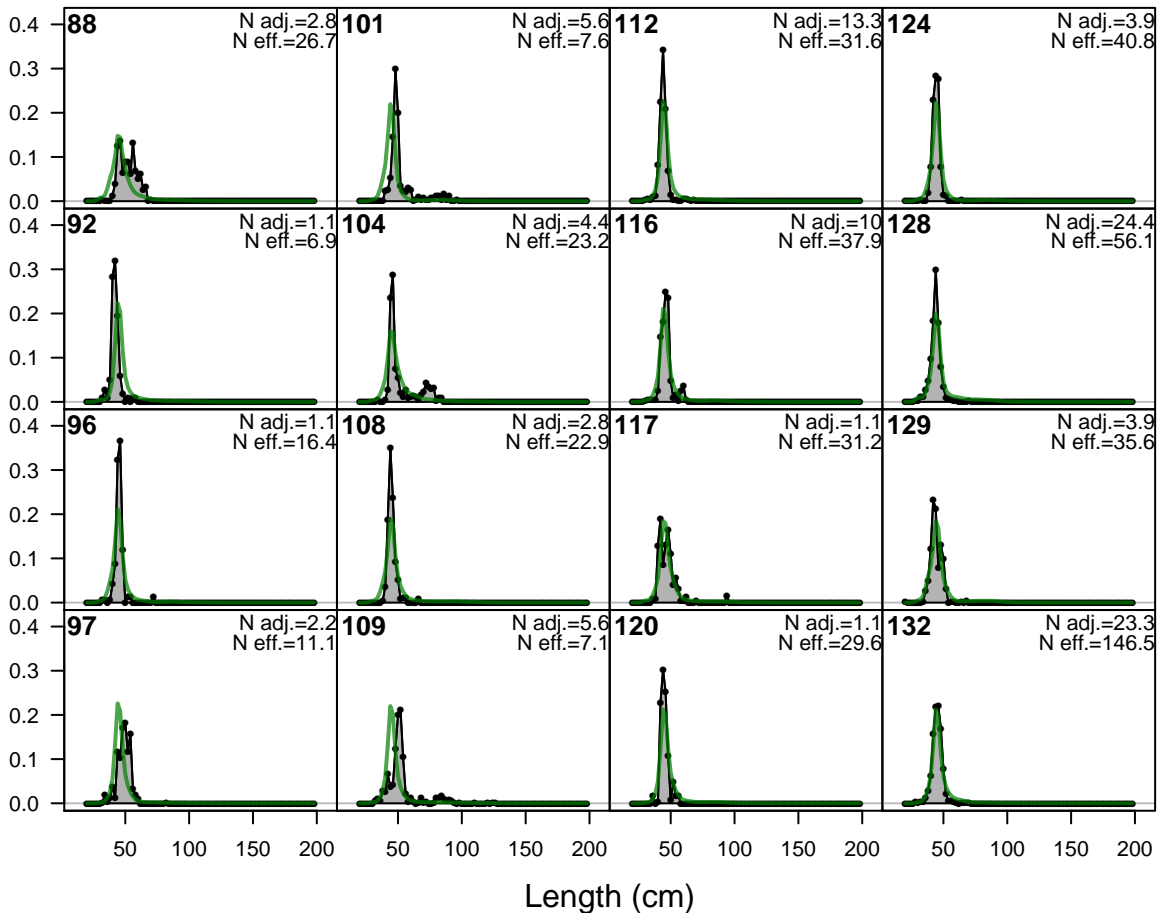


F1-OBJ\_N-Q14 (whole catch)

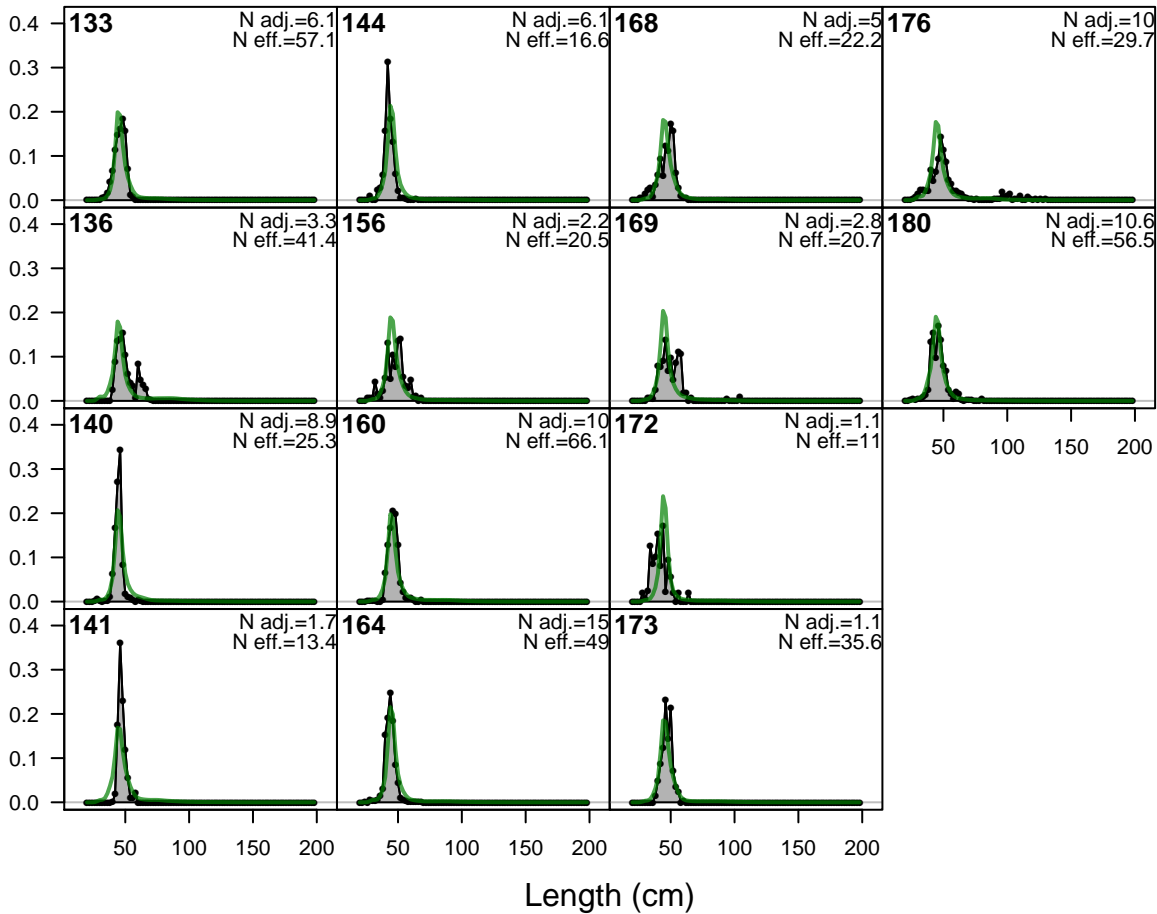


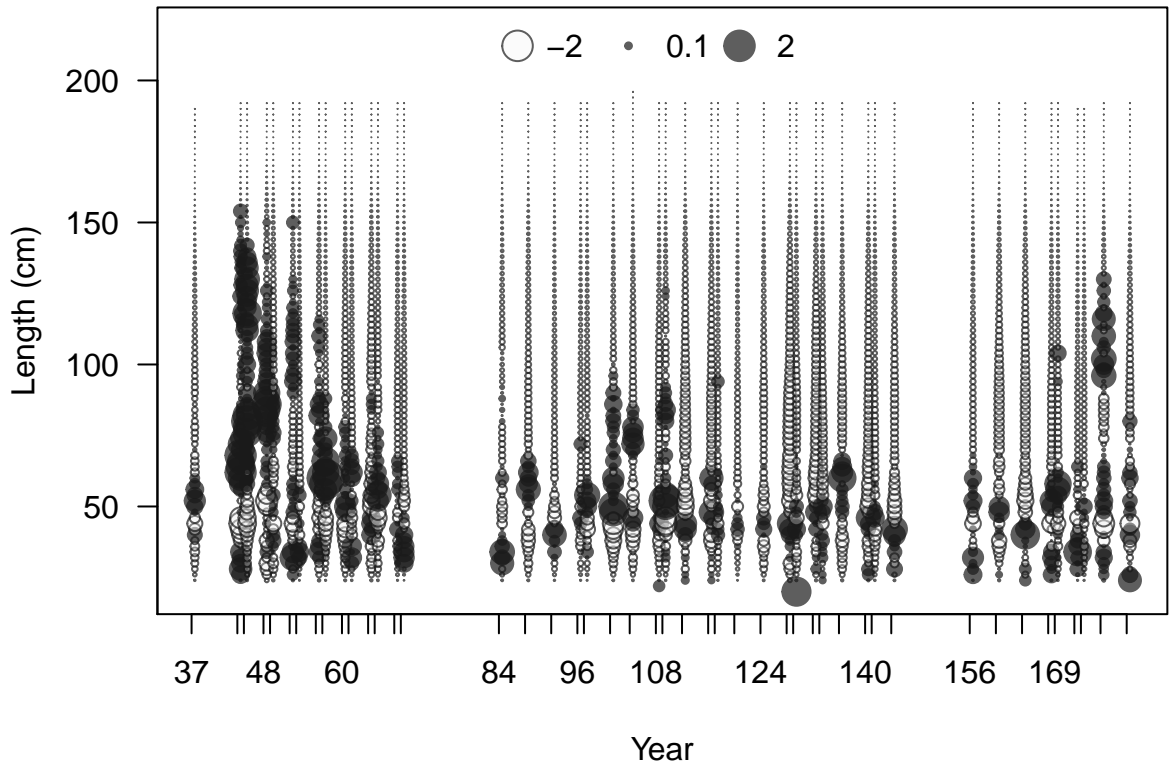


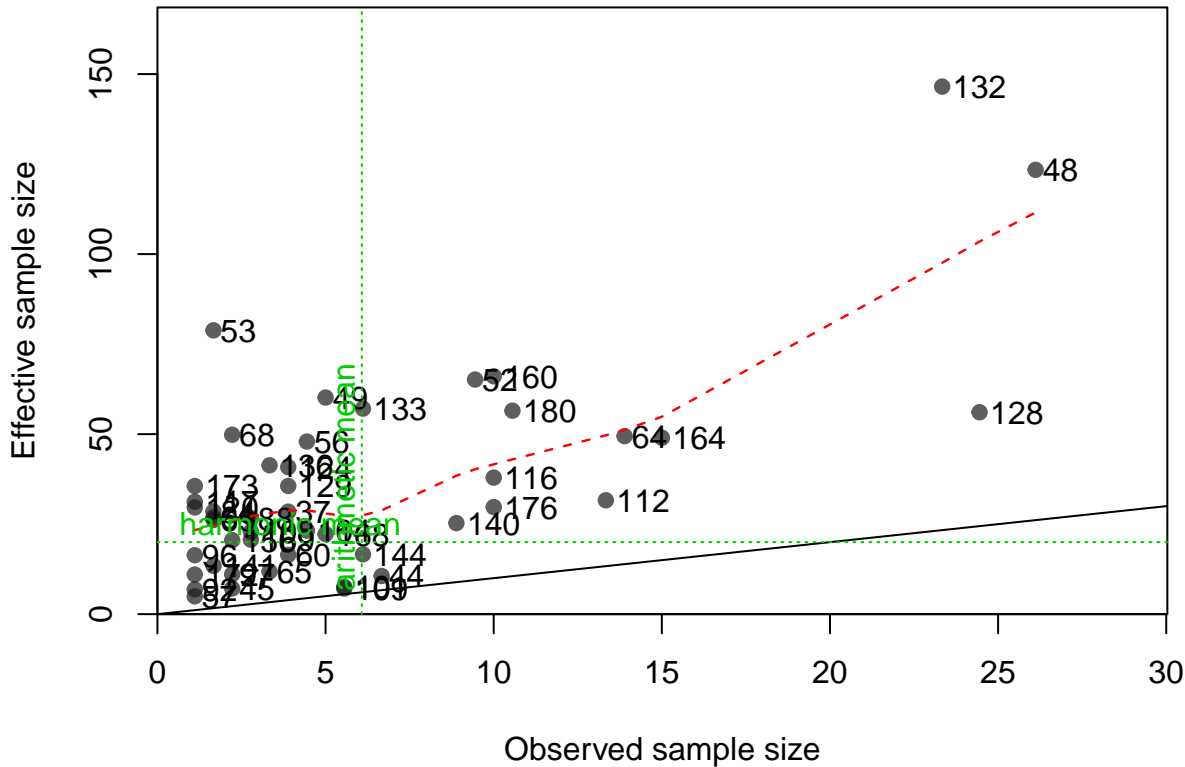
Proportion



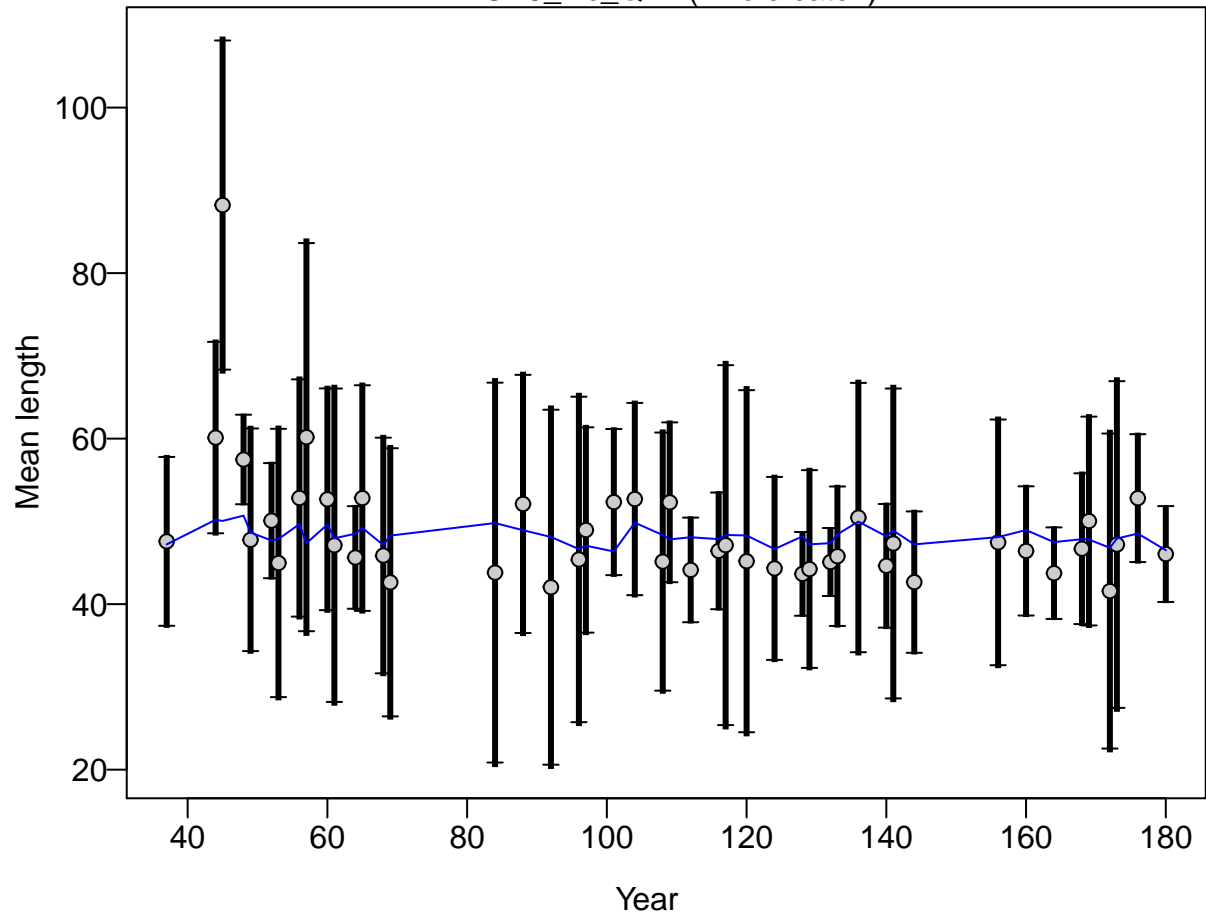
Proportion





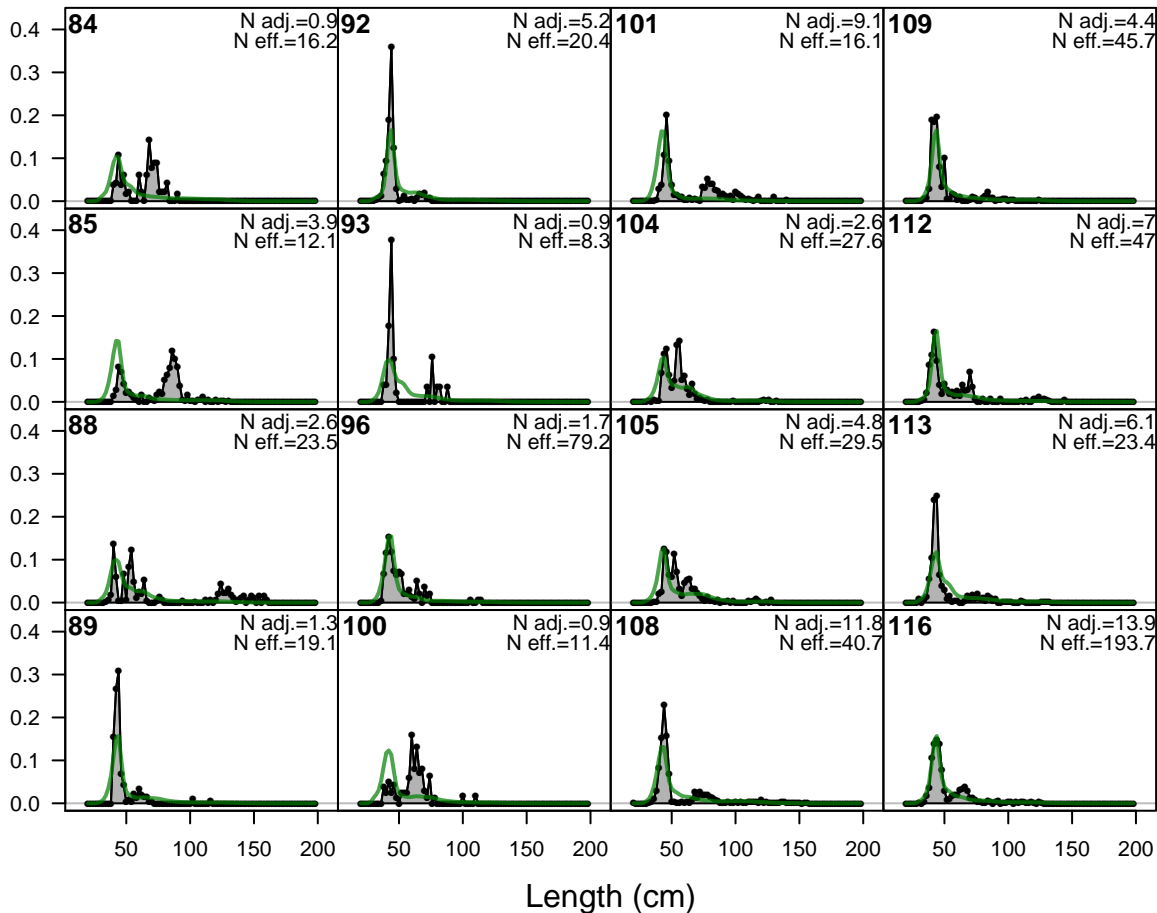


F2-OBJ\_Nc\_Q14 (whole catch)

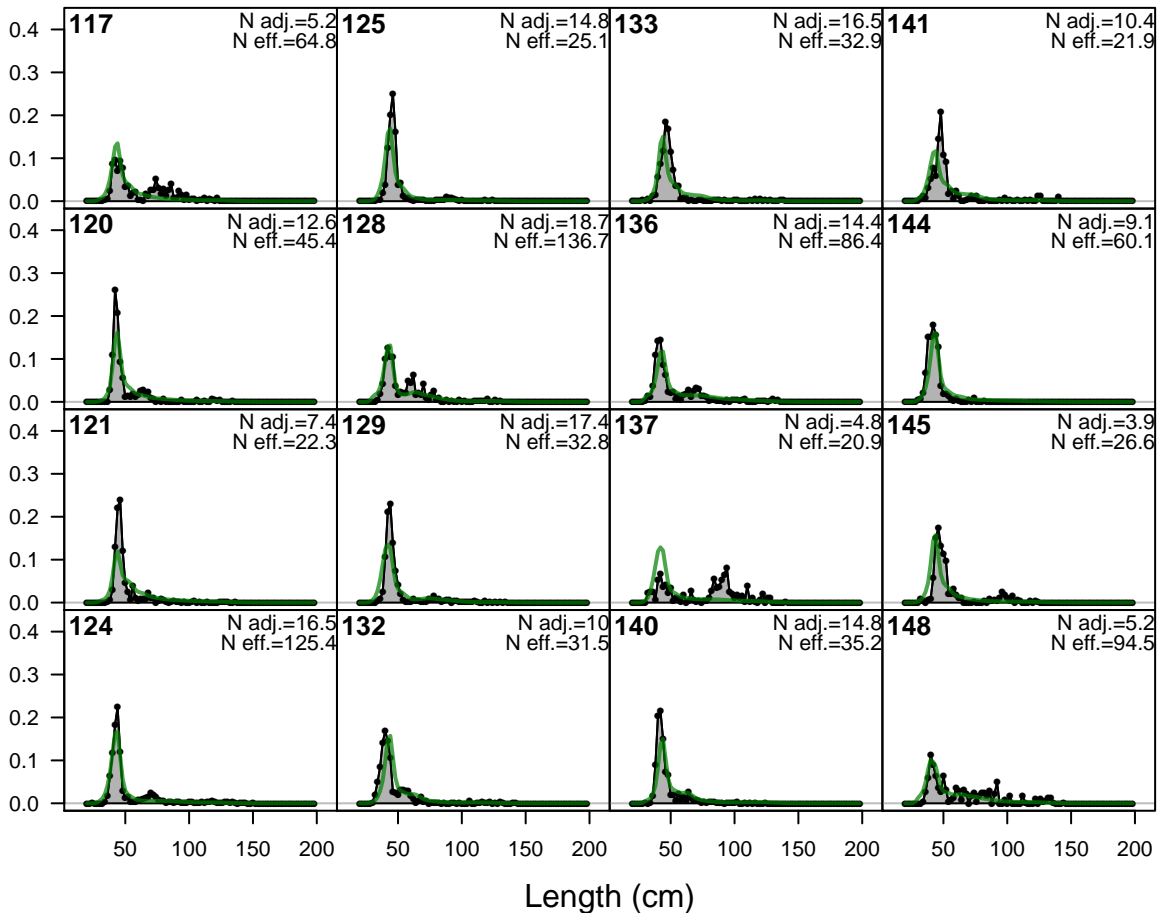




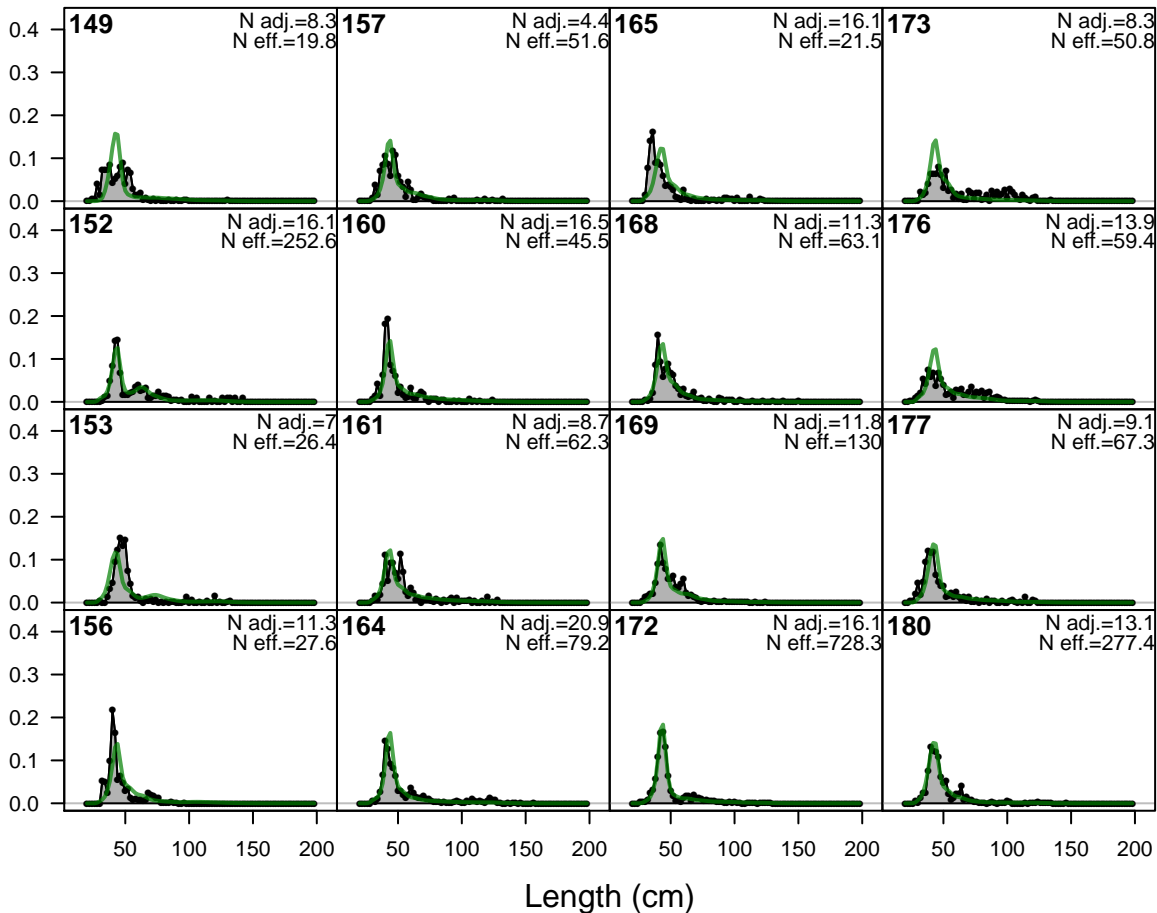
Proportion

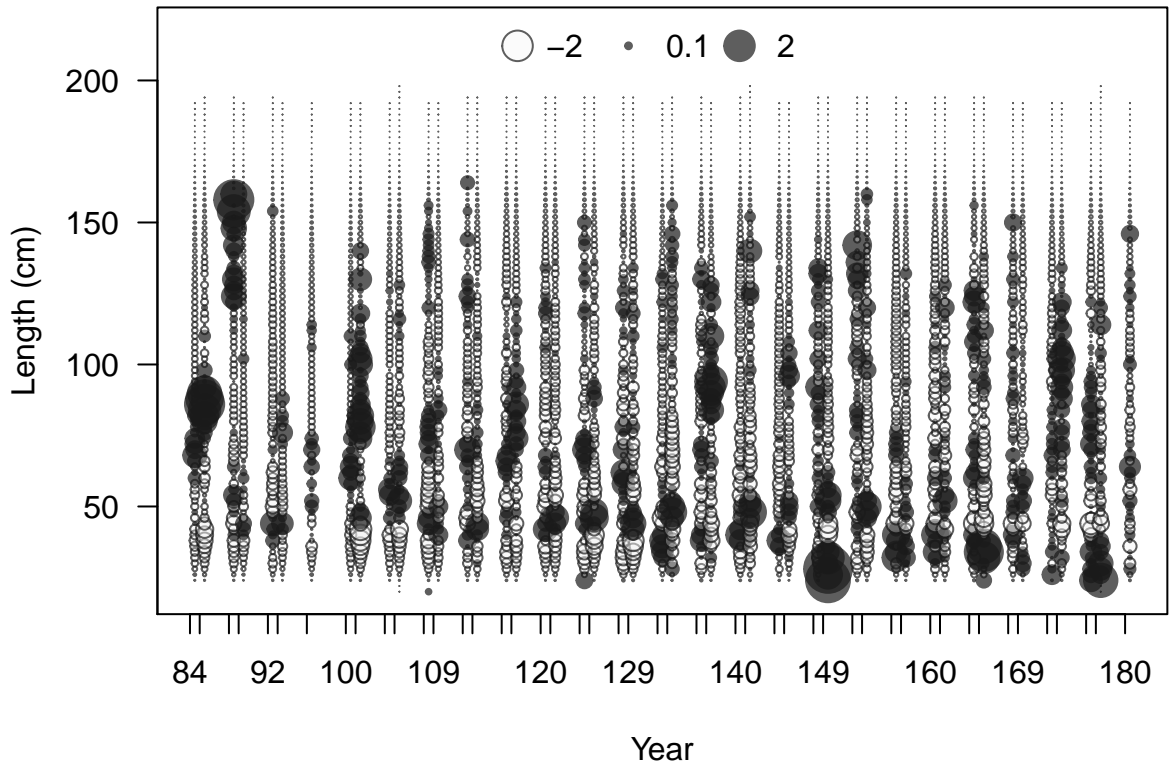


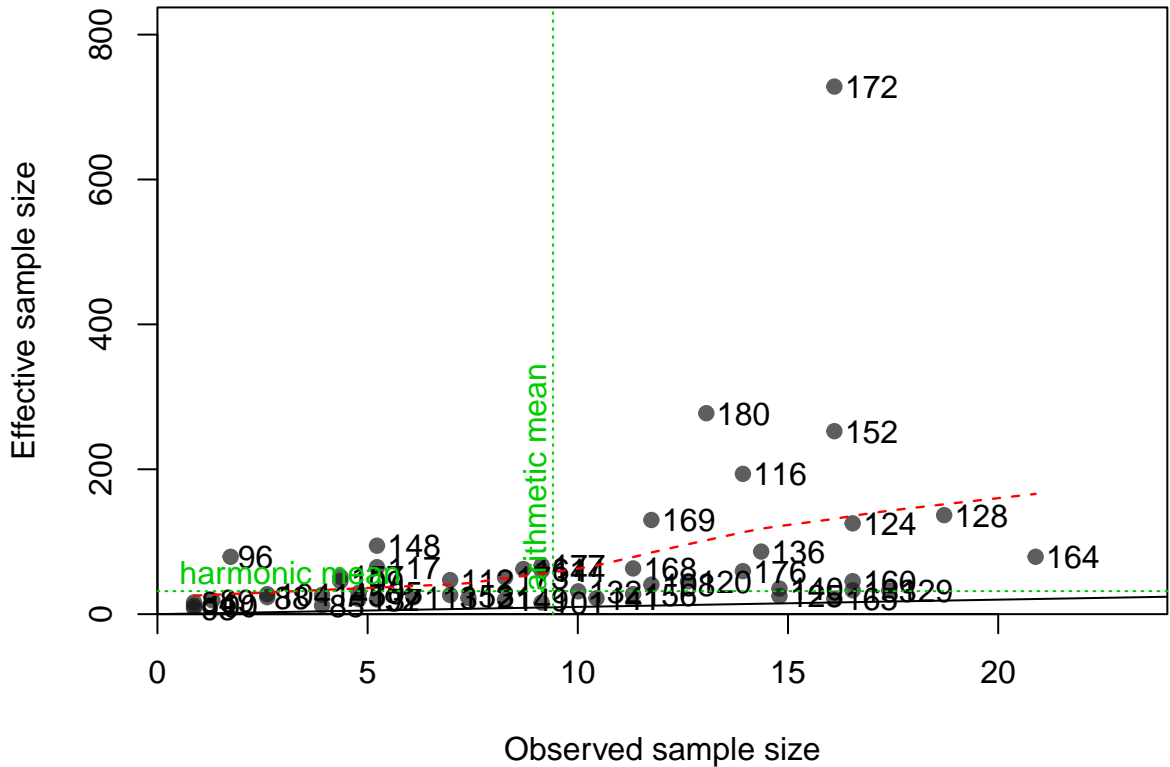
Proportion



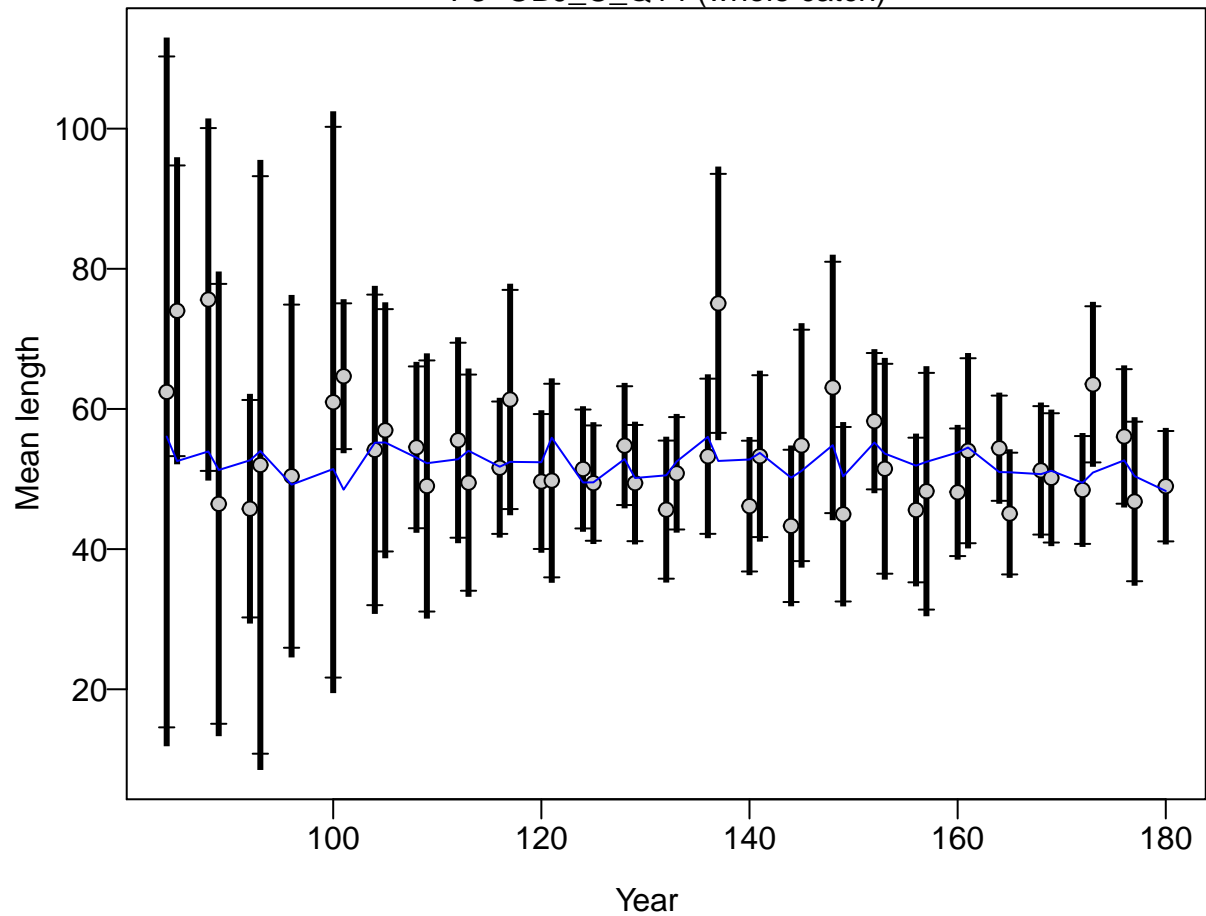
Proportion



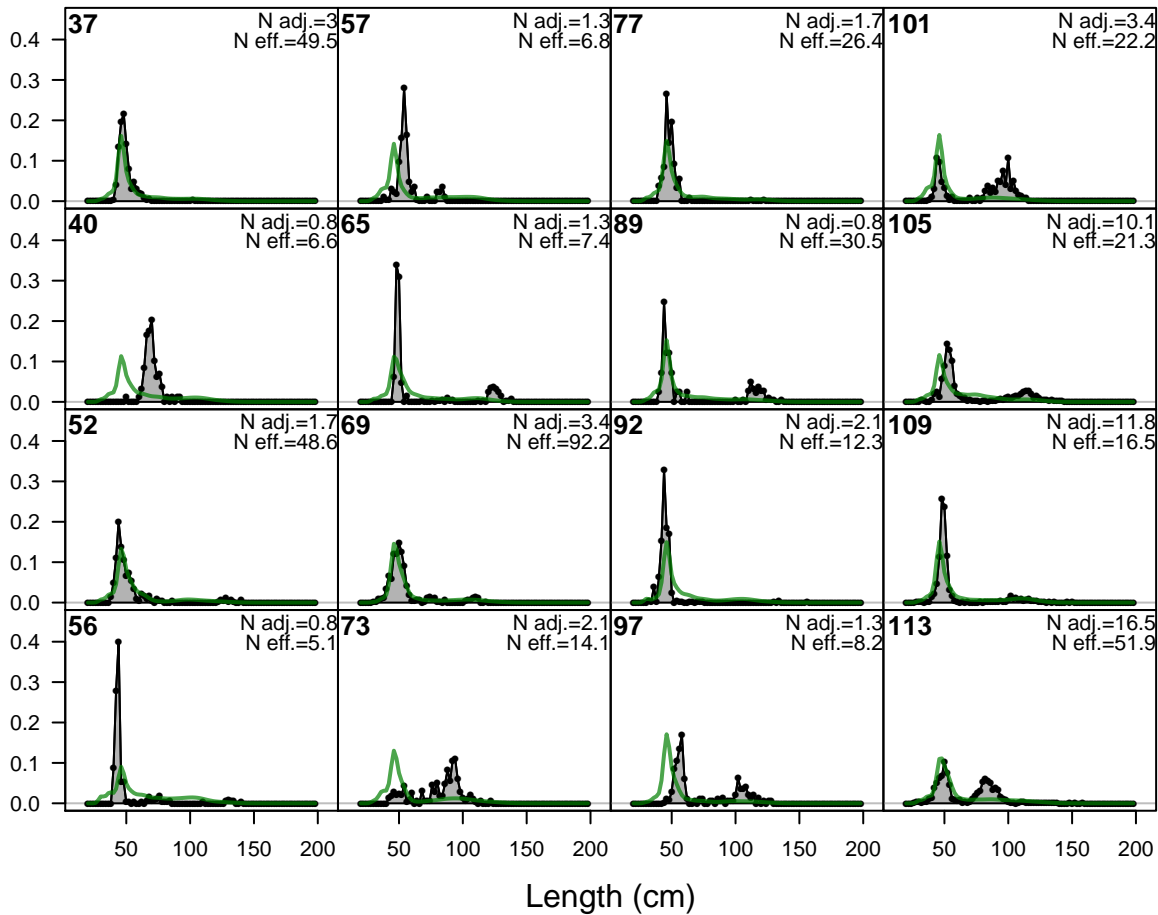




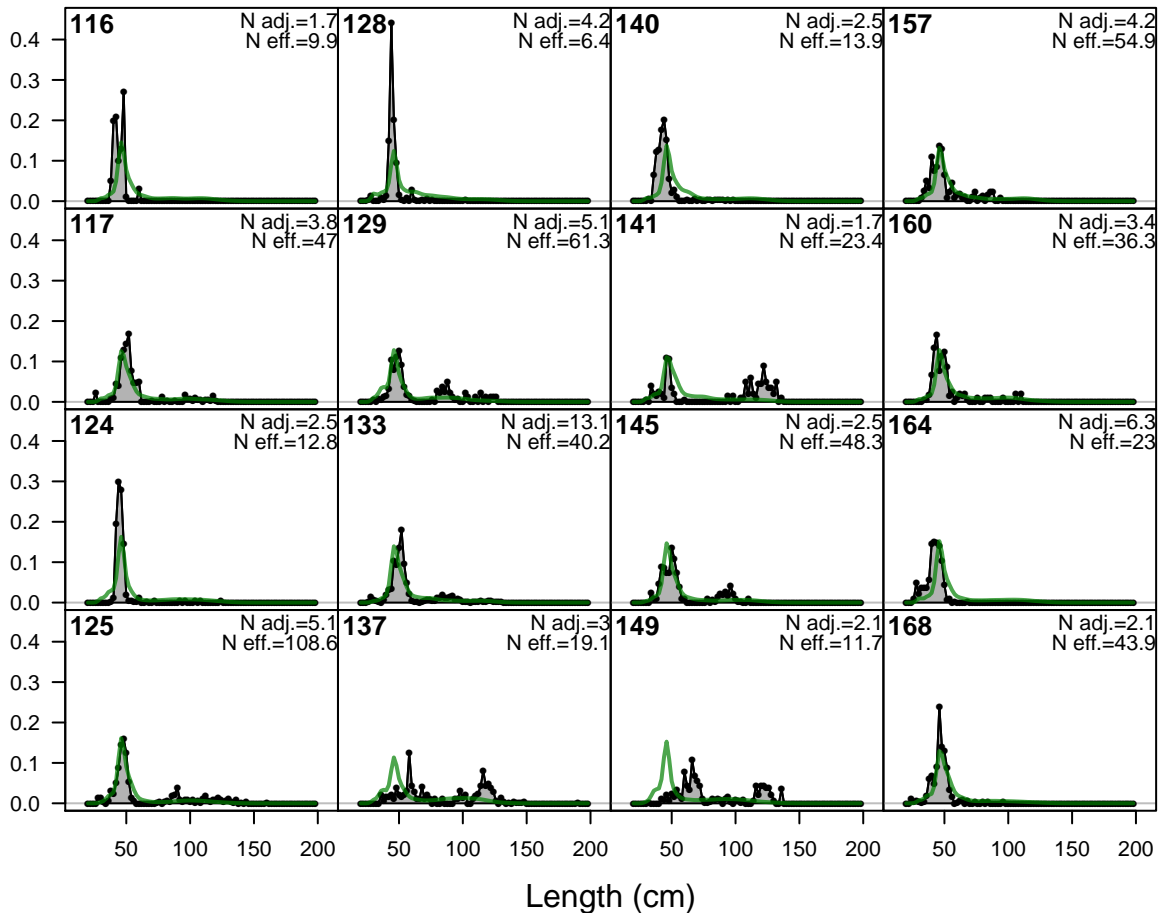
F3-OBJ\_C\_Q14 (whole catch)



Proportion

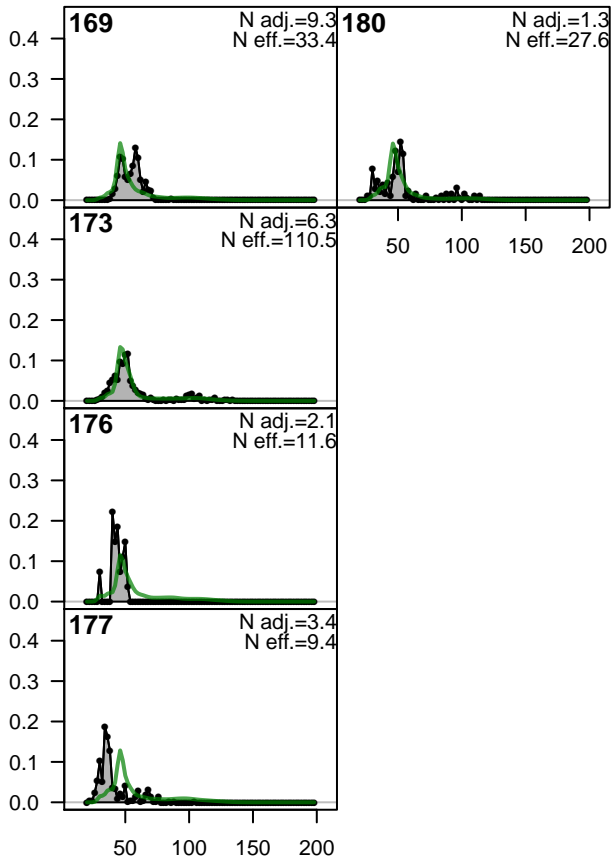


Proportion

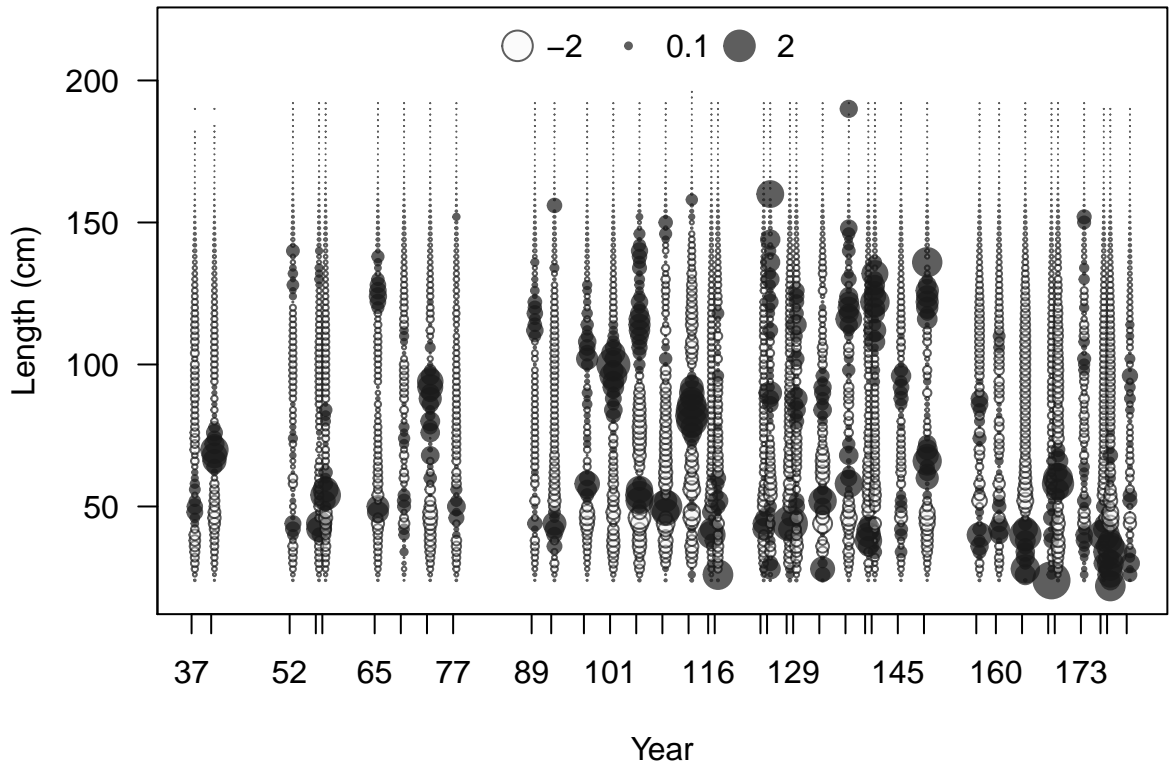


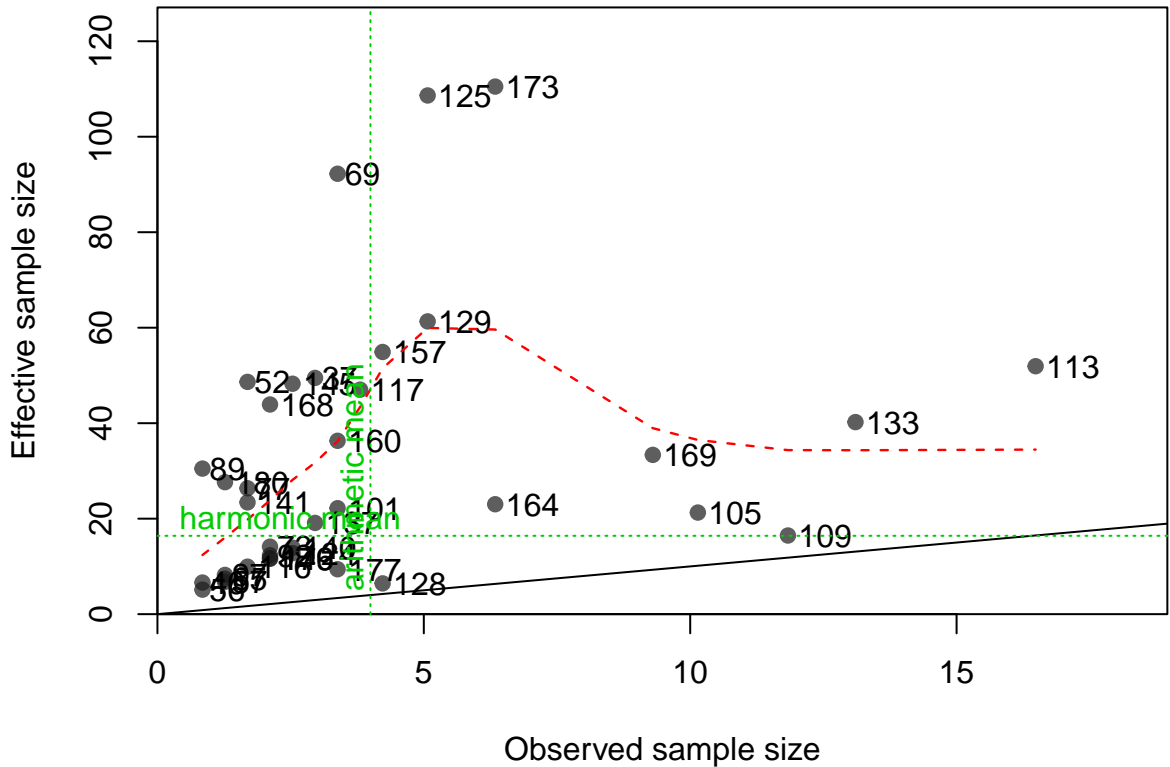


Proportion

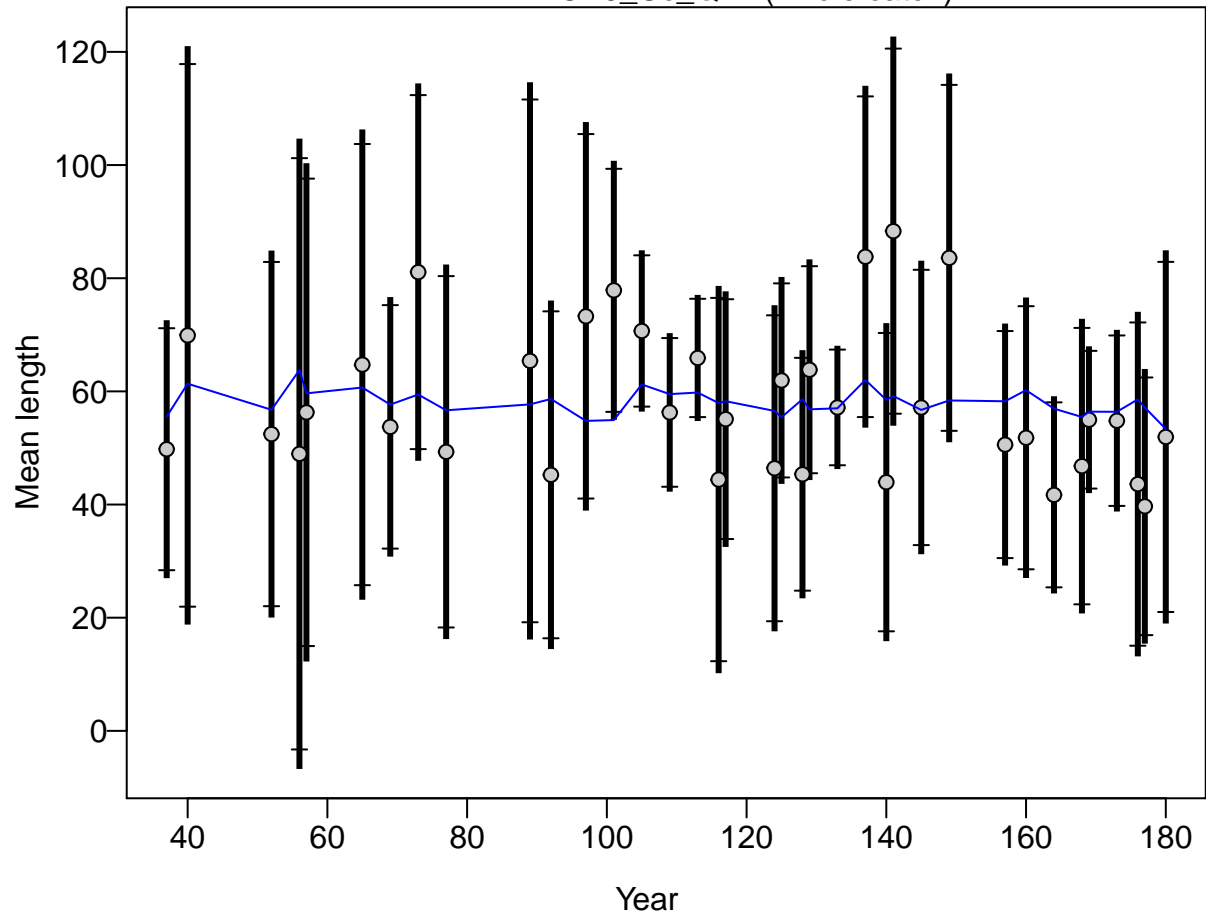


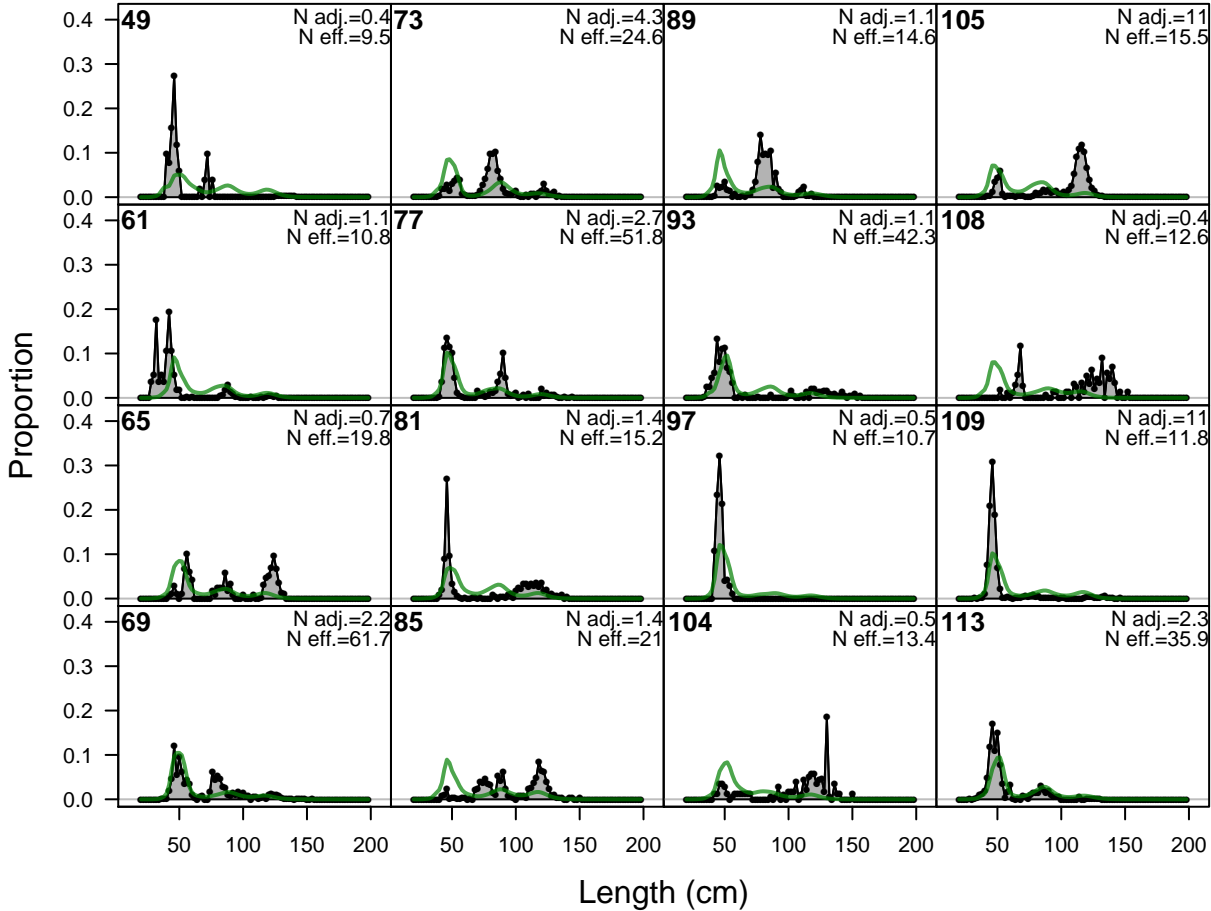
Length (cm)



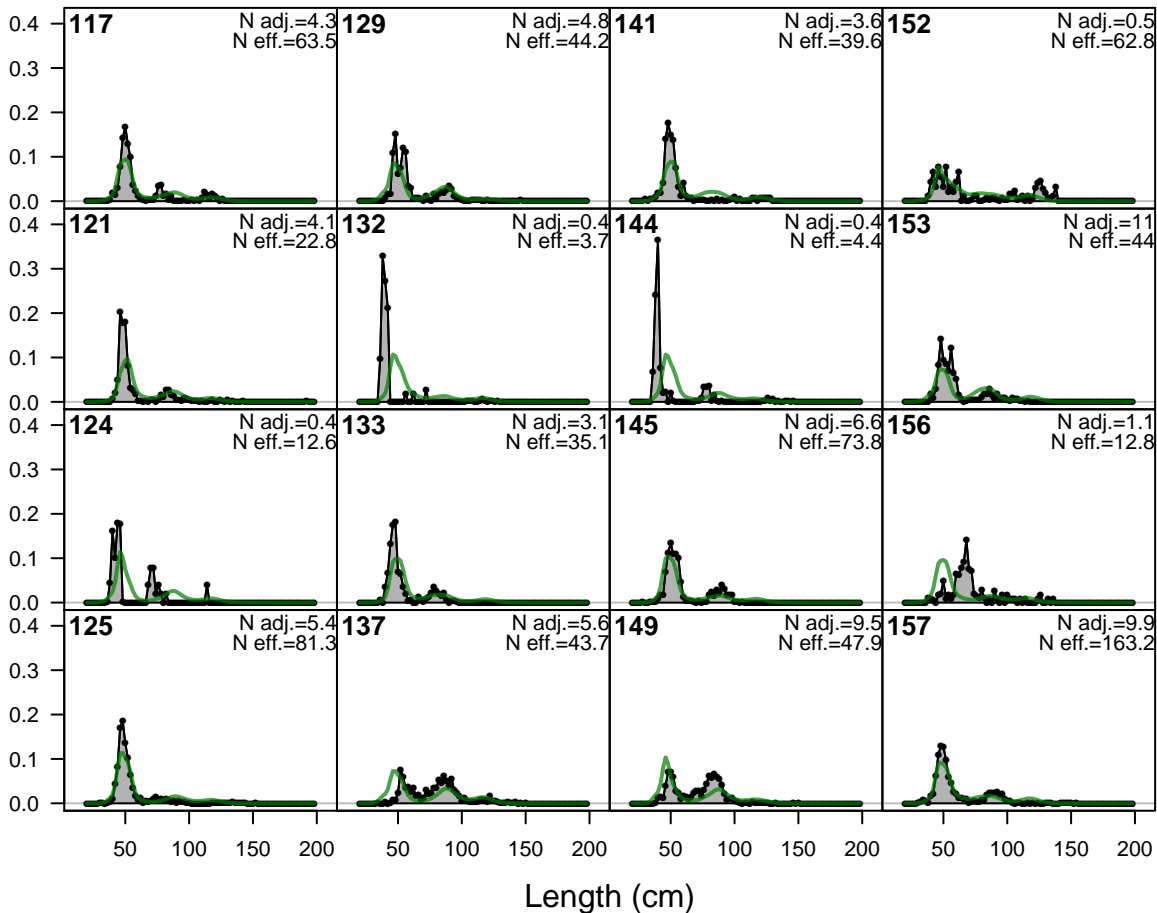


F4-OBJ\_Cc\_Q14 (whole catch)

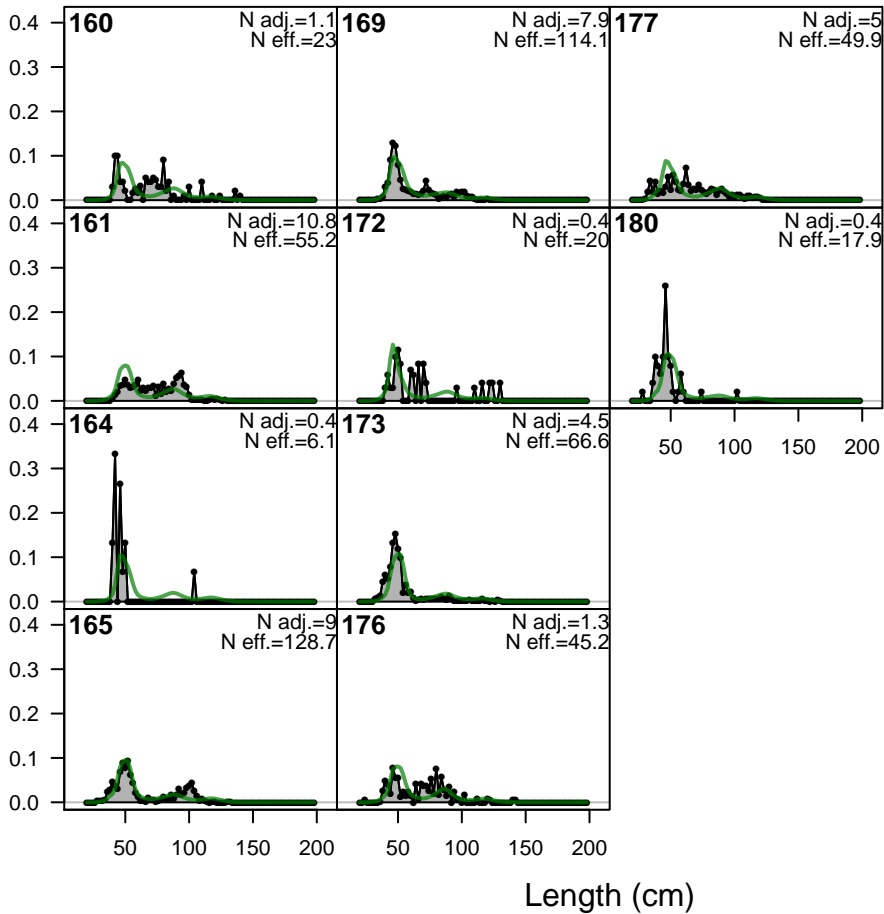


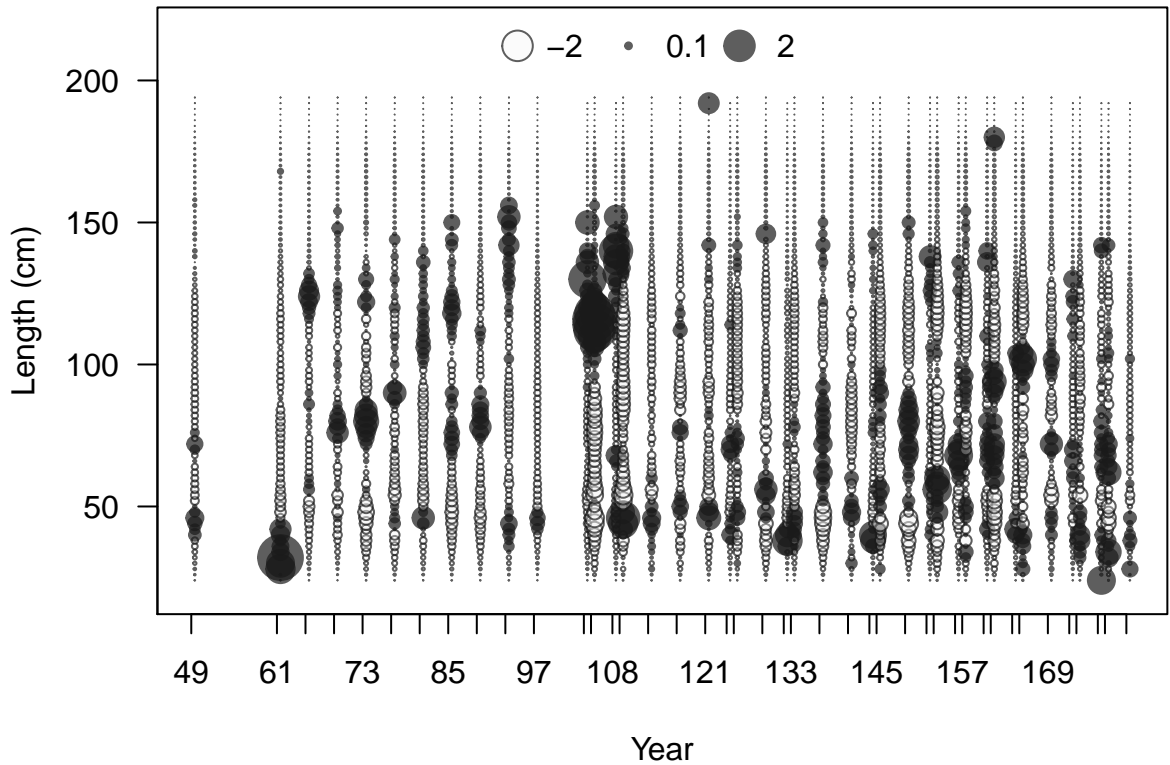


Proportion

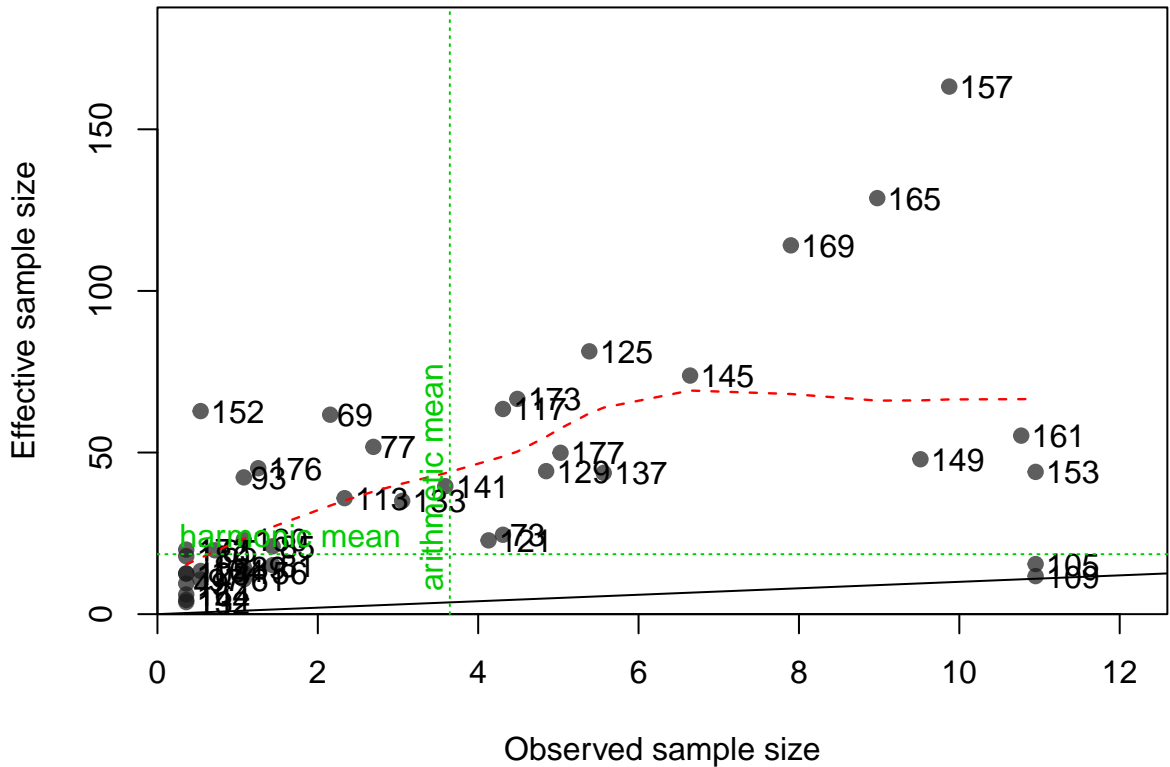


Proportion

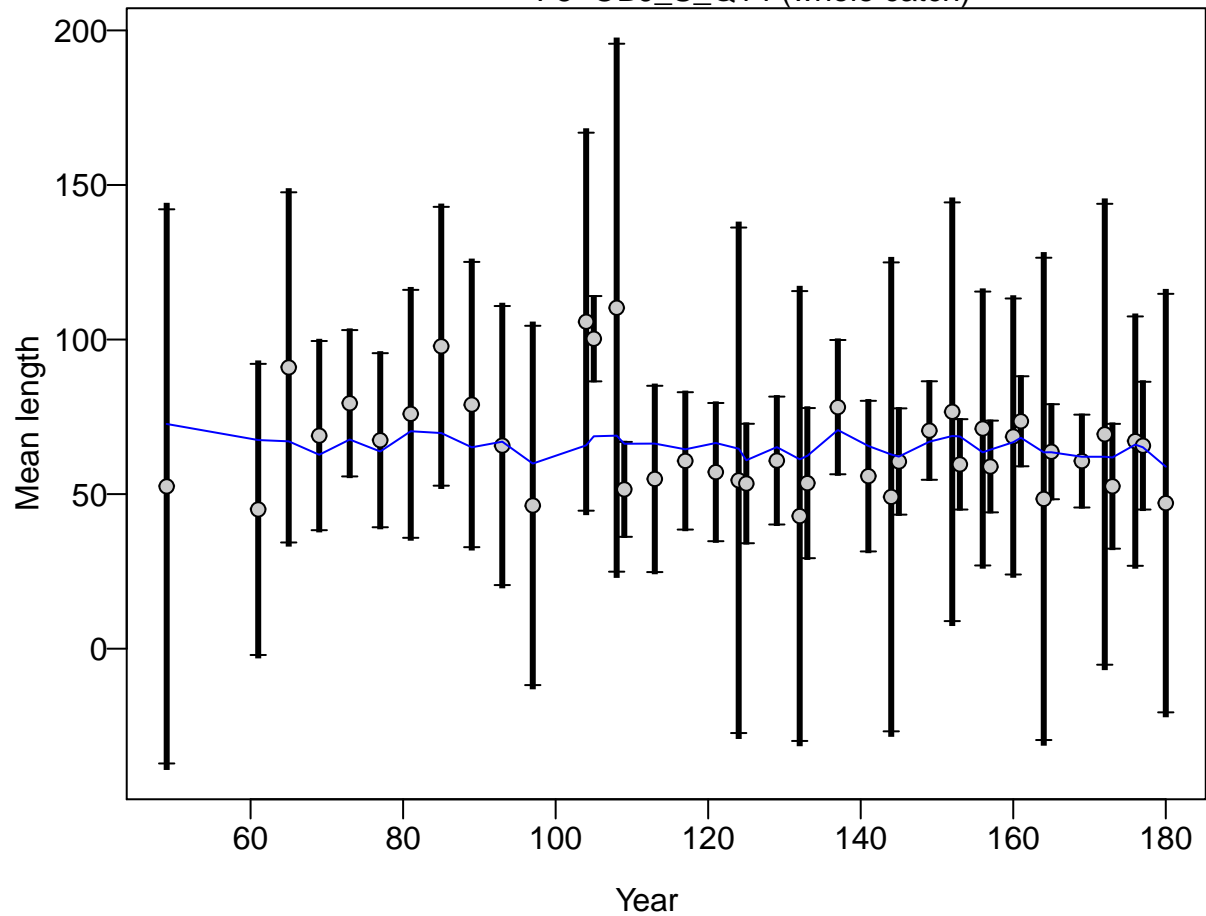




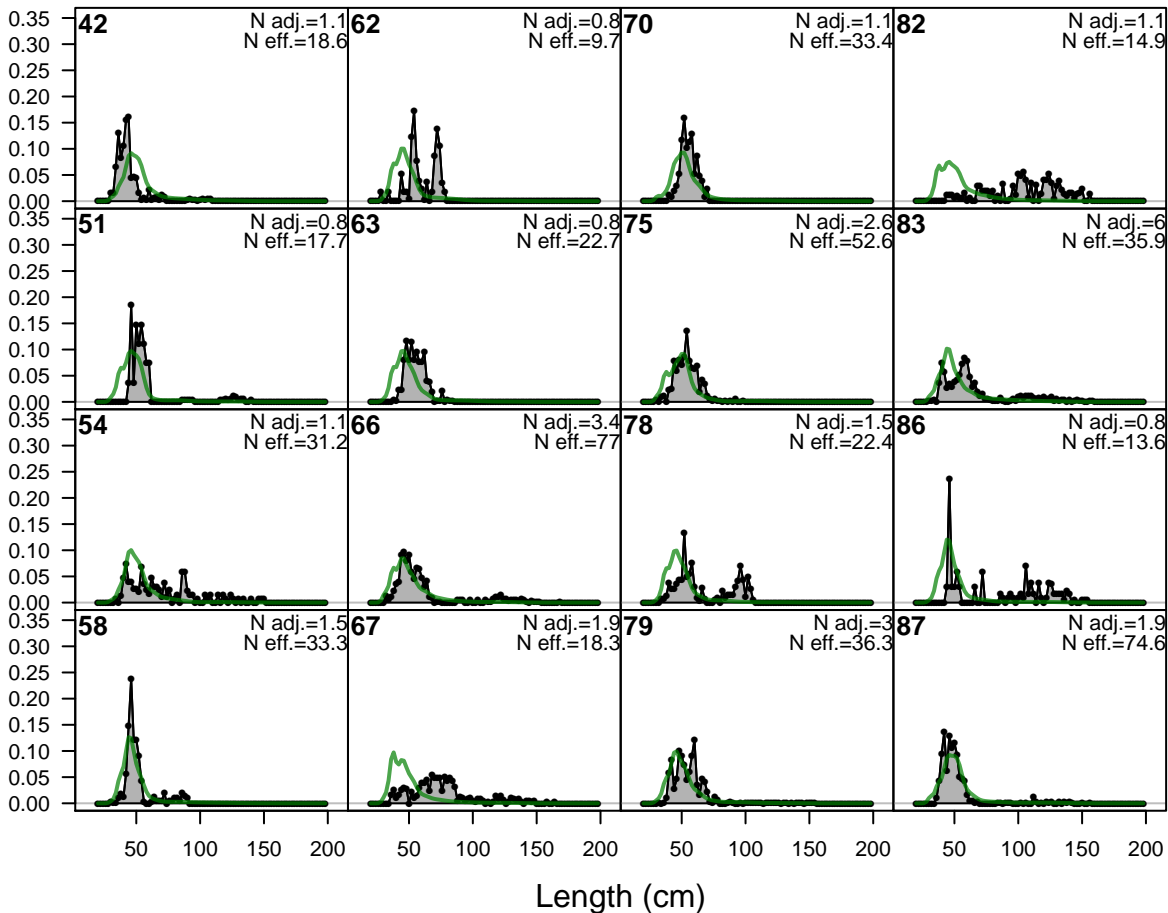




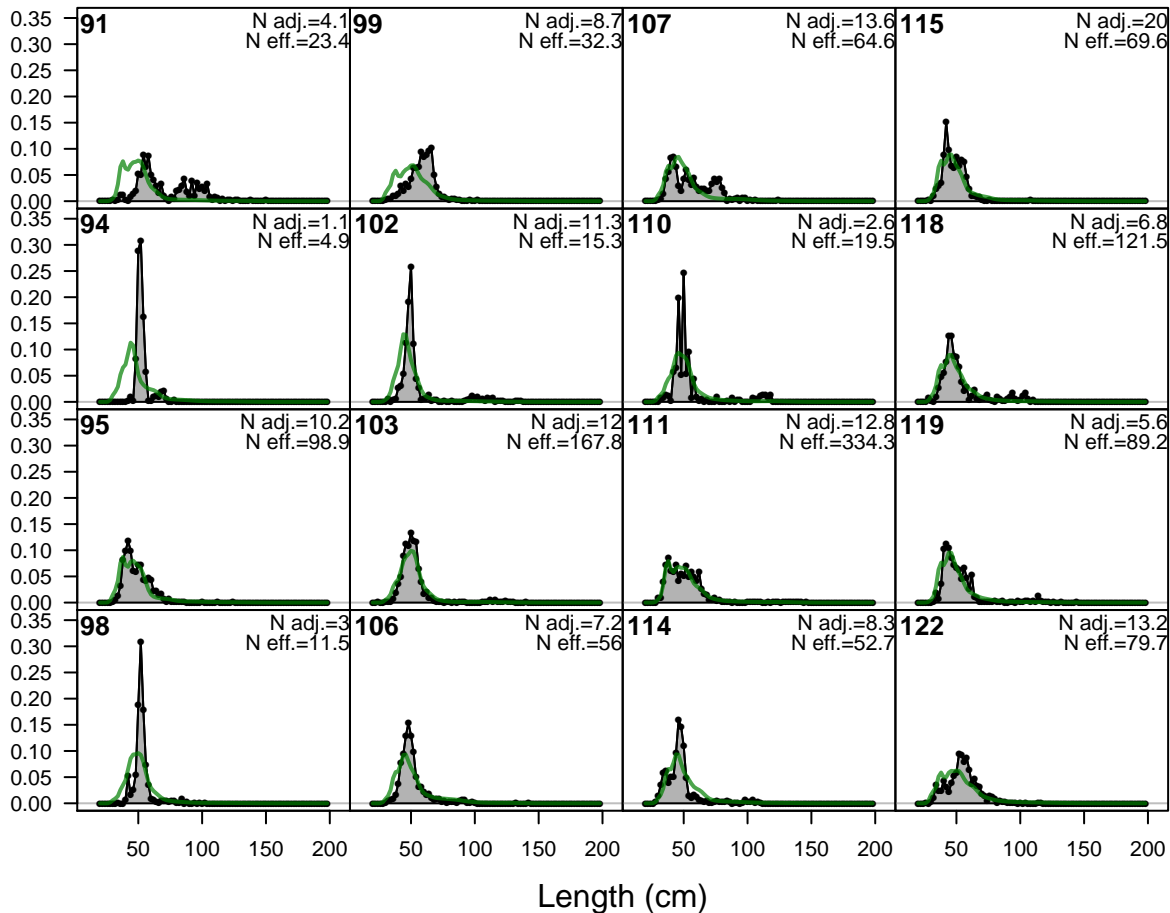
F5-OBJ\_S\_Q14 (whole catch)



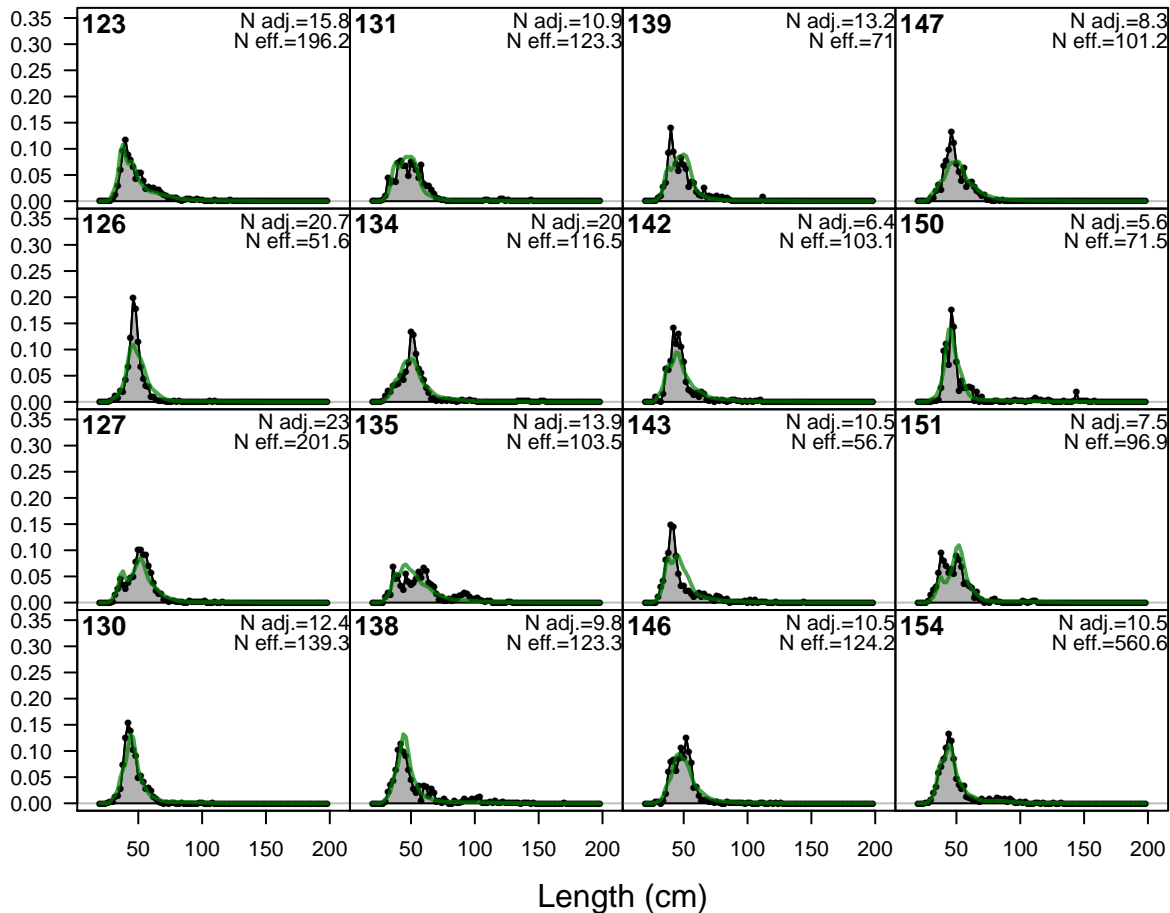
Proportion



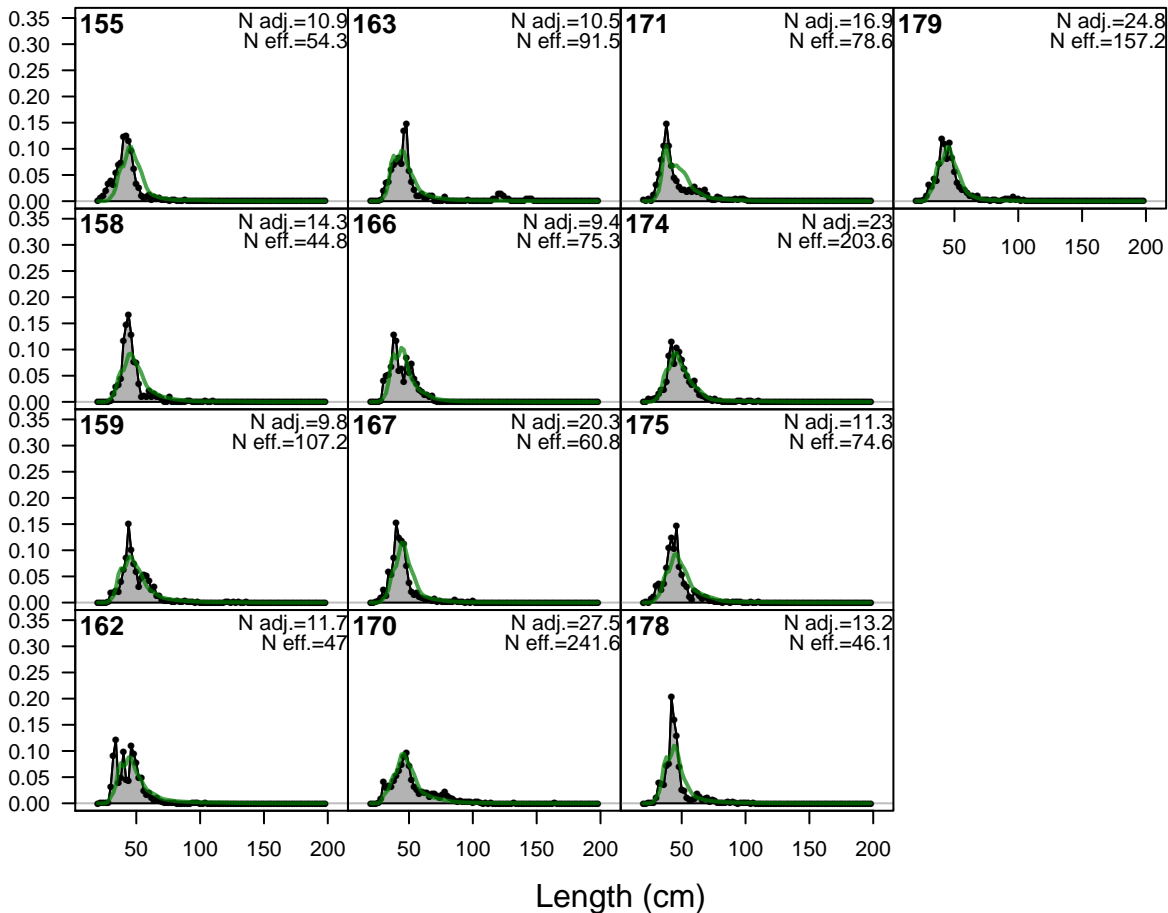
Proportion

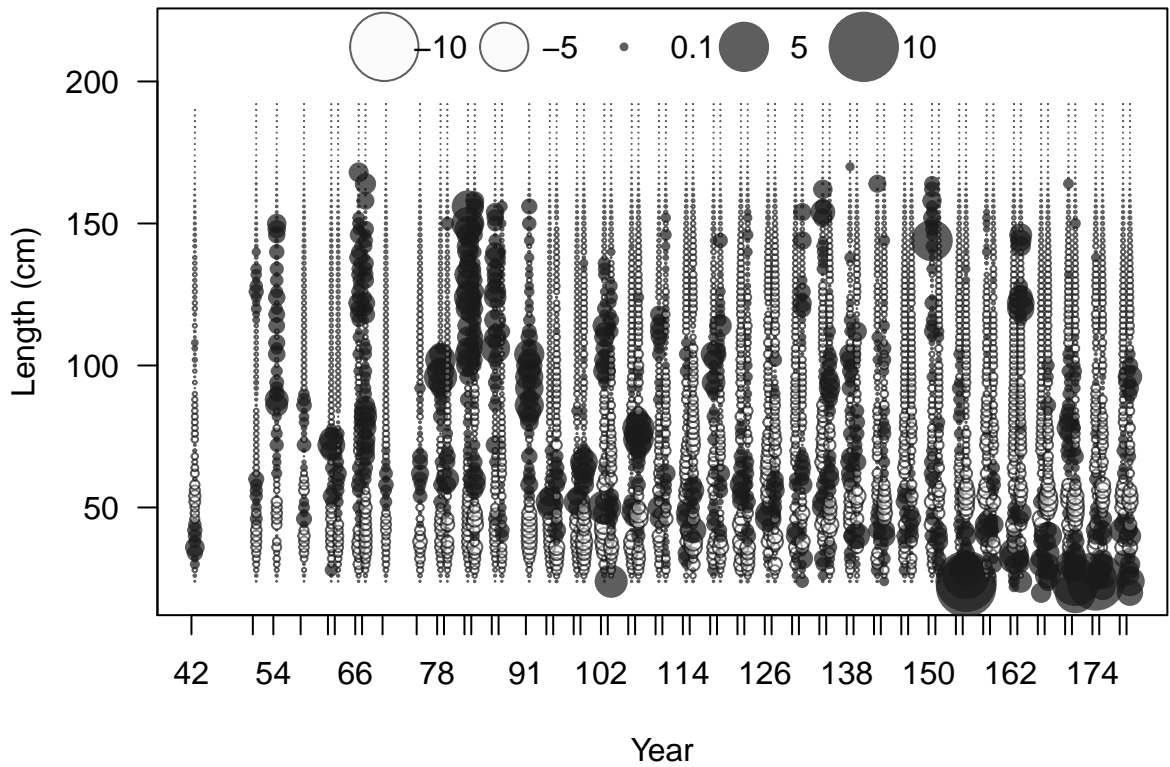


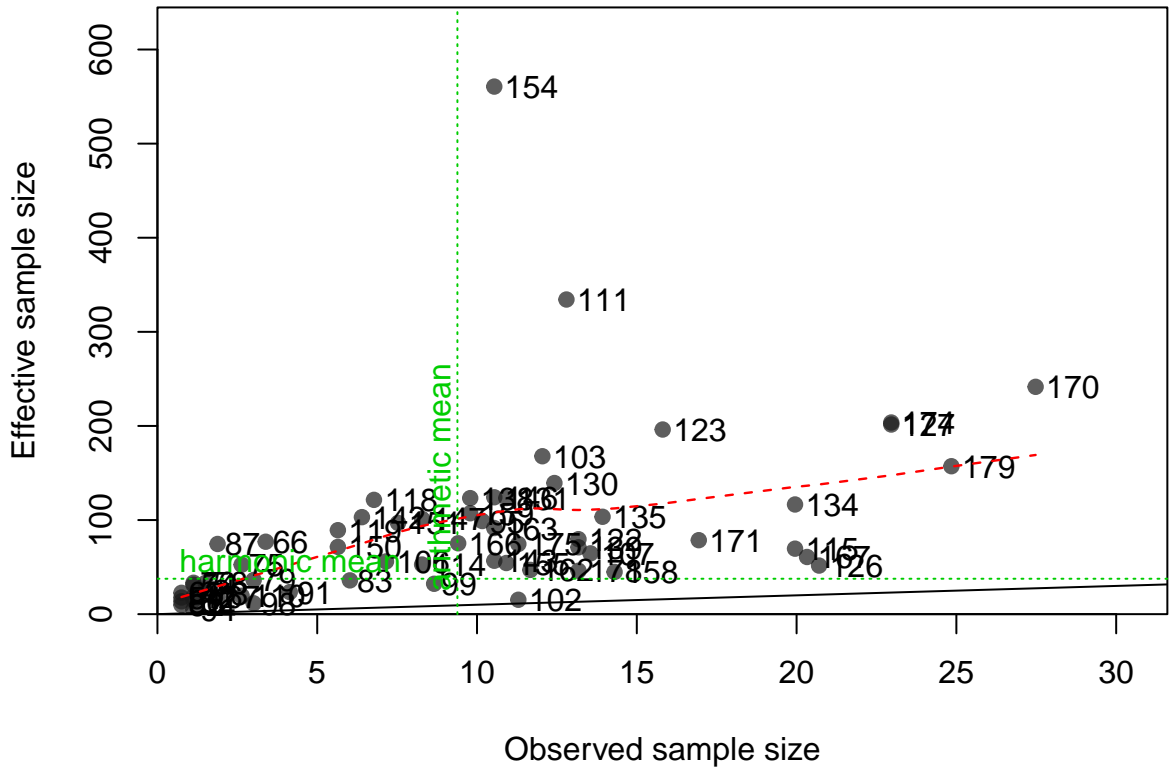
Proportion



Proportion

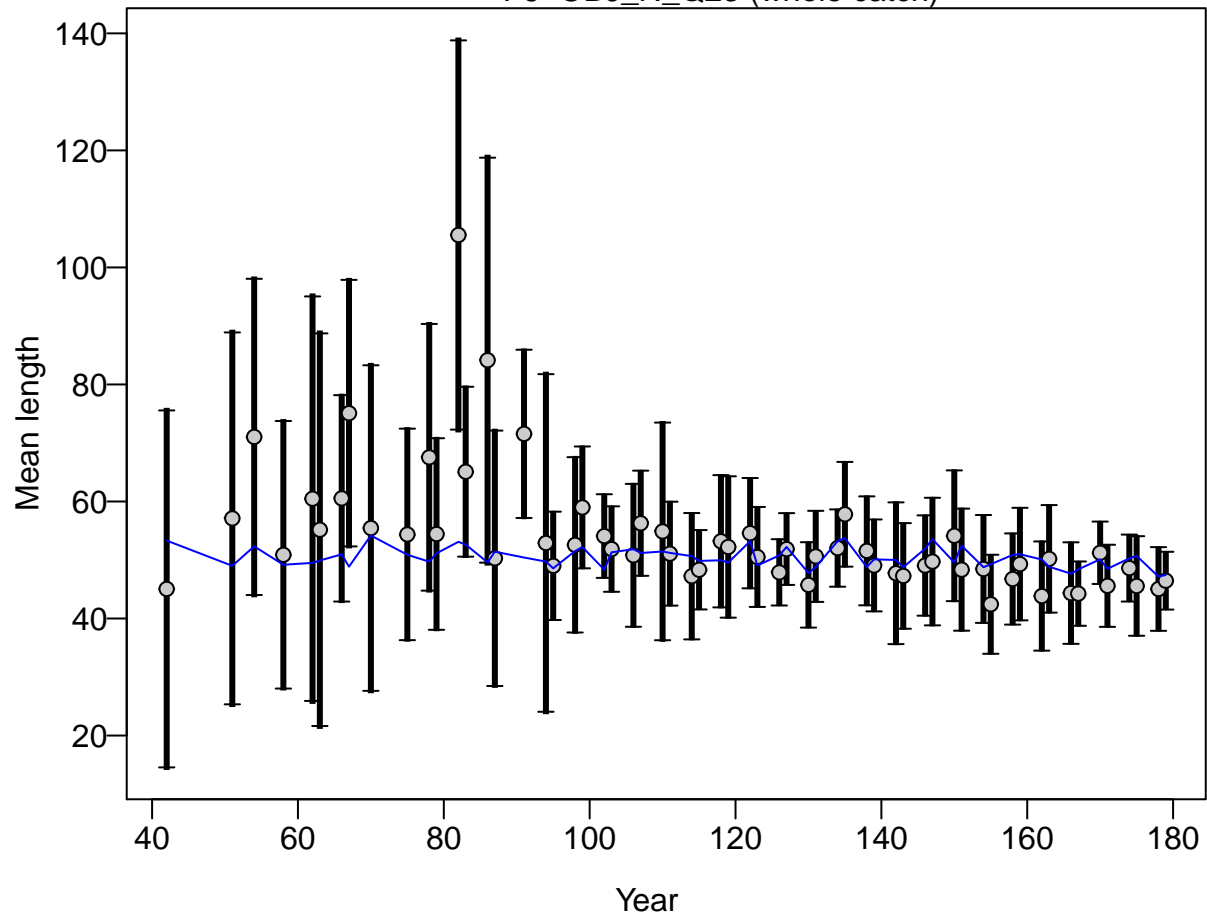




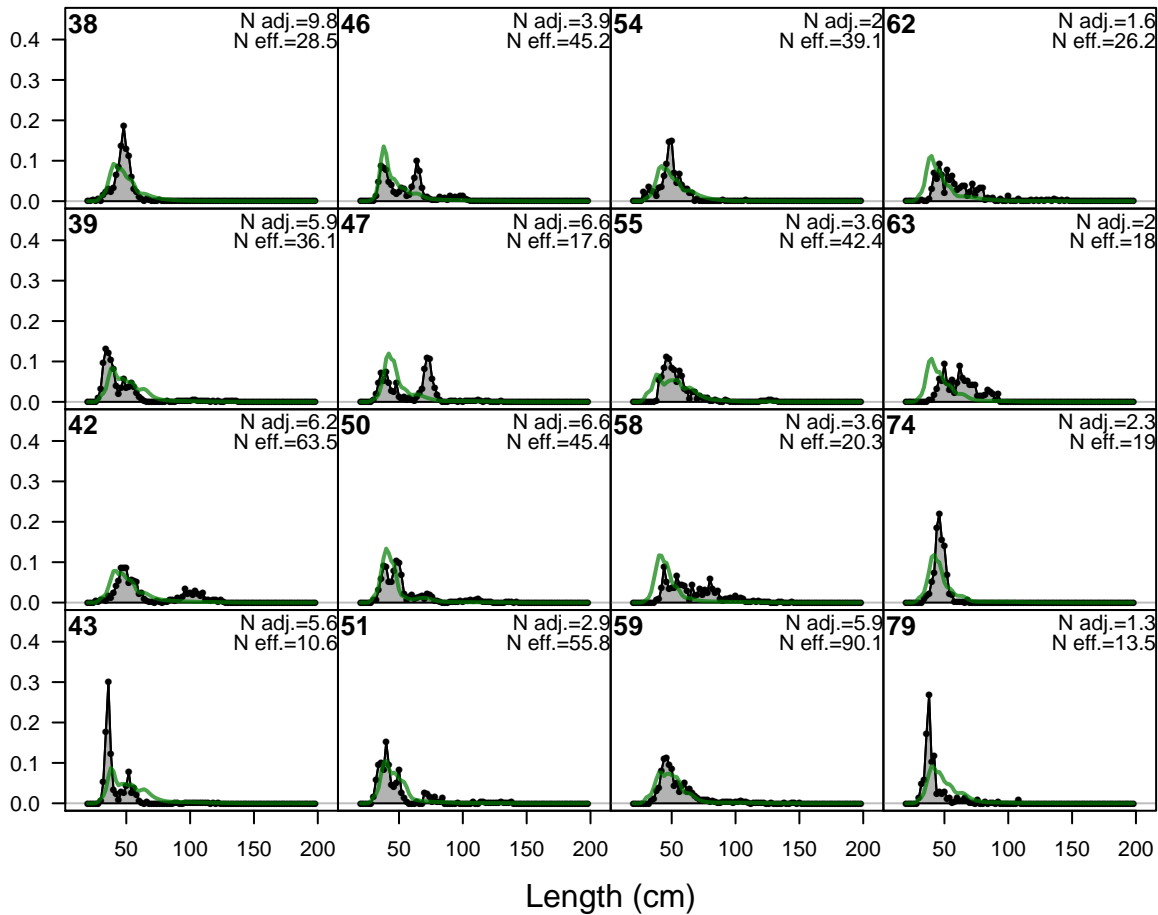




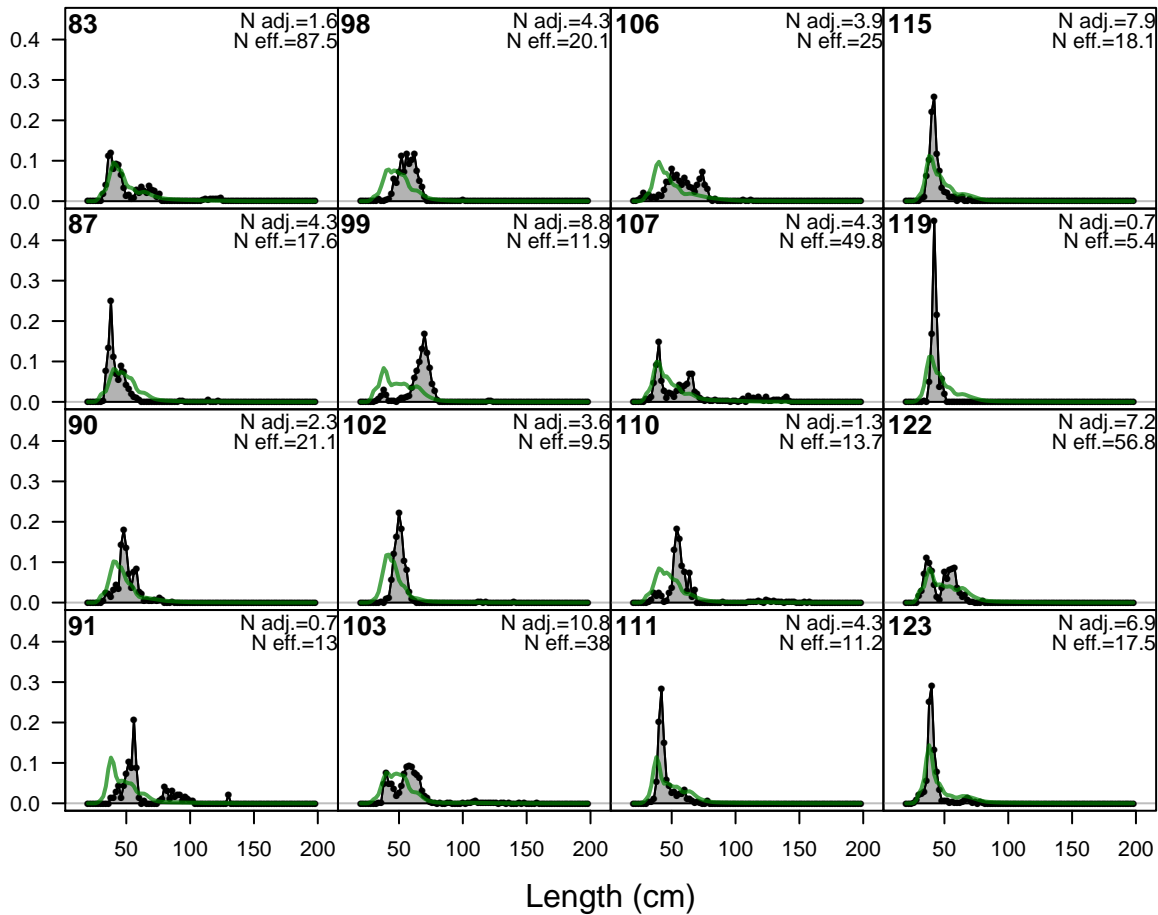
F6-OBJ\_N\_Q23 (whole catch)



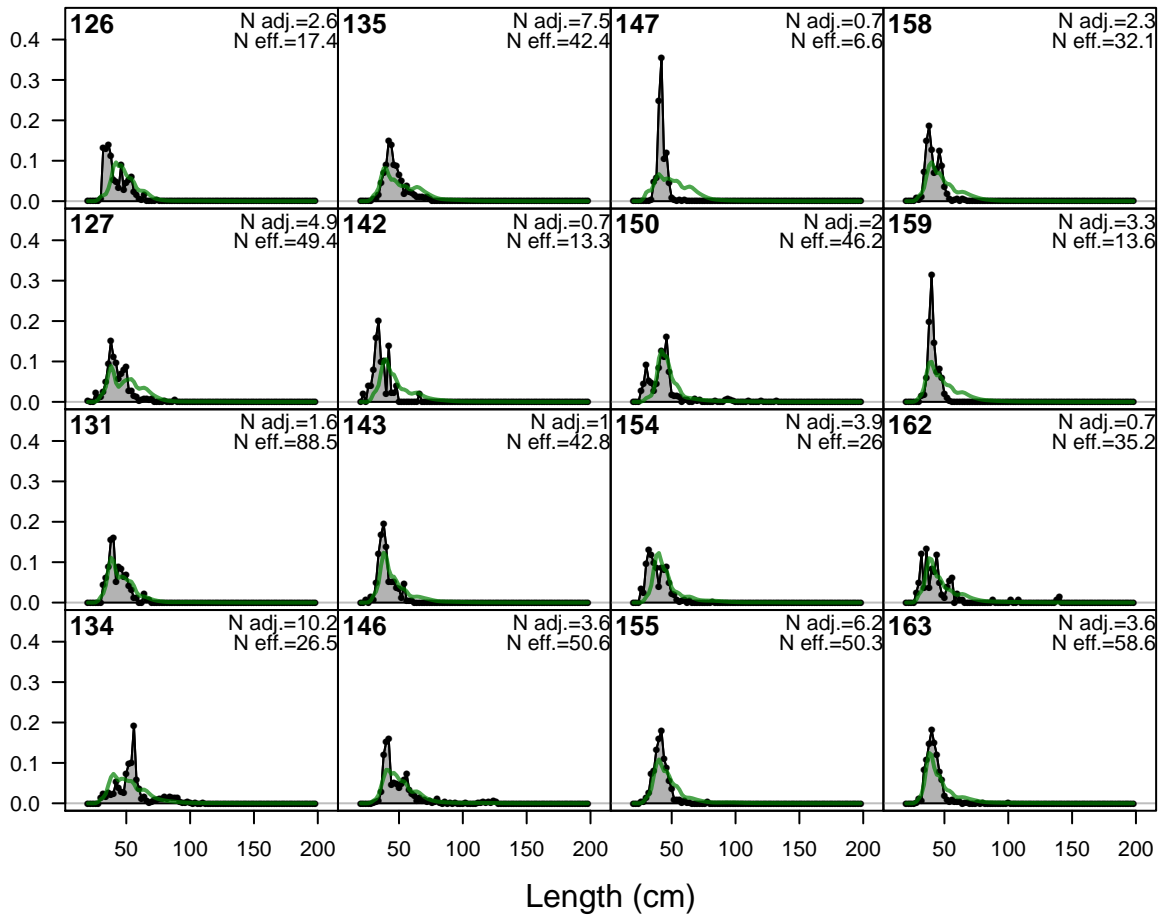
Proportion



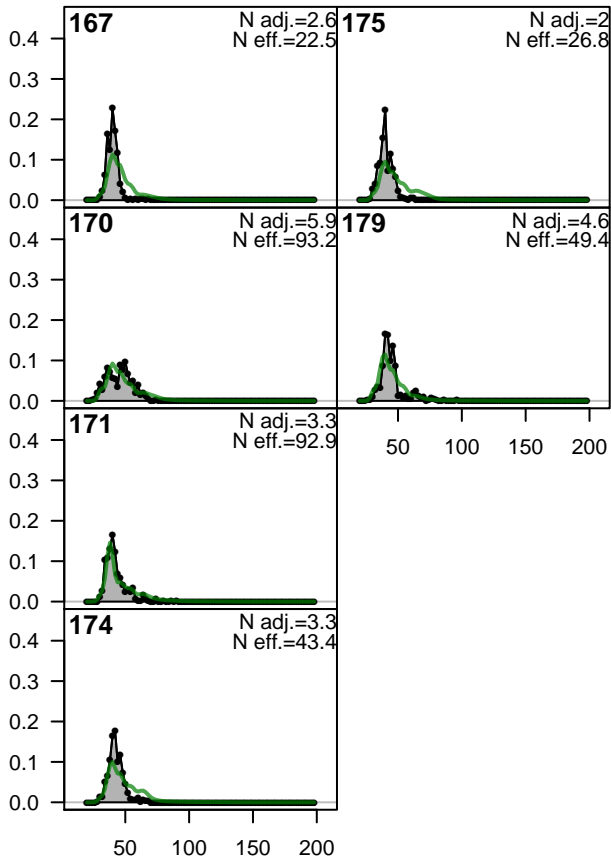
Proportion



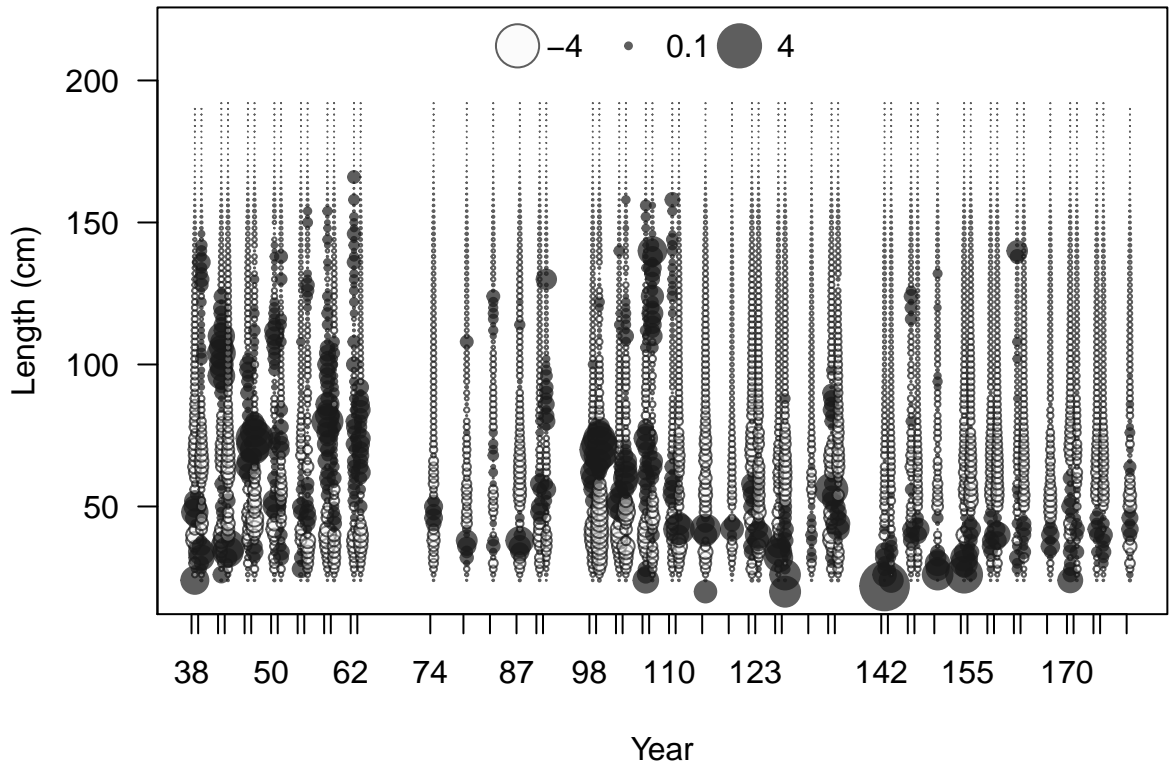
Proportion

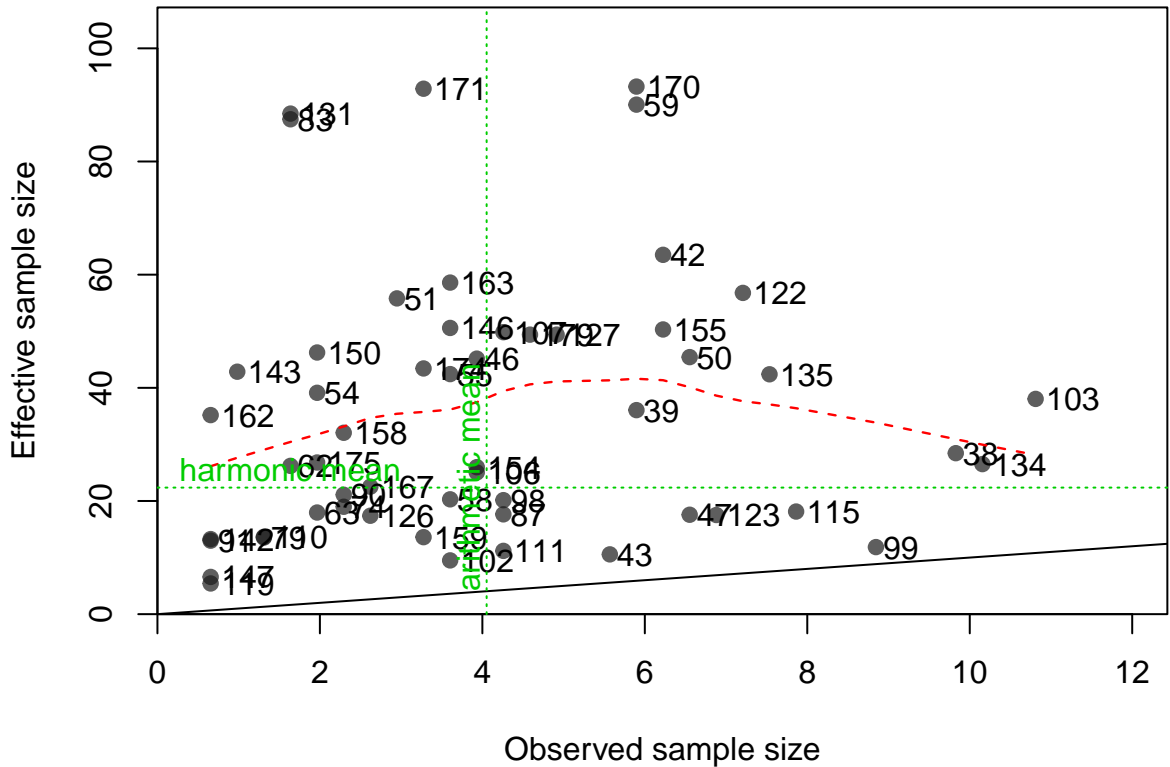


Proportion

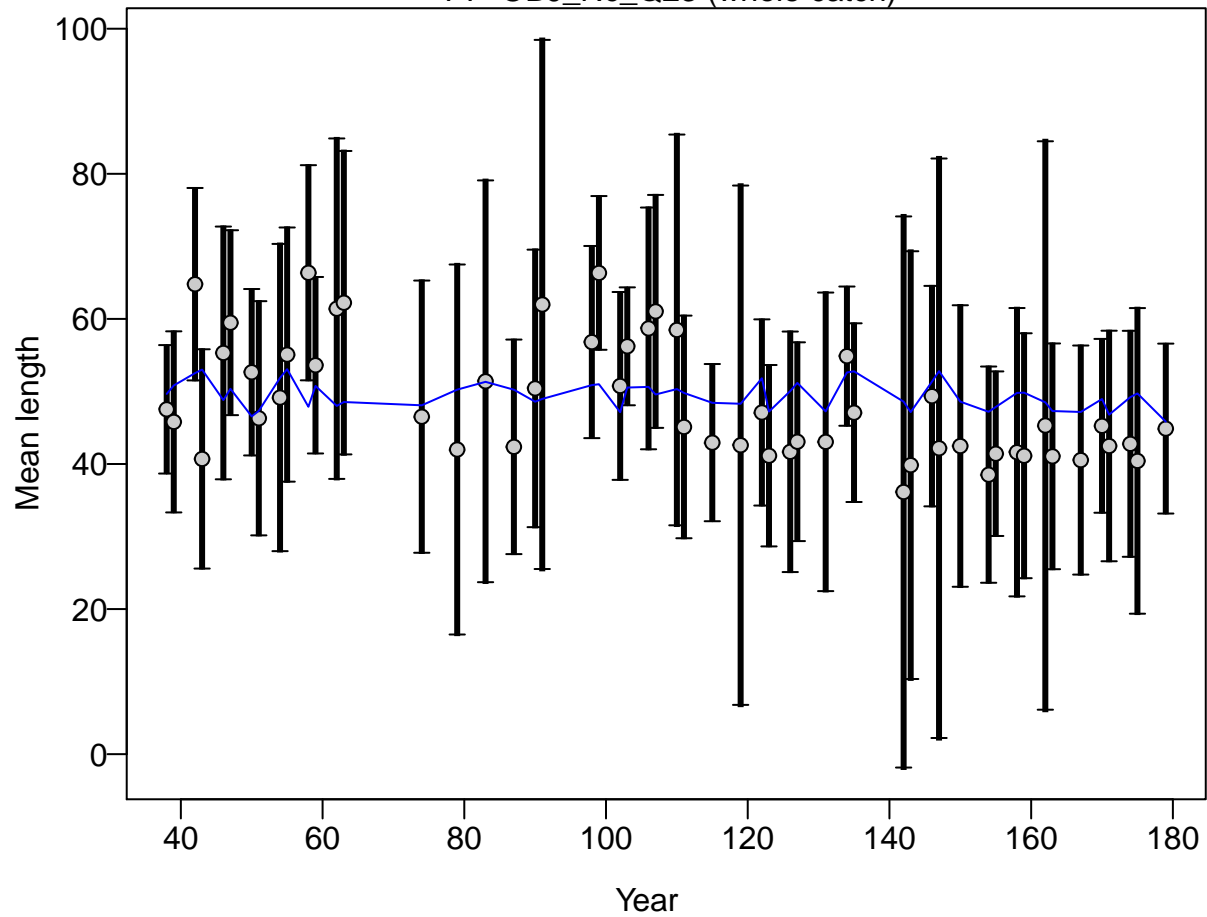


Length (cm)



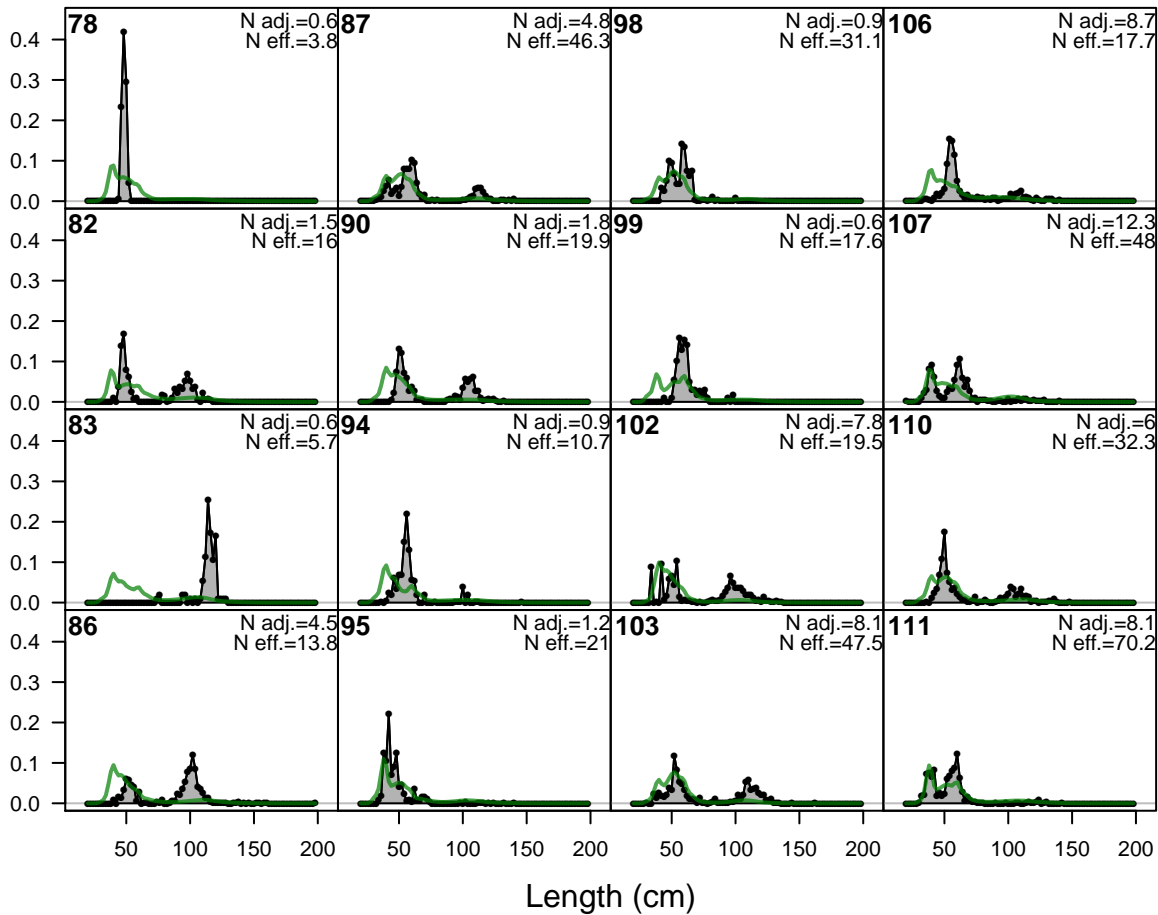


F7-OBJ\_Nc\_Q23 (whole catch)

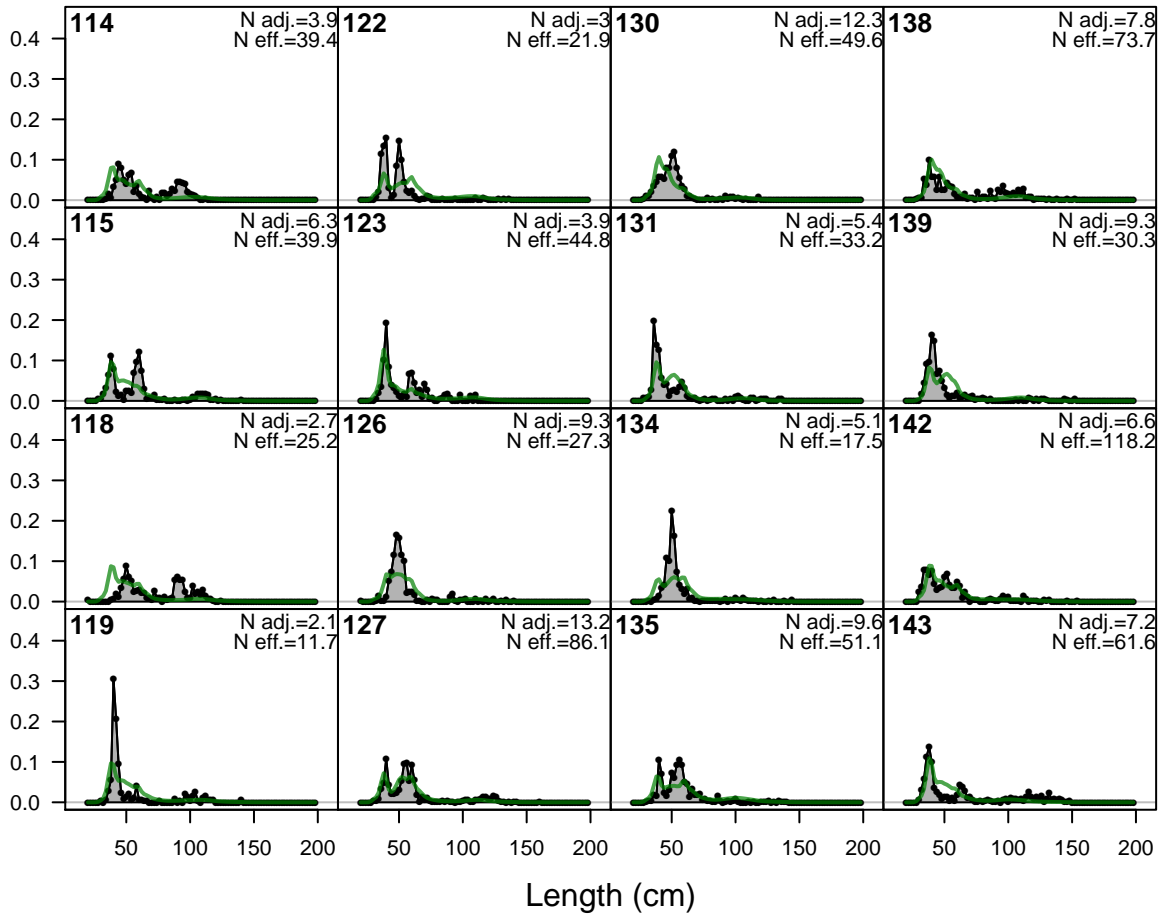




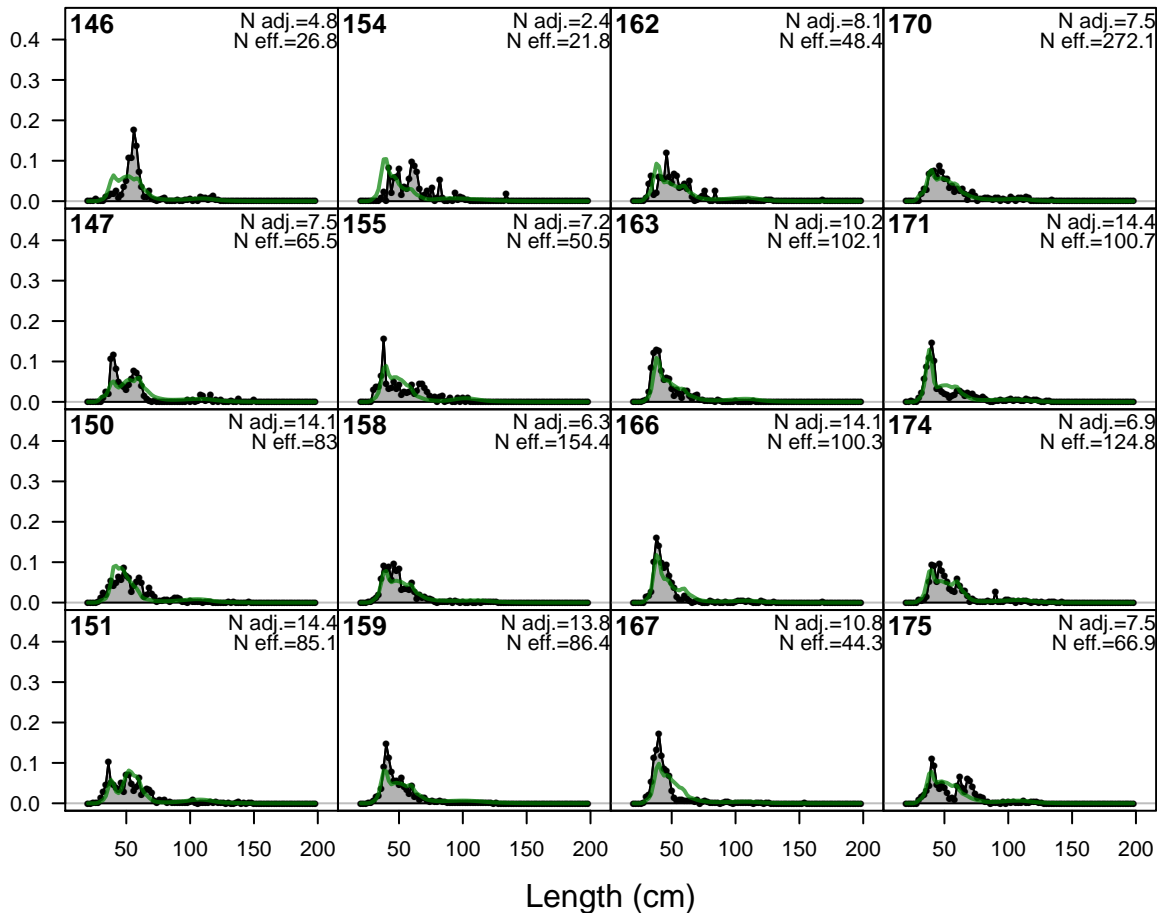
Proportion

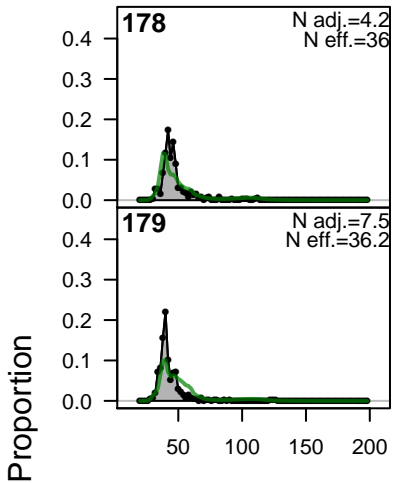


Proportion

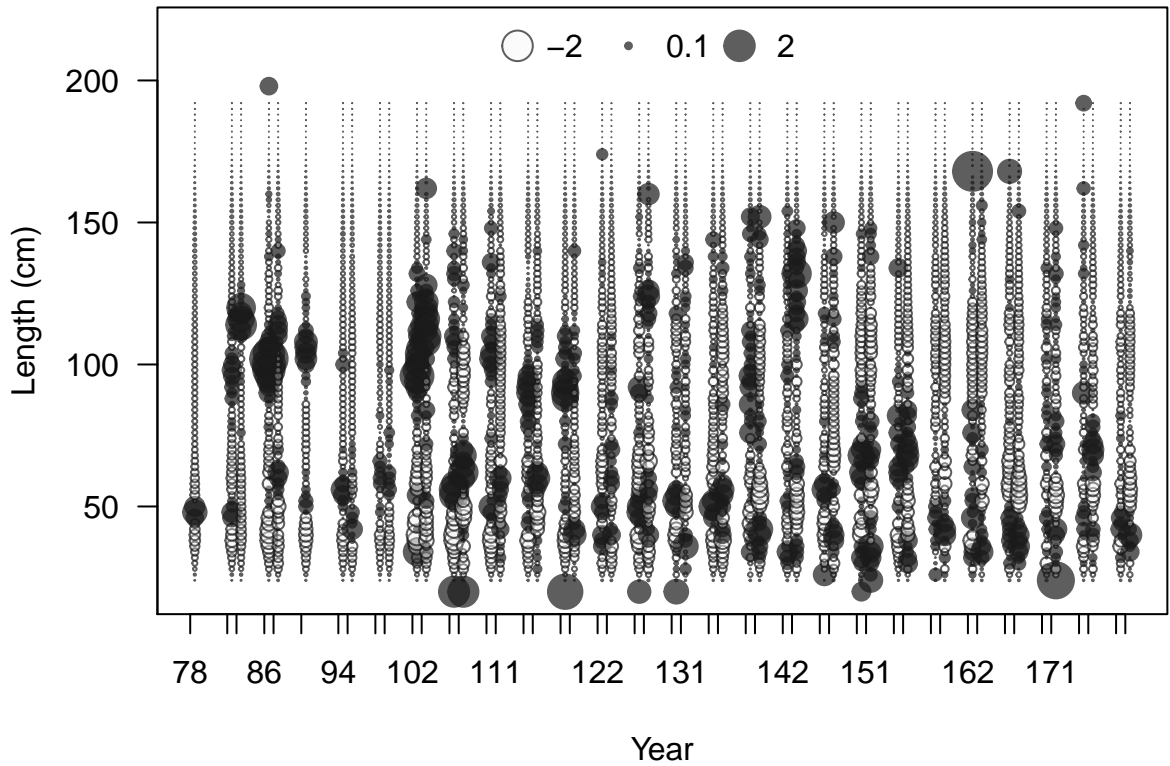


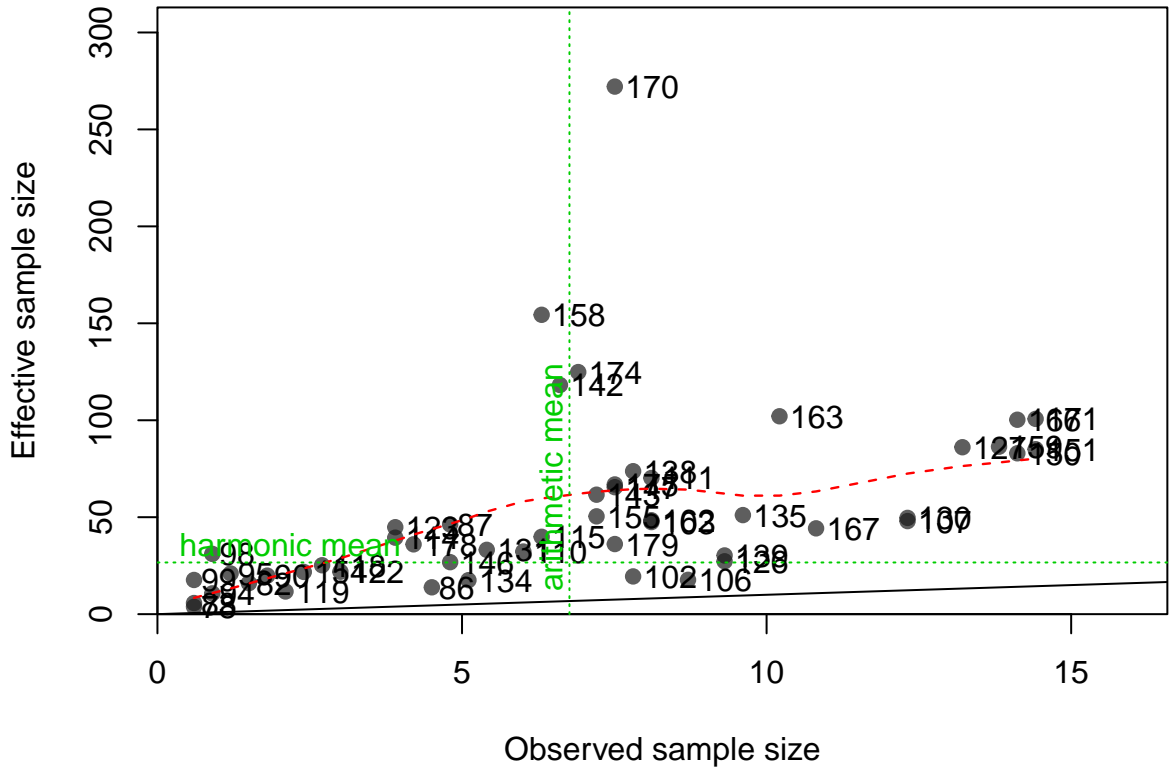
Proportion



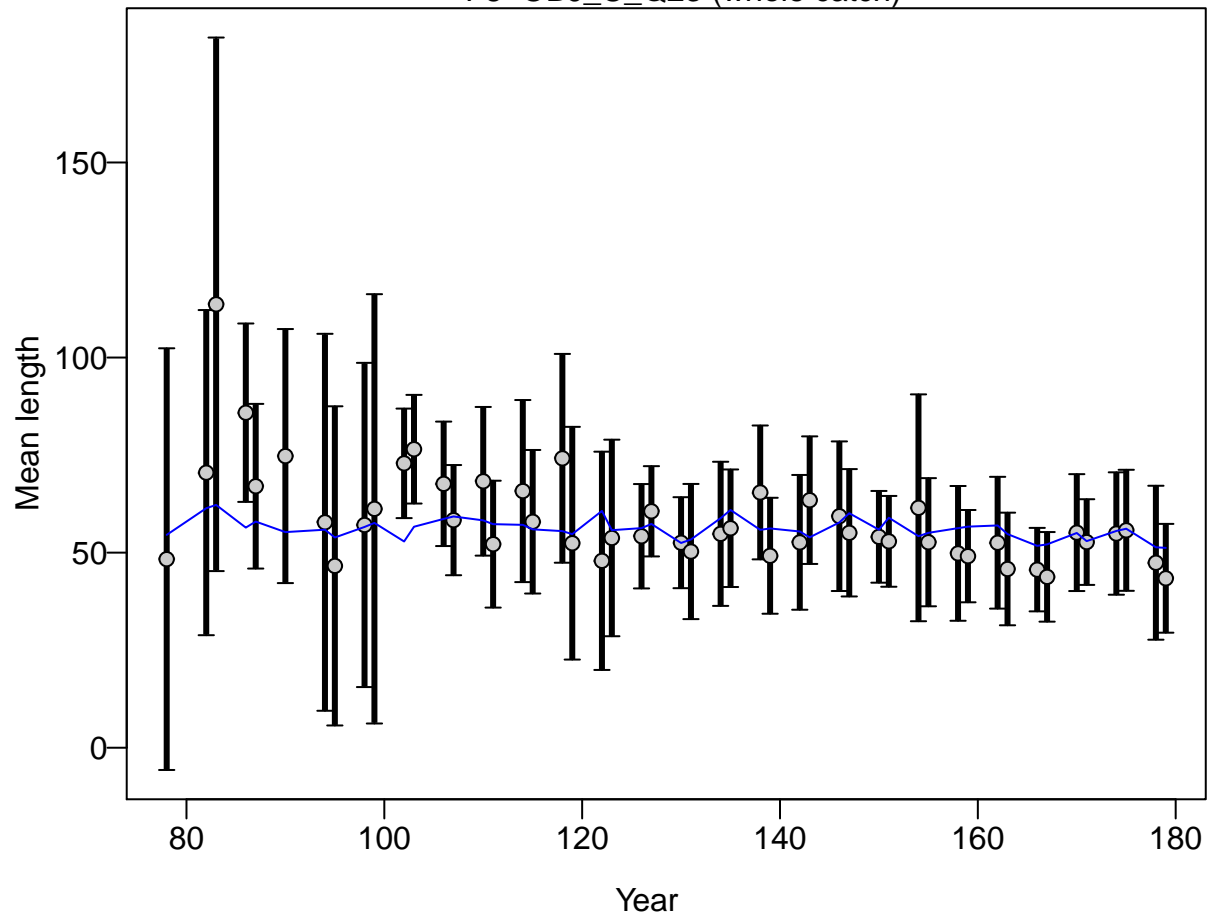


Length (cm)

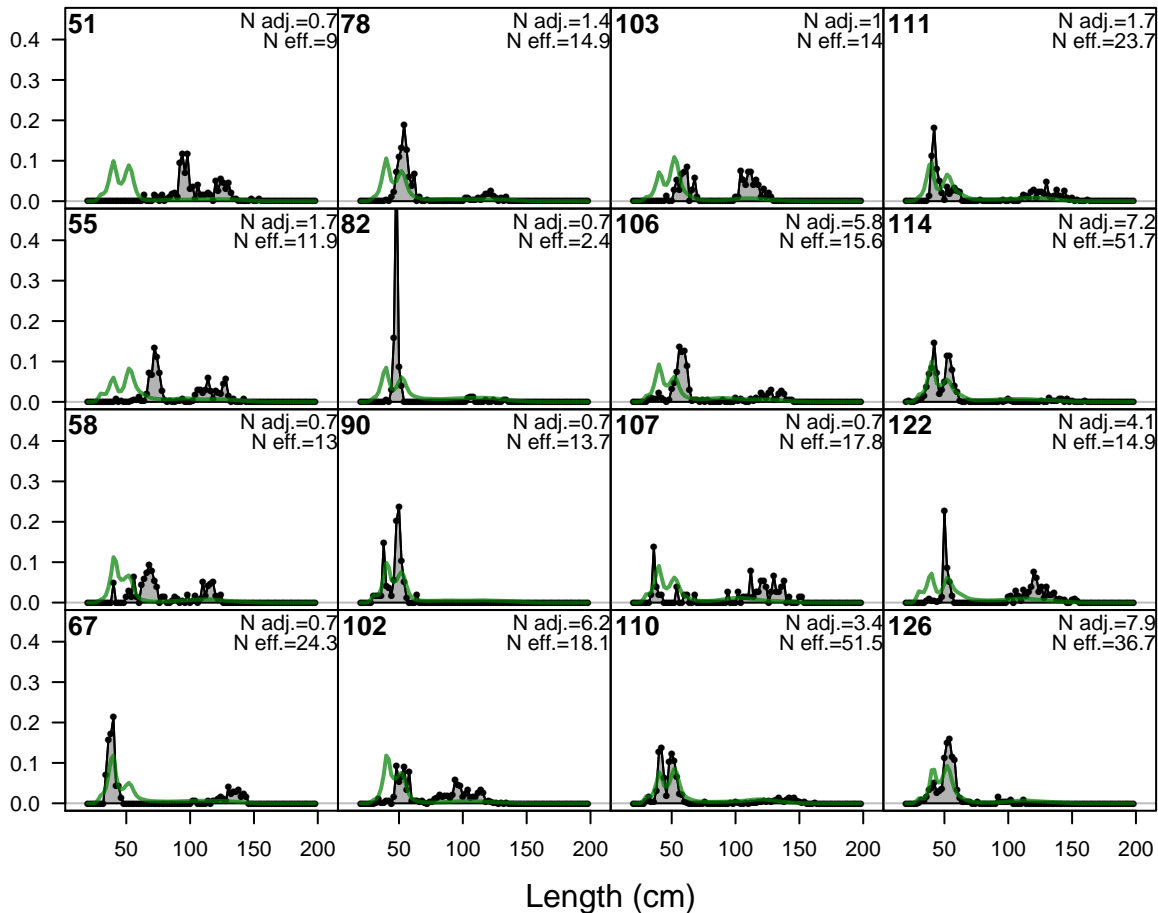




F8-OBJ\_C\_Q23 (whole catch)

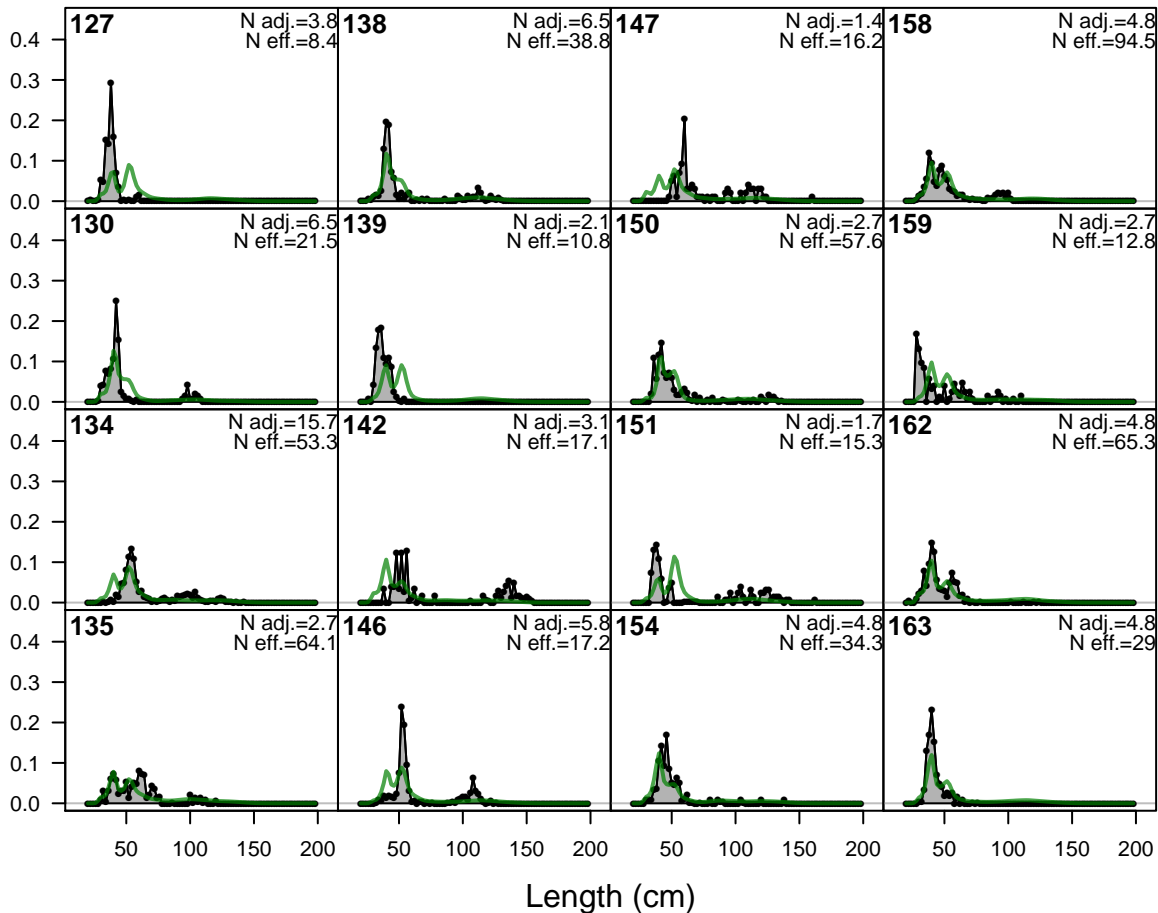


Proportion

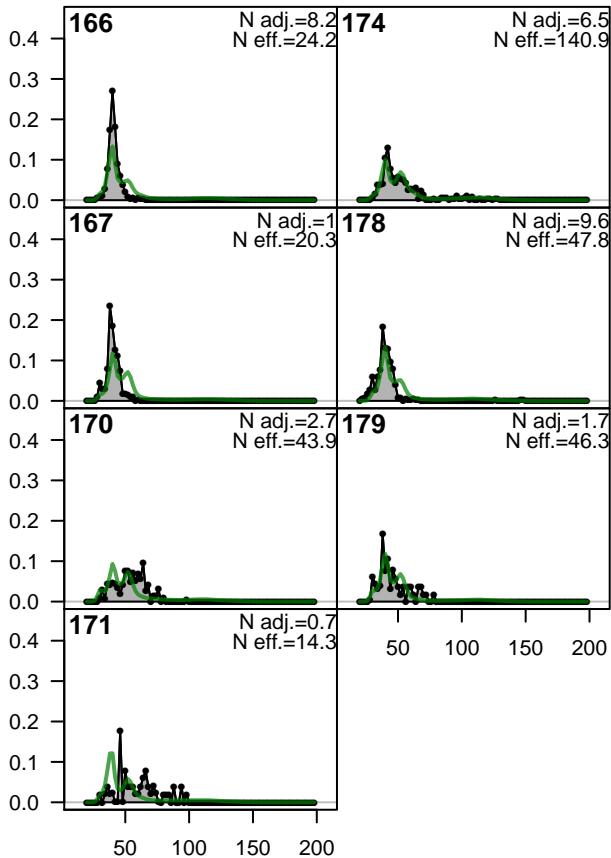




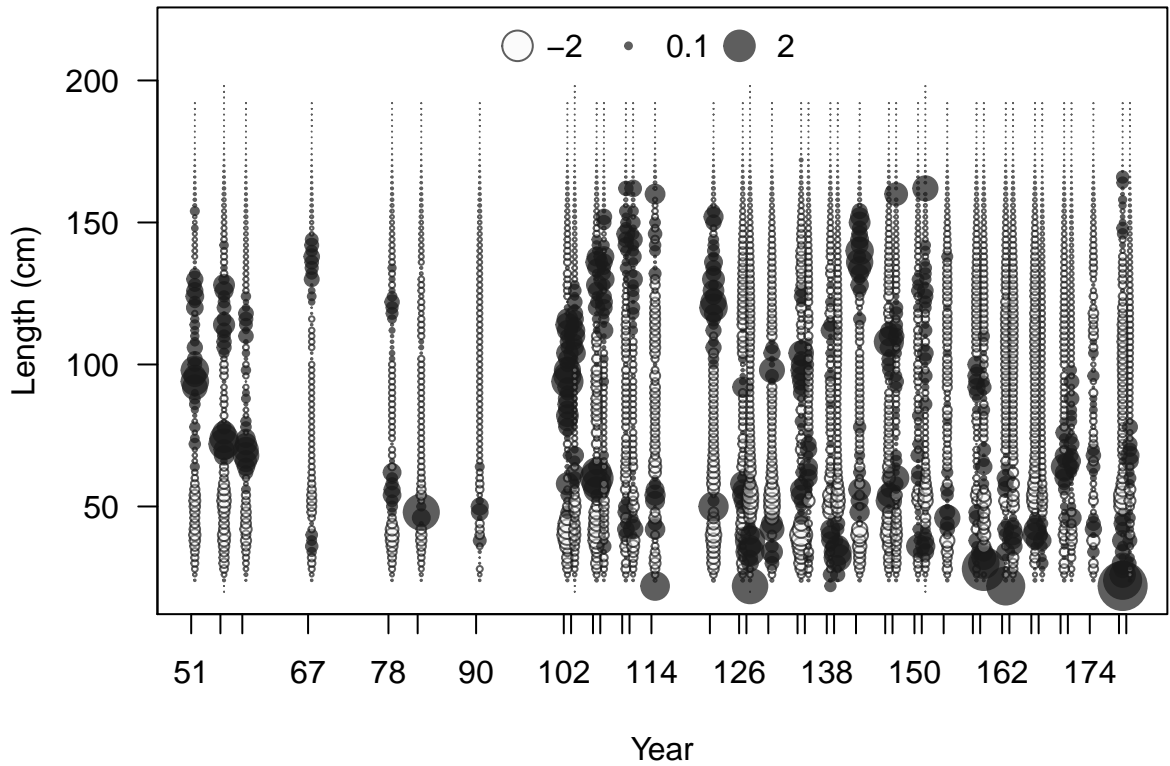
Proportion



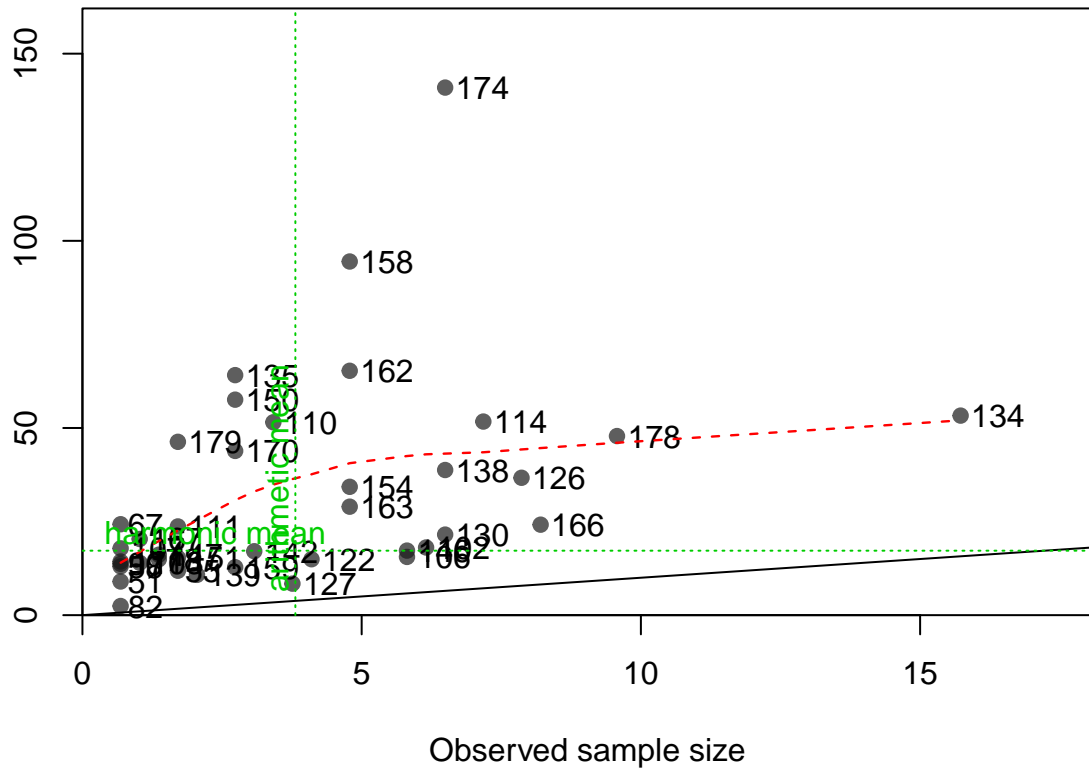
Proportion



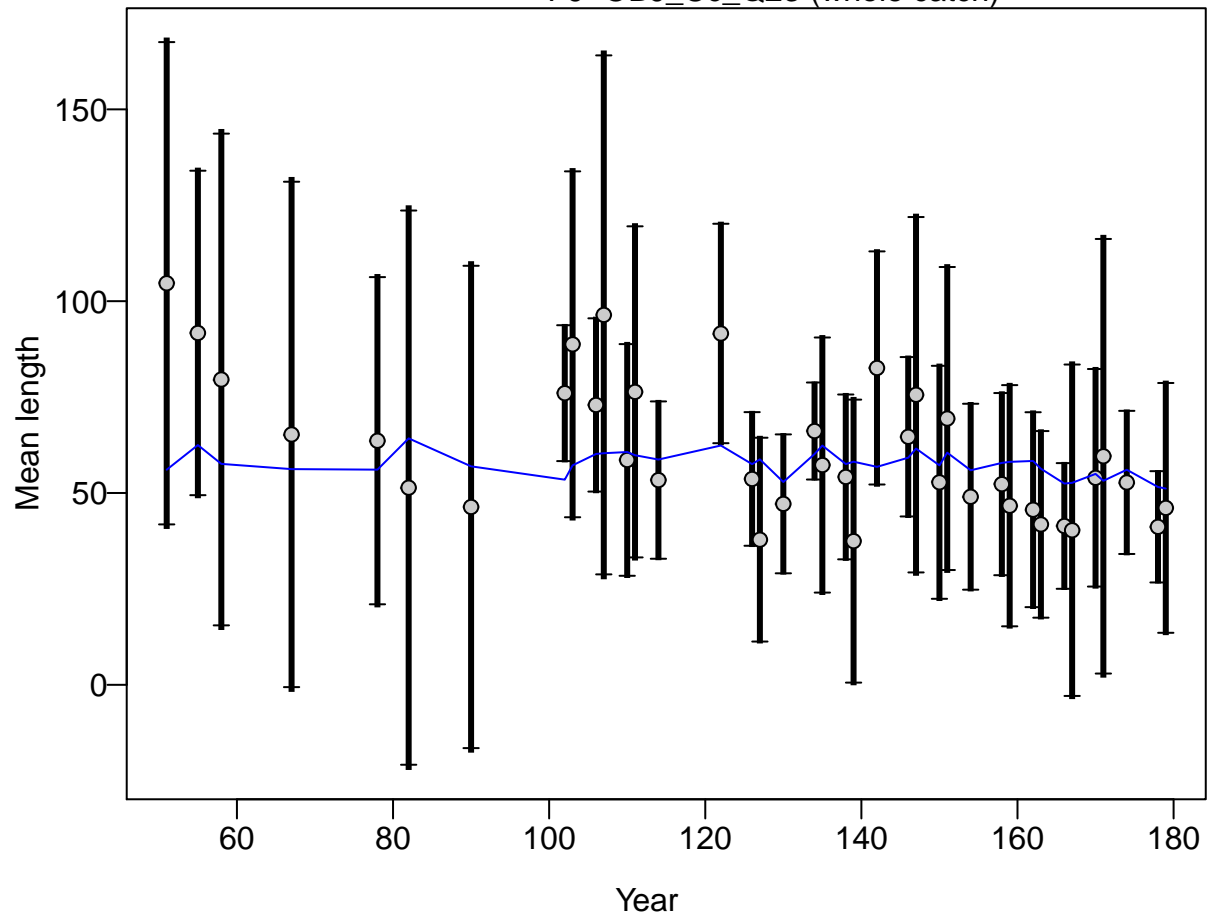
Length (cm)



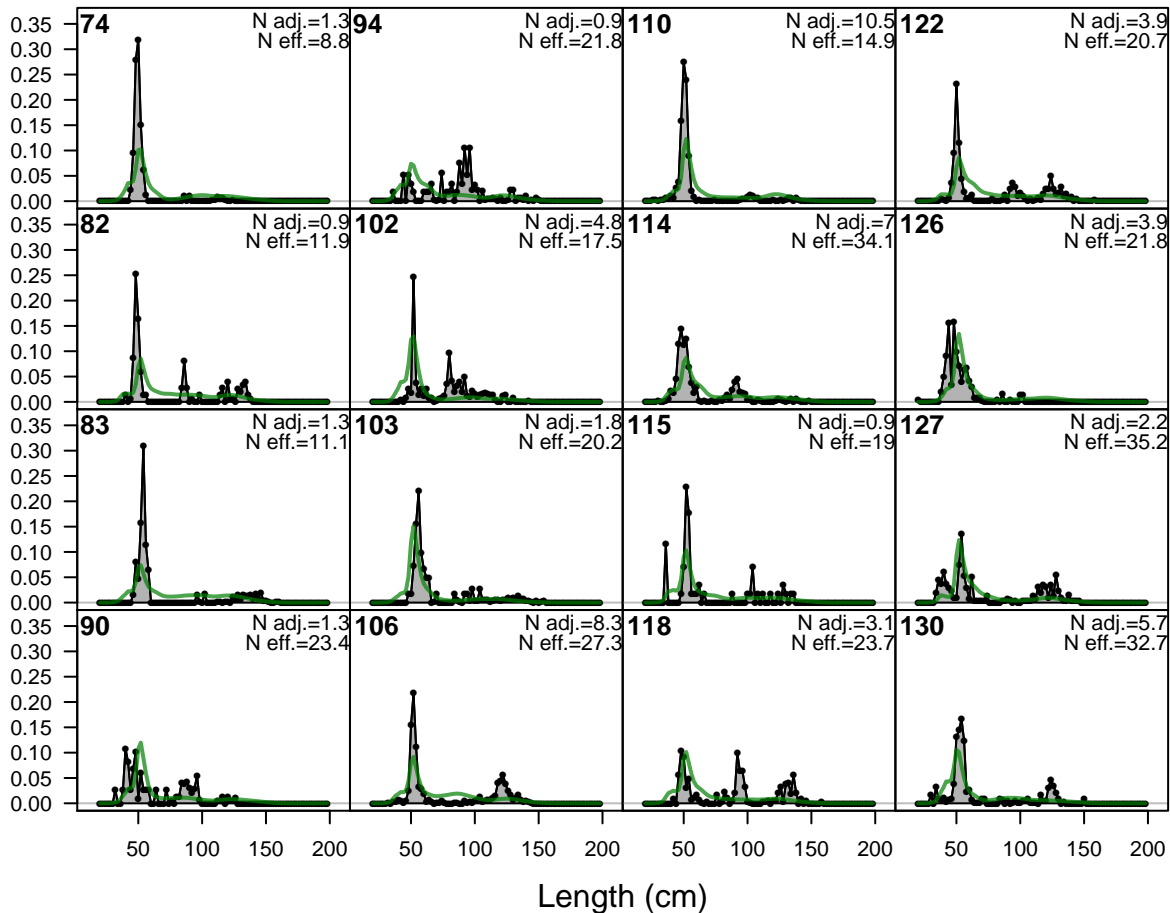
Effective sample size



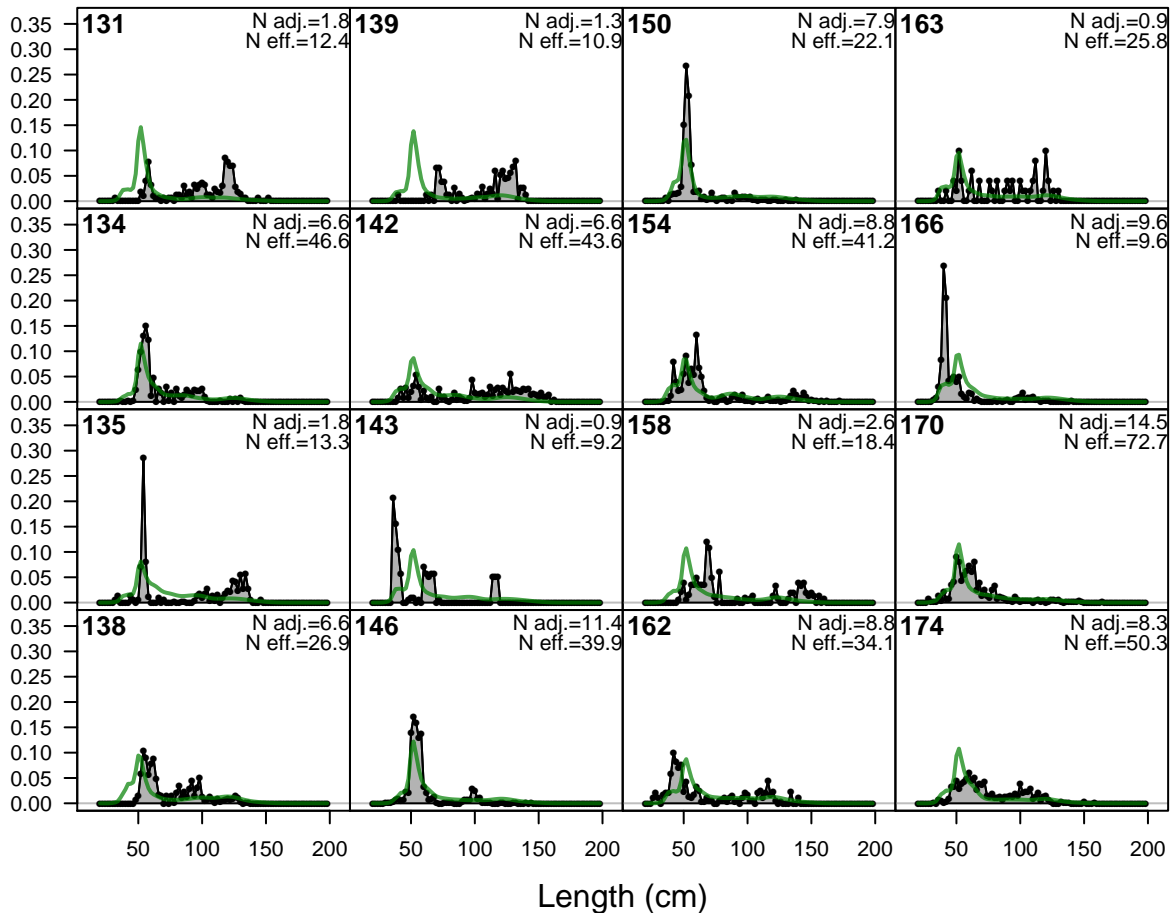
F9-OBJ\_Cc\_Q23 (whole catch)

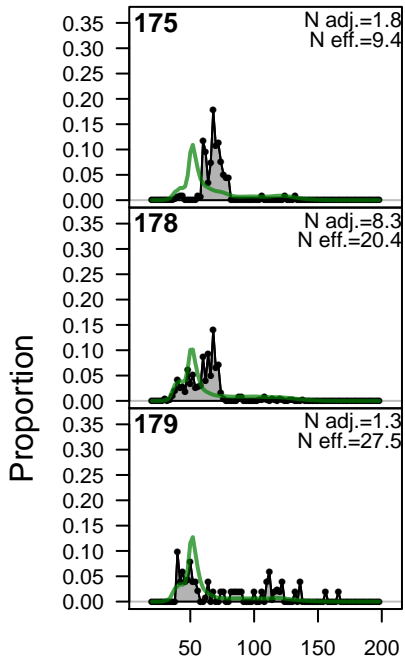


Proportion



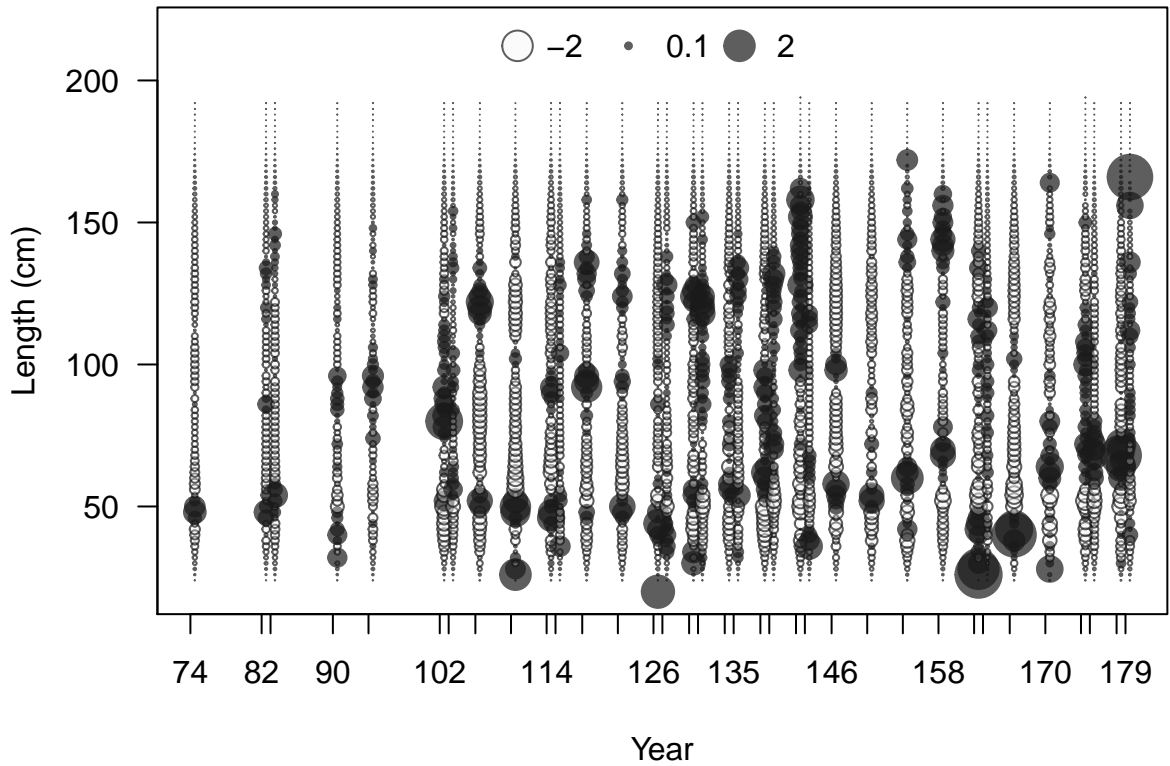
Proportion

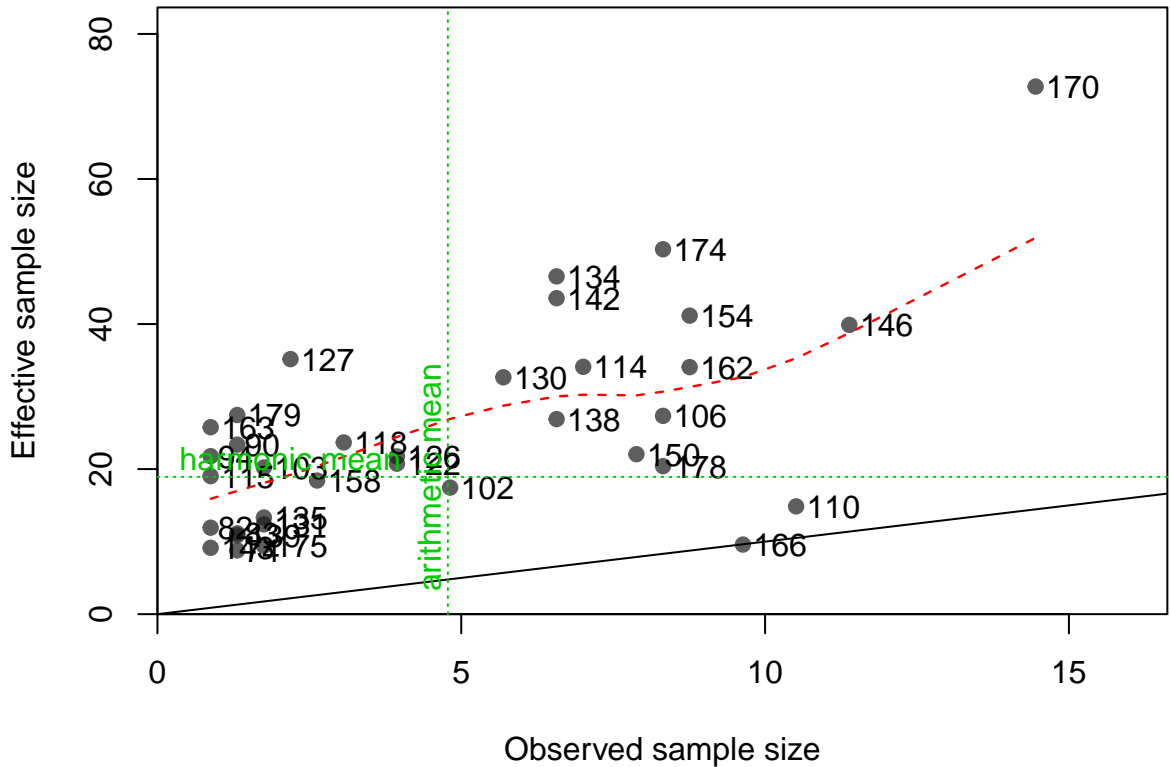




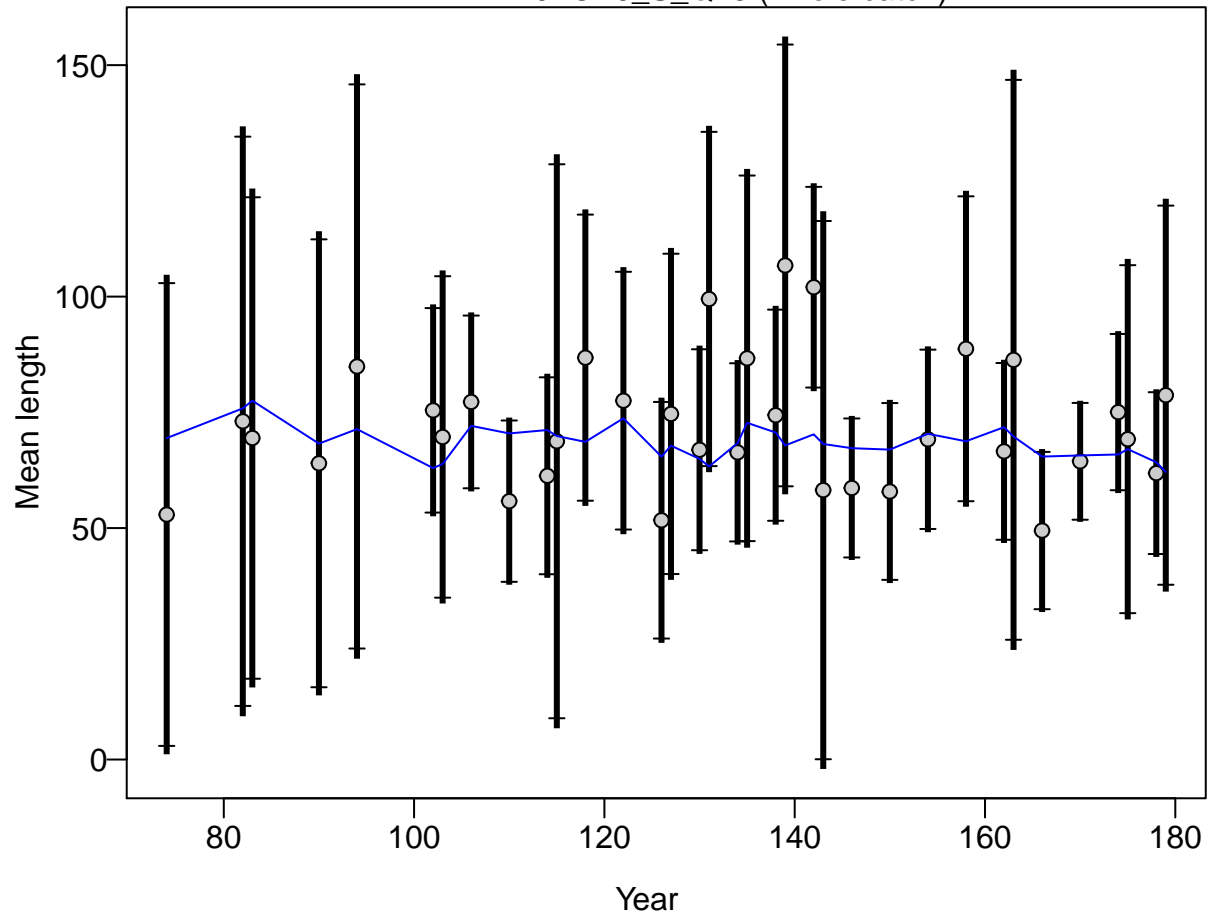
Length (cm)



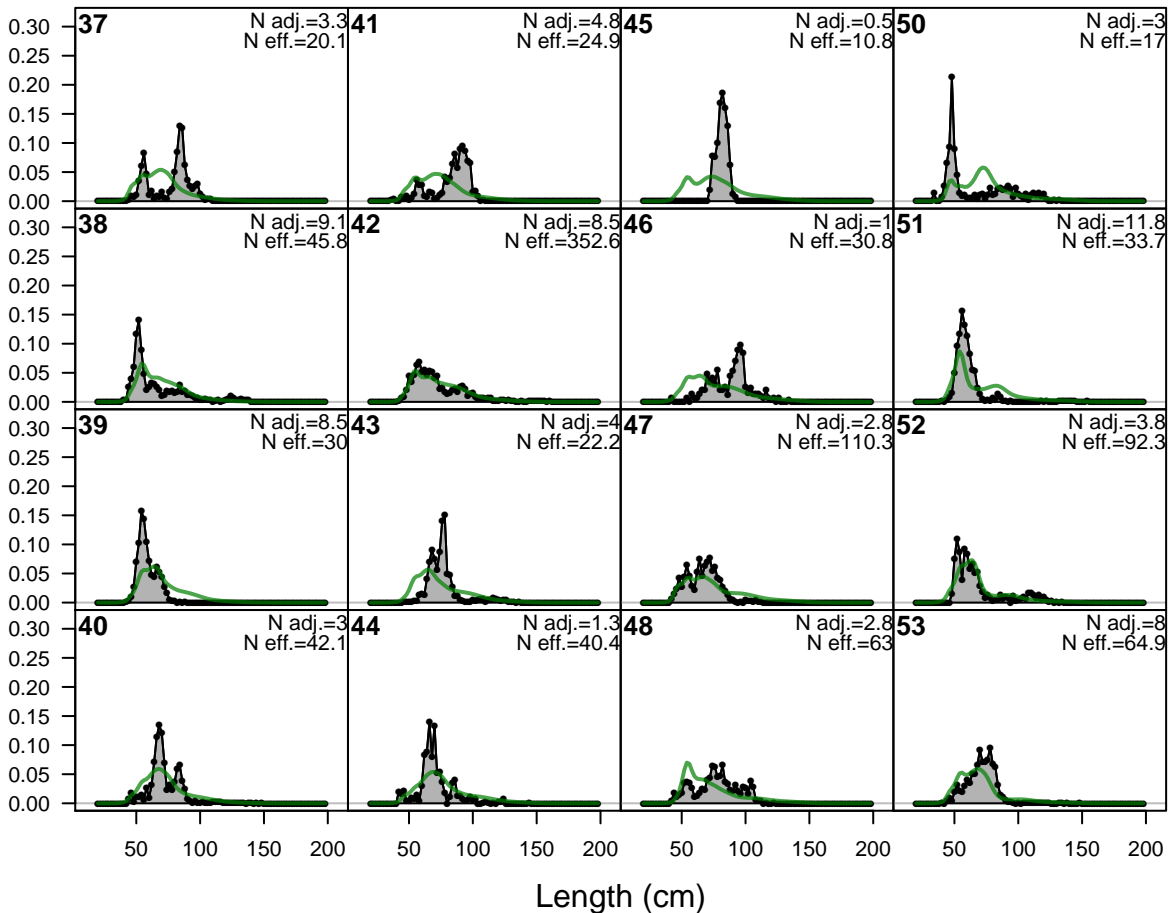




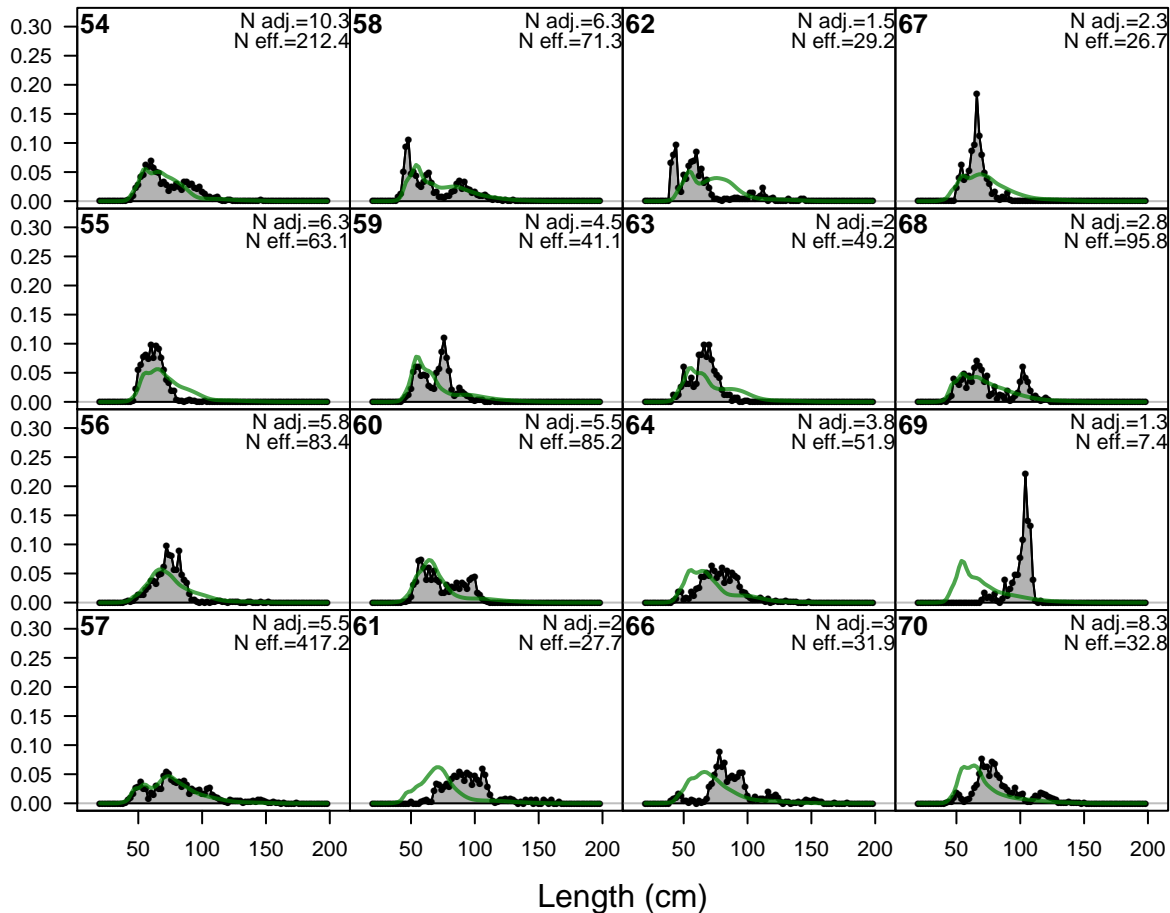
F10-OBJ\_S\_Q23 (whole catch)



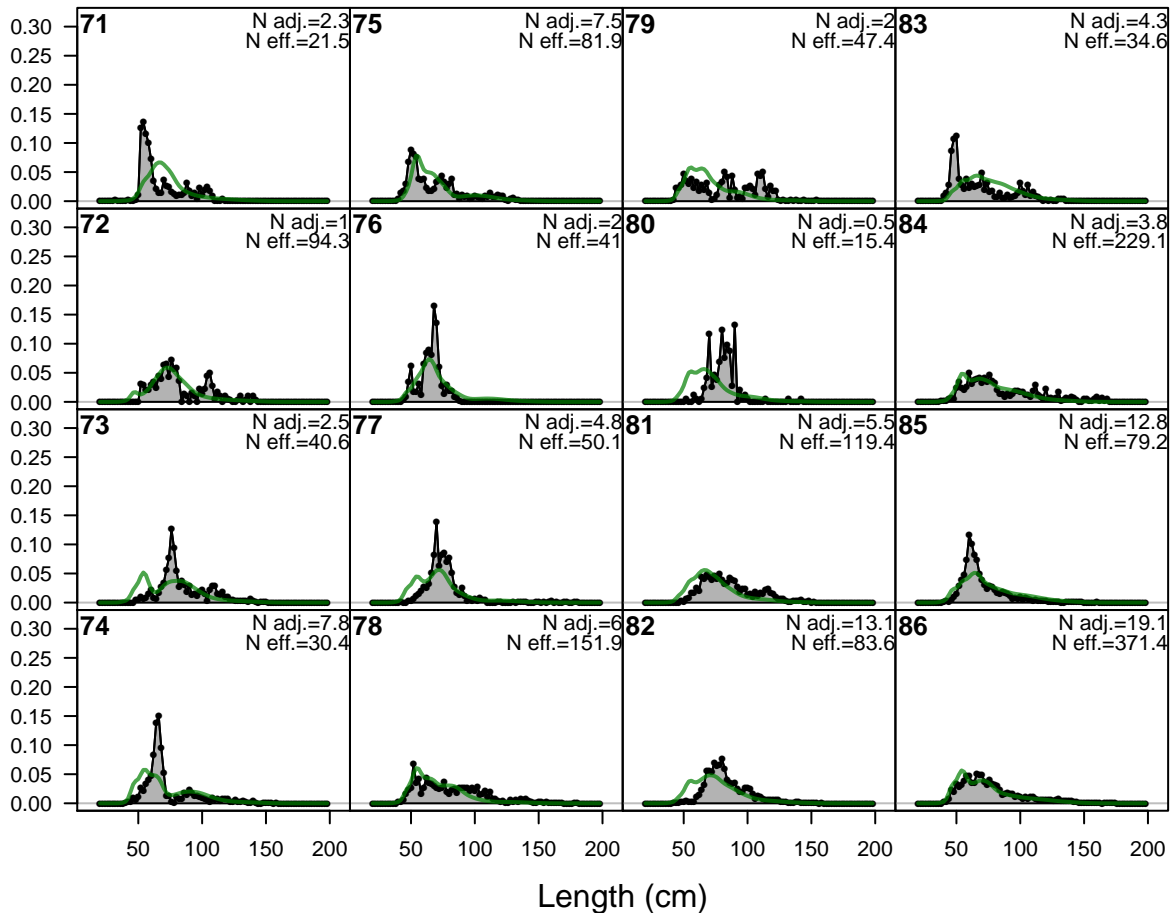
Proportion



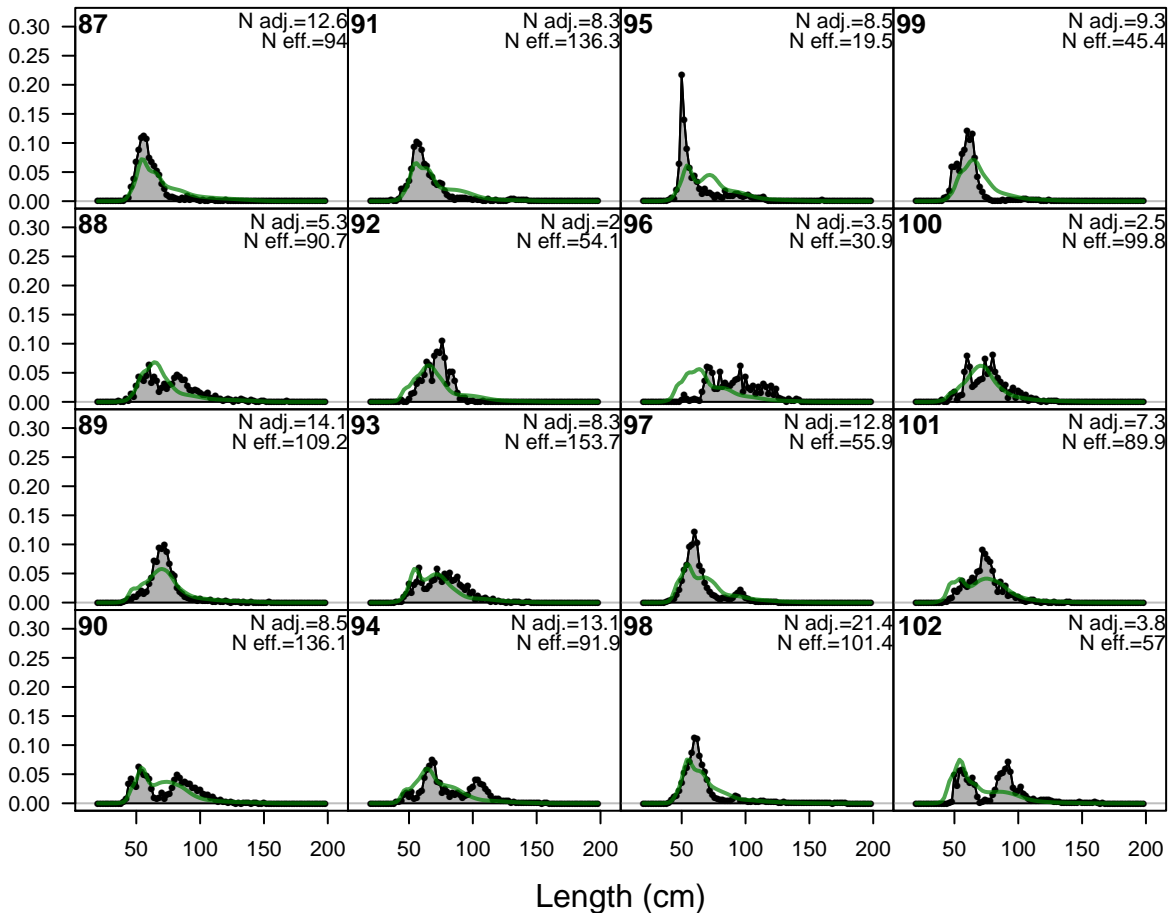
Proportion



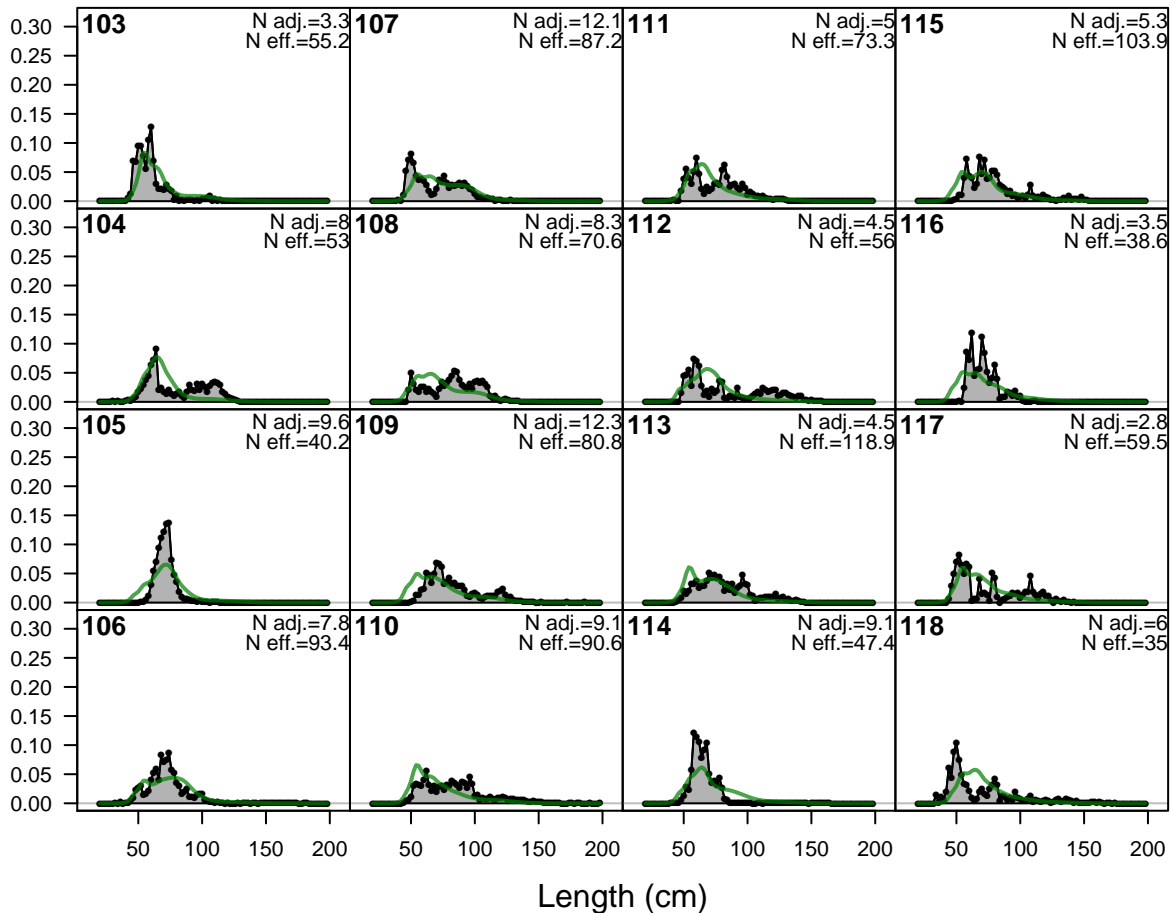
Proportion



Proportion

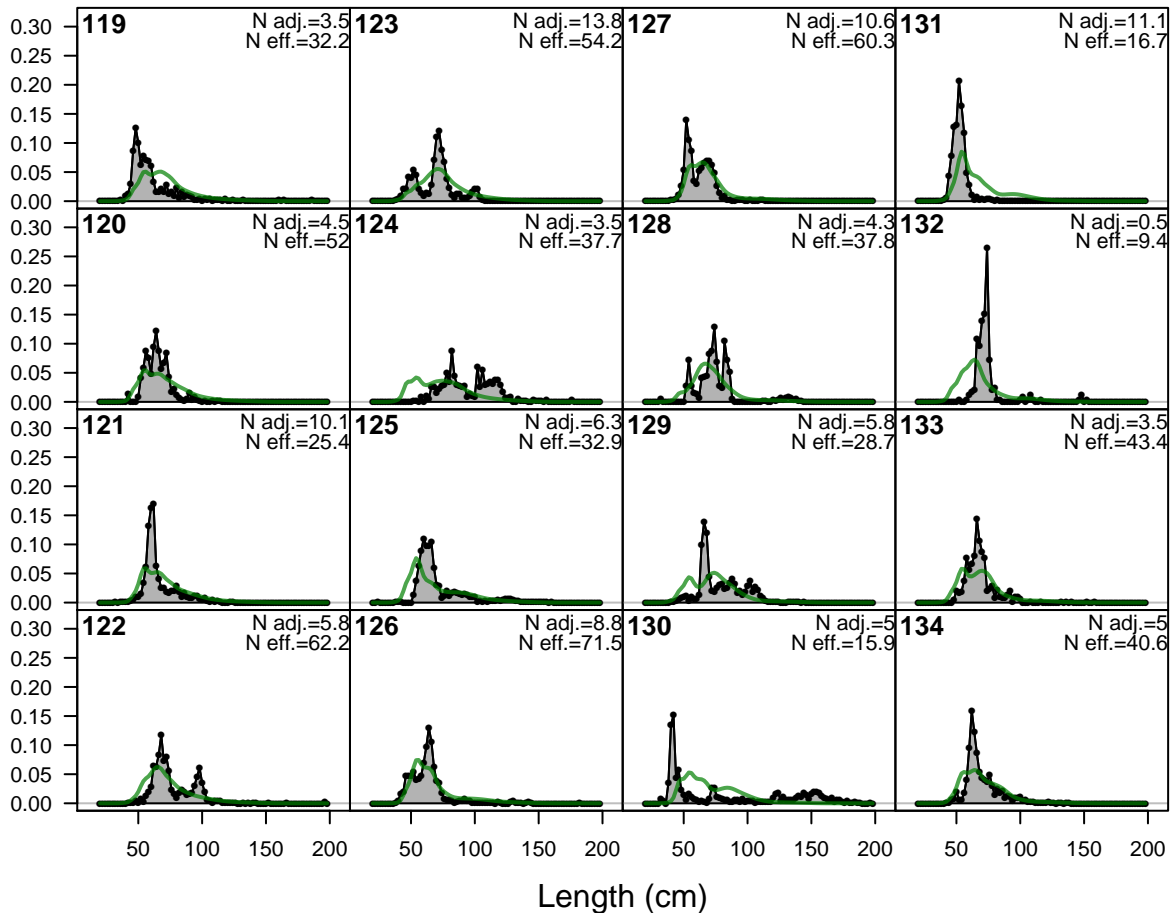


Proportion

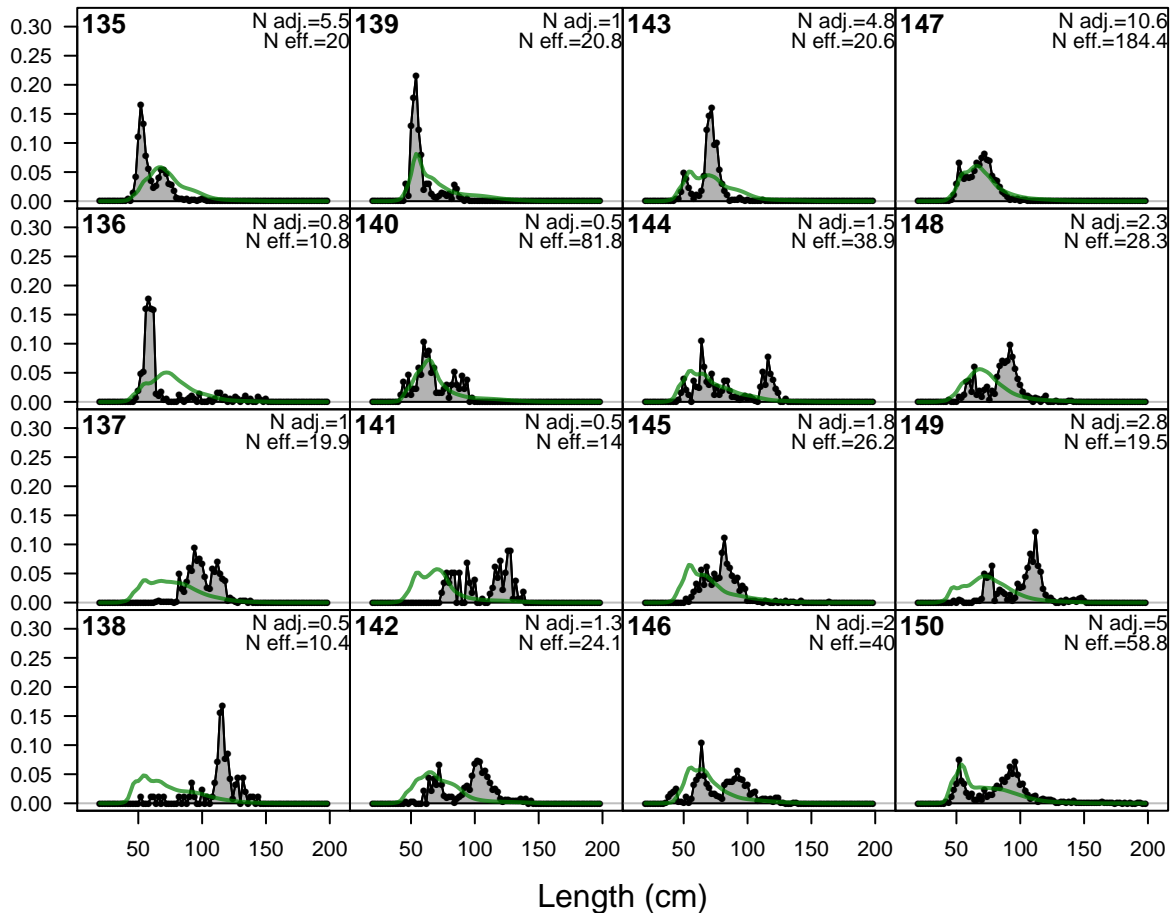




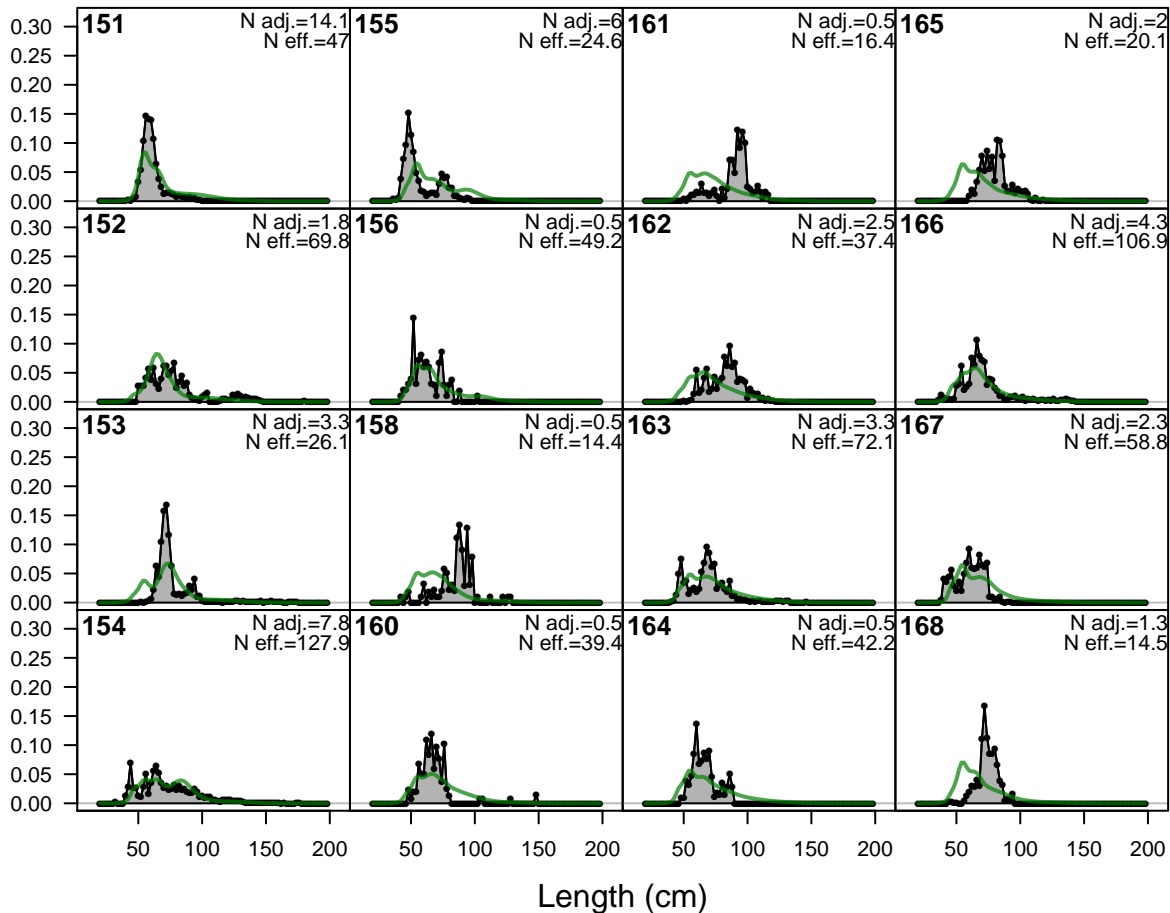
Proportion



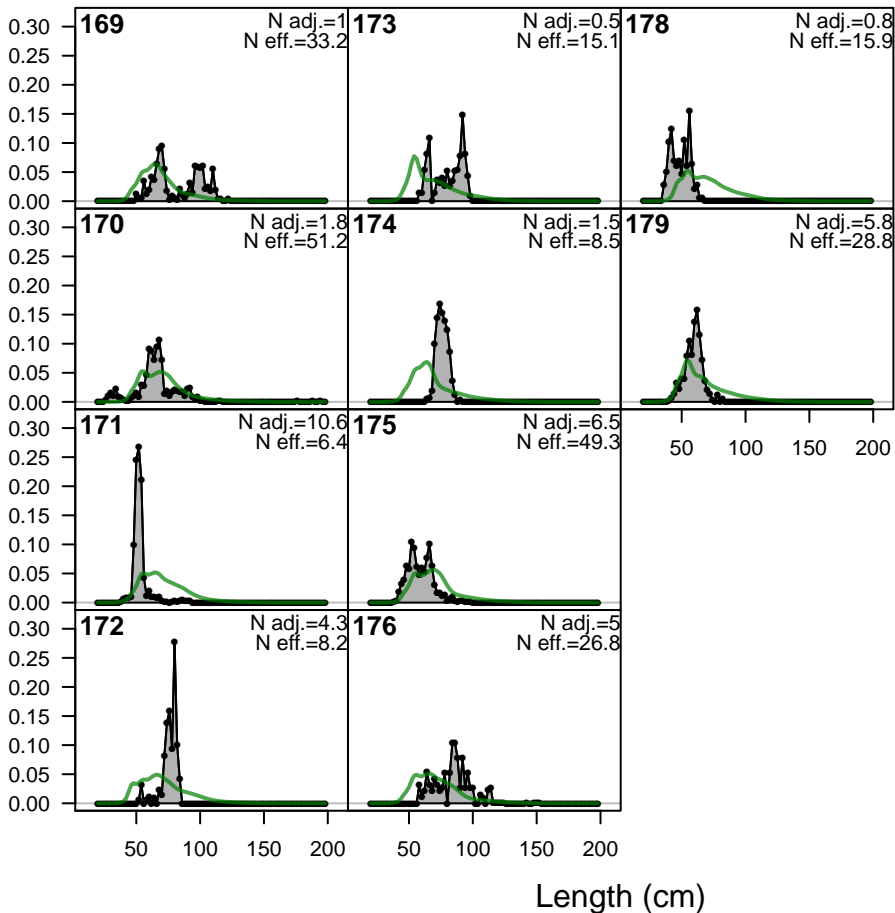
Proportion

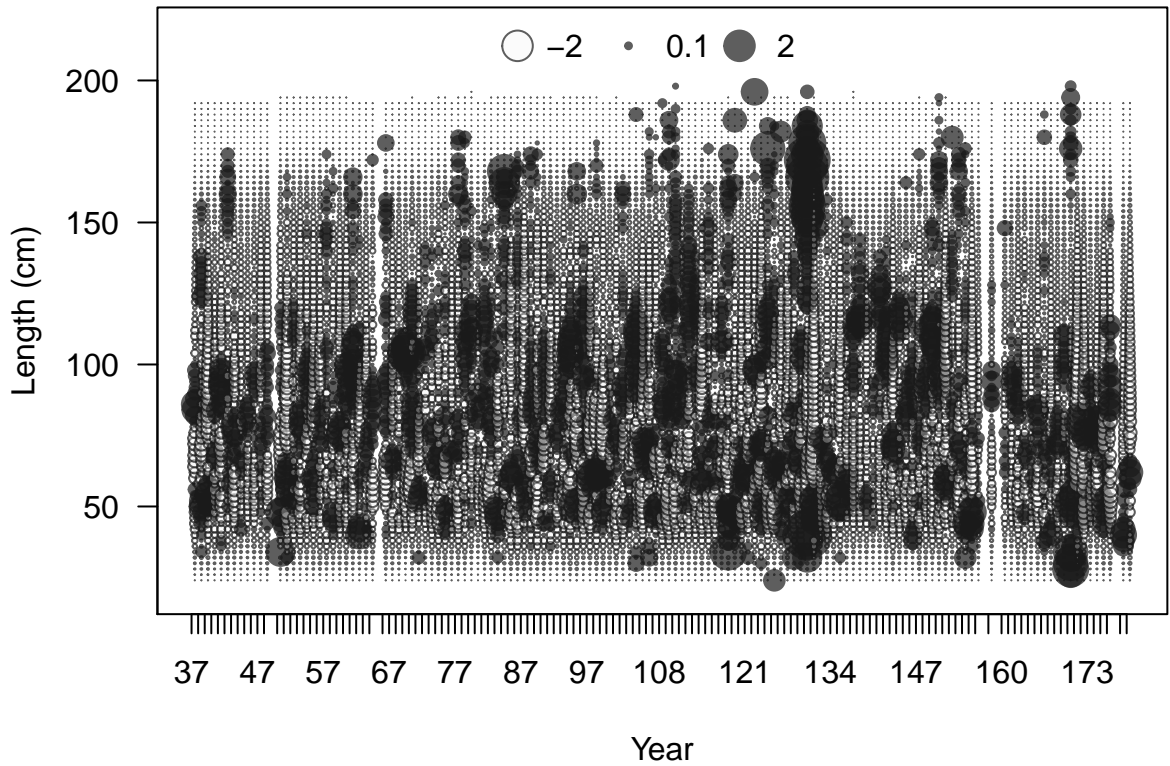


Proportion

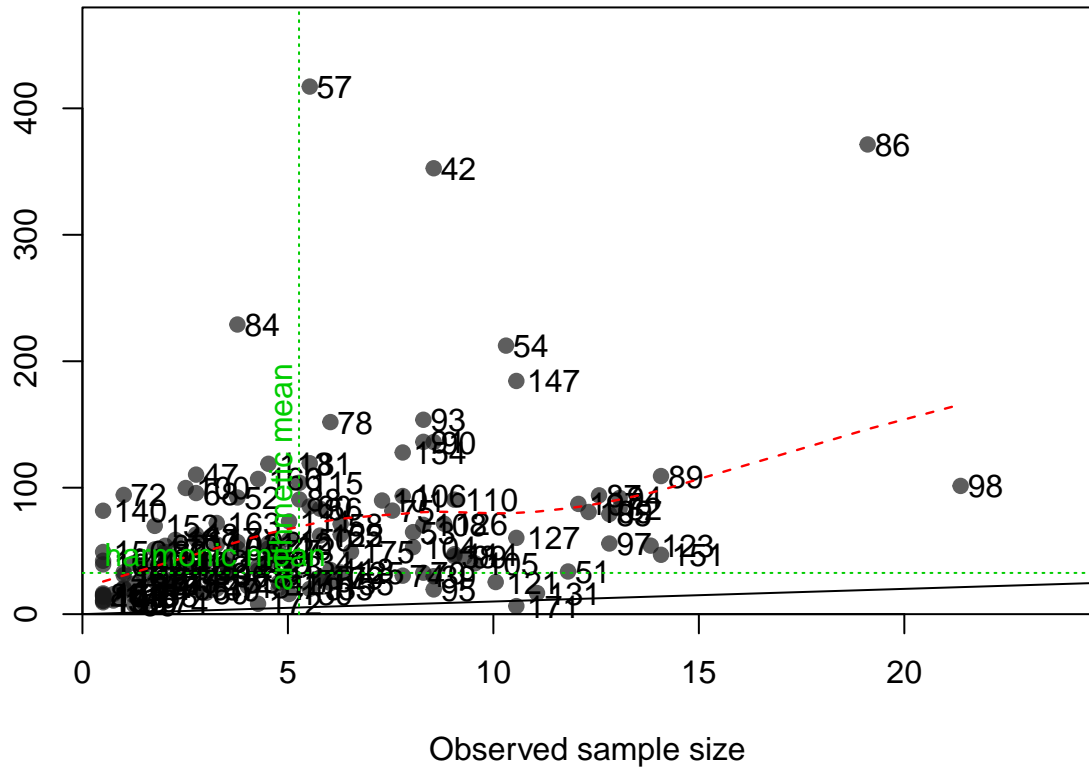


Proportion

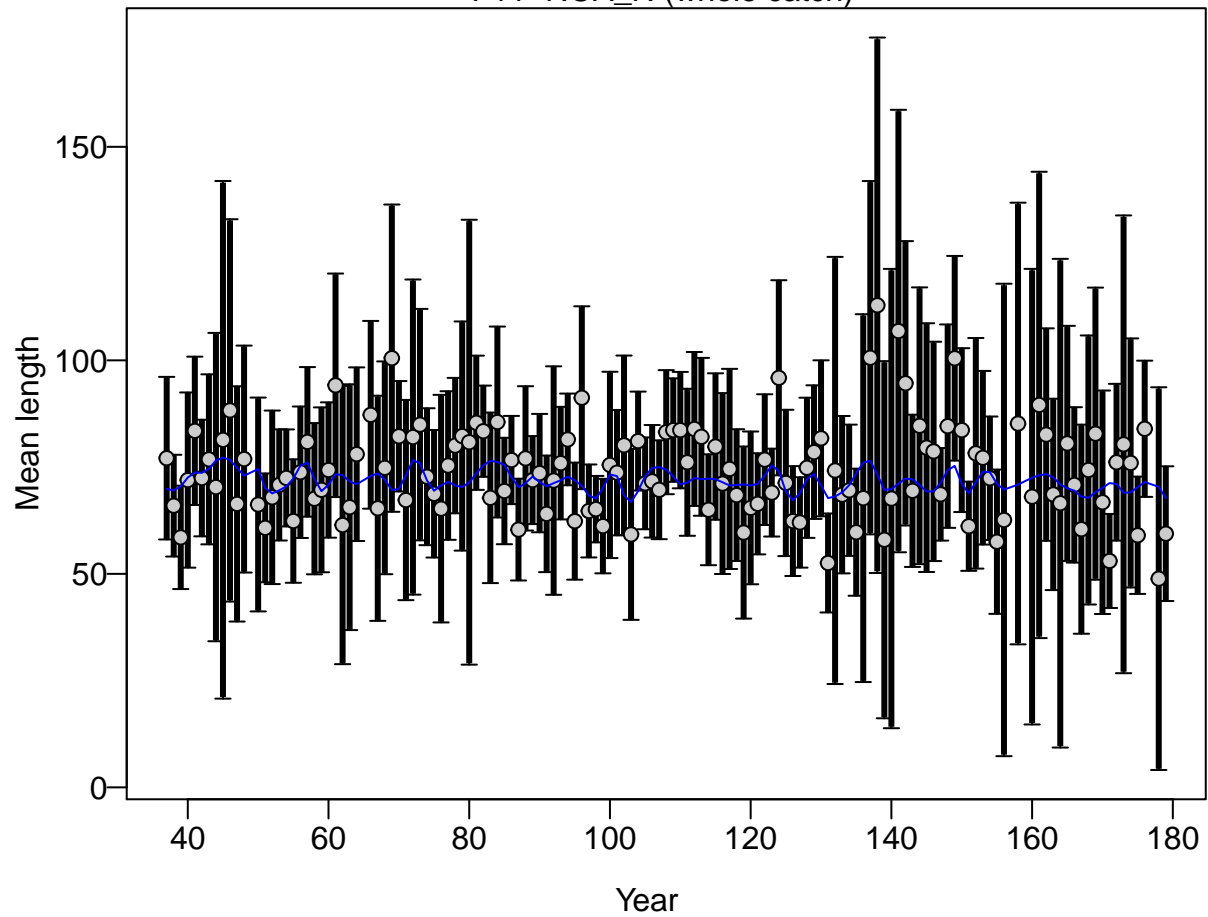




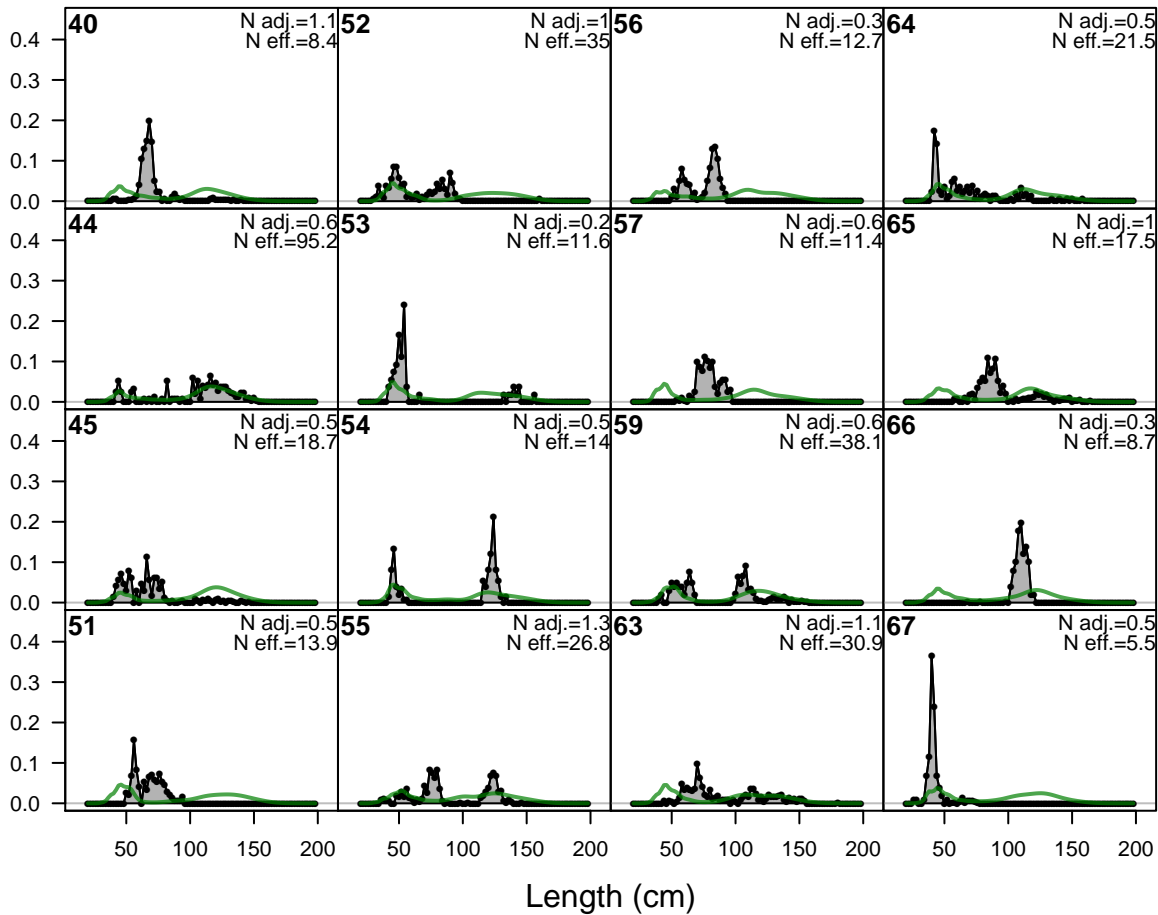
Effective sample size



F11-NOA\_N (whole catch)

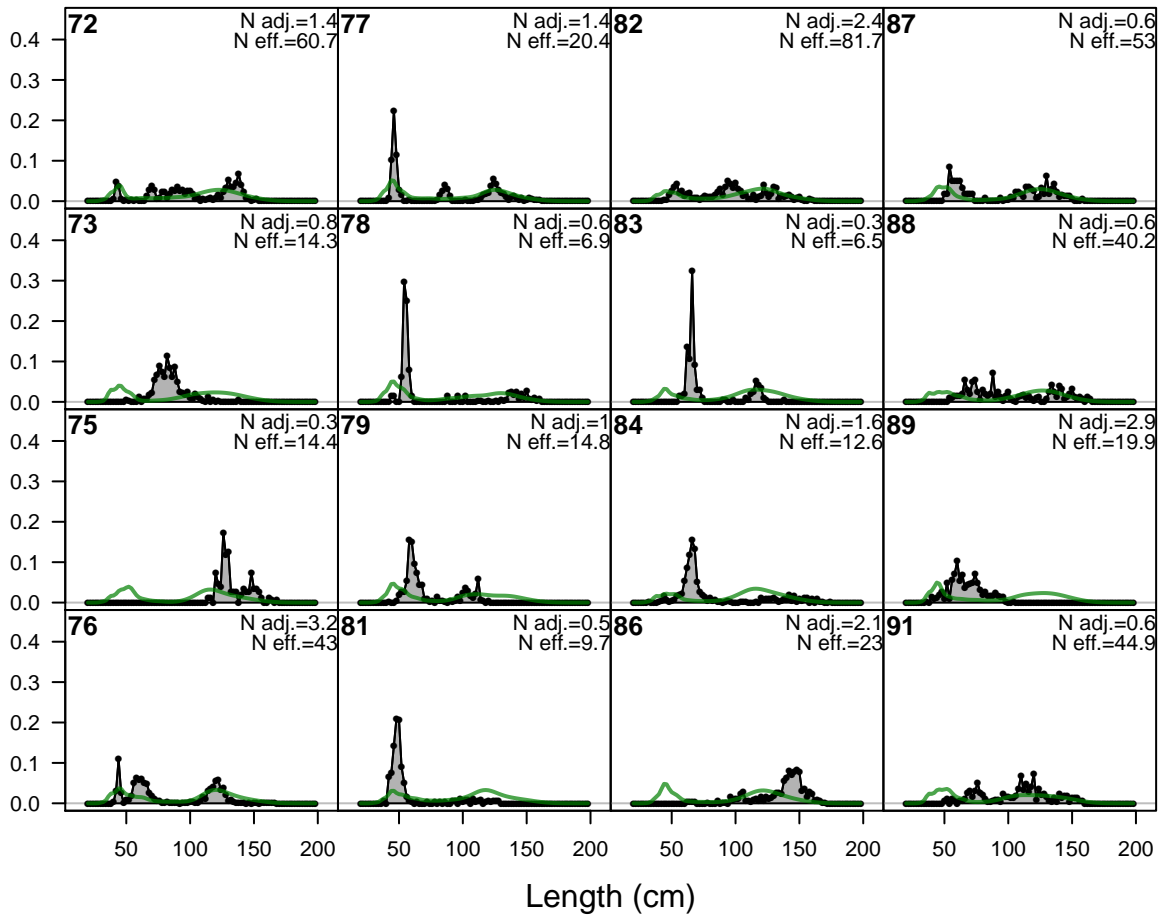


Proportion

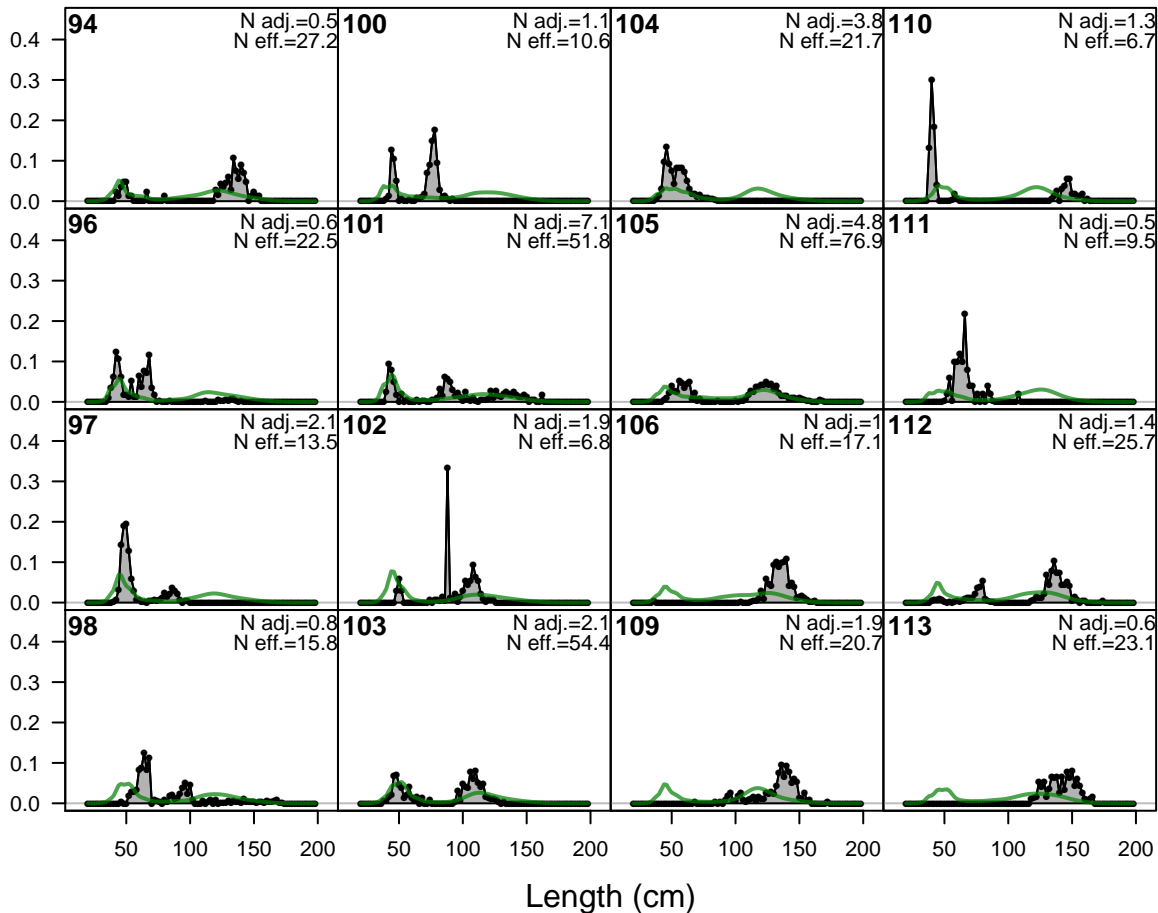




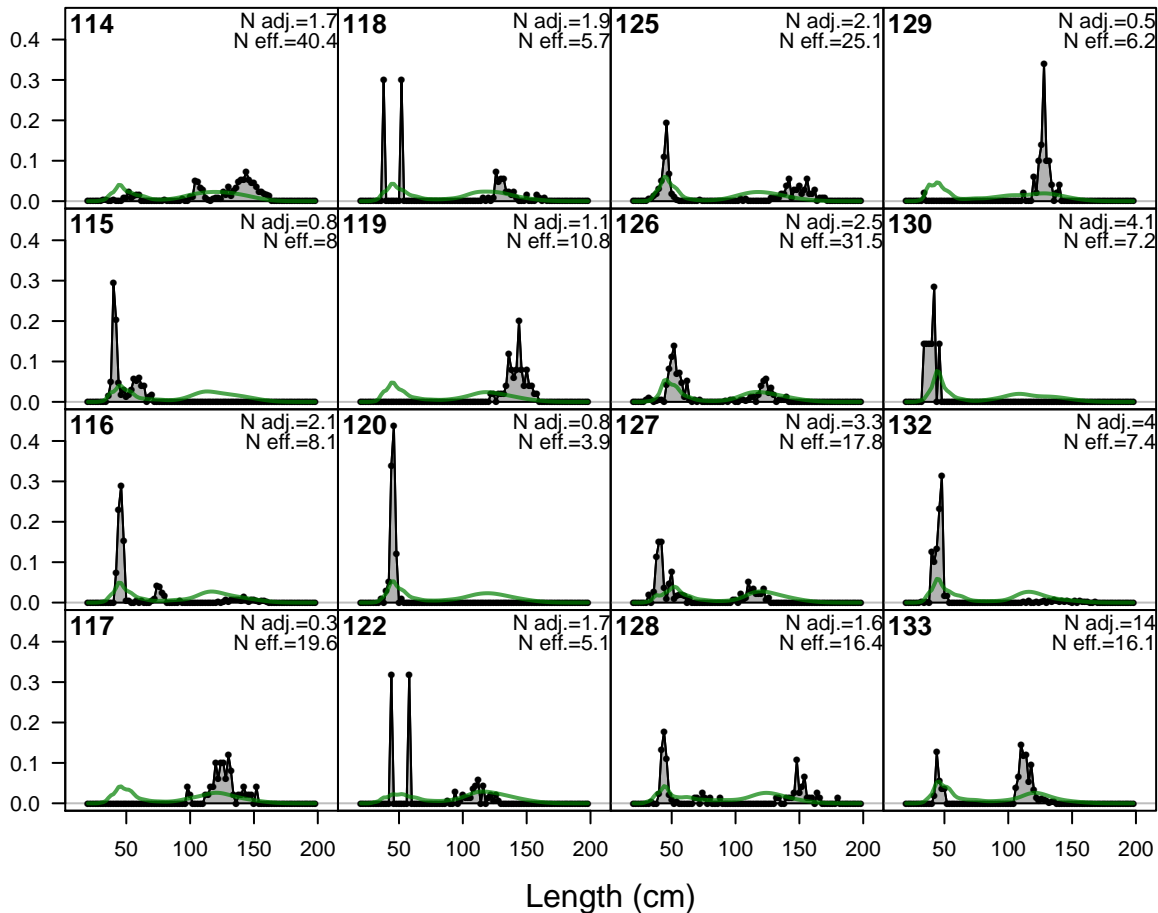
Proportion



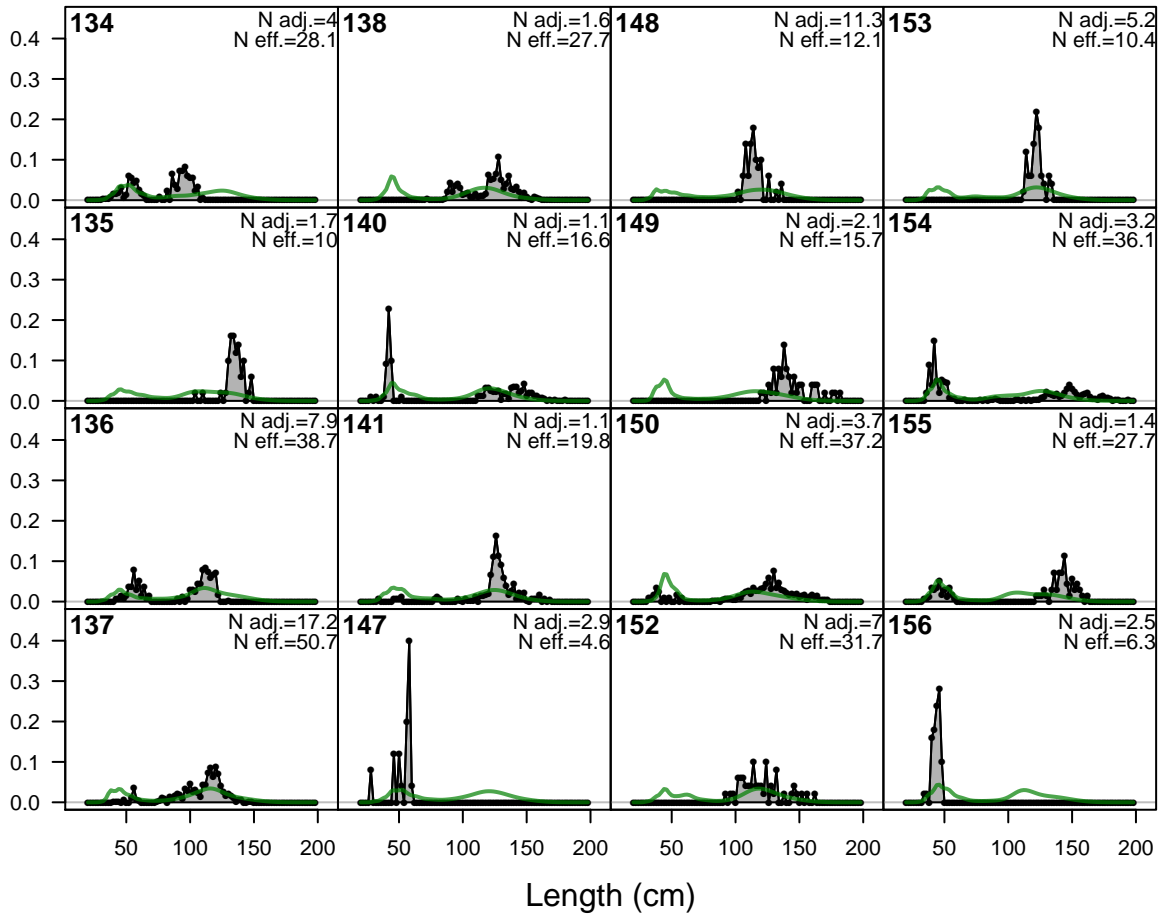
Proportion



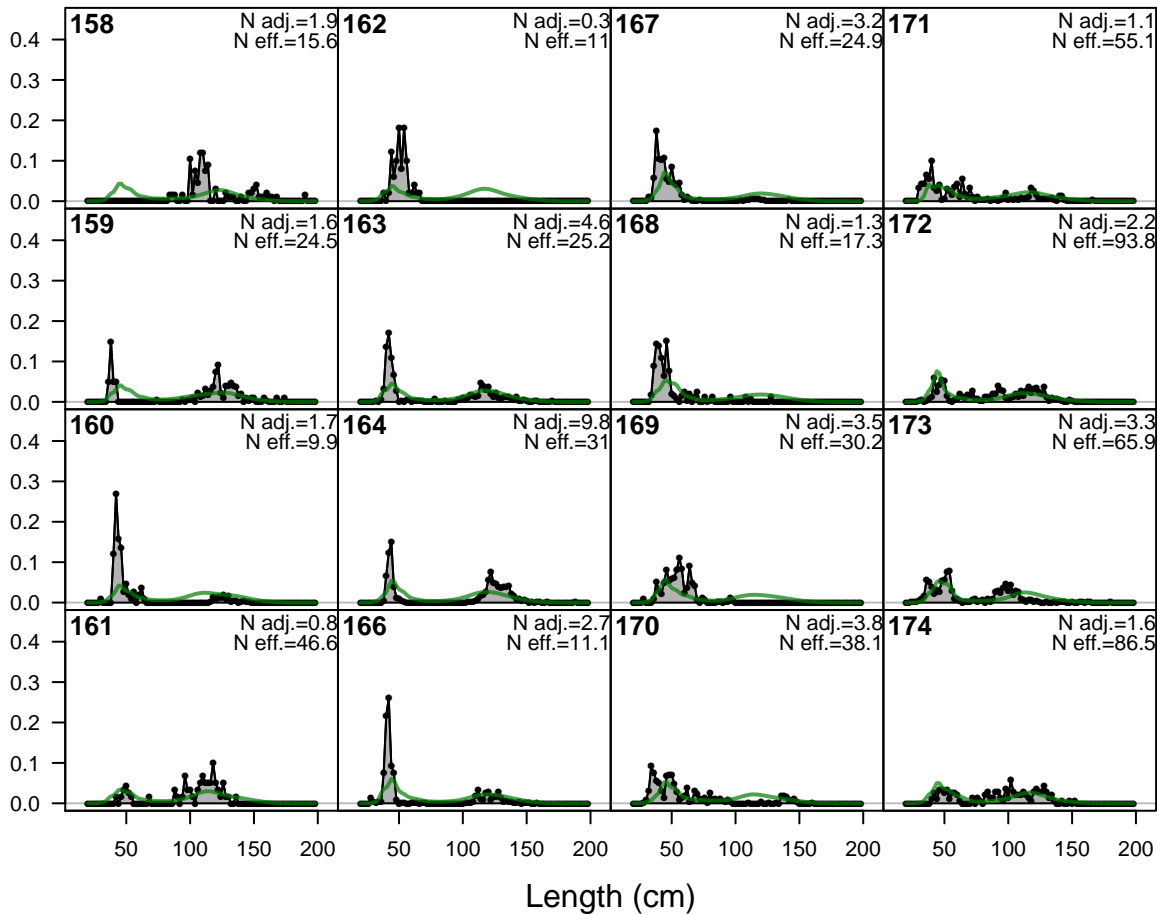
Proportion



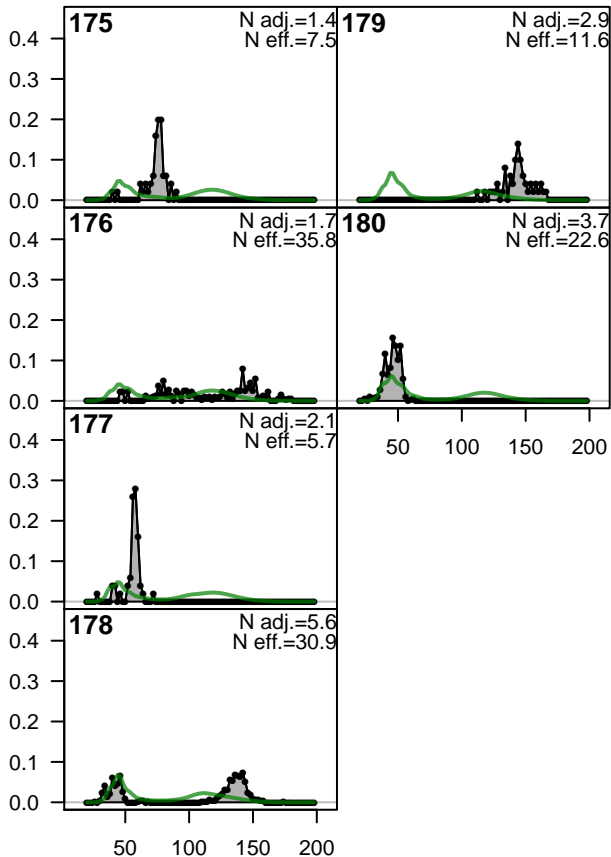
Proportion



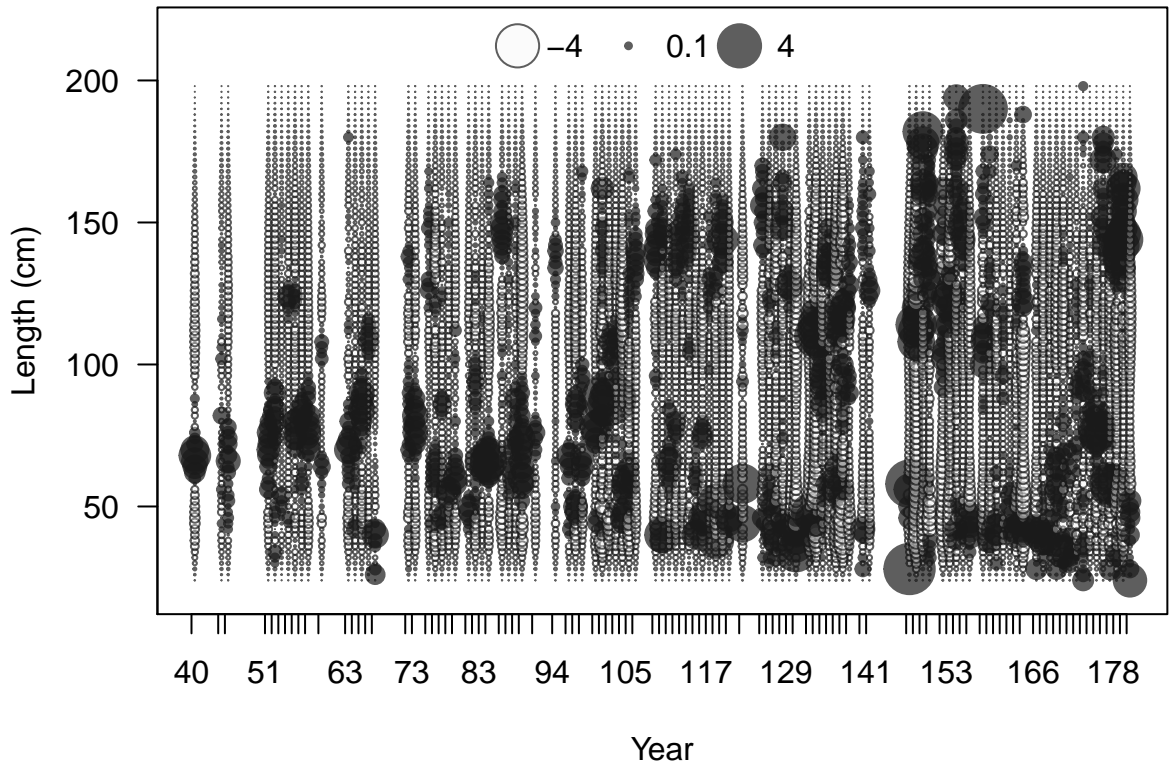
Proportion



Proportion



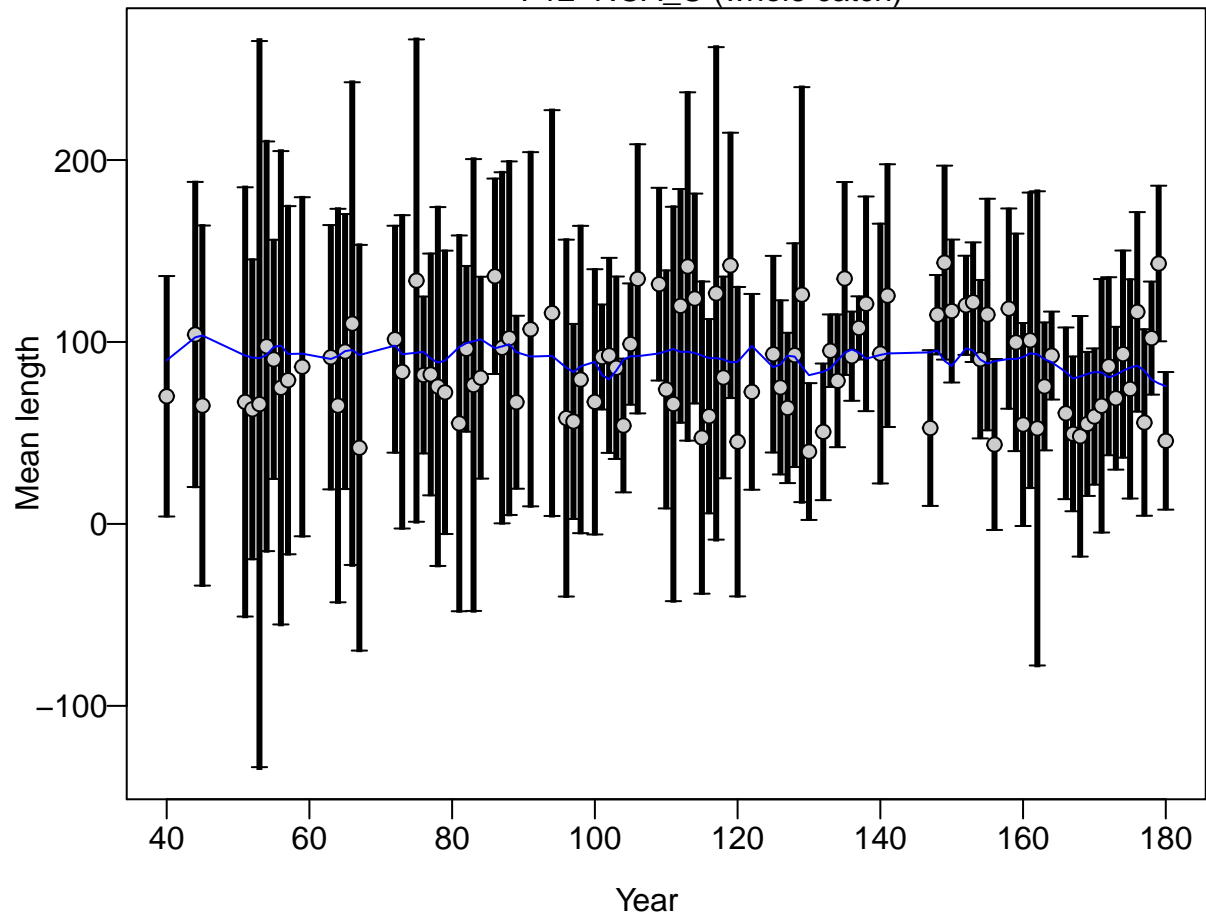
Length (cm)



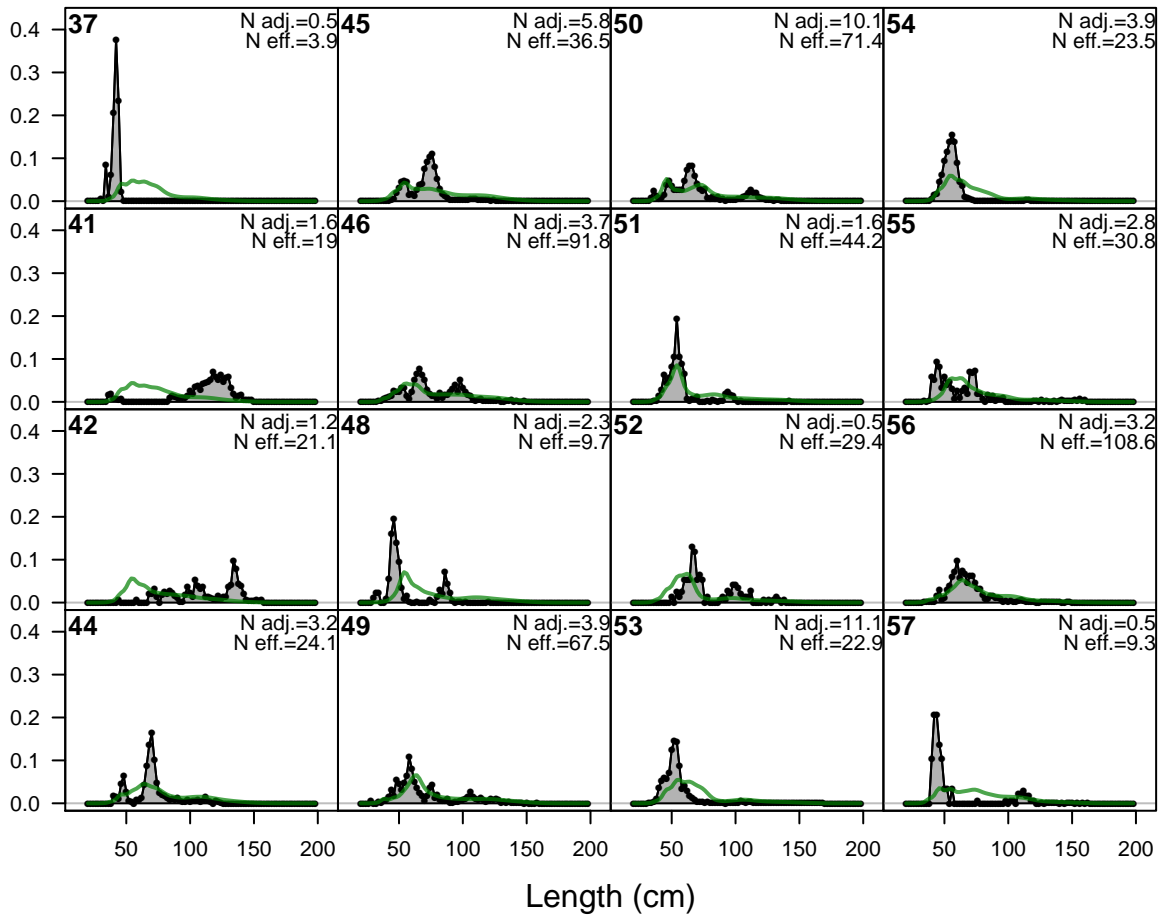




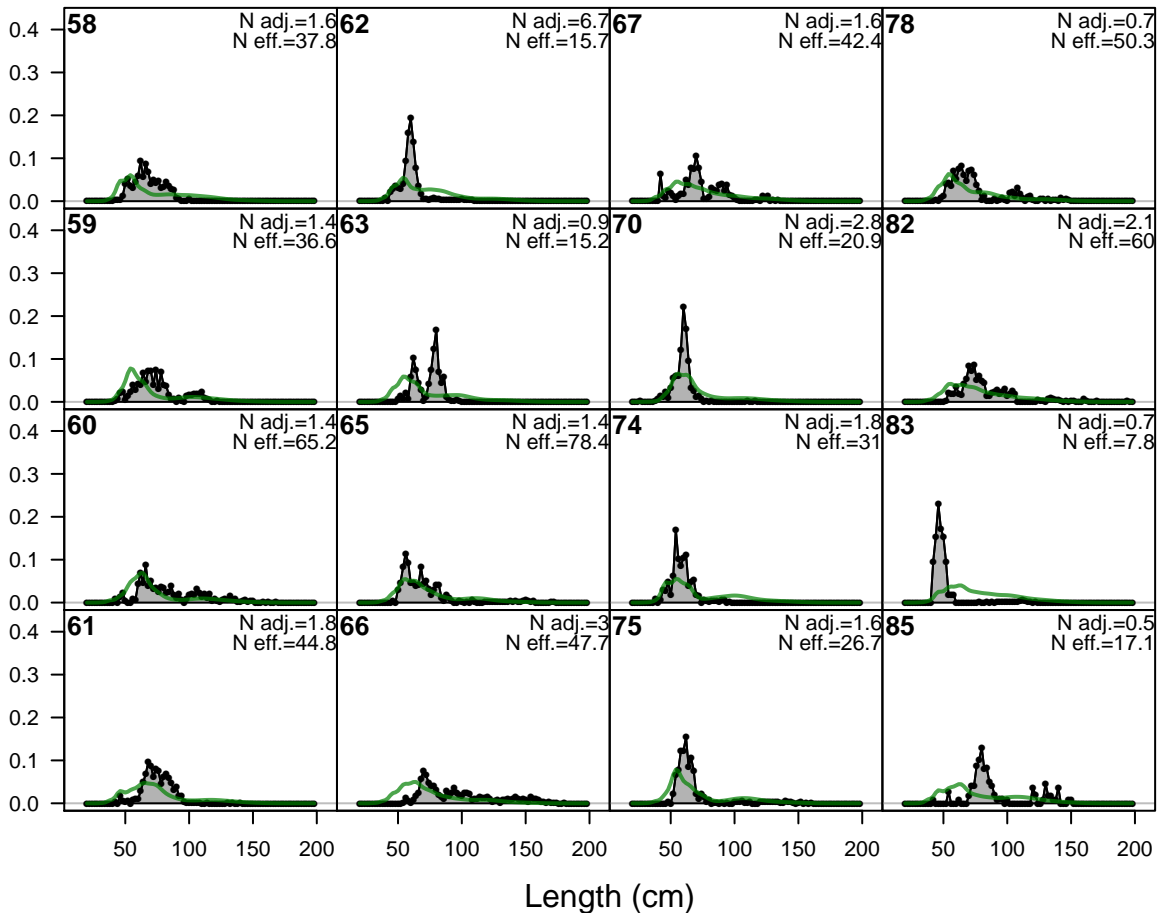
F12-NOA\_C (whole catch)



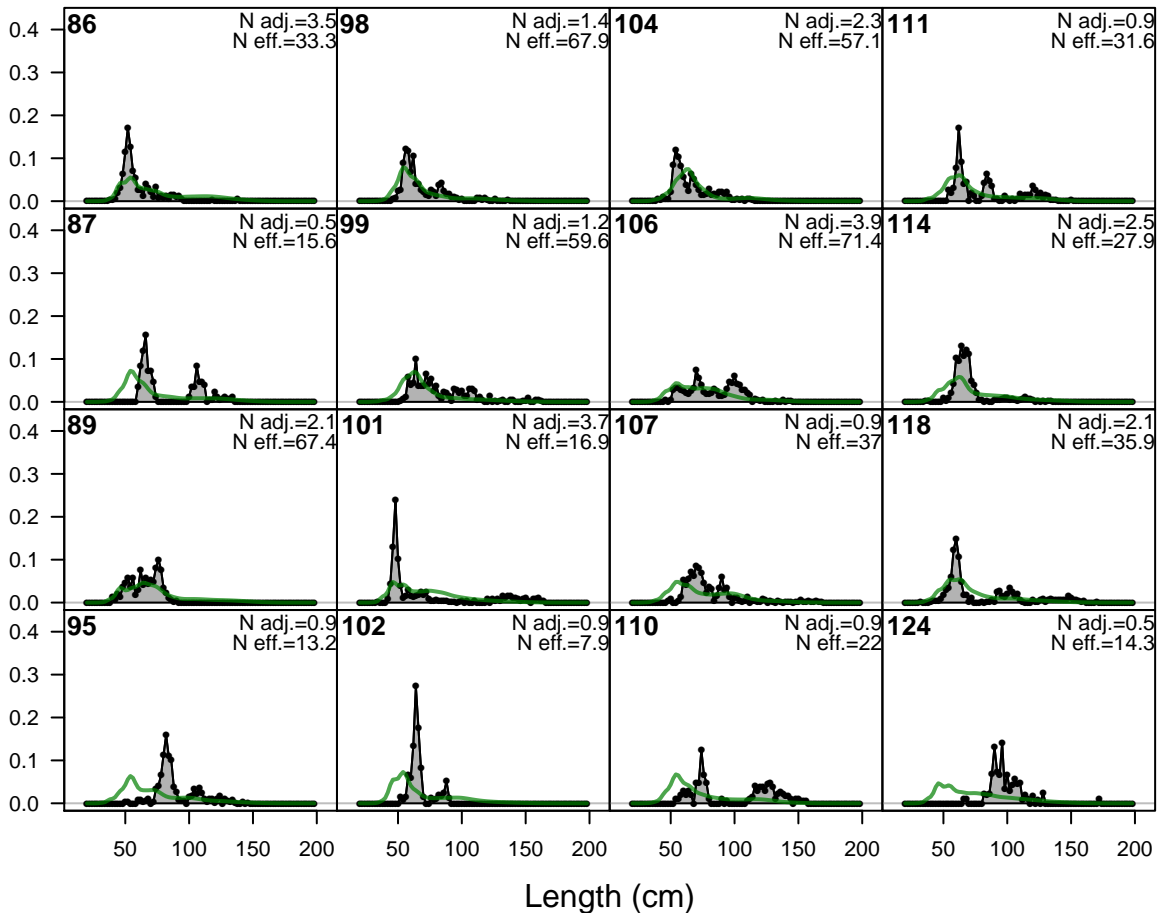
Proportion



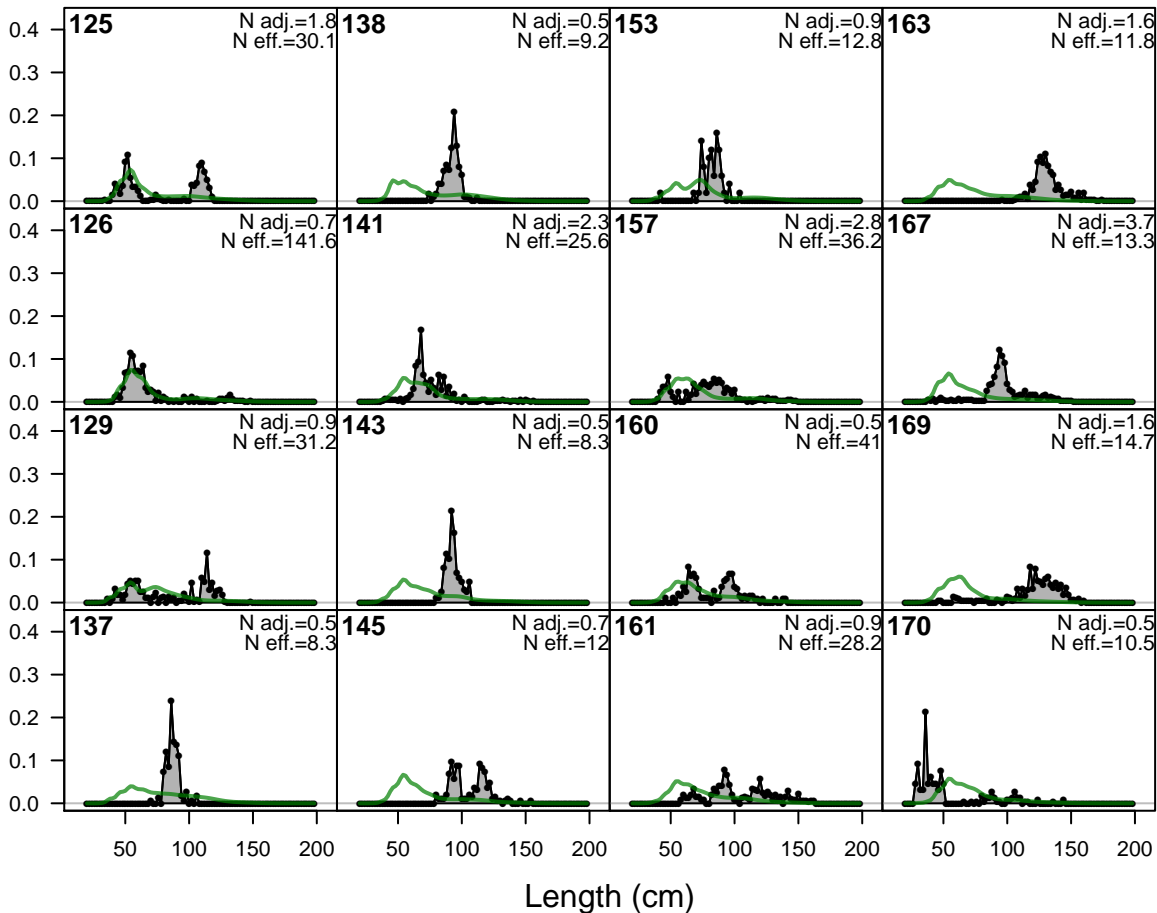
Proportion

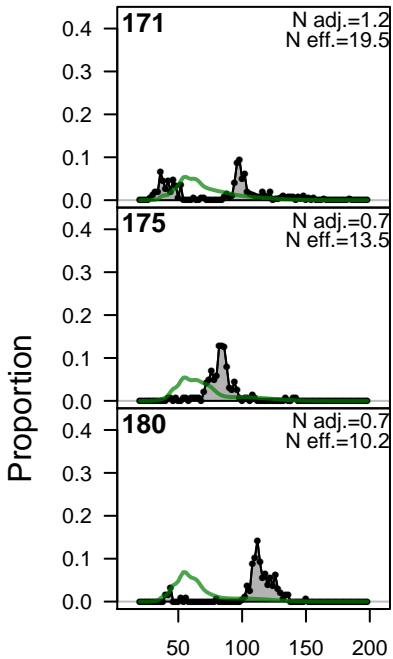


Proportion

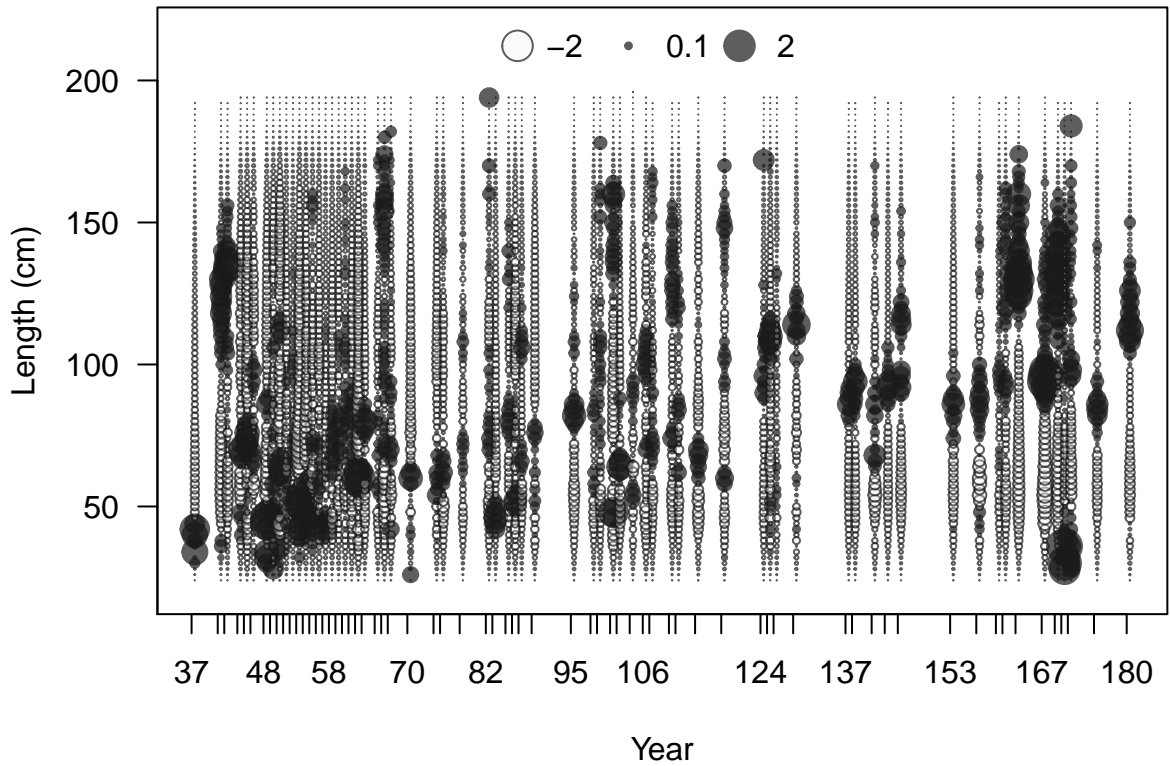


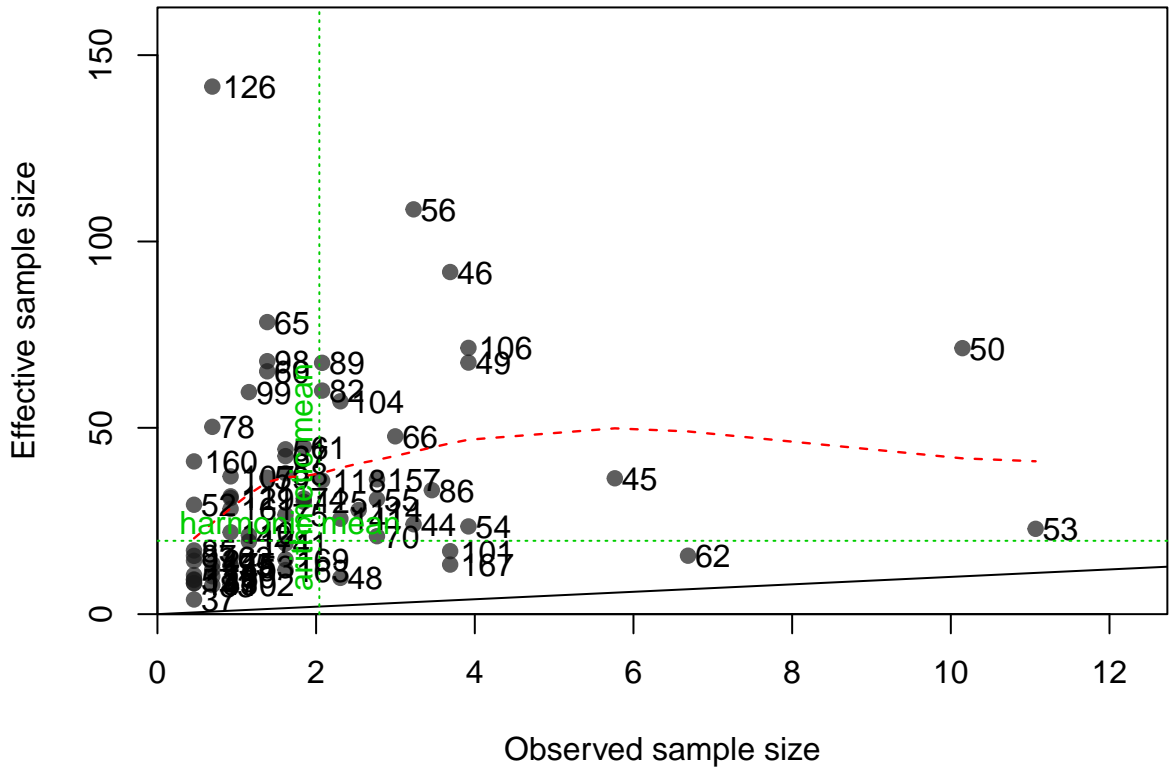
Proportion





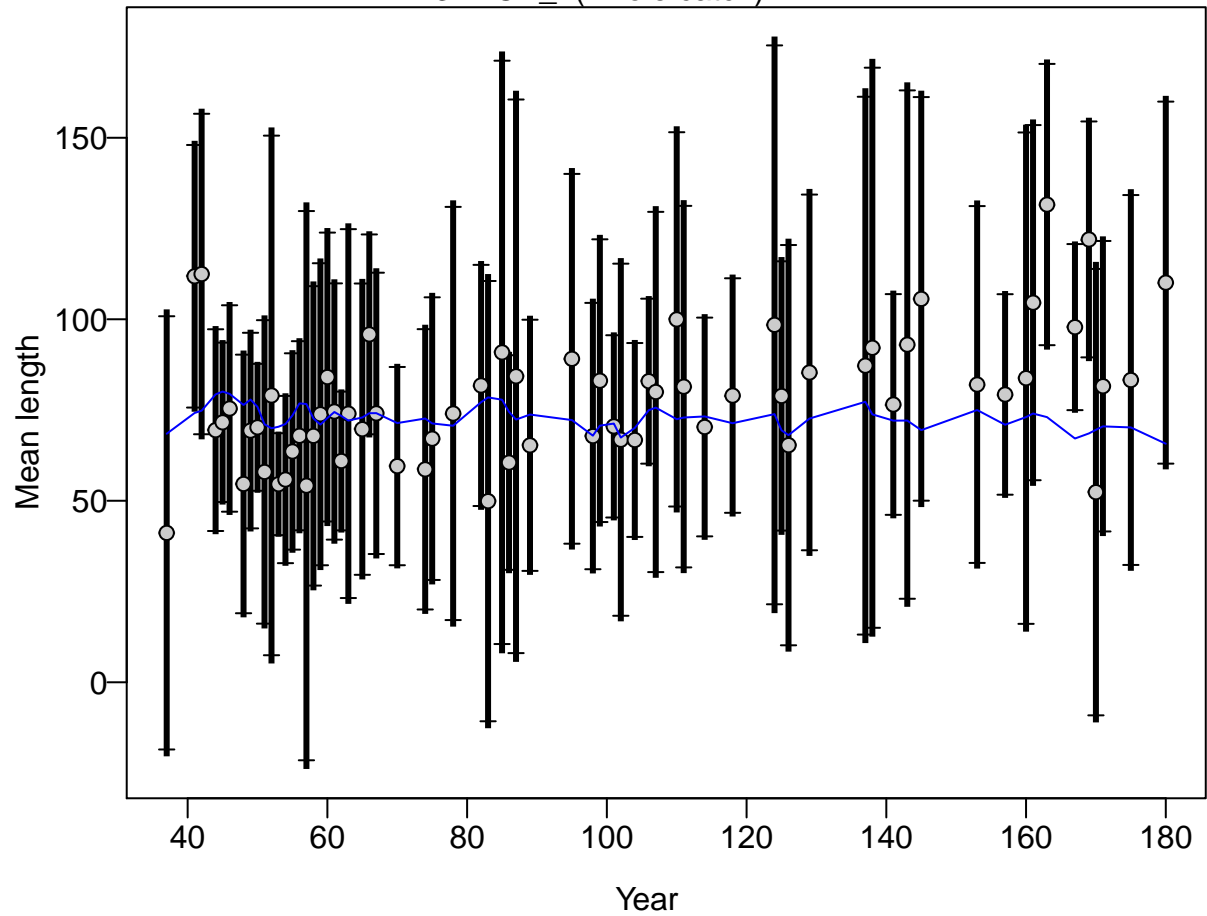
Length (cm)



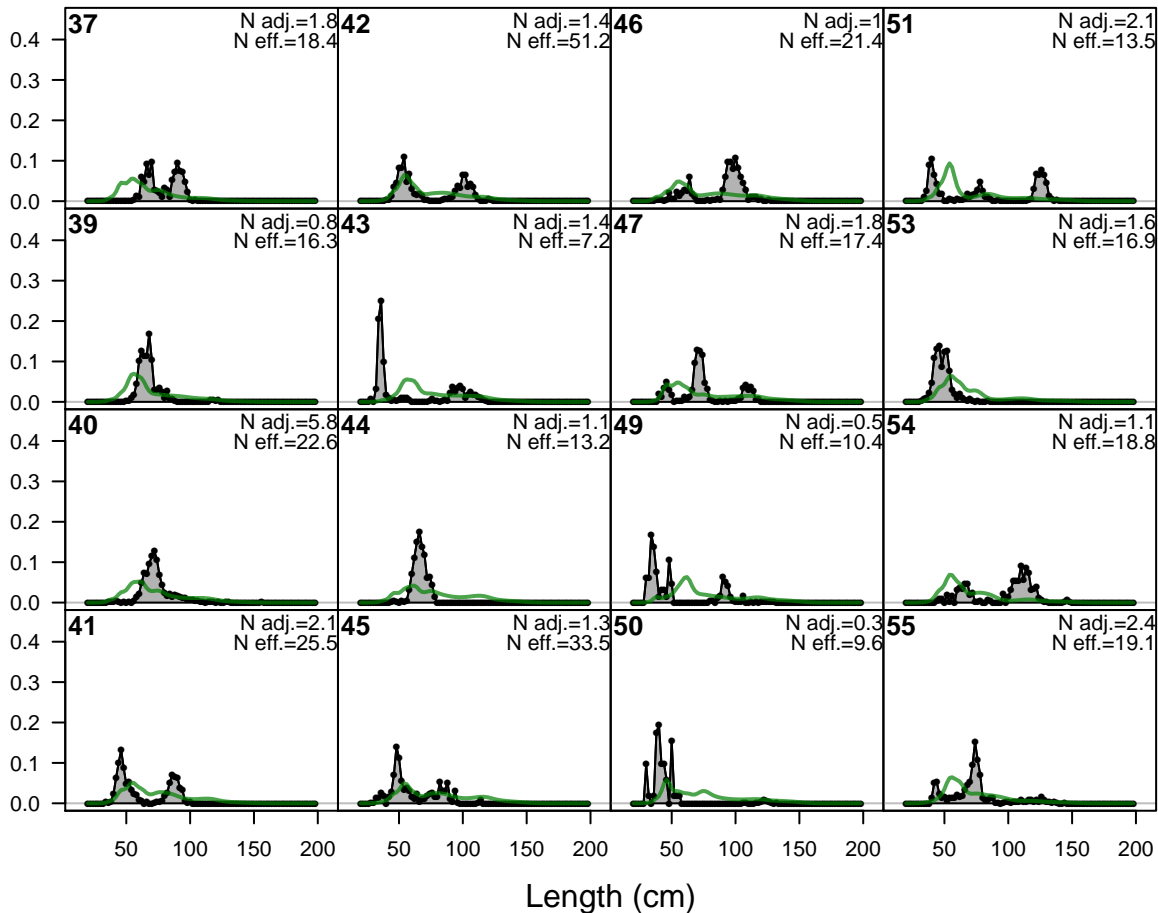




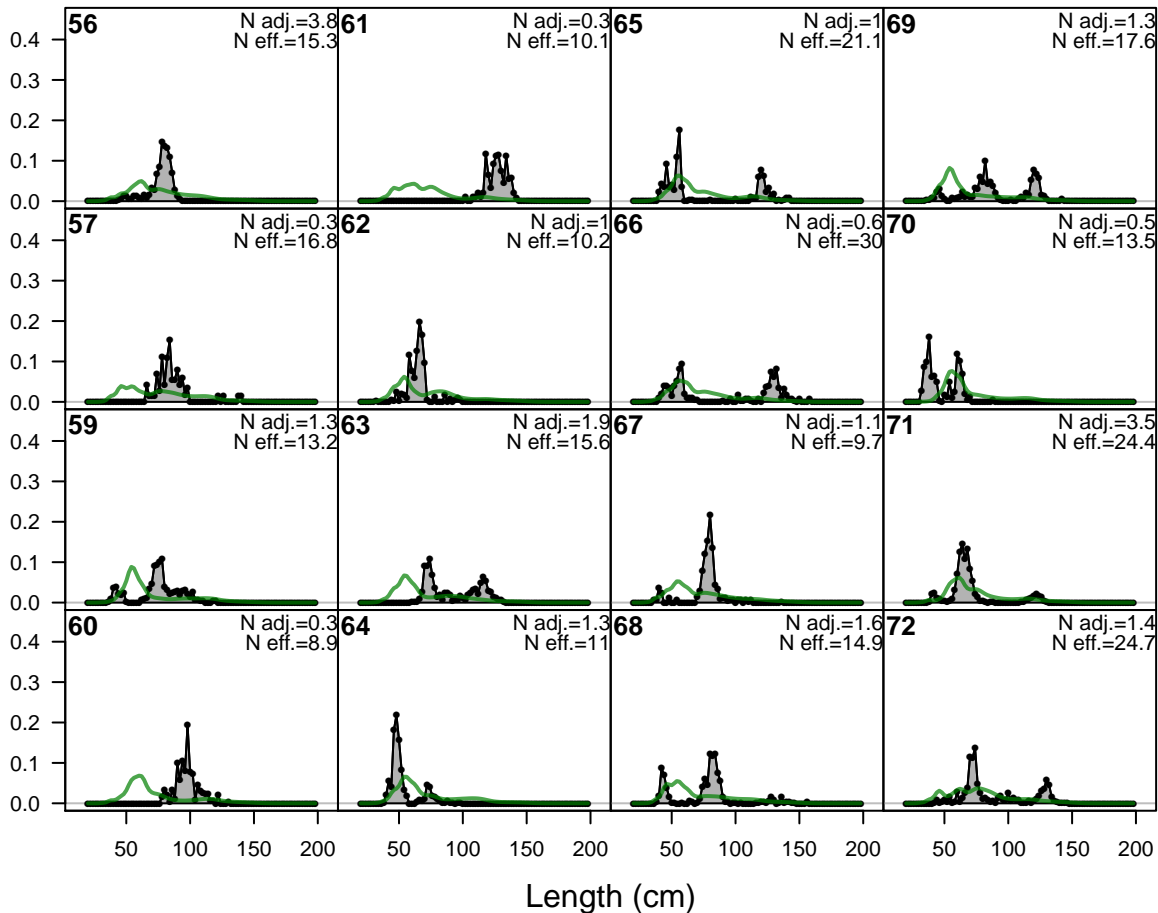
F13-NOA\_I (whole catch)



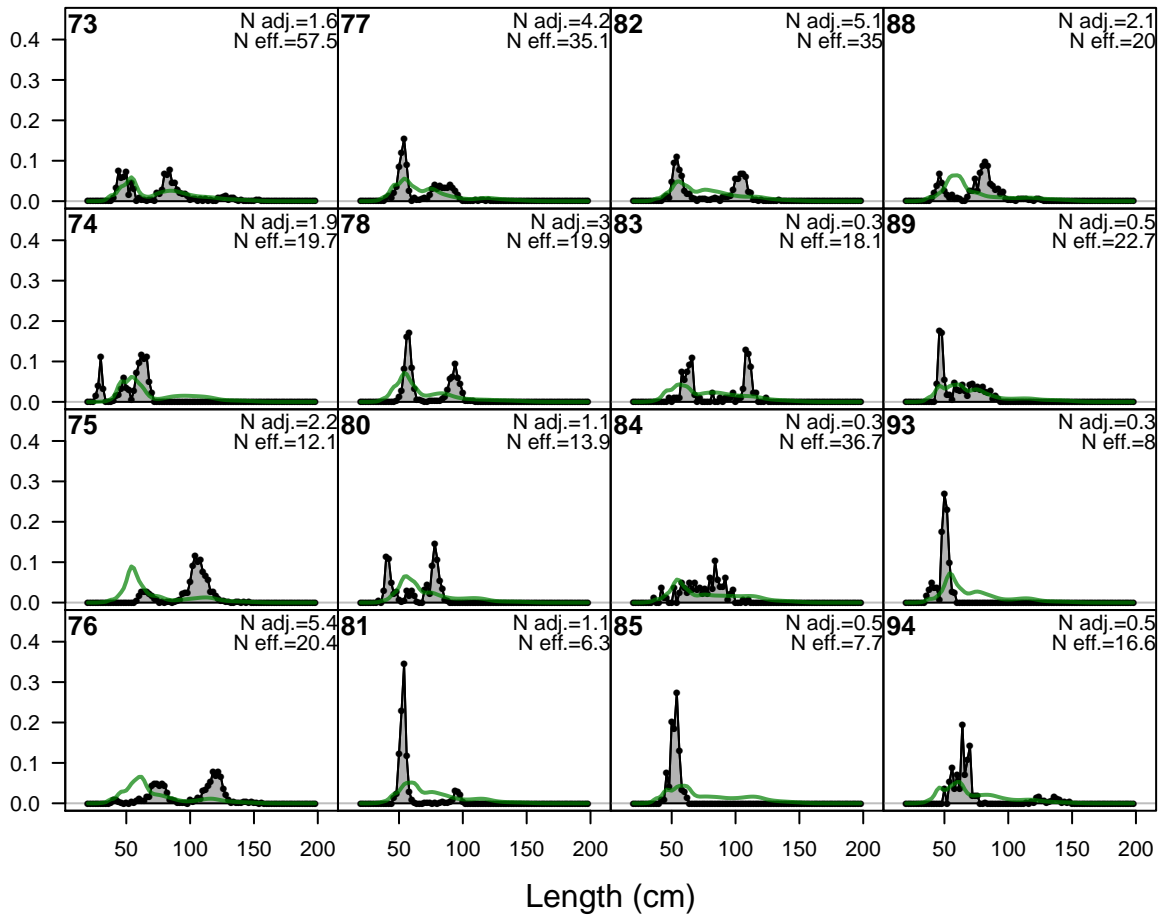
Proportion



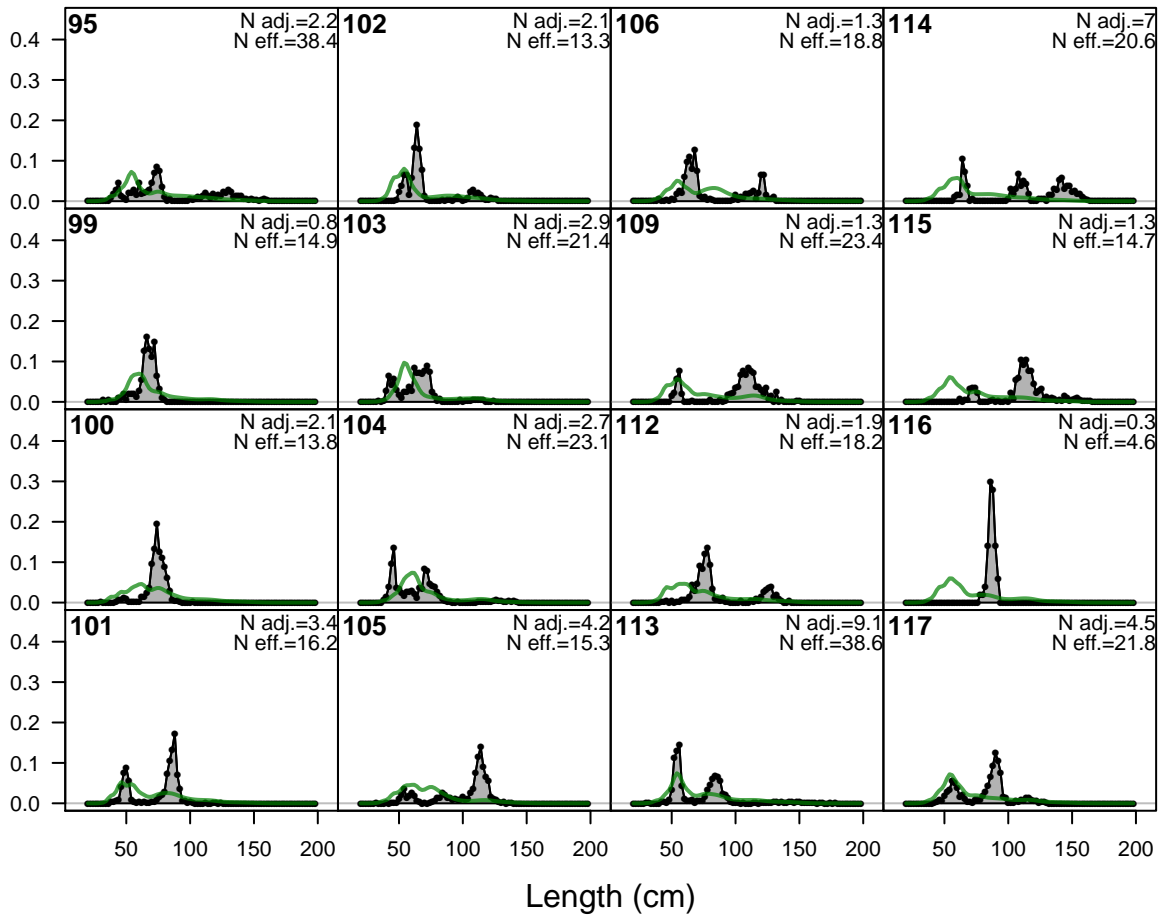
Proportion



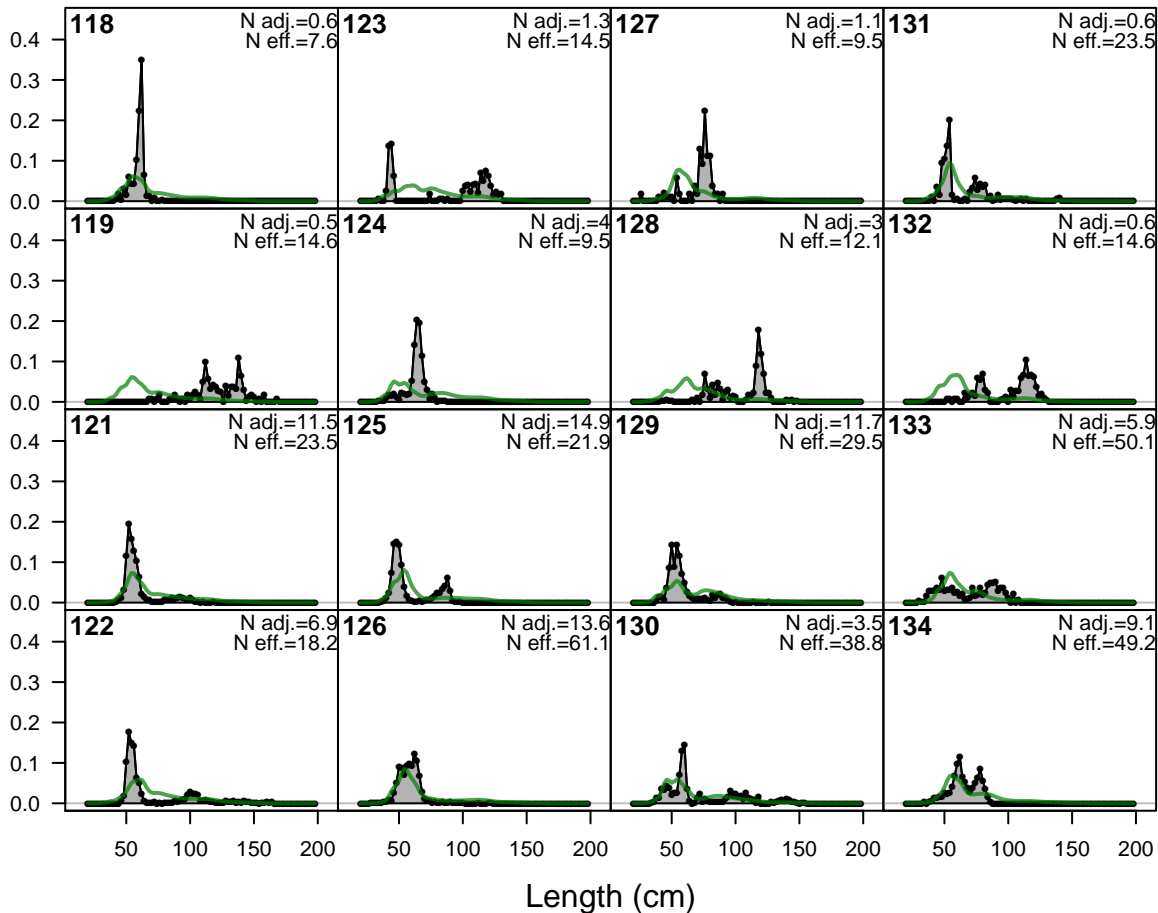
Proportion



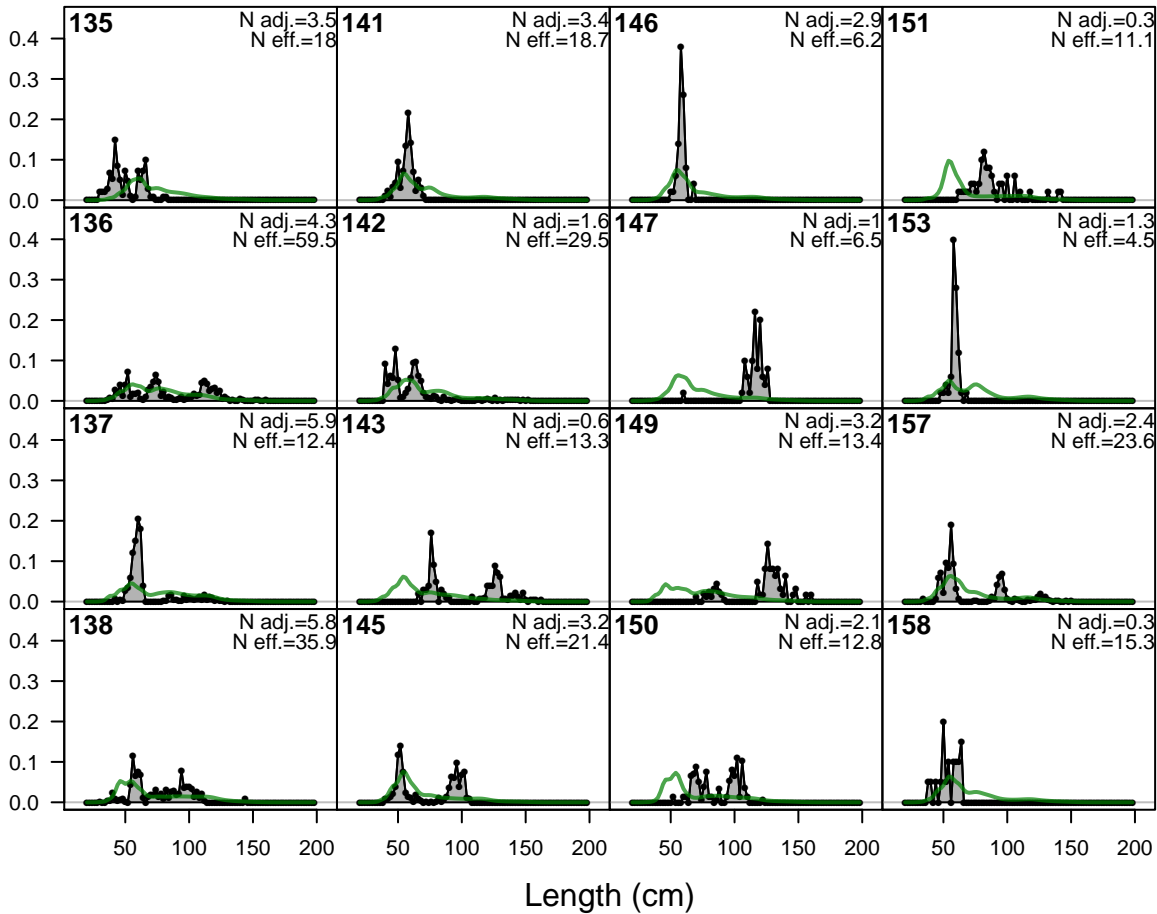
Proportion



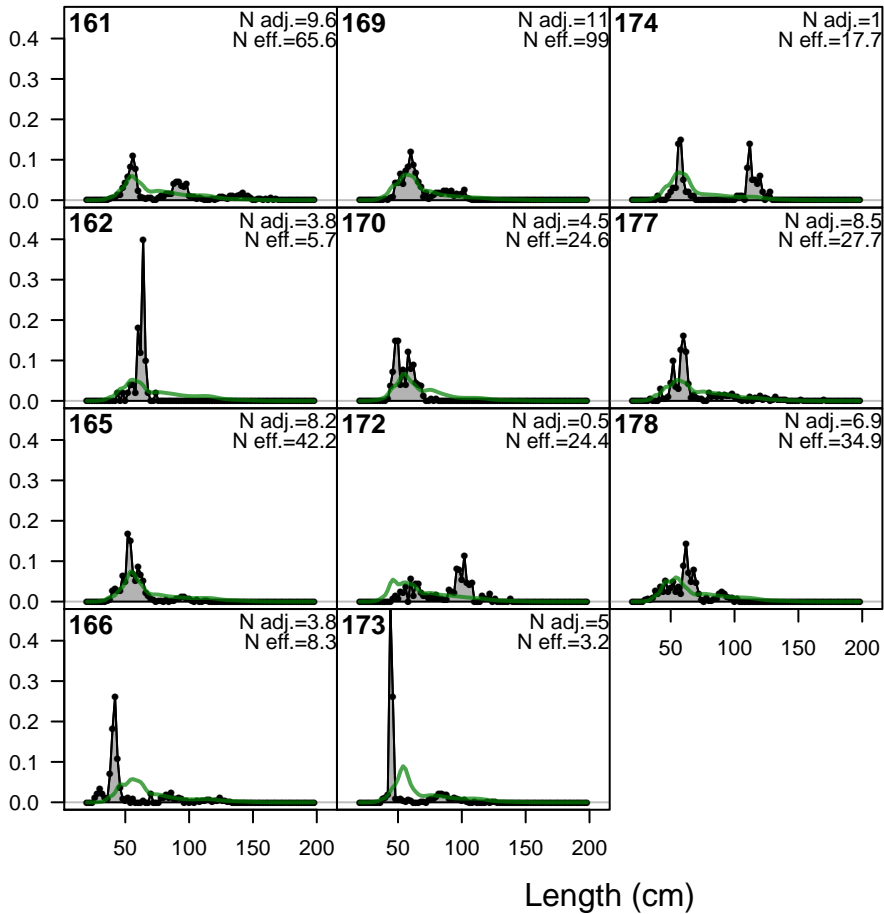
Proportion



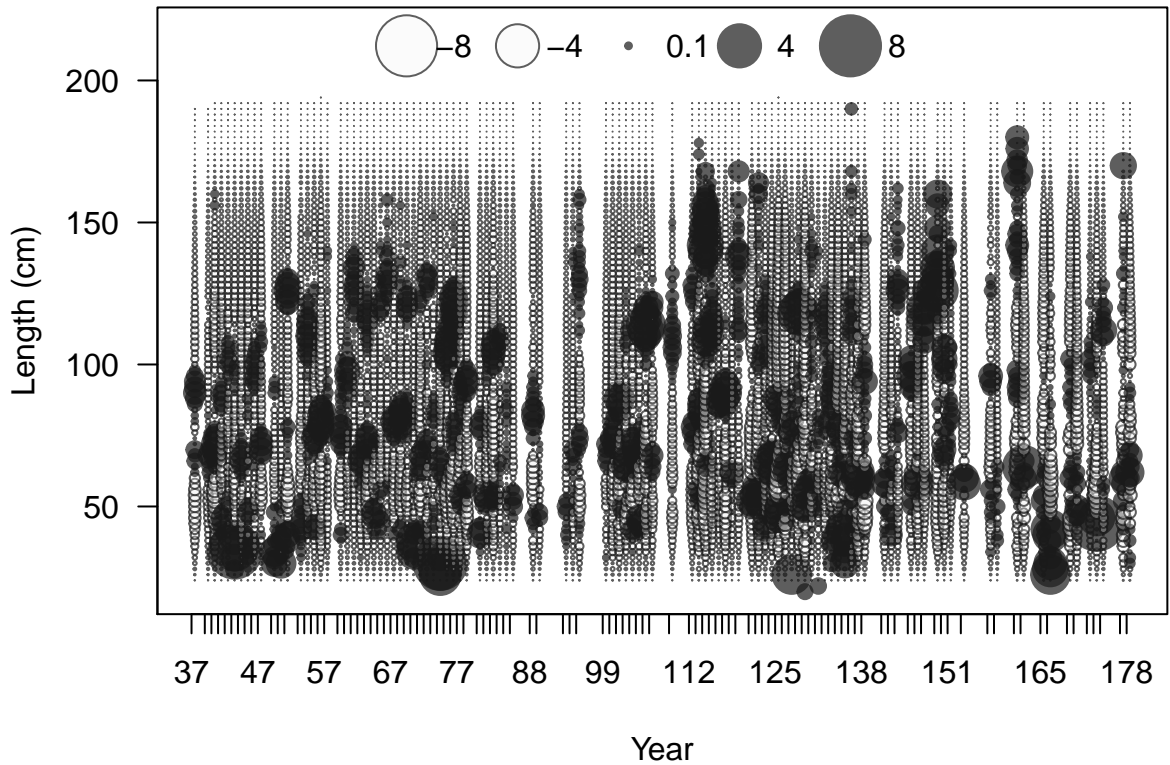
Proportion



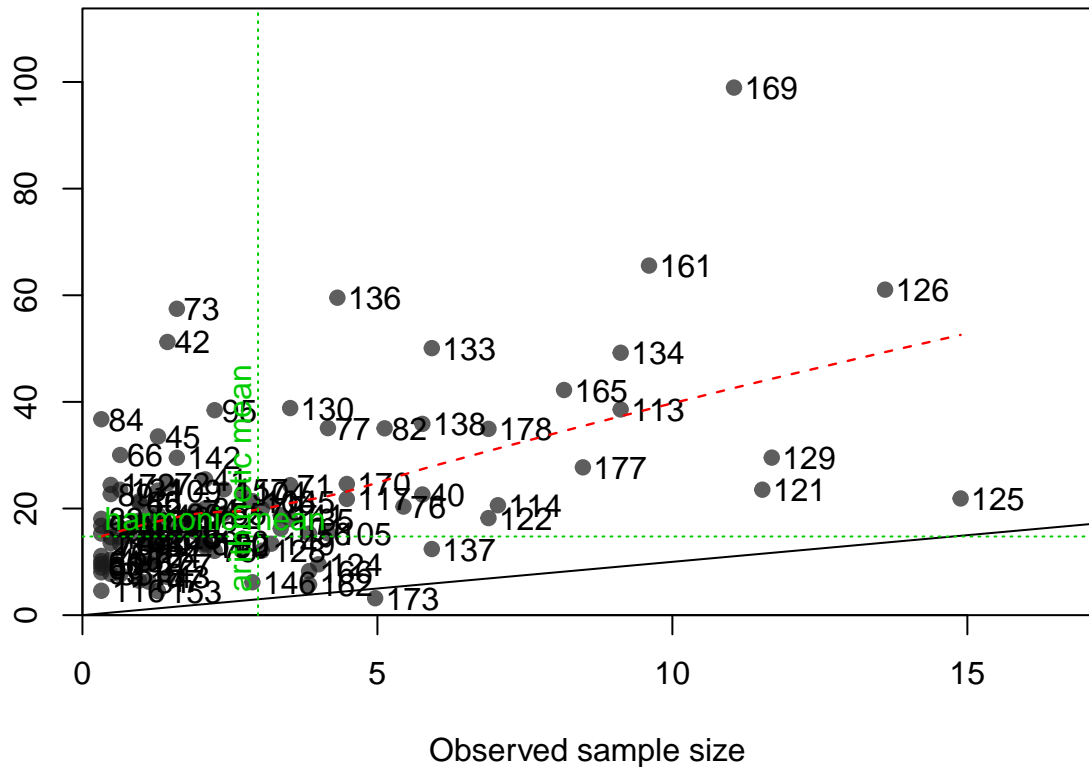
Proportion



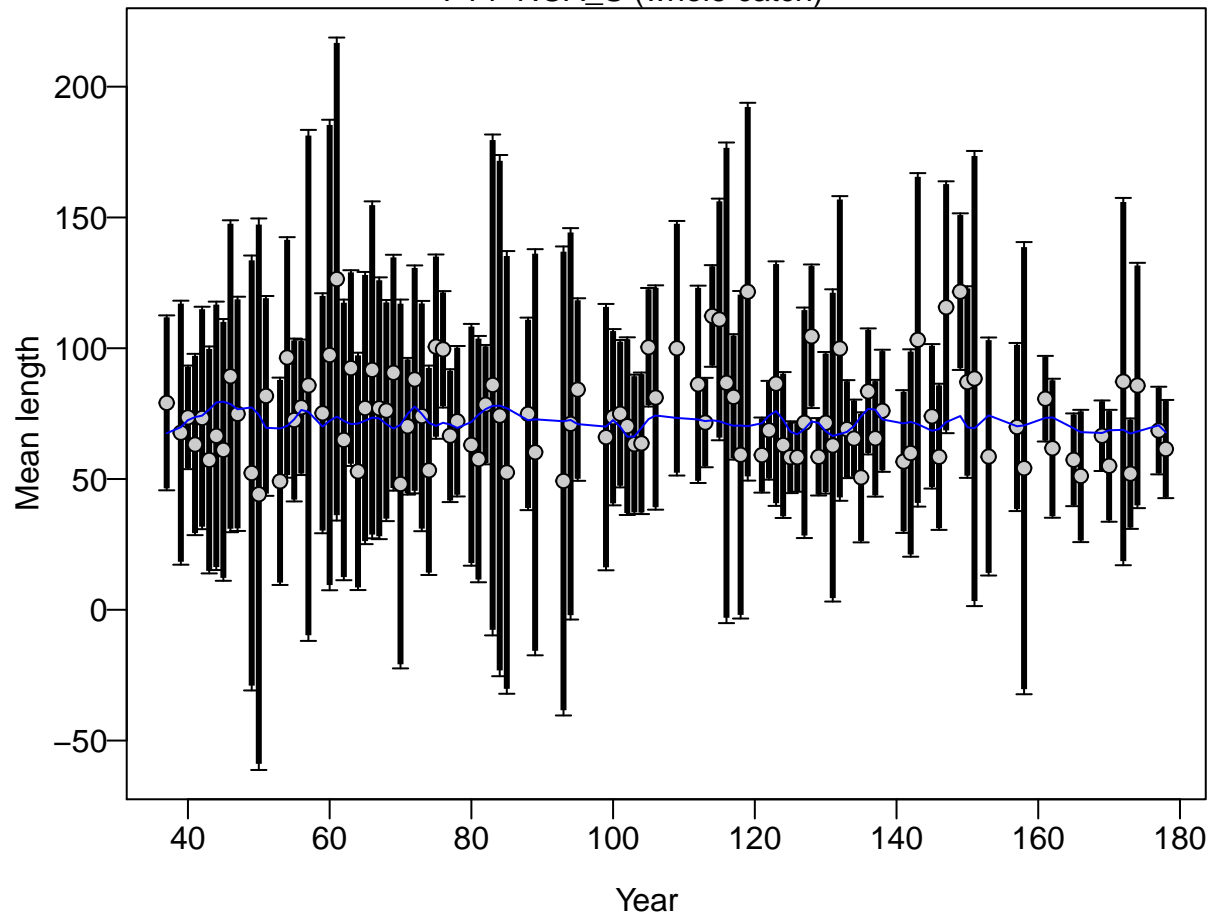




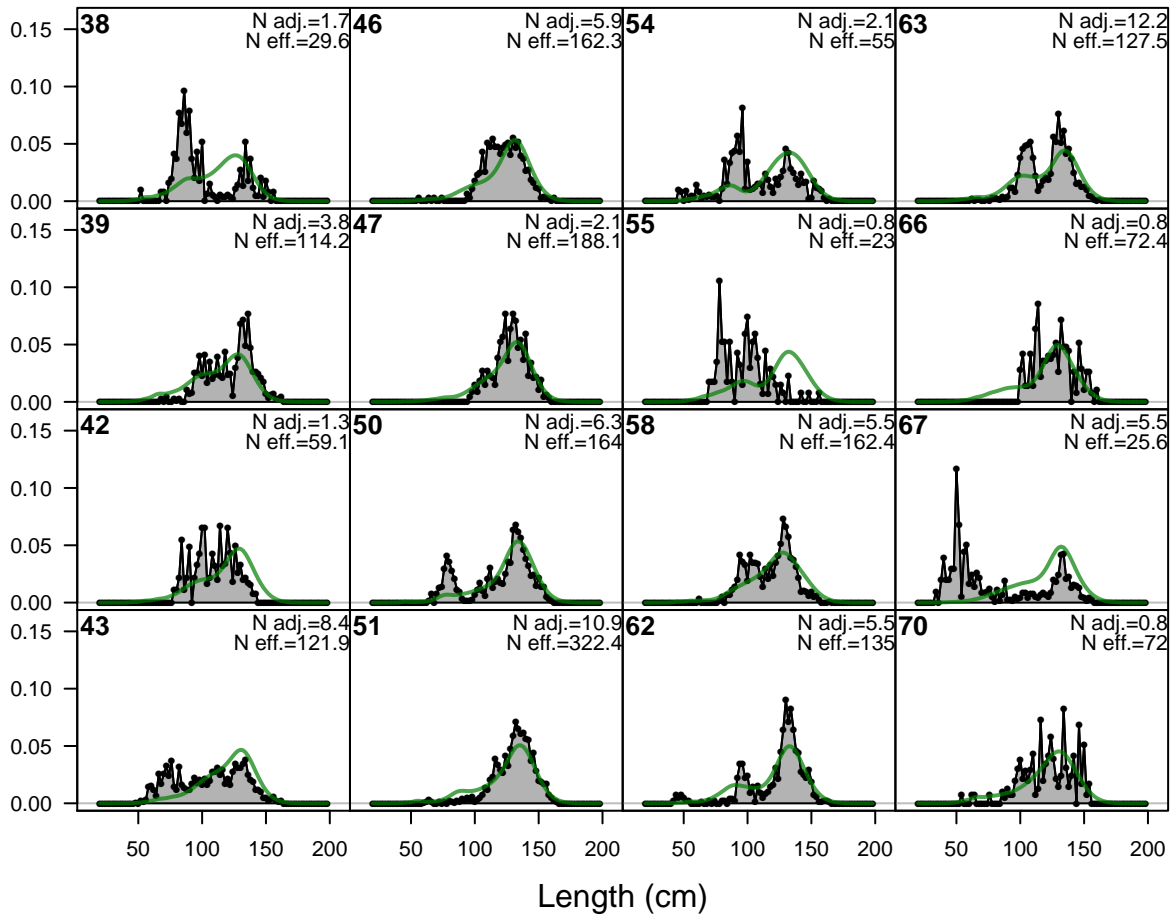
Effective sample size



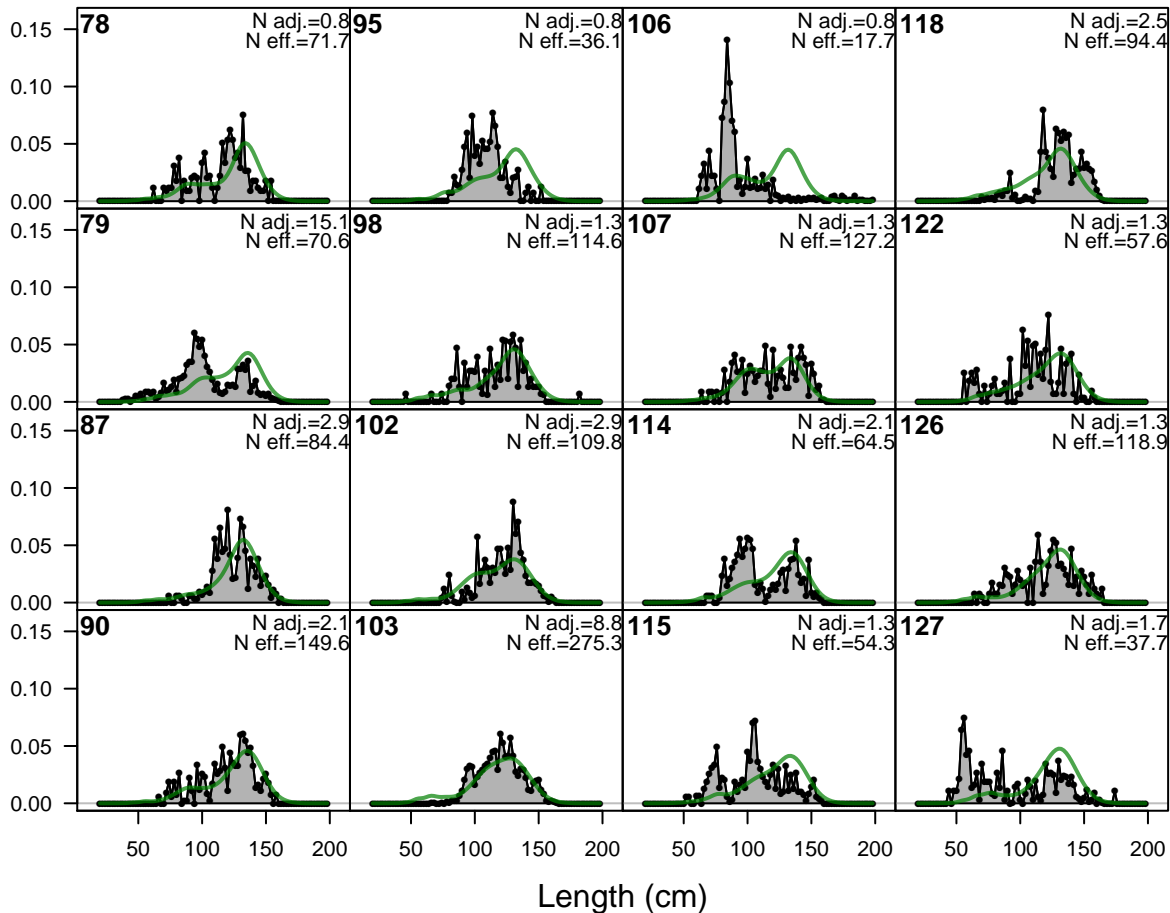
F14-NOA\_S (whole catch)



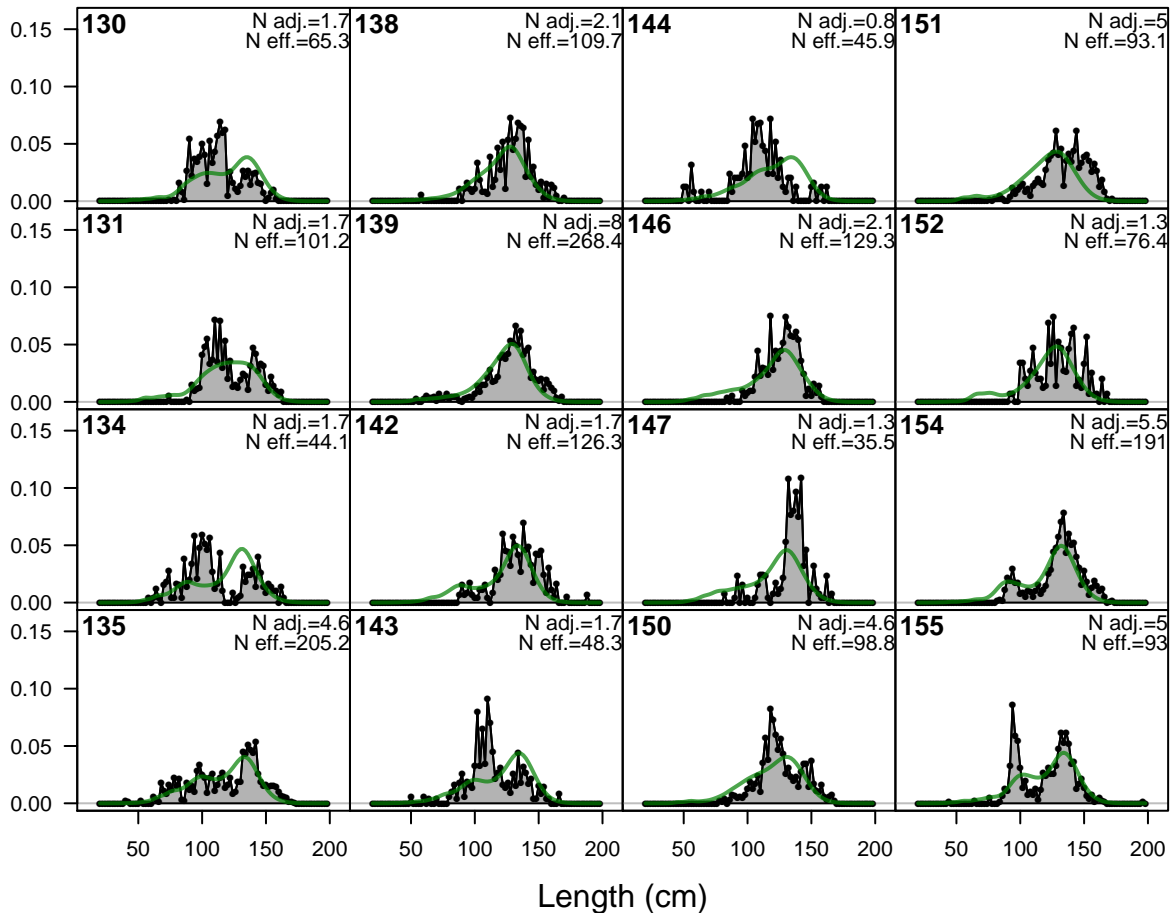
Proportion



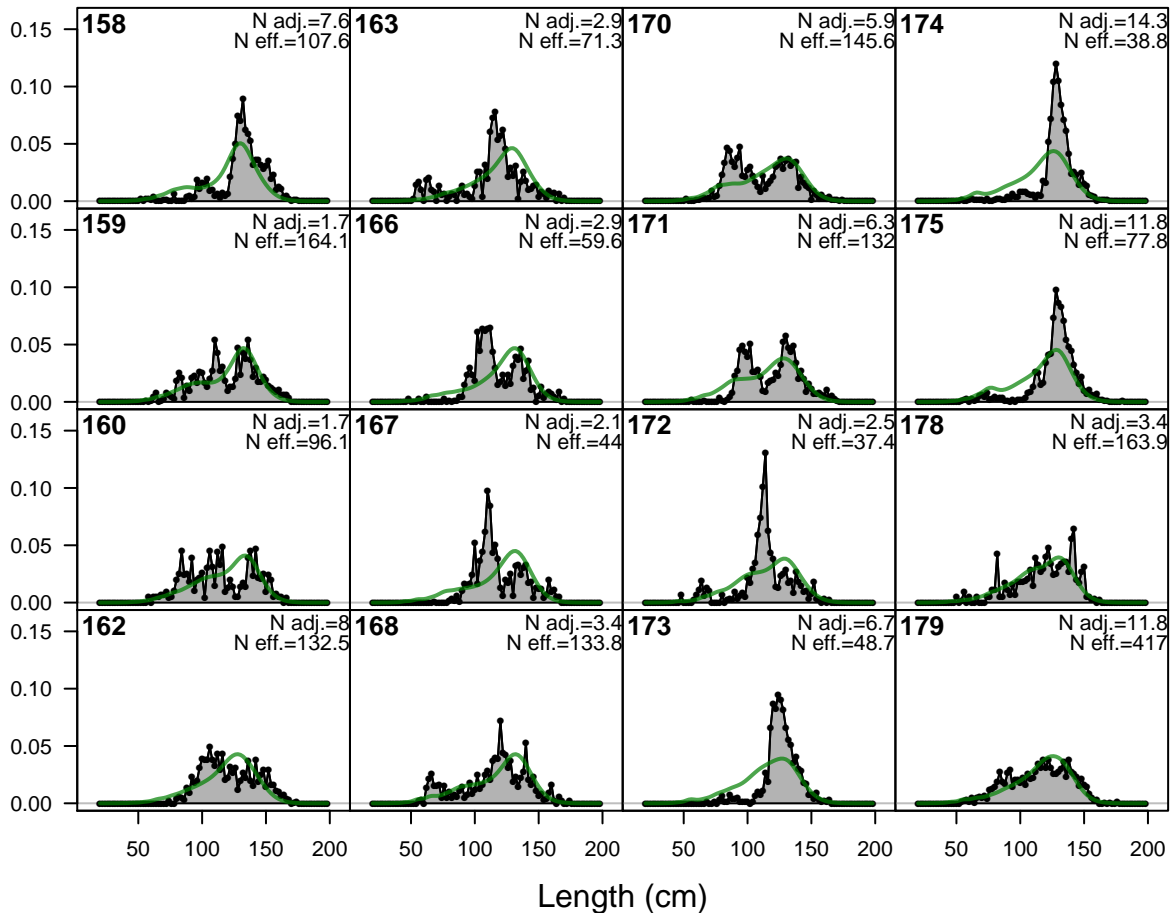
Proportion

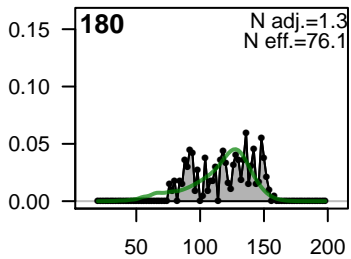


Proportion



Proportion

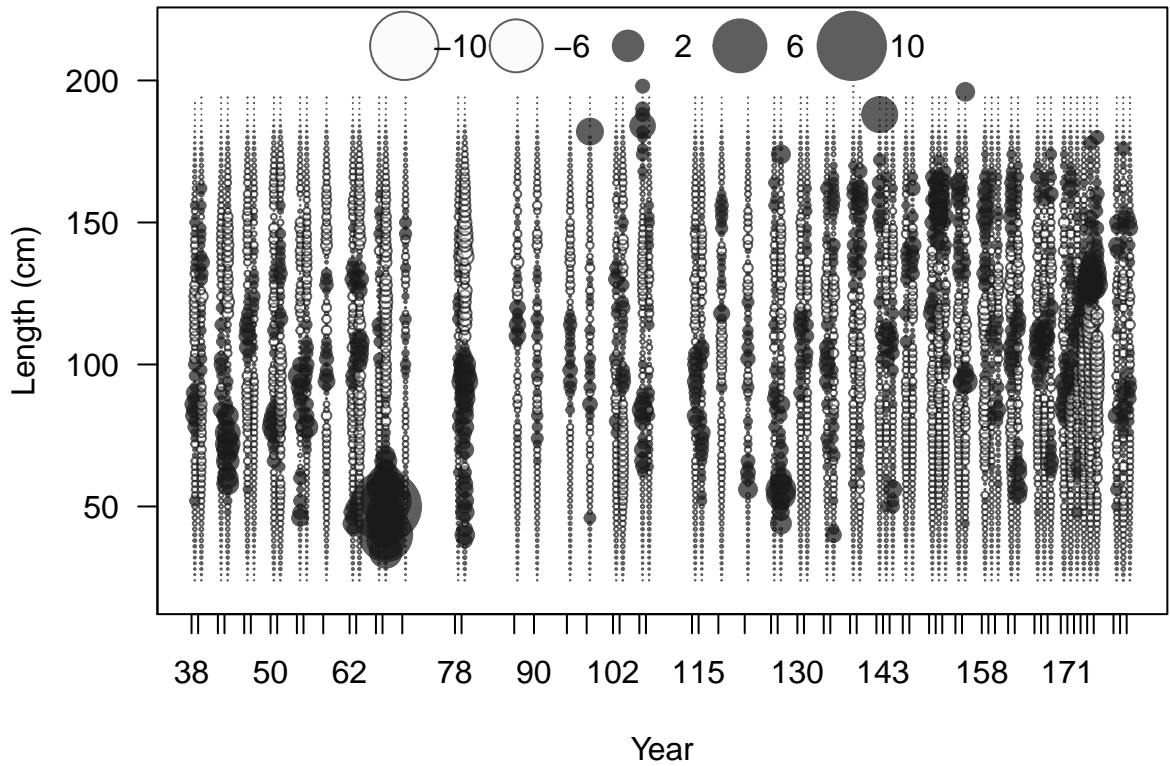


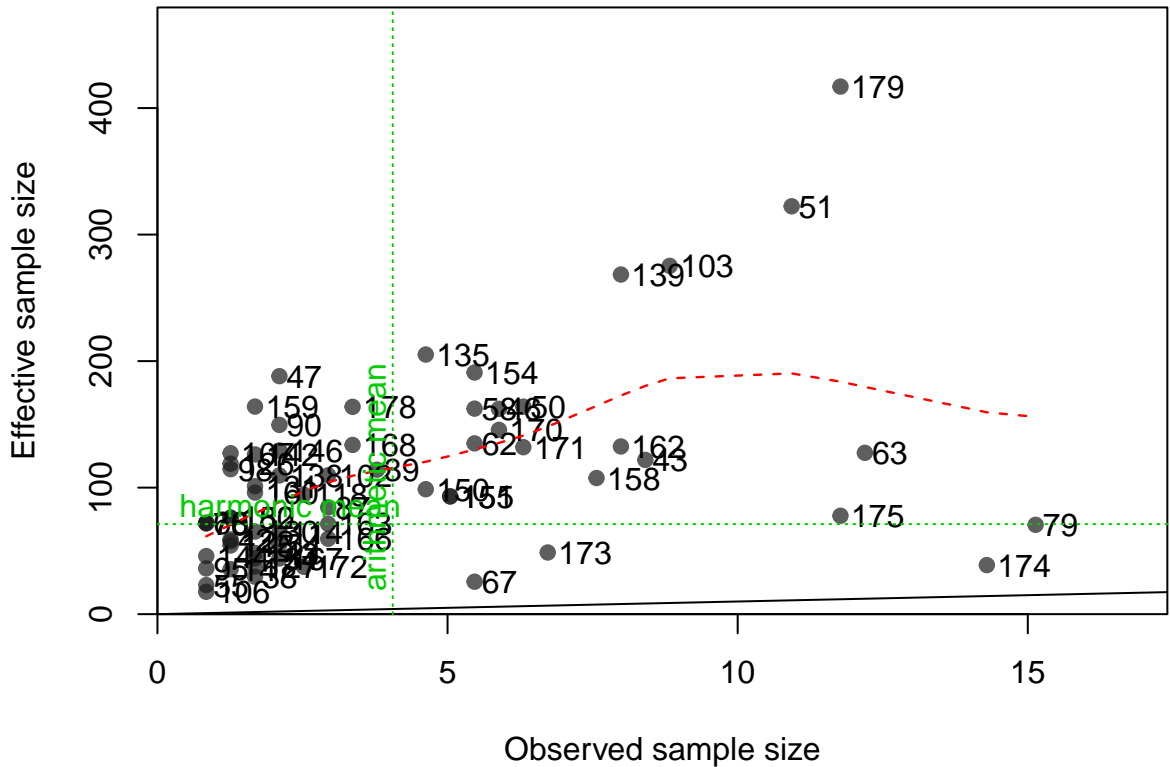


Proportion

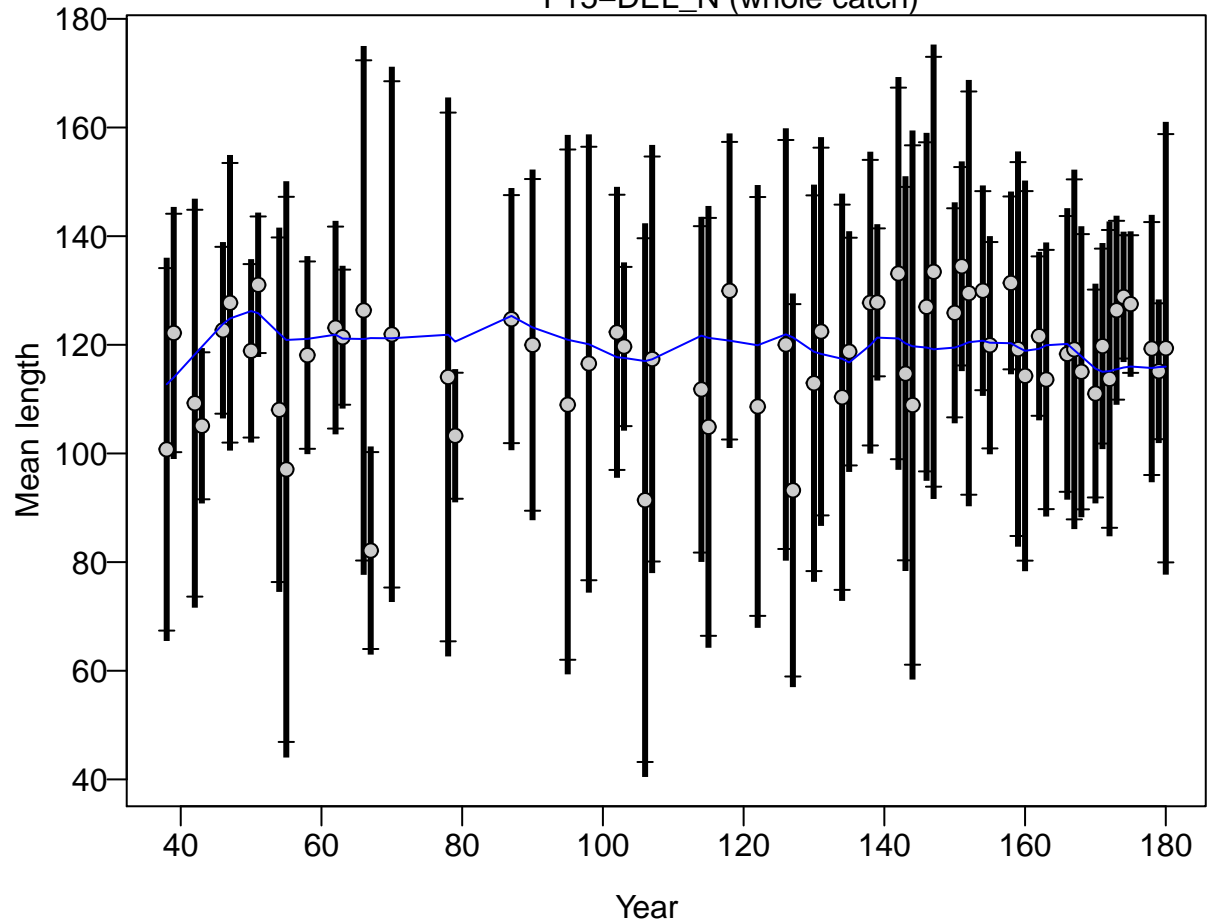
Length (cm)



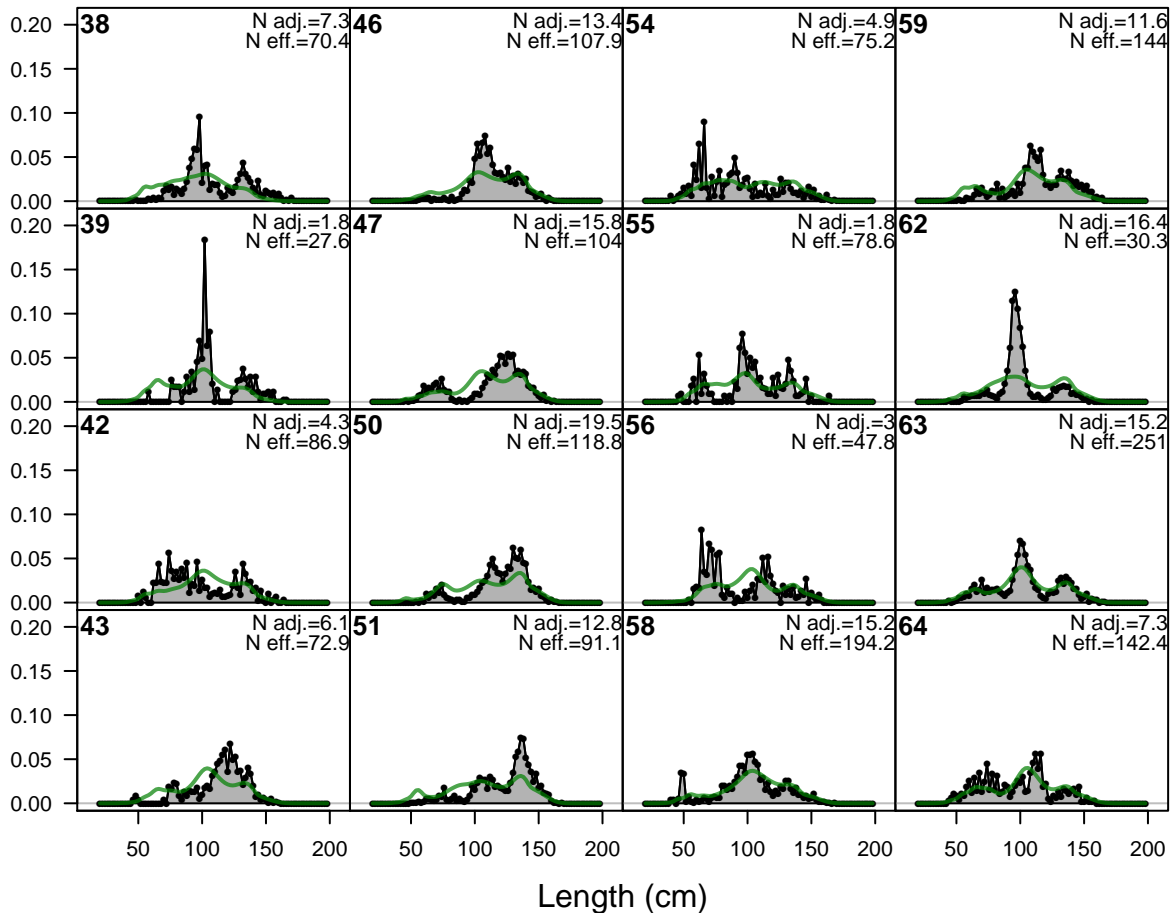




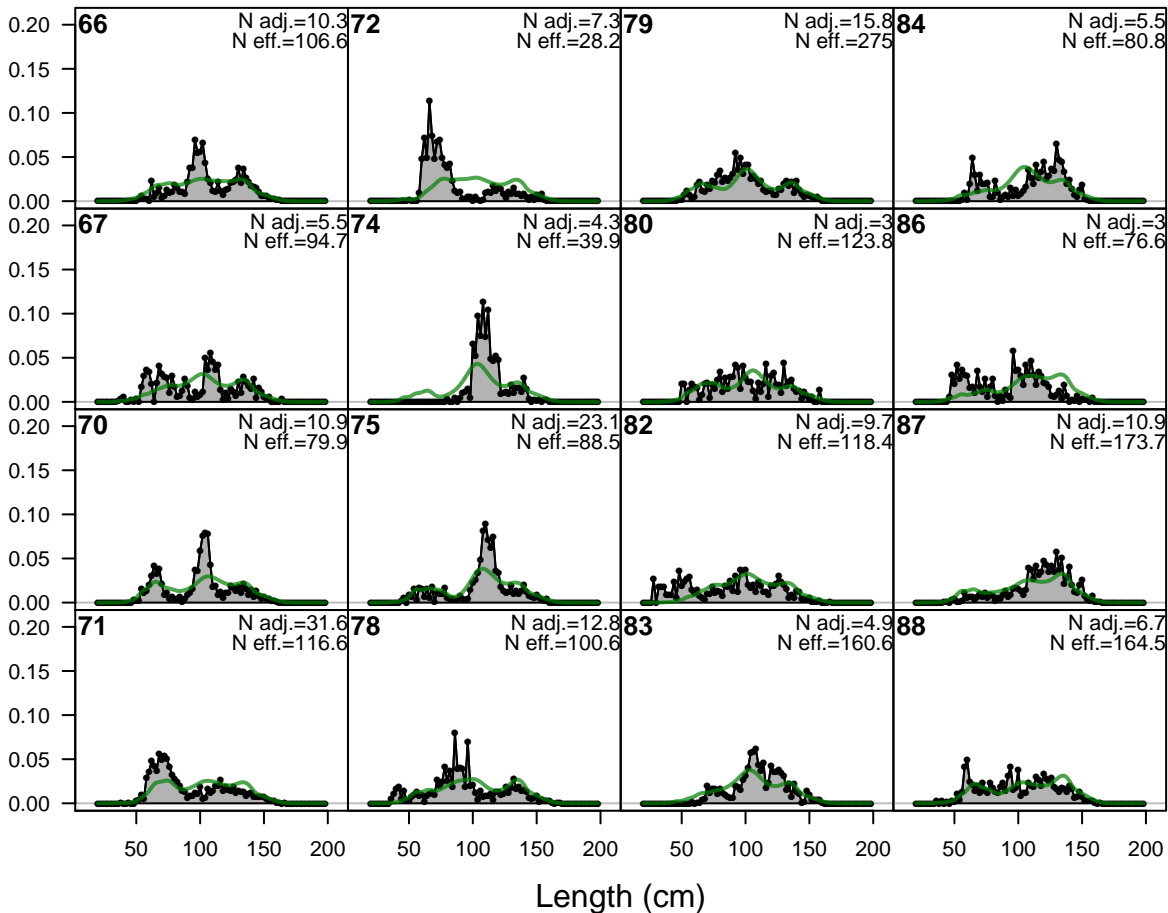
F15-DEL\_N (whole catch)



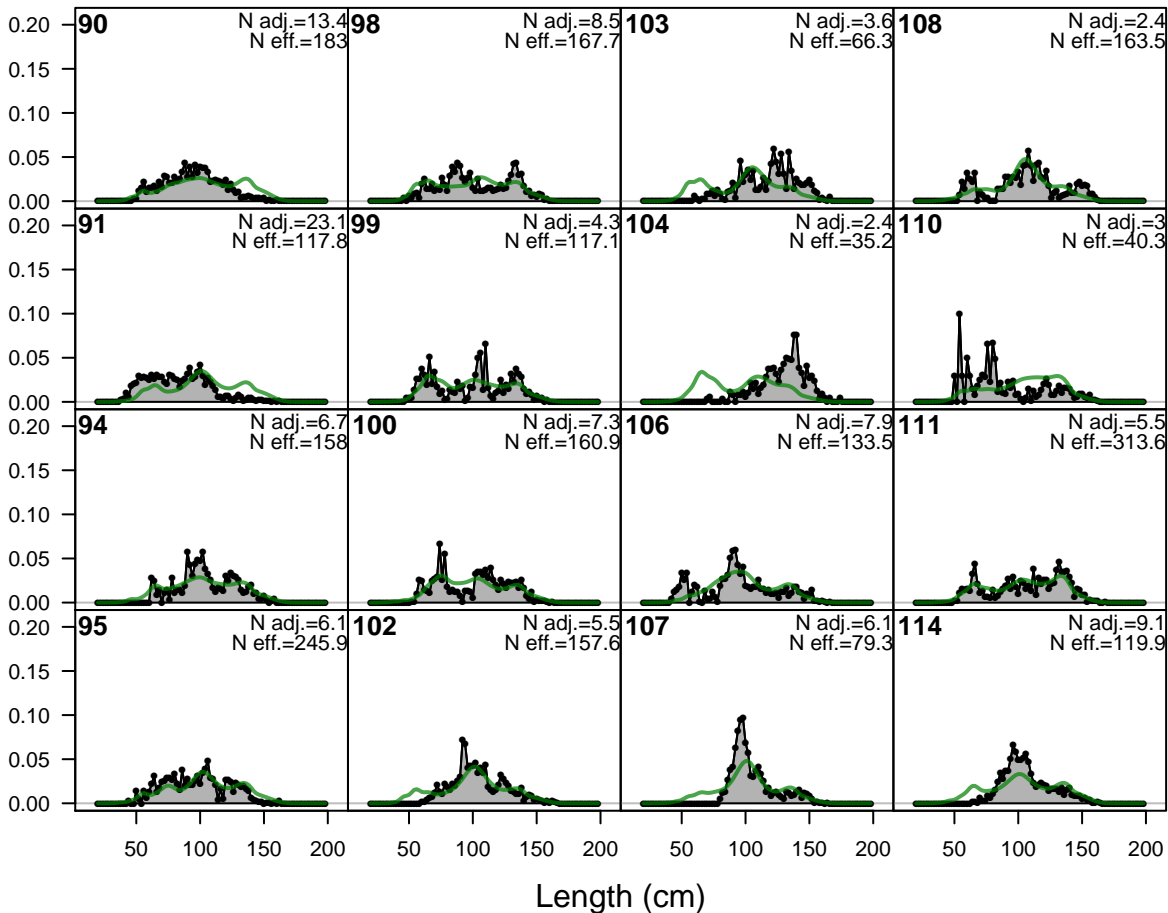
Proportion



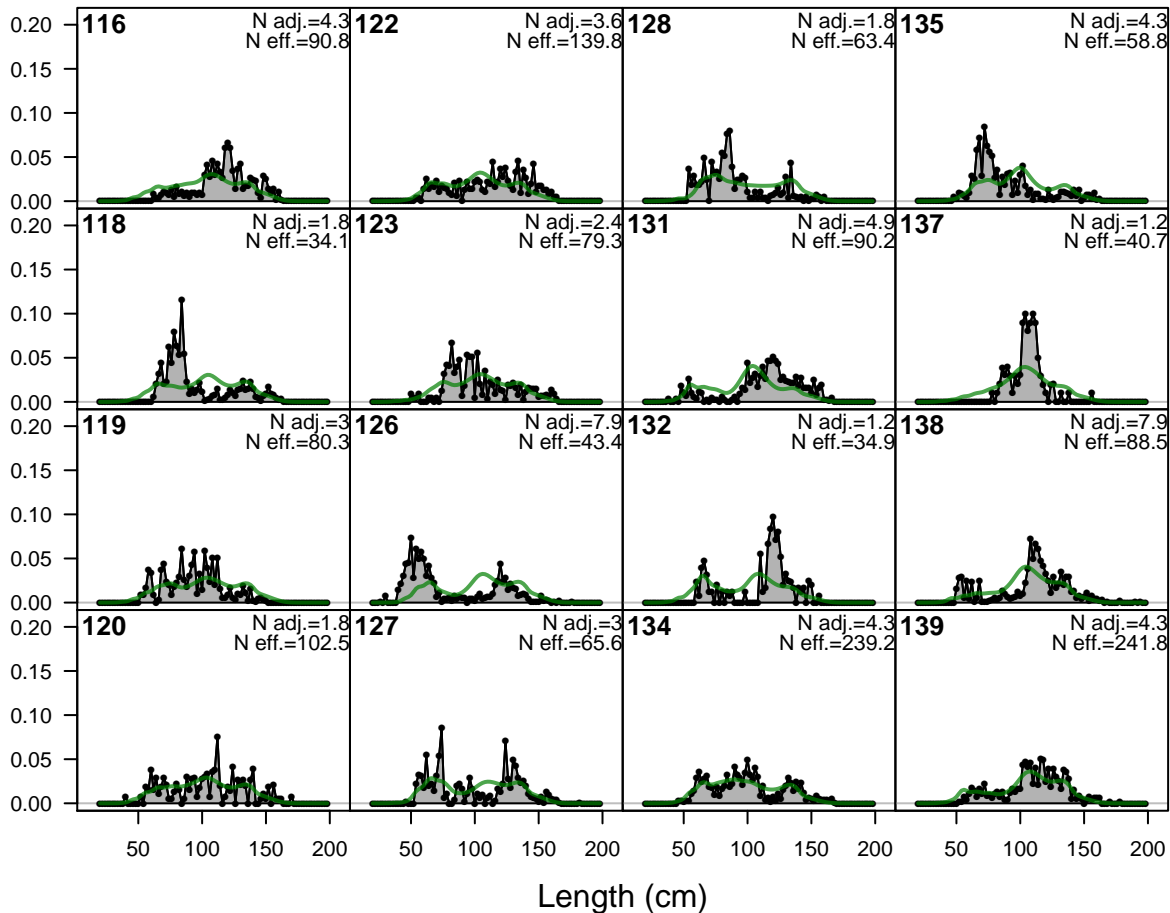
Proportion



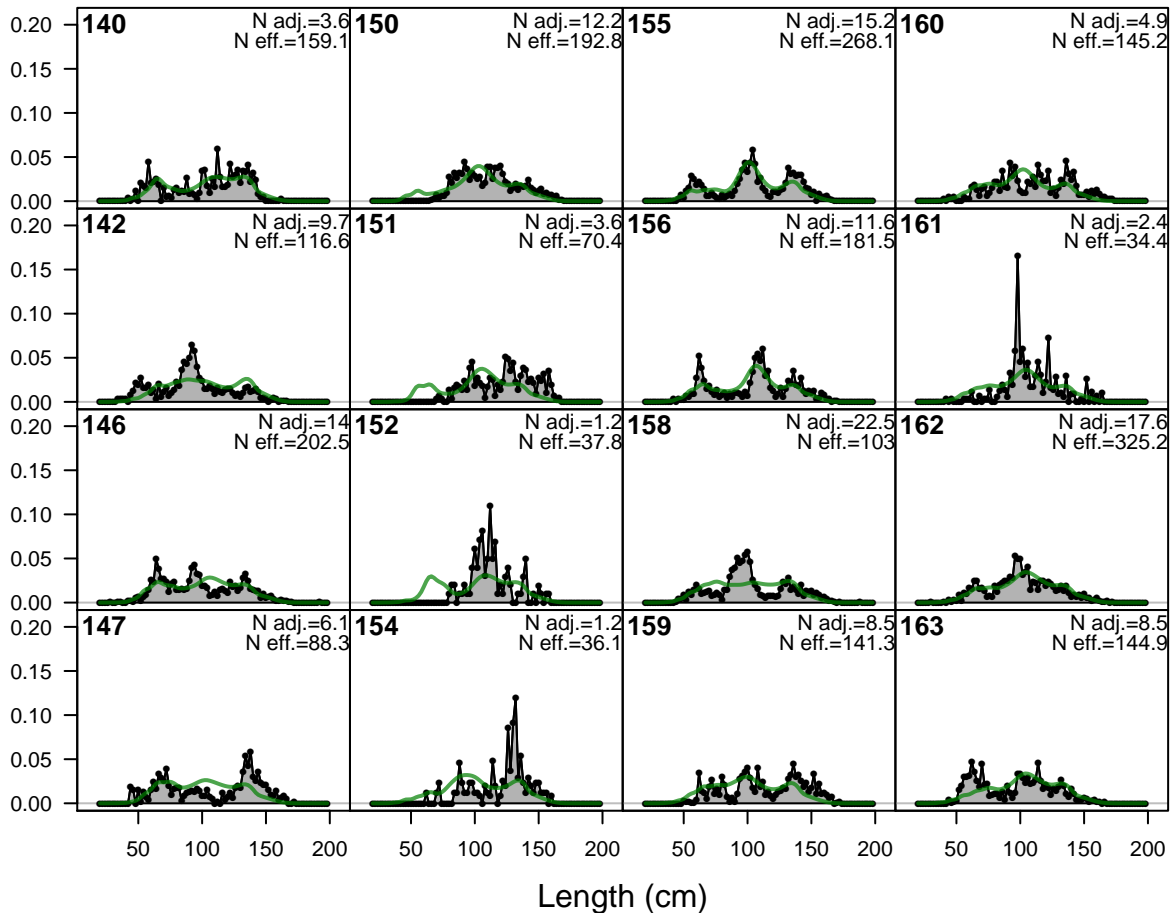
Proportion



Proportion

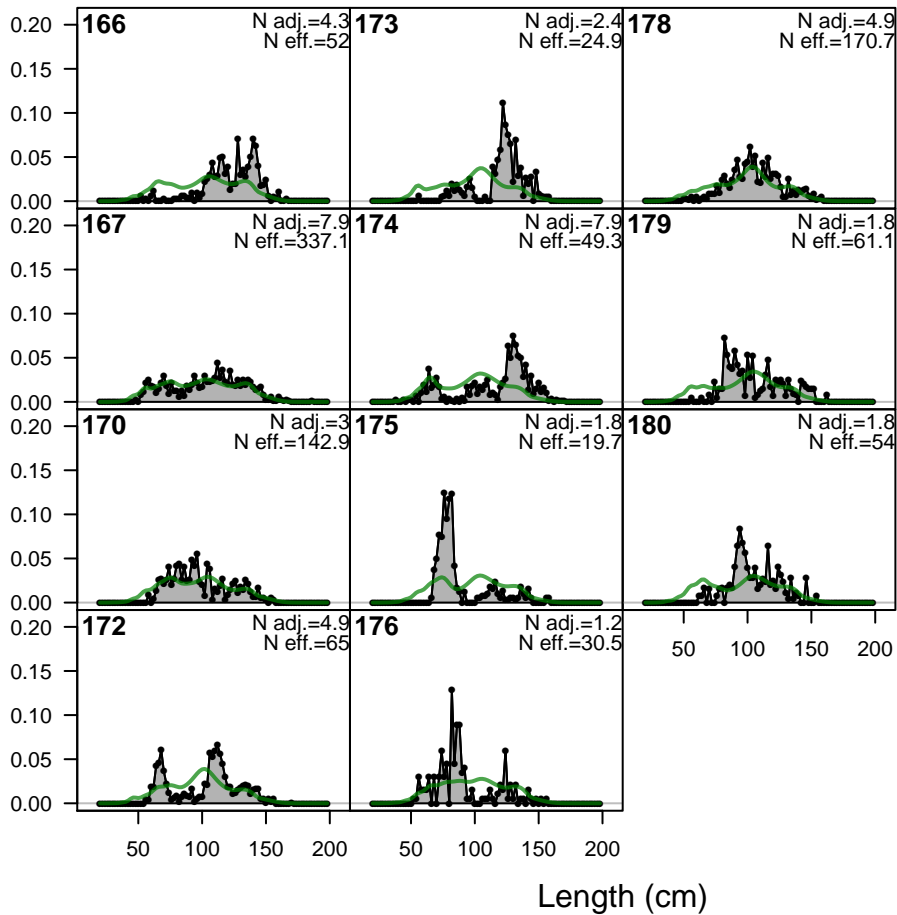


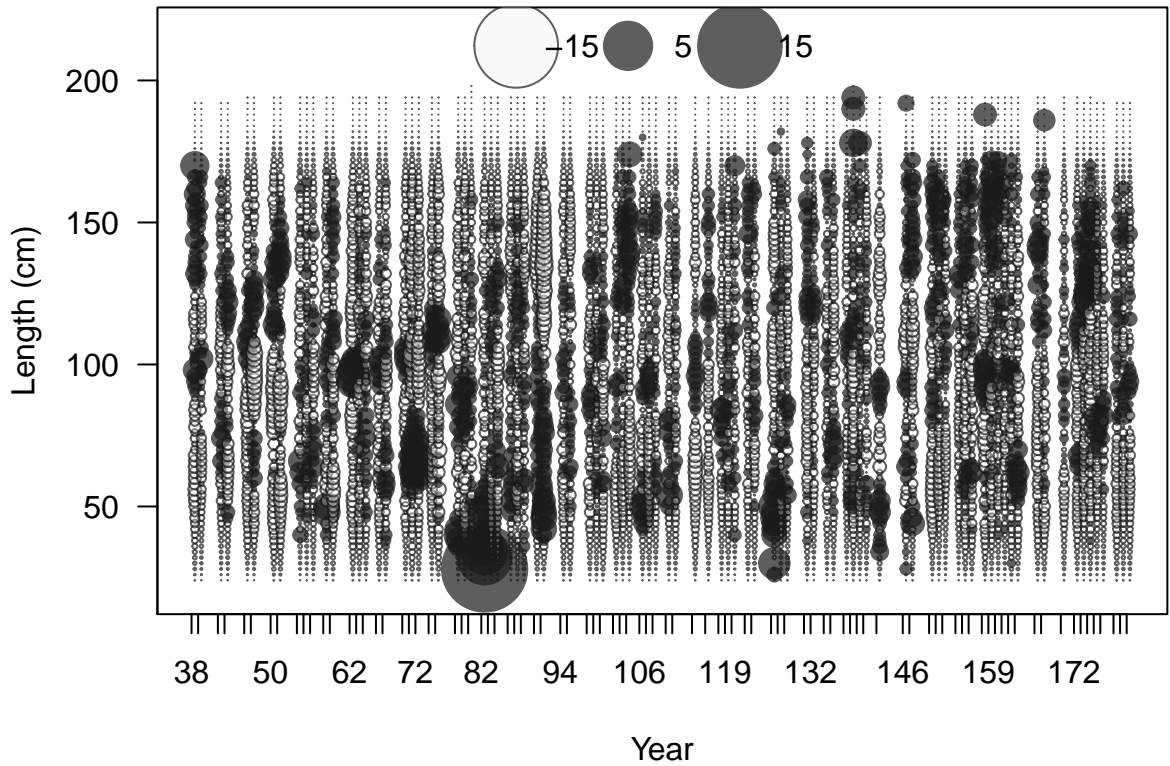
Proportion

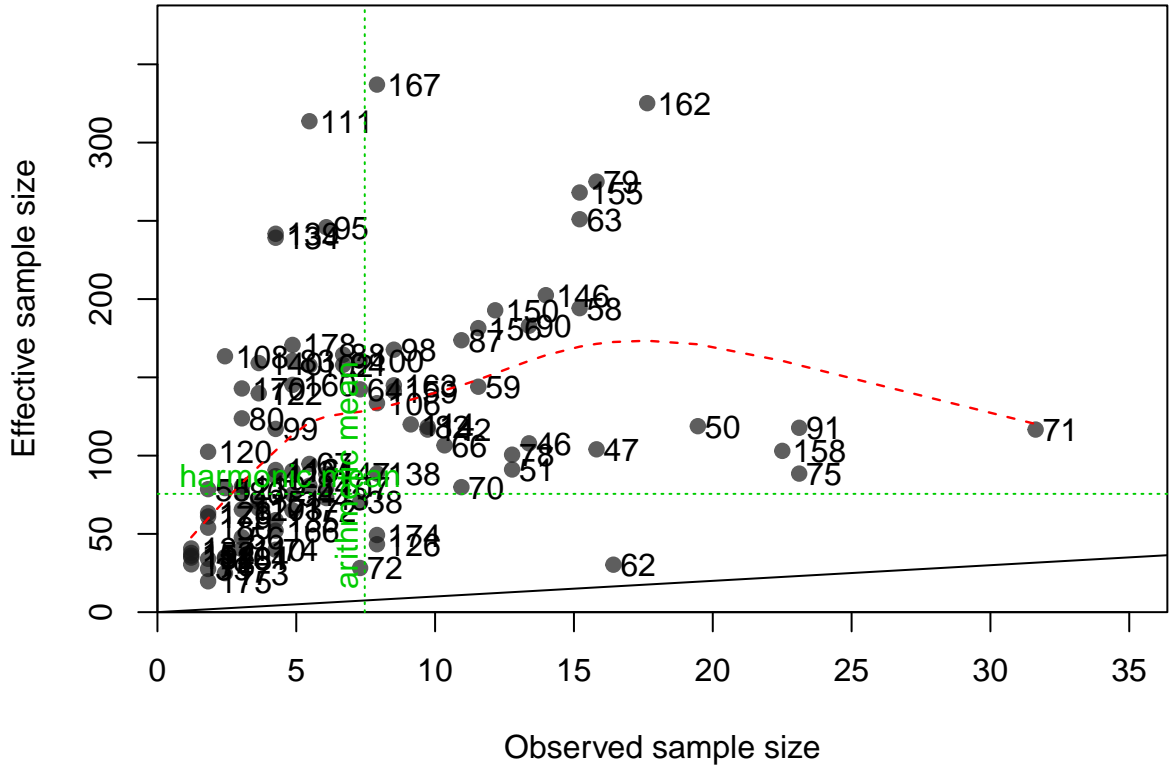




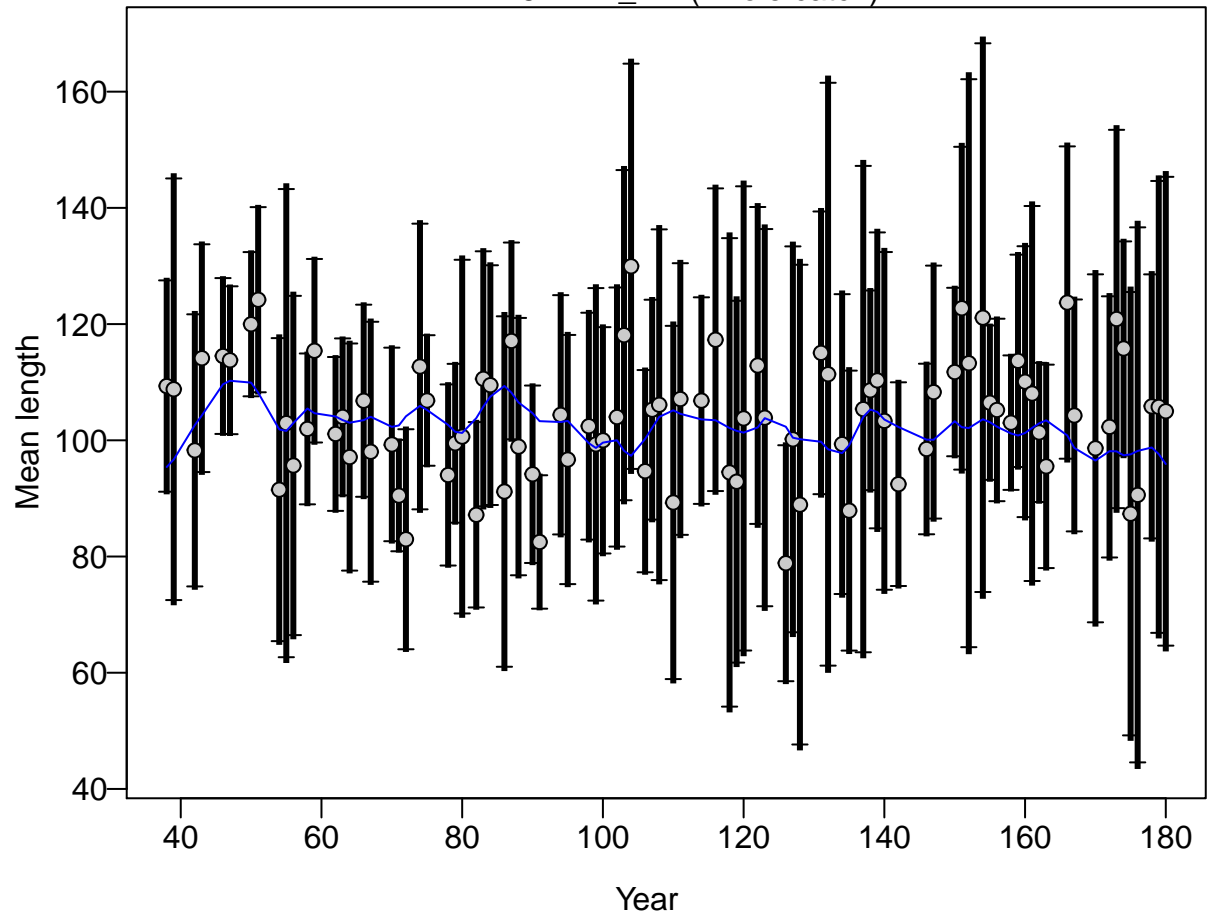
Proportion



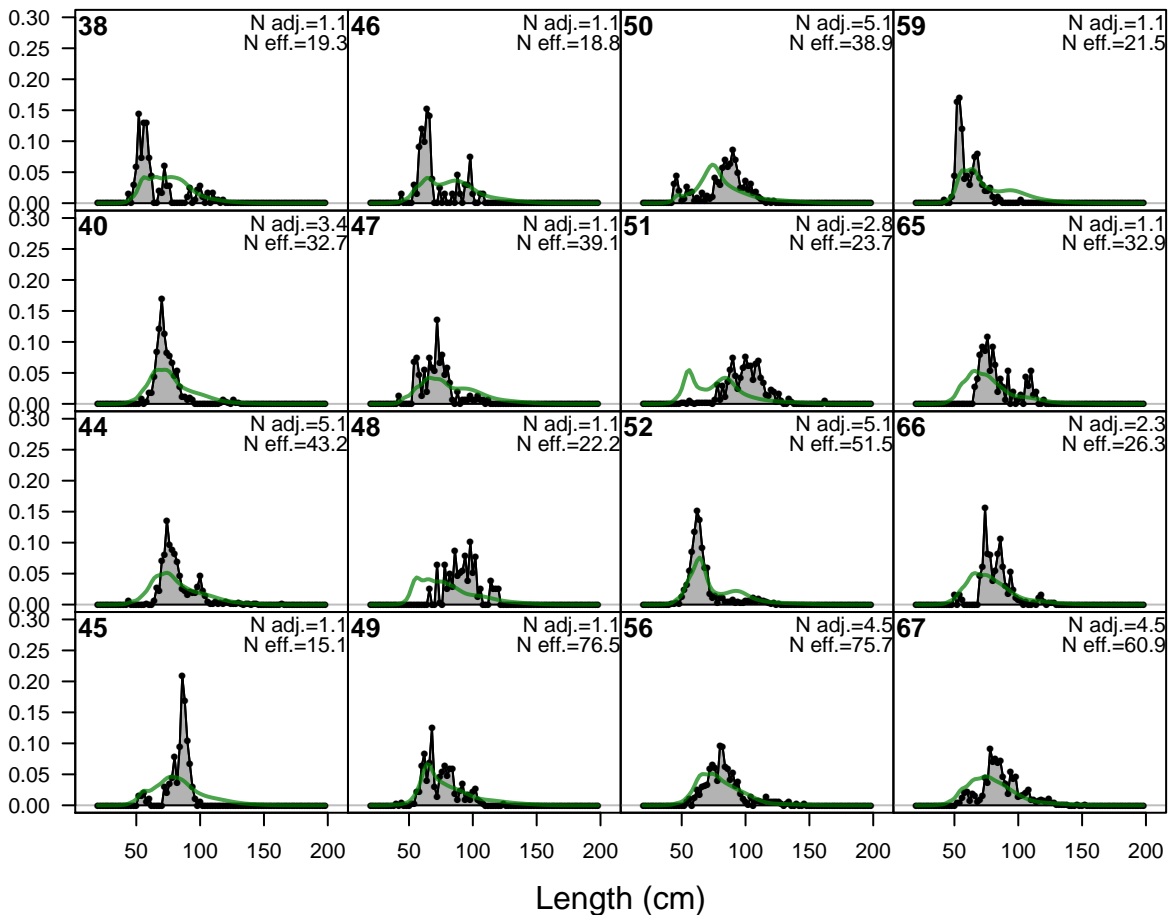




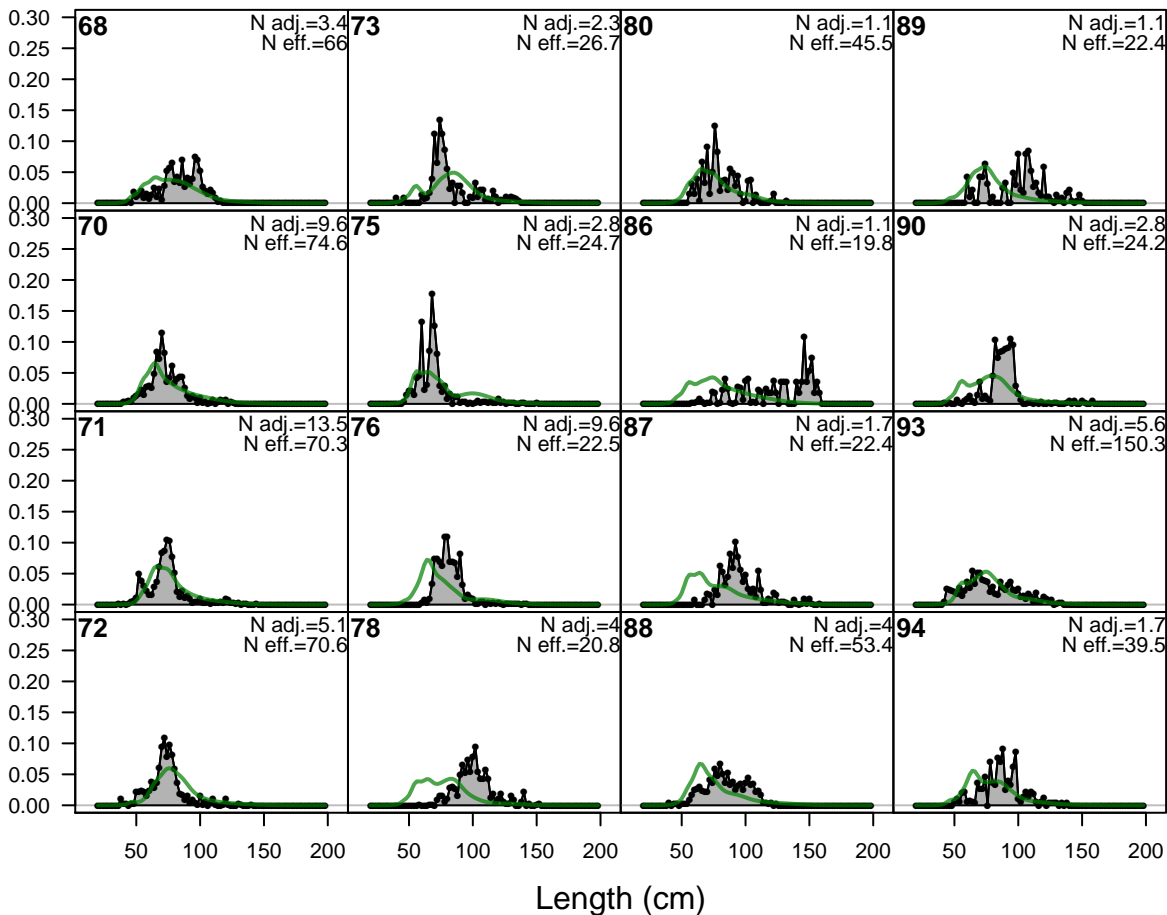
F16-DEL\_NE (whole catch)



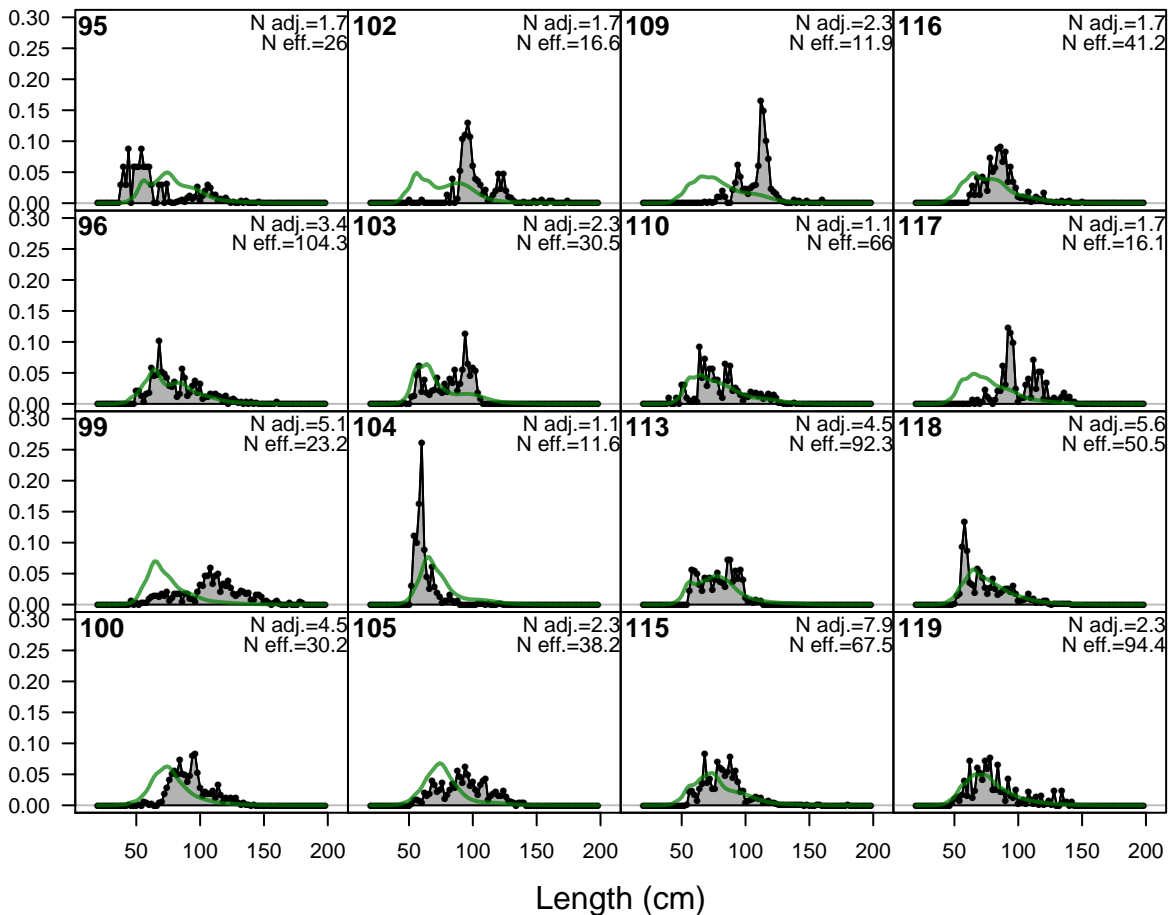
Proportion



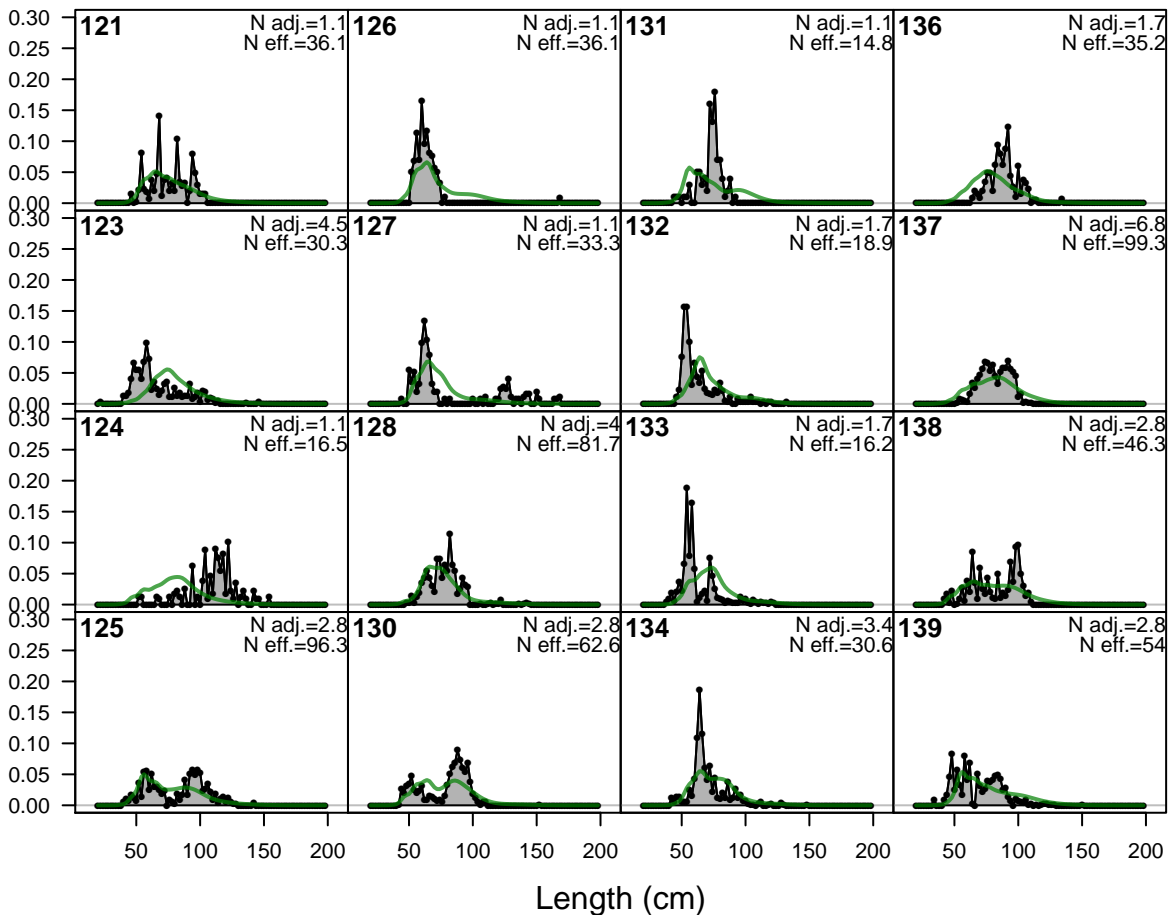
Proportion



Proportion

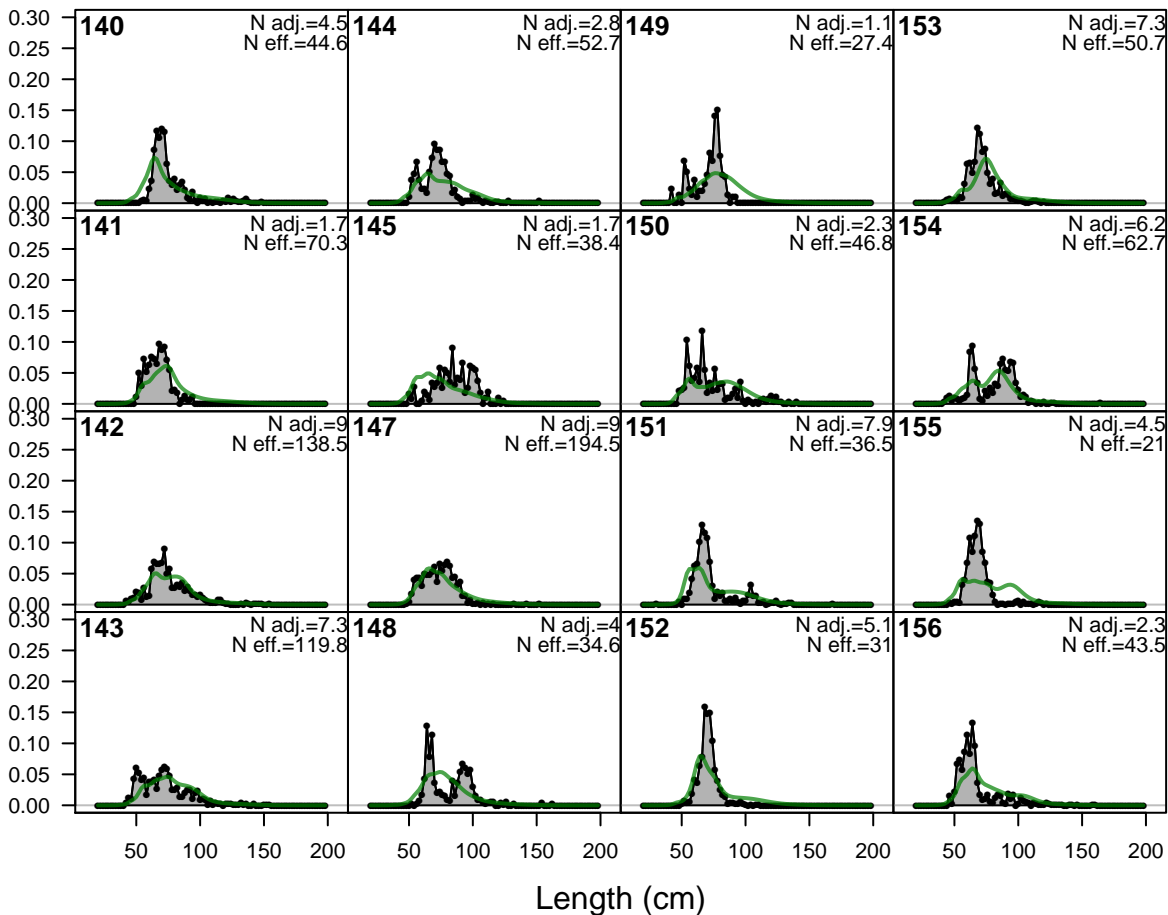


Proportion

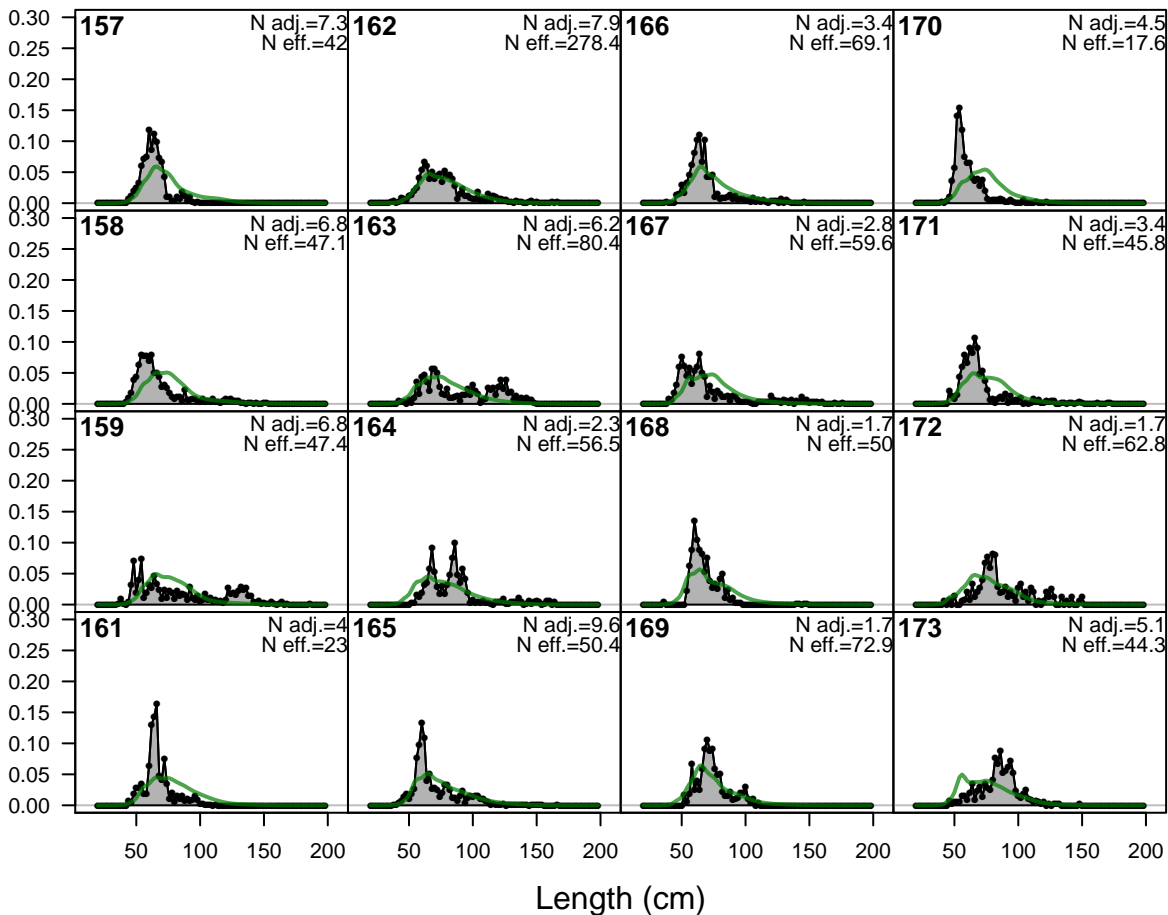




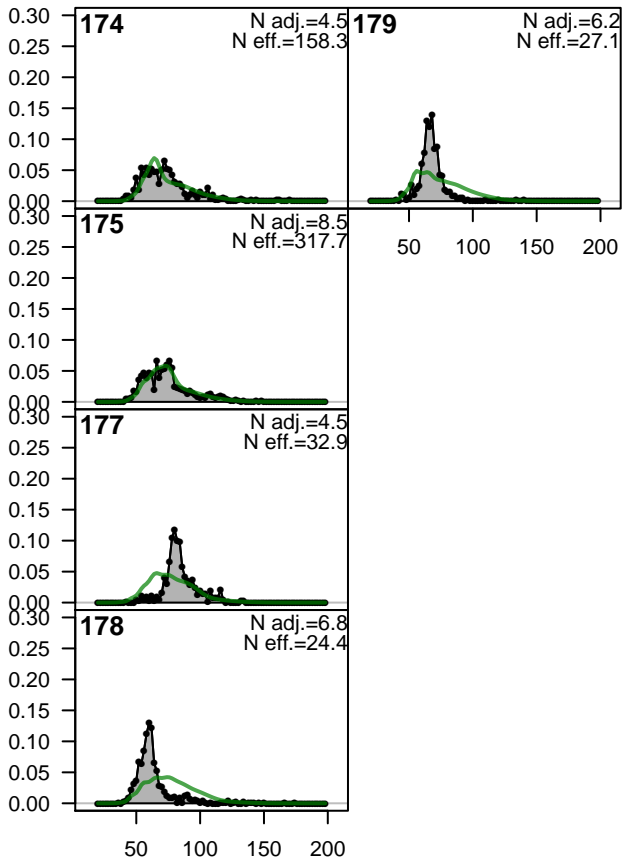
Proportion



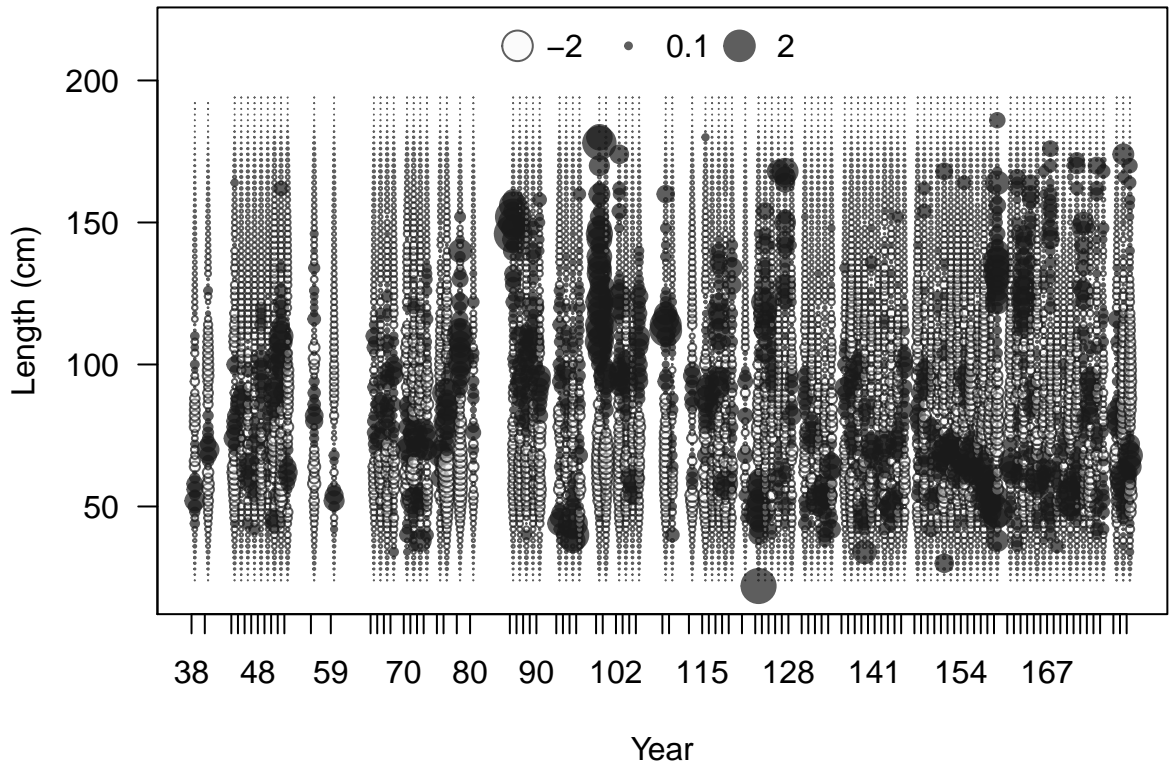
Proportion

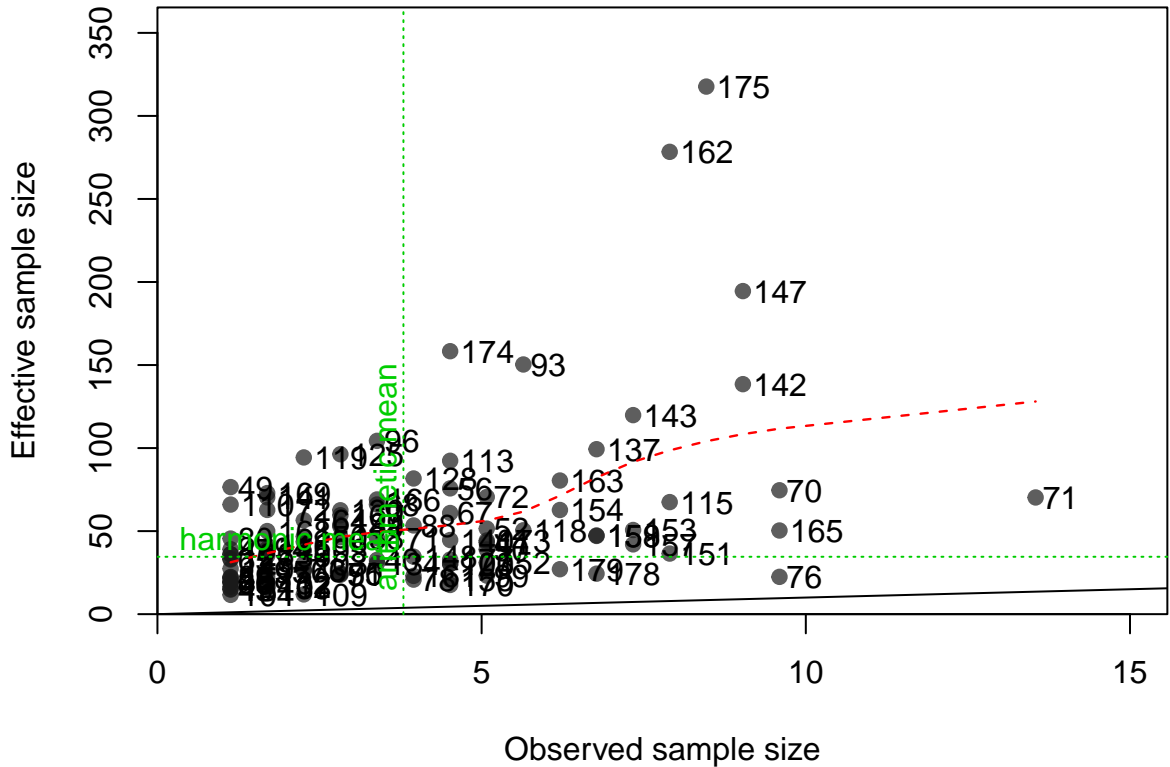


Proportion

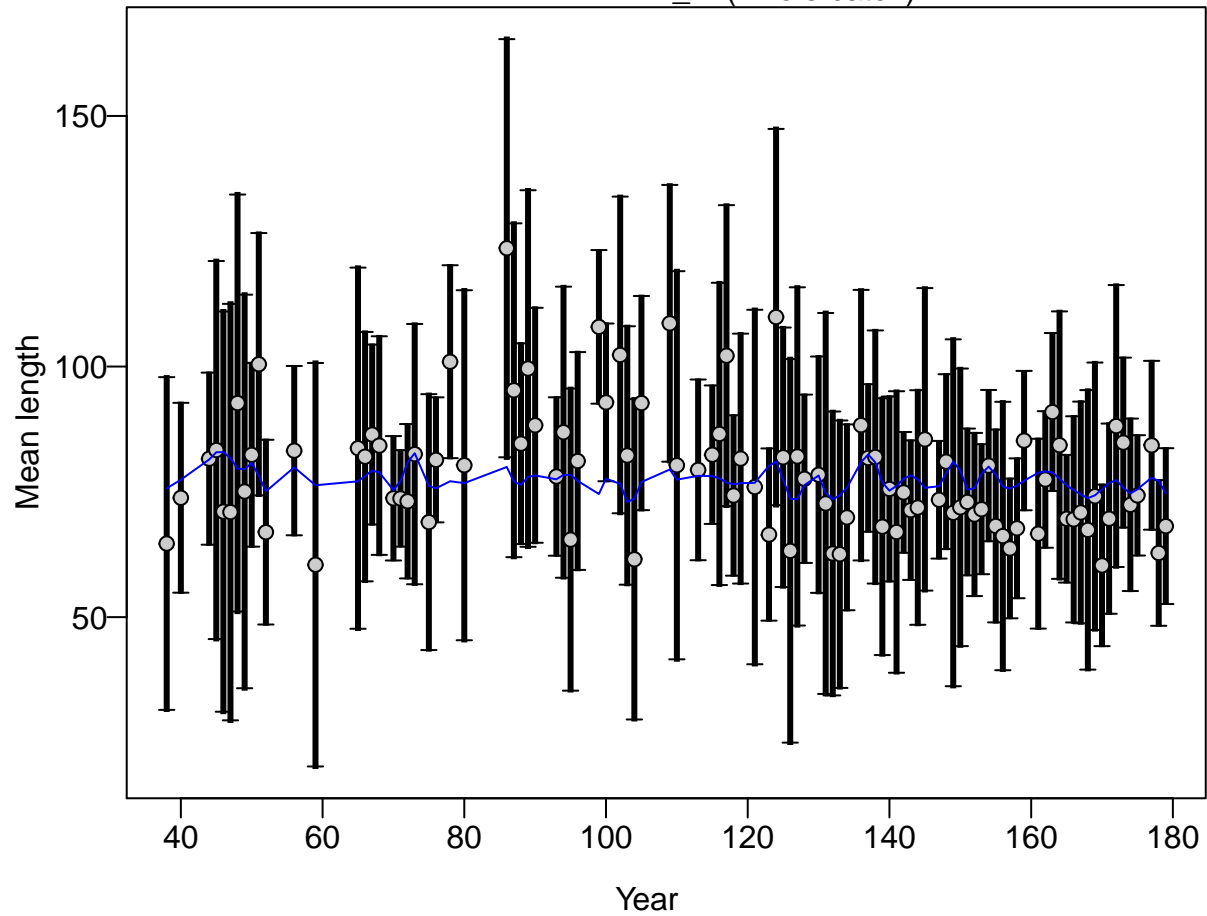


Length (cm)

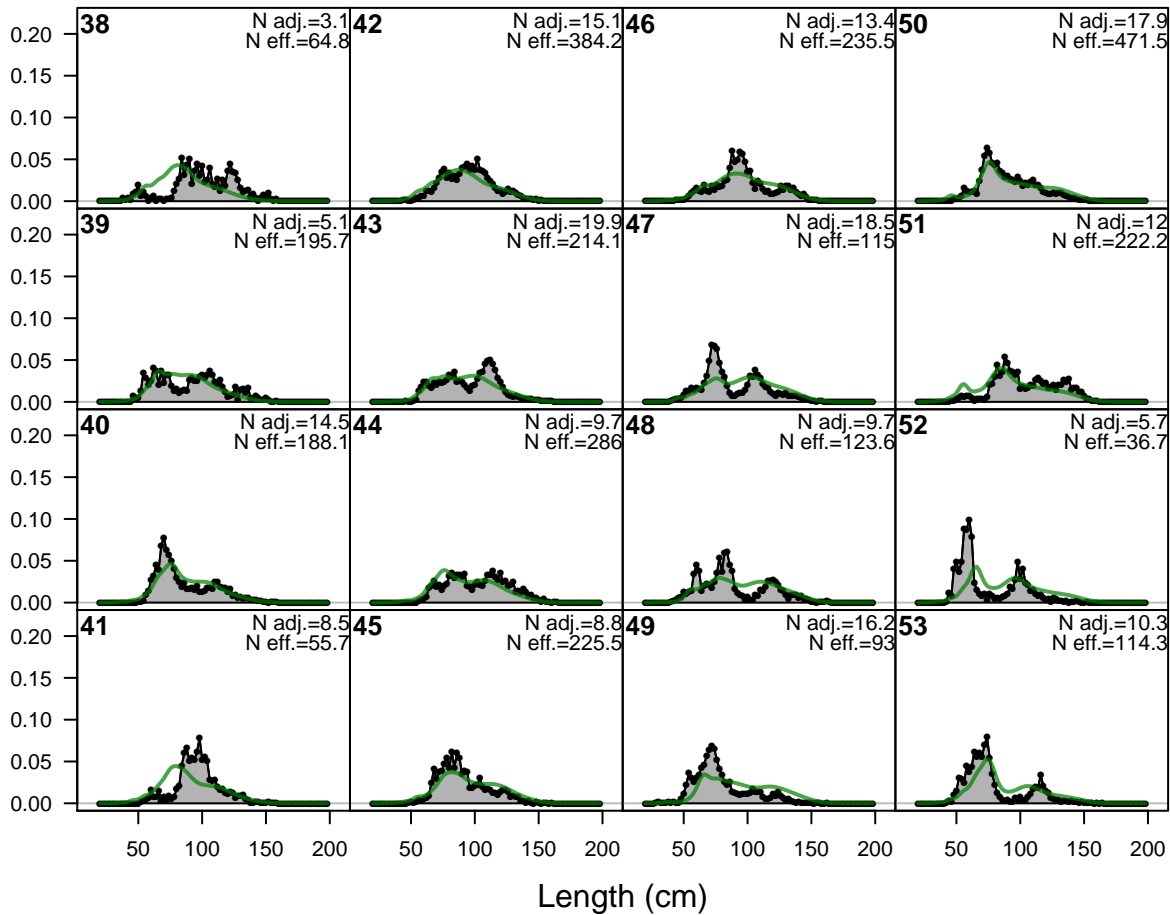




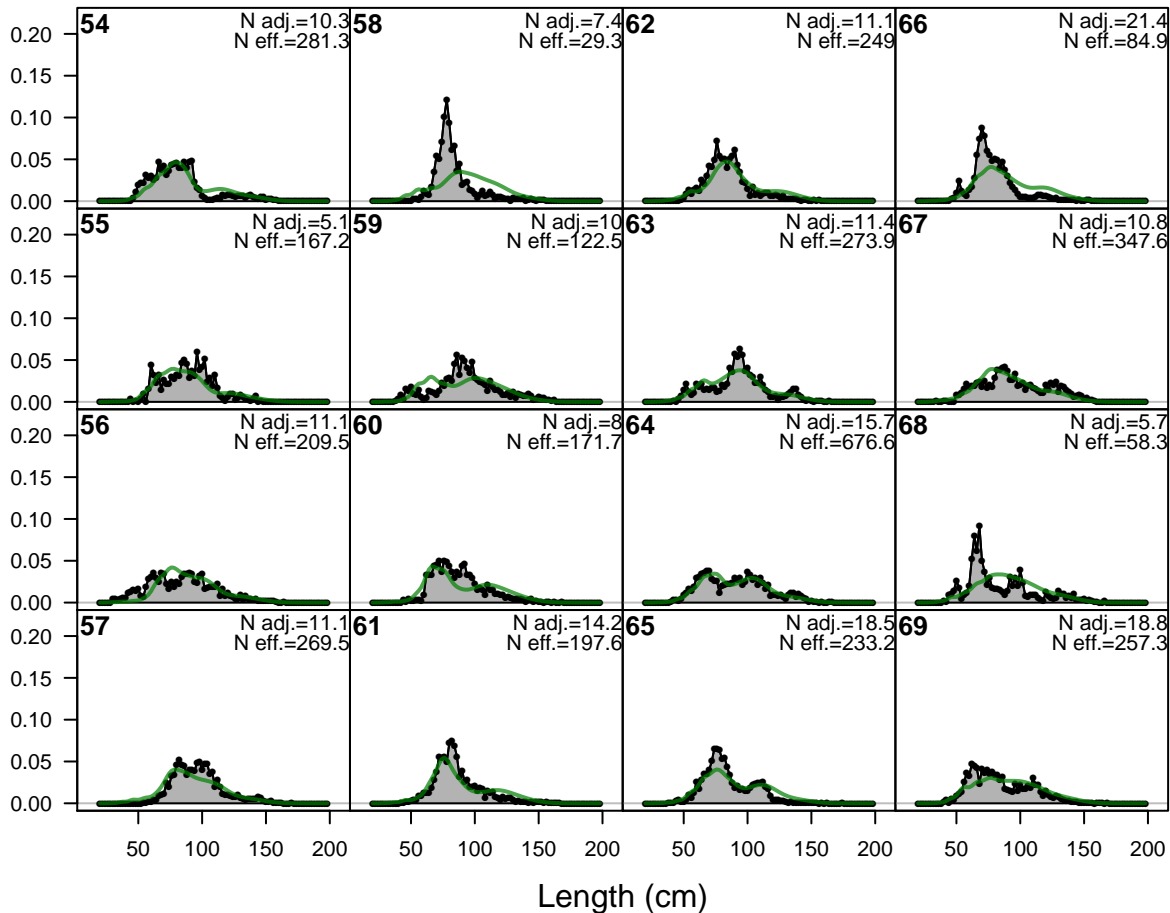
F17-DEL\_M (whole catch)



Proportion

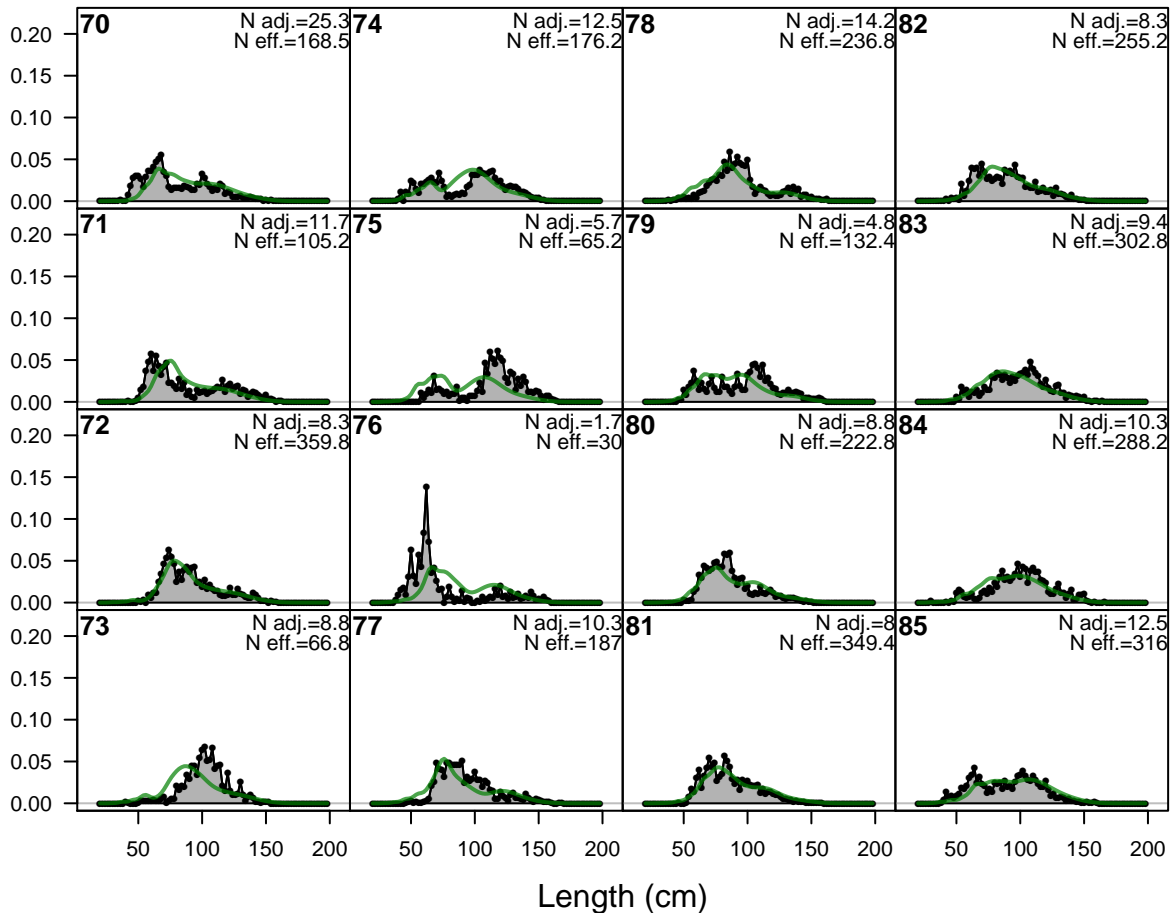


Proportion

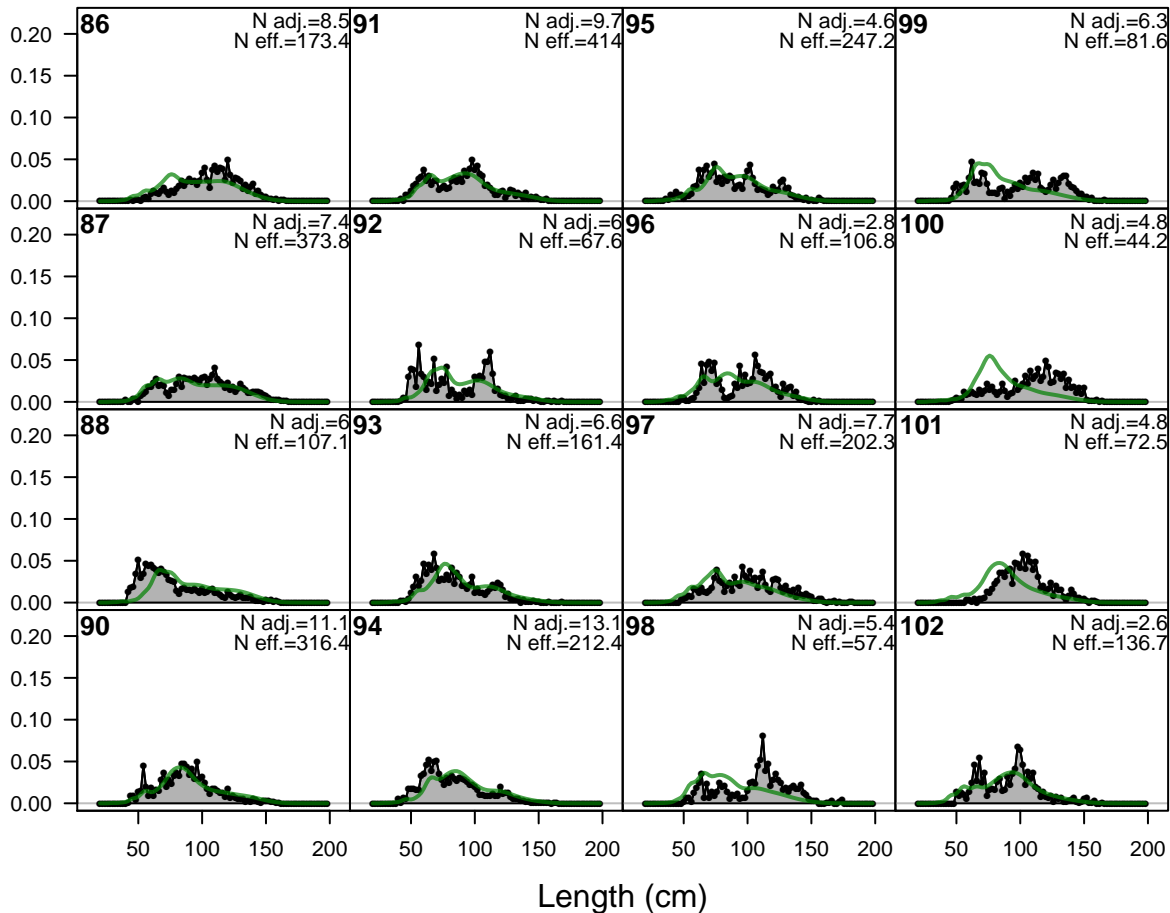




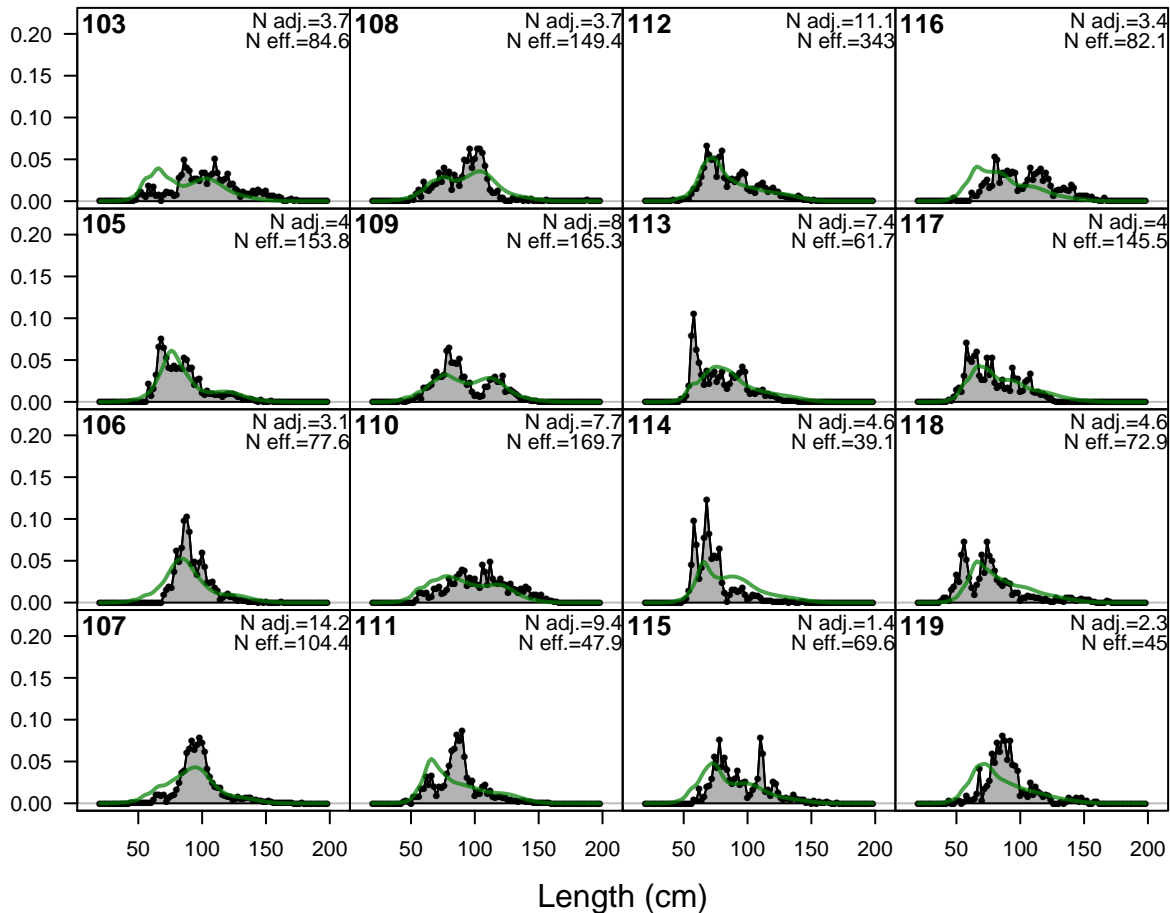
Proportion



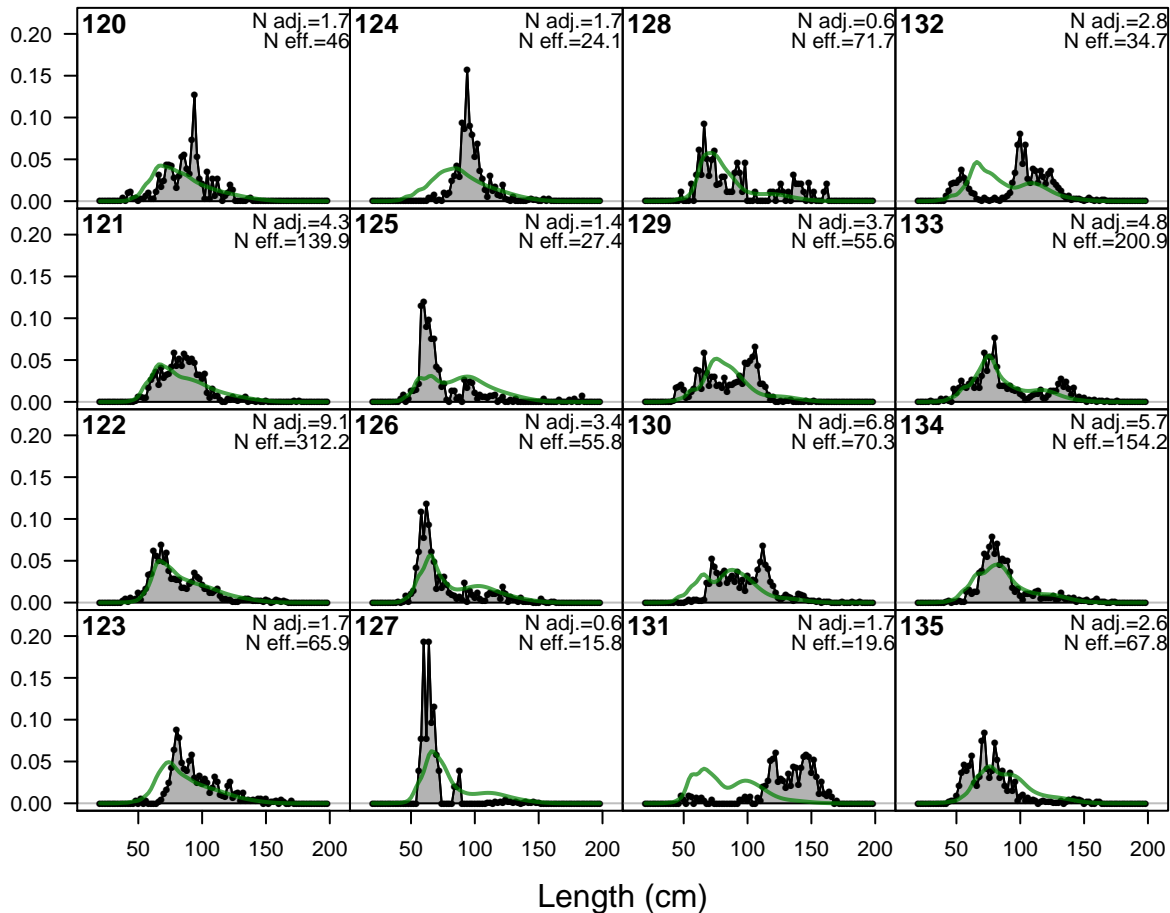
Proportion



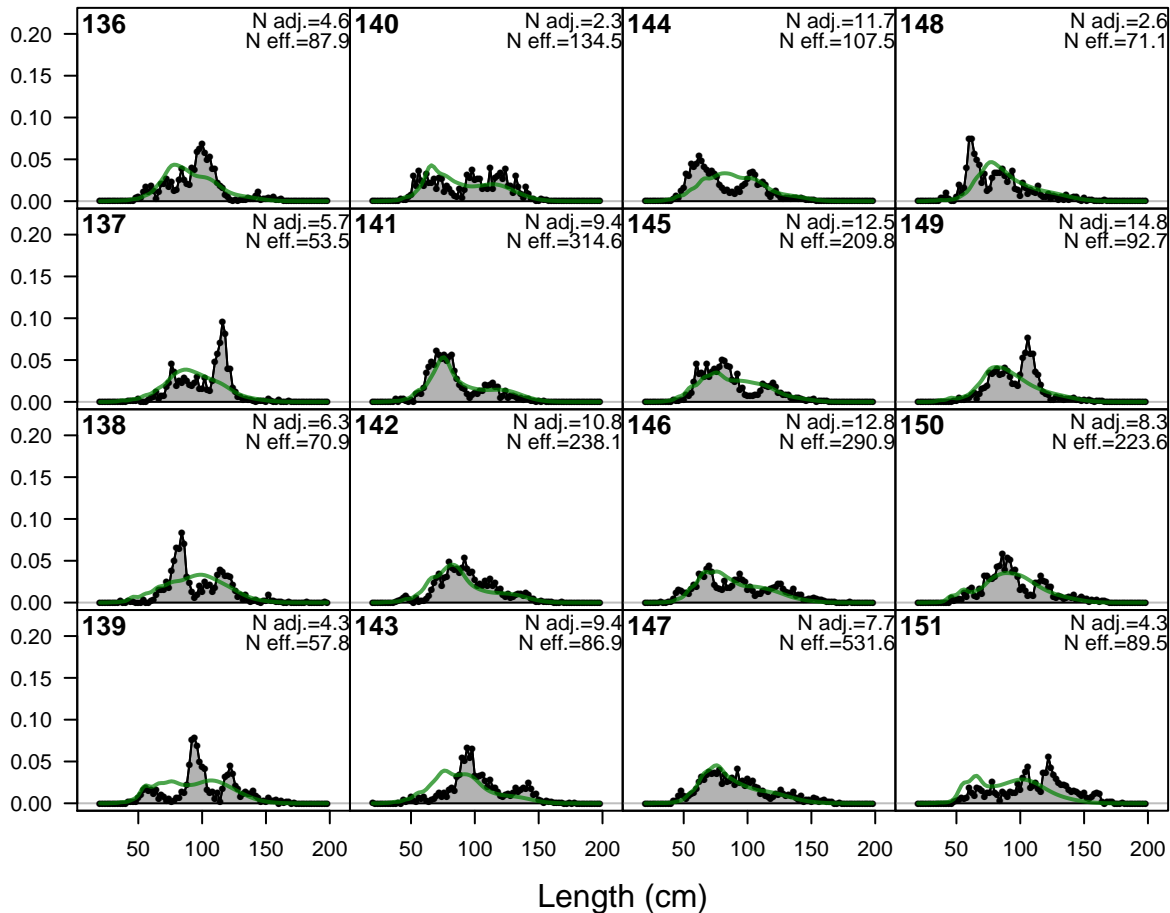
Proportion



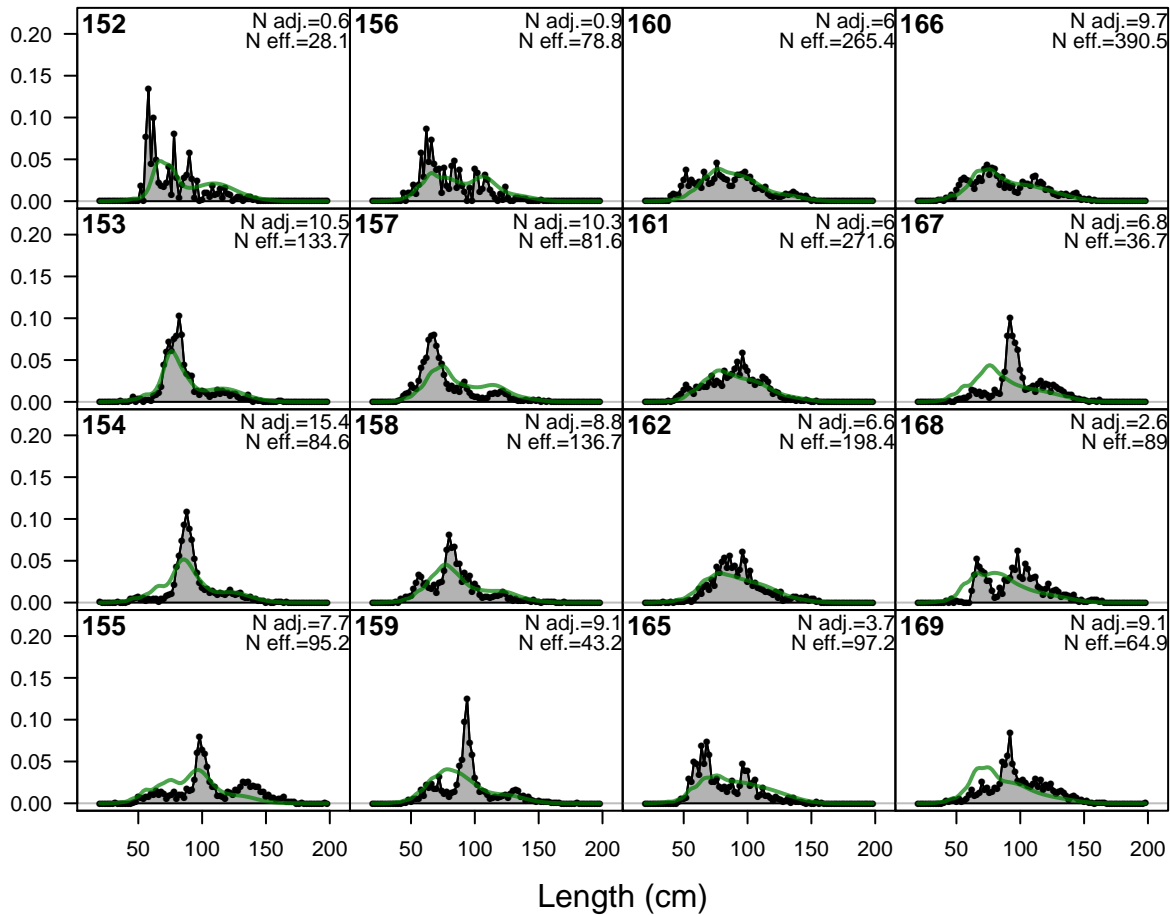
Proportion



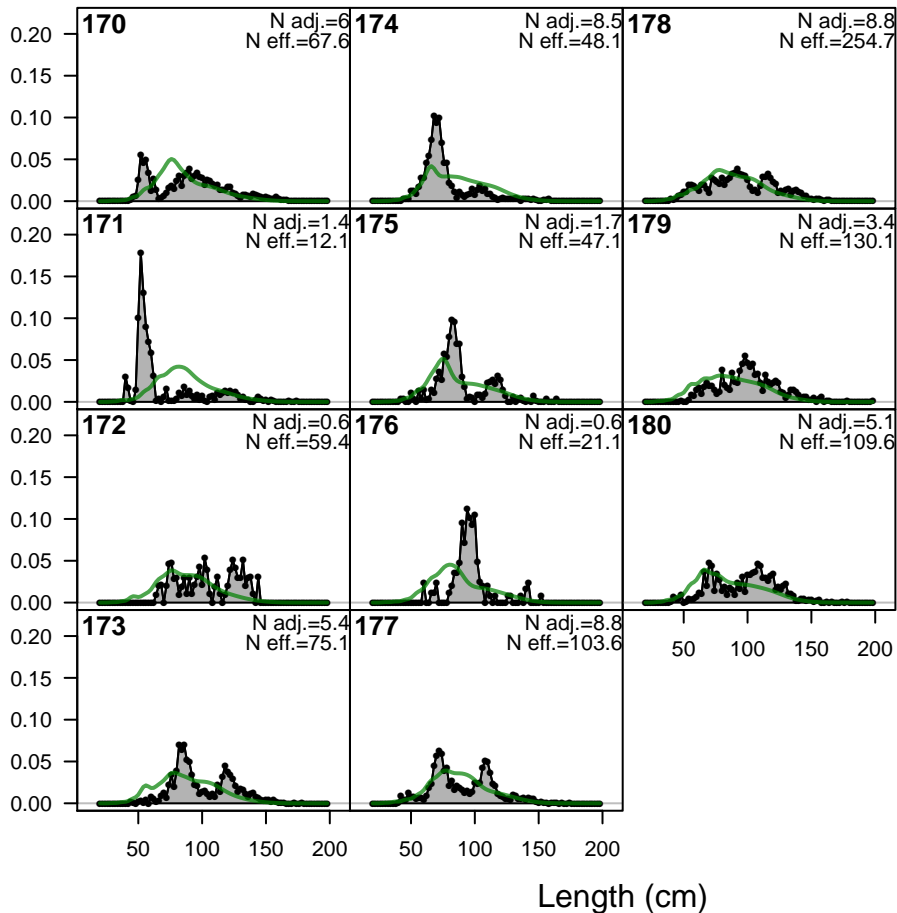
Proportion



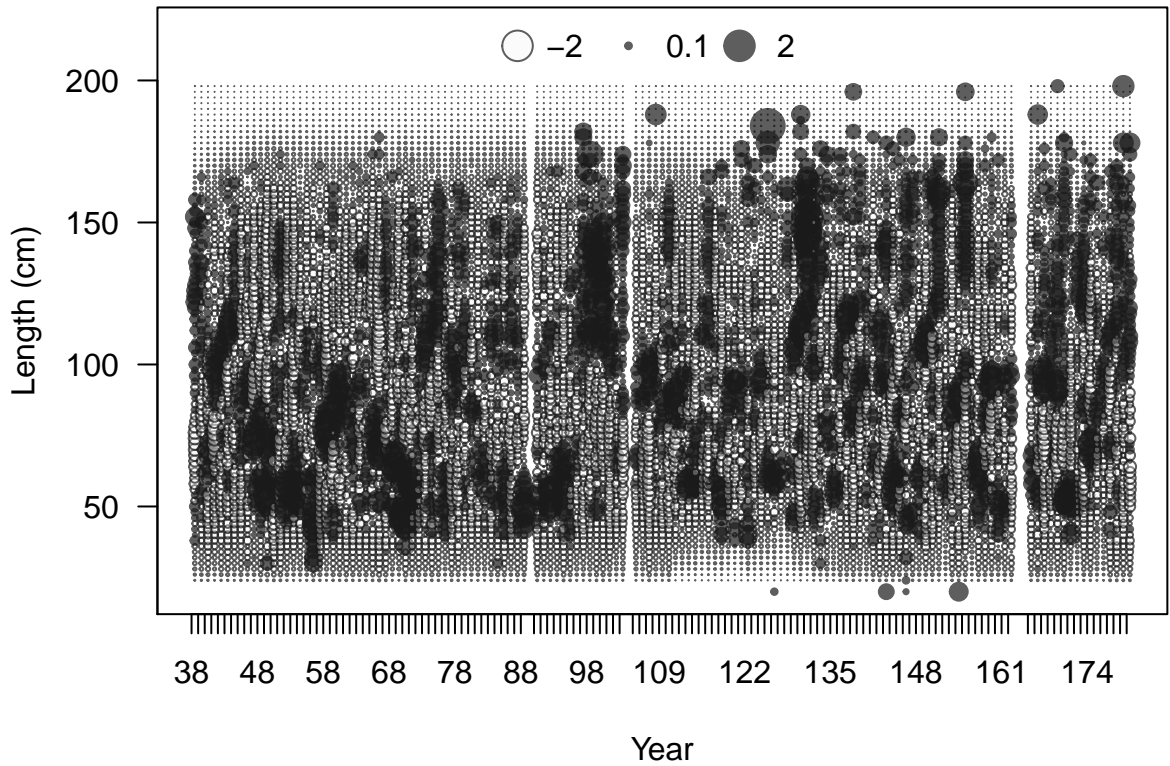
Proportion



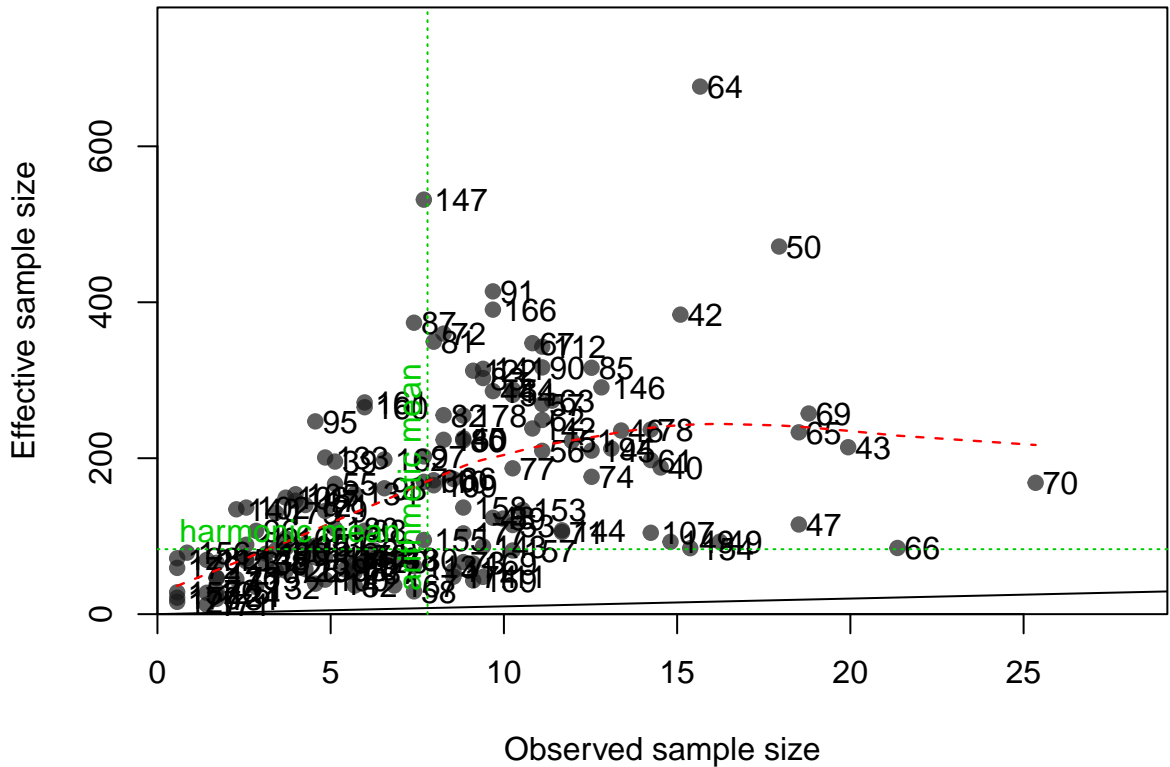
Proportion



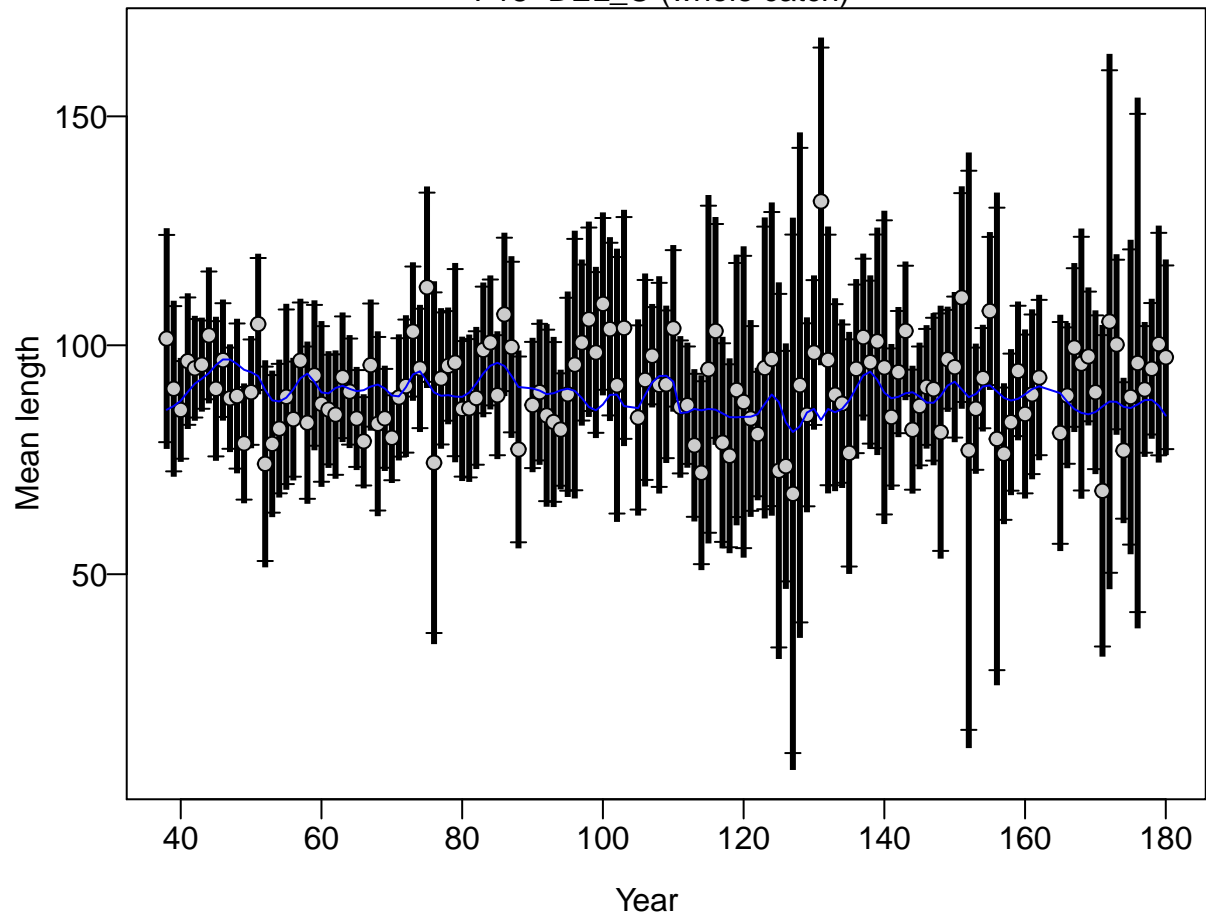
Length (cm)



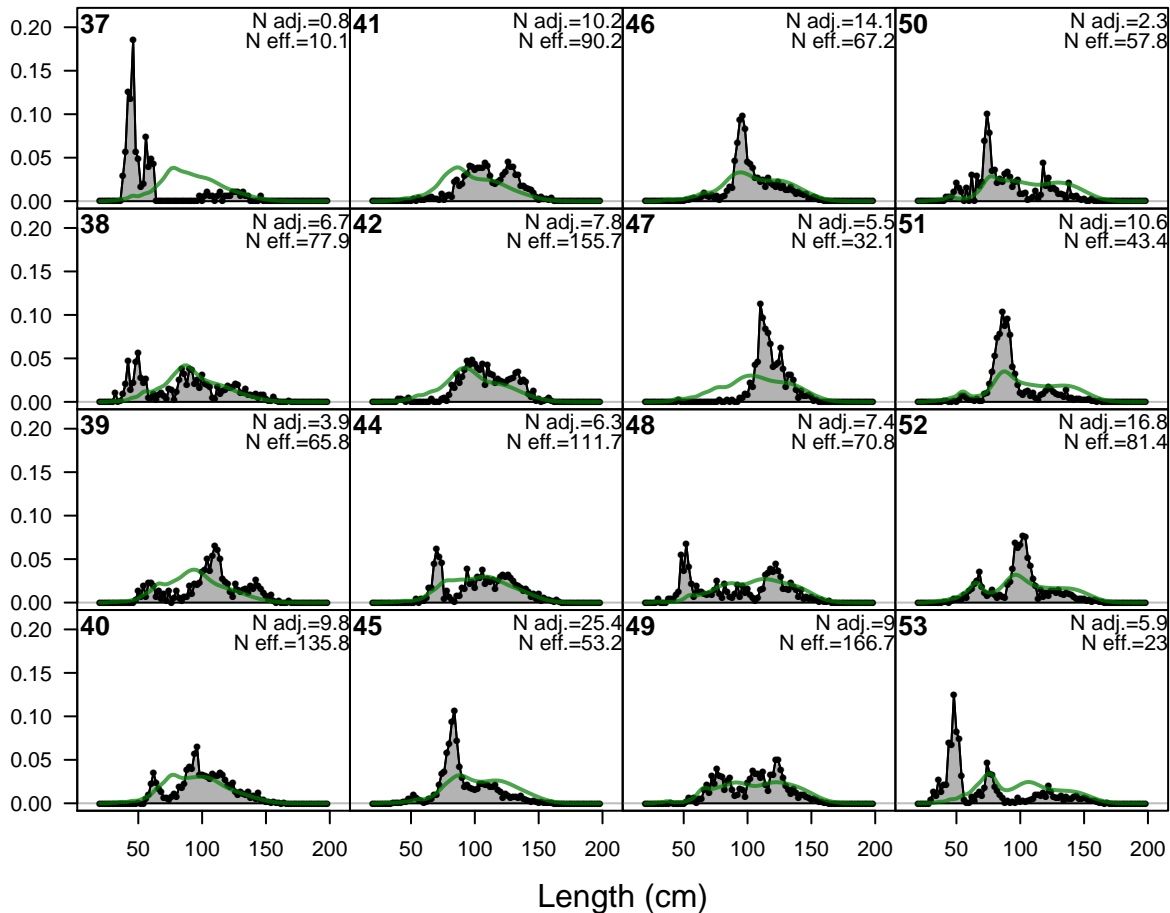




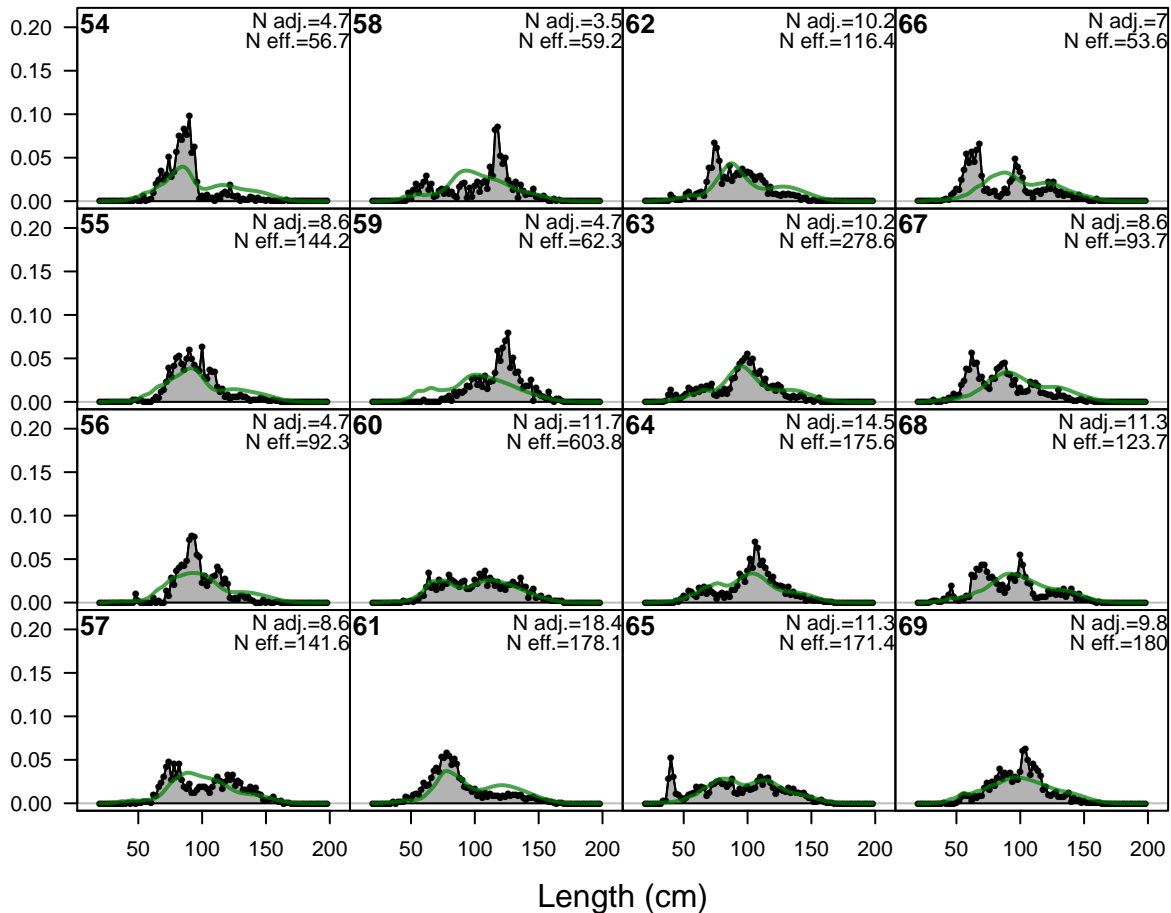
F18-DEL\_C (whole catch)



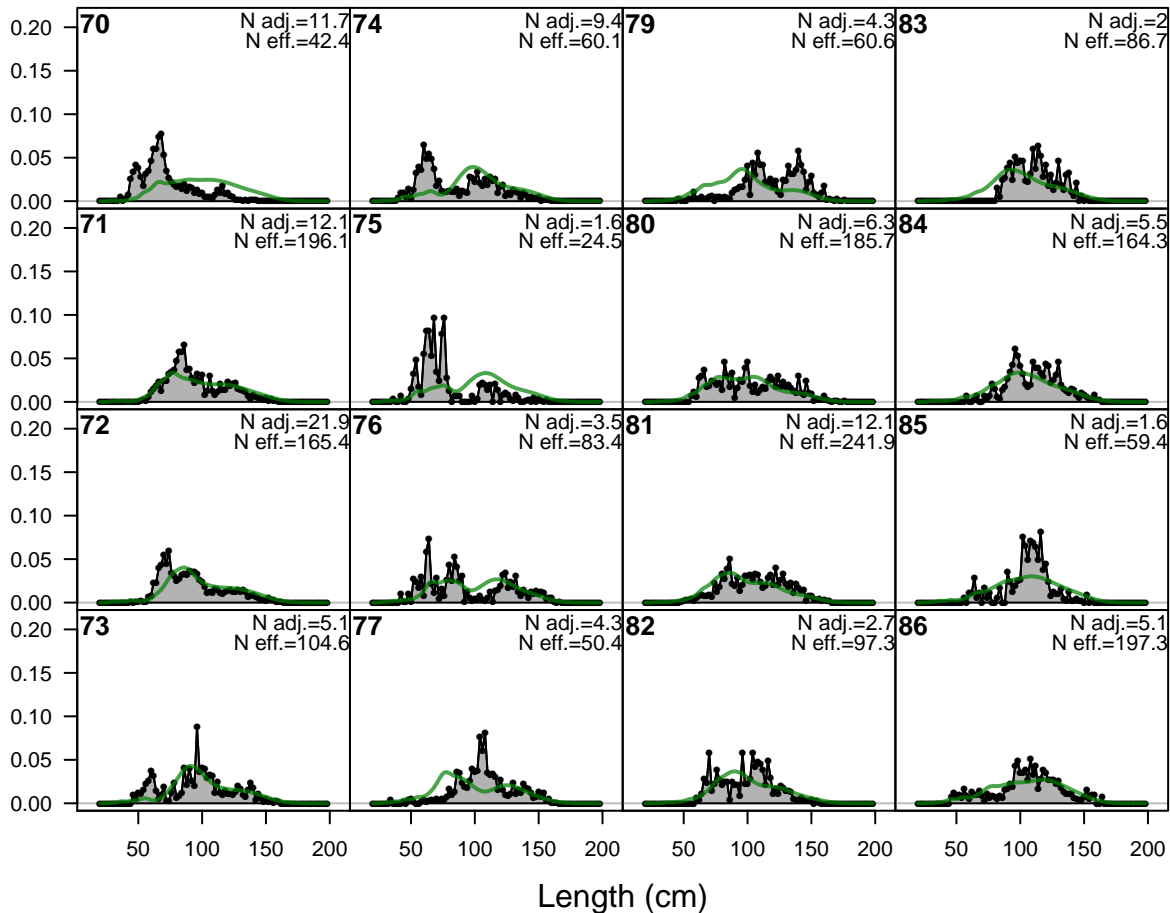
Proportion



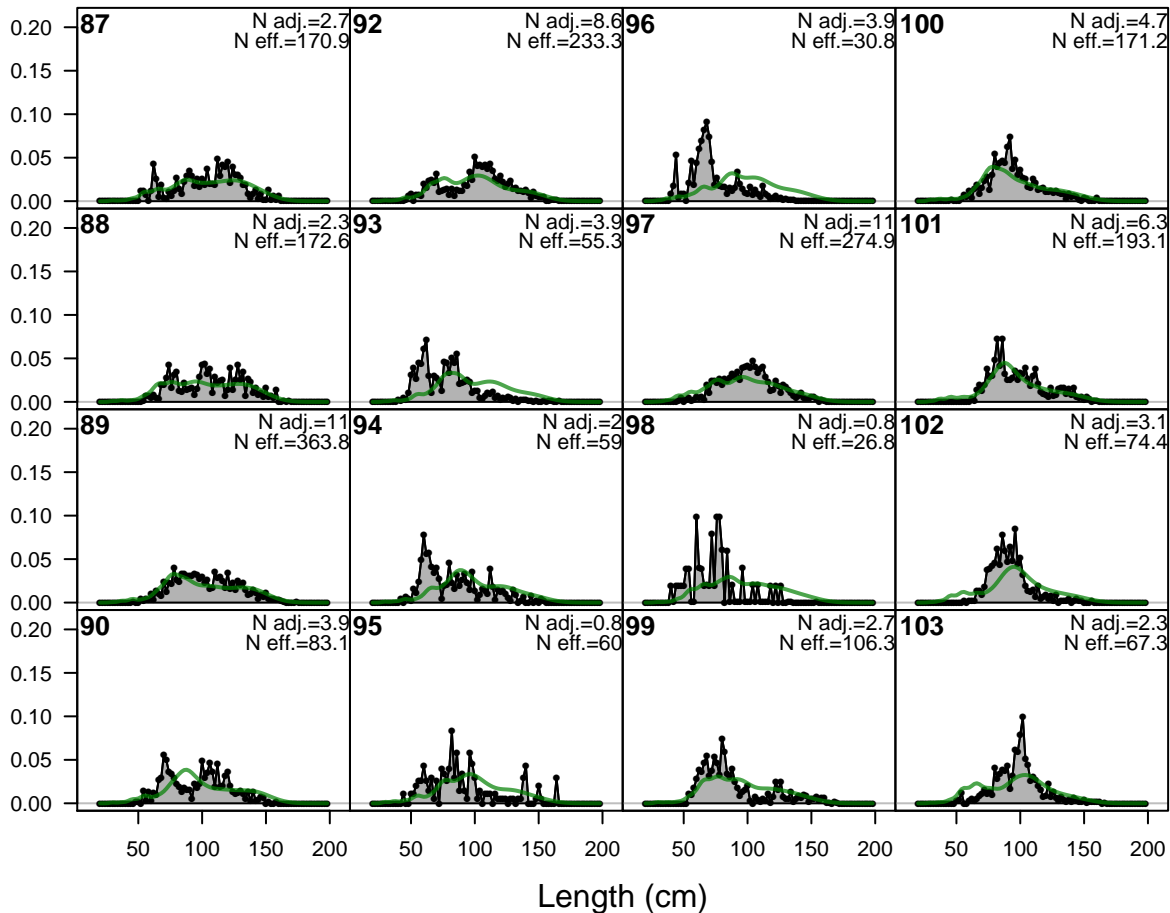
Proportion



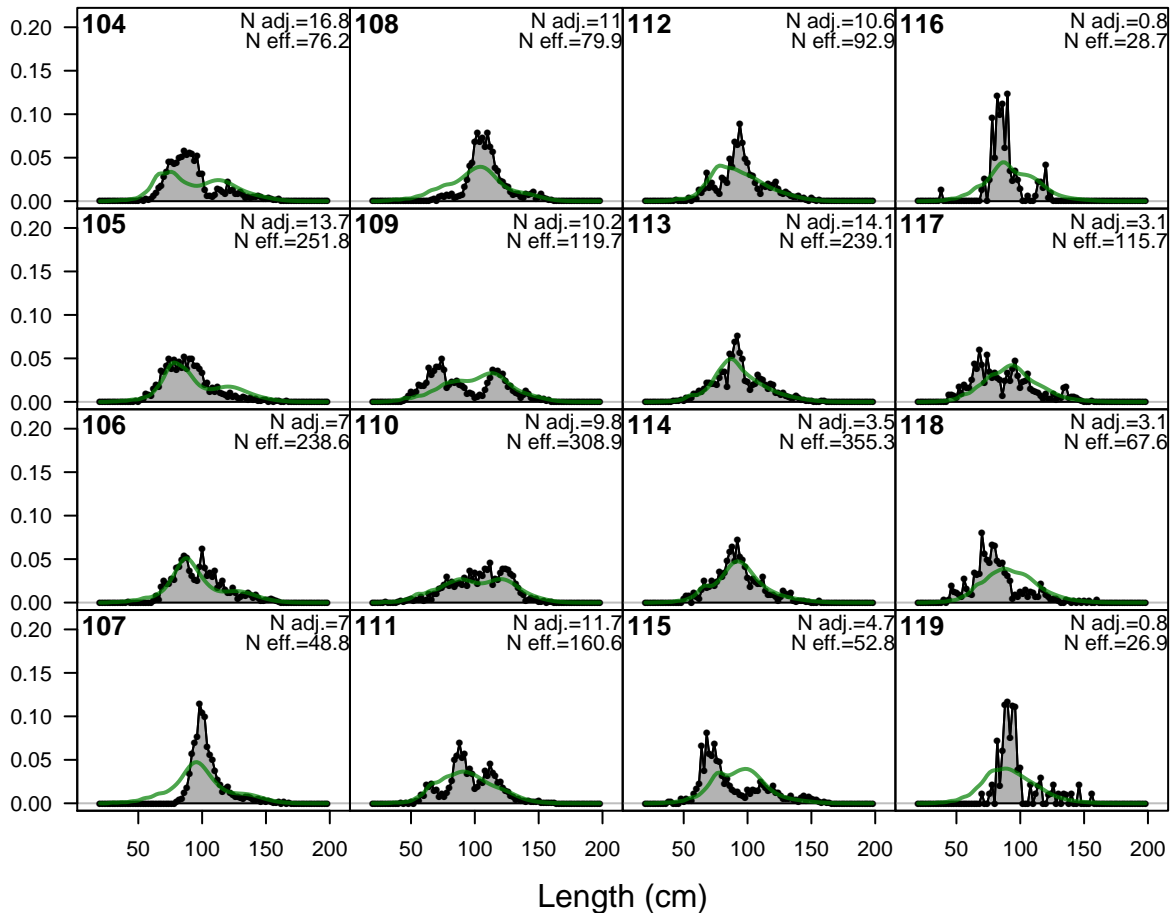
Proportion



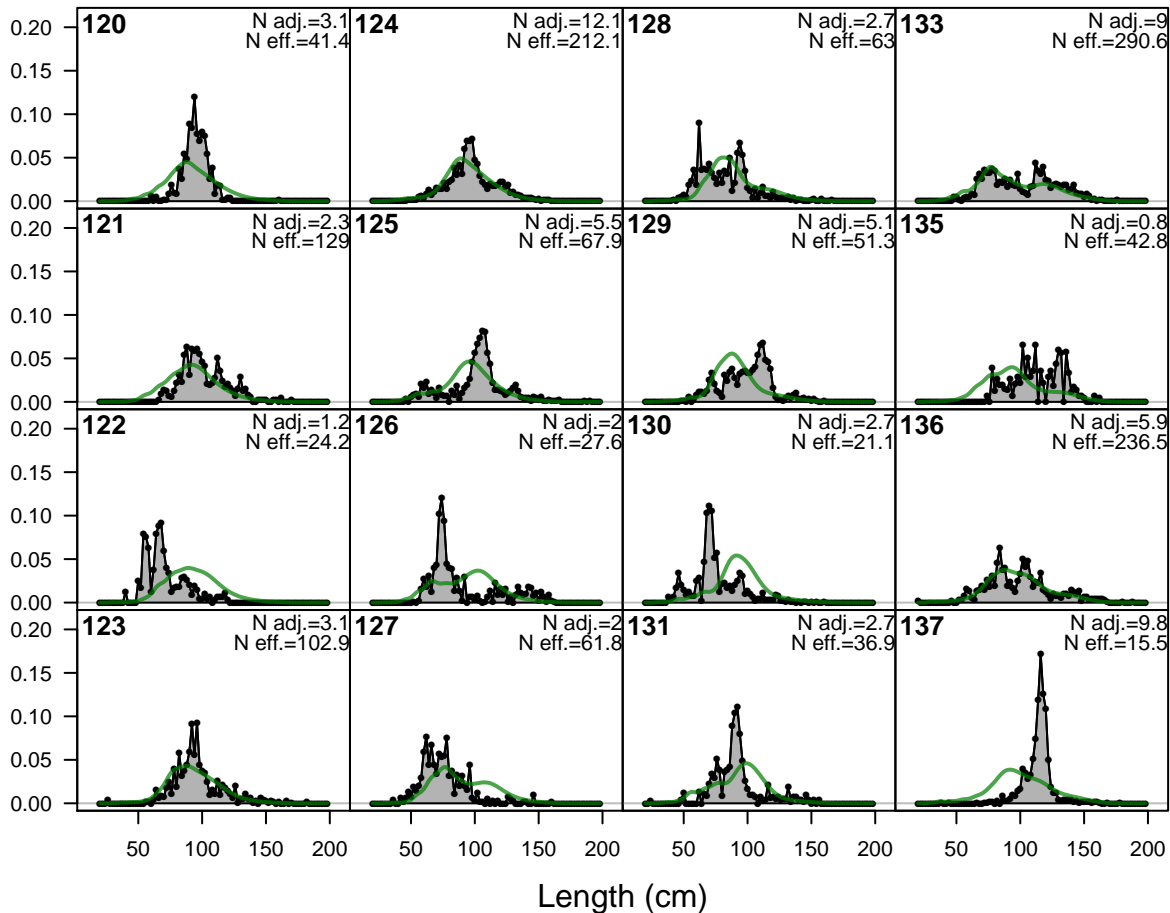
Proportion



Proportion

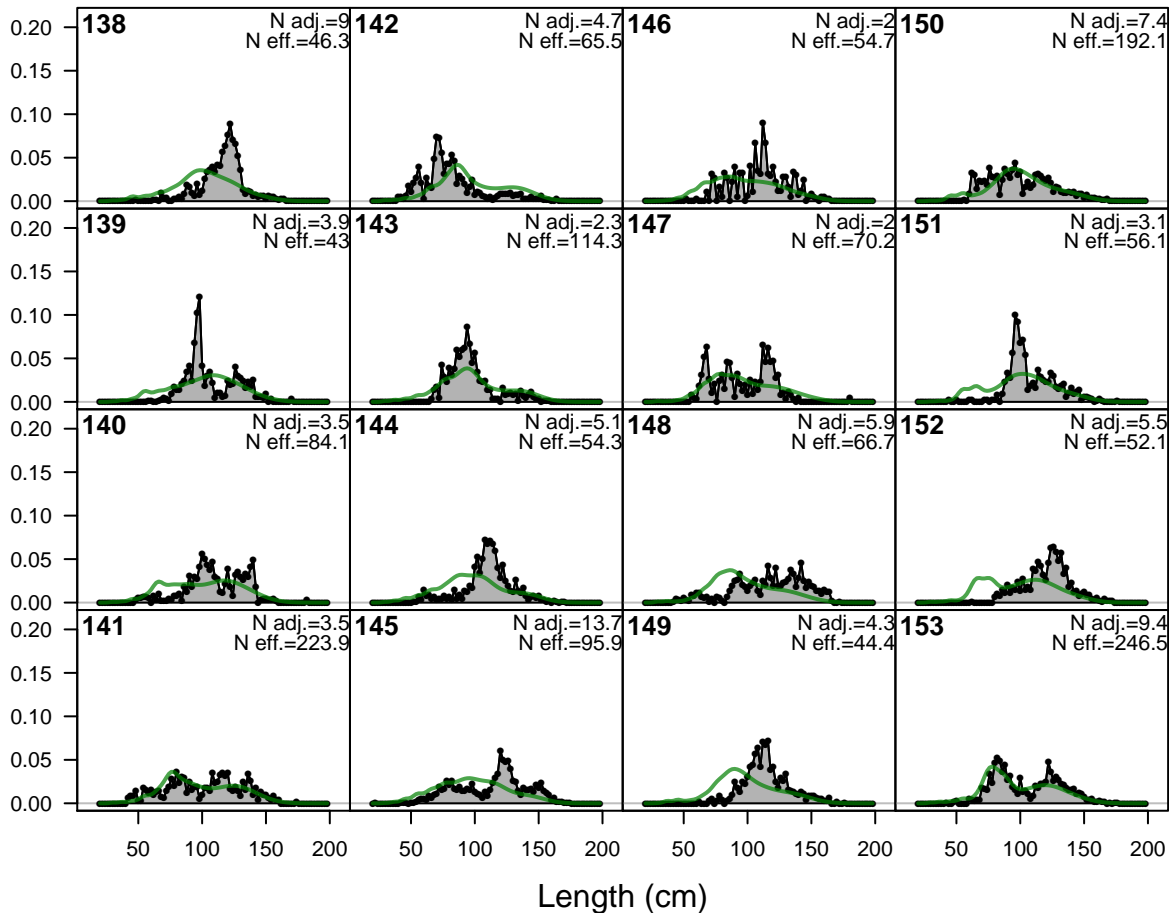


Proportion

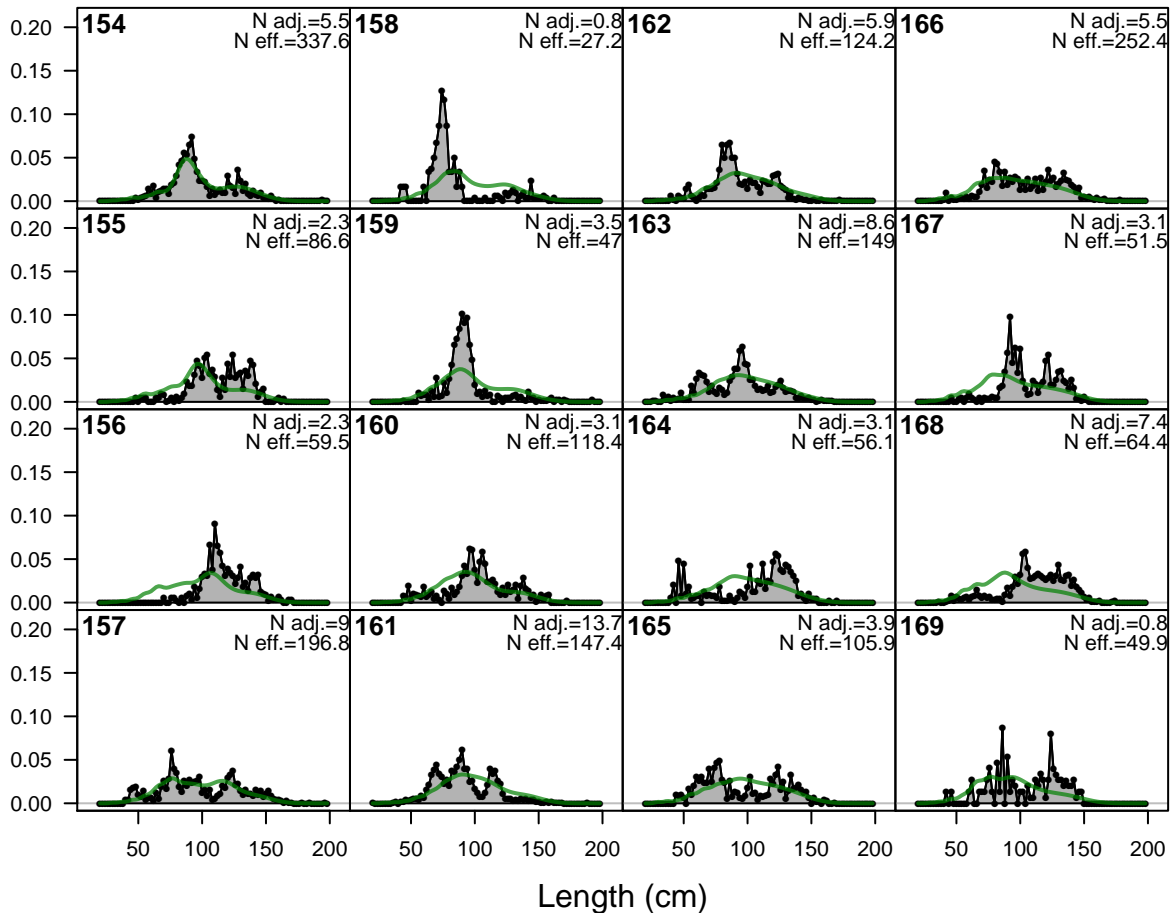




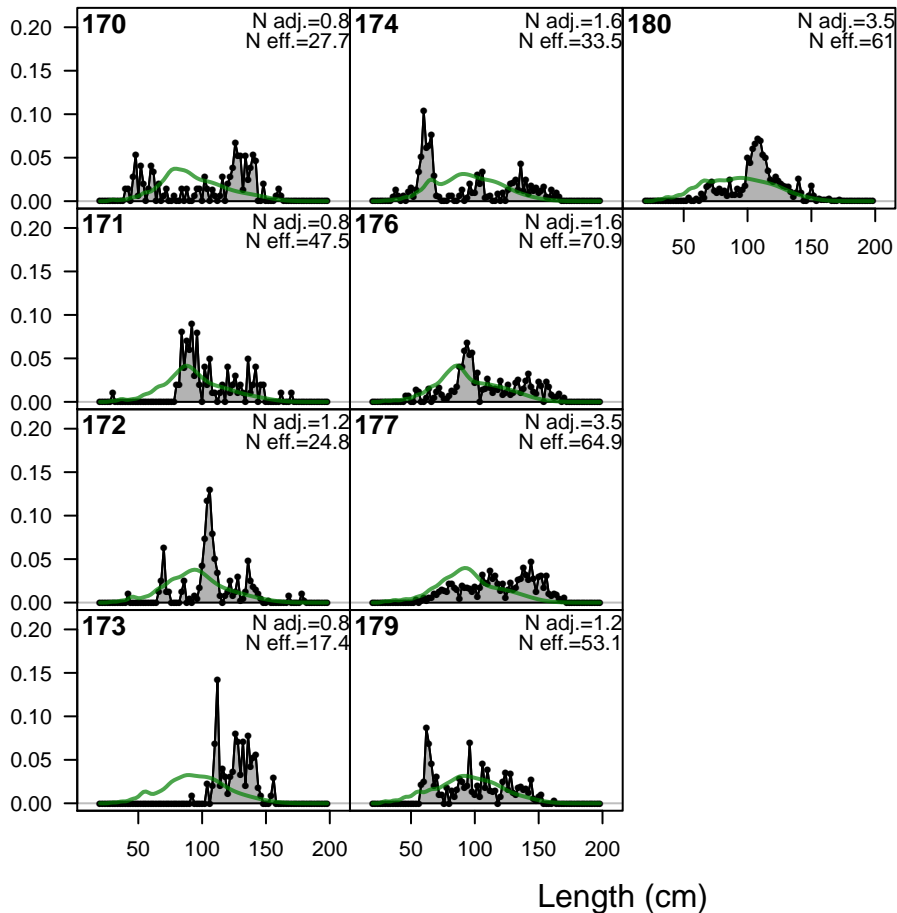
Proportion

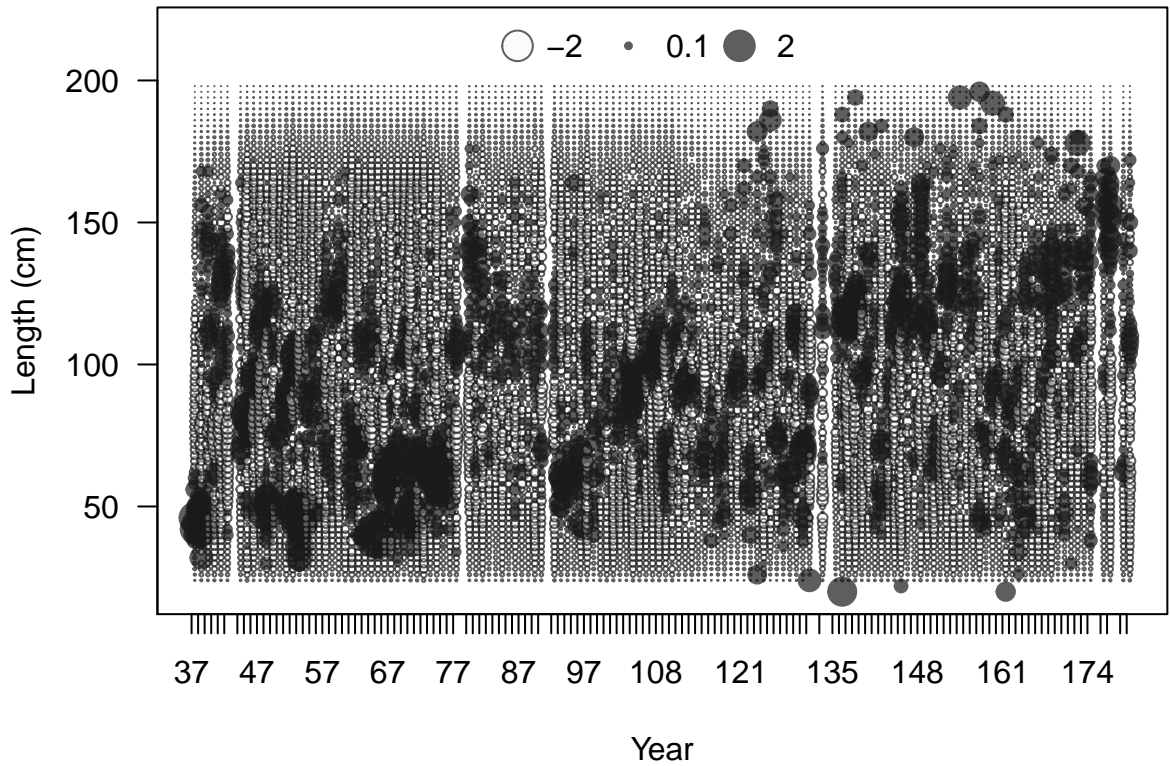


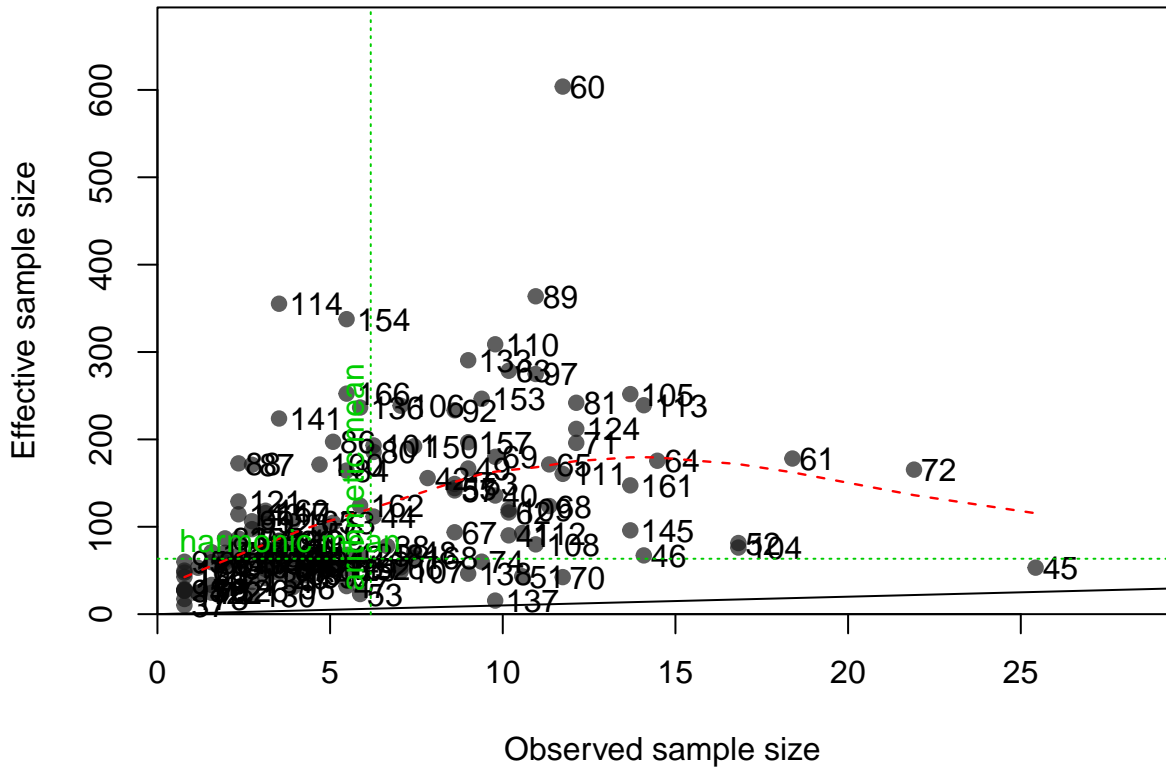
Proportion



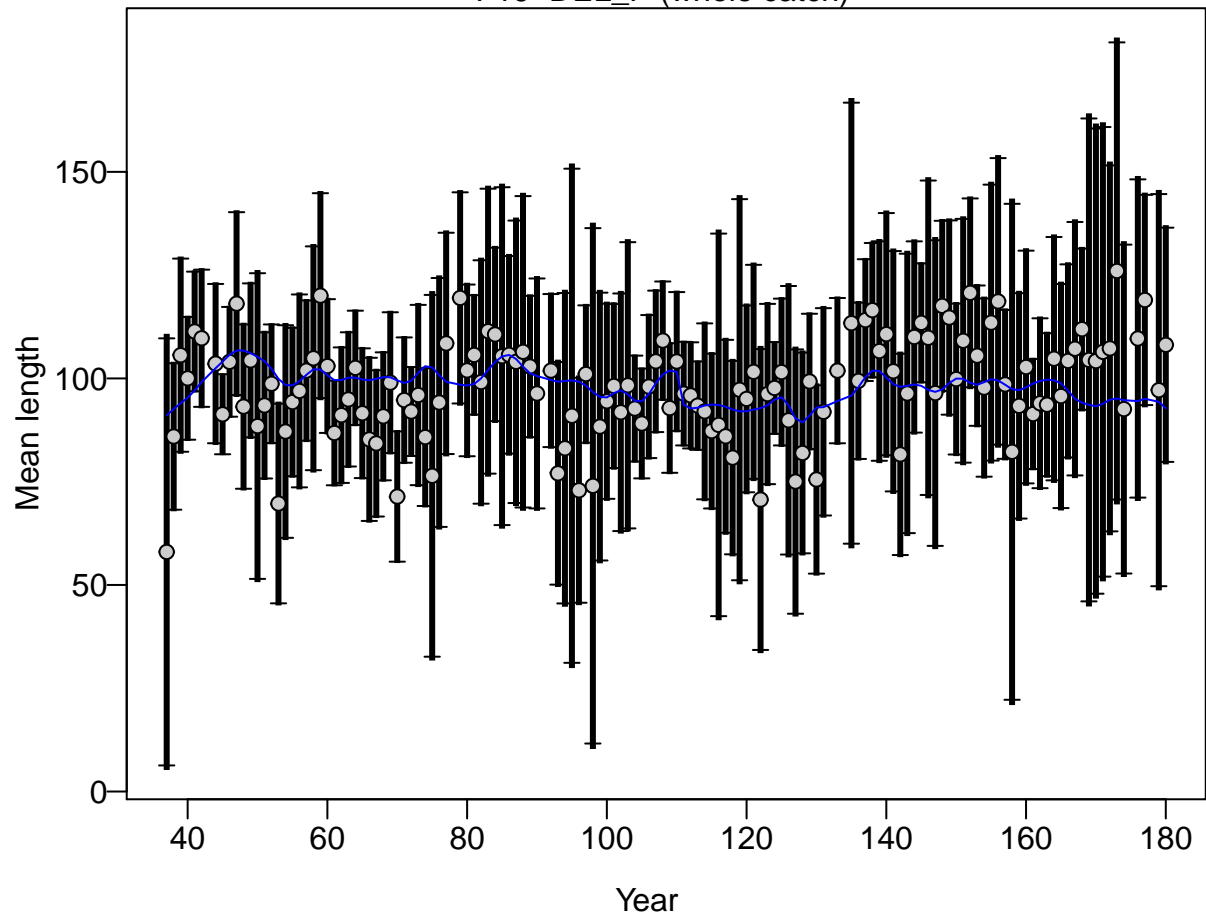
Proportion



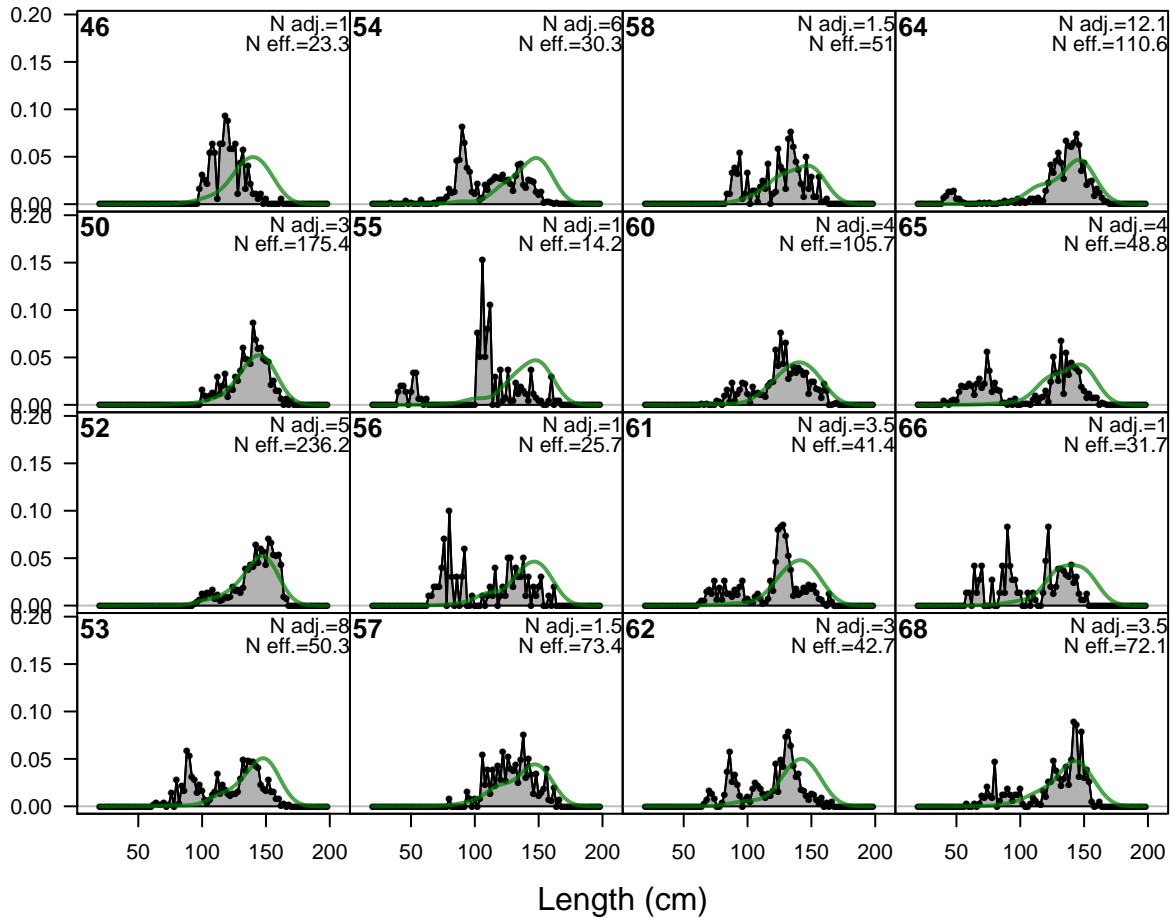




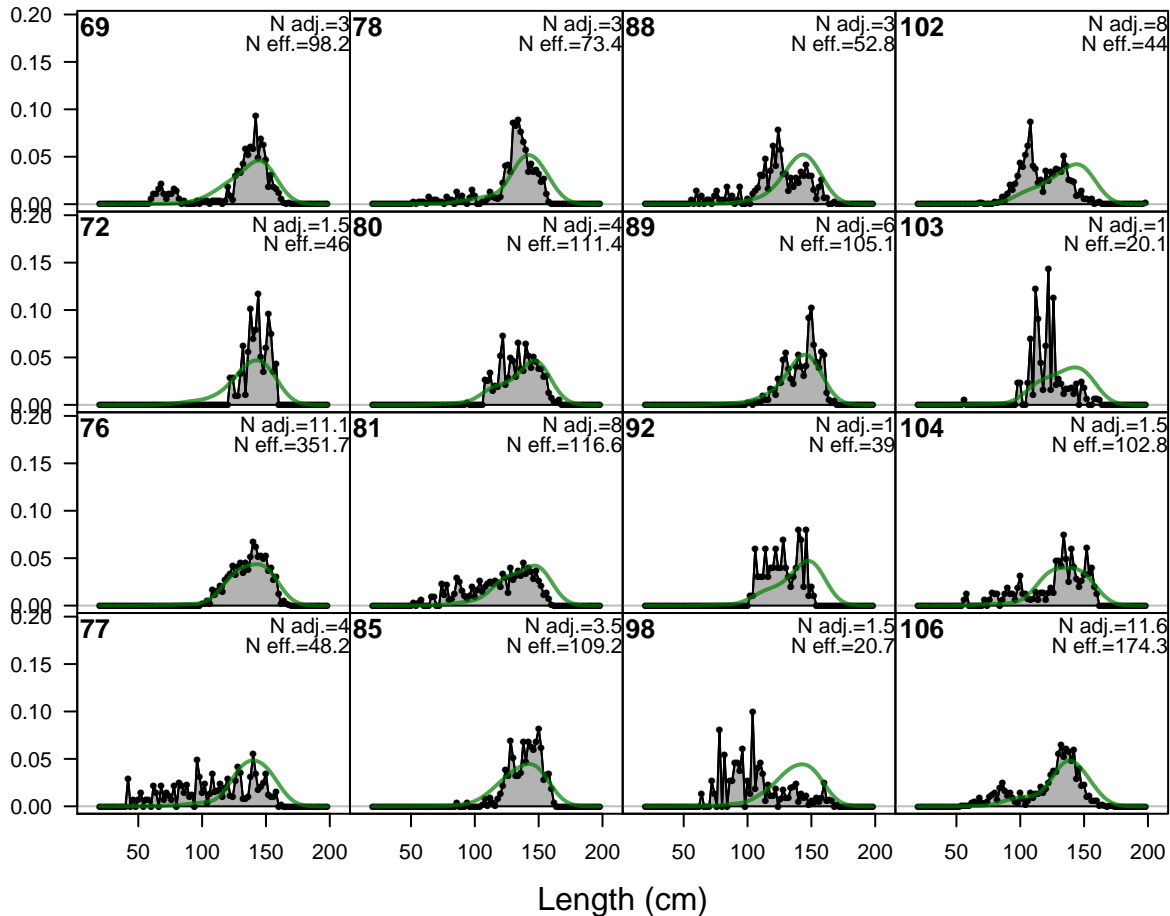
F19-DEL\_P (whole catch)



Proportion

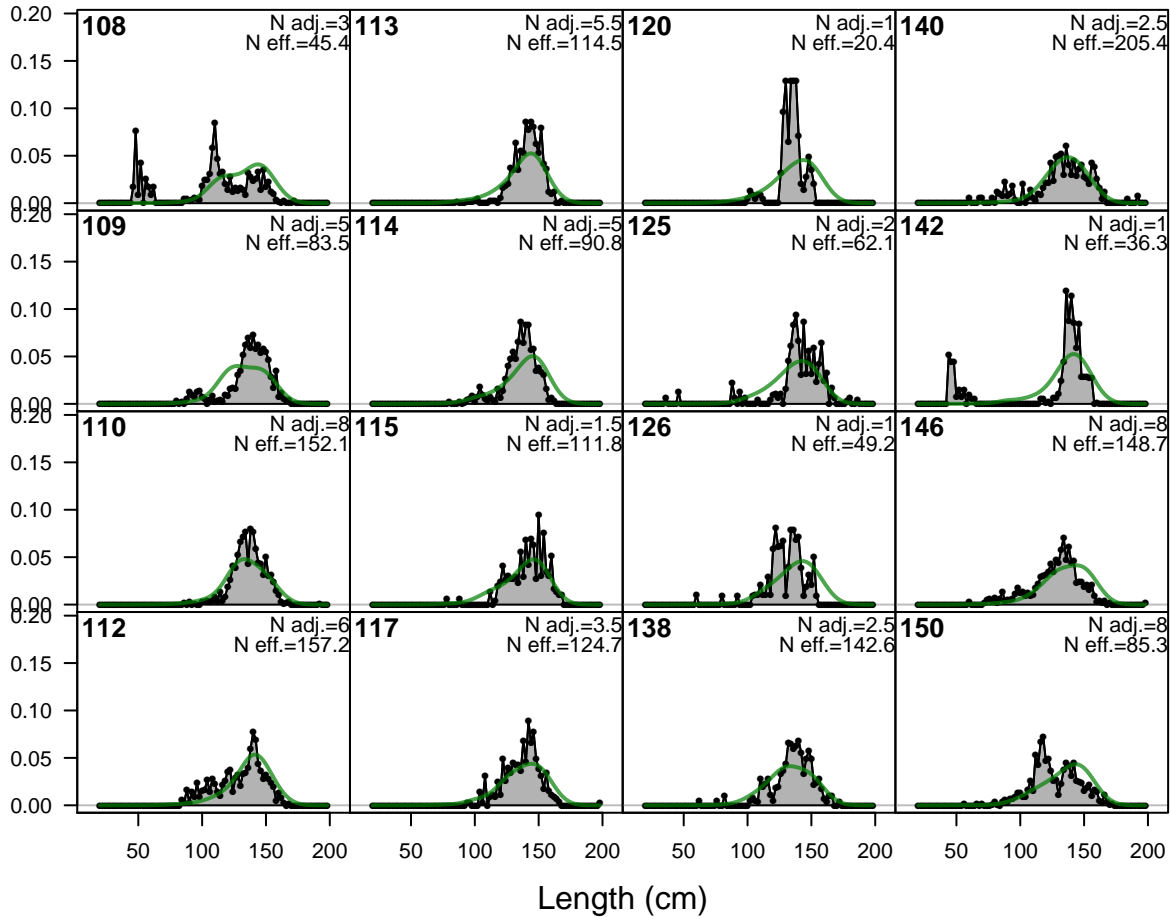


Proportion

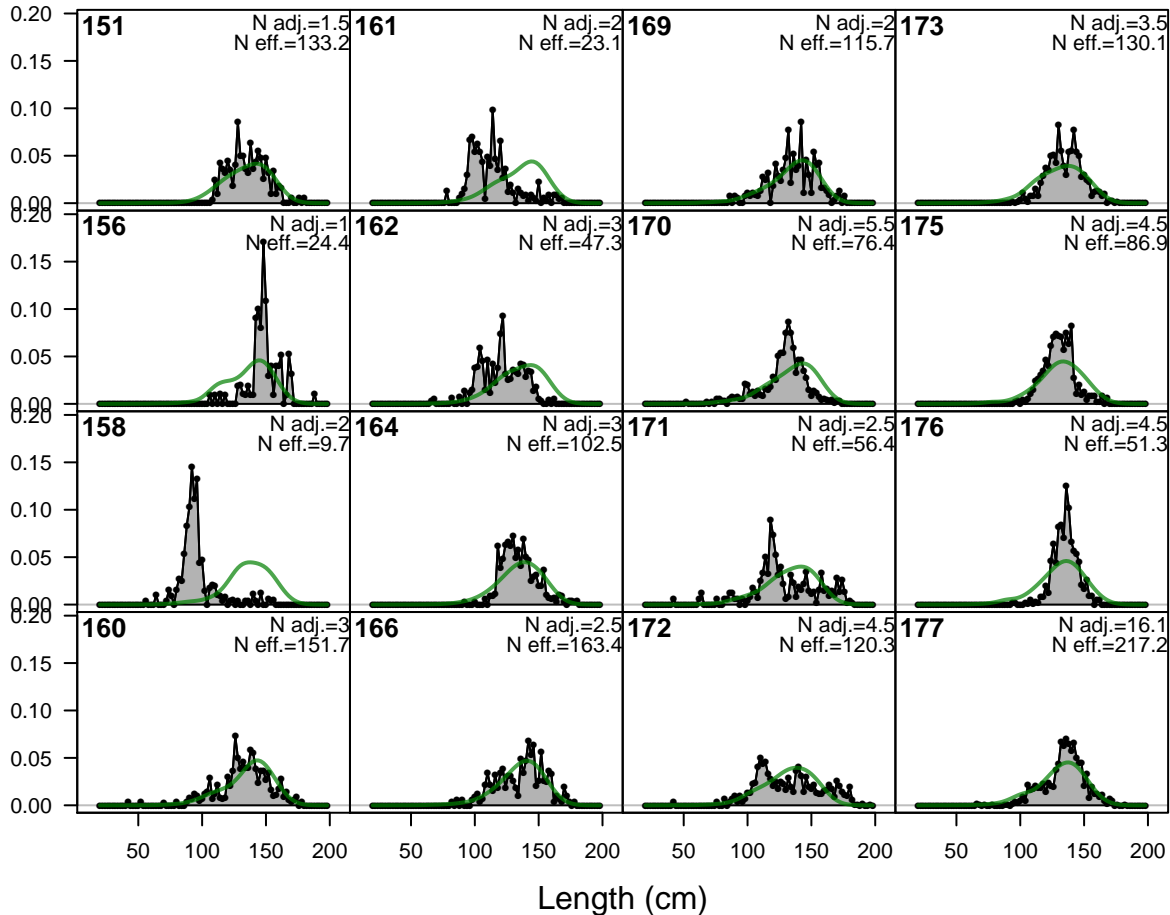




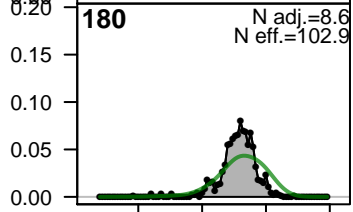
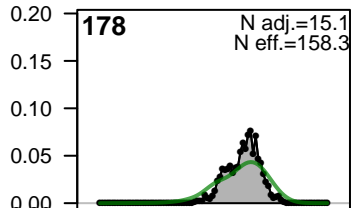
Proportion



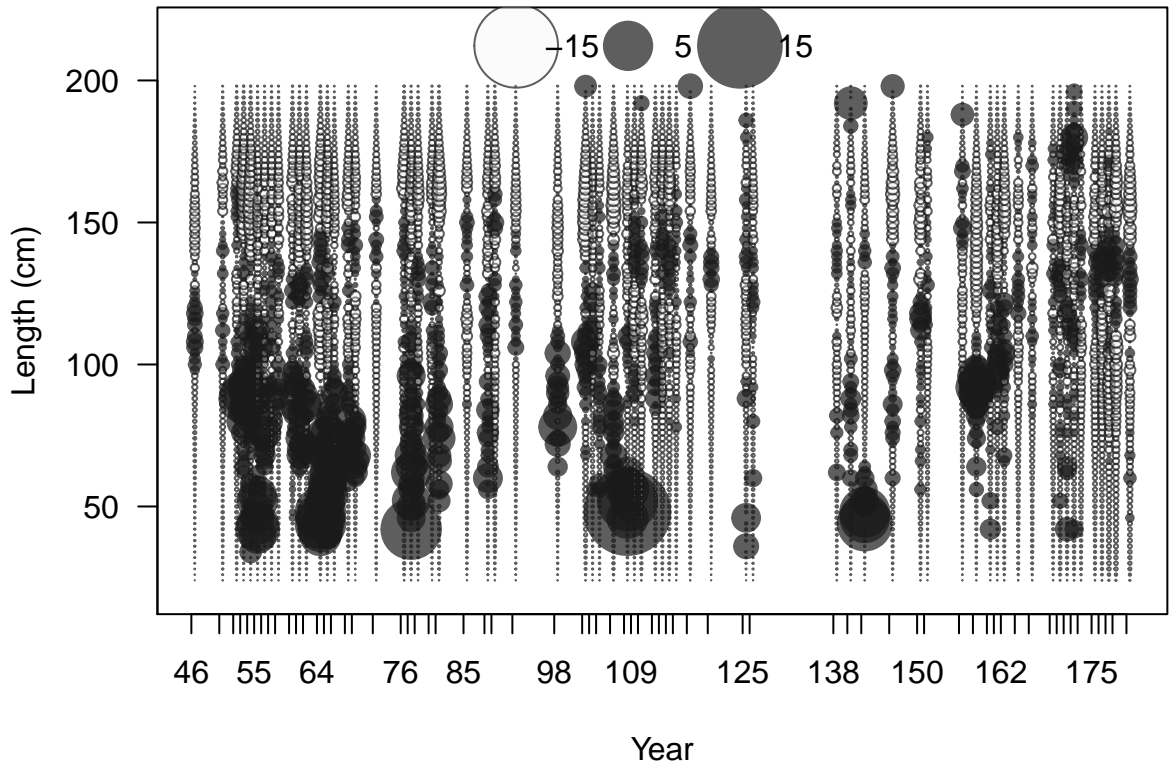
Proportion

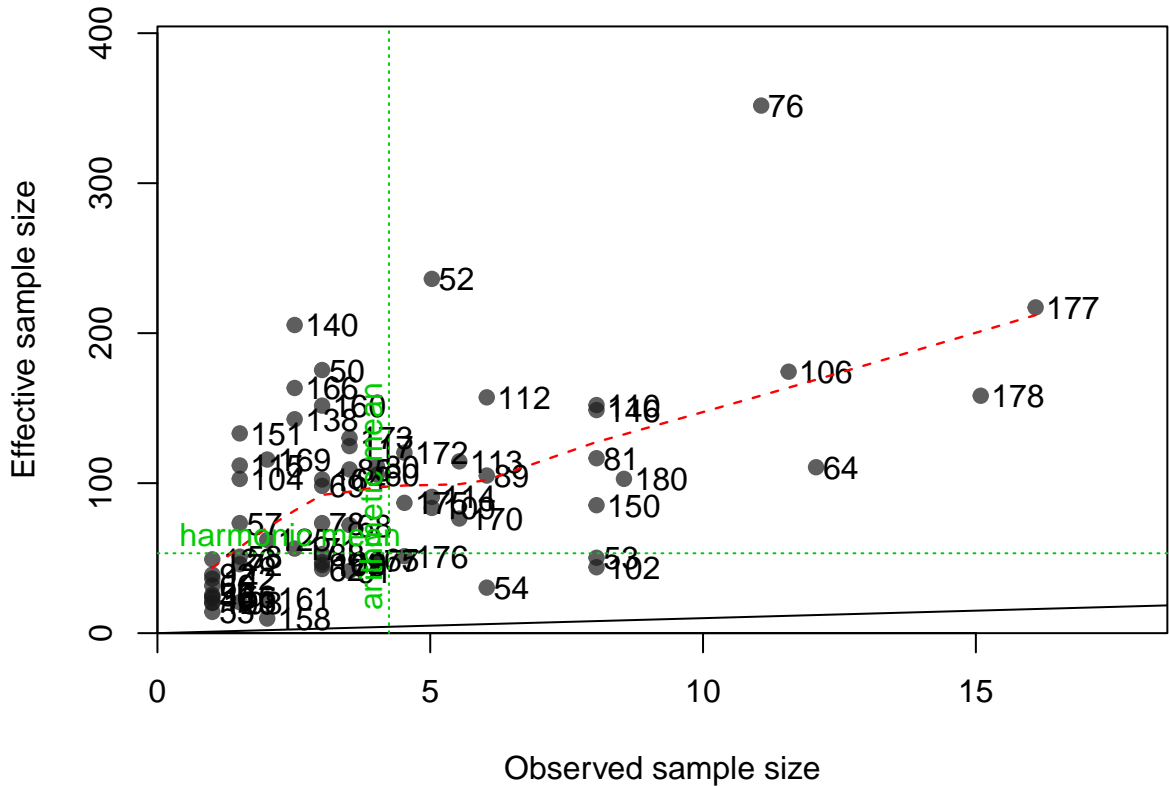


Proportion

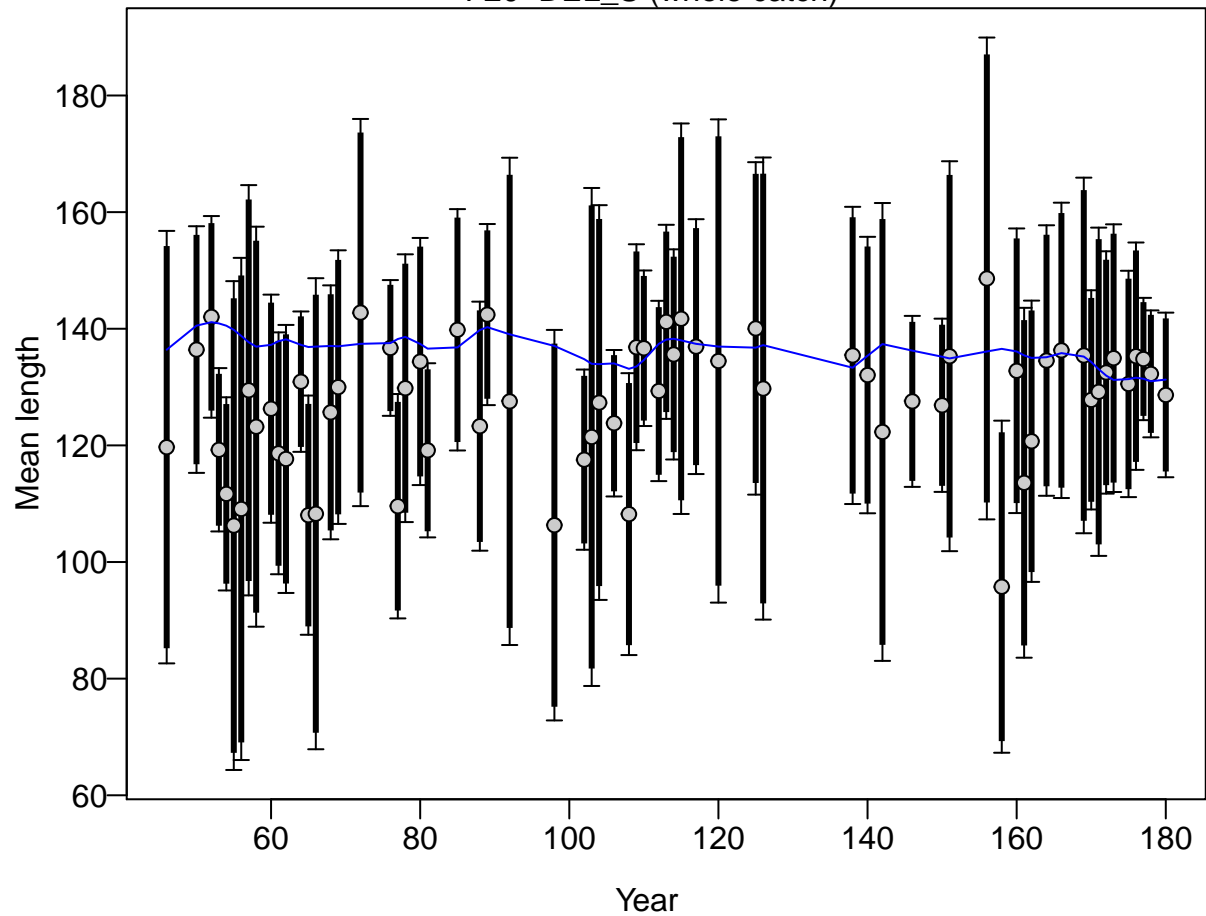


Length (cm)

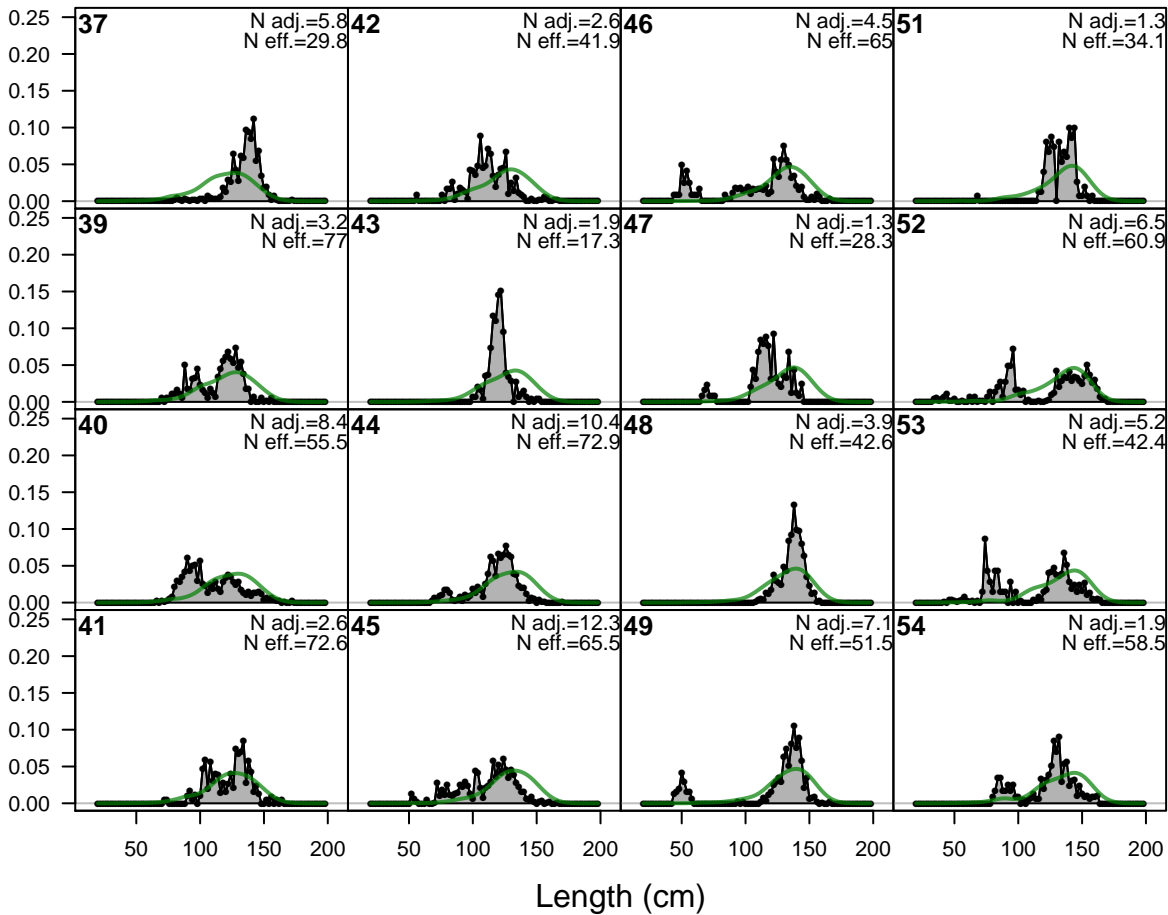




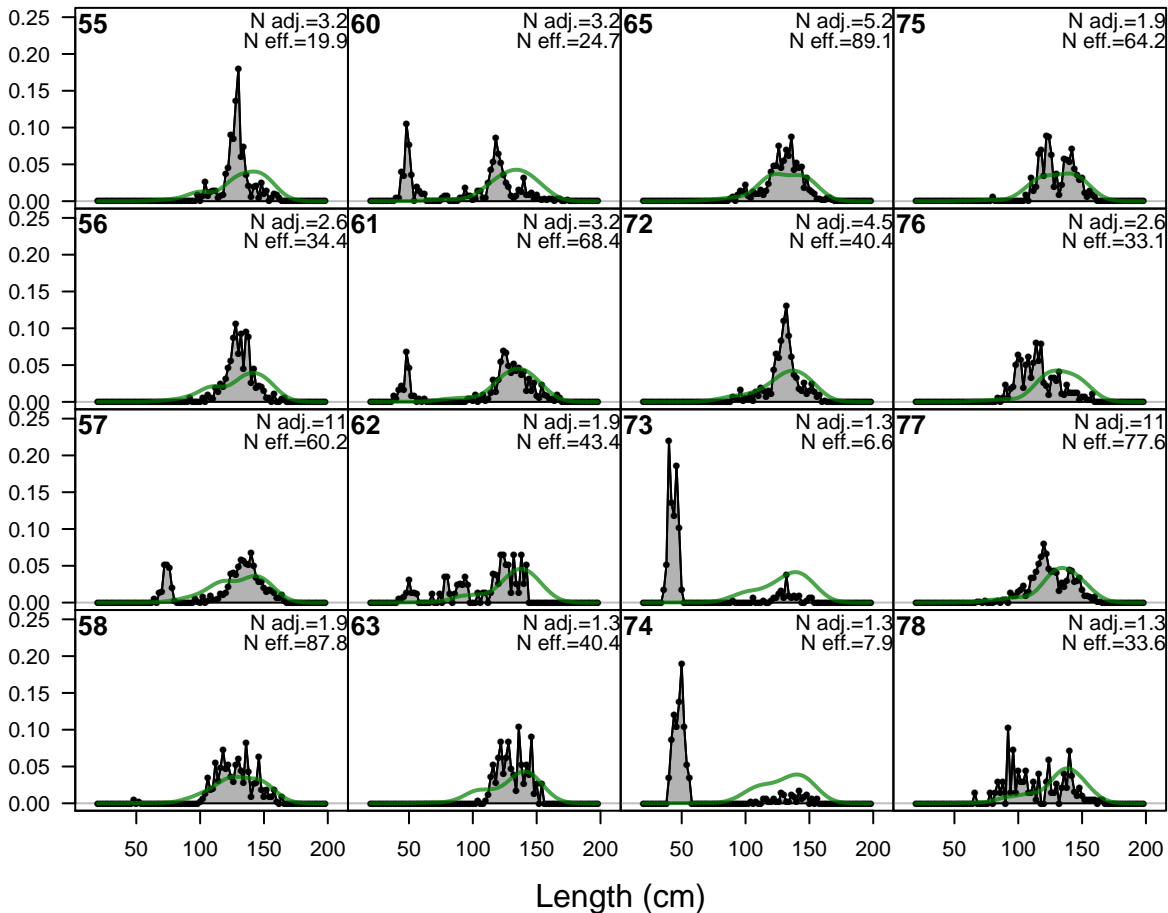
## F20-DEL\_S (whole catch)



Proportion

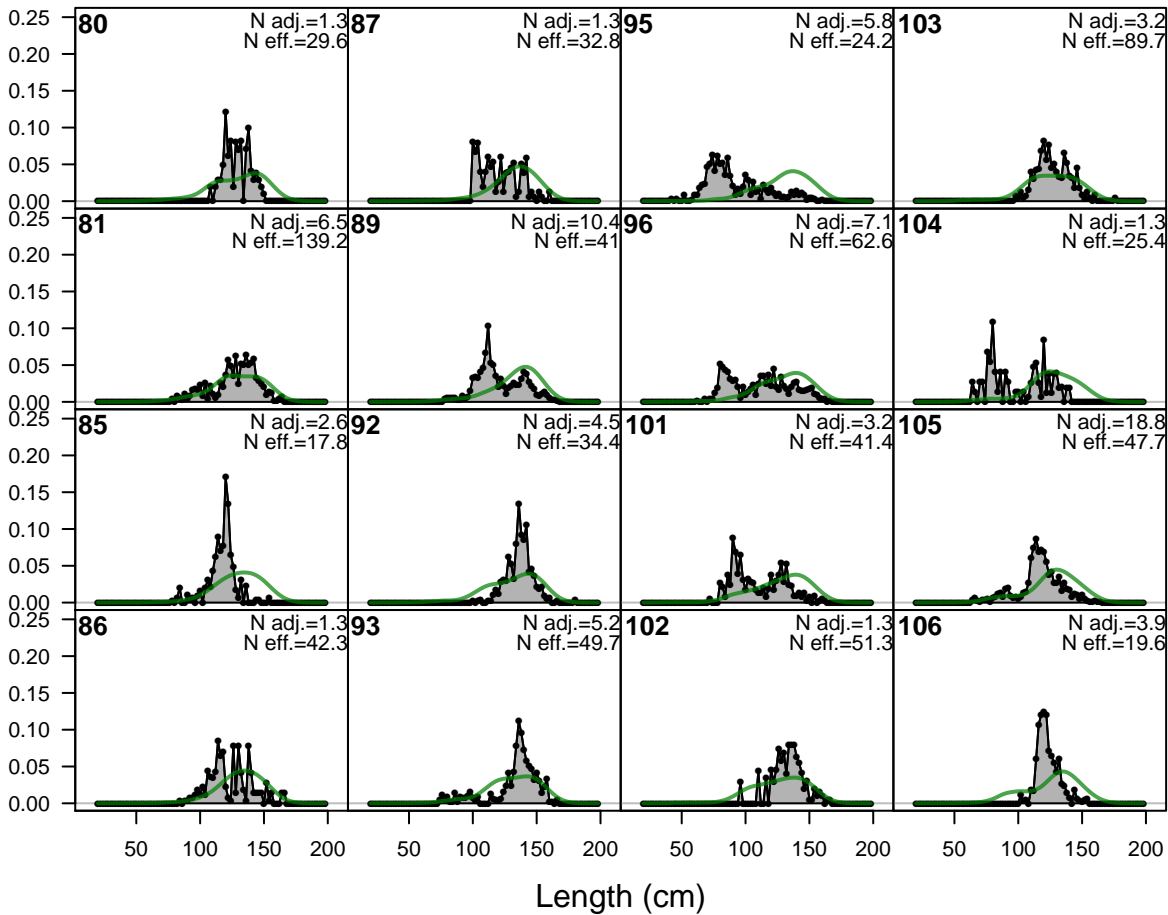


Proportion

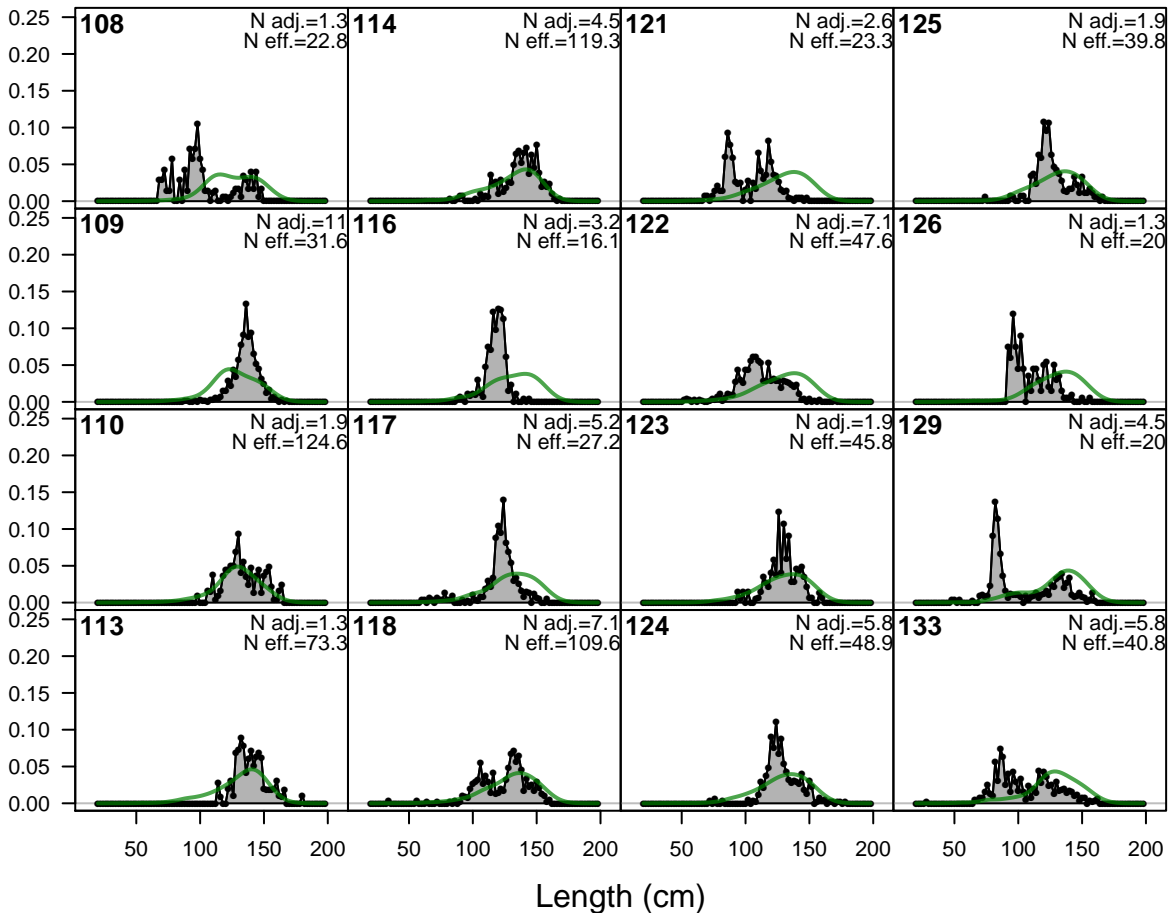




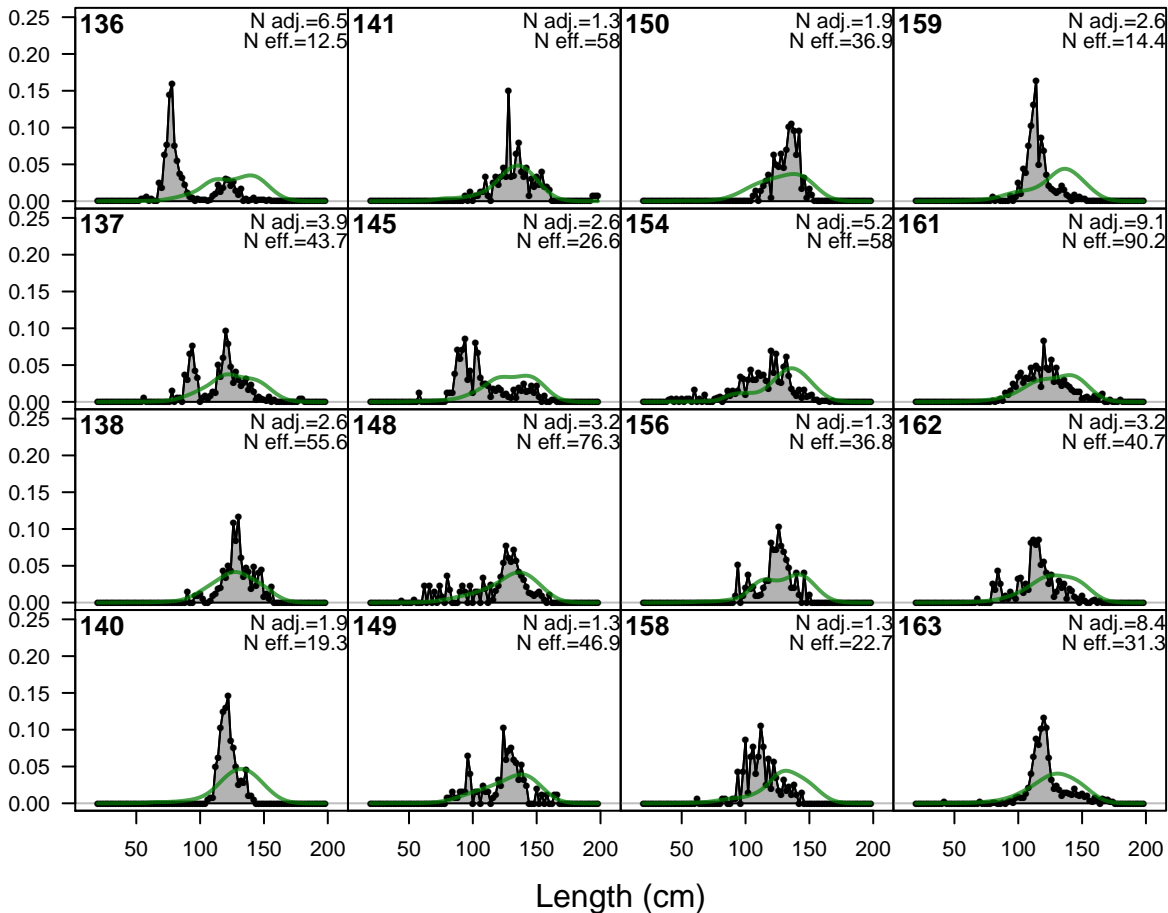
Proportion



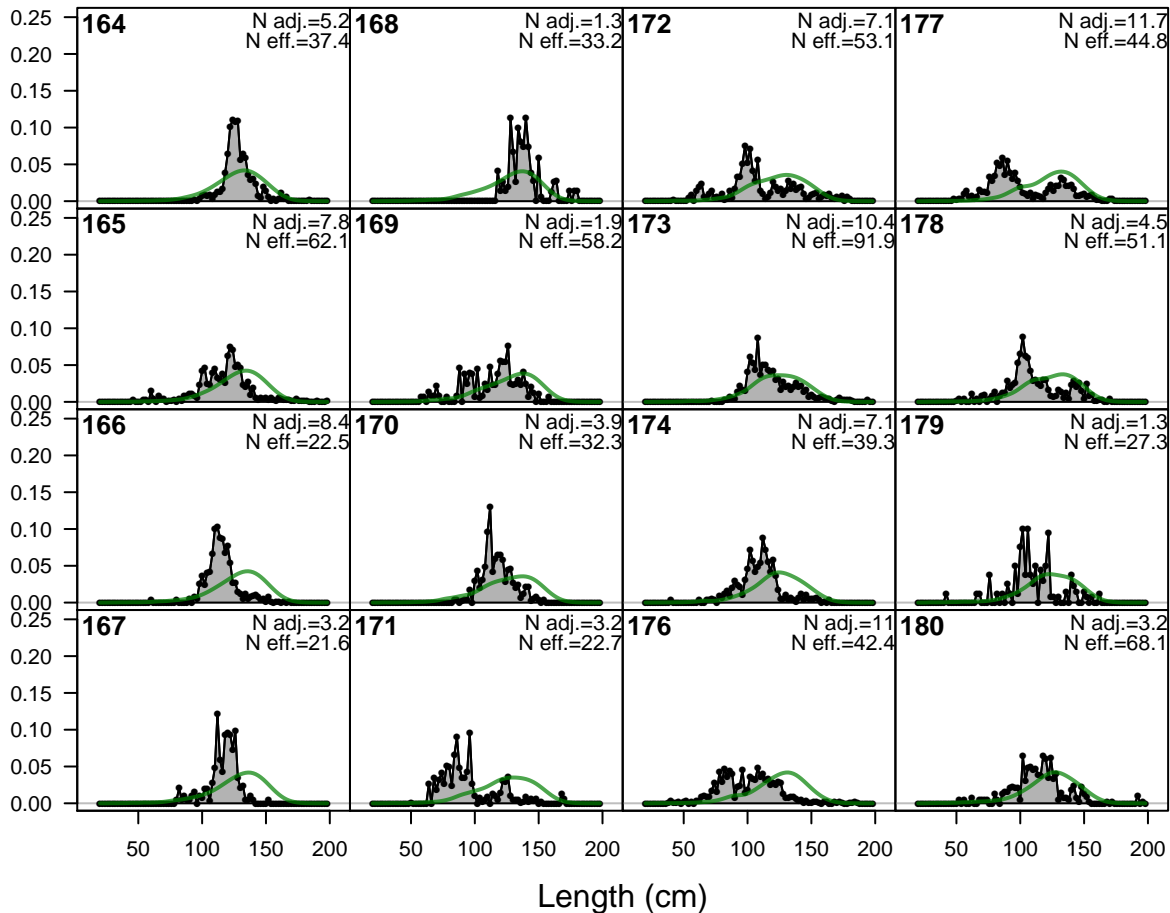
Proportion

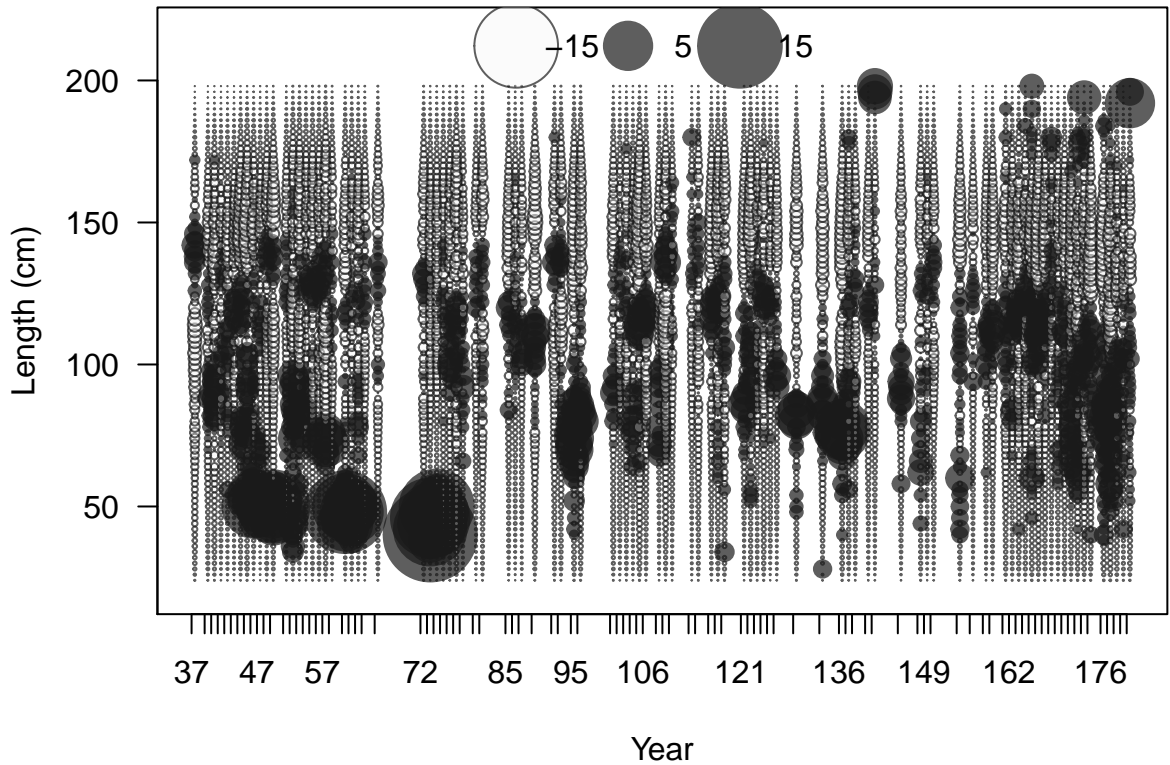


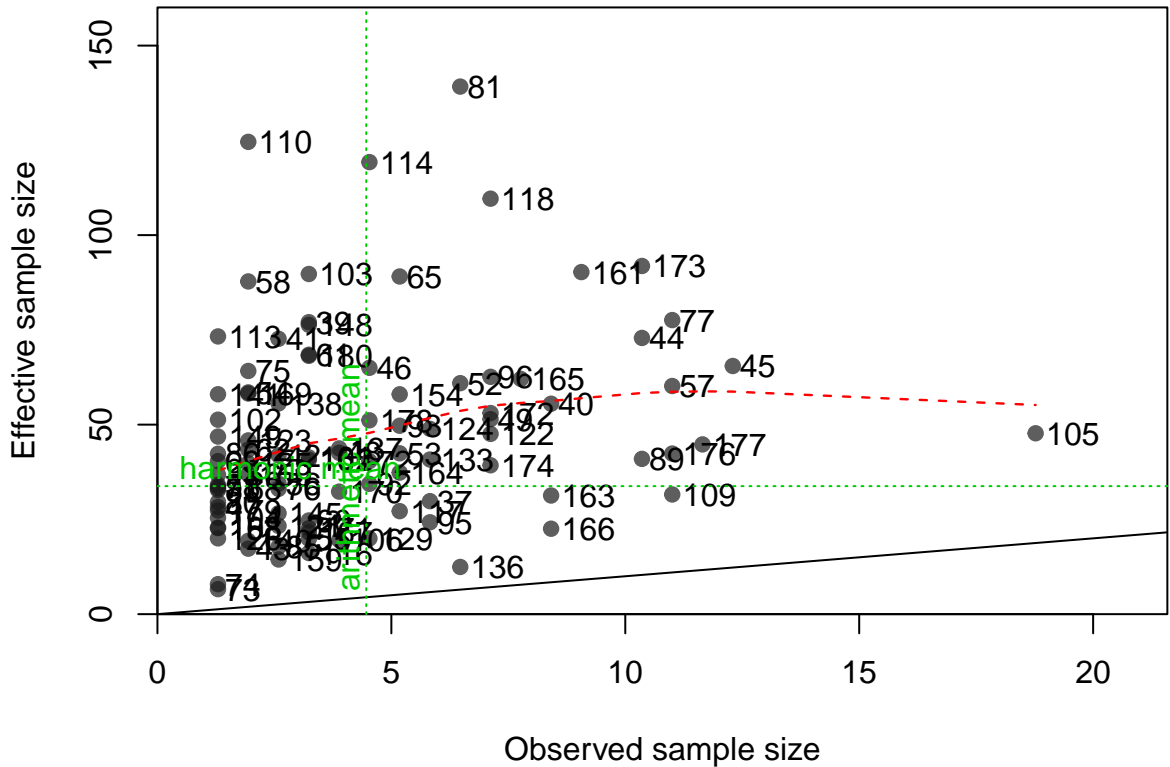
Proportion



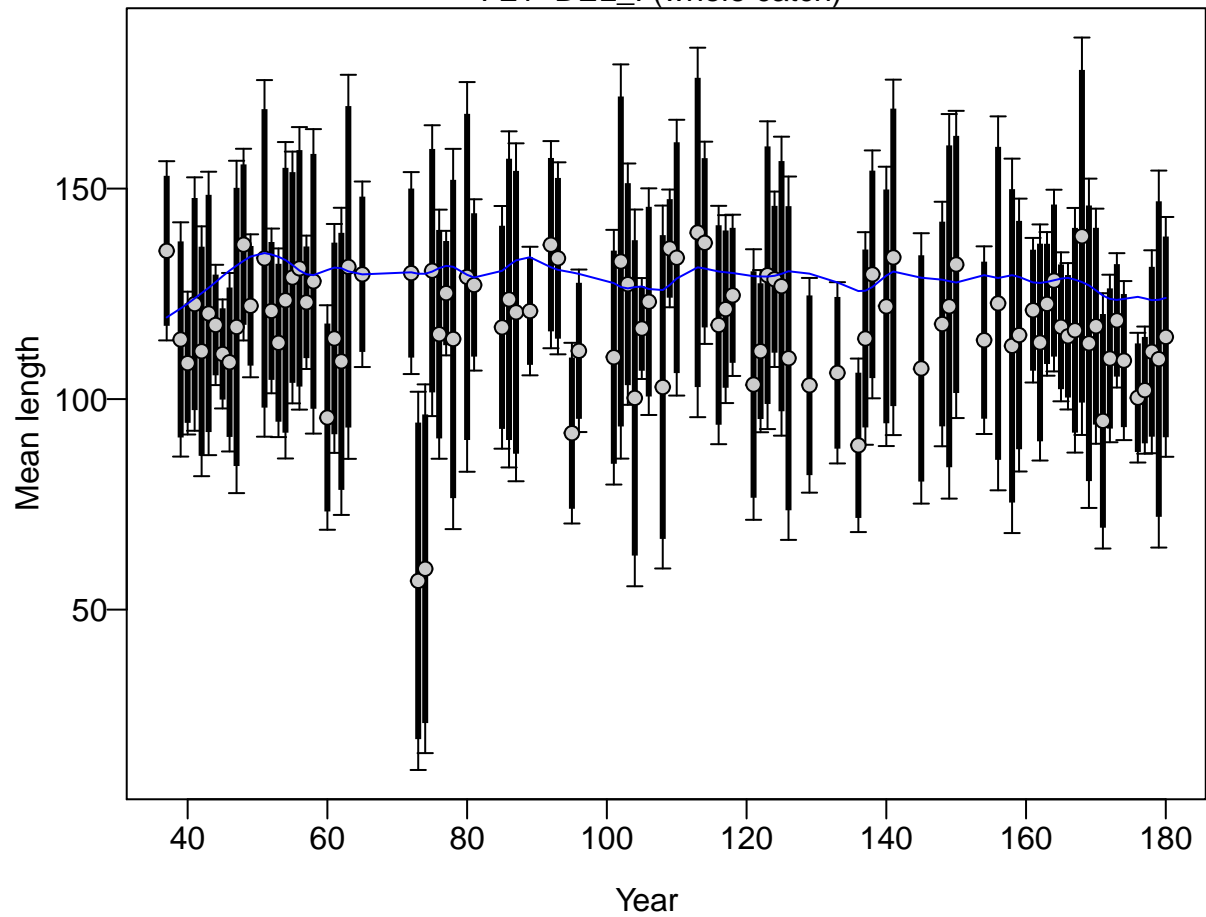
Proportion



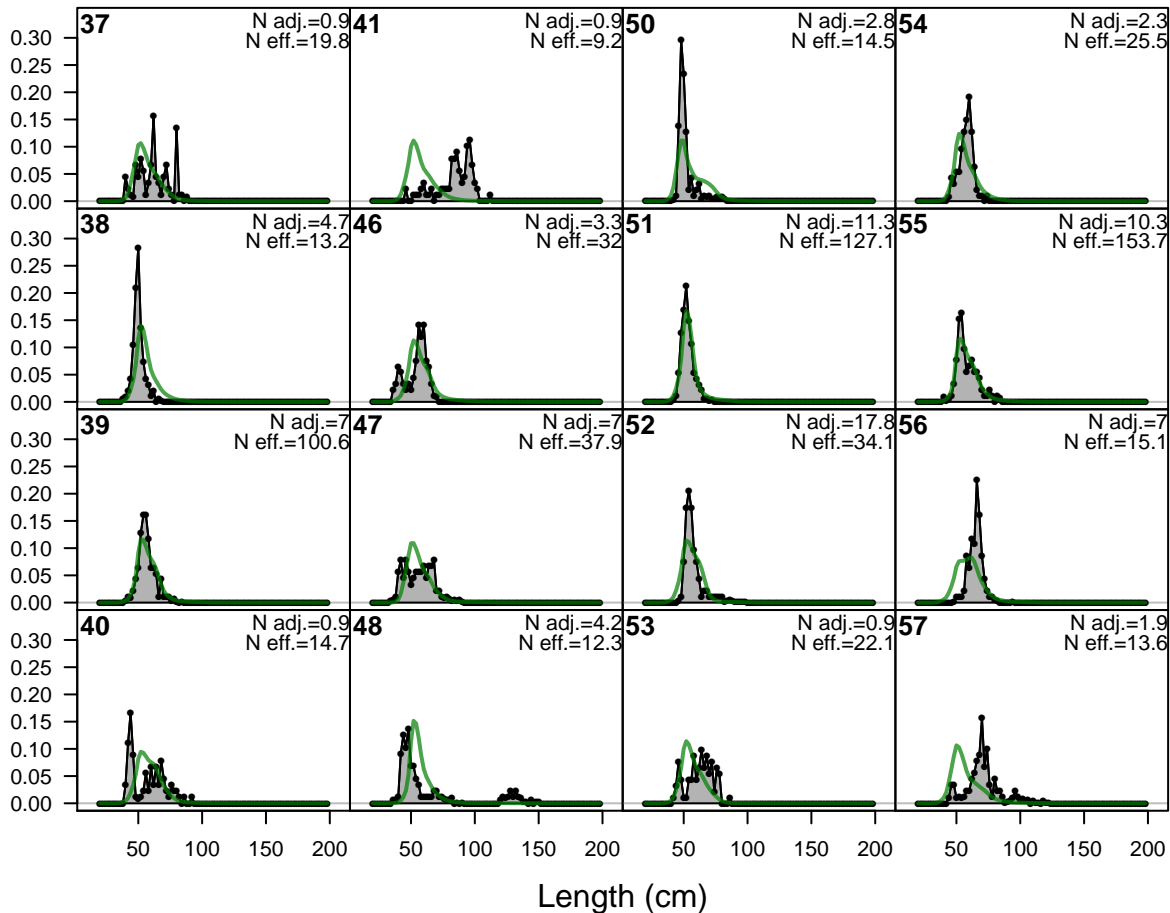




## F21-DEL\_I (whole catch)

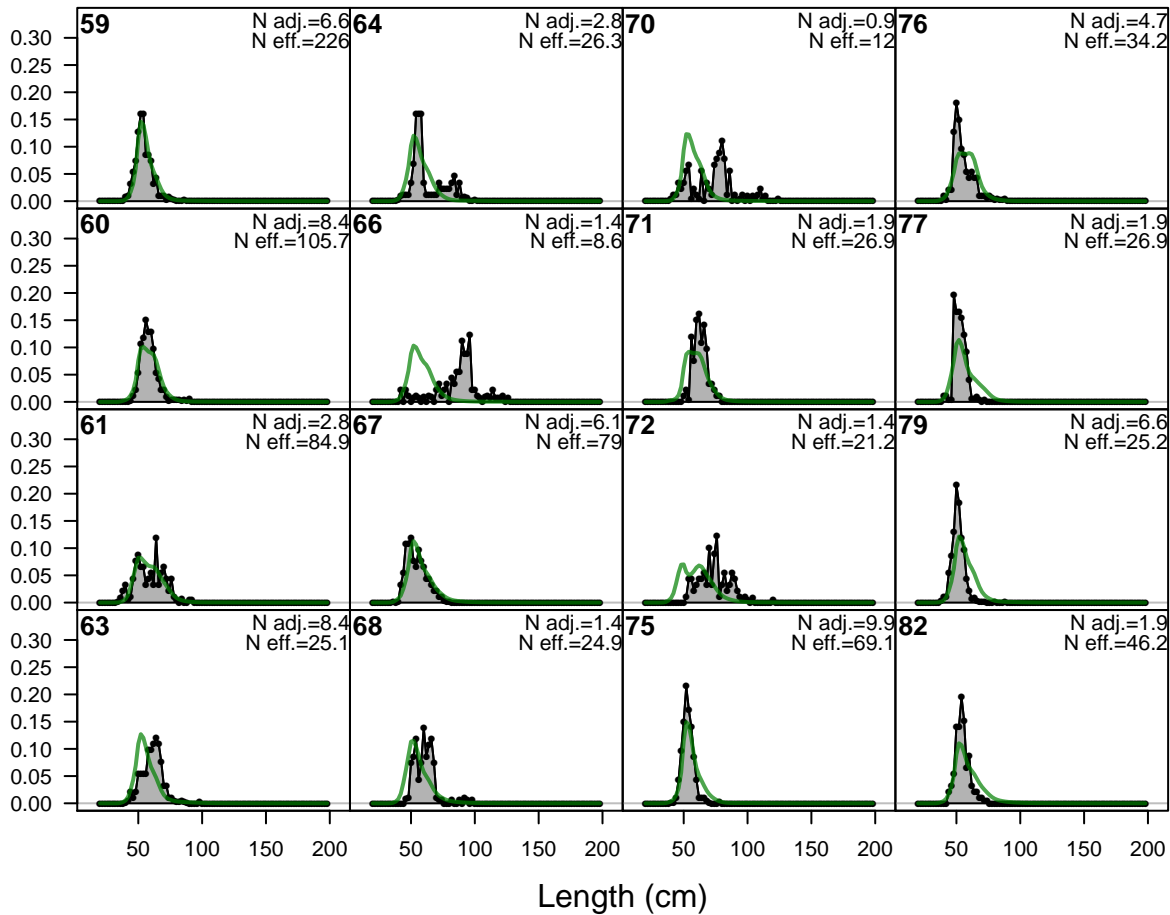


Proportion

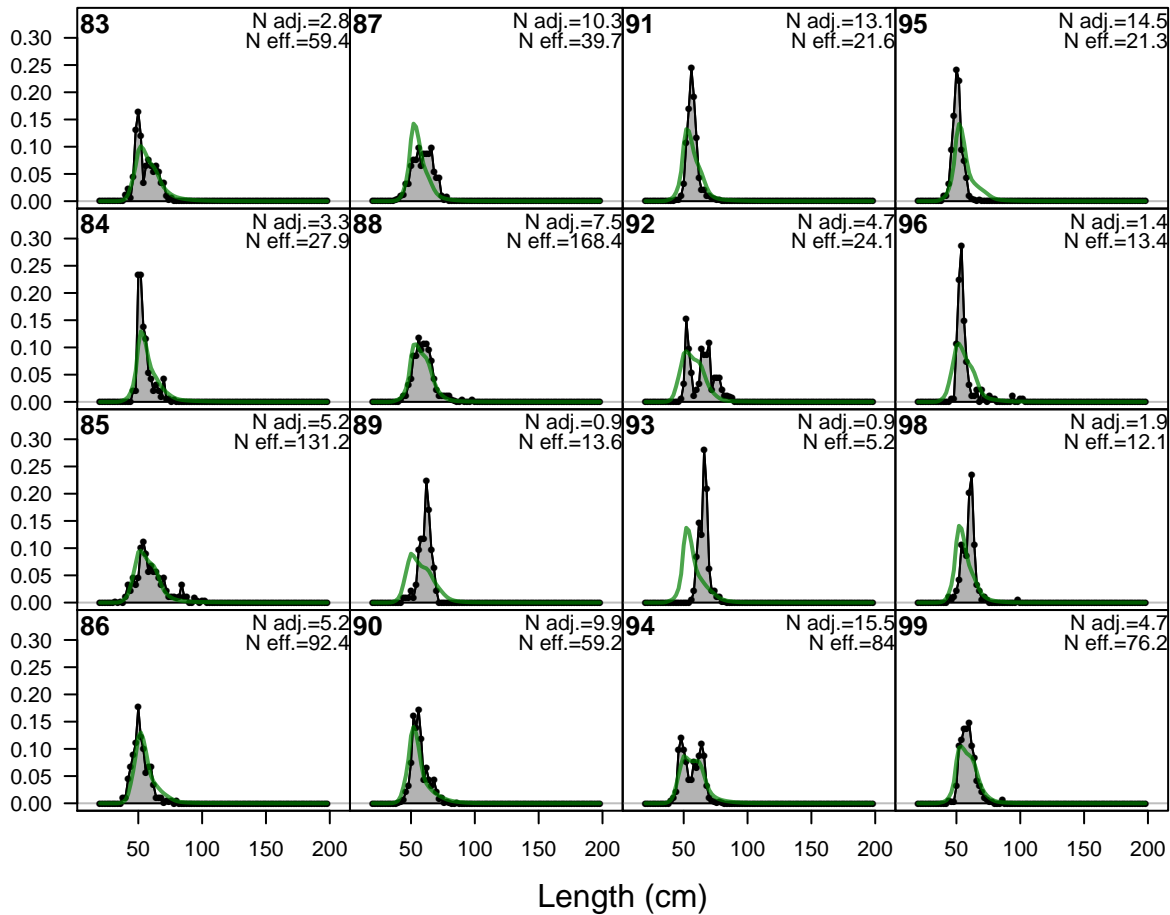


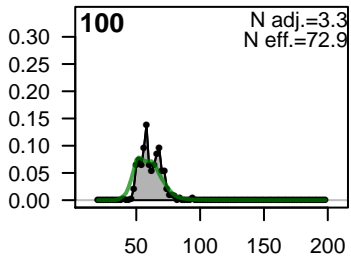


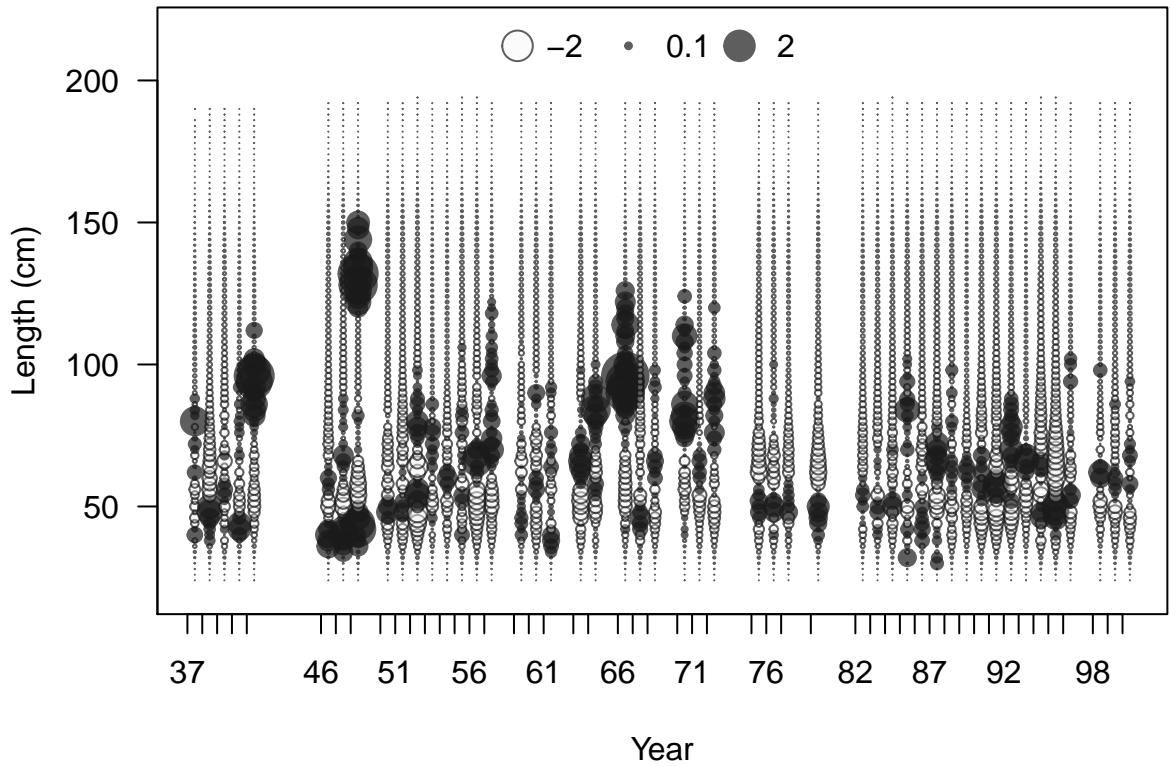
Proportion

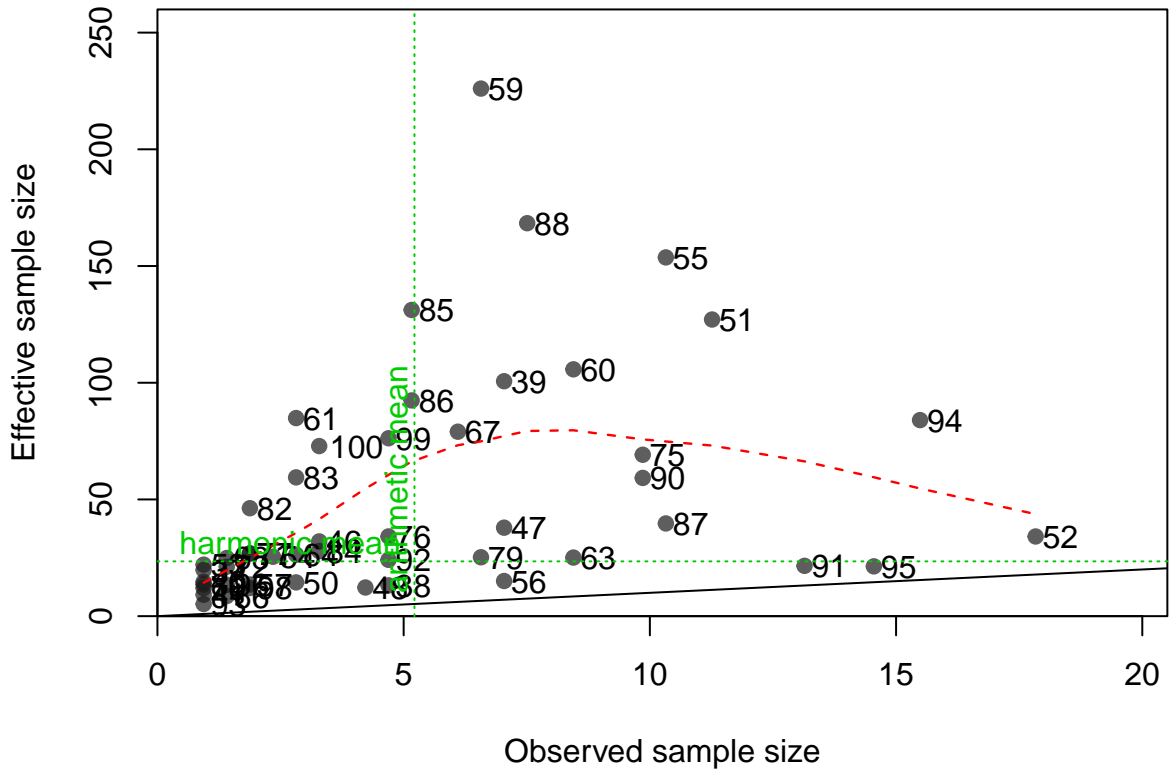


Proportion

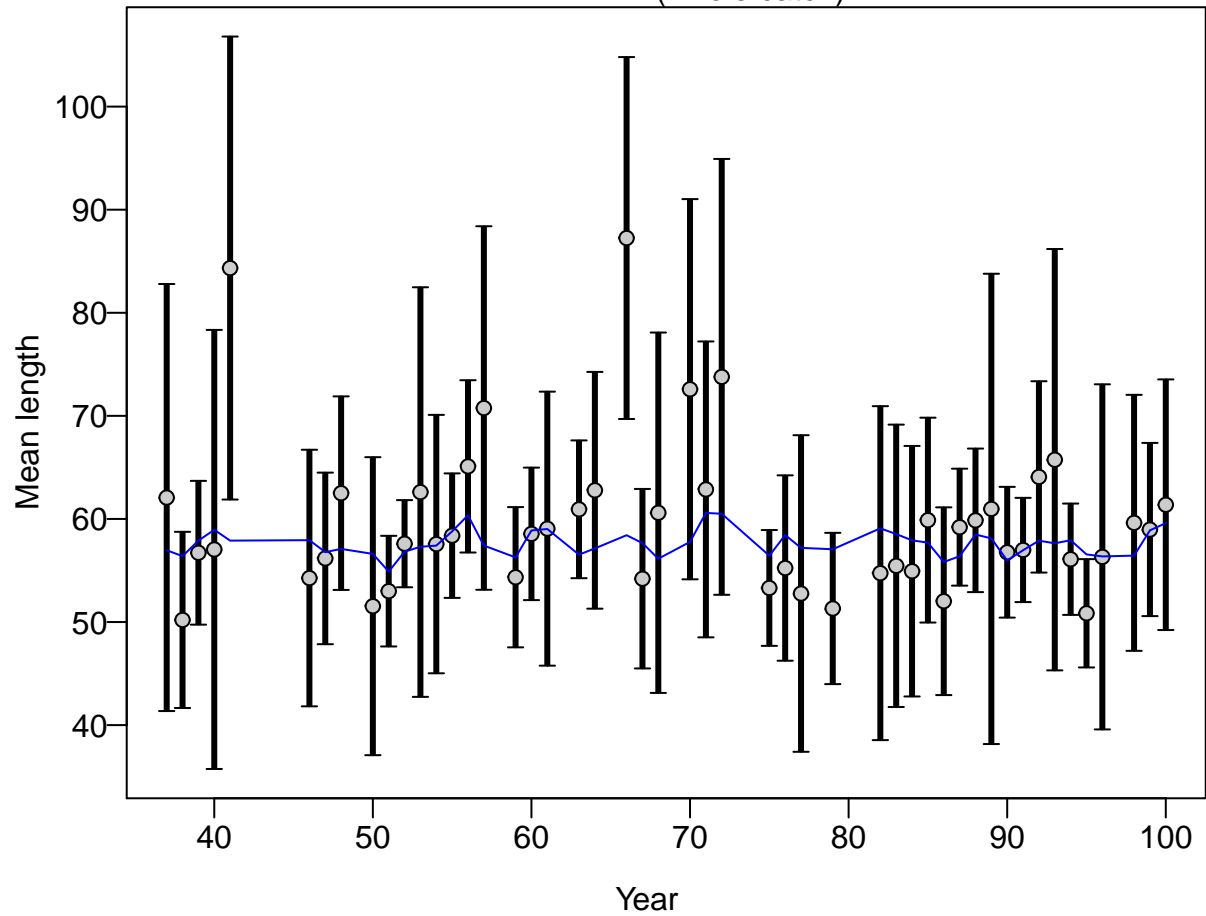




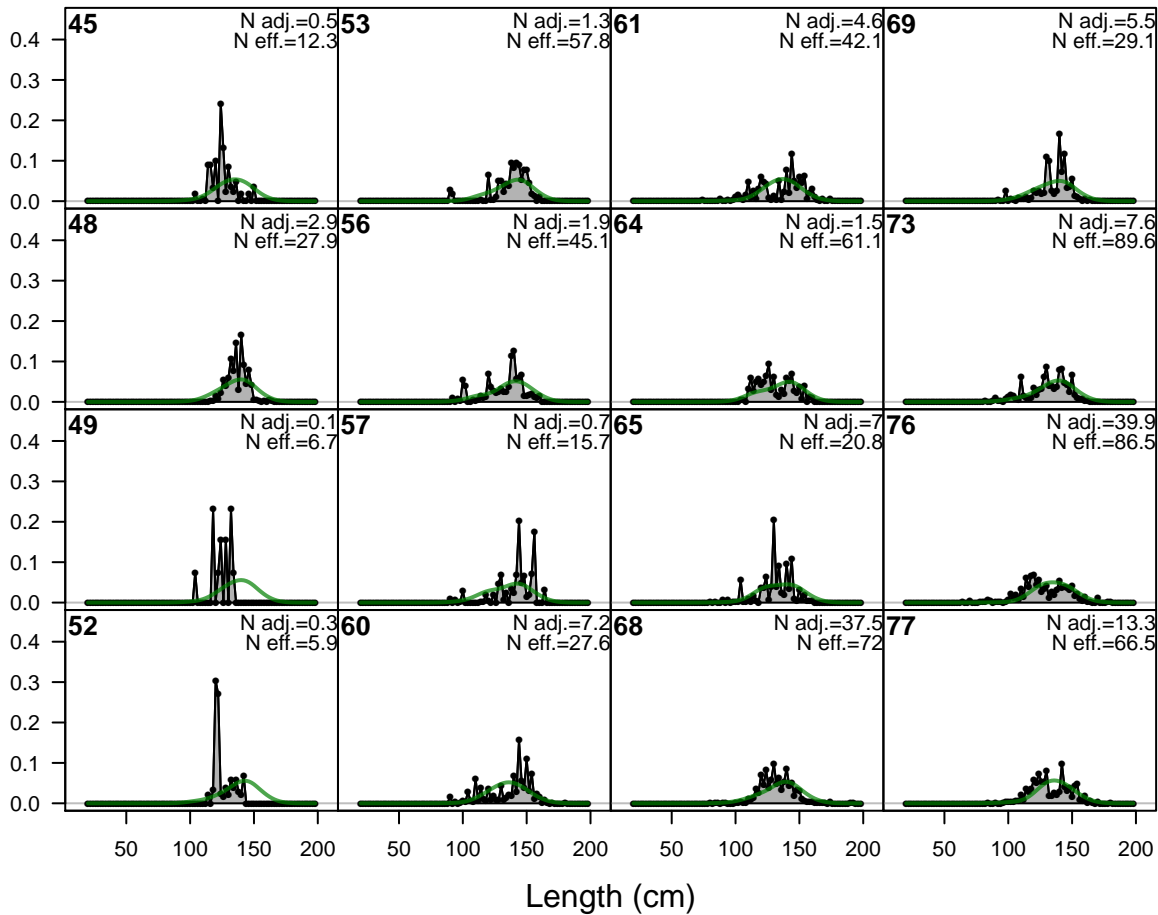




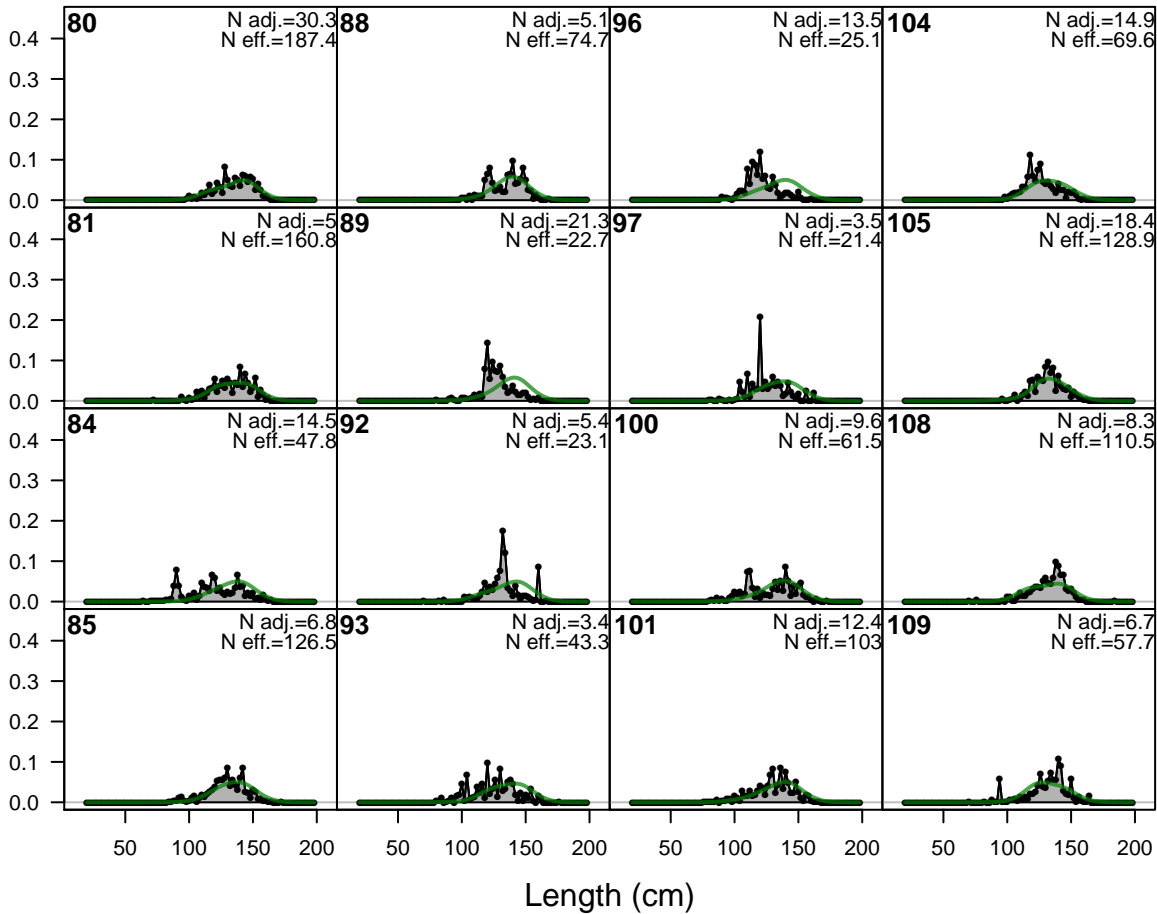
F22-BB (whole catch)



Proportion

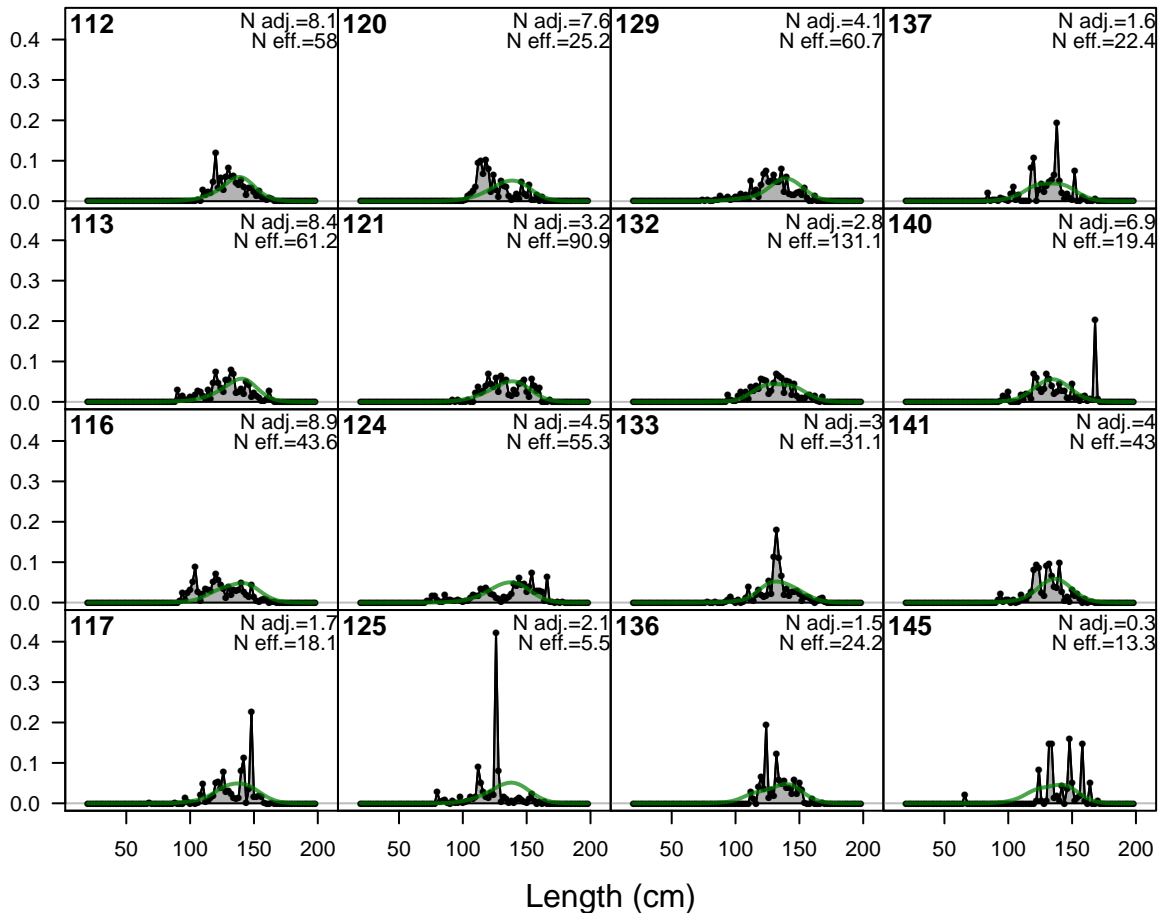


Proportion

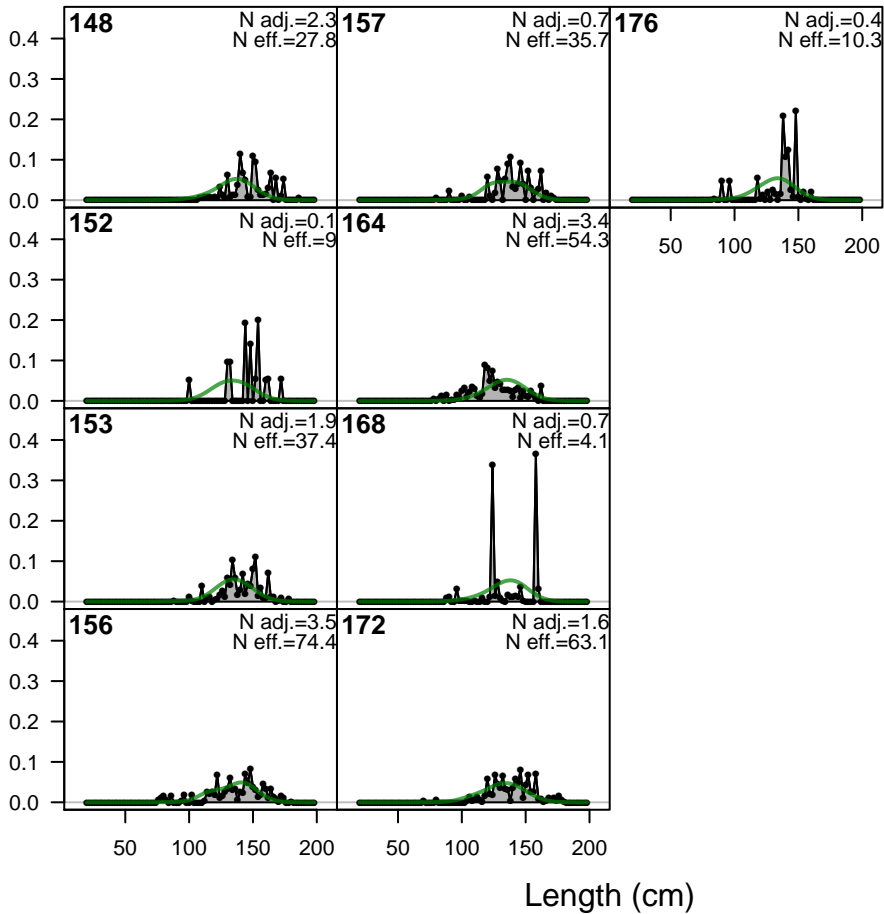


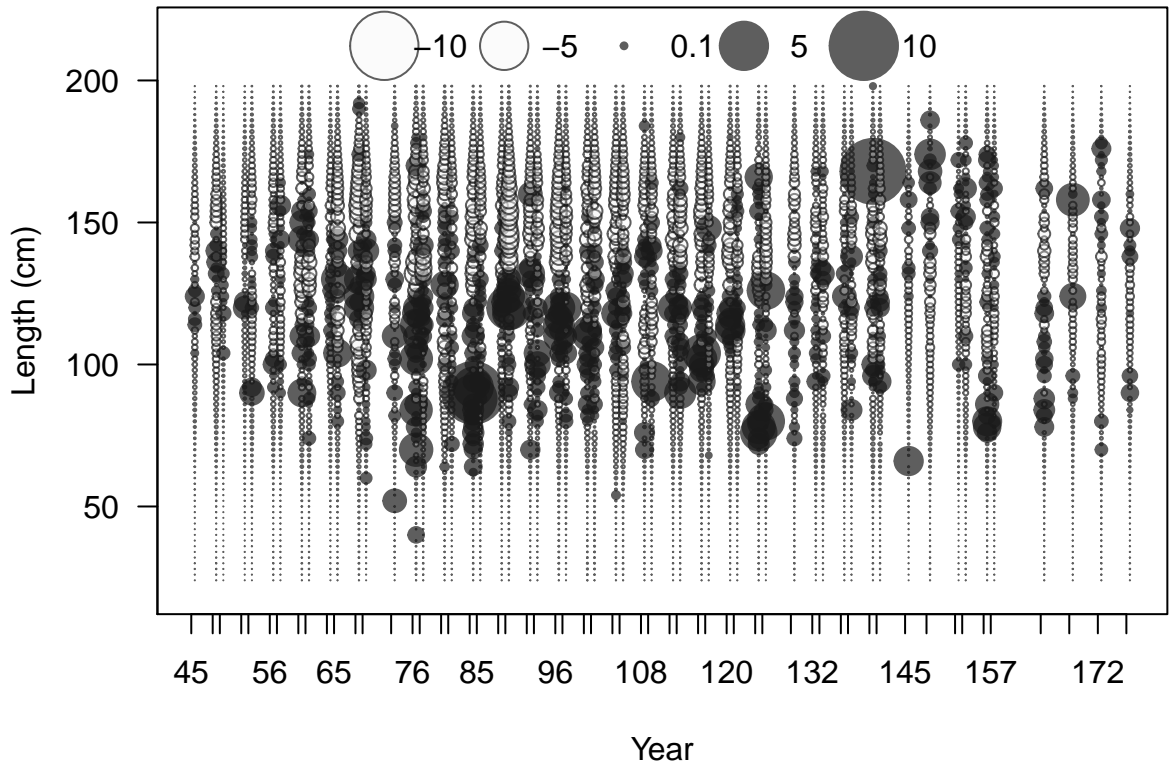


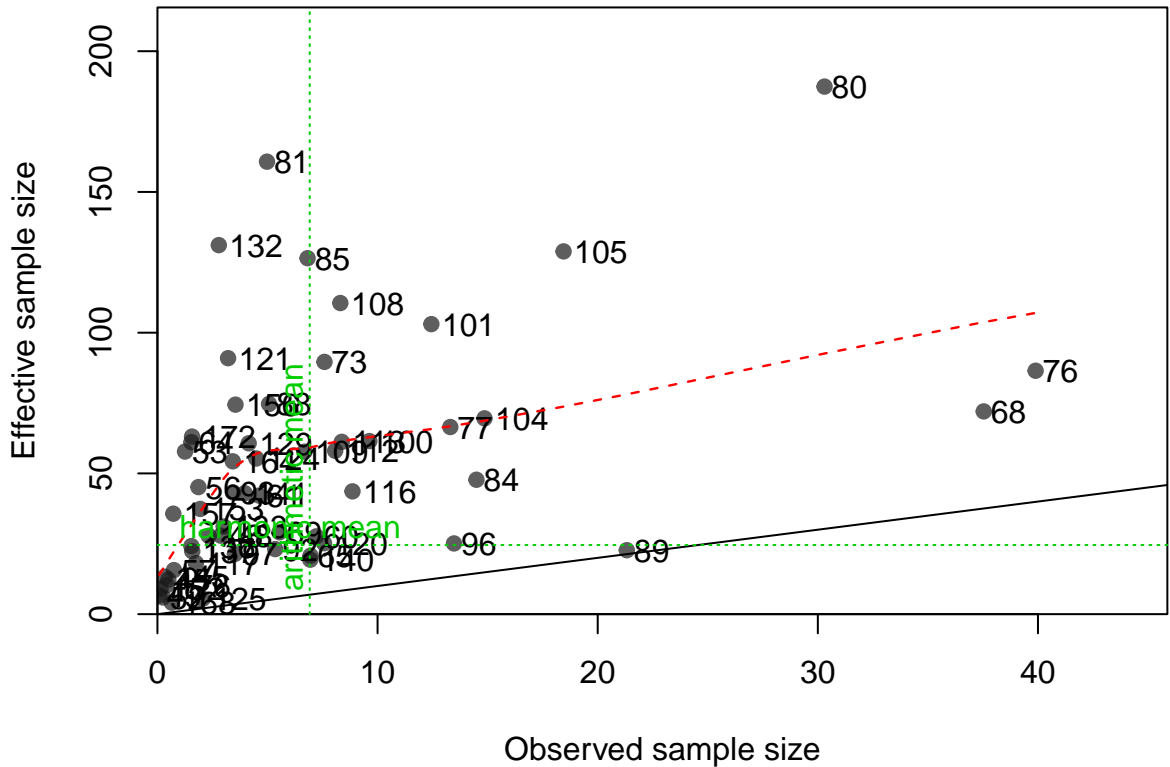
Proportion



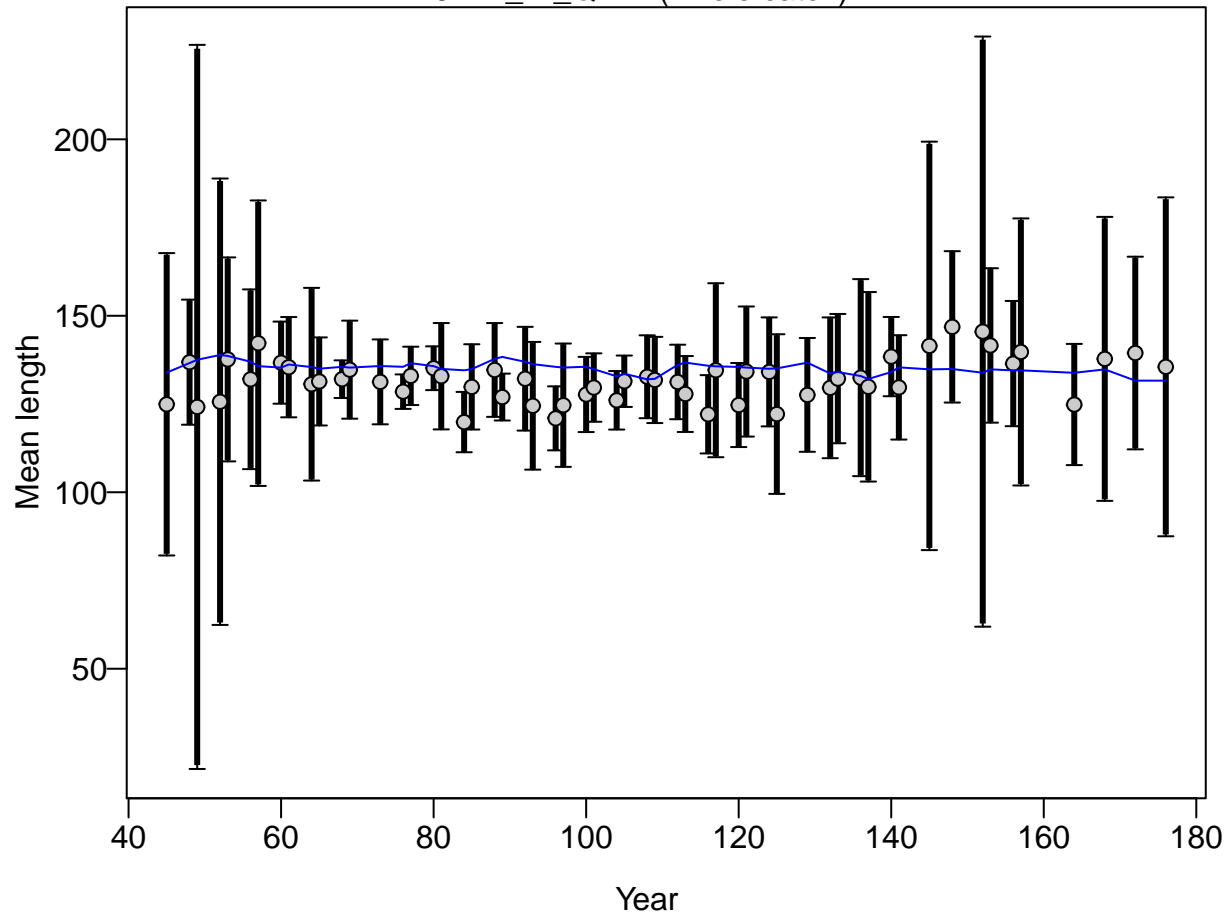
Proportion



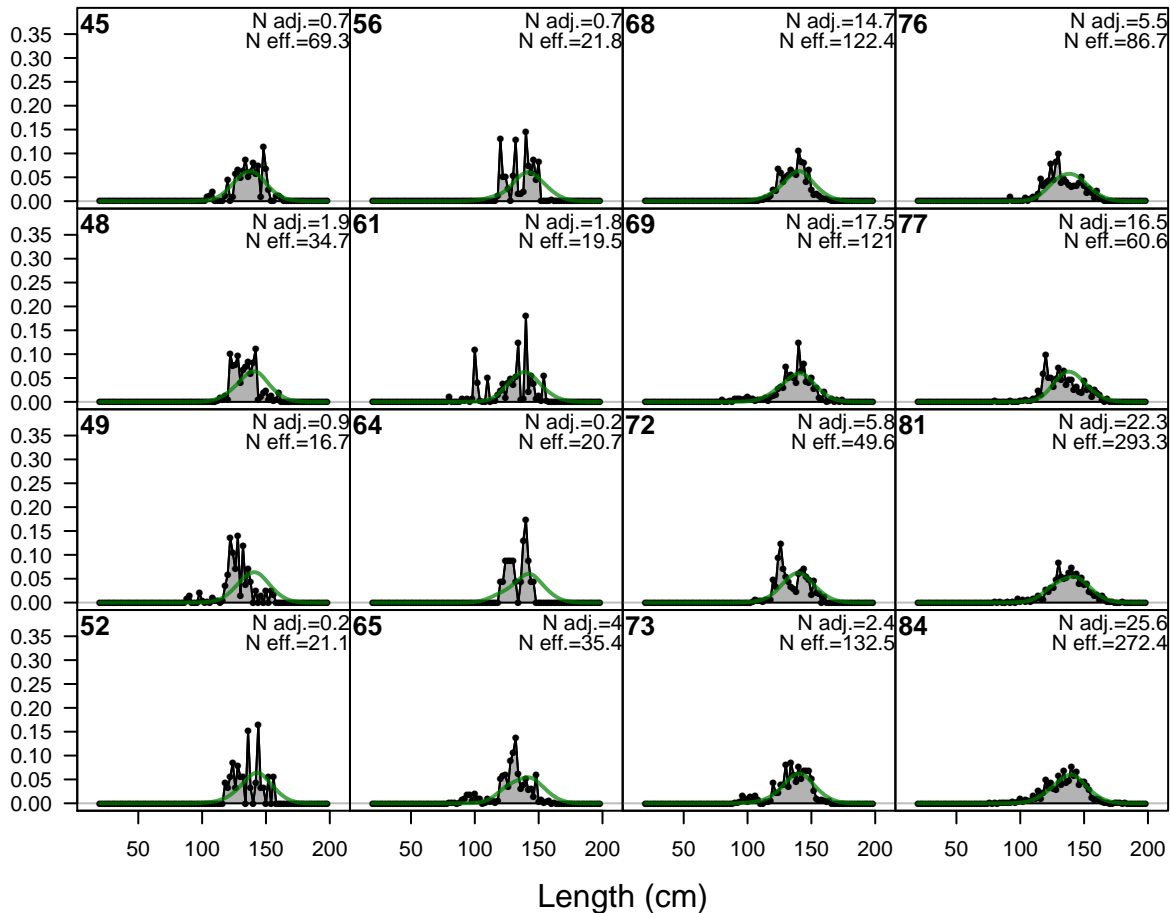




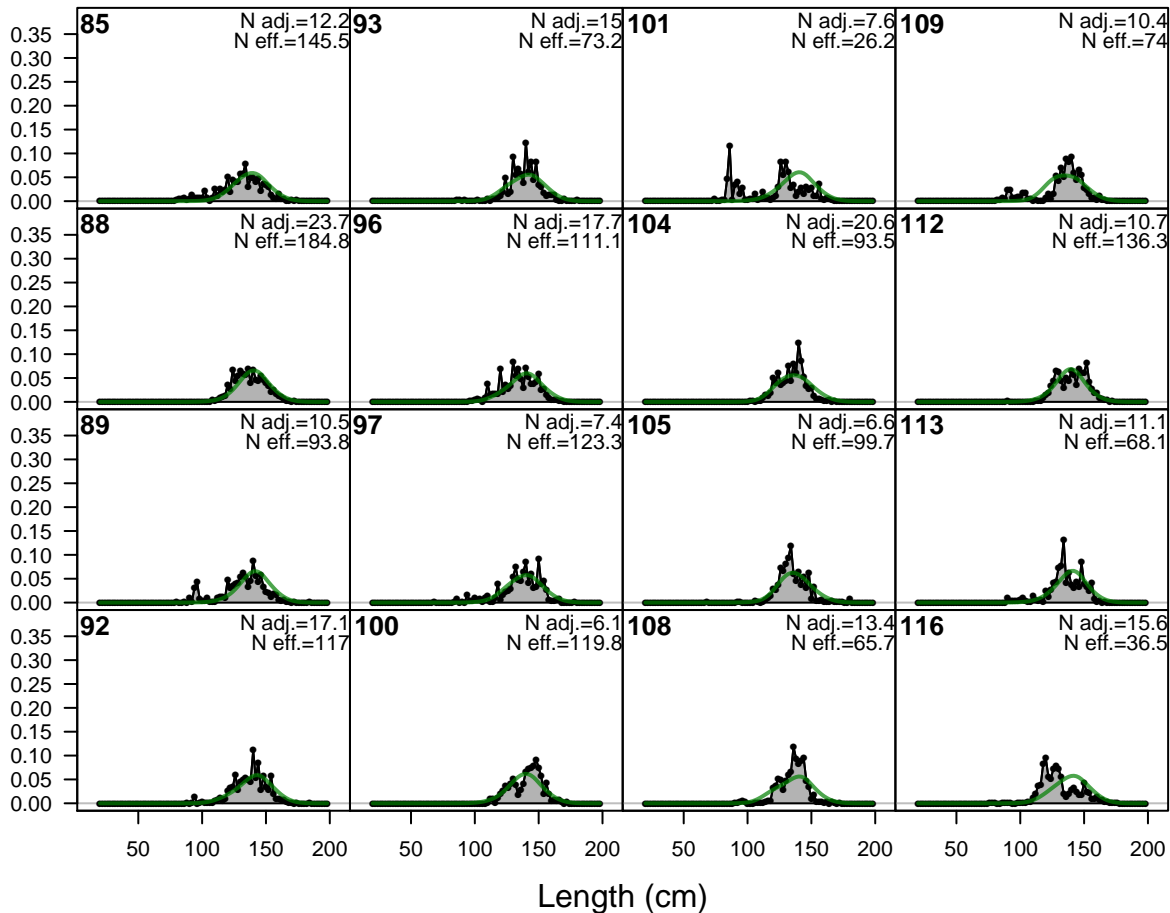
F29-LL\_W\_Q14n (whole catch)



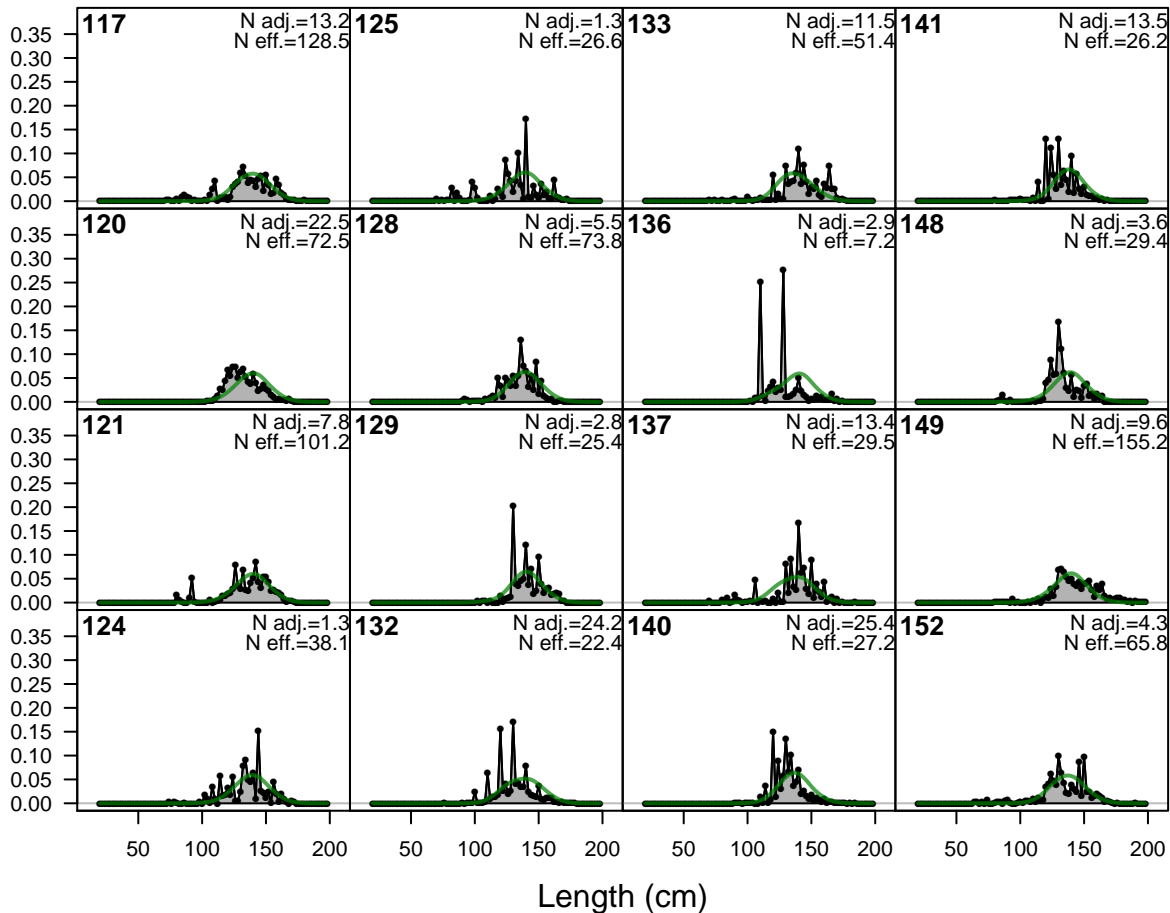
Proportion



Proportion

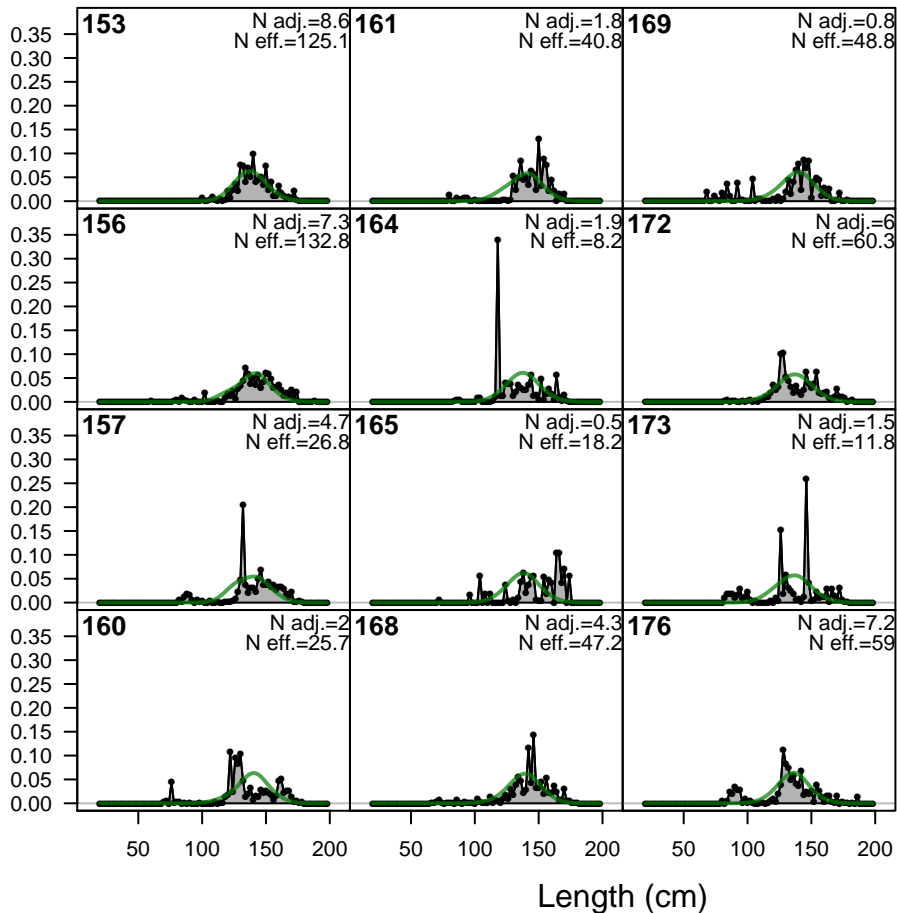


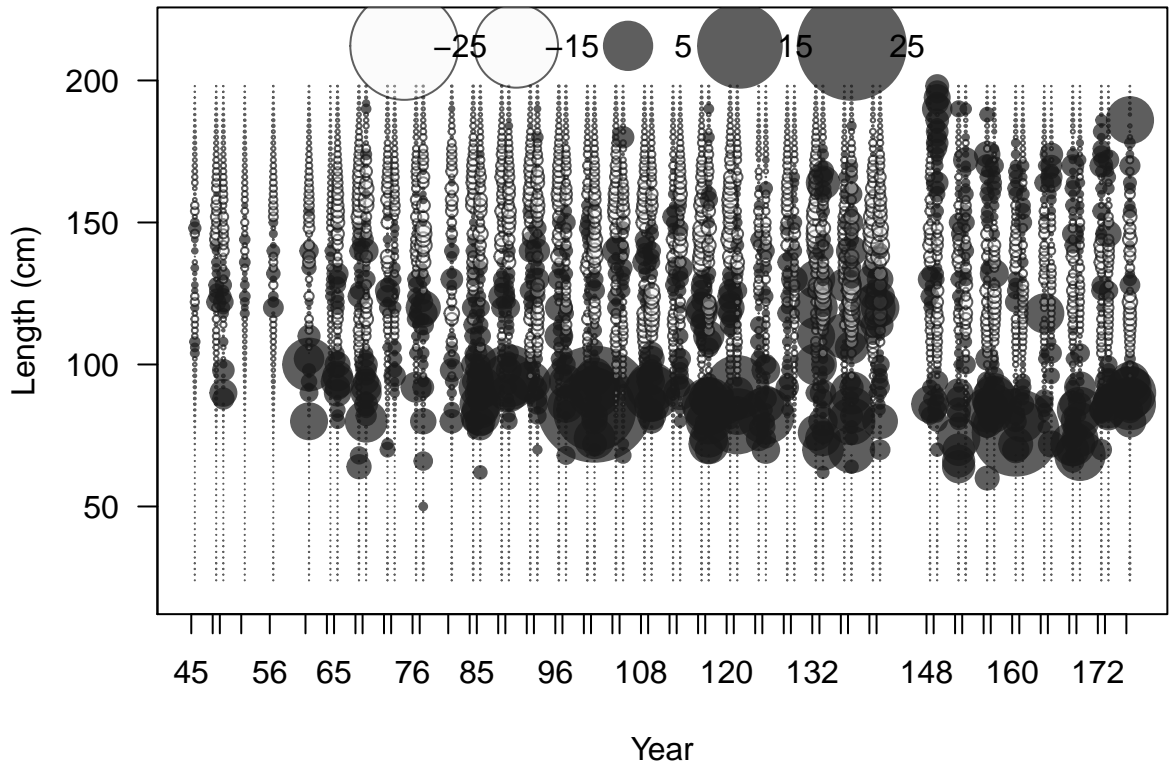
Proportion

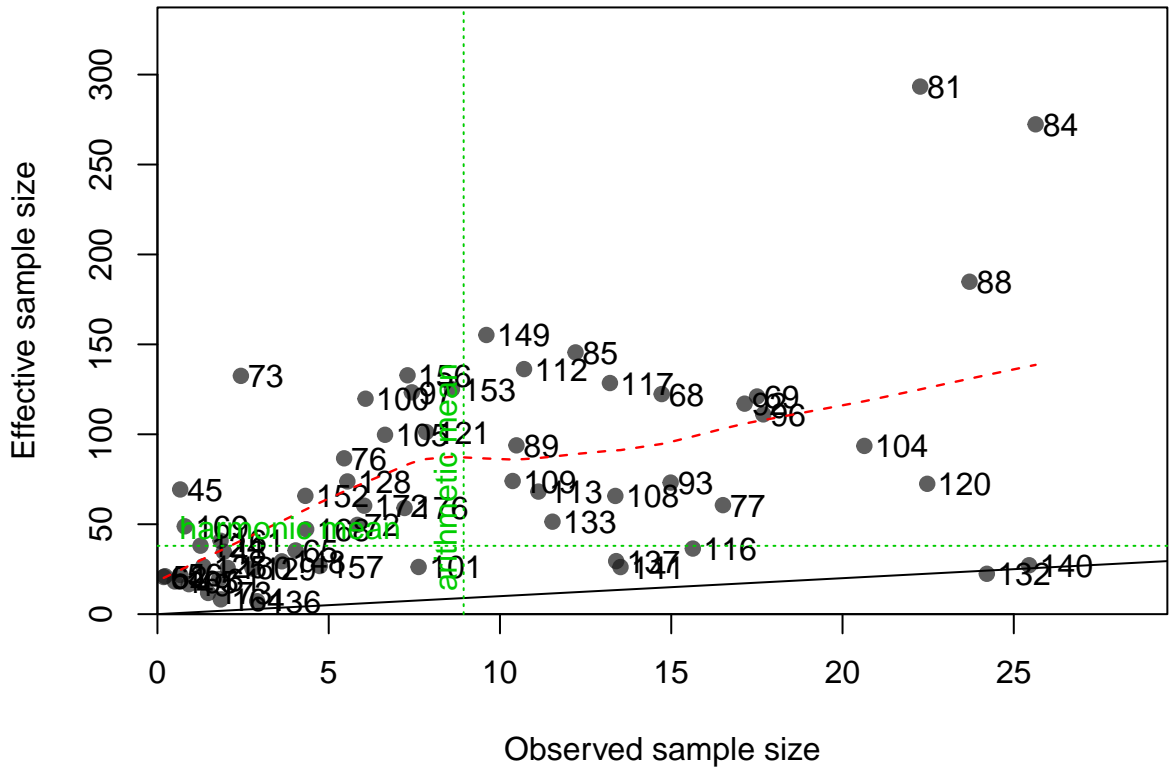




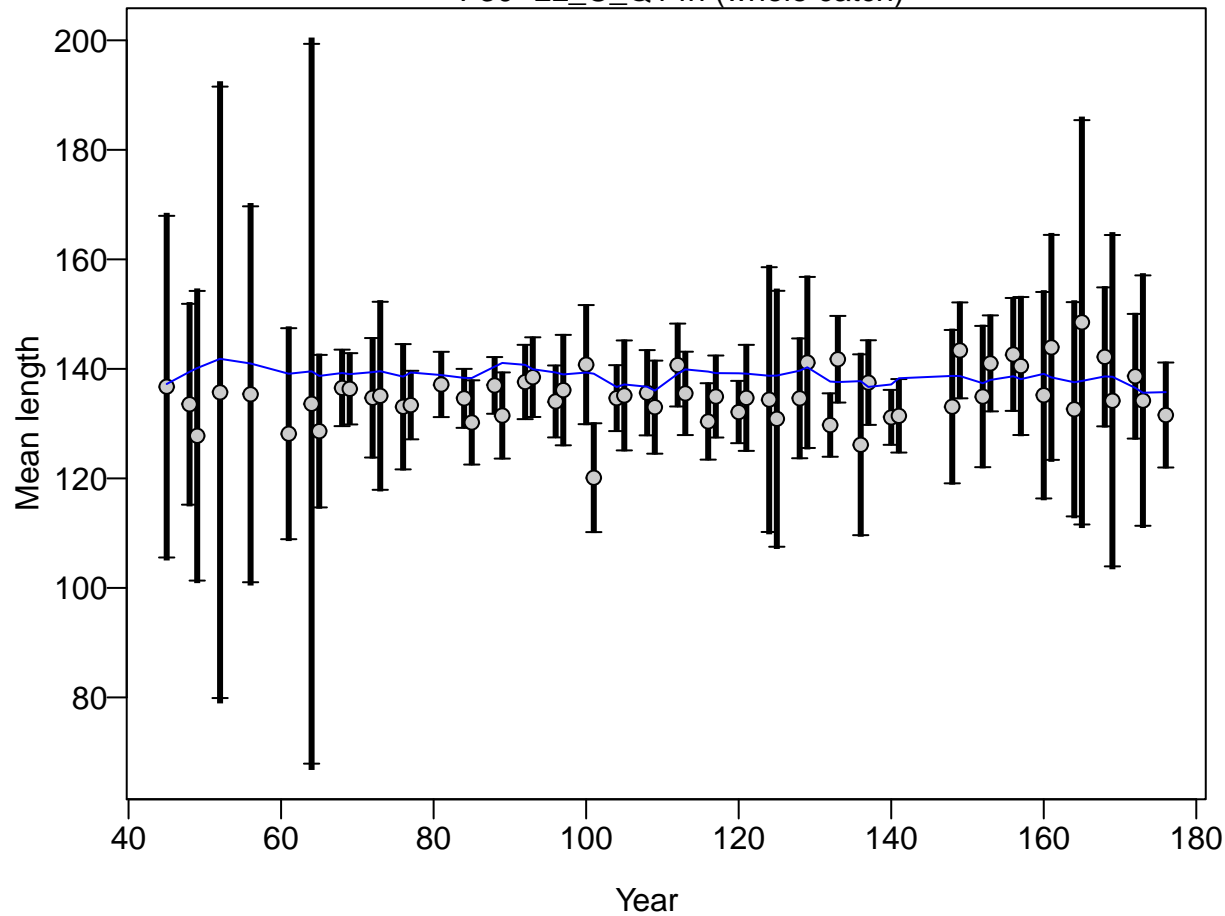
Proportion



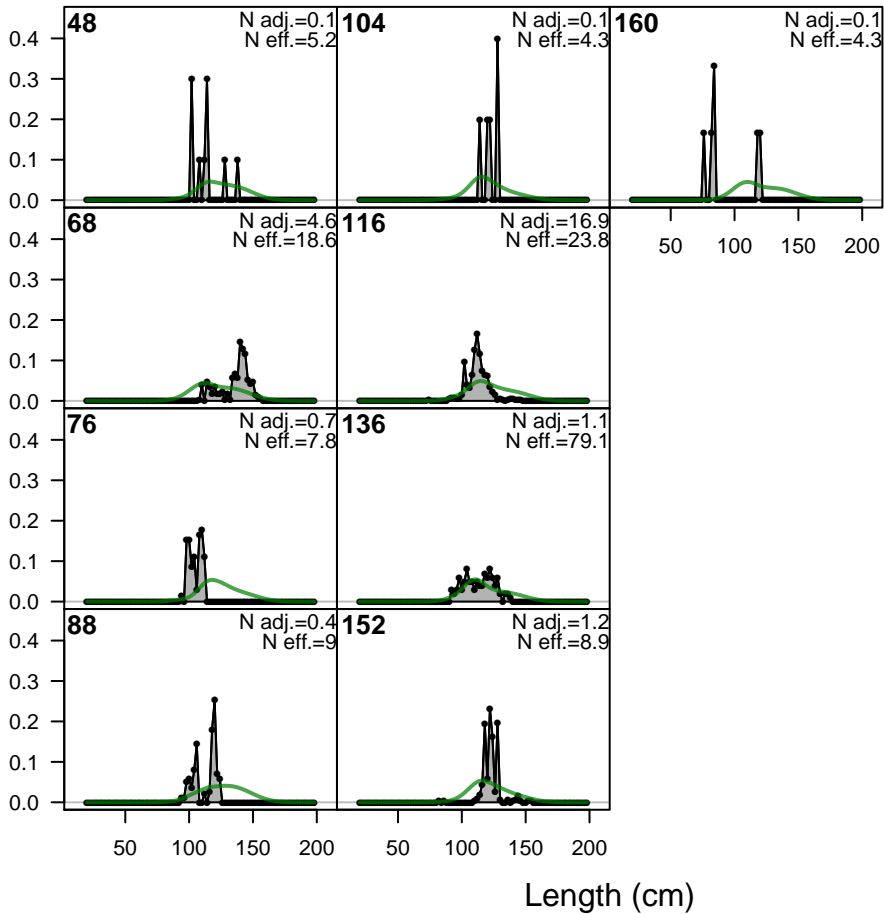


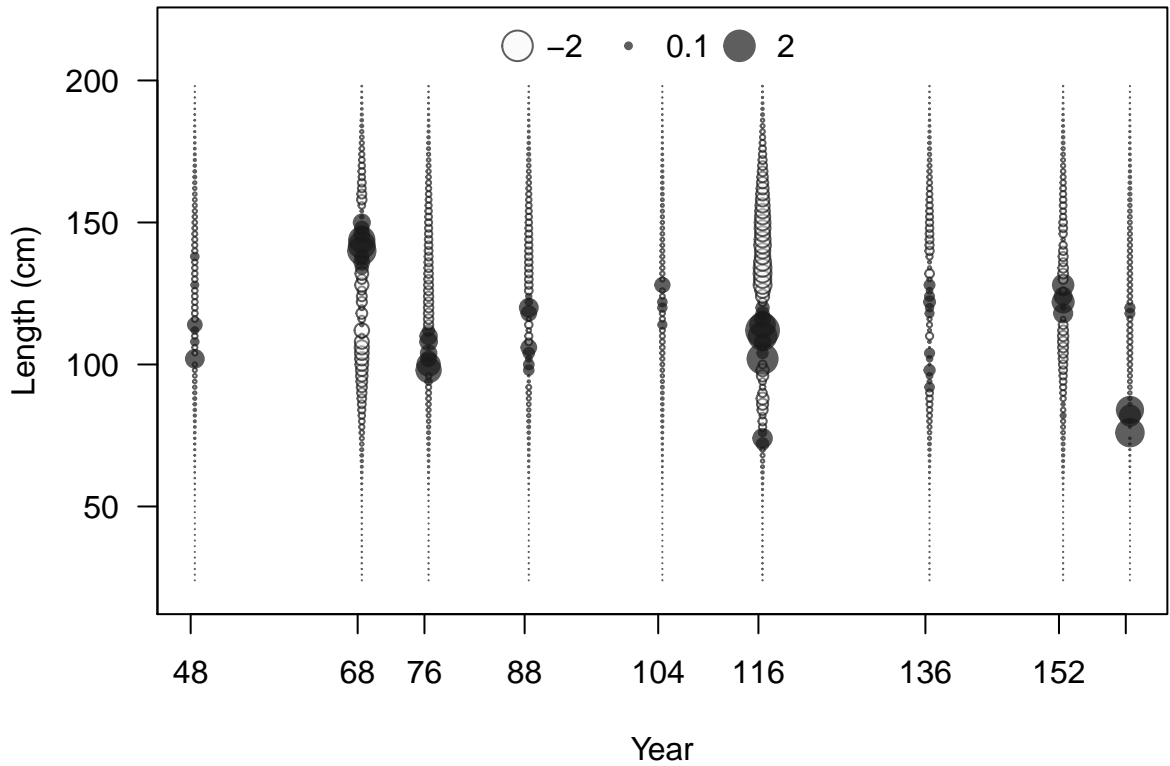


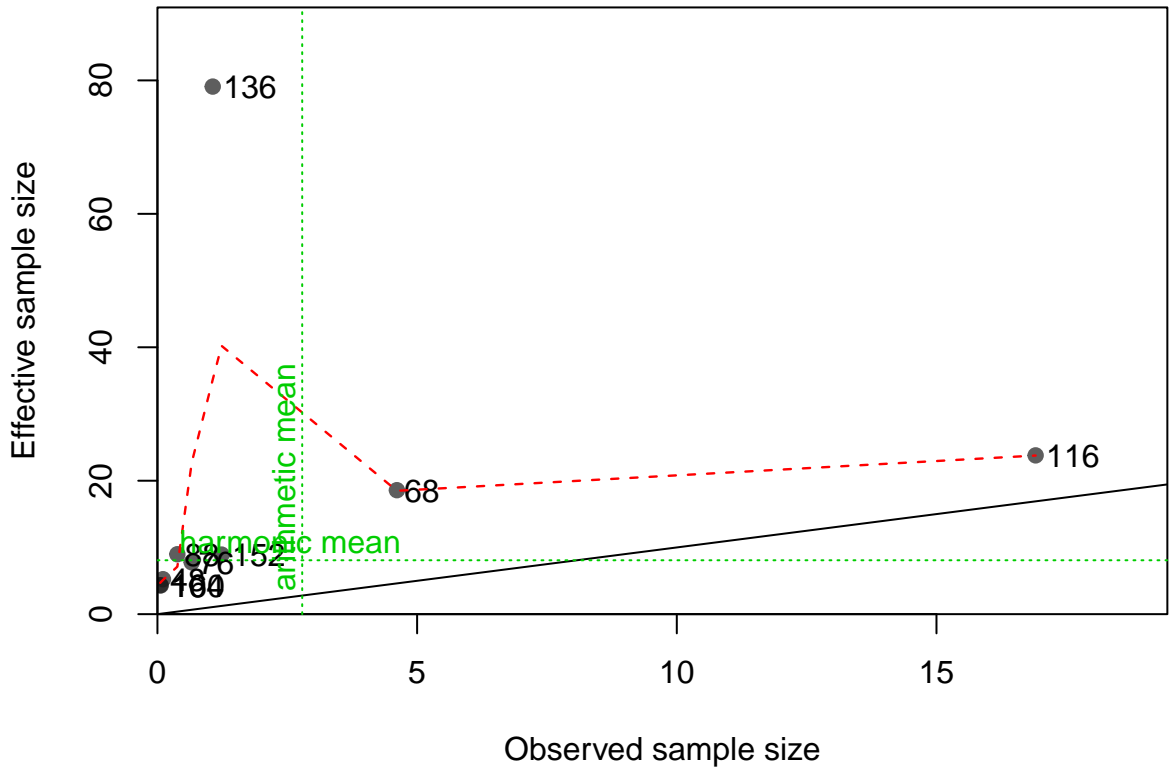
F30-LL\_C\_Q14n (whole catch)



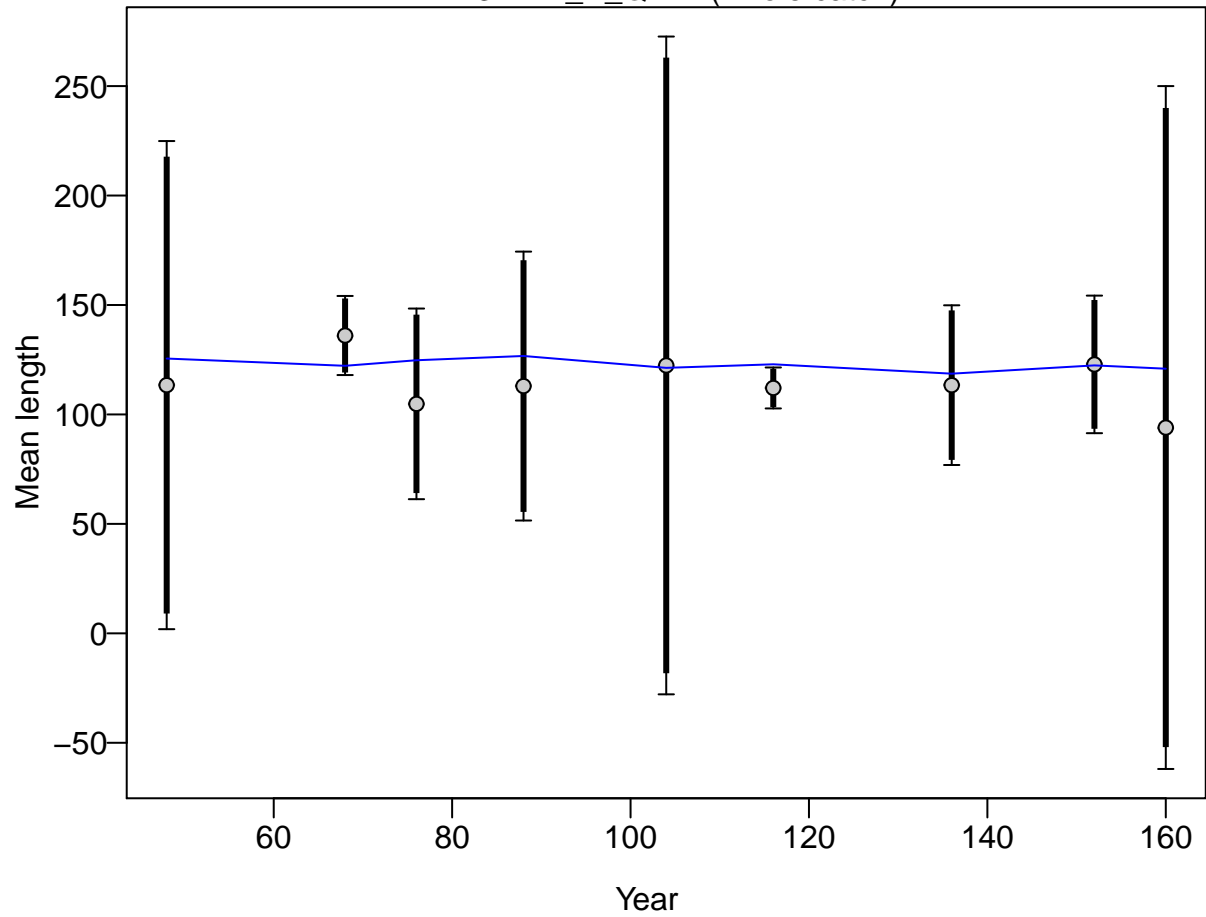
Proportion





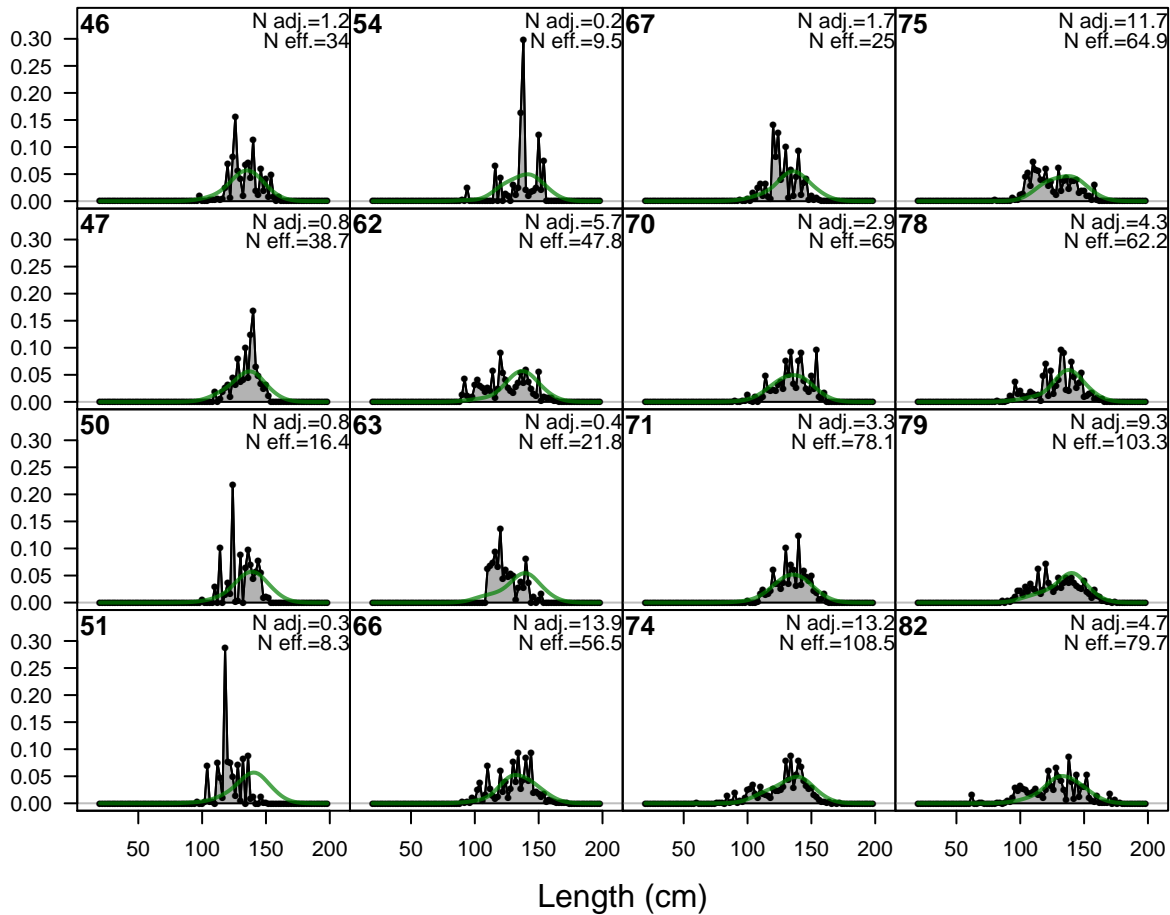


F31-LL\_E\_Q14n (whole catch)

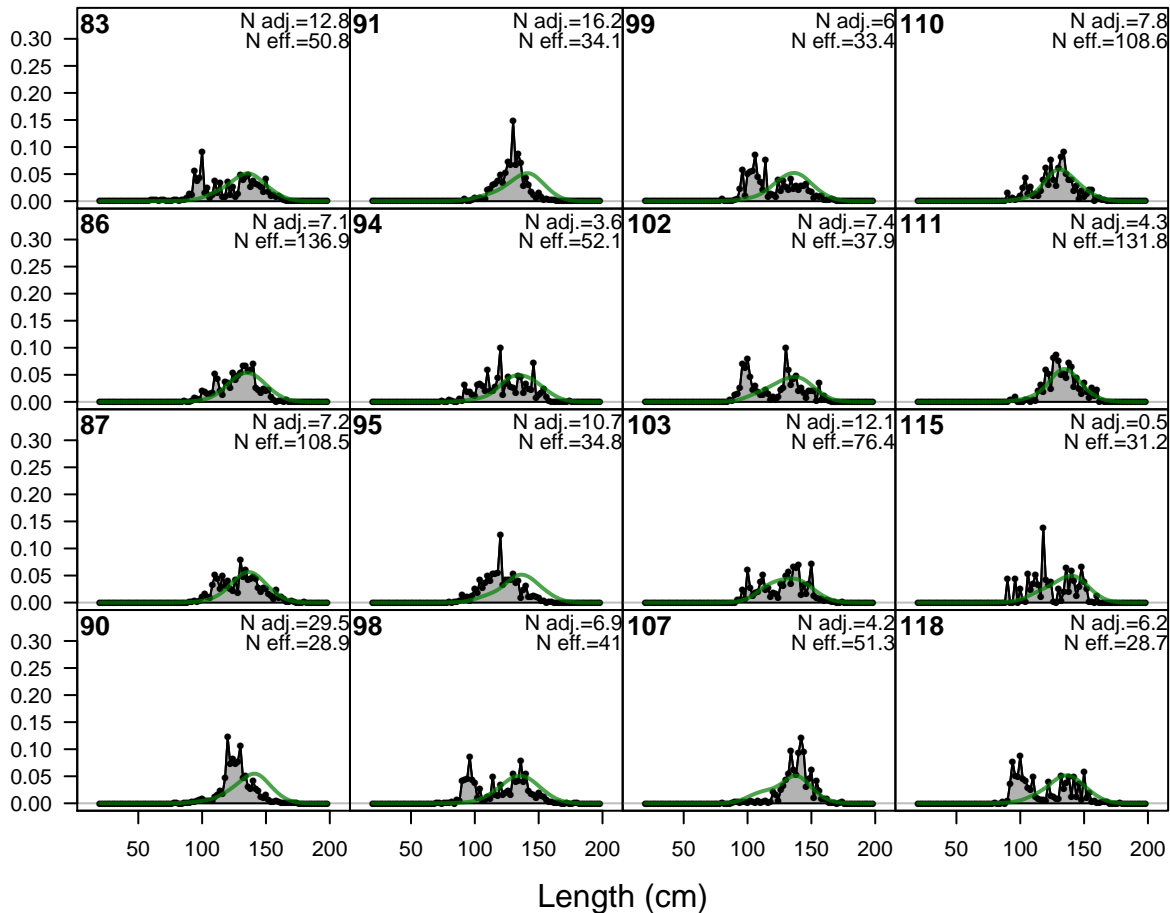




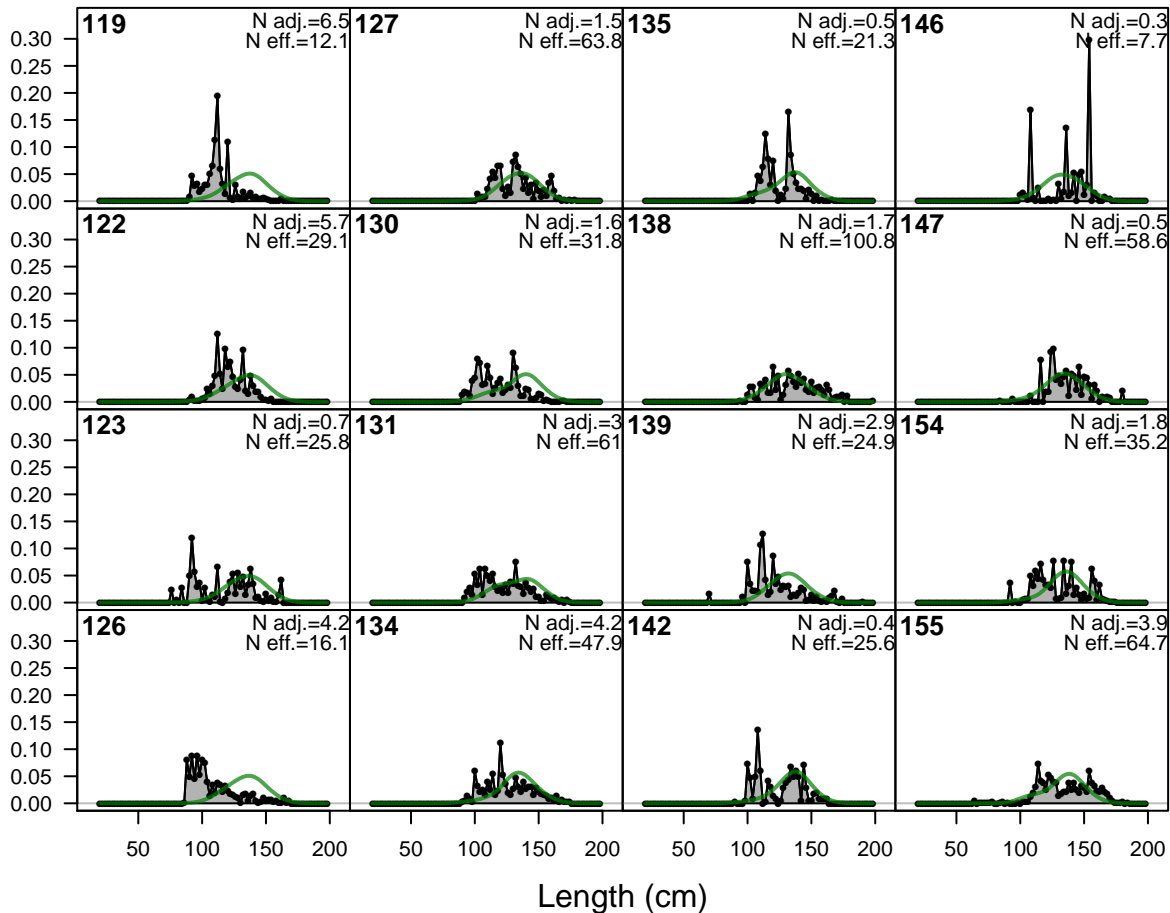
Proportion



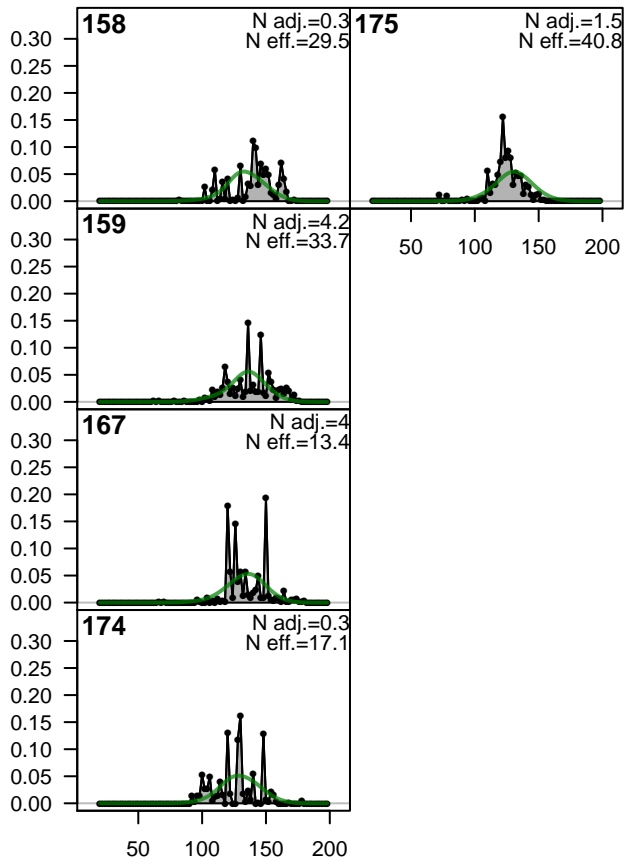
Proportion



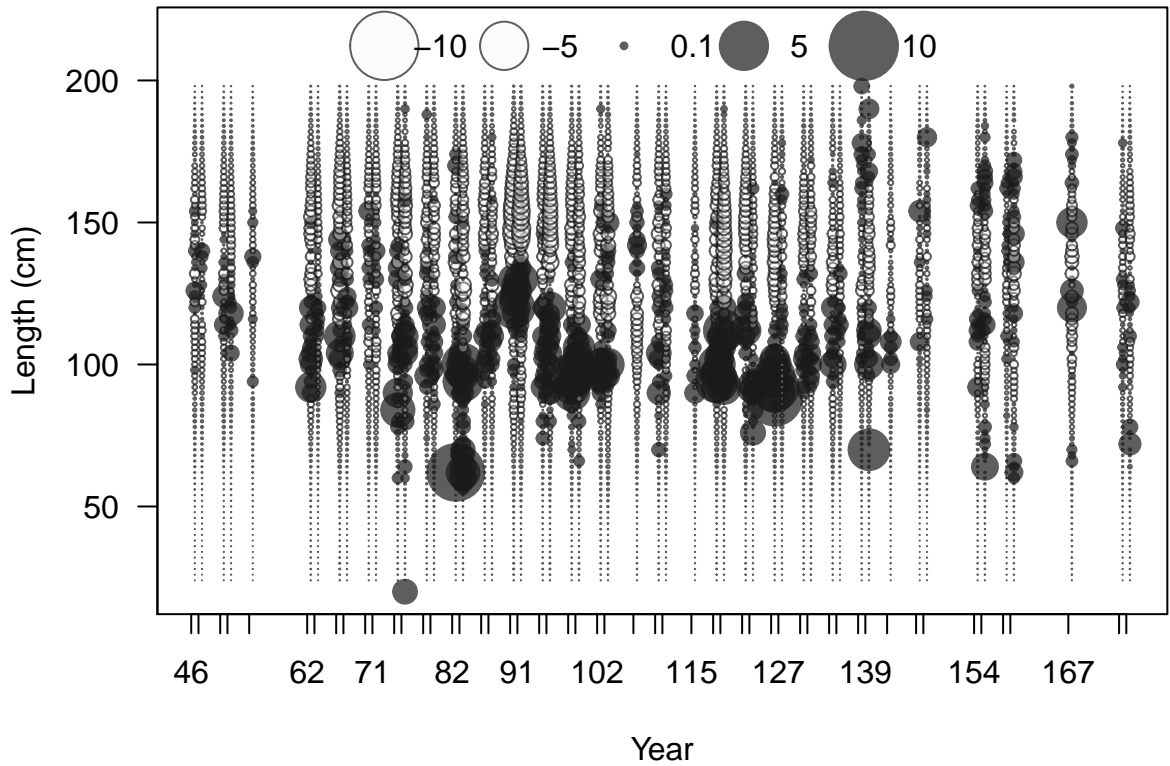
Proportion



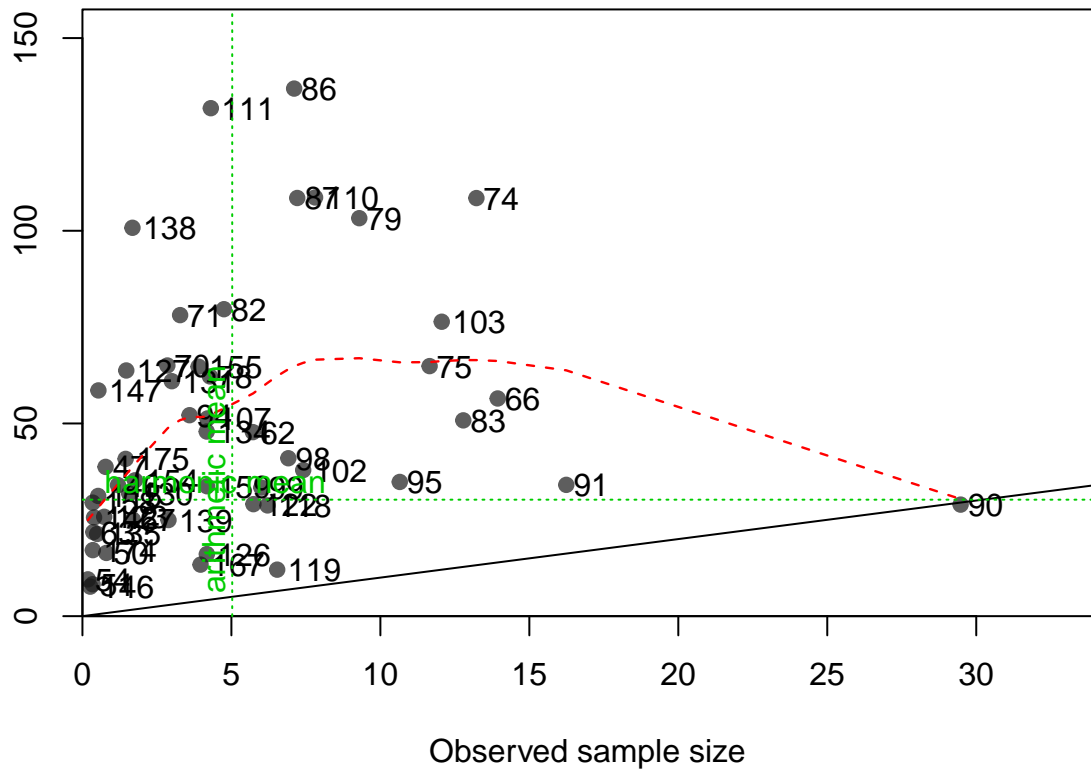
Proportion



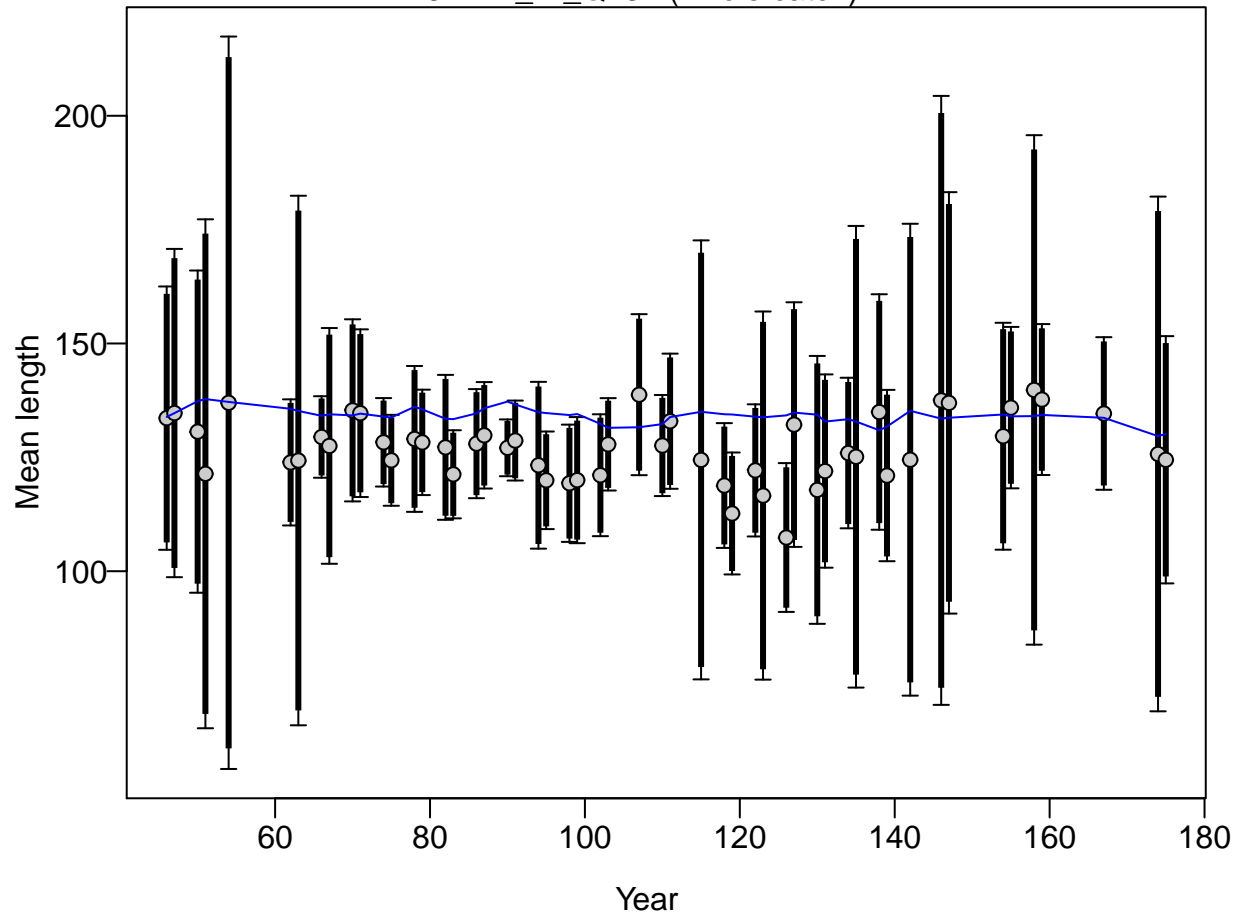
Length (cm)



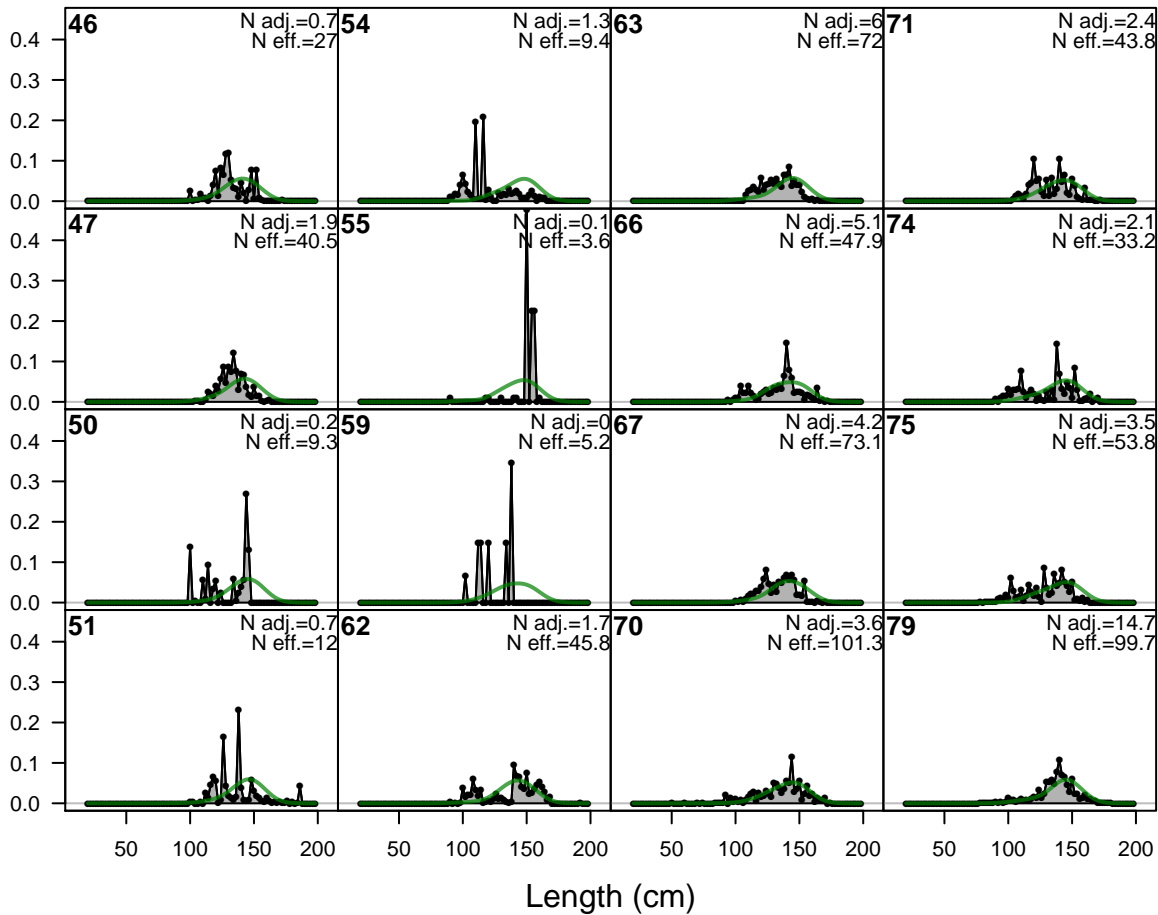
Effective sample size



F32-LL\_W\_Q23n (whole catch)

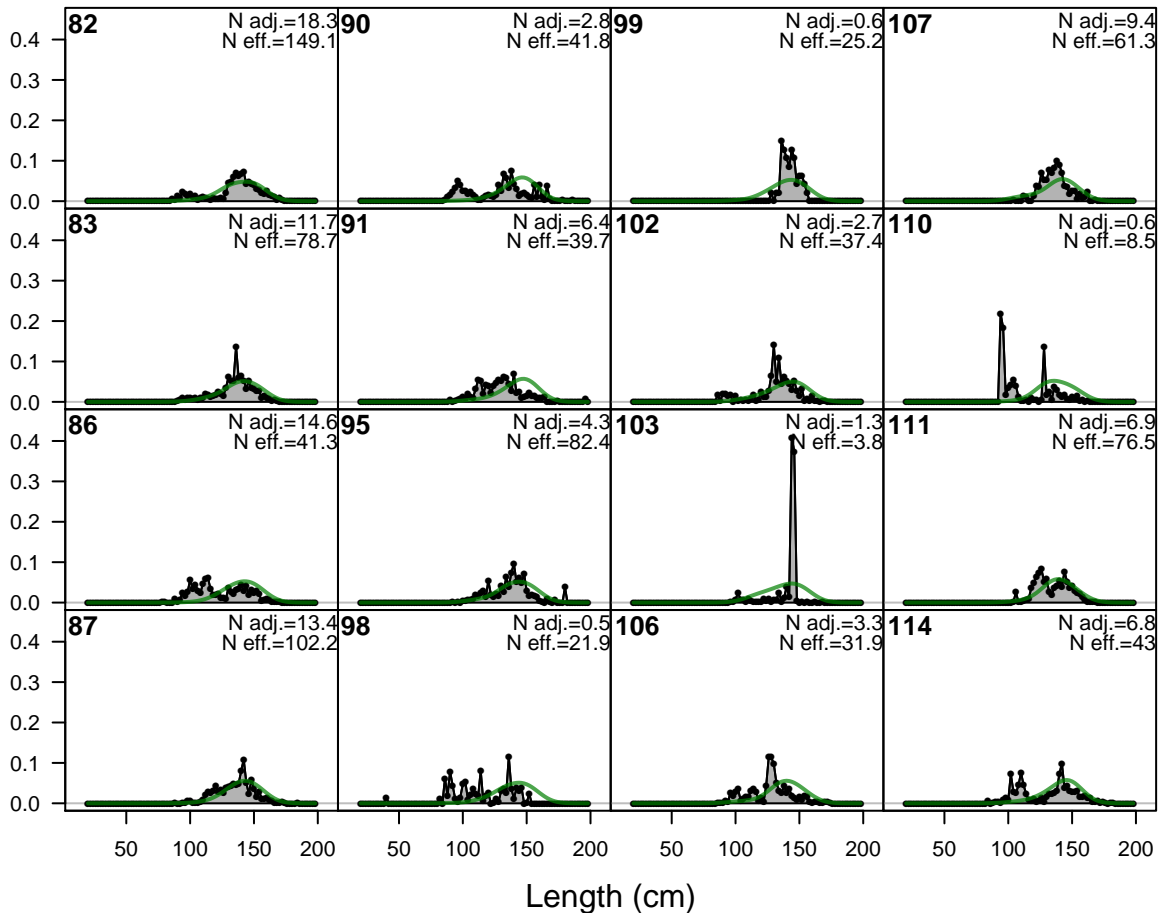


Proportion

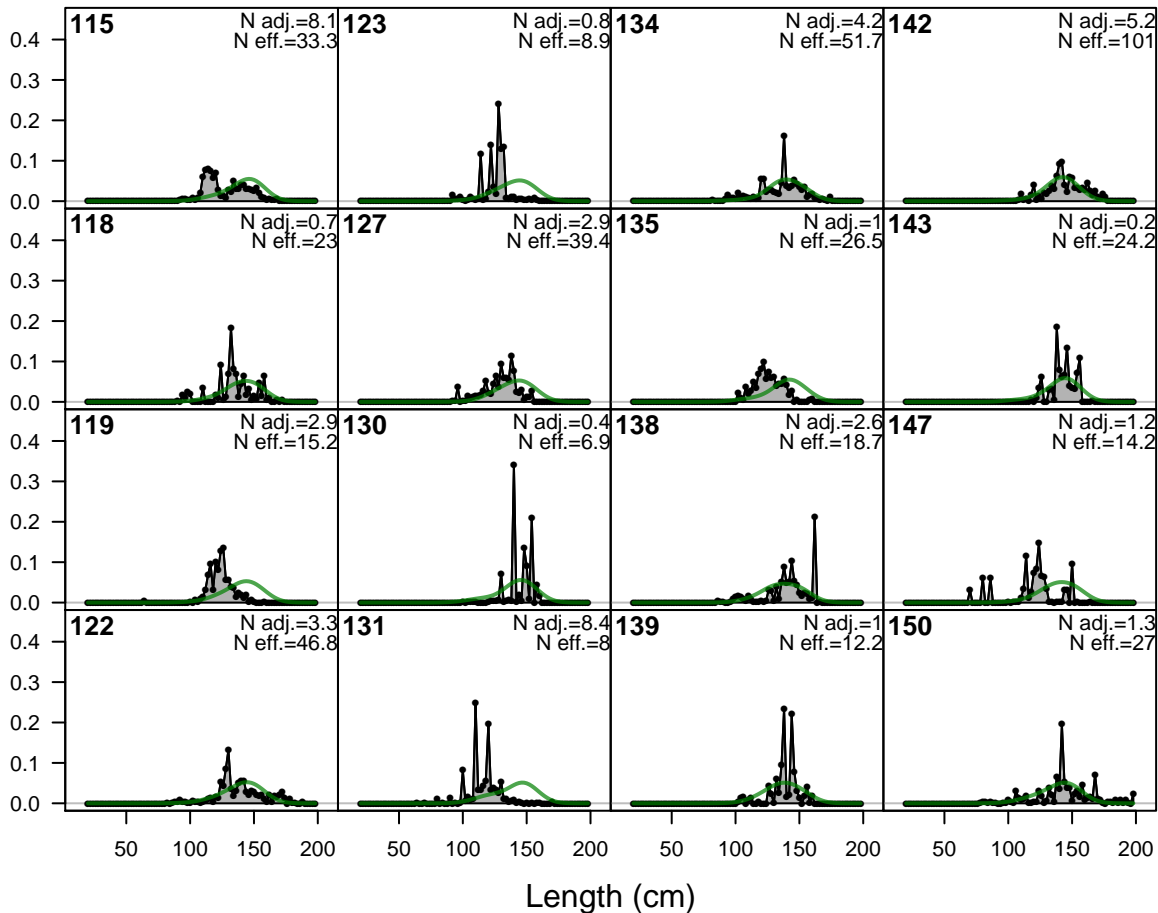




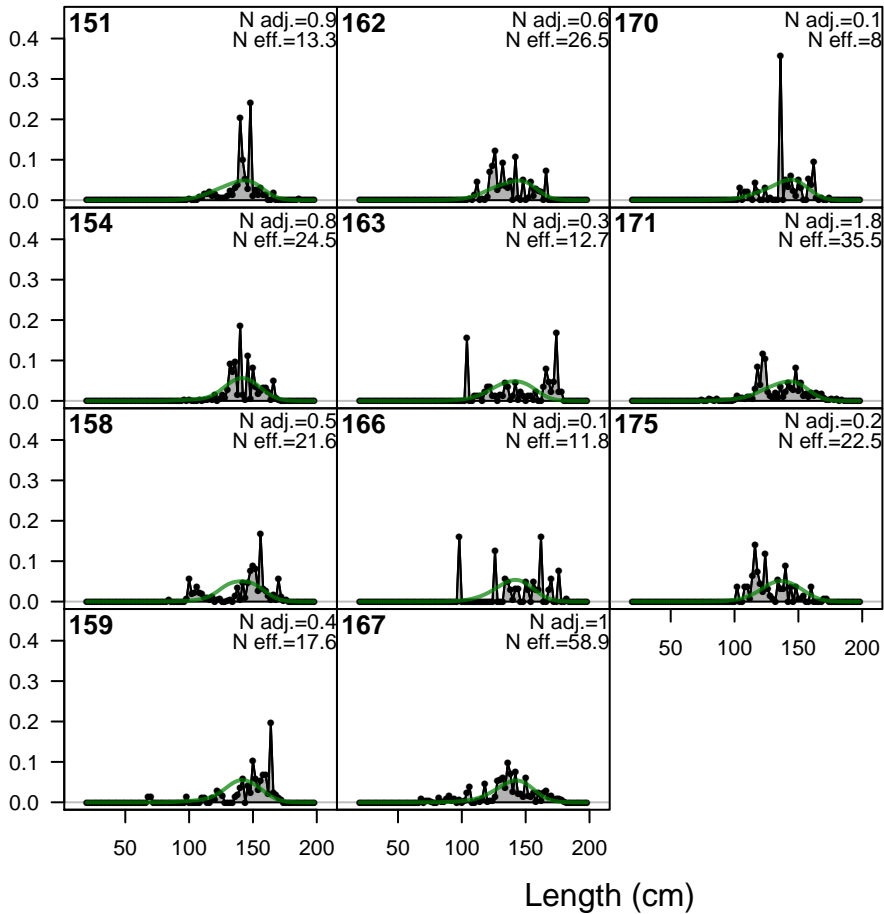
Proportion

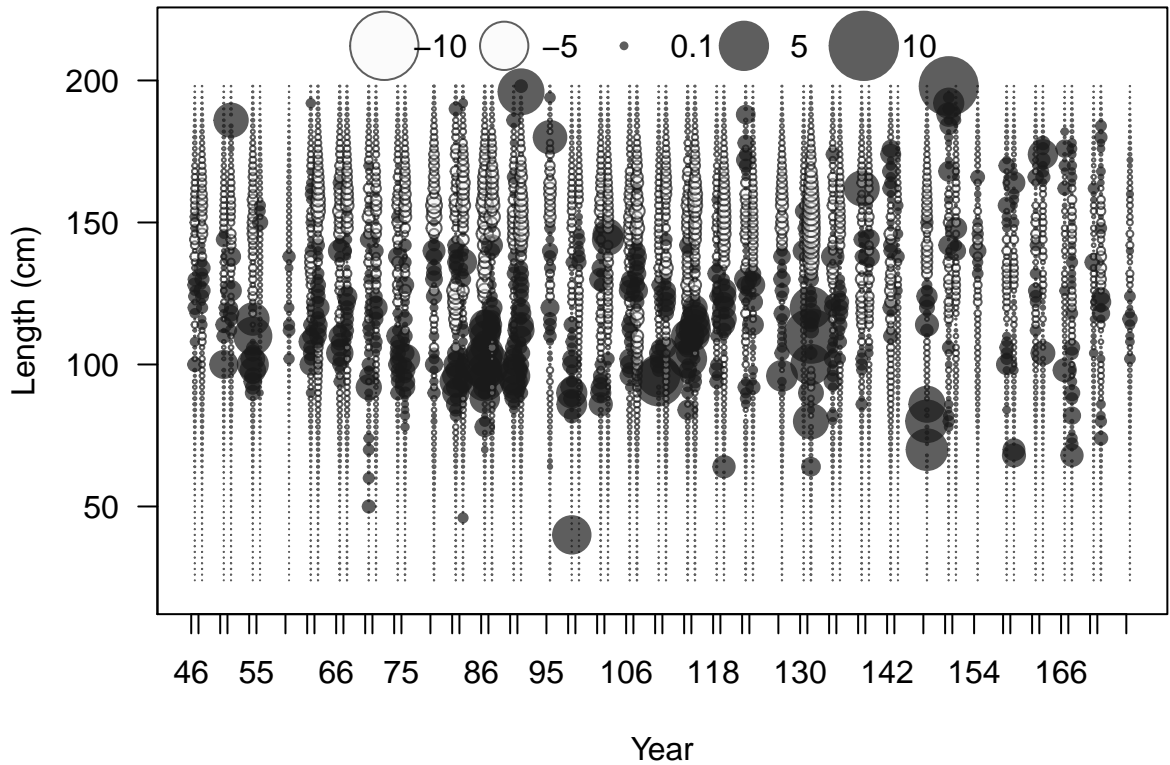


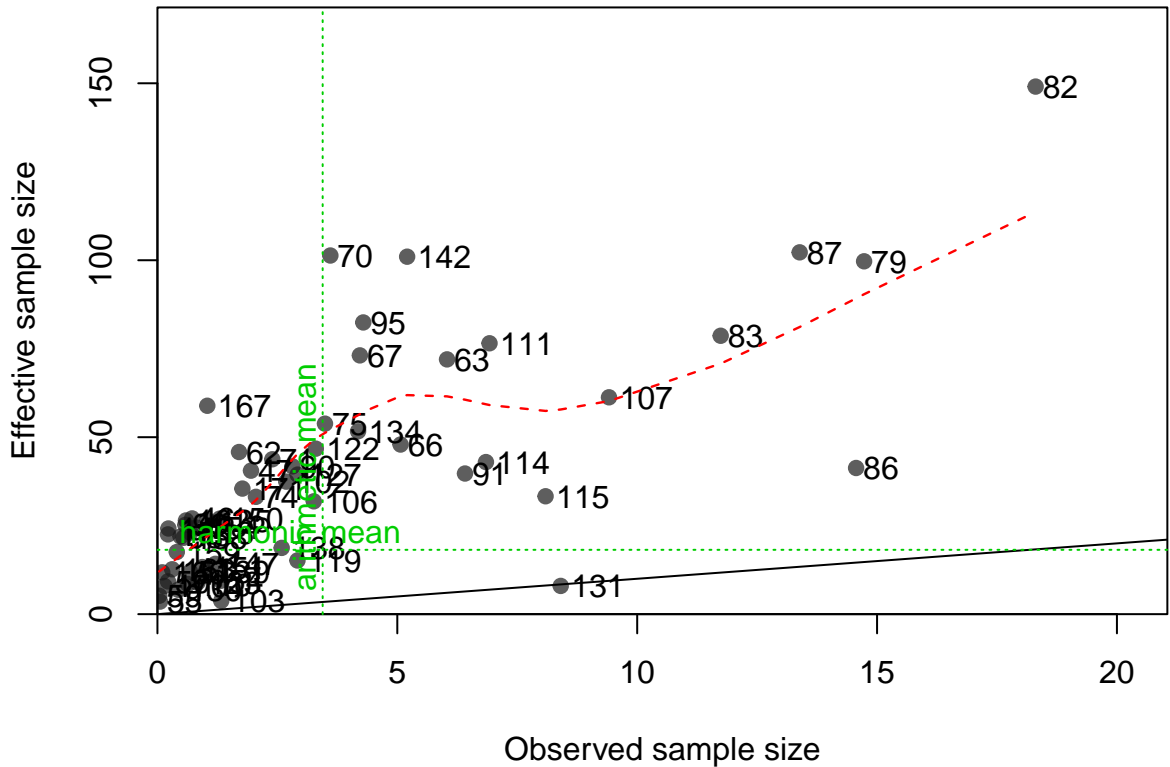
Proportion



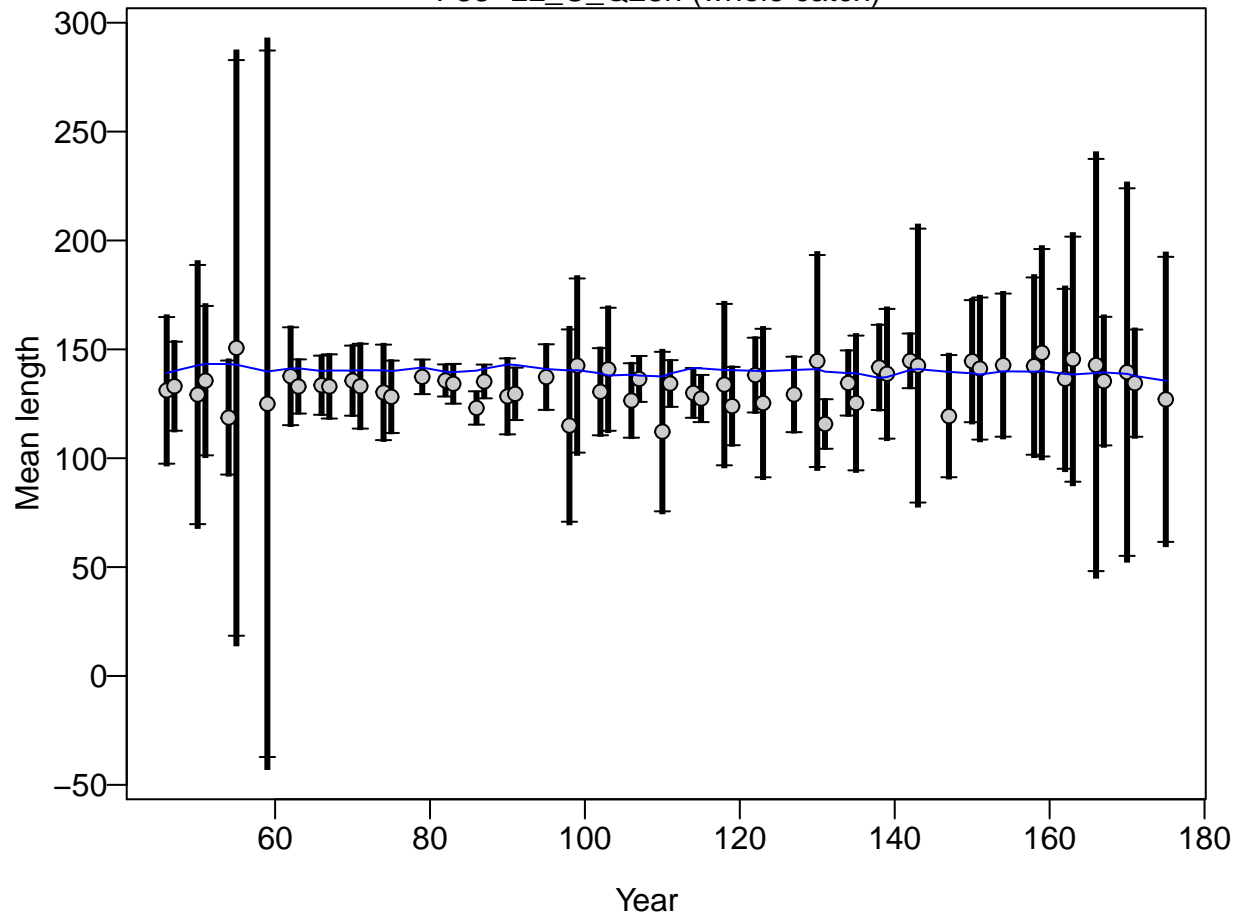
Proportion



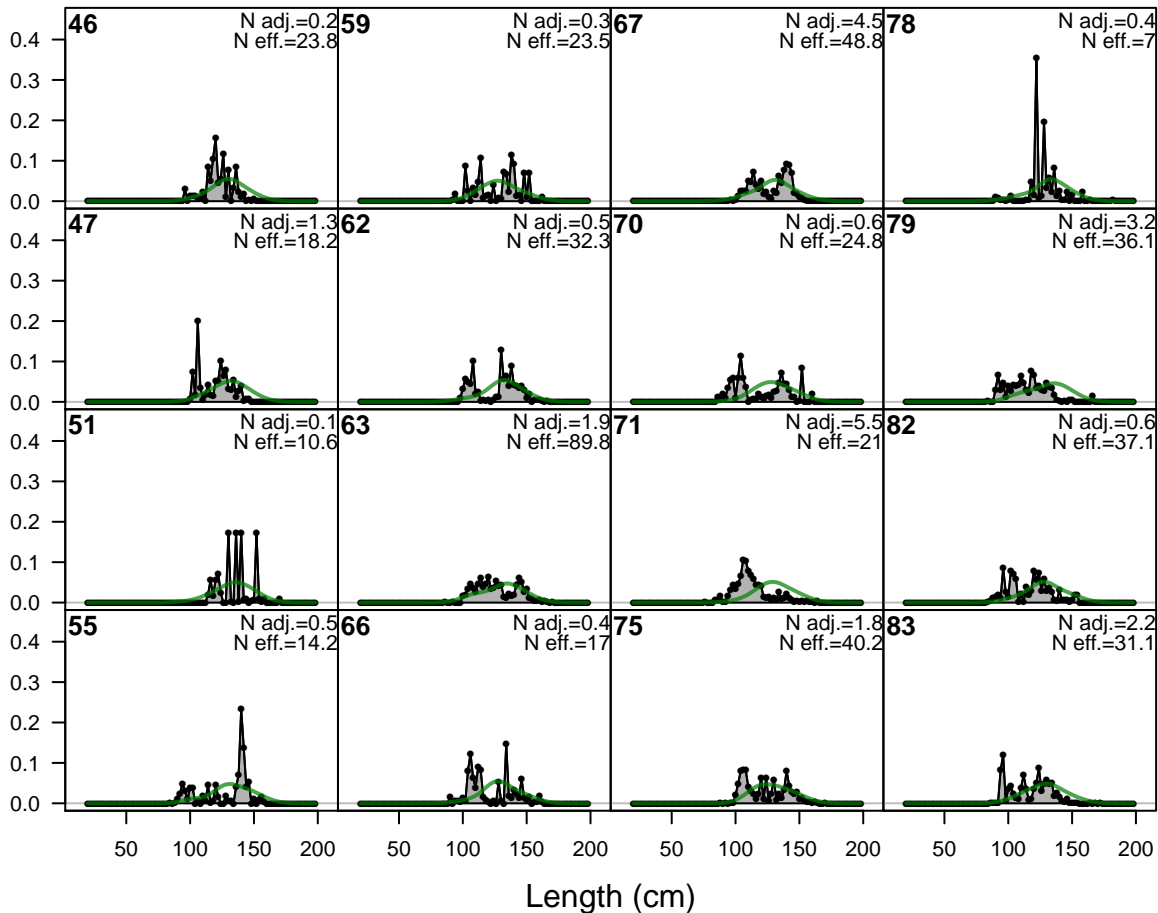




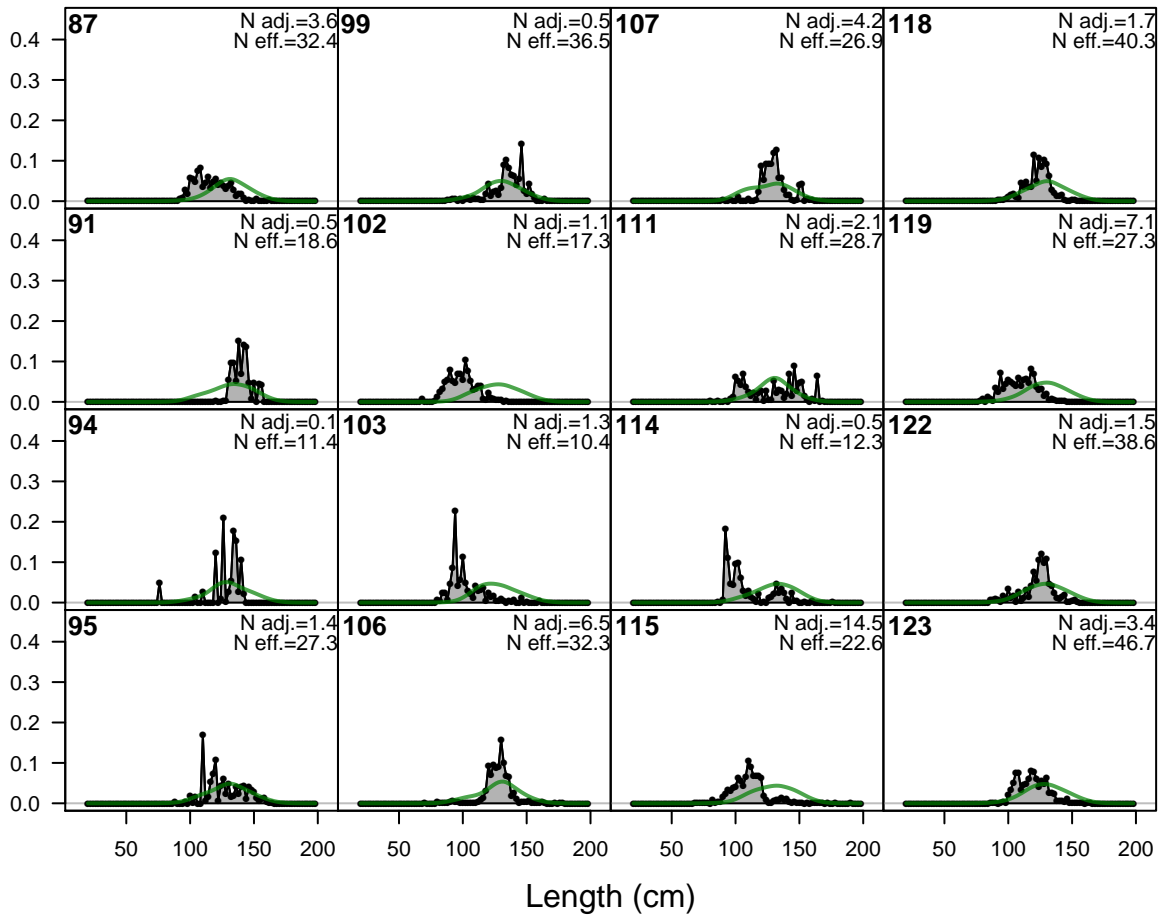
F33-LL\_C\_Q23n (whole catch)



Proportion

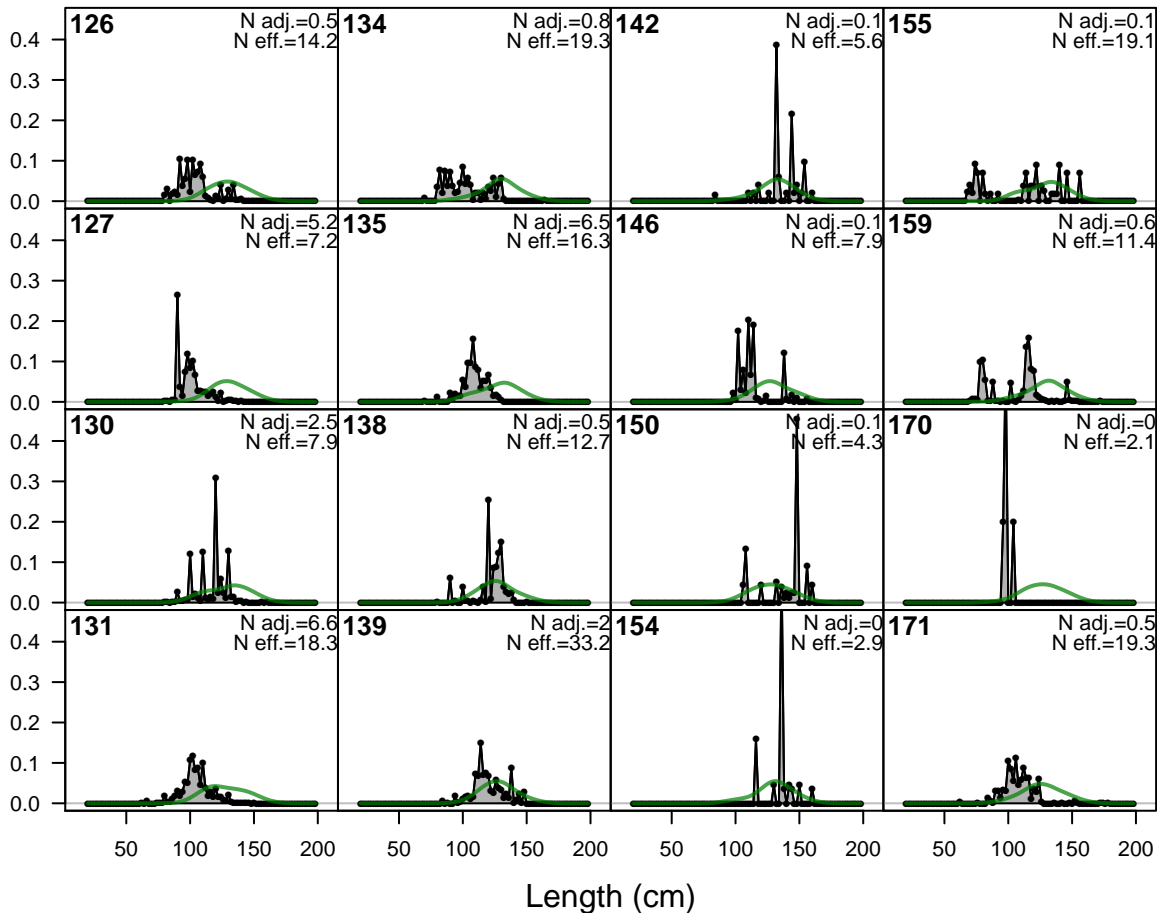


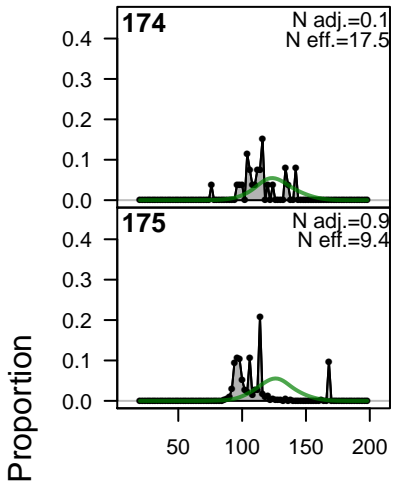
Proportion



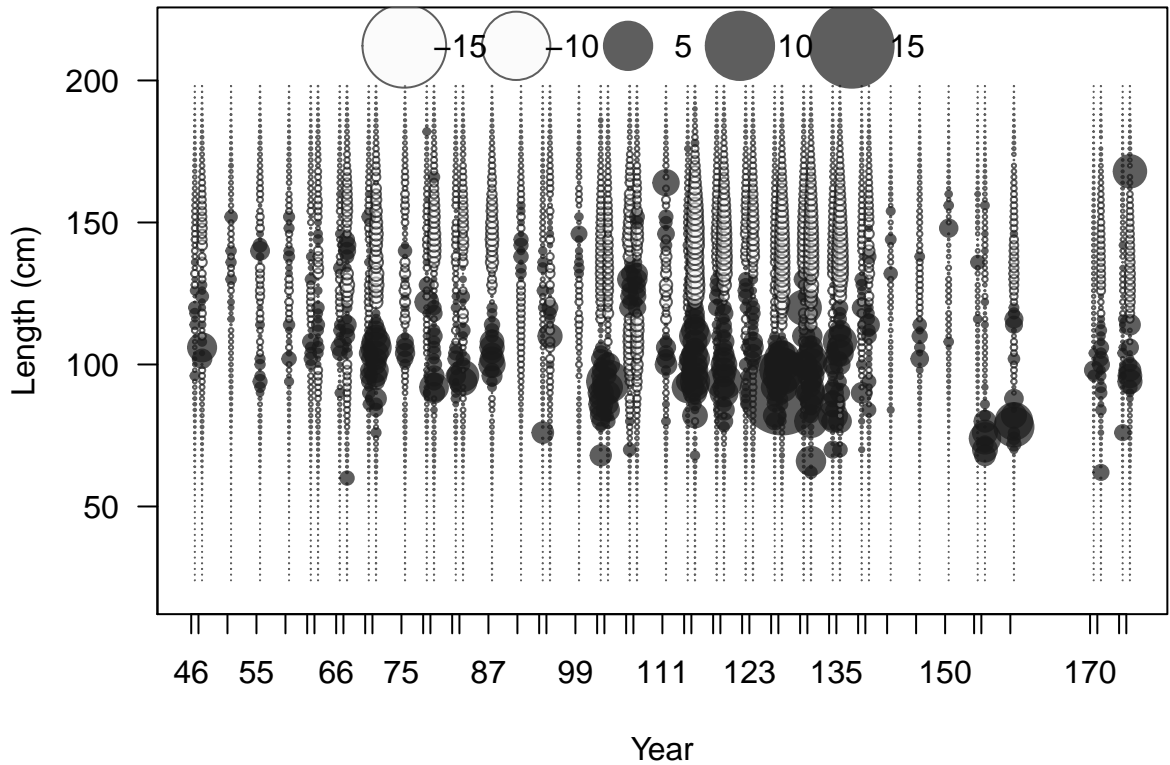


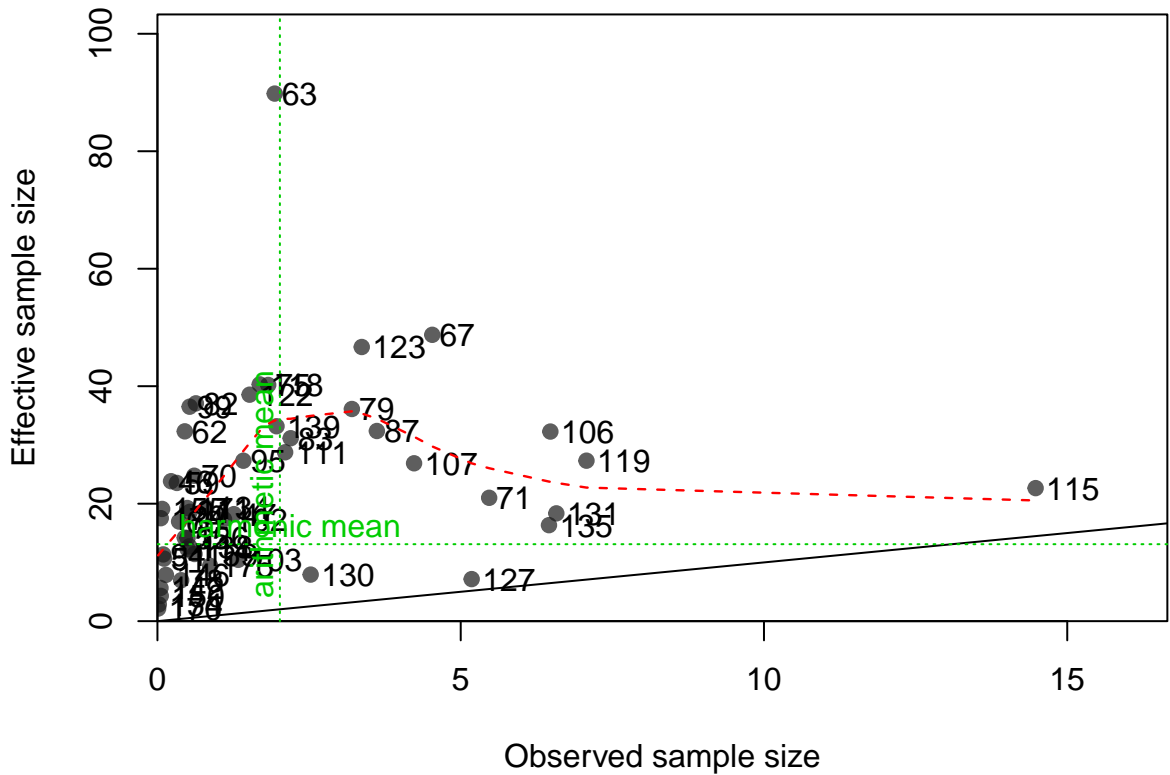
Proportion



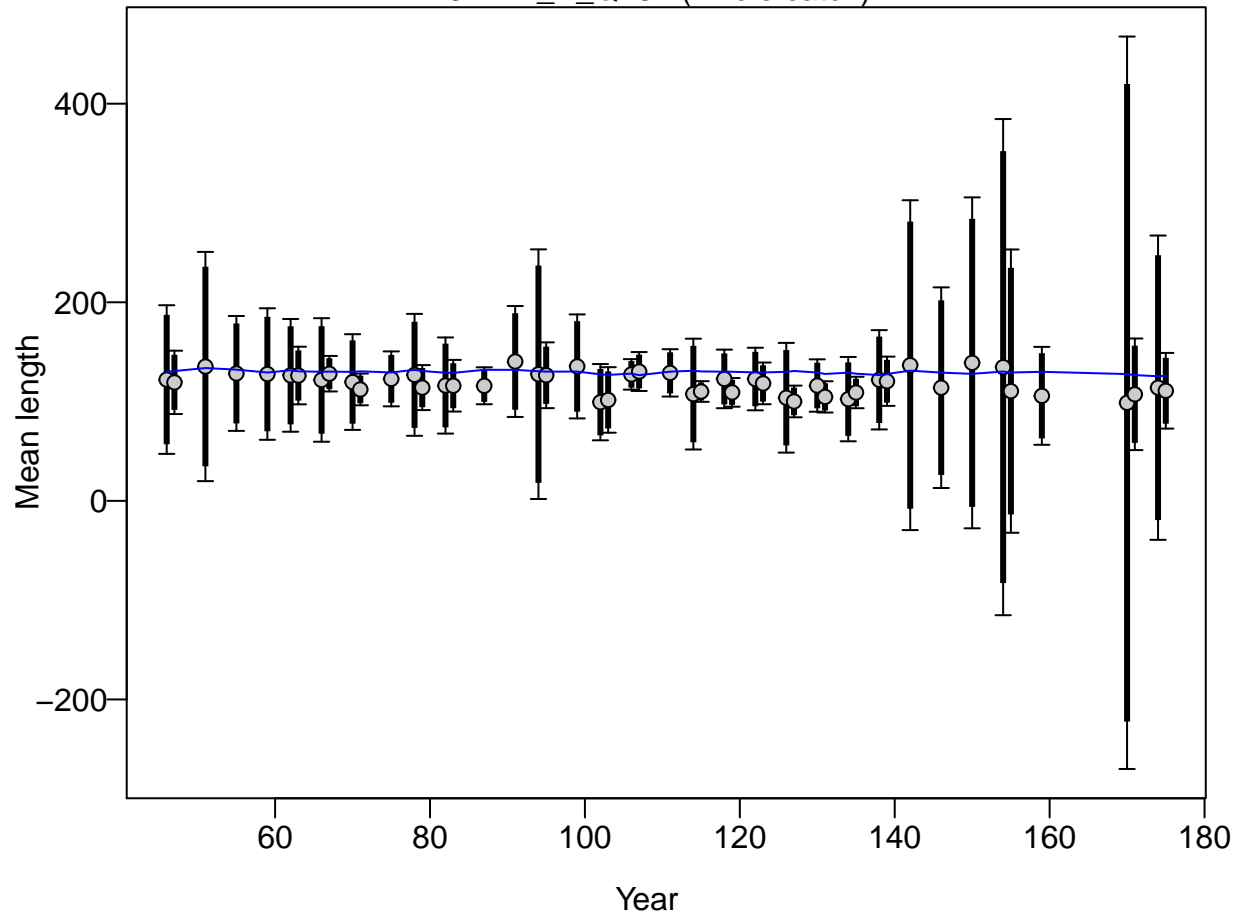


Length (cm)

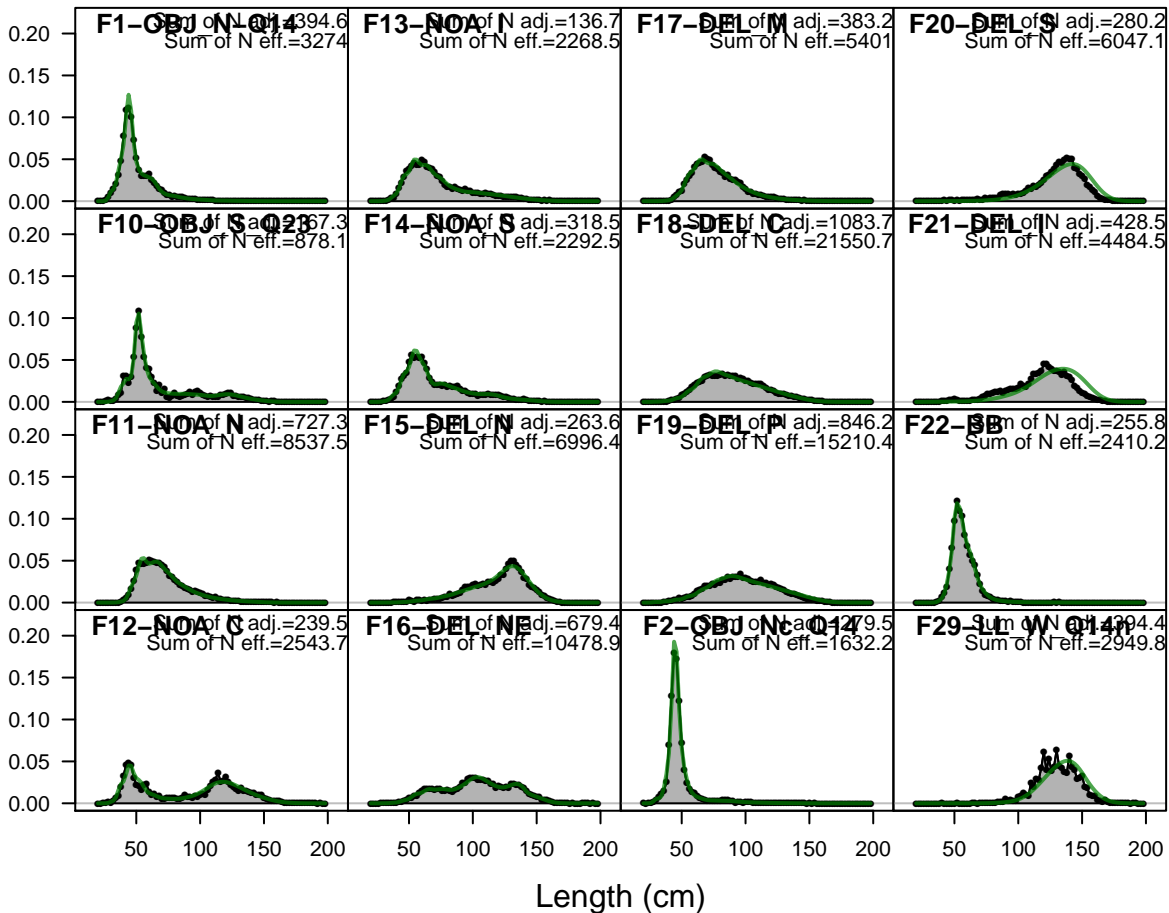




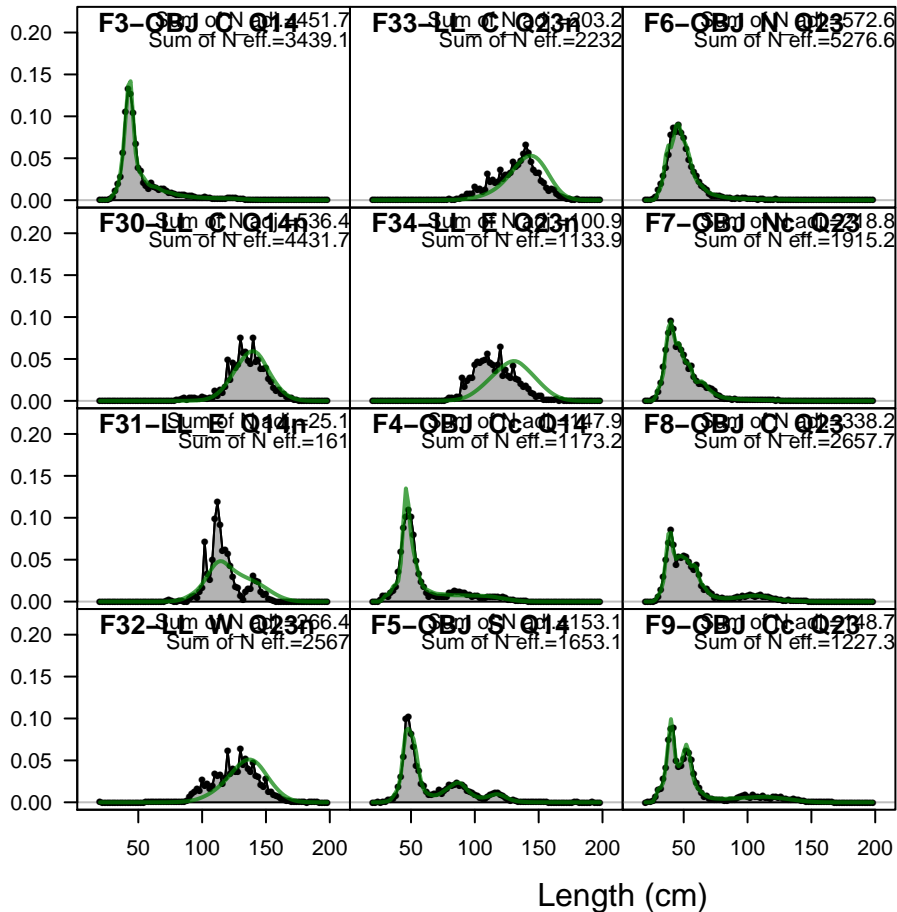
F34-LL\_E\_Q23n (whole catch)

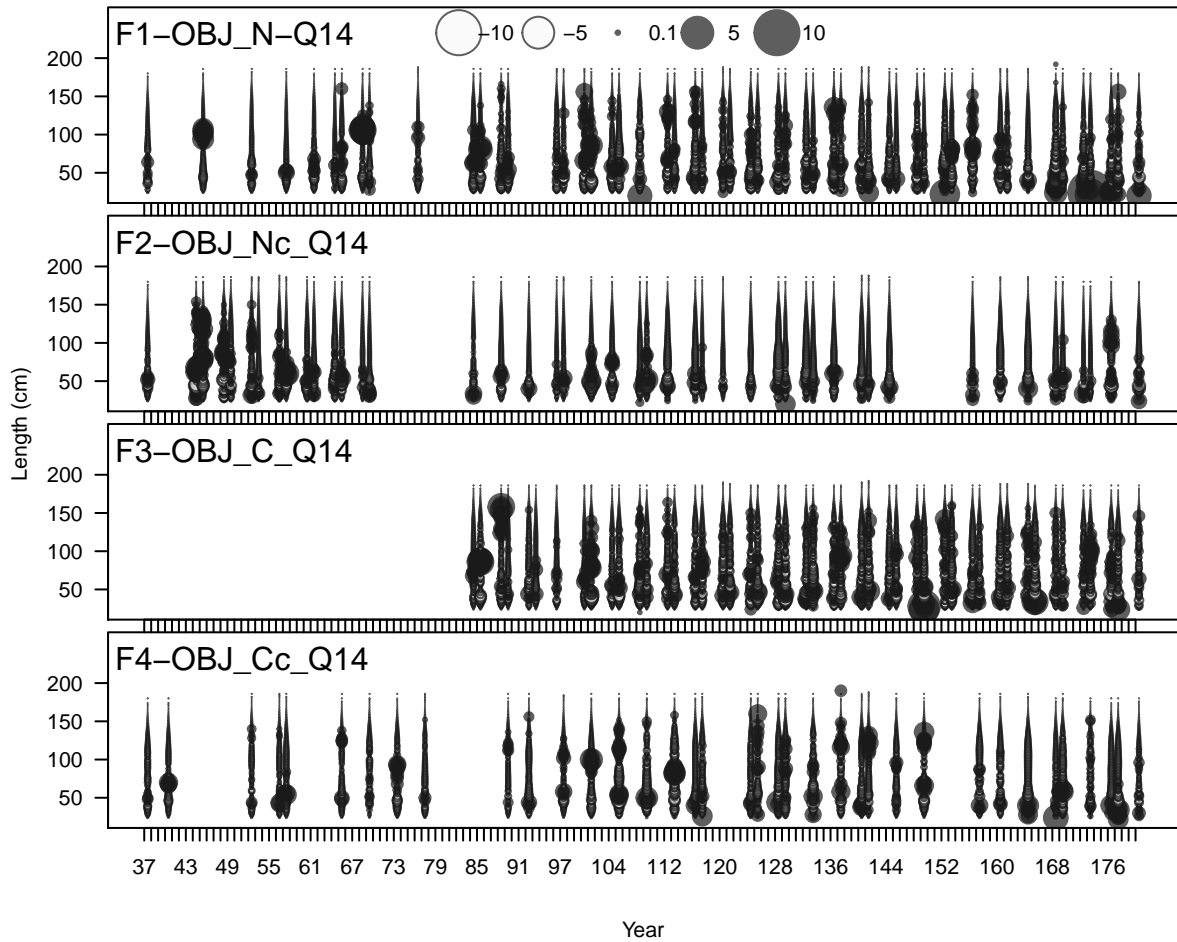


Proportion

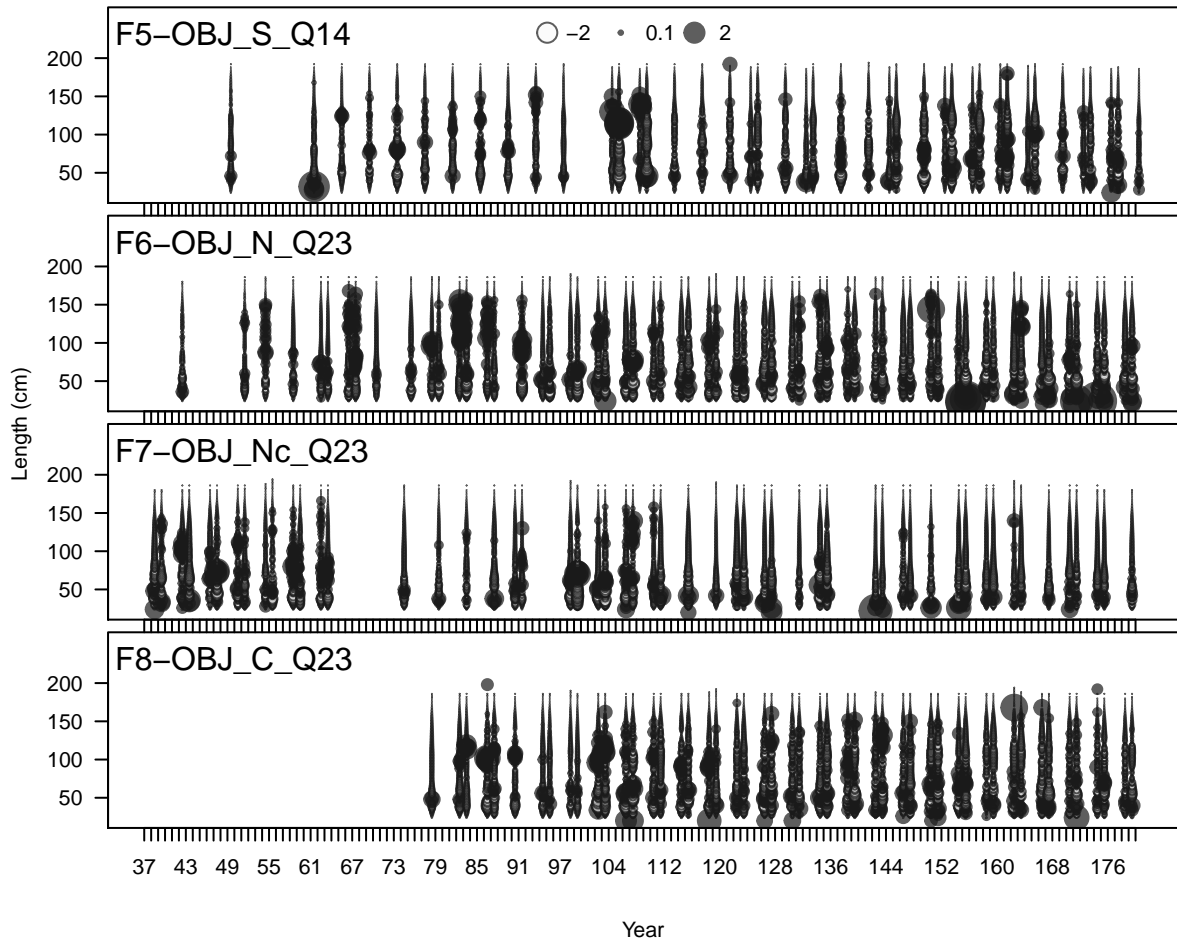


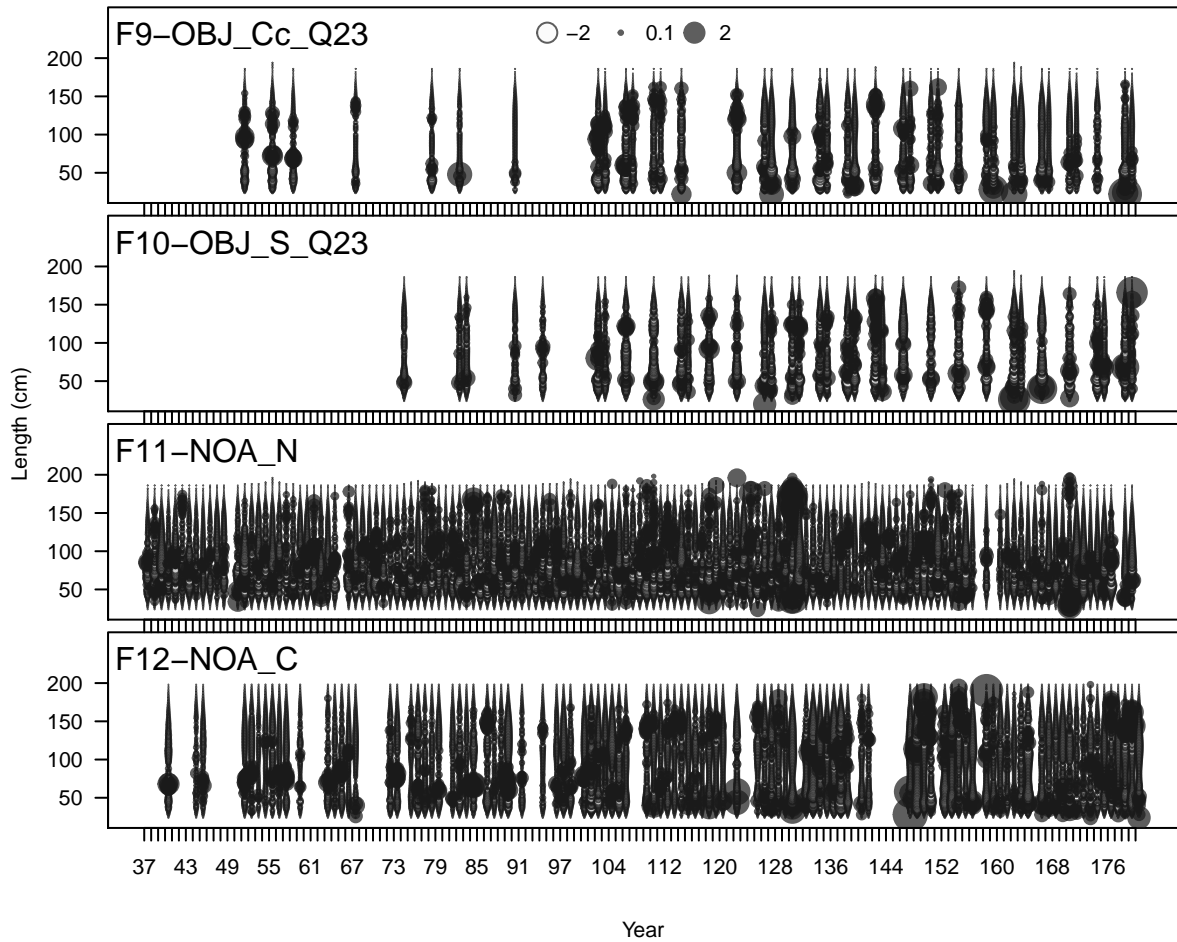
Proportion

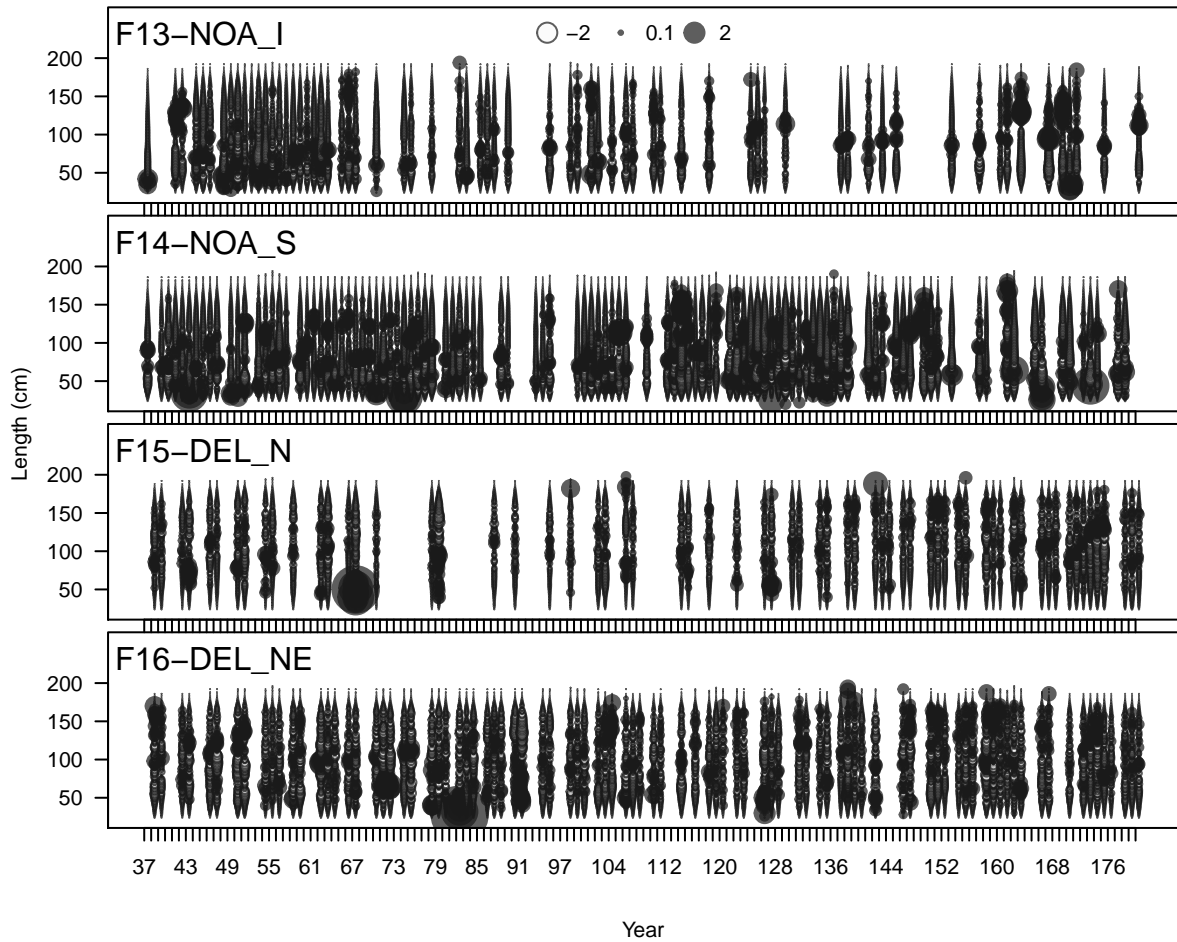


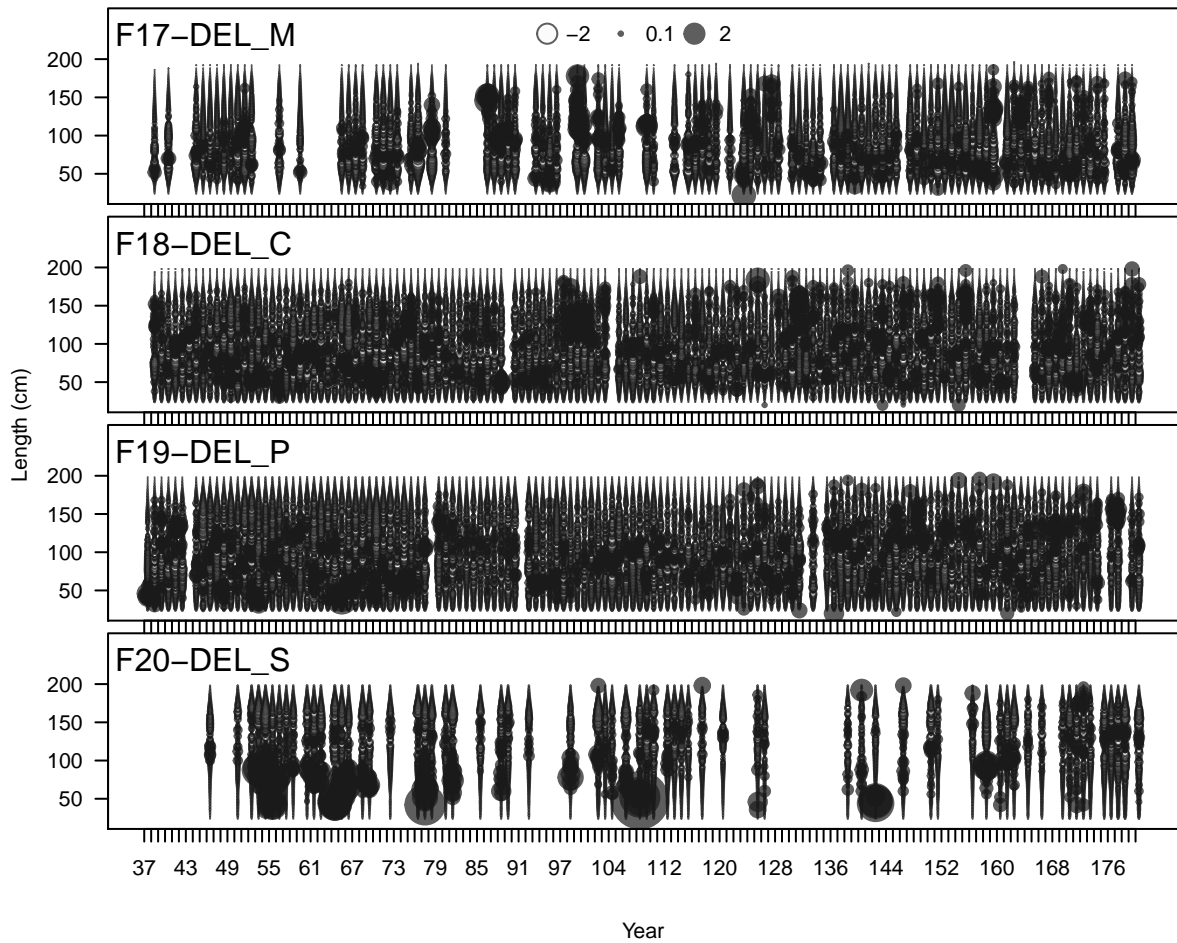


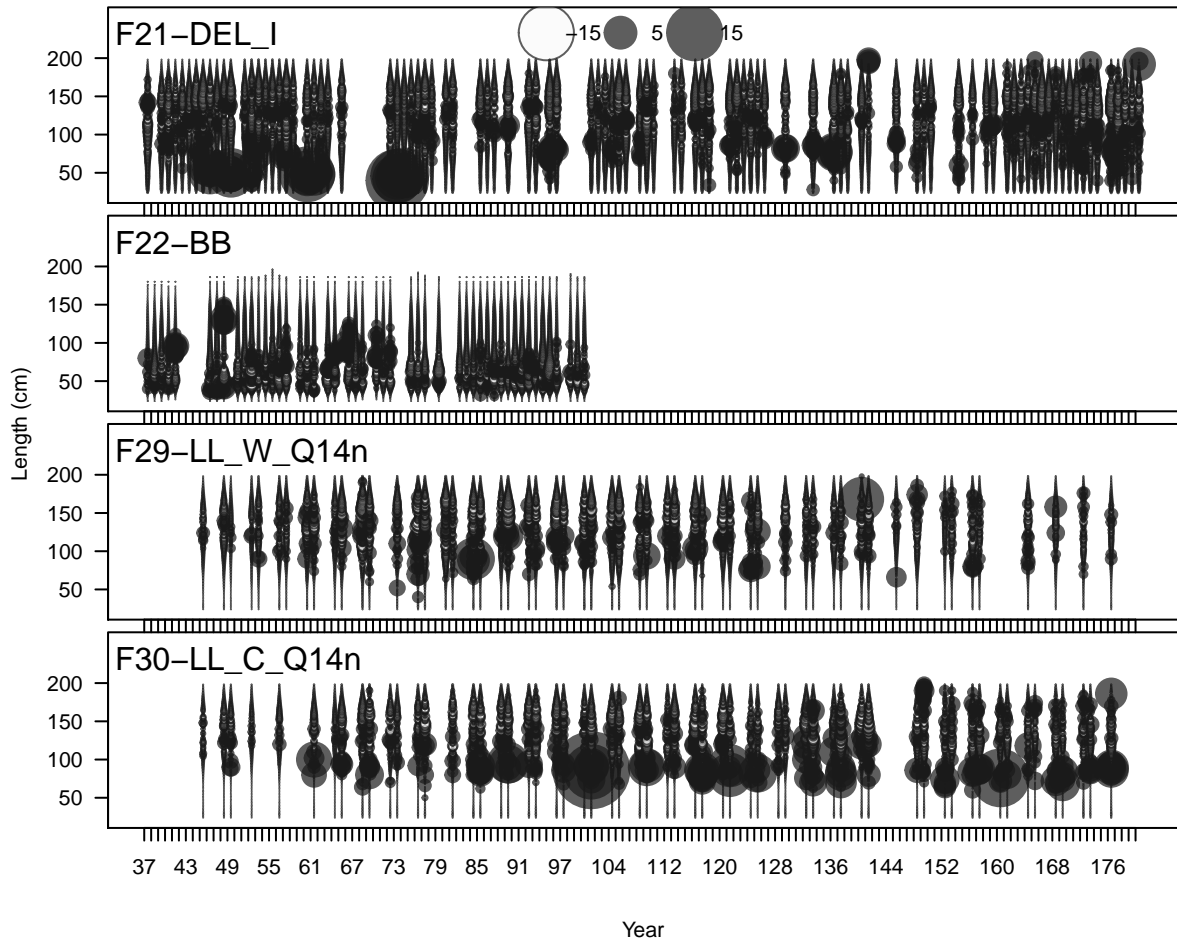


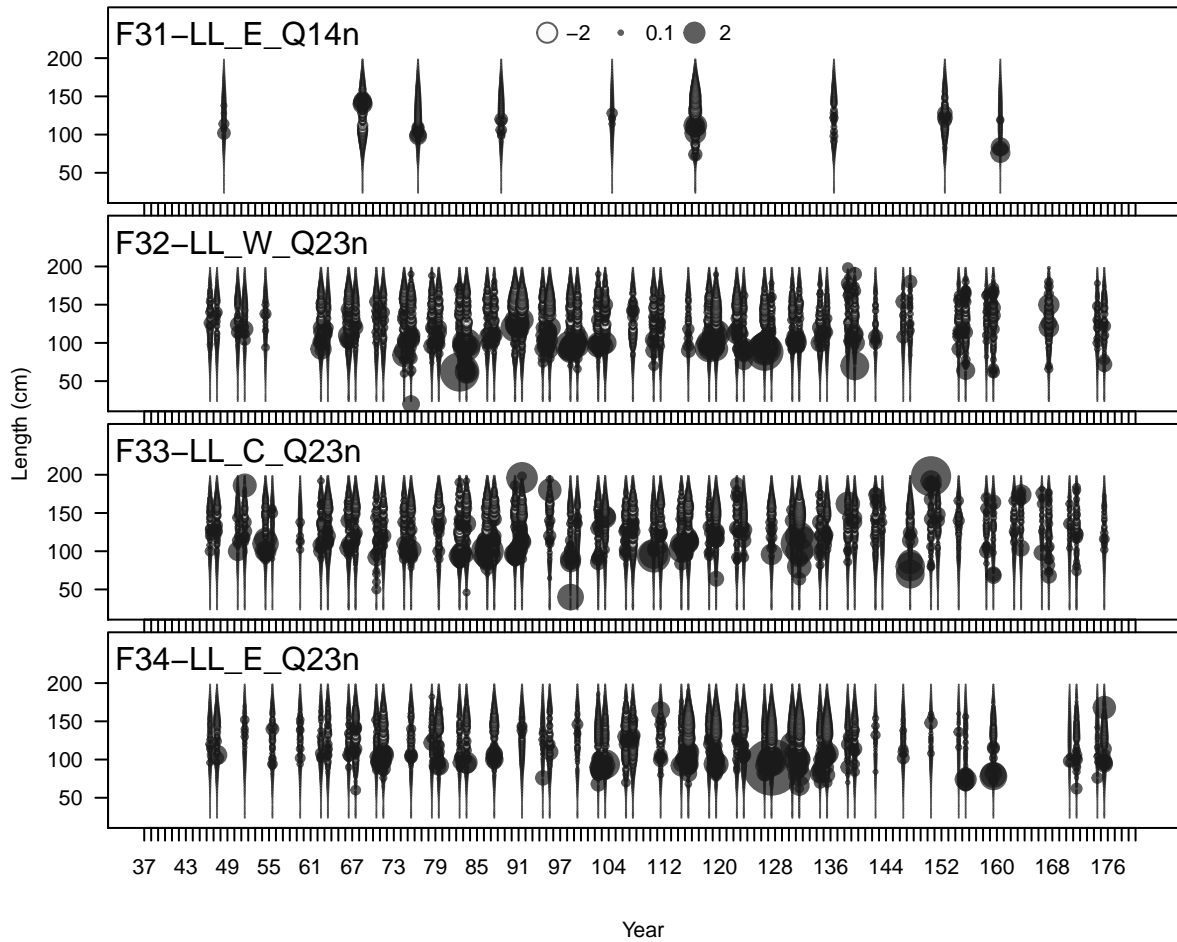




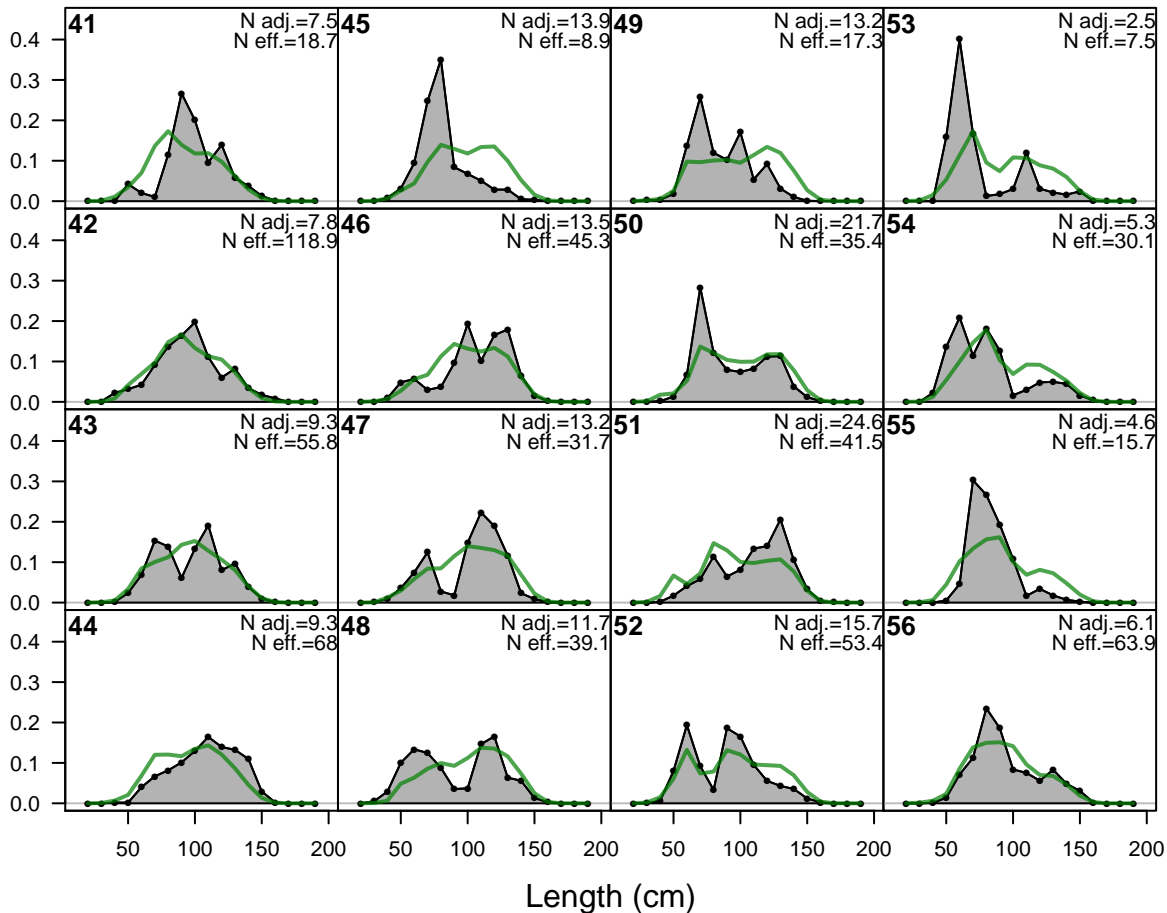




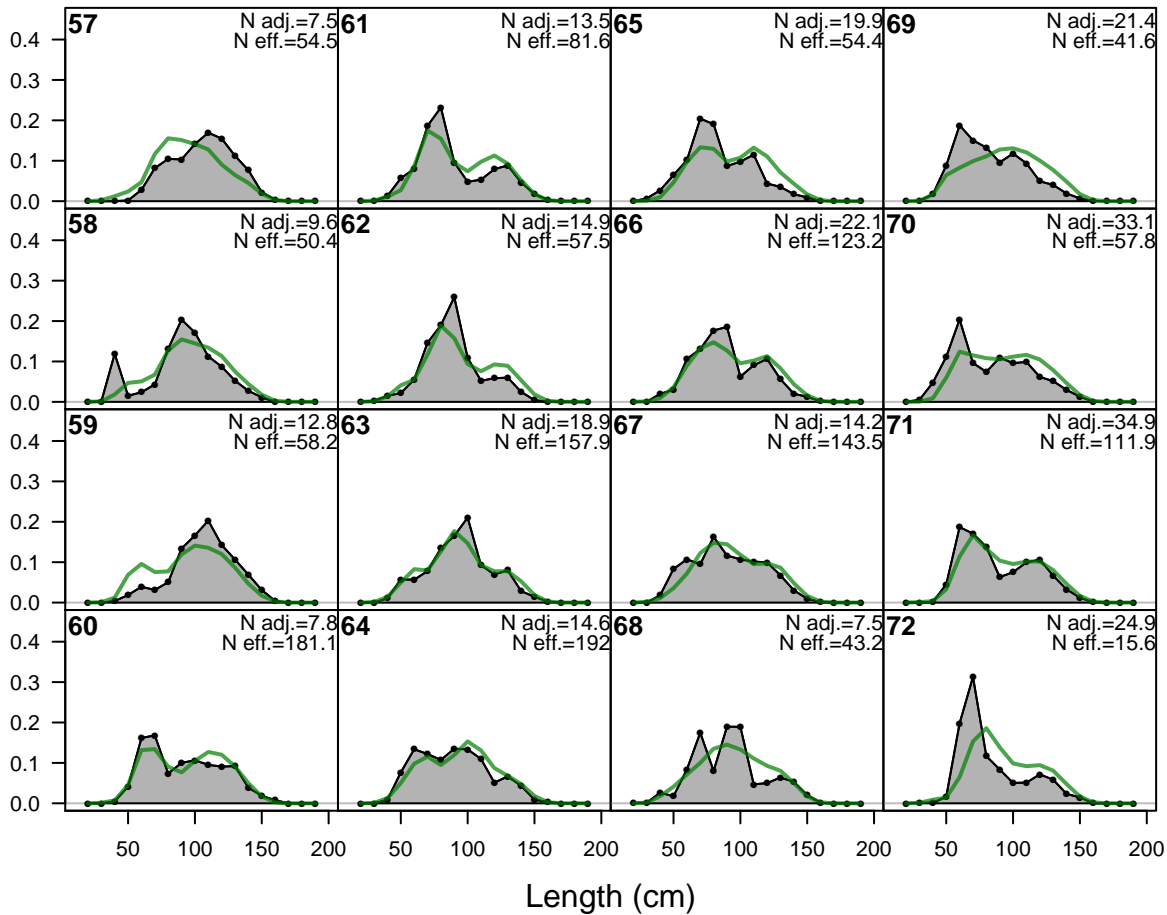




Proportion

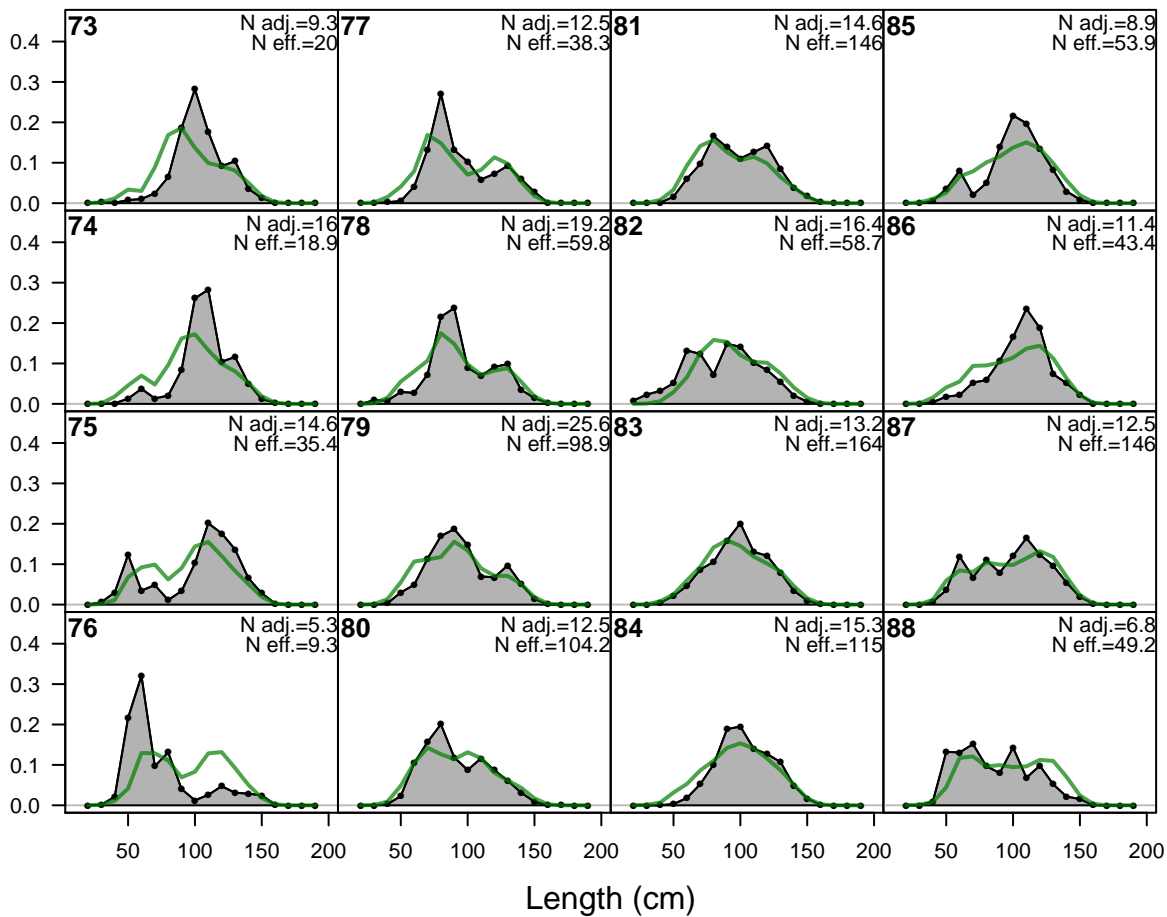


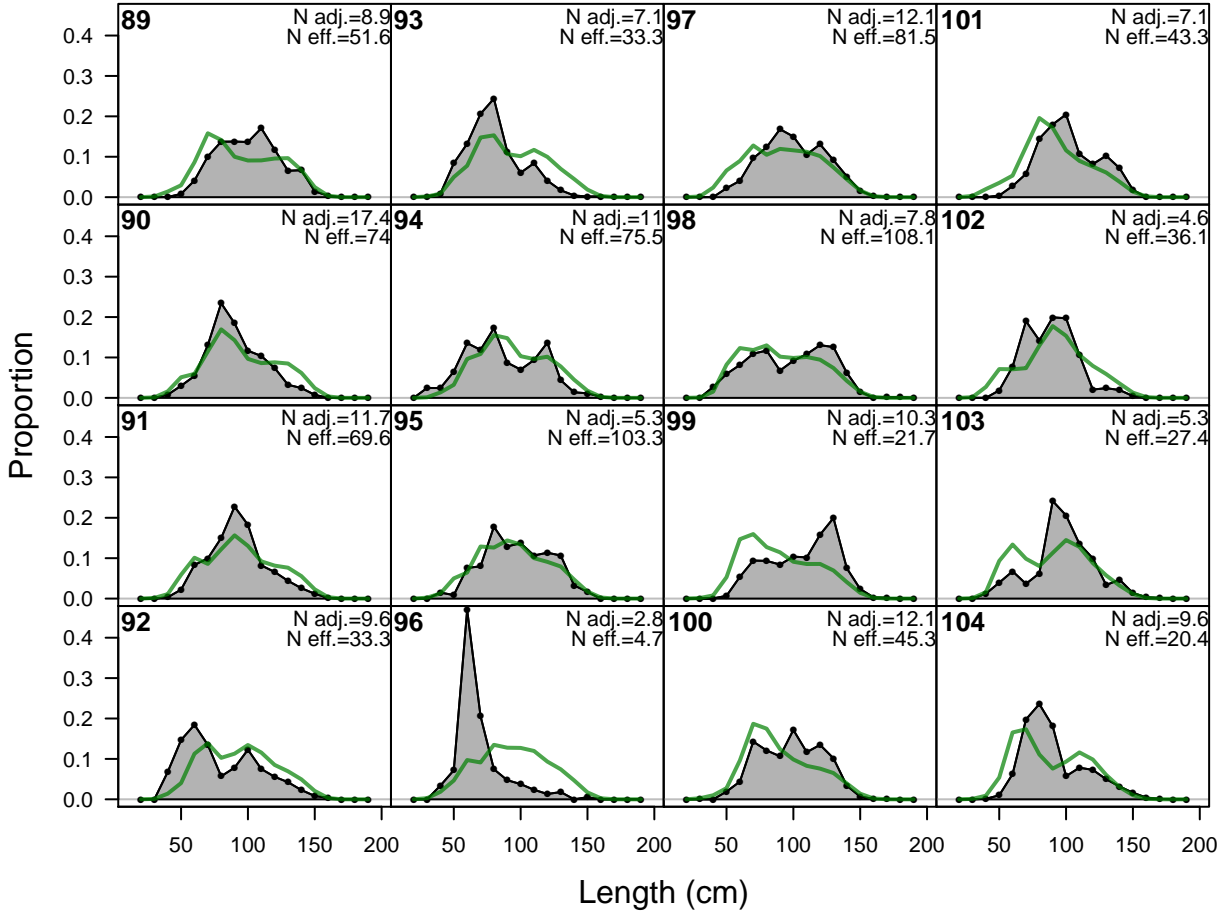
Proportion



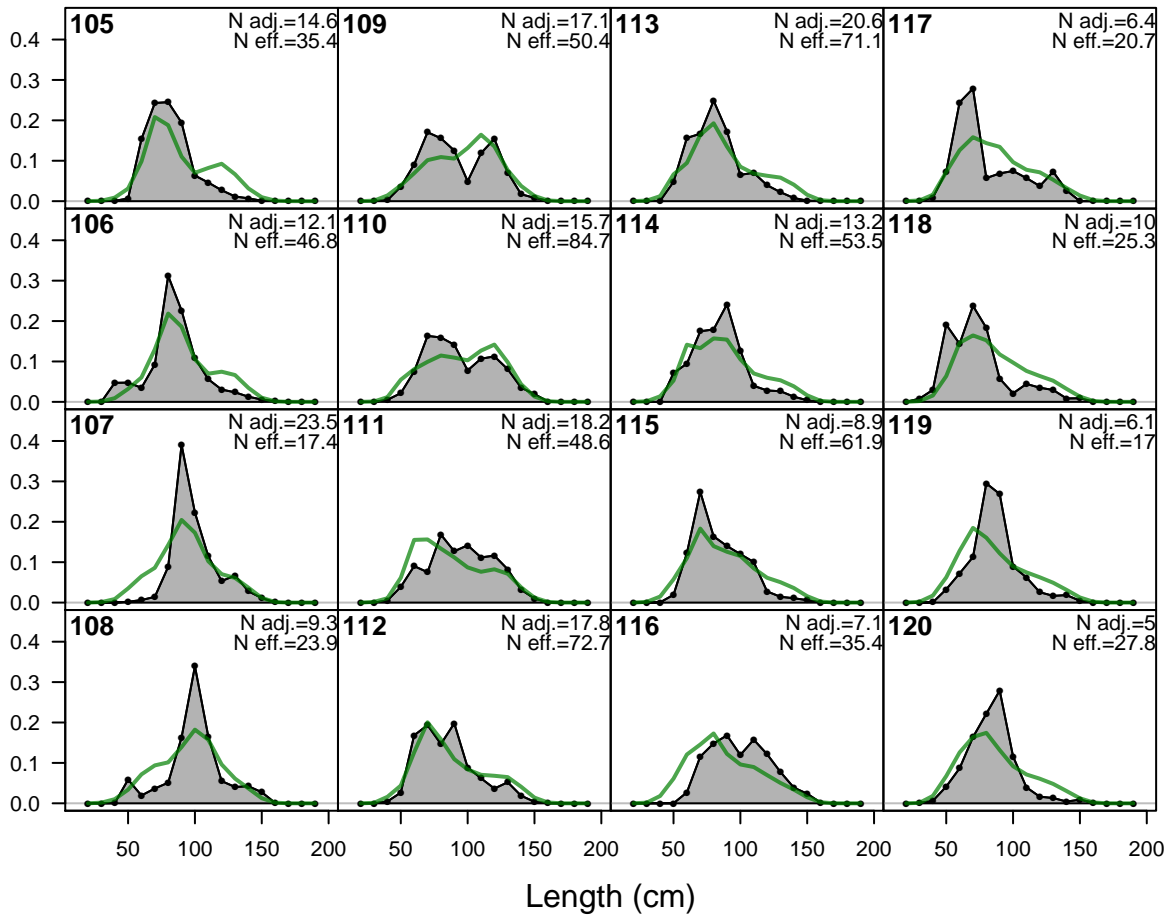


Proportion

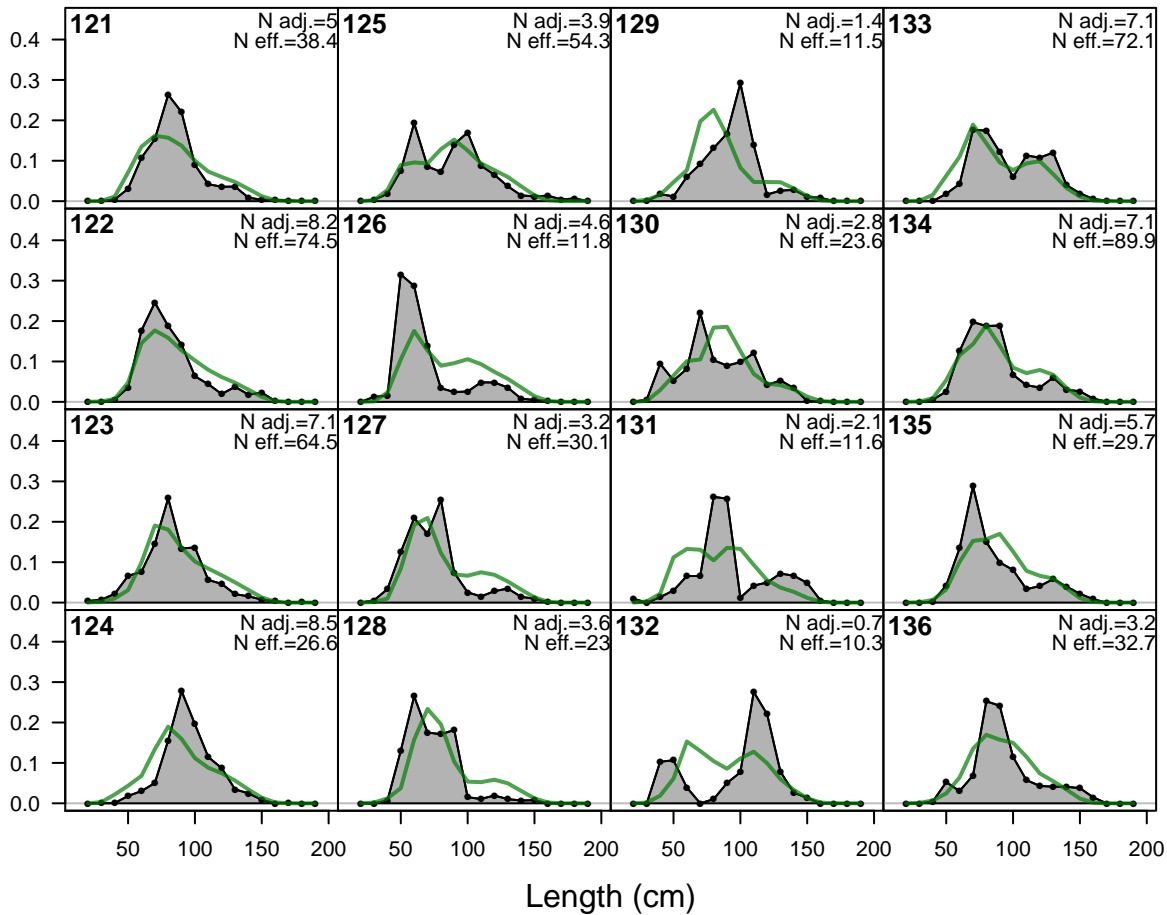




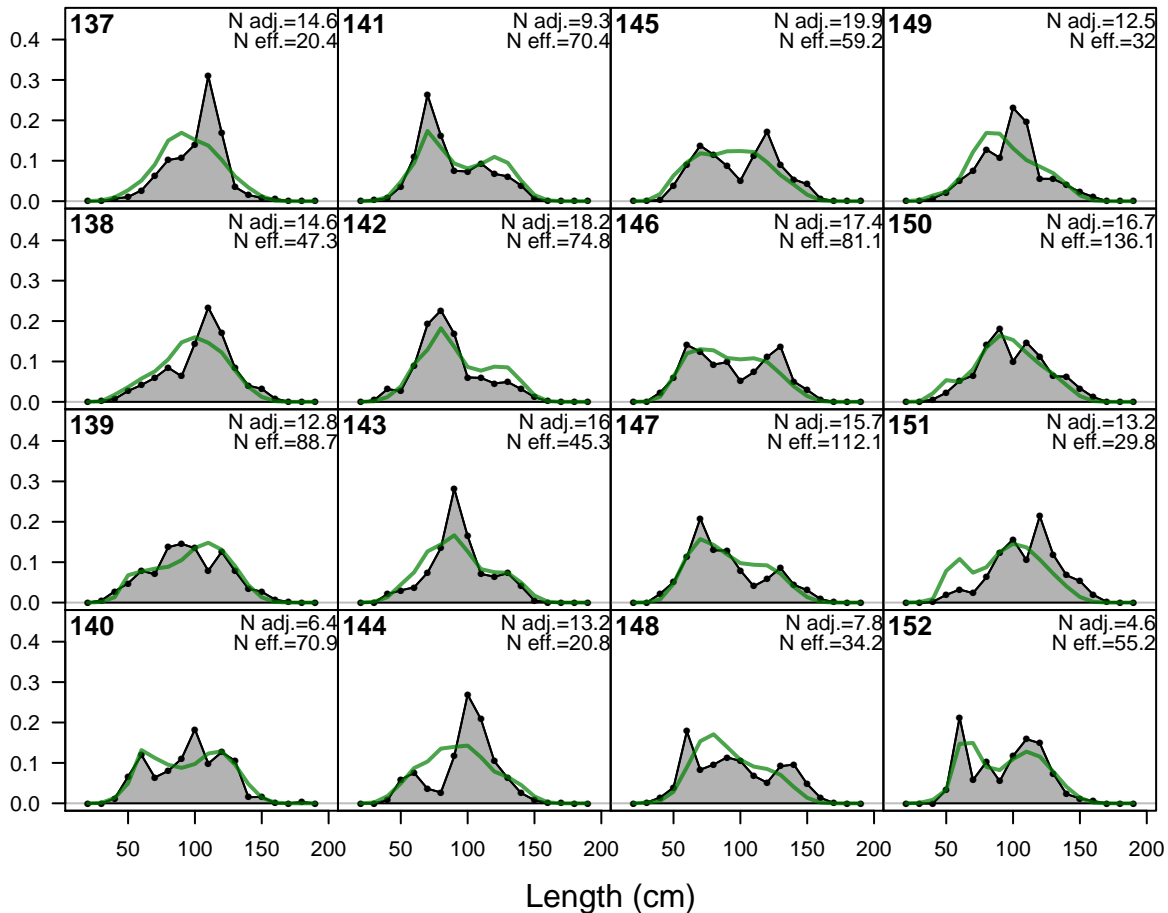
Proportion



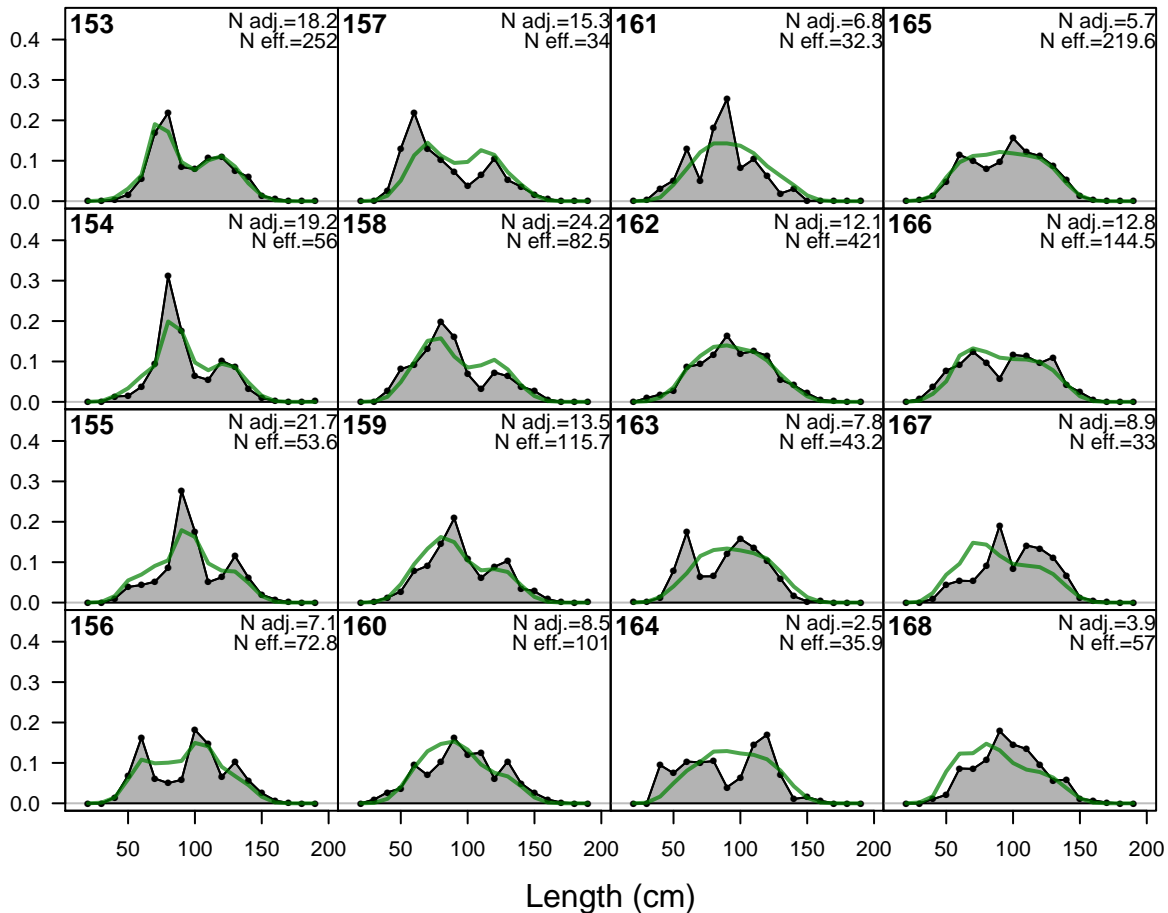
Proportion



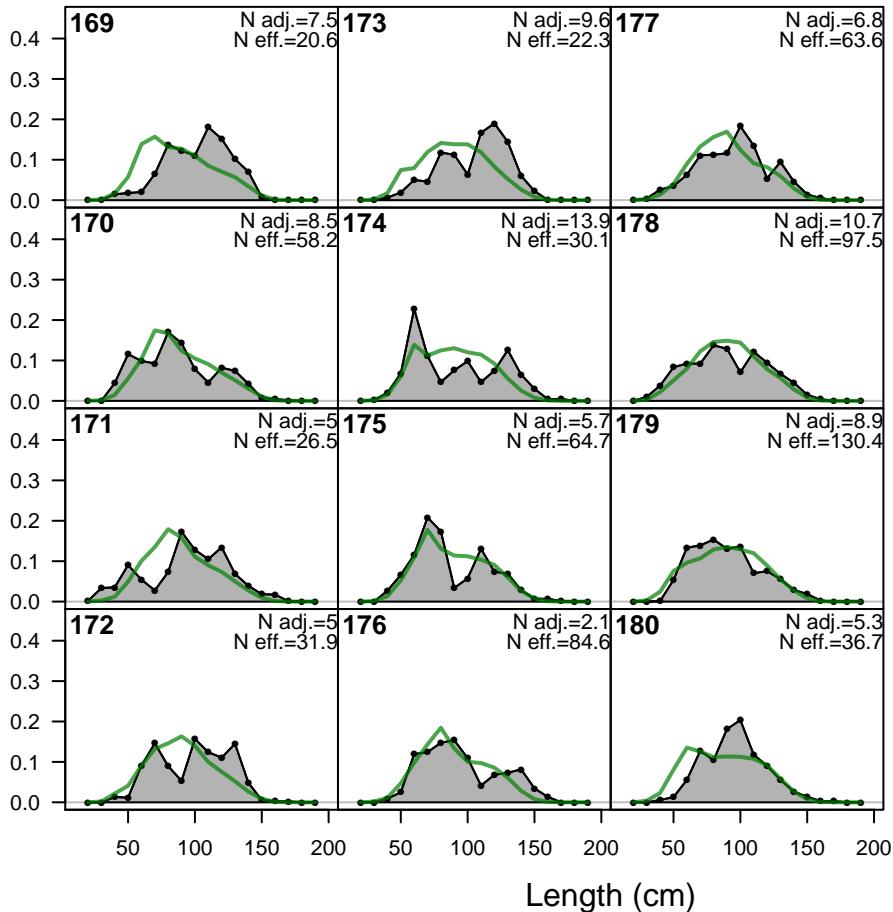
Proportion

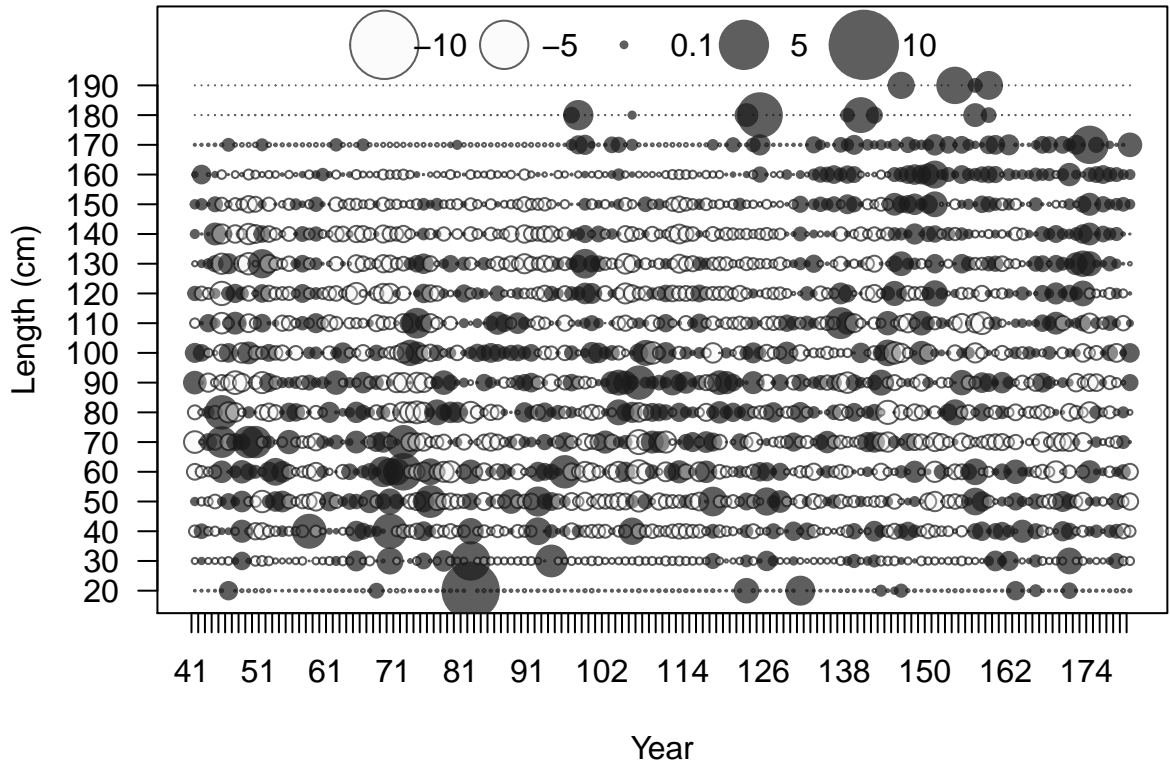


Proportion



Proportion

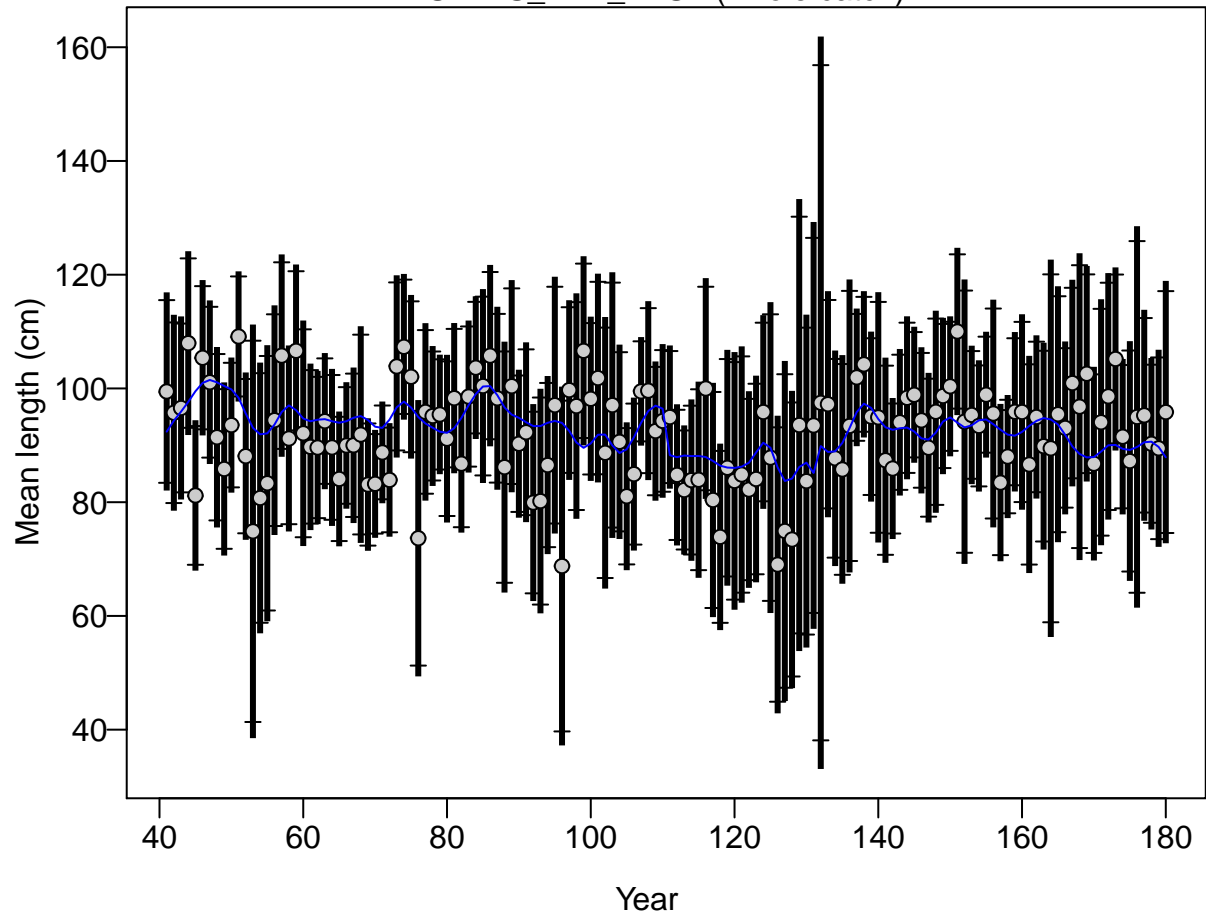






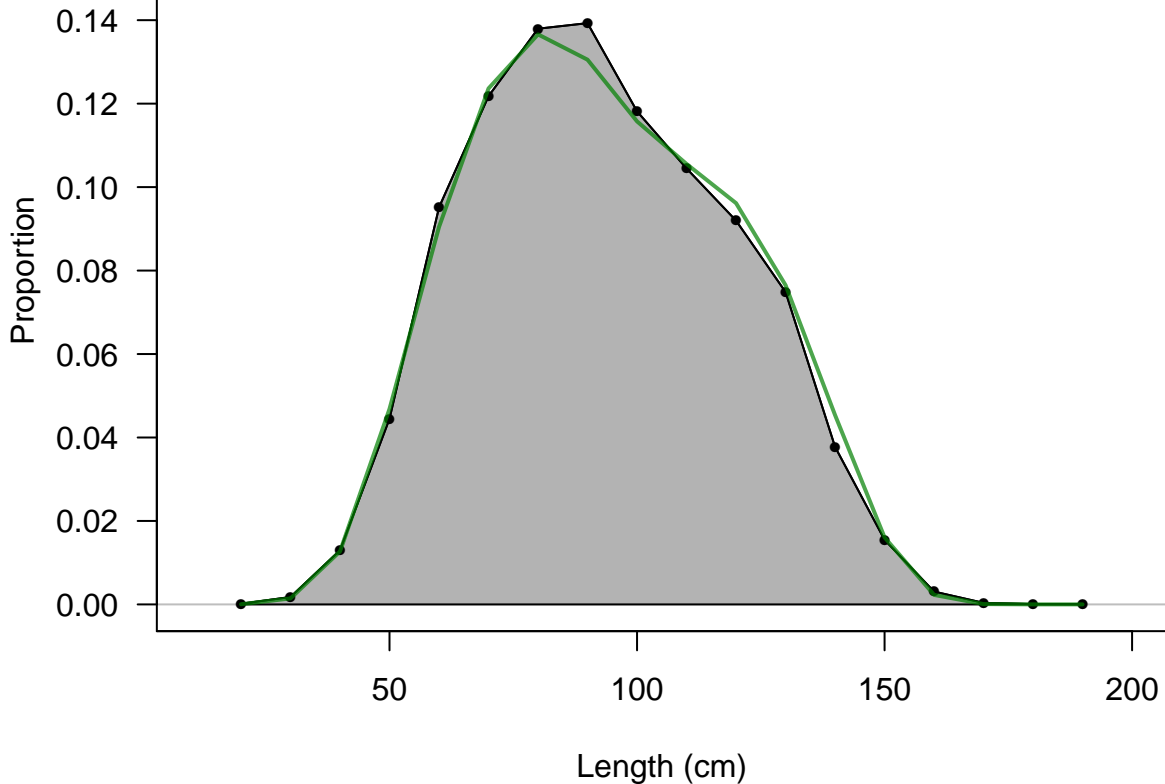


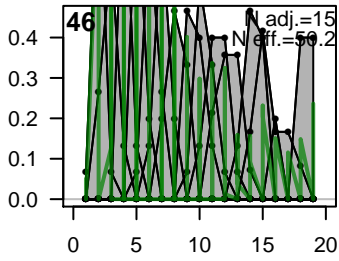
S1-PS\_DEL\_VAST (whole catch)



# S1-PS\_DEL\_VAST

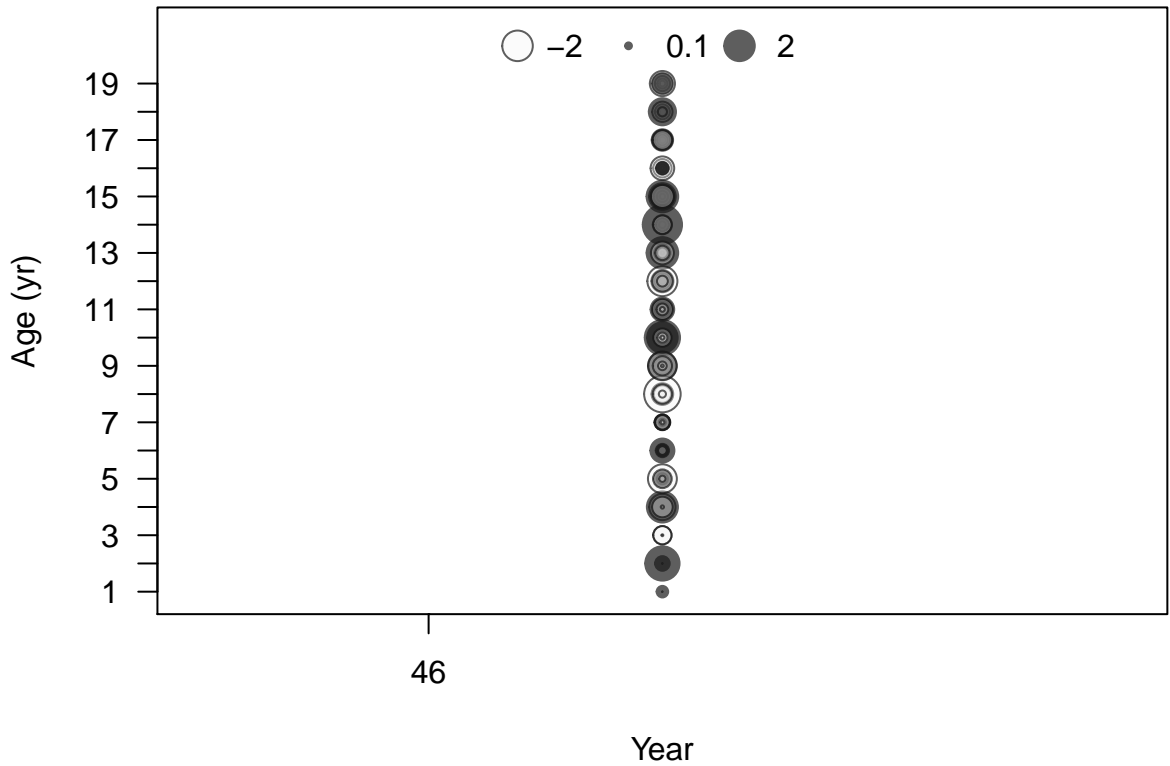
Sum of N adj.=1584.1  
Sum of N eff.=8762.2

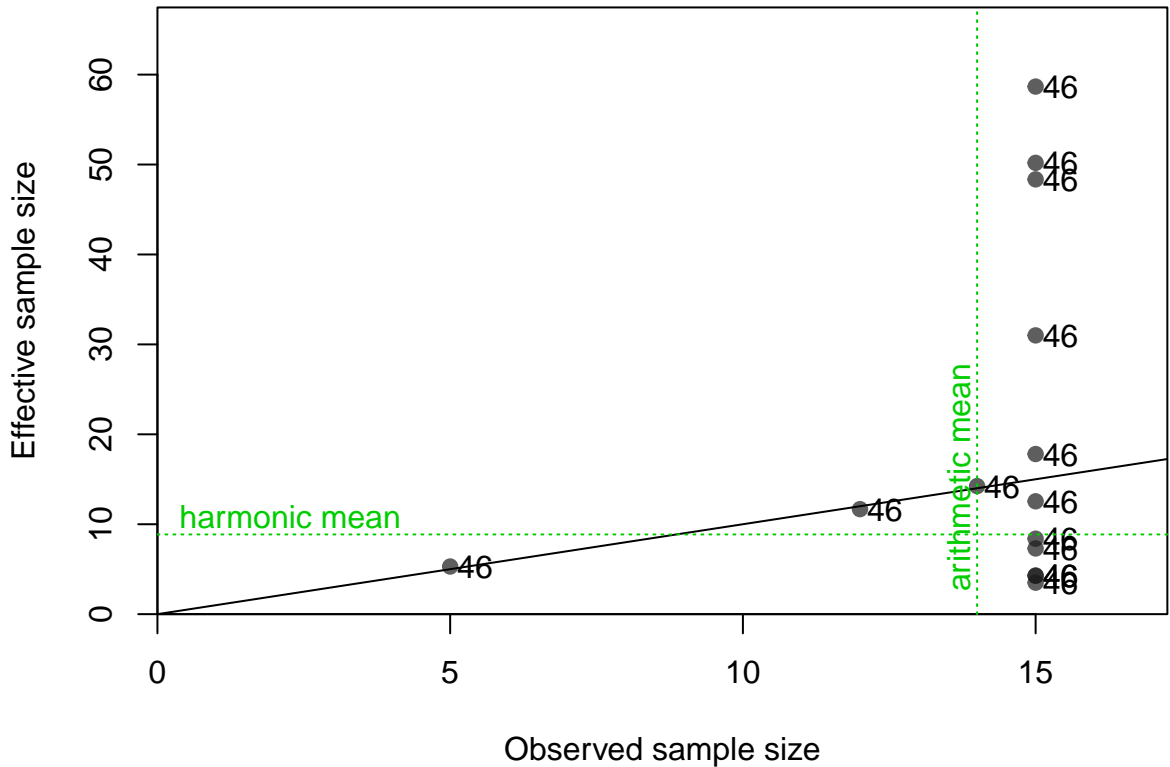




Proportion

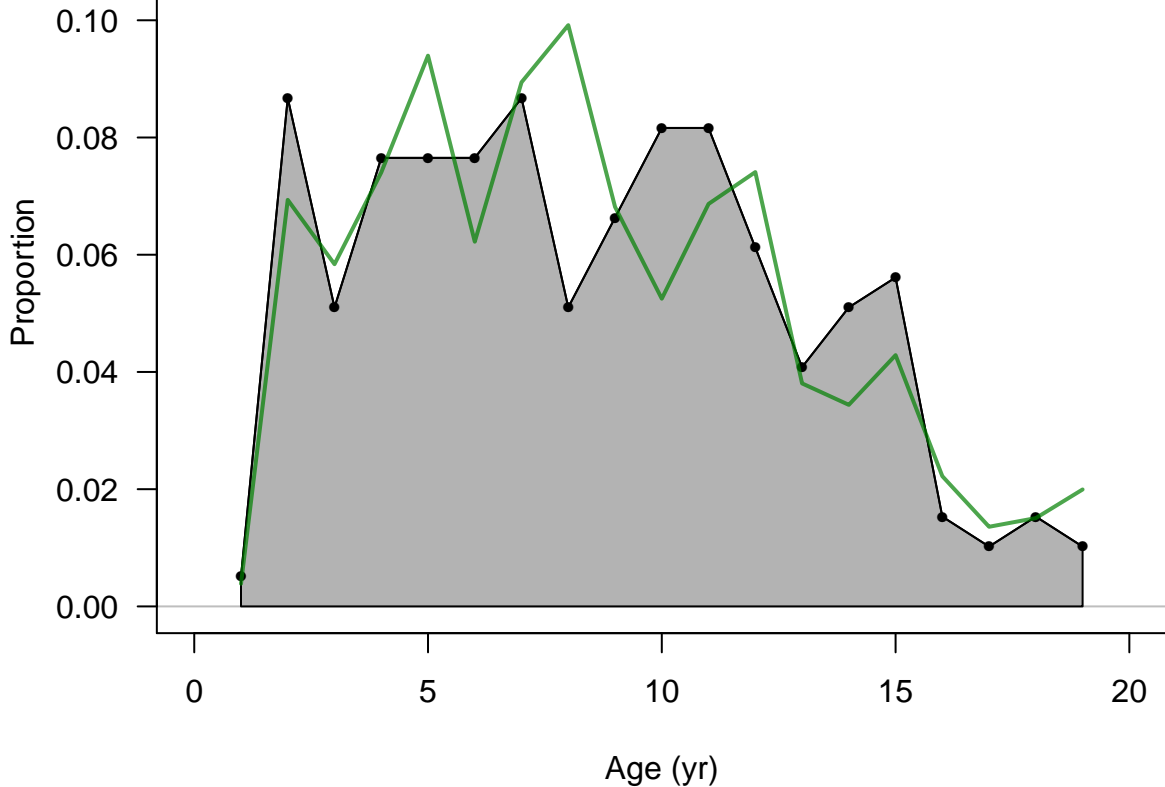
Age (yr)





# F18-DEL\_C

Sum of N adj.=196  
Sum of N eff.=277.5



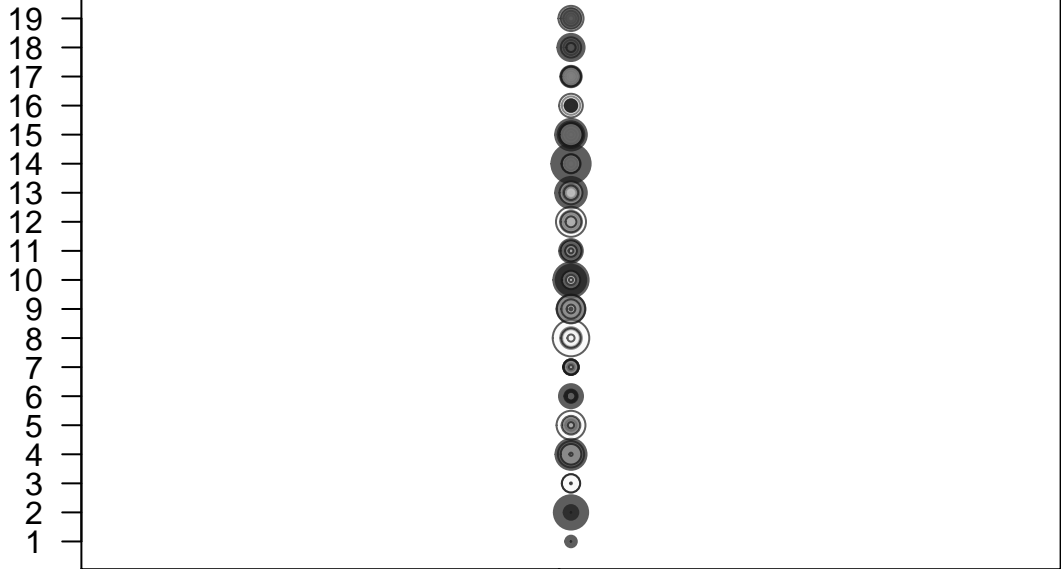
F18-DEL\_C

○ -2    • 0.1    ● 2

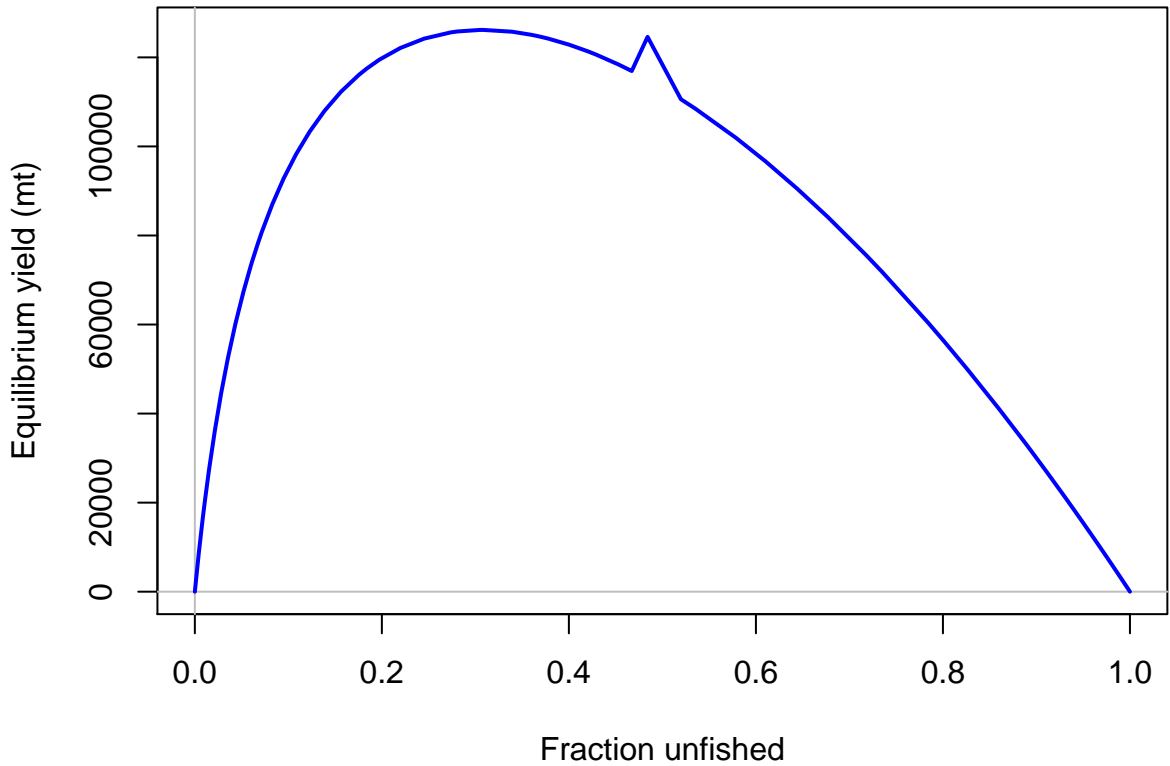
Age (yr)  
19  
18  
17  
16  
15  
14  
13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1

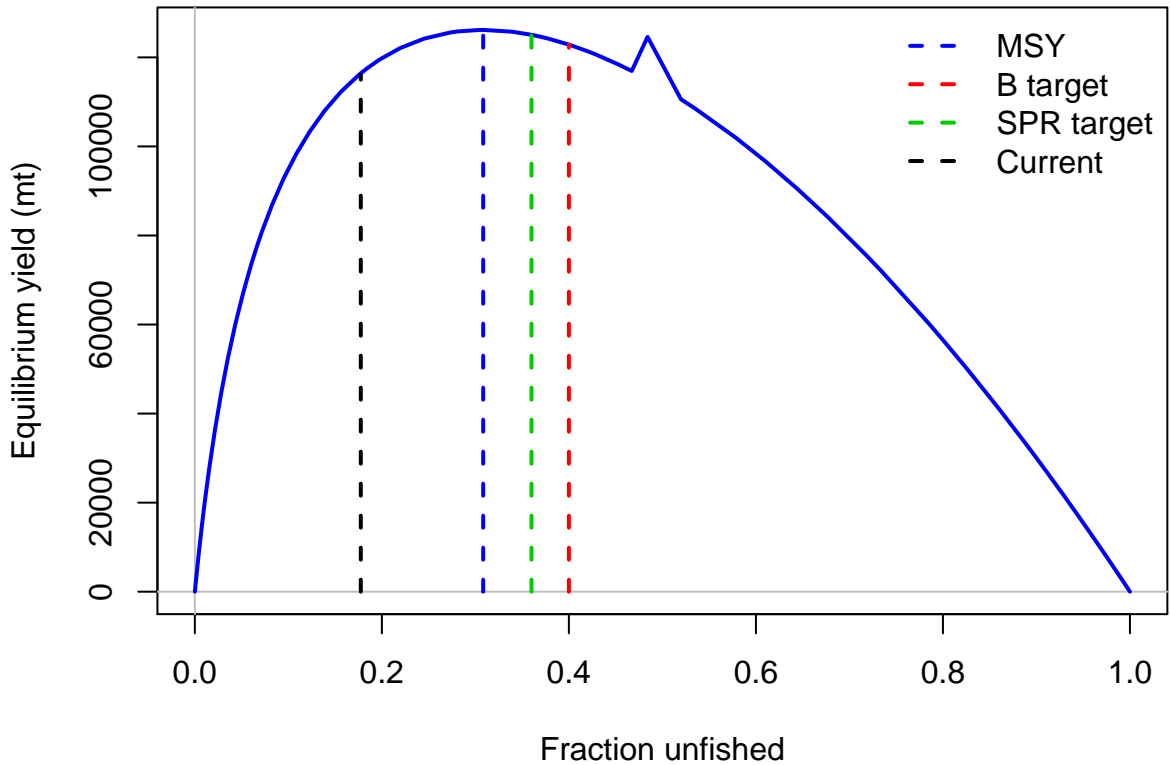
46

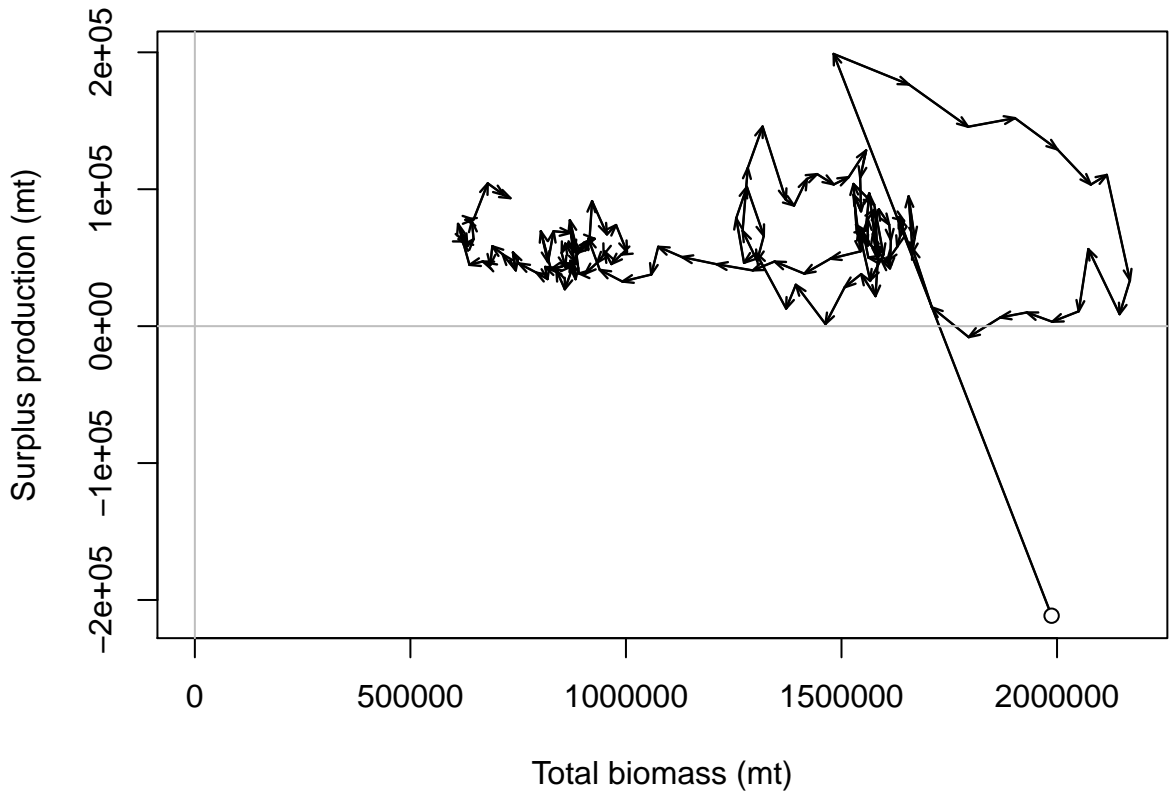
Year

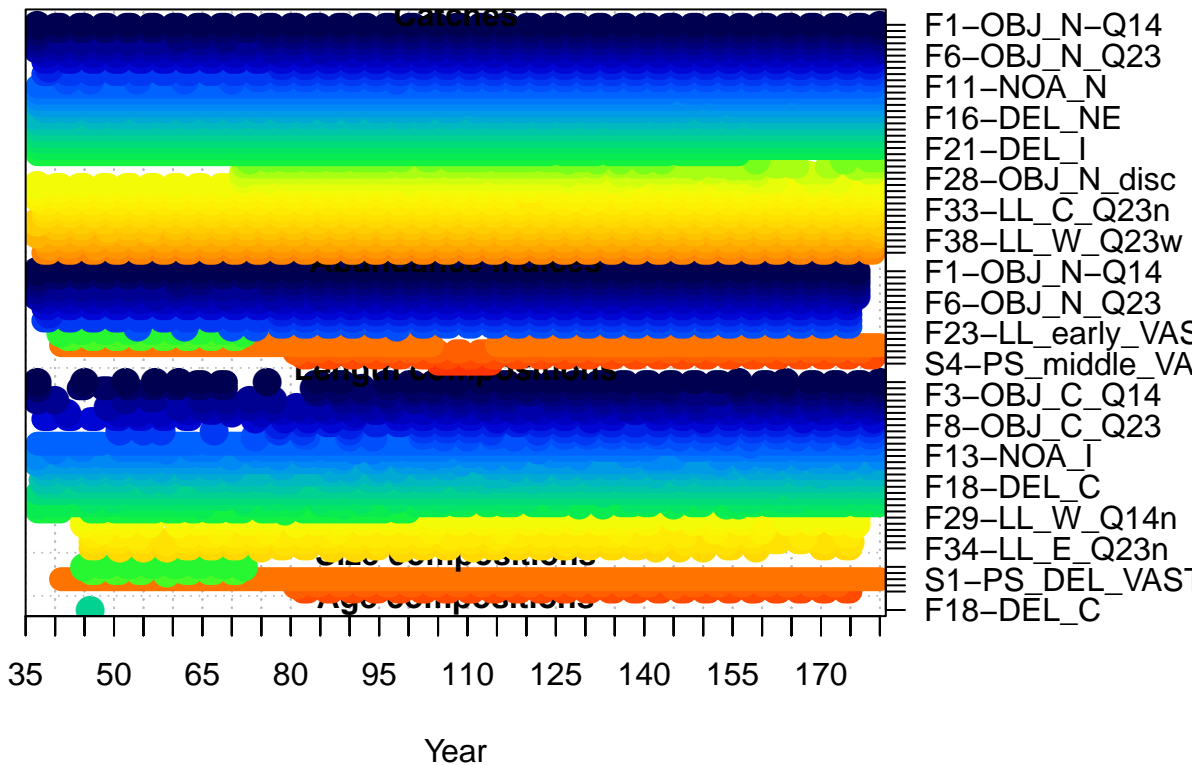


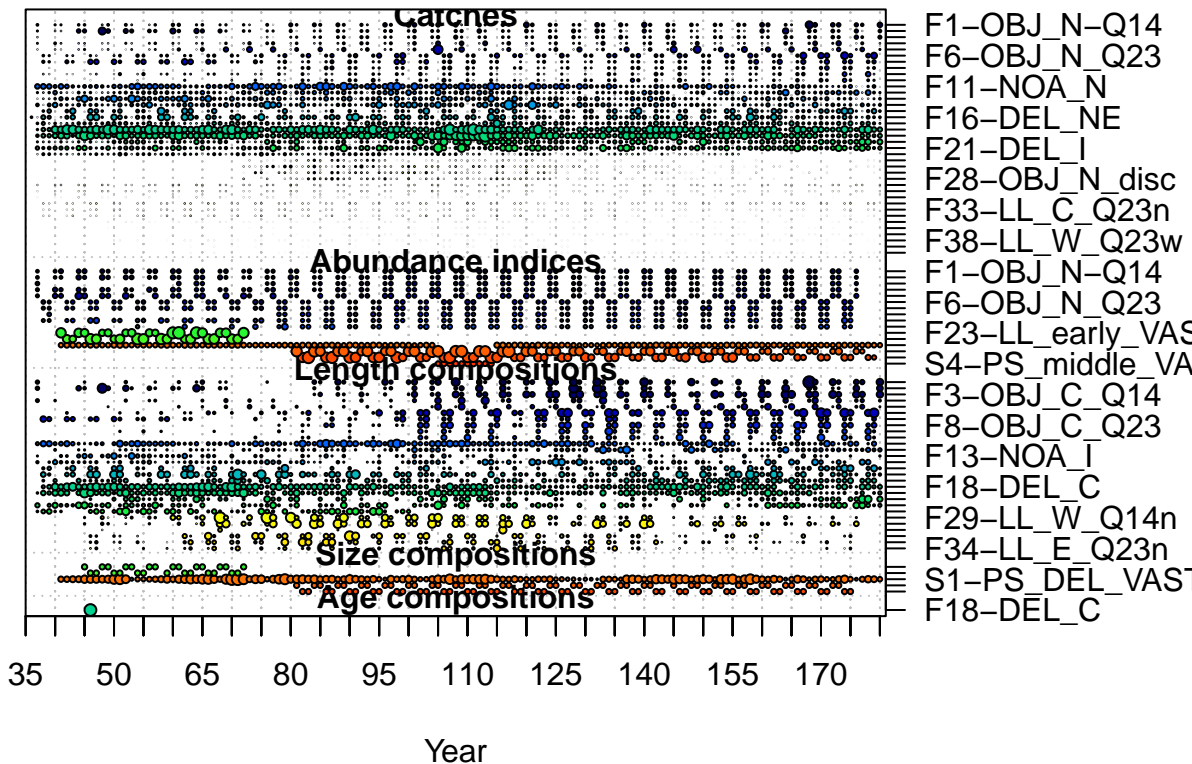


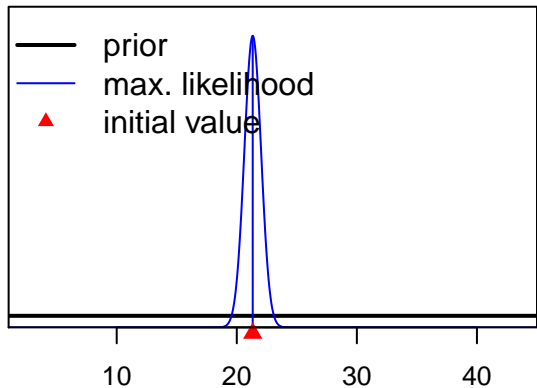
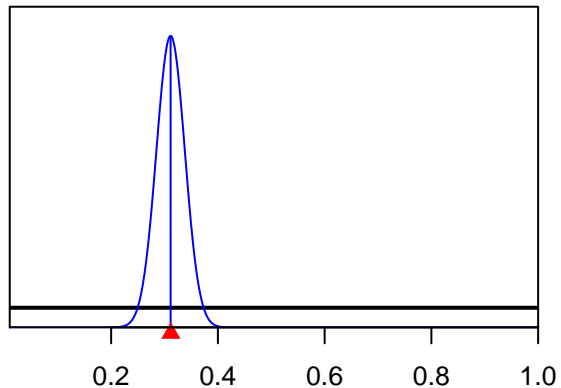
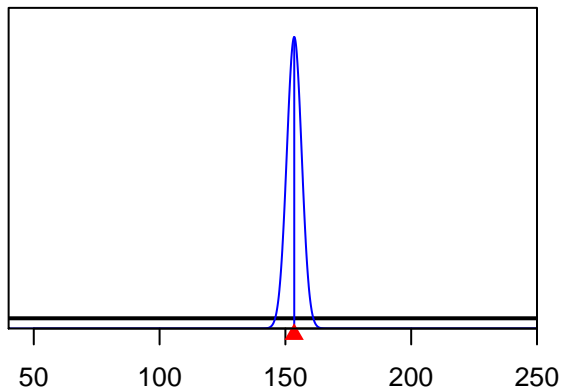
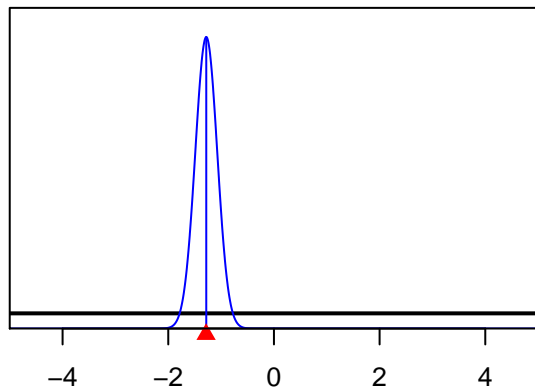






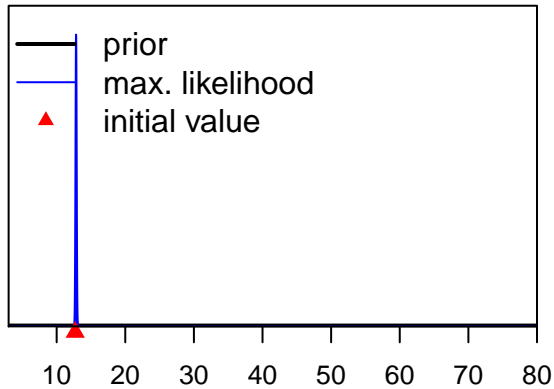




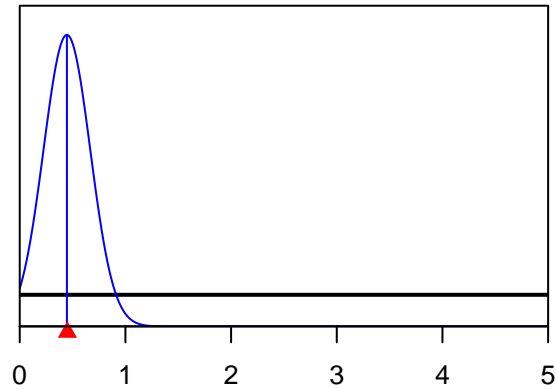
**L\_at\_Amin\_Fem\_GP\_1****VonBert\_K\_Fem\_GP\_1****L\_at\_Amax\_Fem\_GP\_1****Richards\_Fem\_GP\_1**

Parameter value

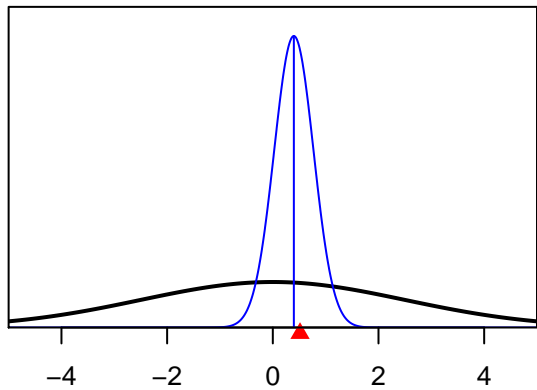
SR\_LN(R0)



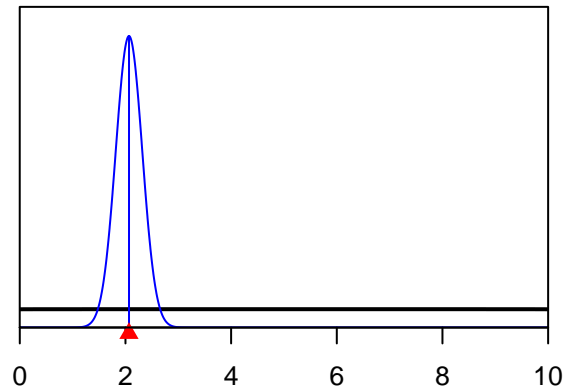
InitF\_seas\_1flt\_16F16-DEL\_NE



SR\_regime\_BLK1add\_36

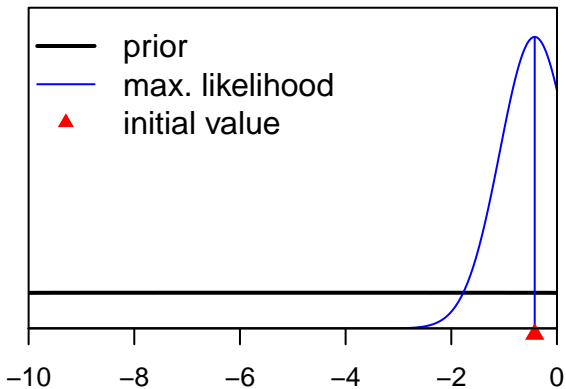


SizeSpline\_GradLo\_F1-OBJ\_N-Q14(1)

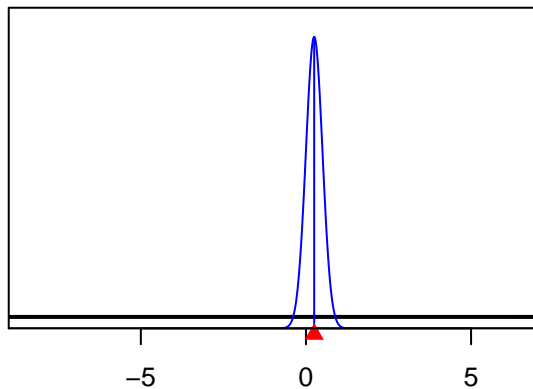


Parameter value

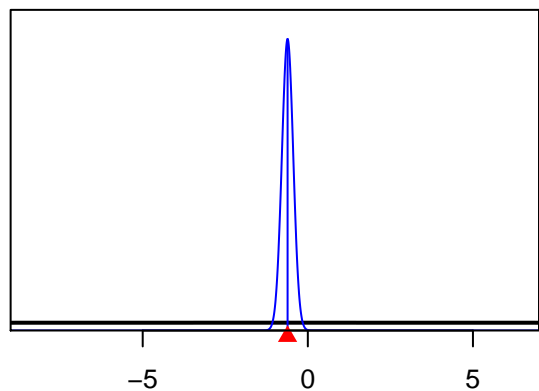
SizeSpline\_GradHi\_F1-Obj\_N-Q14(1)



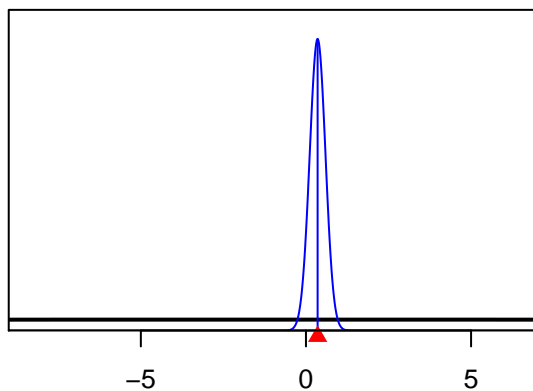
SizeSpline\_Val\_4\_F1-Obj\_N-Q14(1)



SizeSpline\_Val\_2\_F1-Obj\_N-Q14(1)



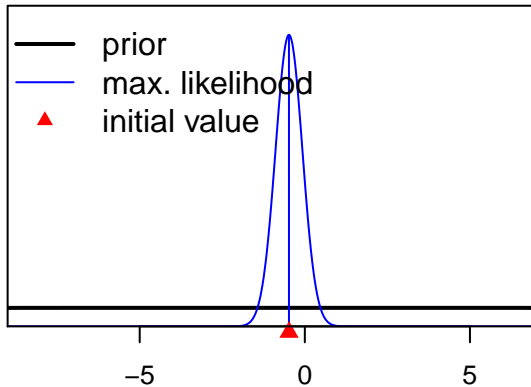
SizeSpline\_Val\_5\_F1-Obj\_N-Q14(1)



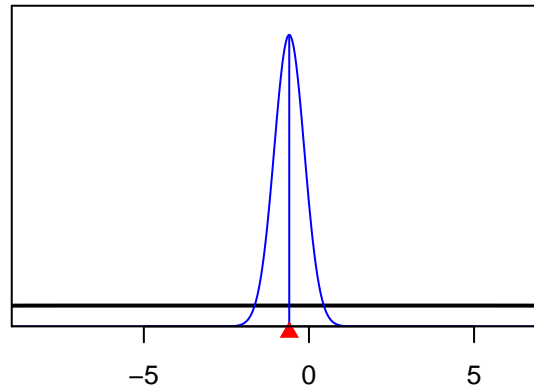
Parameter value



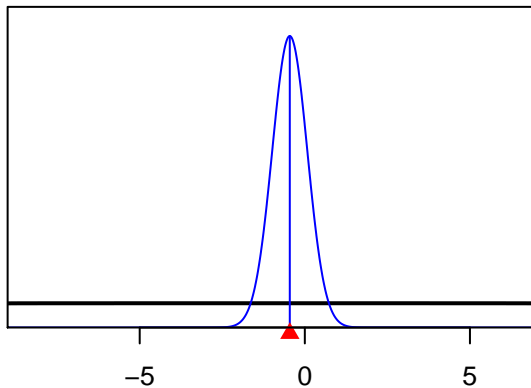
SizeSpline\_Val\_6\_F1-OBJ\_N-Q14(1)



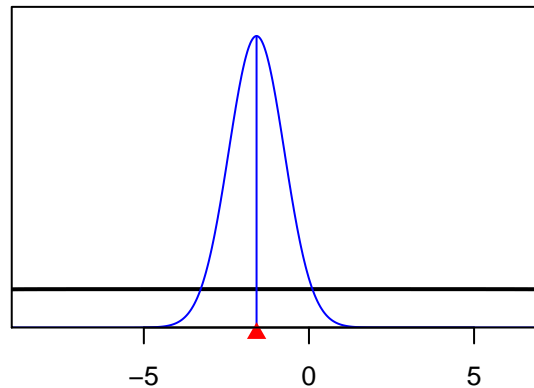
SizeSpline\_Val\_8\_F1-OBJ\_N-Q14(1)



SizeSpline\_Val\_7\_F1-OBJ\_N-Q14(1)

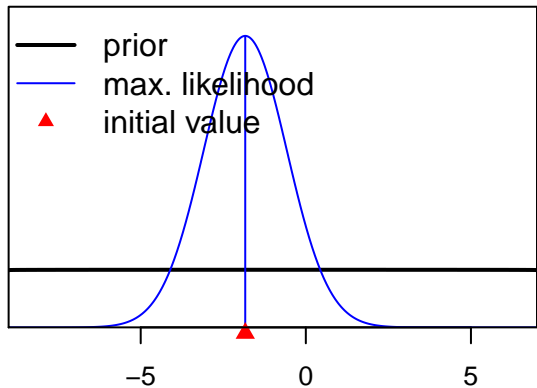


SizeSpline\_Val\_9\_F1-OBJ\_N-Q14(1)

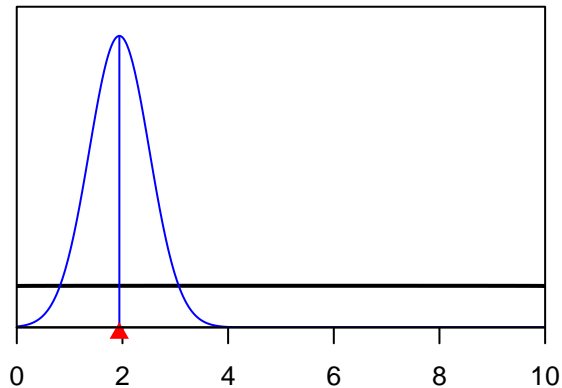


Parameter value

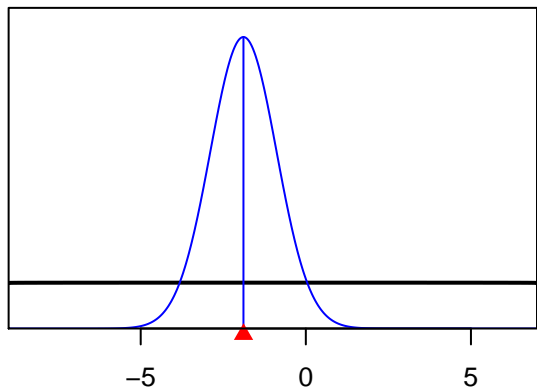
SizeSpline\_Val\_10\_F1-OBJ\_N-Q14(1)



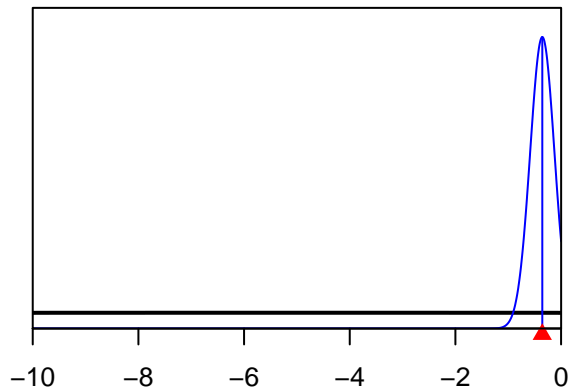
SizeSpline\_GradLo\_F2-OBJ\_Nc\_Q14(2)



SizeSpline\_Val\_11\_F1-OBJ\_N-Q14(1)

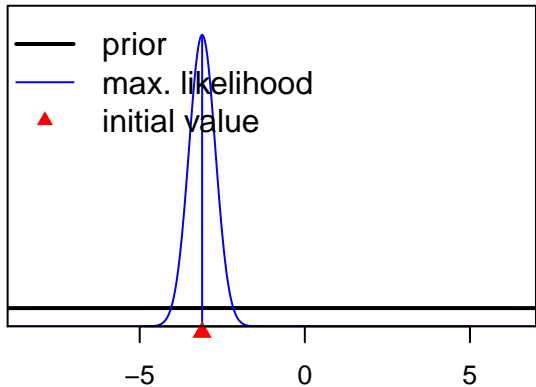


SizeSpline\_GradHi\_F2-OBJ\_Nc\_Q14(2)

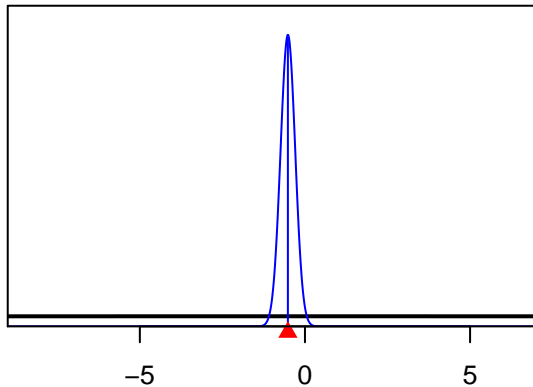


Parameter value

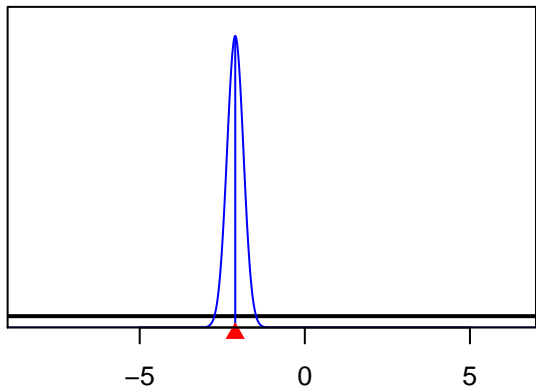
SizeSpline\_Val\_2\_F2-OBJ\_Nc\_Q14(2)



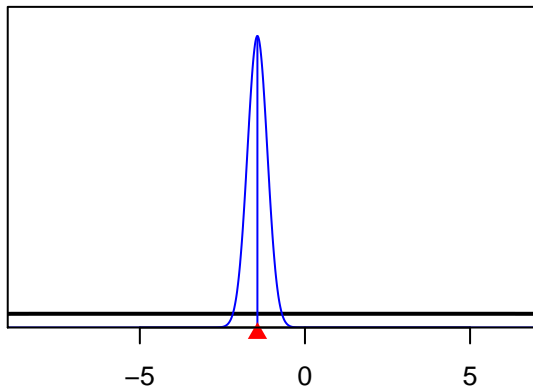
SizeSpline\_Val\_5\_F2-OBJ\_Nc\_Q14(2)



SizeSpline\_Val\_3\_F2-OBJ\_Nc\_Q14(2)

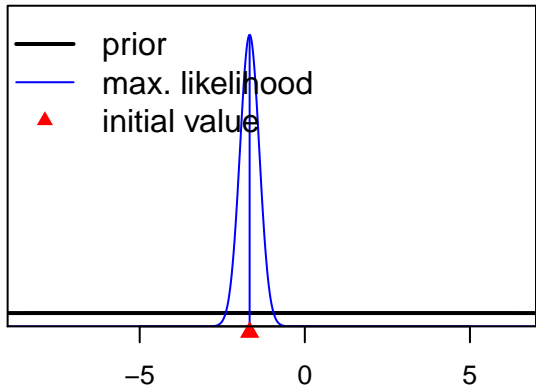


SizeSpline\_Val\_6\_F2-OBJ\_Nc\_Q14(2)

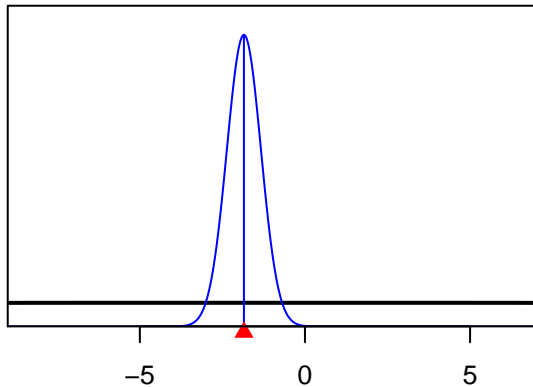


Parameter value

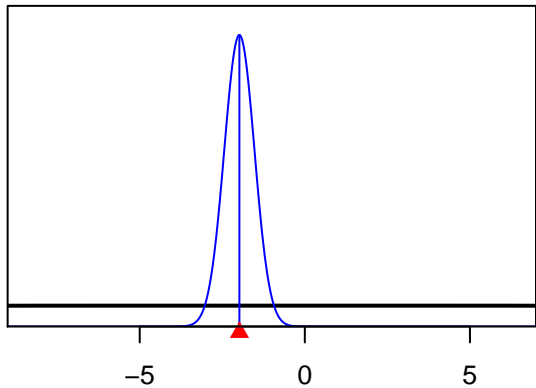
SizeSpline\_Val\_7\_F2-OBJ\_Nc\_Q14(2)



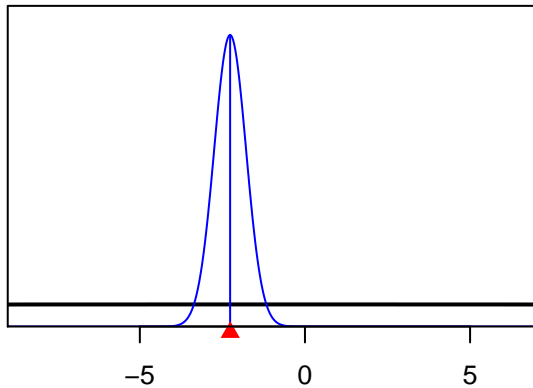
SizeSpline\_Val\_9\_F2-OBJ\_Nc\_Q14(2)



SizeSpline\_Val\_8\_F2-OBJ\_Nc\_Q14(2)

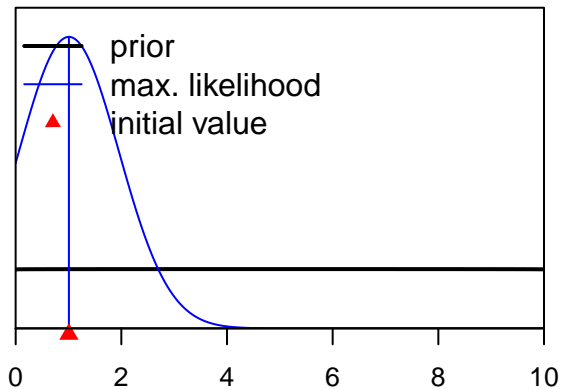


SizeSpline\_Val\_10\_F2-OBJ\_Nc\_Q14(2)

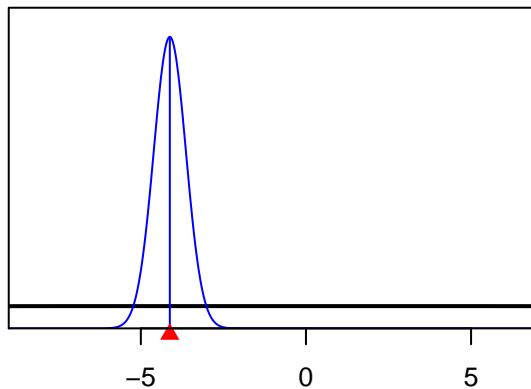


Parameter value

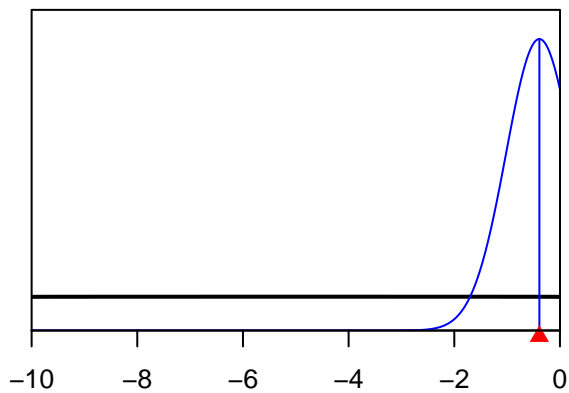
SizeSpline\_GradLo\_F3-OBJ\_C\_Q14(3)



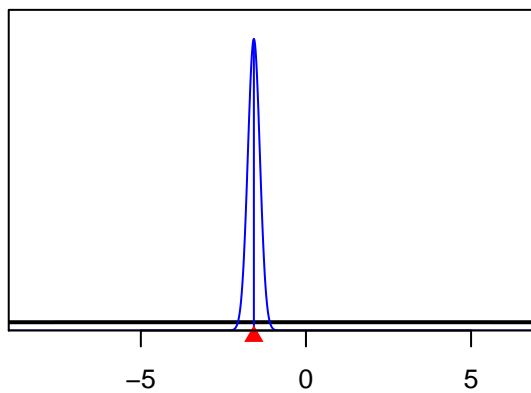
SizeSpline\_Val 2\_F3-OBJ\_C\_Q14(3)



SizeSpline\_GradHi\_F3-OBJ\_C\_Q14(3)

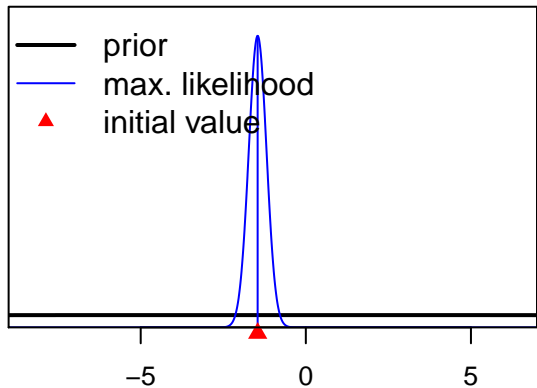


SizeSpline\_Val 4\_F3-OBJ\_C\_Q14(3)

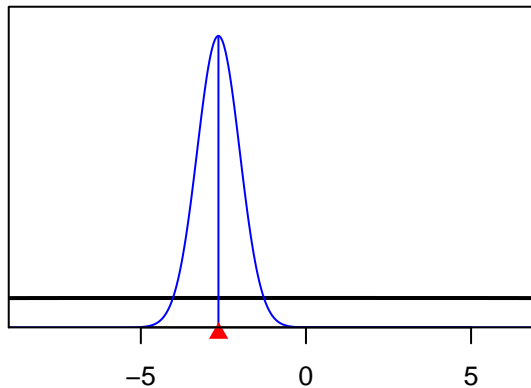


Parameter value

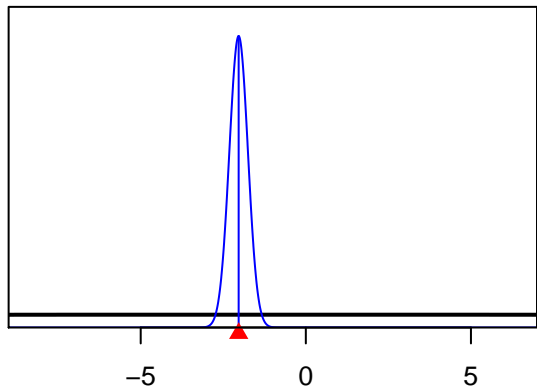
SizeSpline\_Val\_5\_F3-Obj\_C\_Q14(3)



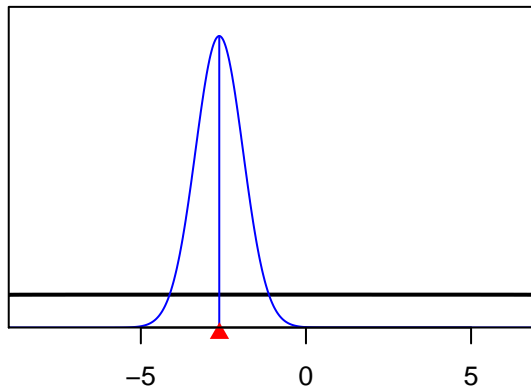
SizeSpline\_Val\_7\_F3-Obj\_C\_Q14(3)



SizeSpline\_Val\_6\_F3-Obj\_C\_Q14(3)

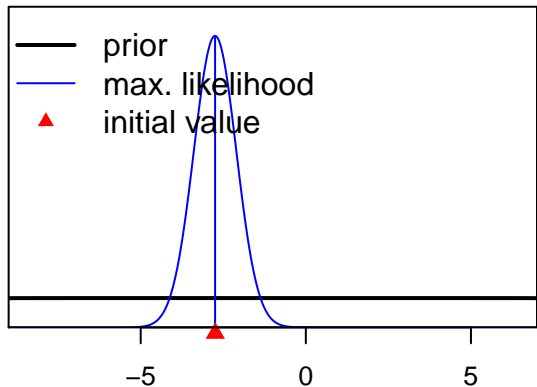


SizeSpline\_Val\_8\_F3-Obj\_C\_Q14(3)

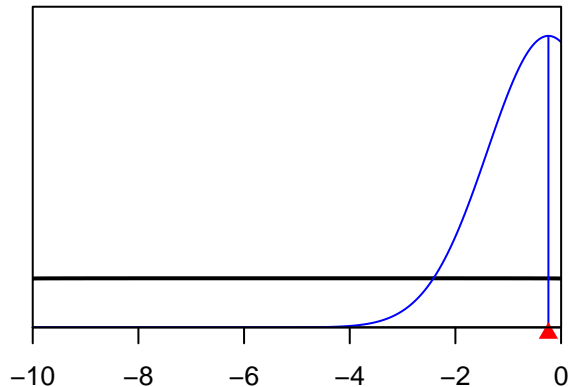


Parameter value

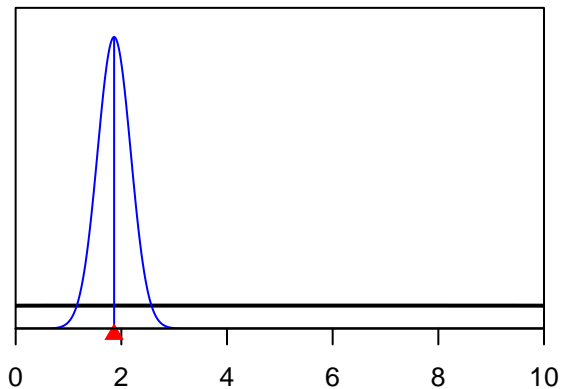
SizeSpline\_Val\_9\_F3-Obj\_C\_Q14(3)



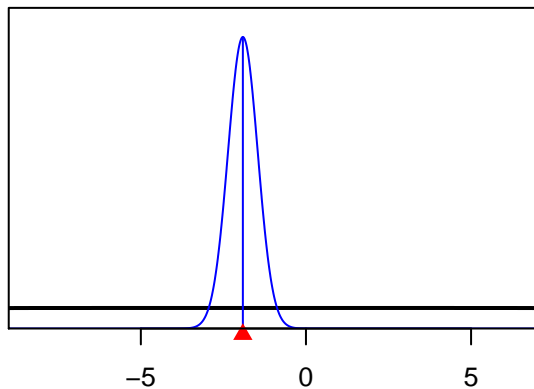
SizeSpline\_GradHi\_F4-Obj\_Cc\_Q14(4)



SizeSpline\_GradLo\_F4-Obj\_Cc\_Q14(4)

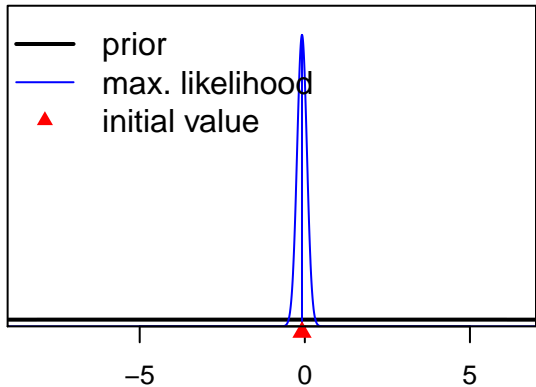


SizeSpline\_Val\_2\_F4-Obj\_Cc\_Q14(4)

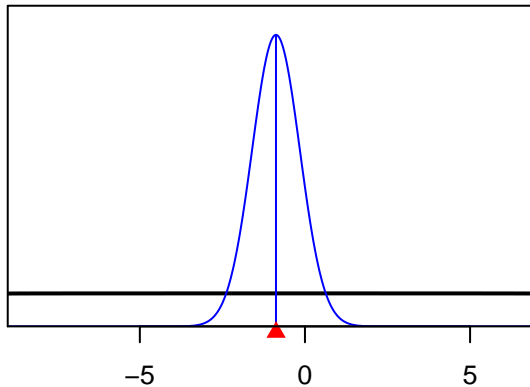


Parameter value

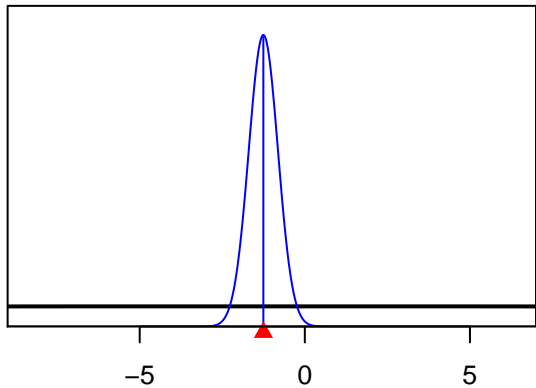
SizeSpline\_Val\_4\_F4-OBJ\_Cc\_Q14(4)



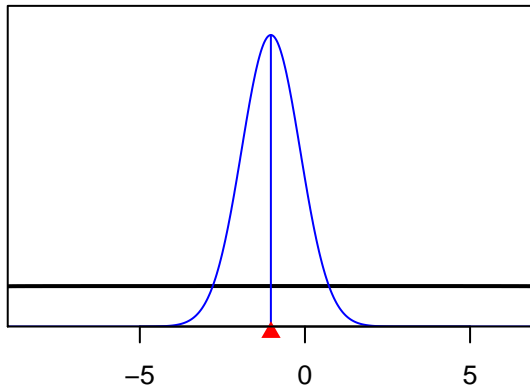
SizeSpline\_Val\_6\_F4-OBJ\_Cc\_Q14(4)



SizeSpline\_Val\_5\_F4-OBJ\_Cc\_Q14(4)



SizeSpline\_Val\_7\_F4-OBJ\_Cc\_Q14(4)

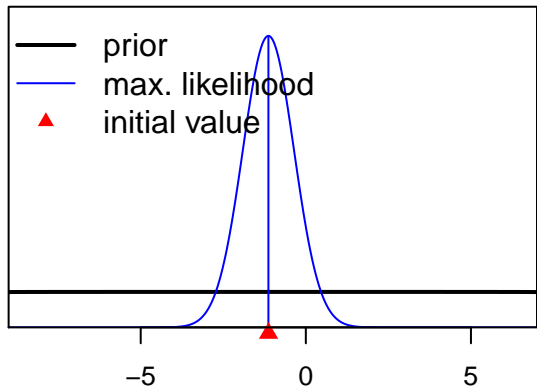


Parameter value

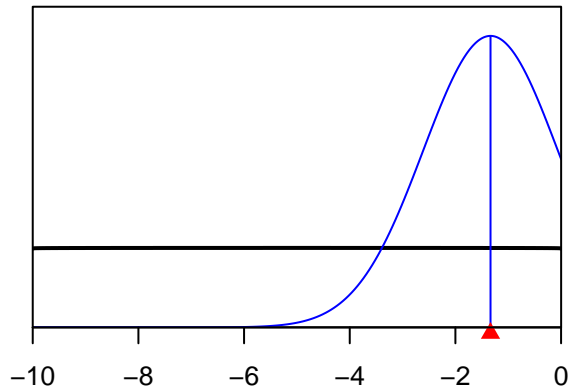
Density



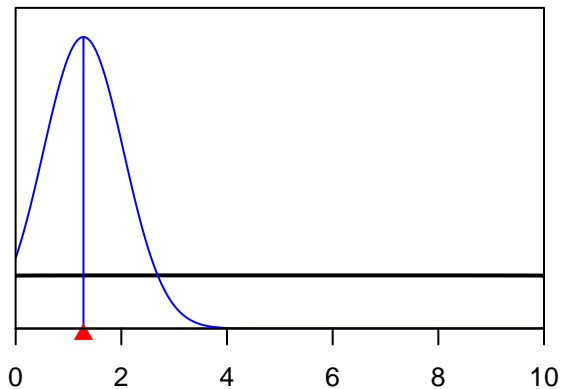
SizeSpline\_Val\_8\_F4-Obj\_Cc\_Q14(4)



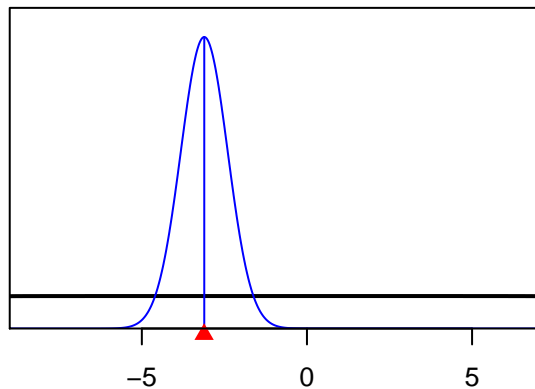
SizeSpline\_GradHi\_F5-Obj\_S\_Q14(5)



SizeSpline\_GradLo\_F5-Obj\_S\_Q14(5)

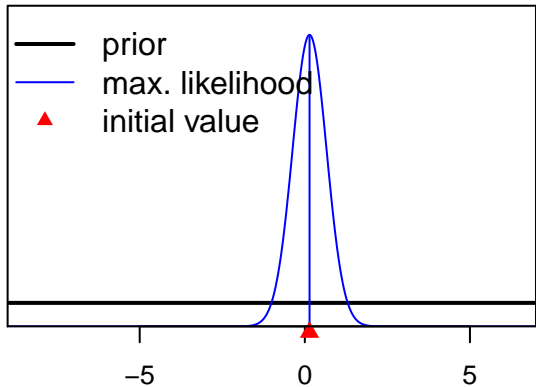


SizeSpline\_Val\_2\_F5-Obj\_S\_Q14(5)

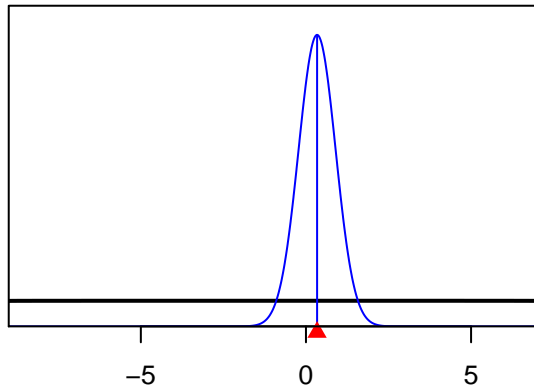


Parameter value

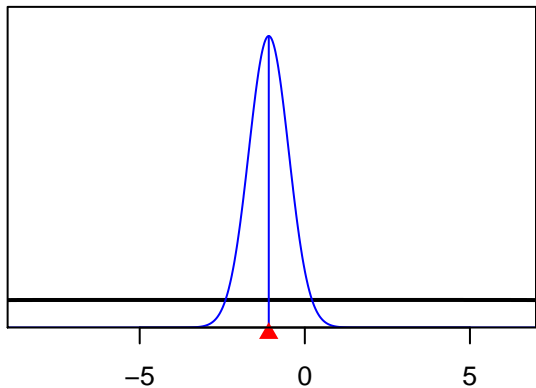
SizeSpline\_Val\_3\_F5-Obj\_S\_Q14(5)



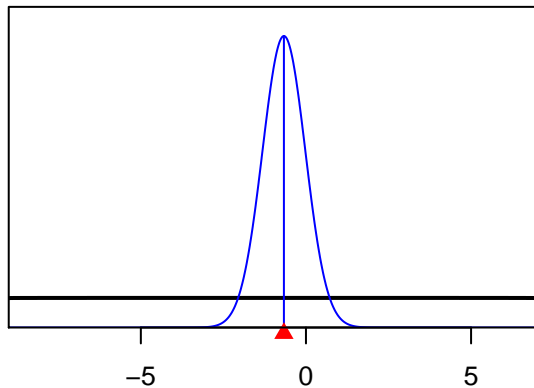
SizeSpline\_Val\_5\_F5-Obj\_S\_Q14(5)



SizeSpline\_Val\_4\_F5-Obj\_S\_Q14(5)

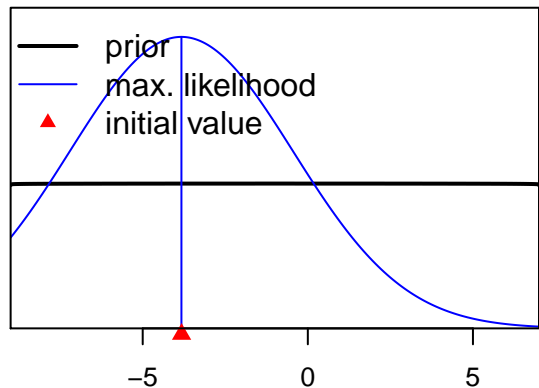


SizeSpline\_Val\_6\_F5-Obj\_S\_Q14(5)

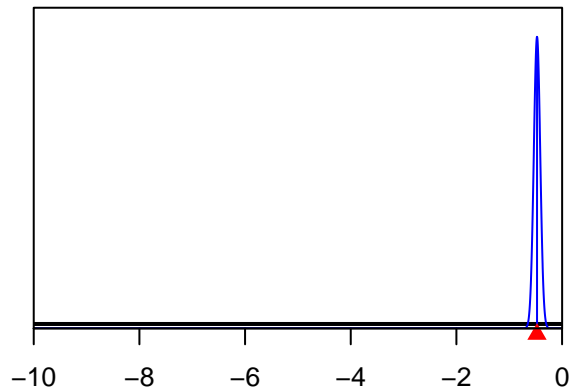


Parameter value

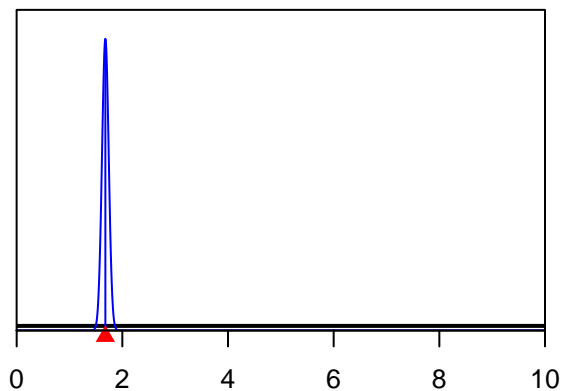
SizeSpline\_Val\_8\_F5-Obj\_S\_Q14(5)



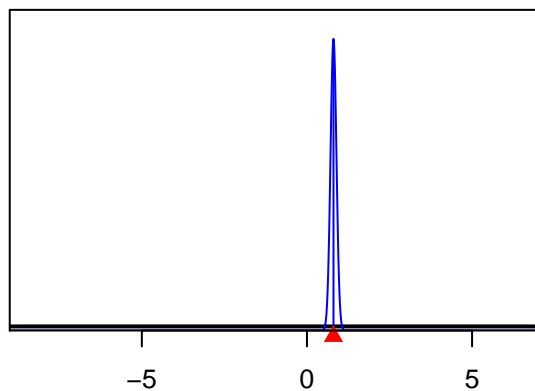
SizeSpline\_GradHi\_F6-Obj\_N\_Q23(6)



SizeSpline\_GradLo\_F6-Obj\_N\_Q23(6)

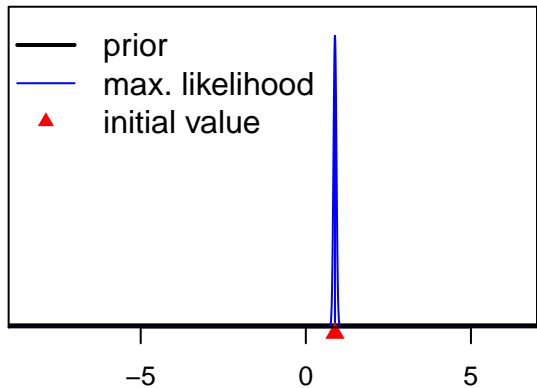


SizeSpline\_Val\_2\_F6-Obj\_N\_Q23(6)

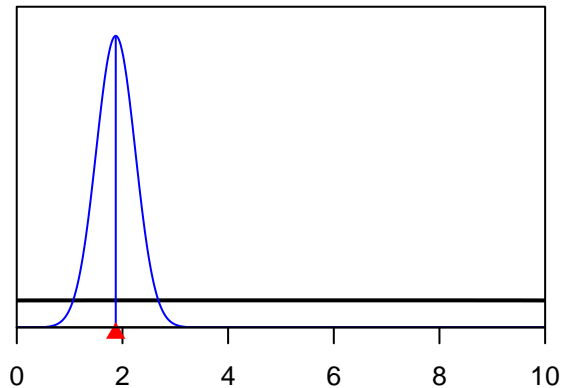


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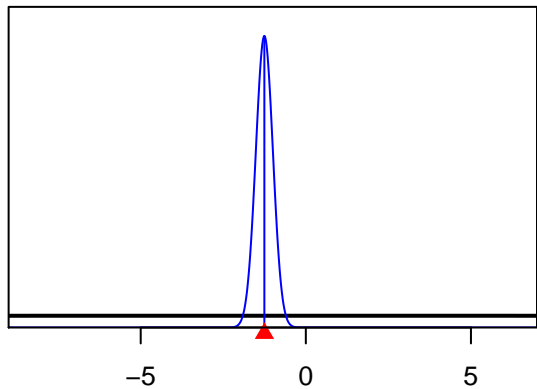
SizeSpline\_Val\_4\_F6-Obj\_N\_Q23(6)



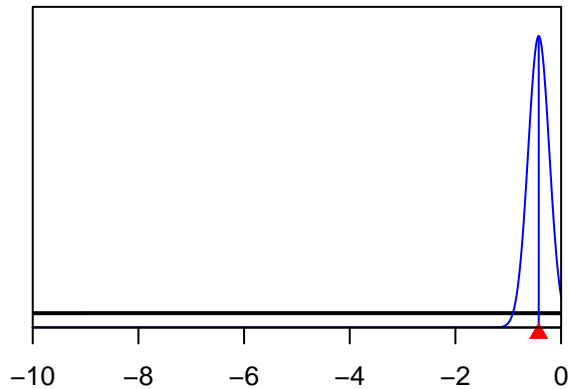
SizeSpline\_GradLo\_F7-Obj\_Nc\_Q23(7)



SizeSpline\_Val\_5\_F6-Obj\_N\_Q23(6)

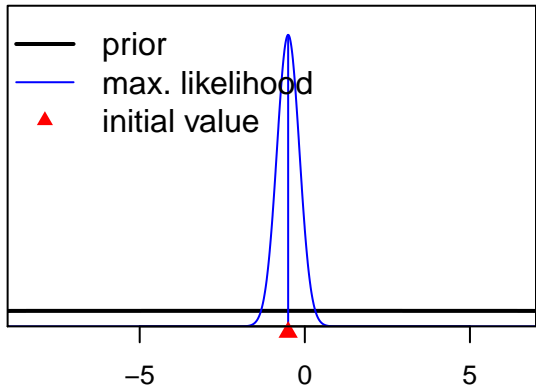


SizeSpline\_GradHi\_F7-Obj\_Nc\_Q23(7)

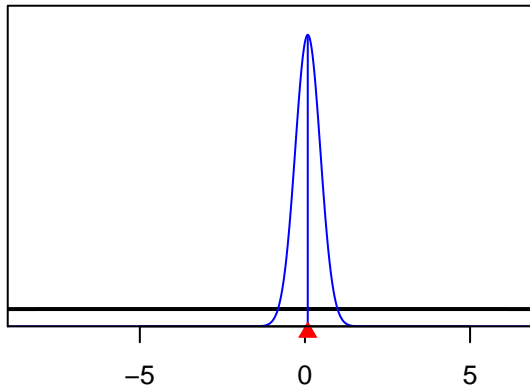


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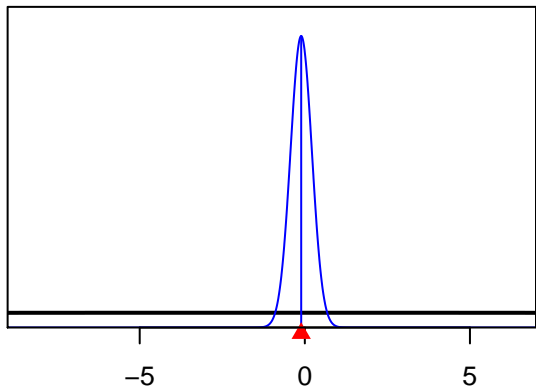
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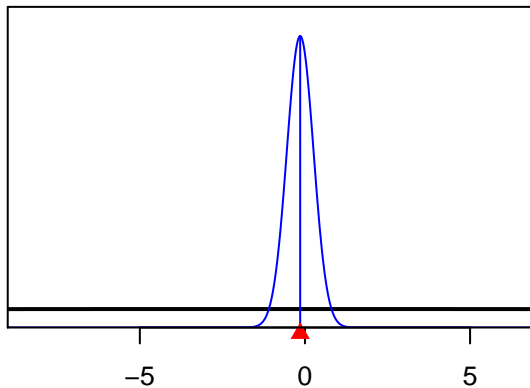
SizeSpline\_Val\_5\_F7-OBJ\_Nc\_Q23(7)



SizeSpline\_Val\_4\_F7-OBJ\_Nc\_Q23(7)

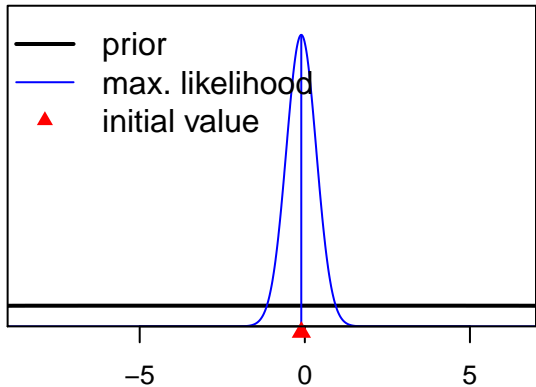


SizeSpline\_Val\_6\_F7-OBJ\_Nc\_Q23(7)

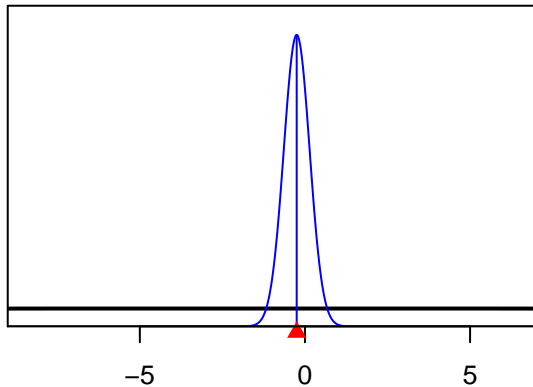


Parameter value

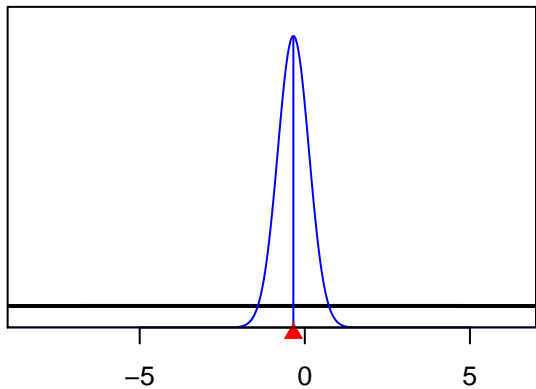
SizeSpline\_Val\_7\_F7-Obj\_Nc\_Q23(7)



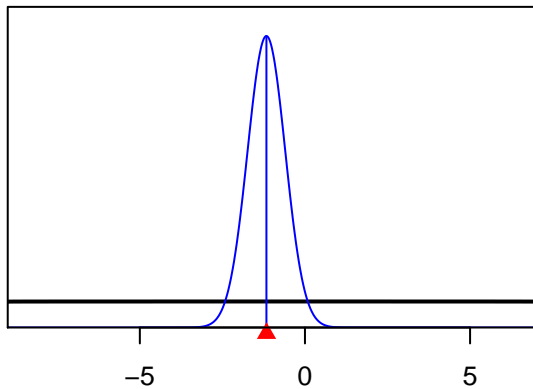
SizeSpline\_Val\_9\_F7-Obj\_Nc\_Q23(7)



SizeSpline\_Val\_8\_F7-Obj\_Nc\_Q23(7)

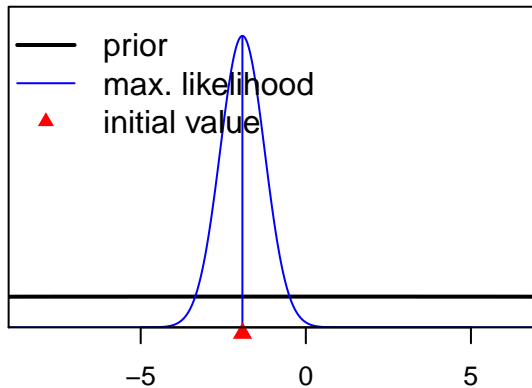


SizeSpline\_Val\_10\_F7-Obj\_Nc\_Q23(7)

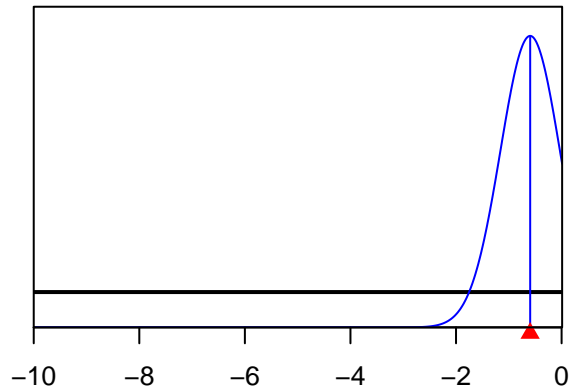


Parameter value

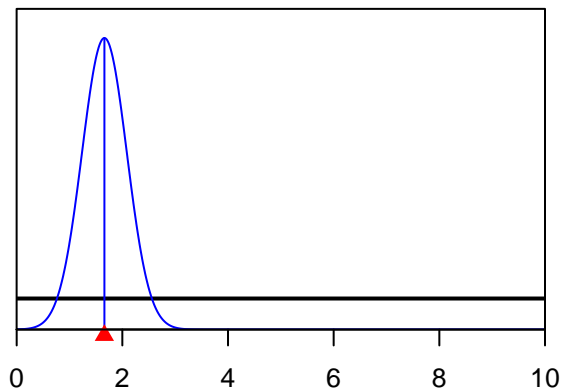
SizeSpline\_Val\_11\_F7-Obj\_Nc\_Q23(7)



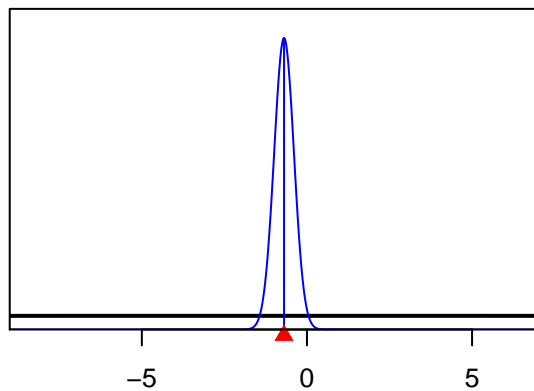
SizeSpline\_GradHi\_F8-Obj\_C\_Q23(8)



SizeSpline\_GradLo\_F8-Obj\_C\_Q23(8)

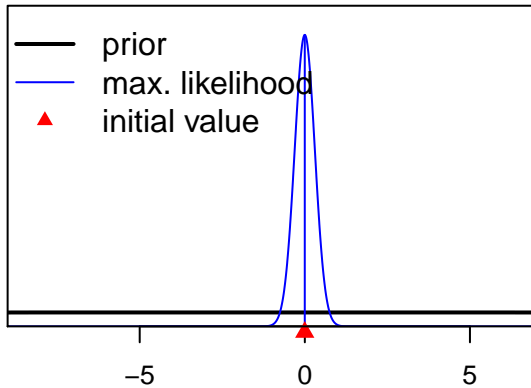


SizeSpline\_Val\_2\_F8-Obj\_C\_Q23(8)

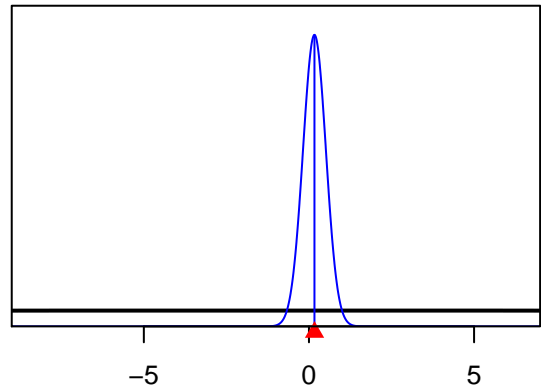


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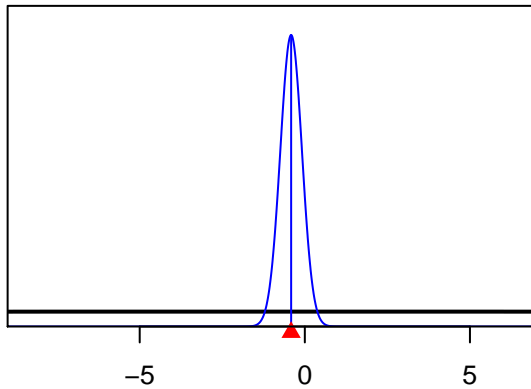
SizeSpline\_Val\_3\_F8-Obj\_C\_Q23(8)



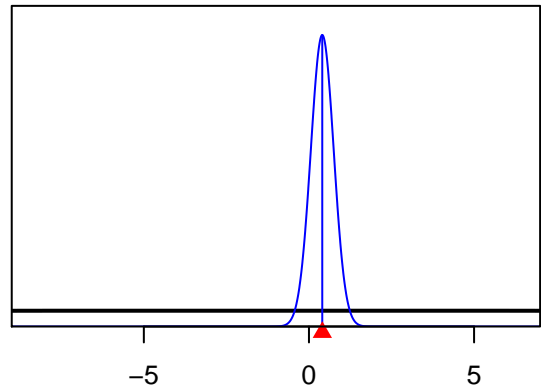
SizeSpline\_Val\_6\_F8-Obj\_C\_Q23(8)



SizeSpline\_Val\_4\_F8-Obj\_C\_Q23(8)



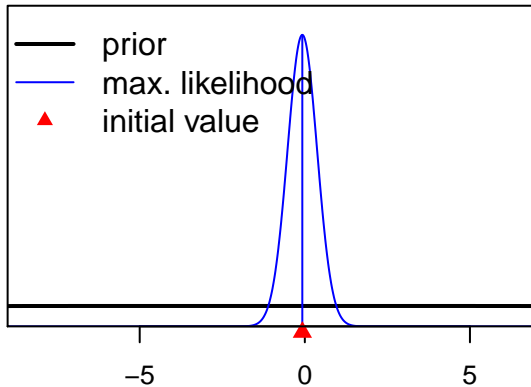
SizeSpline\_Val\_7\_F8-Obj\_C\_Q23(8)



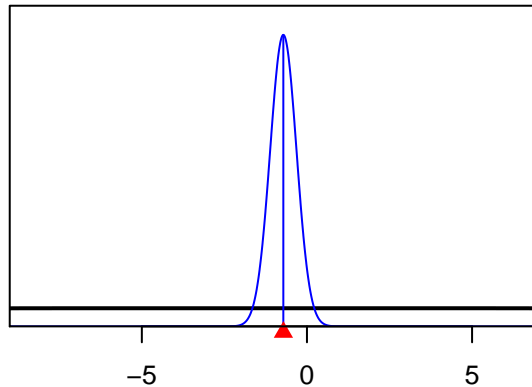
Parameter value



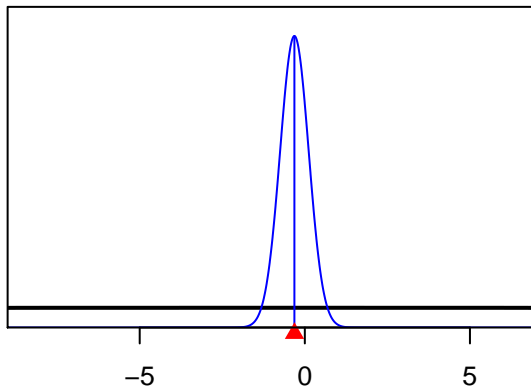
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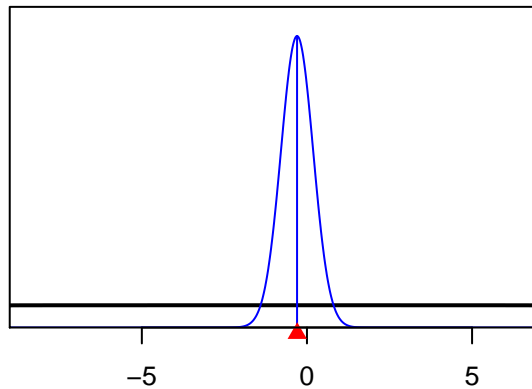
SizeSpline\_Val\_10\_F8-Obj\_C\_Q23(8)



SizeSpline\_Val\_9\_F8-Obj\_C\_Q23(8)

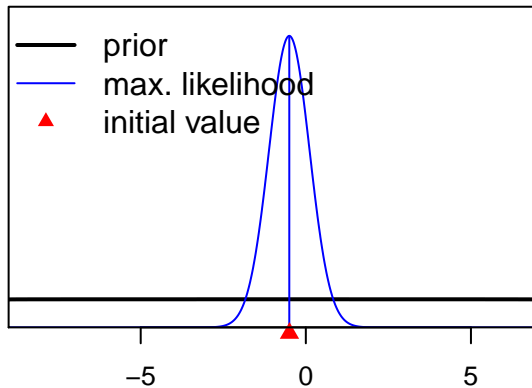


SizeSpline\_Val\_11\_F8-Obj\_C\_Q23(8)

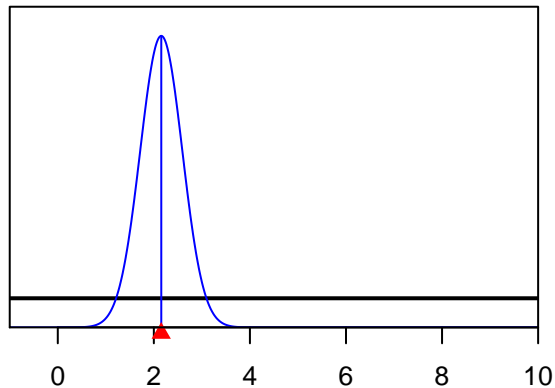


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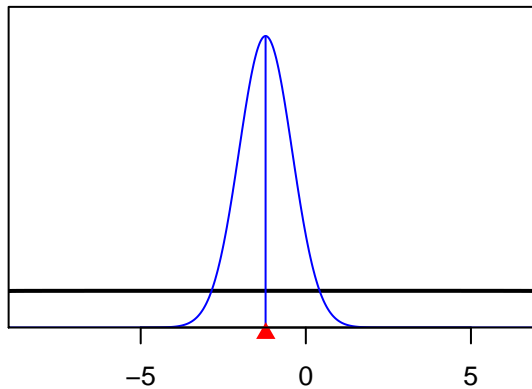
SizeSpline\_Val\_12\_F8-OBJ\_C\_Q23(8)



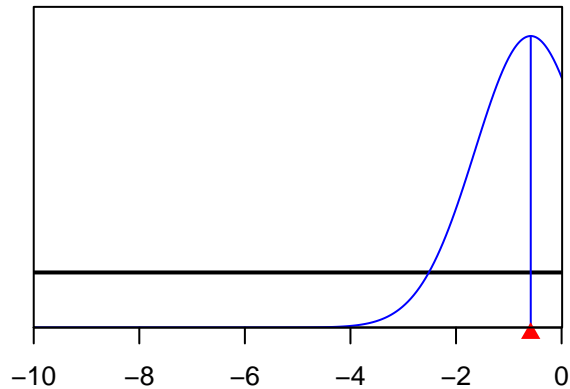
SizeSpline\_GradLo\_F9-OBJ\_Cc\_Q23(9)



SizeSpline\_Val\_13\_F8-OBJ\_C\_Q23(8)

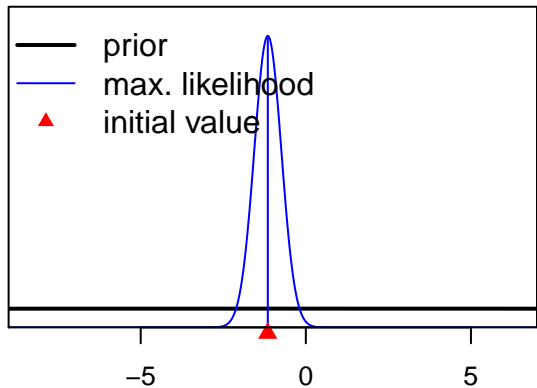


SizeSpline\_GradHi\_F9-OBJ\_Cc\_Q23(9)

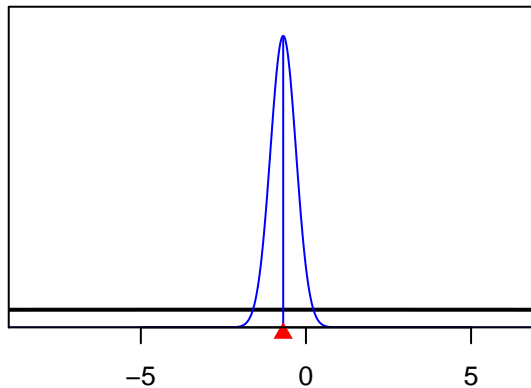


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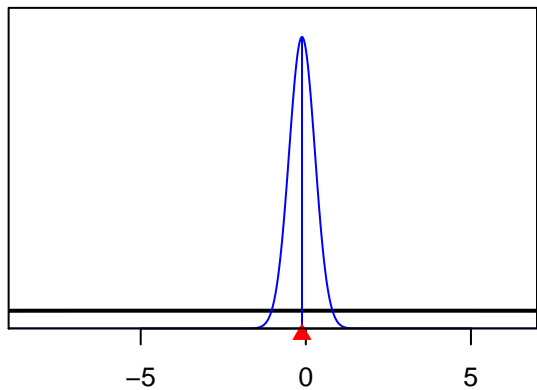
SizeSpline\_Val\_2\_F9-Obj\_Cc\_Q23(9)



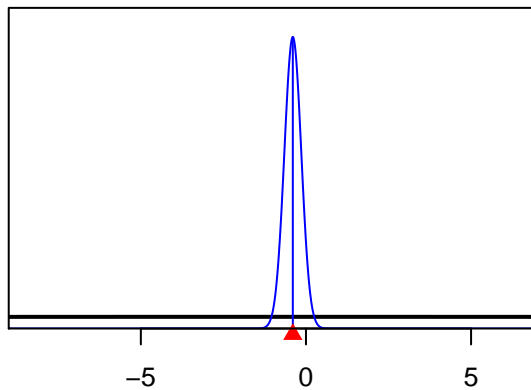
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SizeSpline\_Val\_3\_F9-Obj\_Cc\_Q23(9)

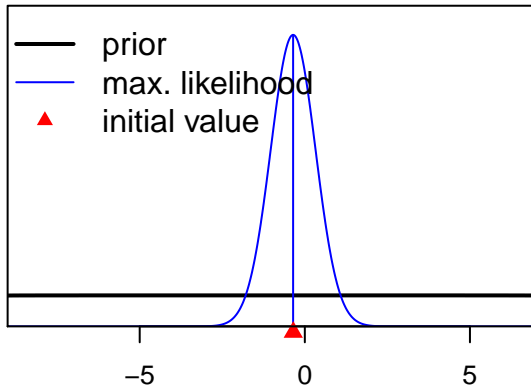


SizeSpline\_Val\_6\_F9-Obj\_Cc\_Q23(9)

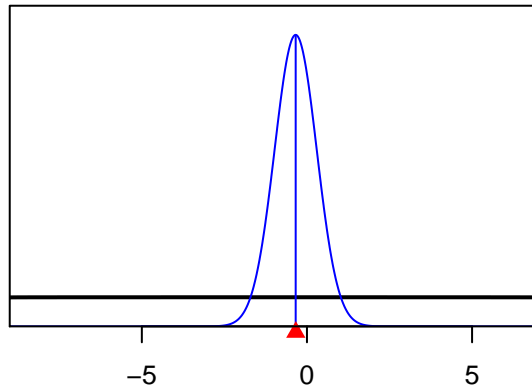


Parameter value

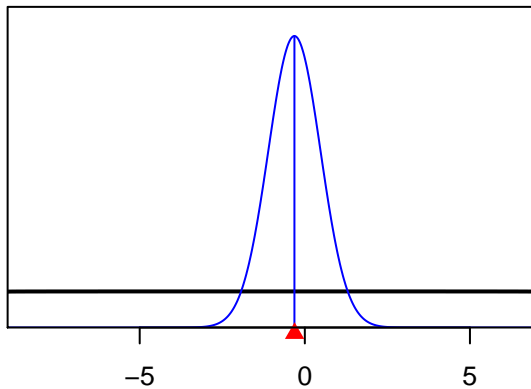
SizeSpline\_Val\_7\_F9-Obj\_Cc\_Q23(9)



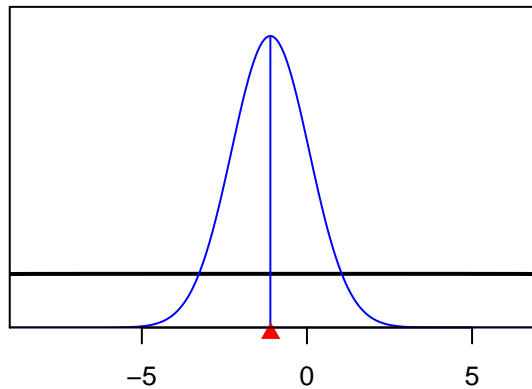
SizeSpline\_Val\_9\_F9-Obj\_Cc\_Q23(9)



SizeSpline\_Val\_8\_F9-Obj\_Cc\_Q23(9)

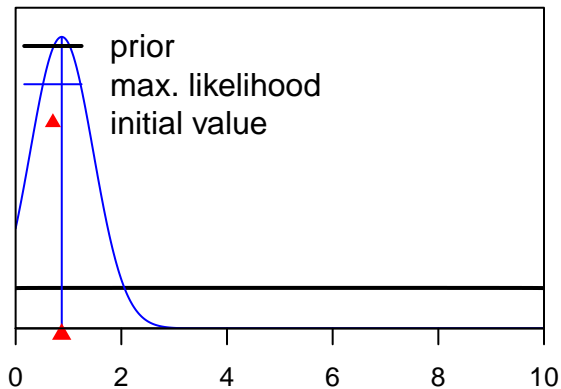


SizeSpline\_Val\_10\_F9-Obj\_Cc\_Q23(9)

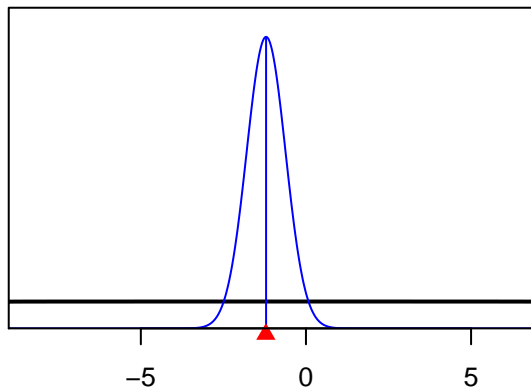


Parameter value

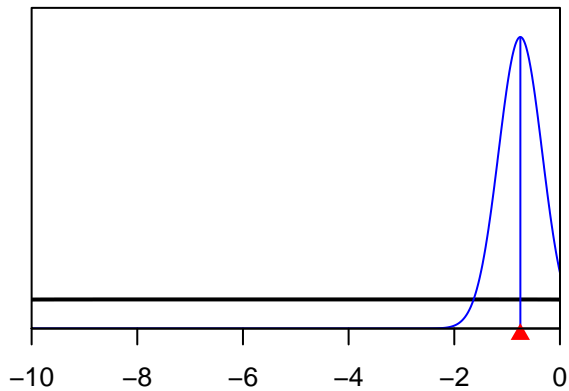
**SizeSpline\_GradLo\_F10-OBJ\_S\_Q23(10)**



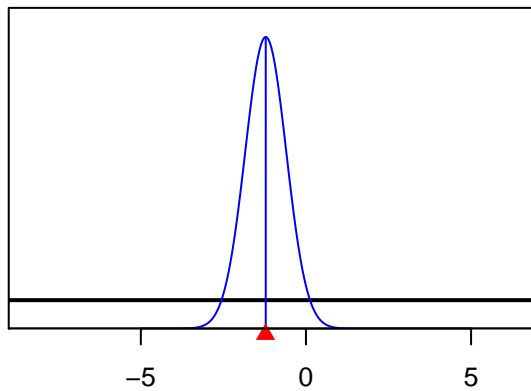
**SizeSpline\_Val\_2\_F10-OBJ\_S\_Q23(10)**



**SizeSpline\_GradHi\_F10-OBJ\_S\_Q23(10)**

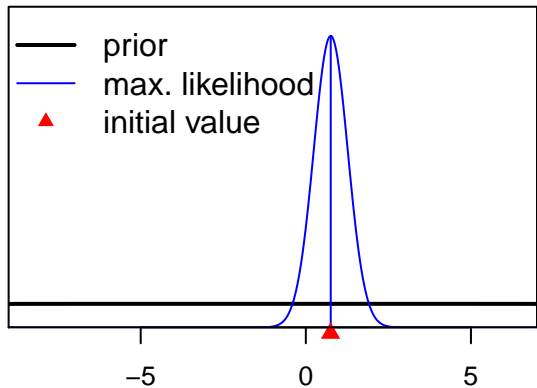


**SizeSpline\_Val\_3\_F10-OBJ\_S\_Q23(10)**

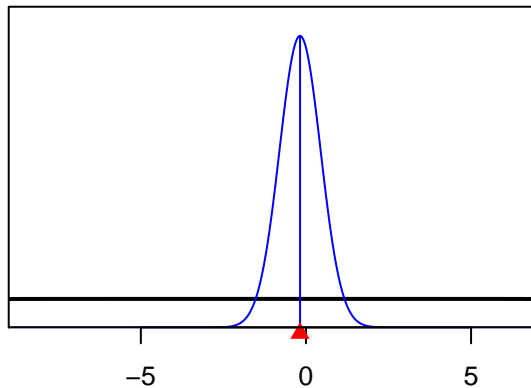


Parameter value

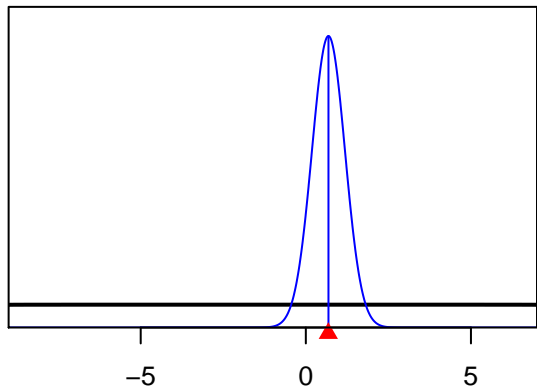
SizeSpline\_Val\_4\_F10-OBJ\_S\_Q23(10)



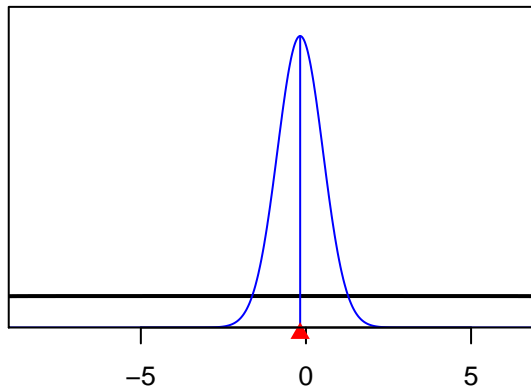
SizeSpline\_Val\_6\_F10-OBJ\_S\_Q23(10)



SizeSpline\_Val\_5\_F10-OBJ\_S\_Q23(10)

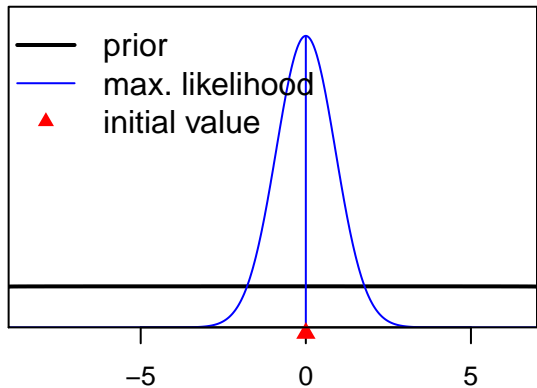


SizeSpline\_Val\_7\_F10-OBJ\_S\_Q23(10)

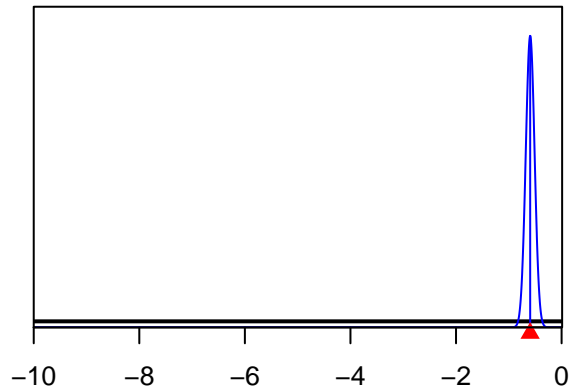


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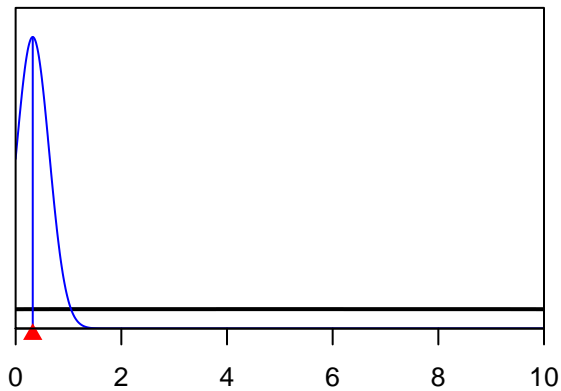
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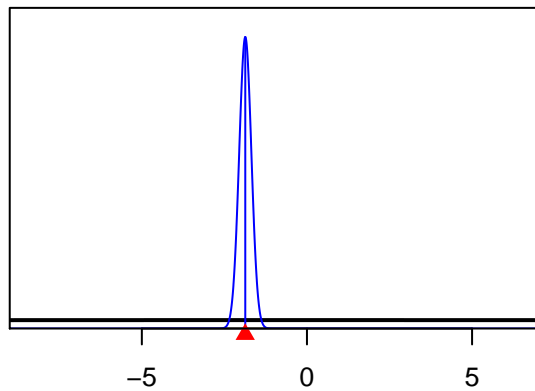
SizeSpline\_GradHi\_F11-NOA\_N(11)



SizeSpline\_GradLo\_F11-NOA\_N(11)

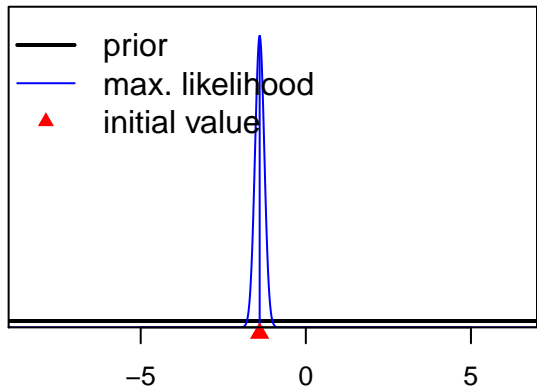


SizeSpline\_Val\_2\_F11-NOA\_N(11)

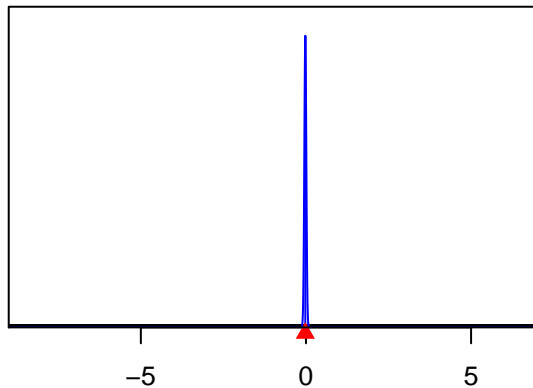


Parameter value

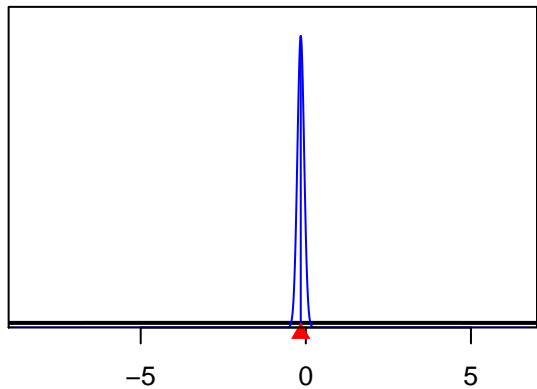
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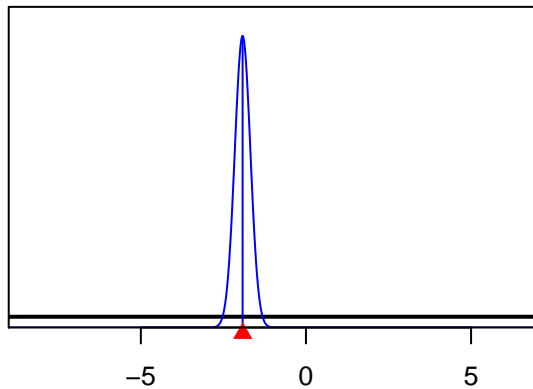
SizeSpline\_Val\_6\_F11-NOA\_N(11)



SizeSpline\_Val\_4\_F11-NOA\_N(11)



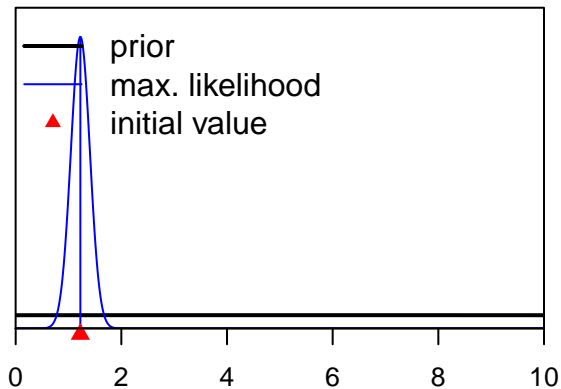
SizeSpline\_Val\_7\_F11-NOA\_N(11)



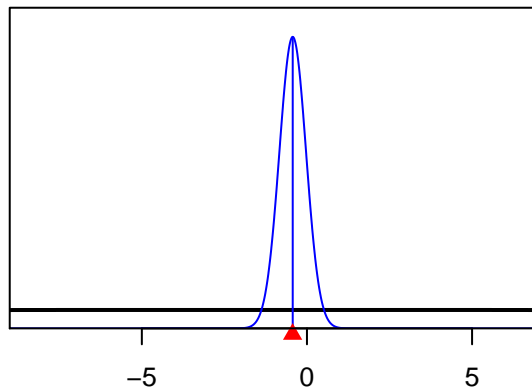
Parameter value



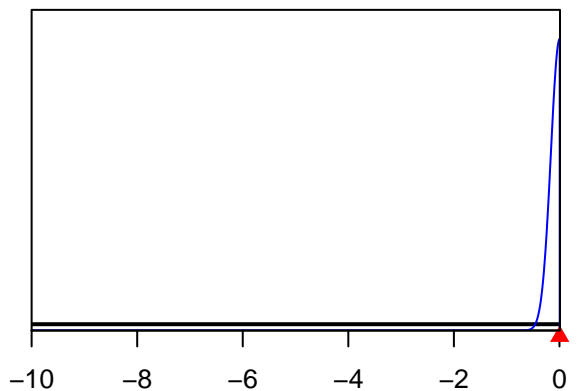
SizeSpline\_GradLo\_F12-NOA\_C(12)



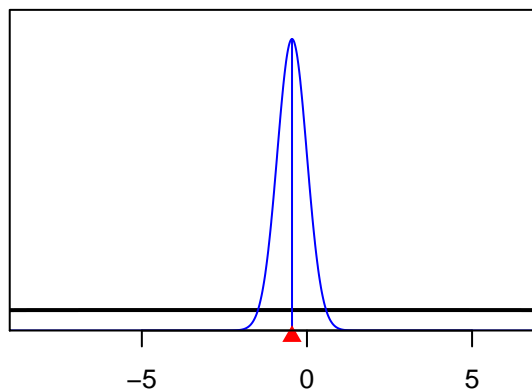
SizeSpline\_Val\_2\_F12-NOA\_C(12)



SizeSpline\_GradHi\_F12-NOA\_C(12)

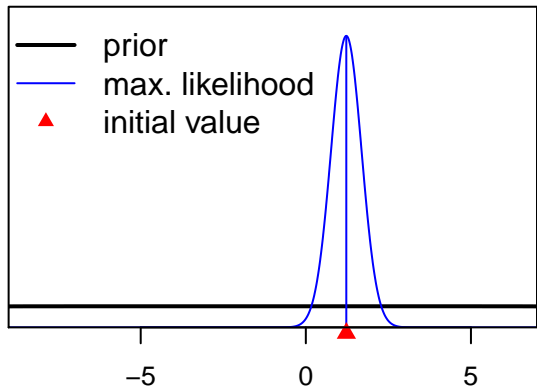


SizeSpline\_Val\_3\_F12-NOA\_C(12)

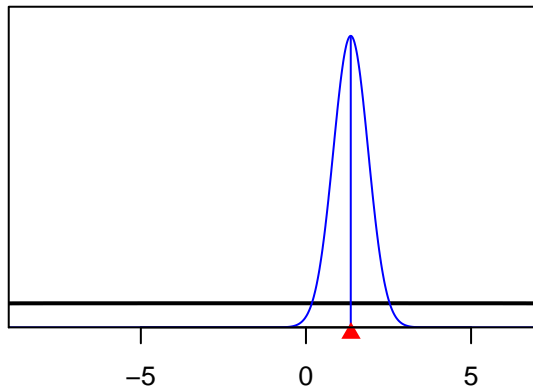


Parameter value

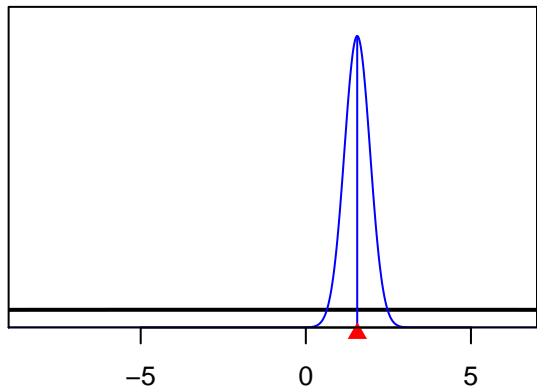
SizeSpline\_Val\_5\_F12-NOA\_C(12)



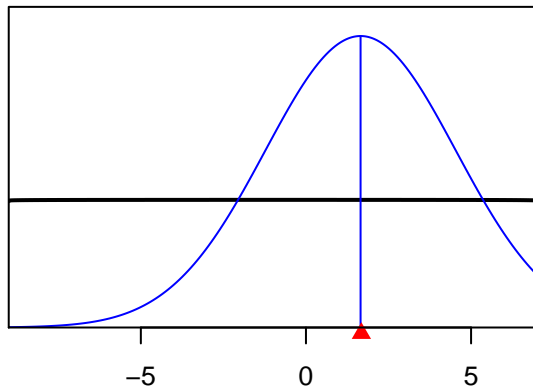
SizeSpline\_Val\_7\_F12-NOA\_C(12)



SizeSpline\_Val\_6\_F12-NOA\_C(12)

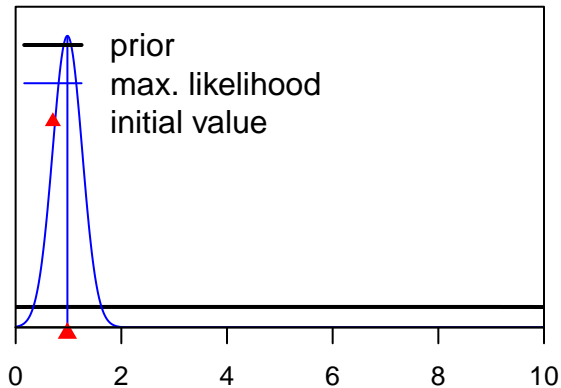


SizeSpline\_Val\_8\_F12-NOA\_C(12)

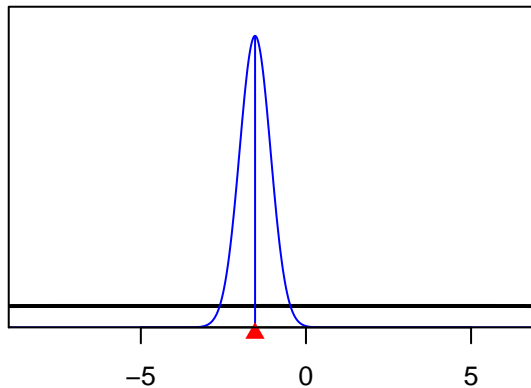


Parameter value

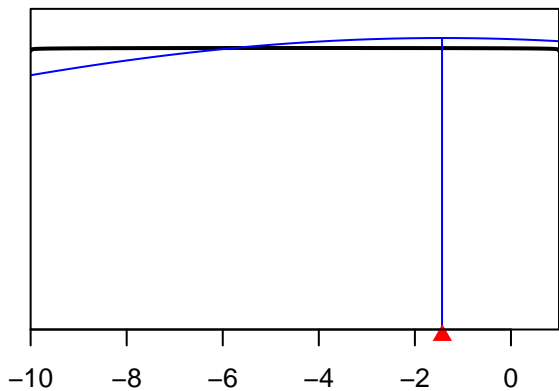
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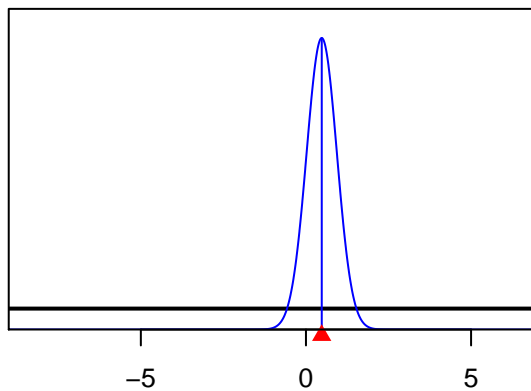
SizeSpline\_Val\_2\_F13-NOA\_I(13)



SizeSpline\_GradHi\_F13-NOA\_I(13)

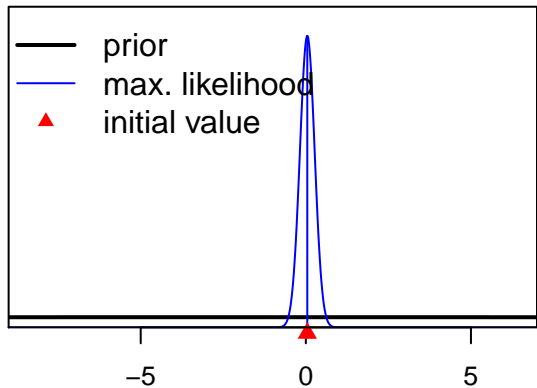


SizeSpline\_Val\_3\_F13-NOA\_I(13)

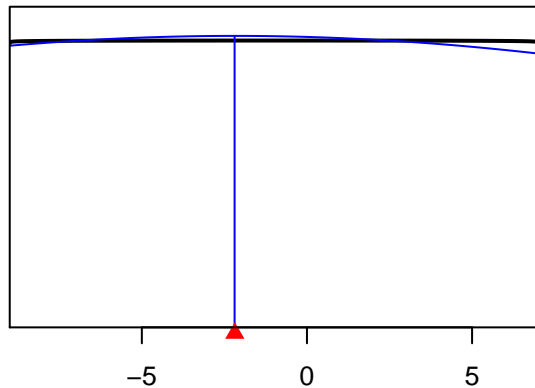


Parameter value

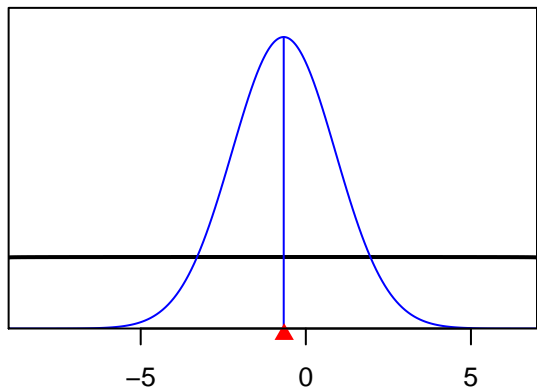
SizeSpline\_Val\_5\_F13-NOA\_I(13)



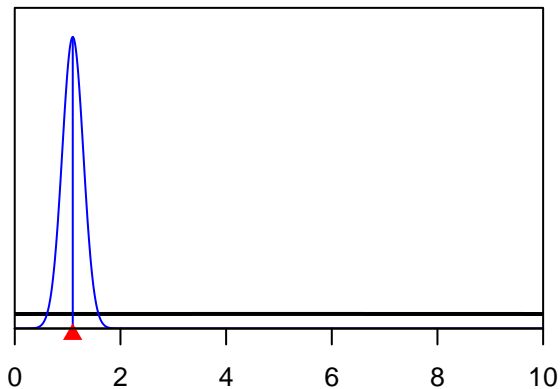
SizeSpline\_Val\_7\_F13-NOA\_I(13)



SizeSpline\_Val\_6\_F13-NOA\_I(13)



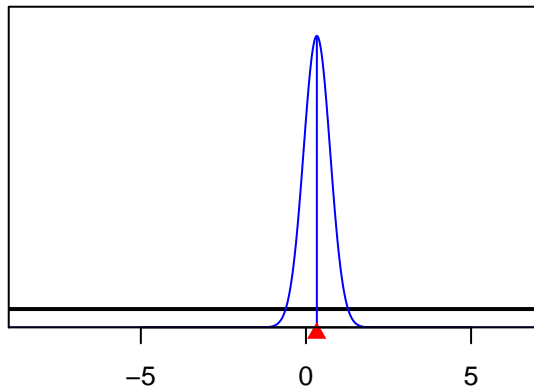
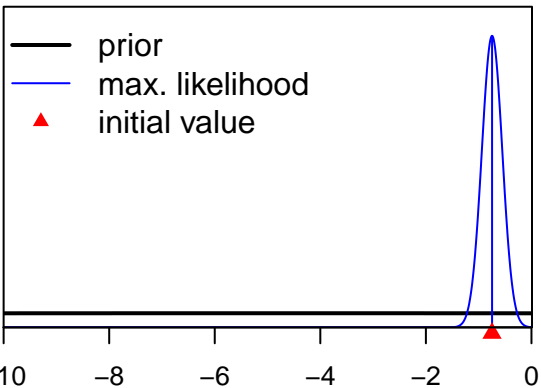
SizeSpline\_GradLo\_F14-NOA\_S(14)



Parameter value

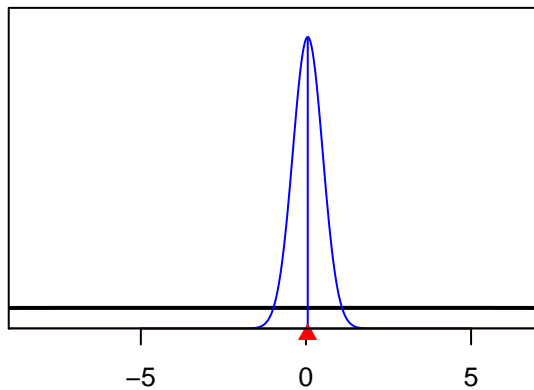
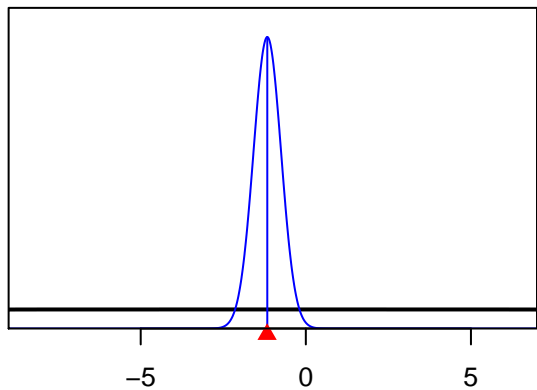
SizeSpline\_GradHi\_F14-NOA\_S(14)

SizeSpline\_Val\_3\_F14-NOA\_S(14)



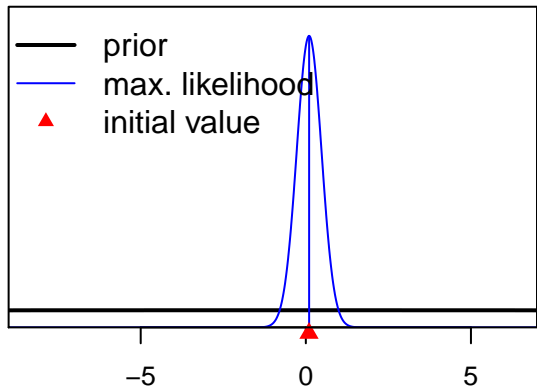
SizeSpline\_Val\_2\_F14-NOA\_S(14)

SizeSpline\_Val\_4\_F14-NOA\_S(14)

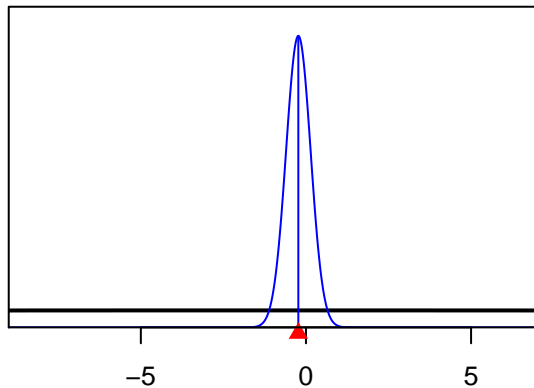


Parameter value

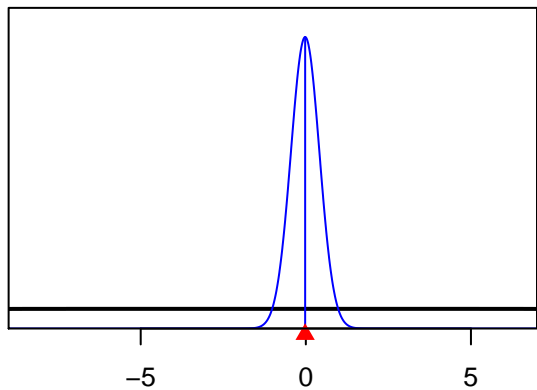
SizeSpline\_Val\_5\_F14-NOA\_S(14)



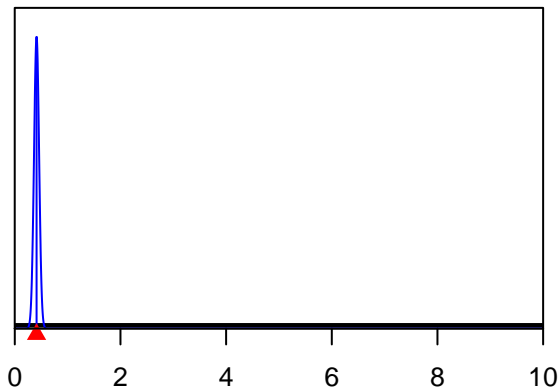
SizeSpline\_Val\_8\_F14-NOA\_S(14)



SizeSpline\_Val\_6\_F14-NOA\_S(14)

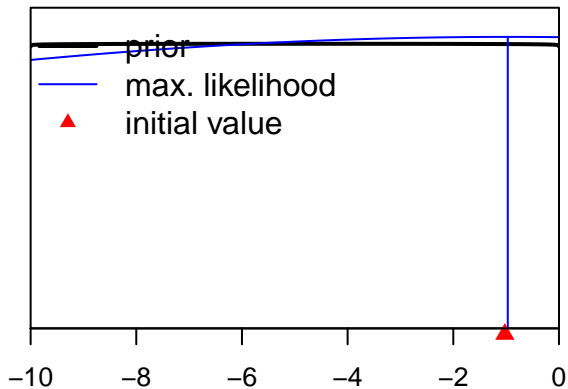


SizeSpline\_GradLo\_F15-DEL\_N(15)

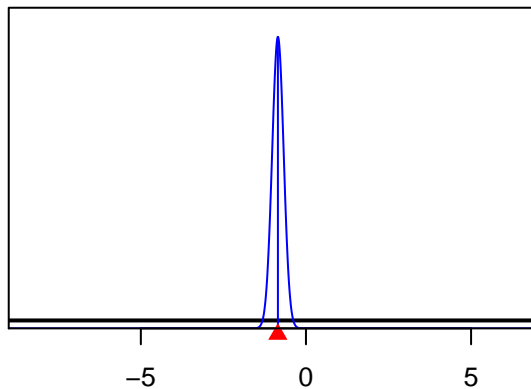


Parameter value

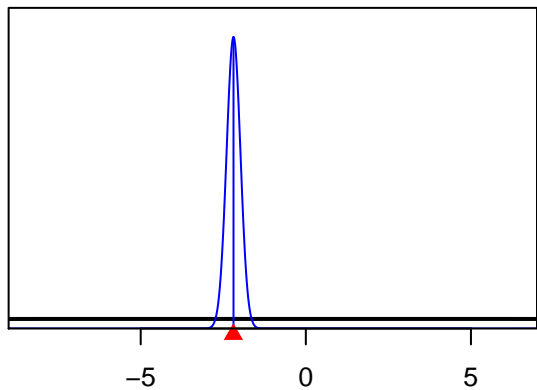
SizeSpline\_GradHi\_F15-DEL\_N(15)



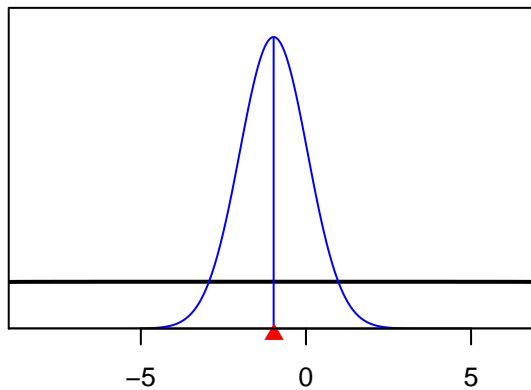
SizeSpline\_Val\_3\_F15-DEL\_N(15)



SizeSpline\_Val\_2\_F15-DEL\_N(15)

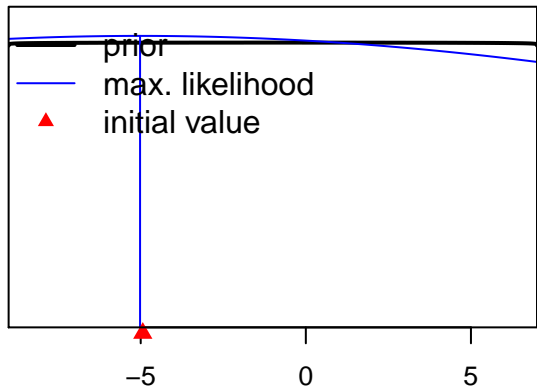


SizeSpline\_Val\_5\_F15-DEL\_N(15)

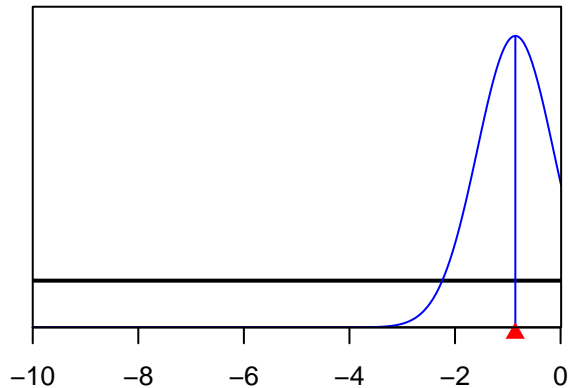


Parameter value

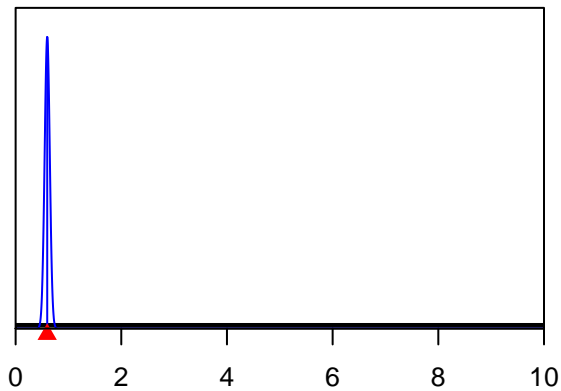
SizeSpline\_Val\_6\_F15-DEL\_N(15)



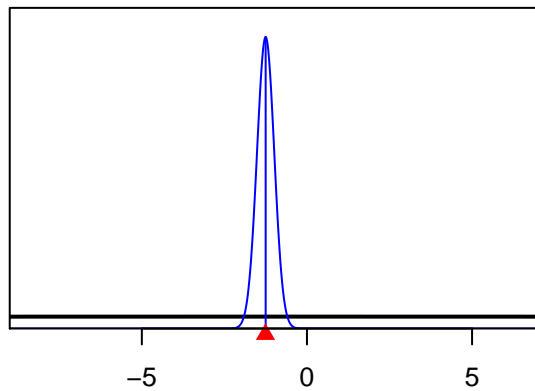
SizeSpline\_GradHi\_F16-DEL\_NE(16)



SizeSpline\_GradLo\_F16-DEL\_NE(16)



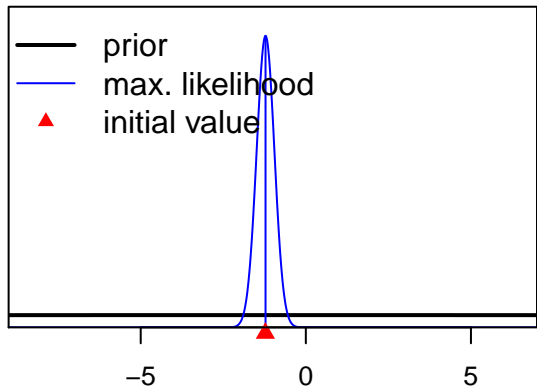
SizeSpline\_Val\_2\_F16-DEL\_NE(16)



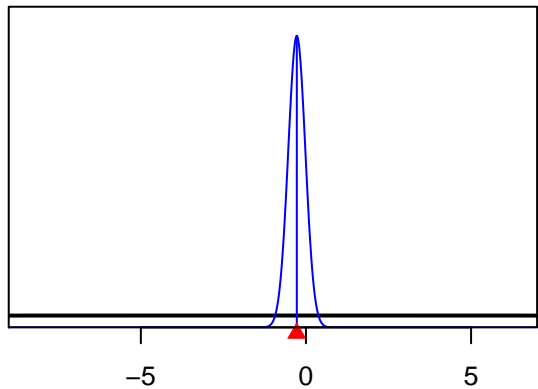
Parameter value



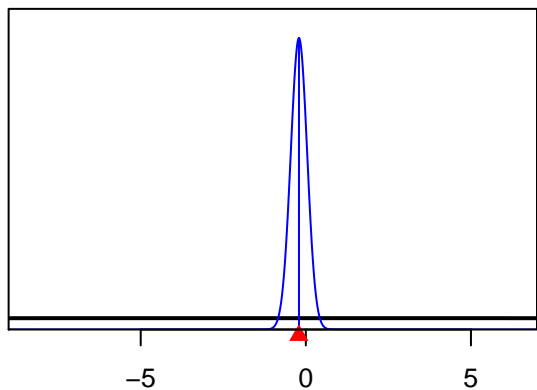
SizeSpline\_Val\_3\_F16-DEL\_NE(16)



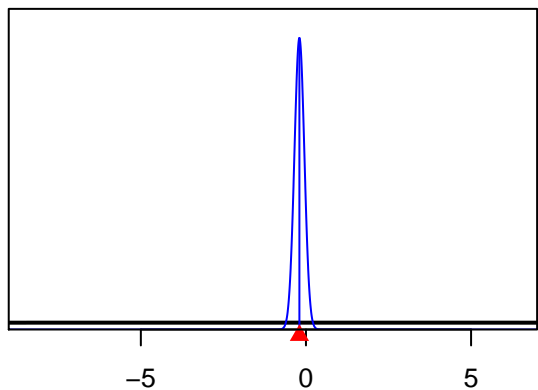
SizeSpline\_Val\_5\_F16-DEL\_NE(16)



SizeSpline\_Val\_4\_F16-DEL\_NE(16)

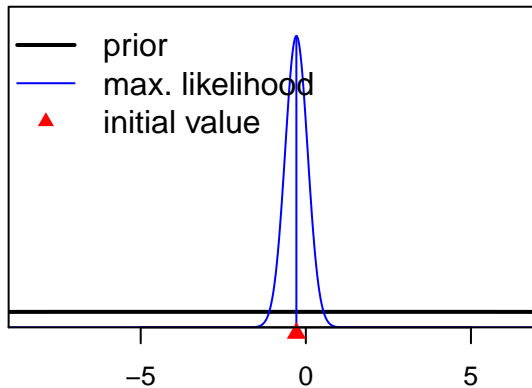


SizeSpline\_Val\_7\_F16-DEL\_NE(16)

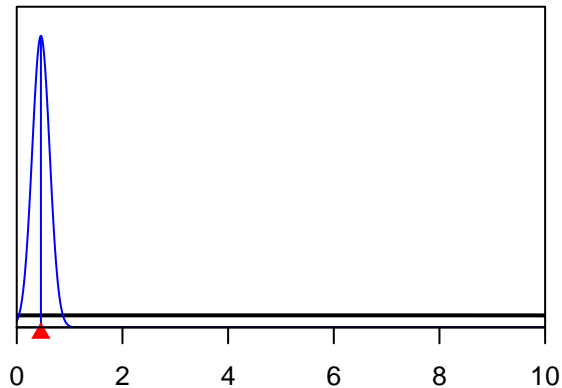


Parameter value

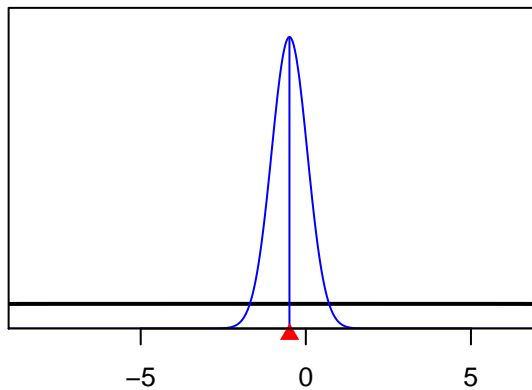
SizeSpline\_Val\_8\_F16-DEL\_NE(16)



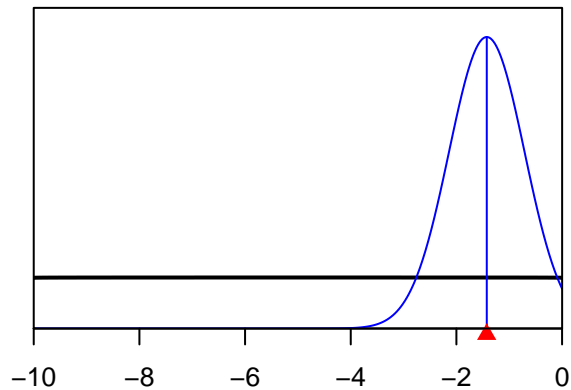
SizeSpline\_GradLo\_F17-DEL\_M(17)



SizeSpline\_Val\_9\_F16-DEL\_NE(16)

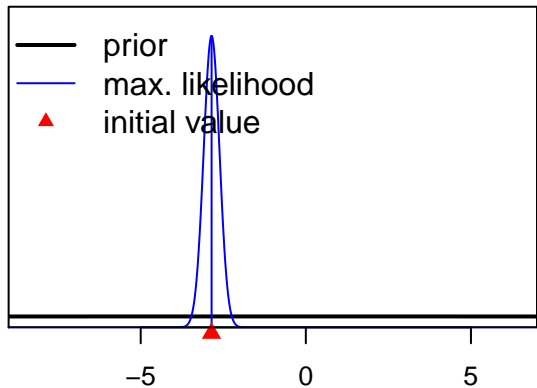


SizeSpline\_GradHi\_F17-DEL\_M(17)

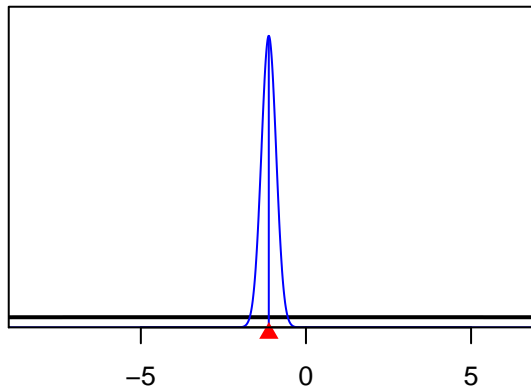


Parameter value

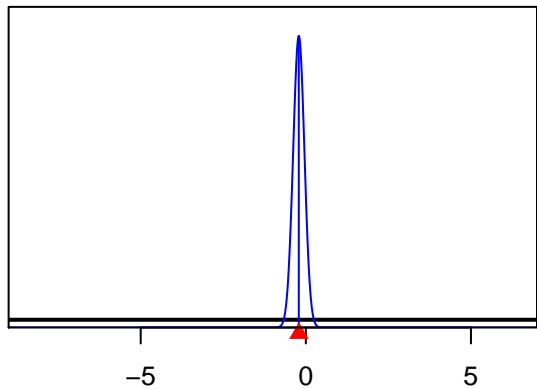
SizeSpline\_Val\_2\_F17-DEL\_M(17)



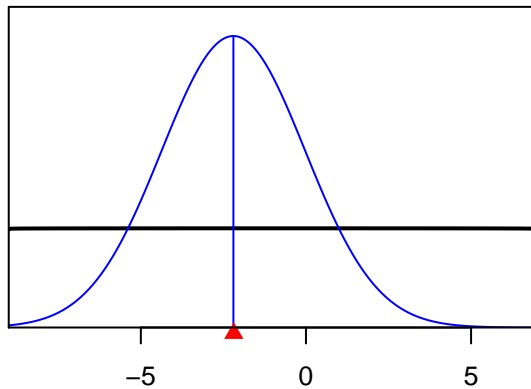
SizeSpline\_Val\_5\_F17-DEL\_M(17)



SizeSpline\_Val\_4\_F17-DEL\_M(17)

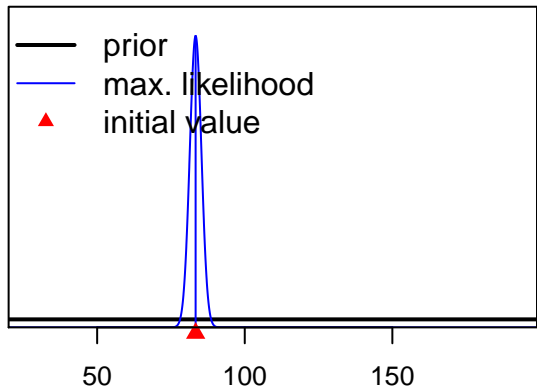


SizeSpline\_Val\_6\_F17-DEL\_M(17)

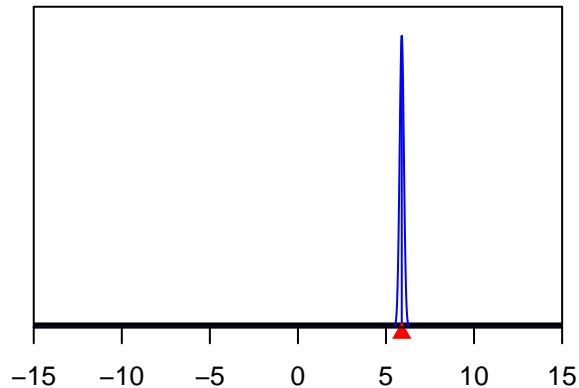


Parameter value

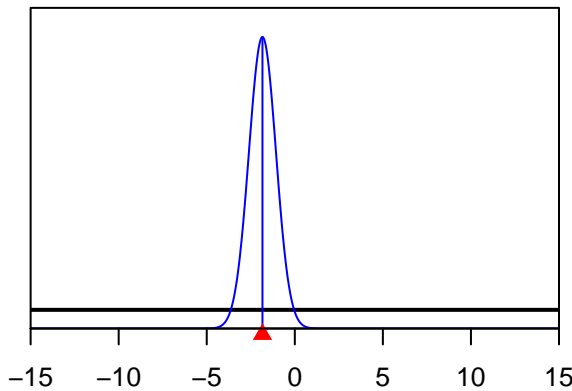
Size\_DbIN\_peak\_F18-DEL\_C(18)



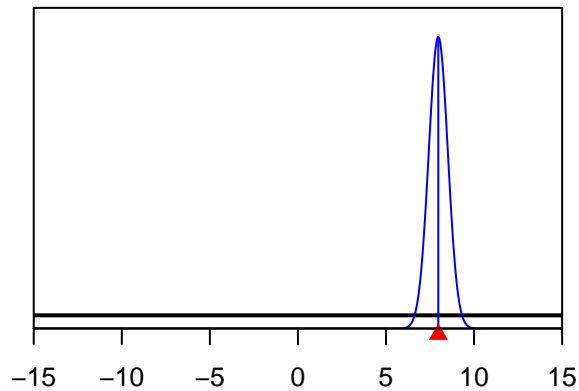
Size\_DbIN\_ascend\_se\_F18-DEL\_C(18)



Size\_DbIN\_top\_logit\_F18-DEL\_C(18)

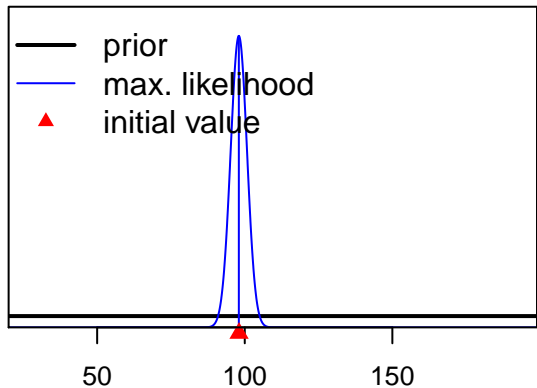


Size\_DbIN\_descend\_se\_F18-DEL\_C(18)

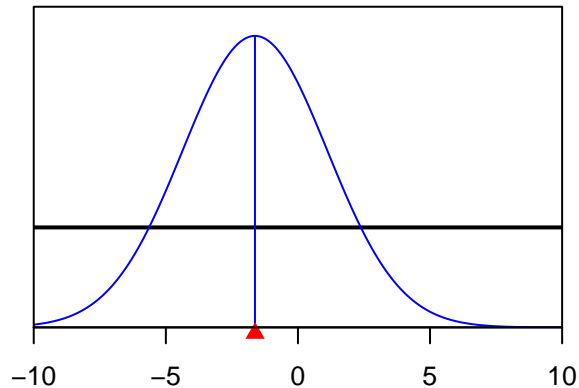


Parameter value

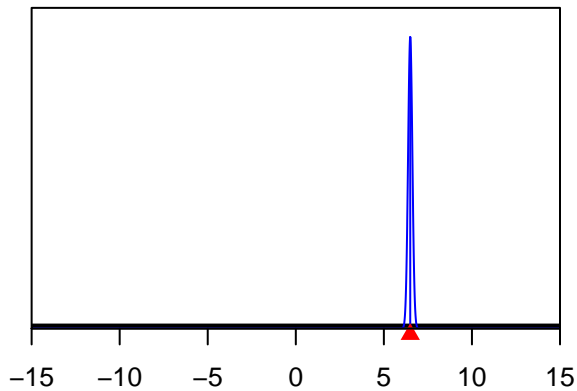
Size\_DbIN\_peak\_F19-DEL\_P(19)



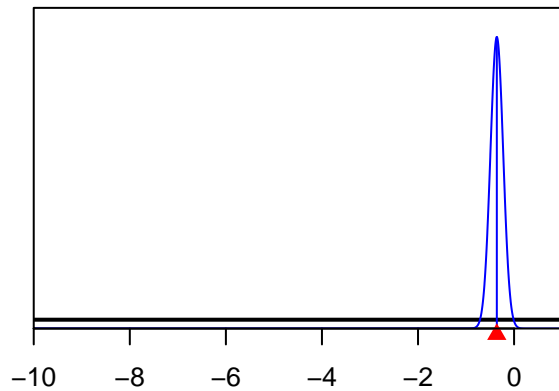
SizeSpline\_GradLo\_F22-BB(22)



Size\_DbIN\_ascend\_se\_F19-DEL\_P(19)



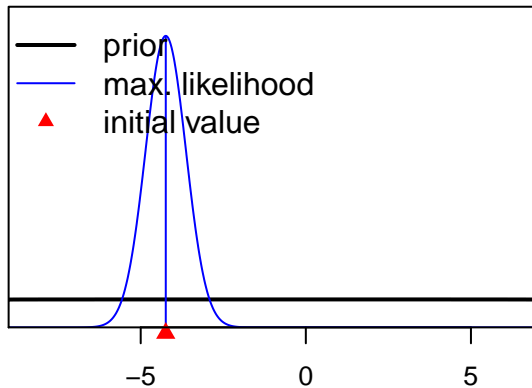
SizeSpline\_GradHi\_F22-BB(22)



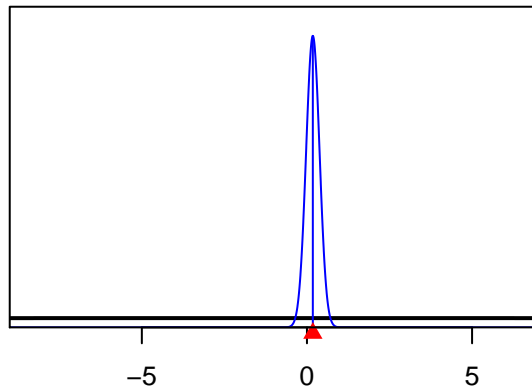
Parameter value

Density

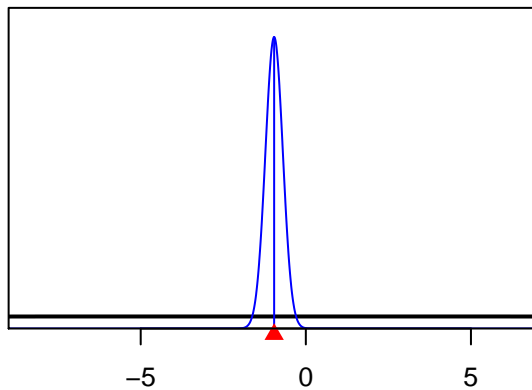
SizeSpline\_Val\_2\_F22-BB(22)



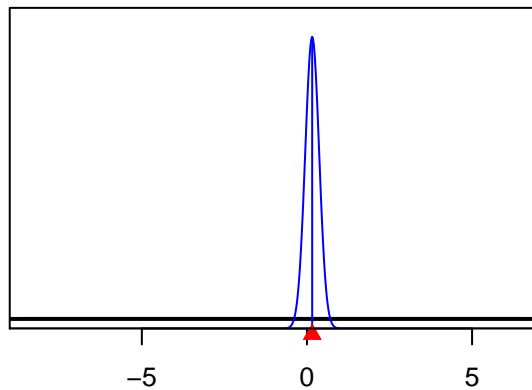
SizeSpline\_Val\_5\_F22-BB(22)



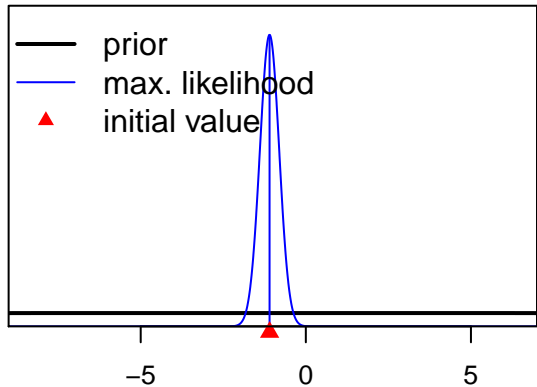
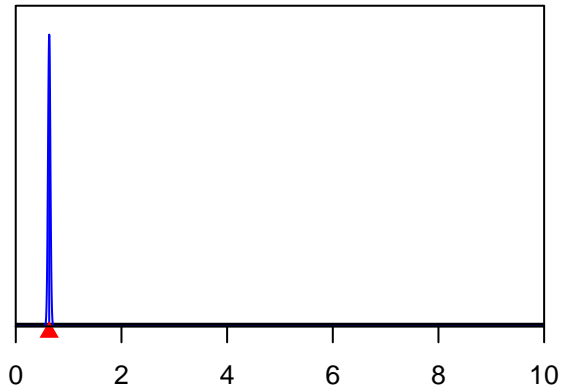
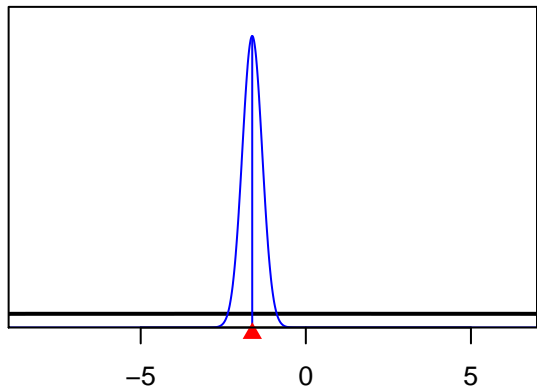
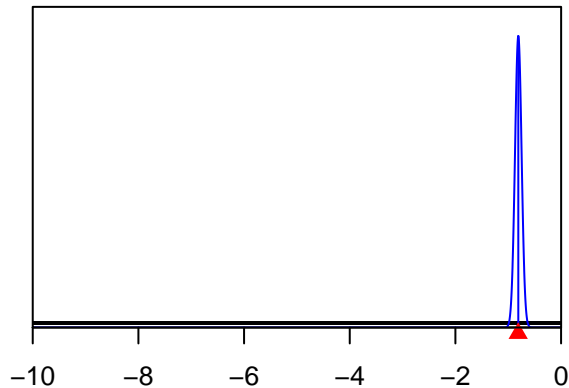
SizeSpline\_Val\_3\_F22-BB(22)



SizeSpline\_Val\_6\_F22-BB(22)

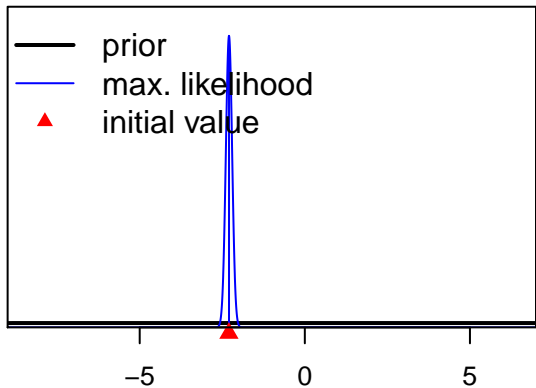


Parameter value

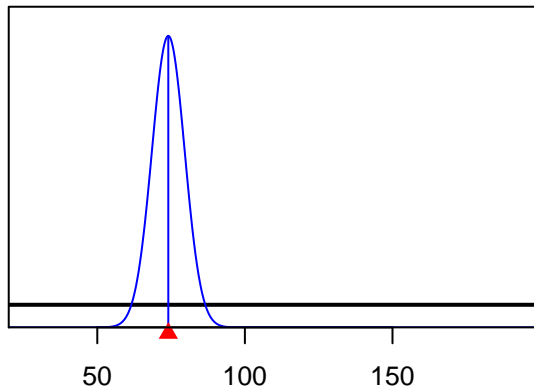
**SizeSpline\_Val\_7\_F22-BB(22)****SizeSpline\_GradLo\_S1-PS\_DEL\_VAST(41)****SizeSpline\_Val\_8\_F22-BB(22)****SizeSpline\_GradHi\_S1-PS\_DEL\_VAST(41)**

Parameter value

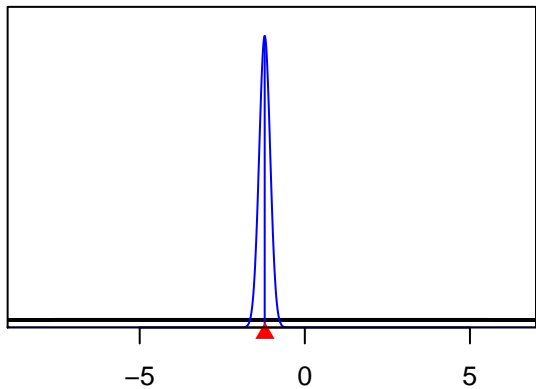
SizeSpline\_Val\_2\_S1-PS\_DEL\_VAST(41)



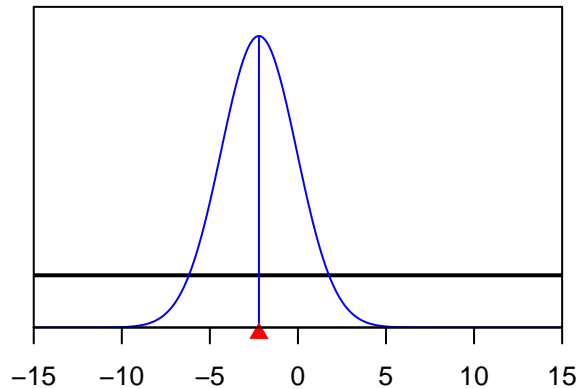
Size\_DbIN\_peak\_F18-DEL\_C(18)\_BLK2repl\_11



SizeSpline\_Val\_4\_S1-PS\_DEL\_VAST(41)



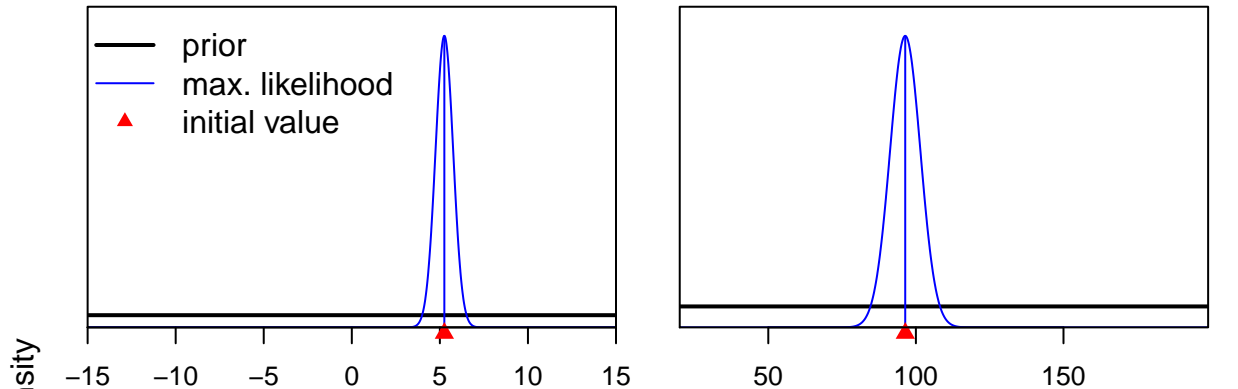
Size\_DbIN\_top\_logit\_F18-DEL\_C(18)\_BLK2repl\_11



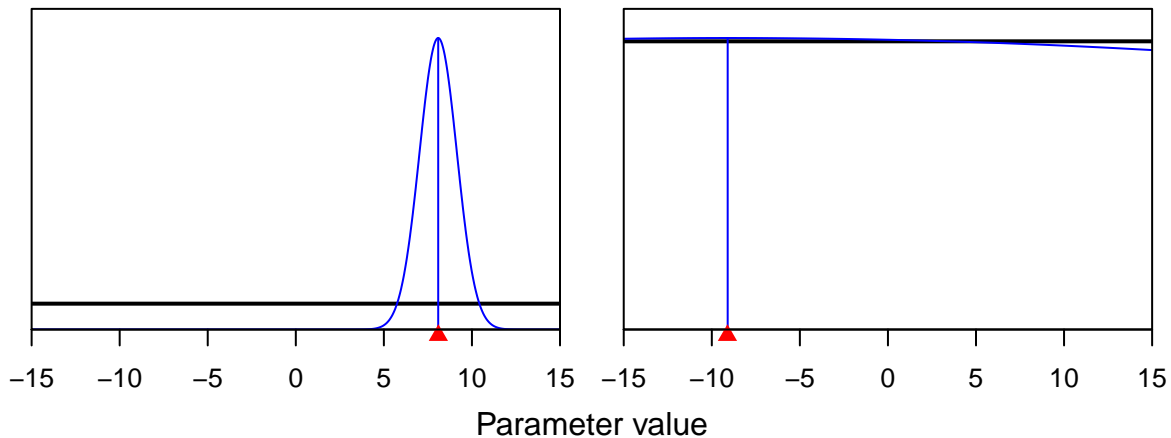
Parameter value



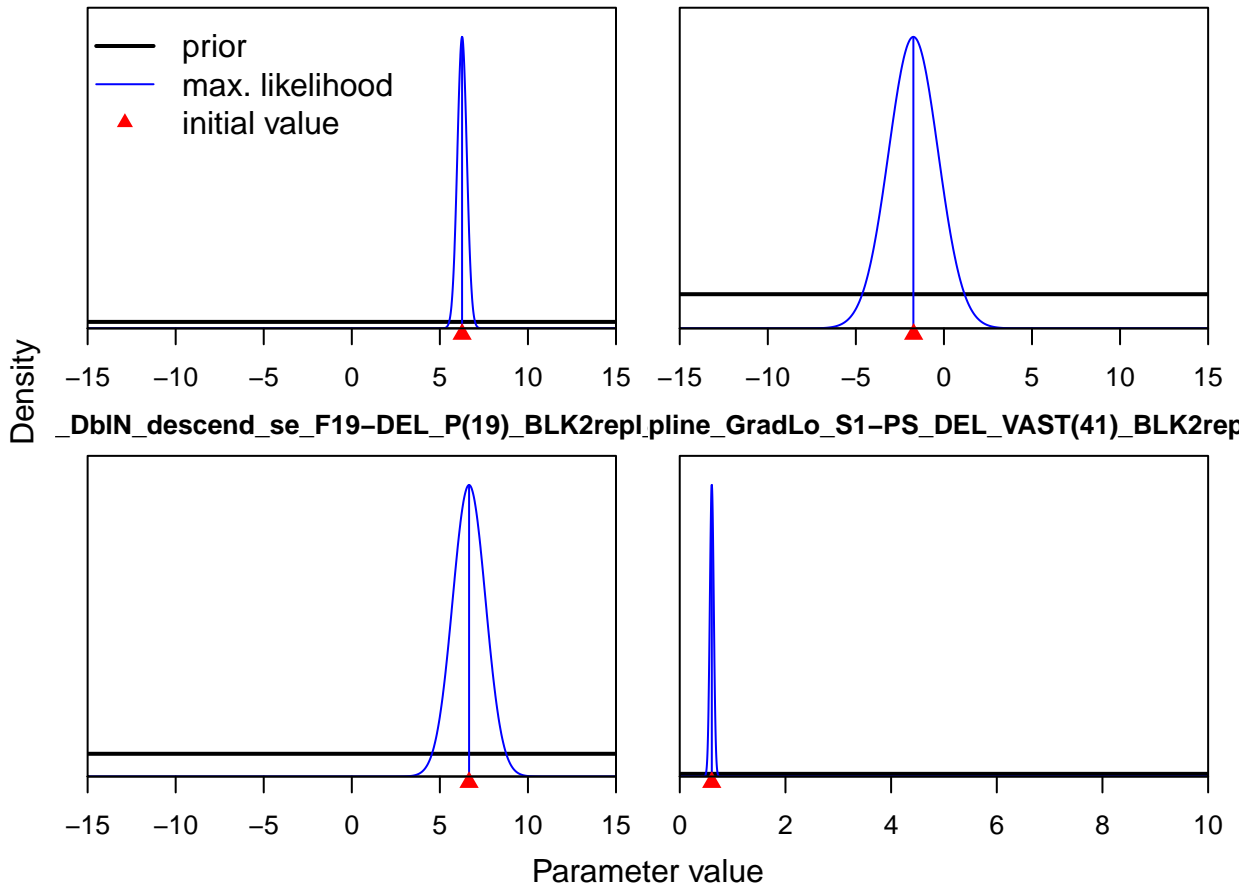
▷ DbIN\_ascend\_se\_F18-DEL\_C(18)\_BLK2repl\_size\_DbIN\_peak\_F19-DEL\_P(19)\_BLK2repl\_11



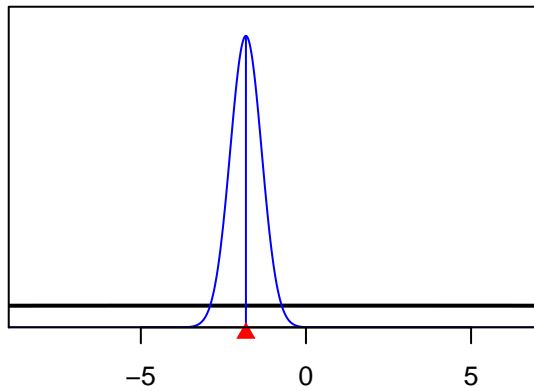
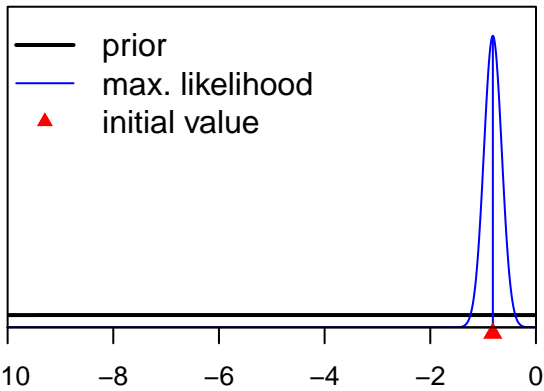
\_DbIN\_descend\_se\_F18-DEL\_C(18)\_BLK2repl\_size\_DbIN\_top\_logit\_F19-DEL\_P(19)\_BLK2repl\_11



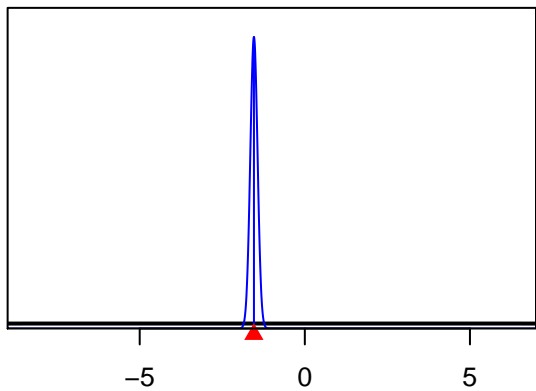
DbIN\_ascend\_se\_F19-DEL\_P(19)\_BLK2repl\_e DbIN\_end\_logit\_F19-DEL\_P(19)\_BLK2repl\_1



ipline\_GradHi\_S1-PS\_DEL\_VAST(41)\_BLK2repSpline\_Val\_4\_S1-PS\_DEL\_VAST(41)\_BLK2repl



Spline\_Val\_3\_S1-PS\_DEL\_VAST(41)\_BLK2repl



Parameter value