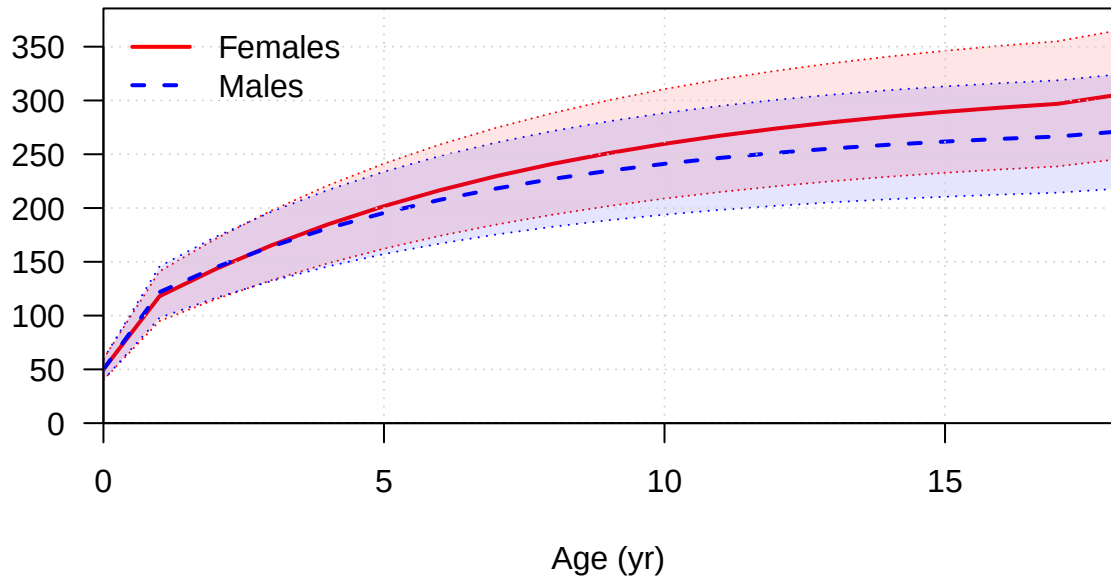
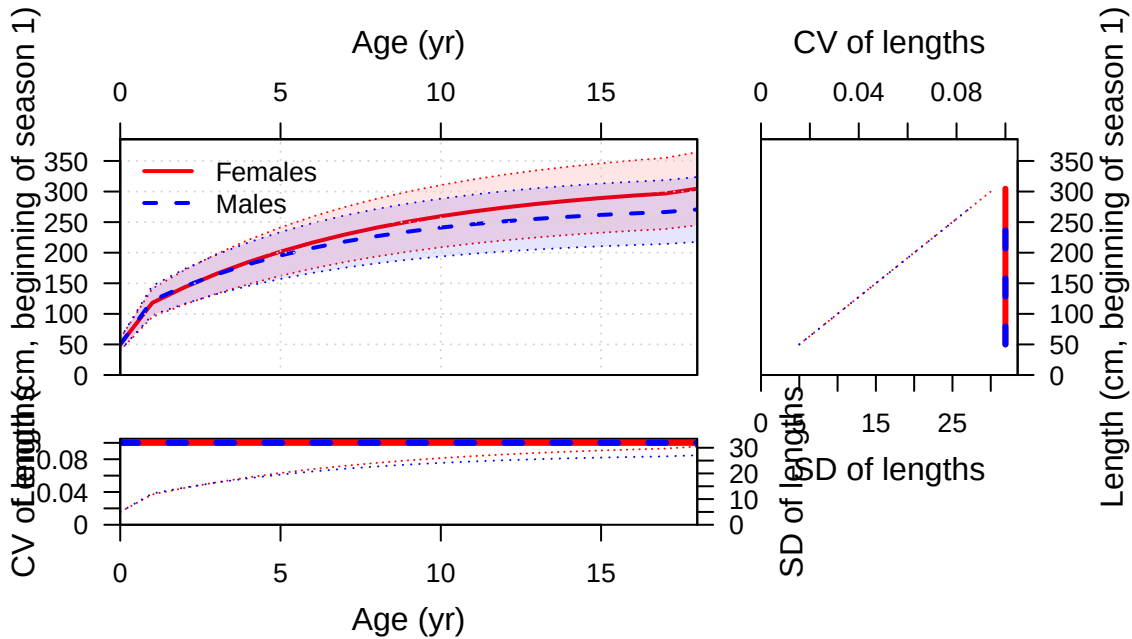
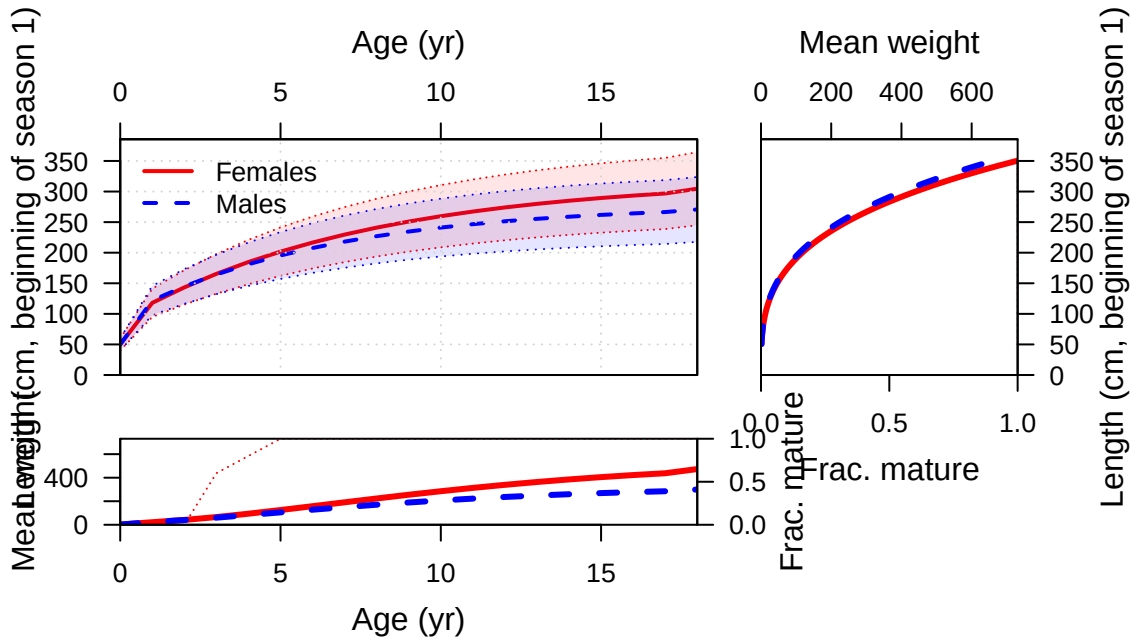


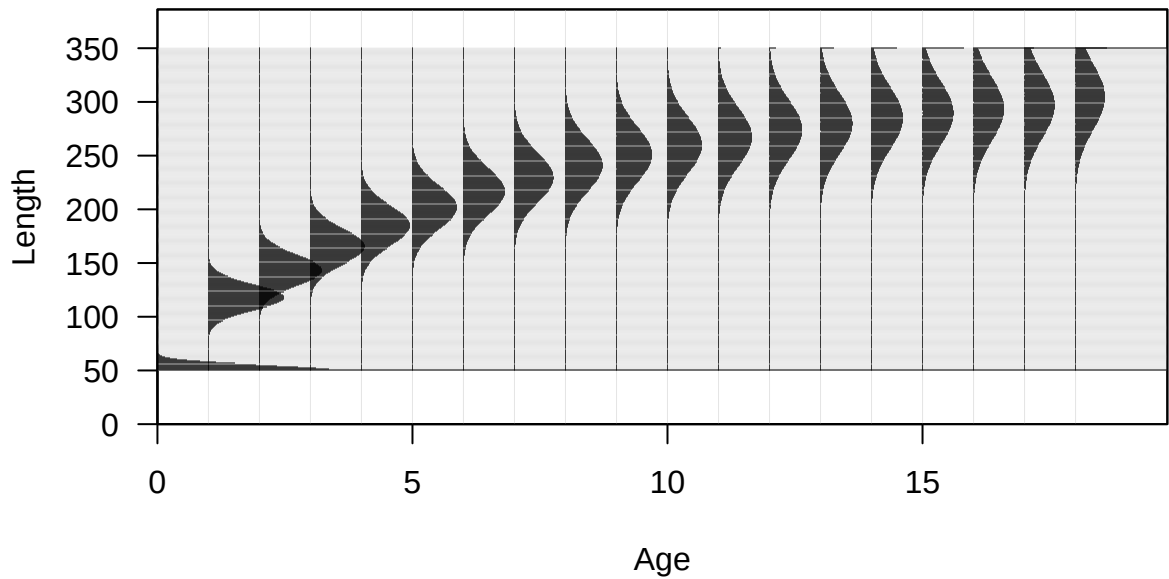
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StartTime: Tue Jul 19 12:14:30 2022
Data_File: SWO_data.ss
Control_File: SWO_control.ss

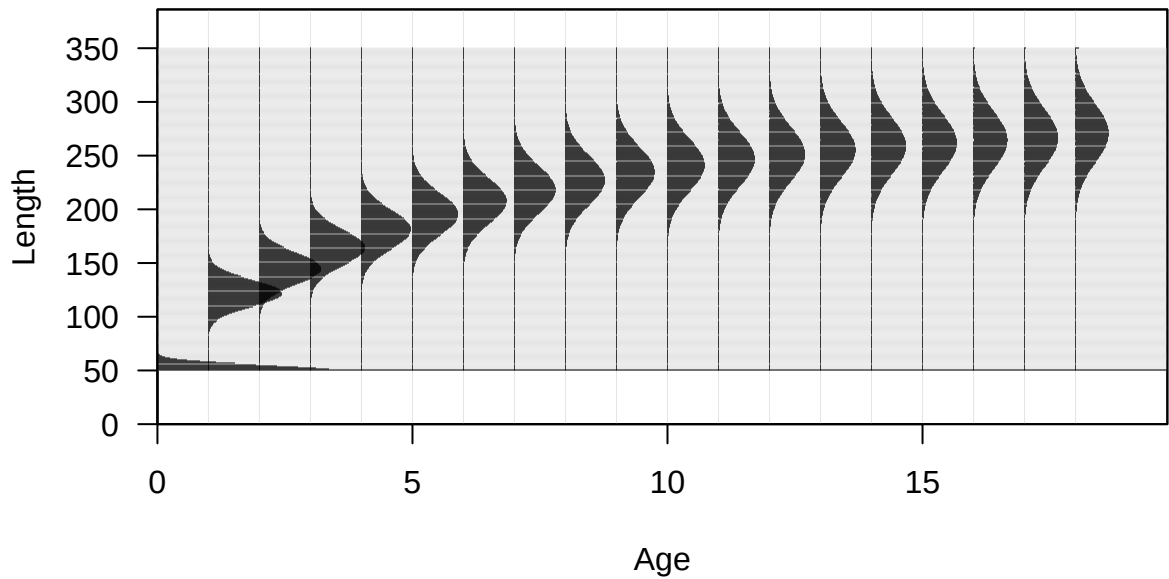
Length (cm, beginning of season 1)

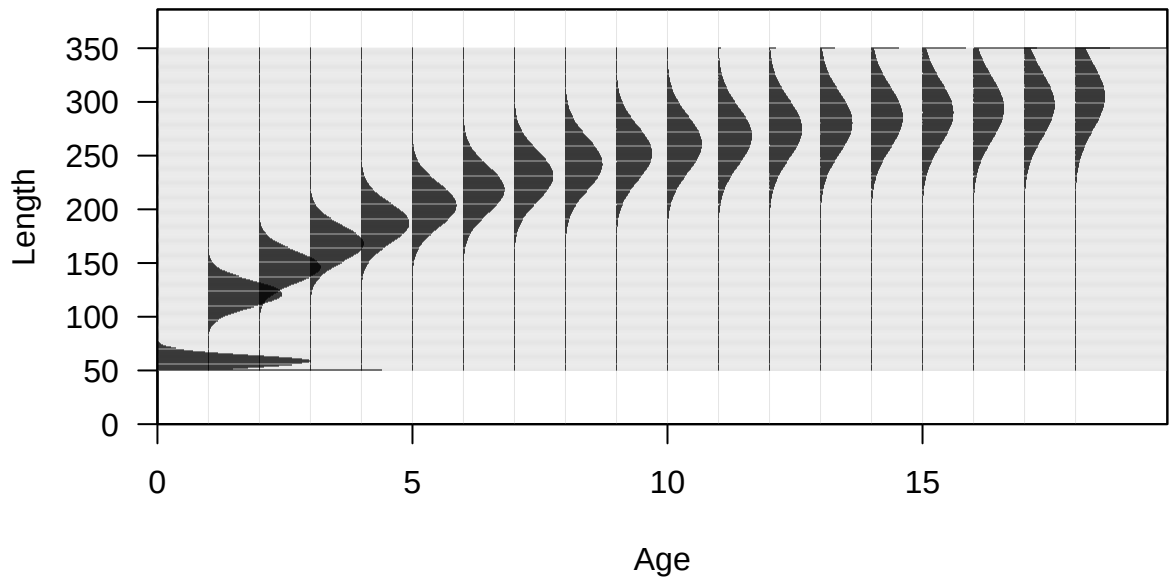


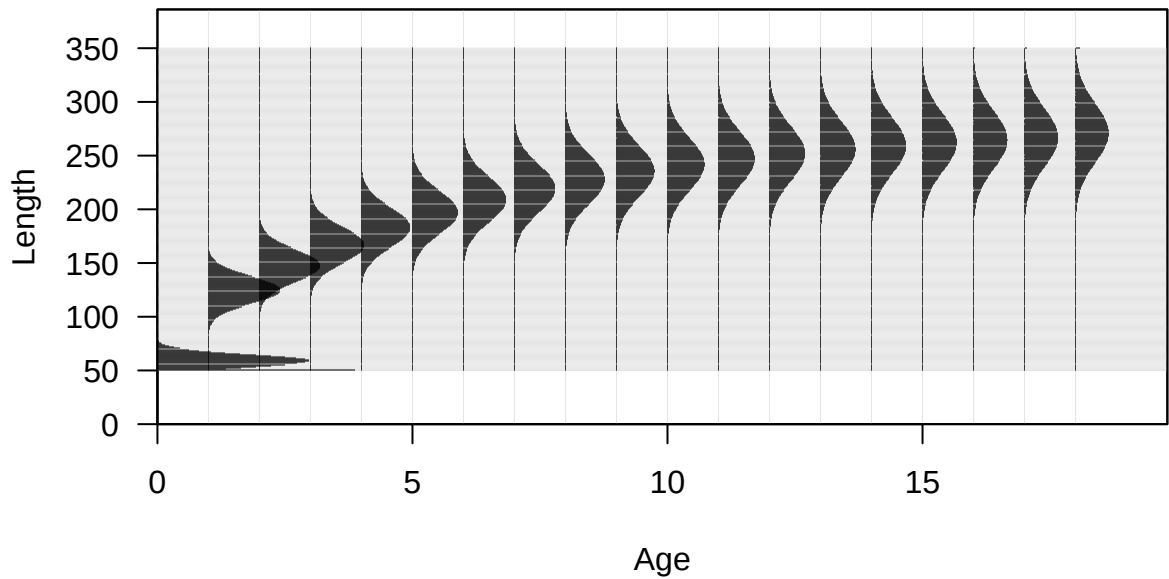


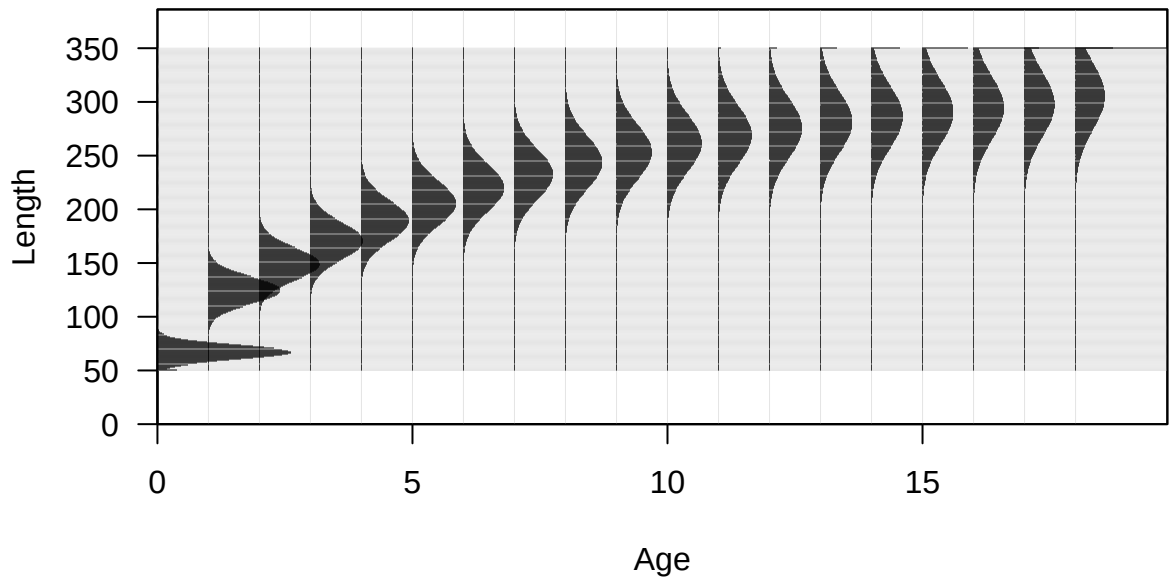


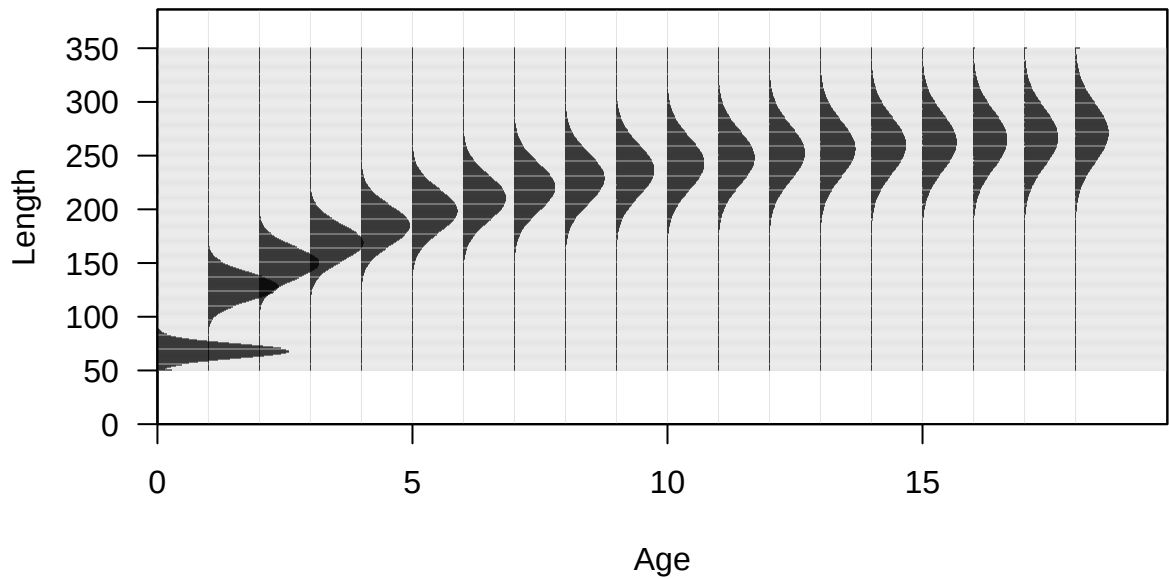


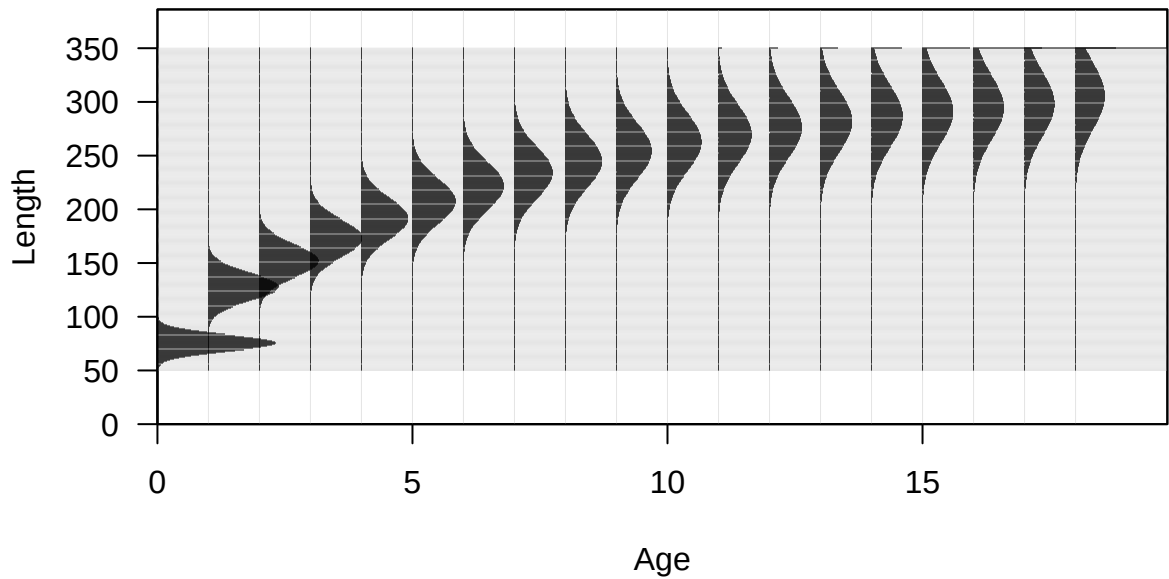


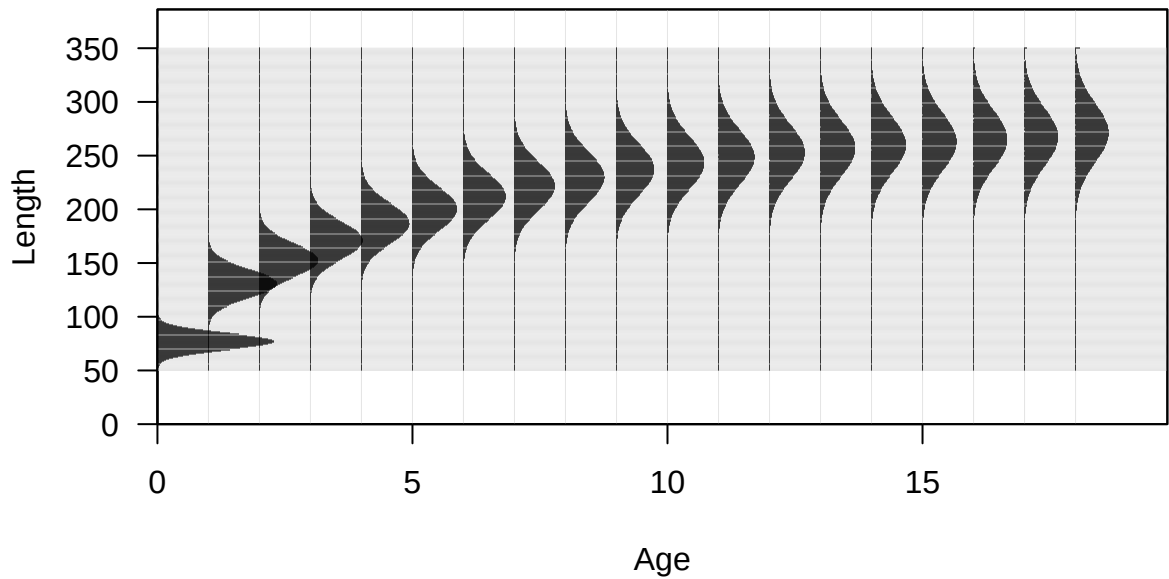


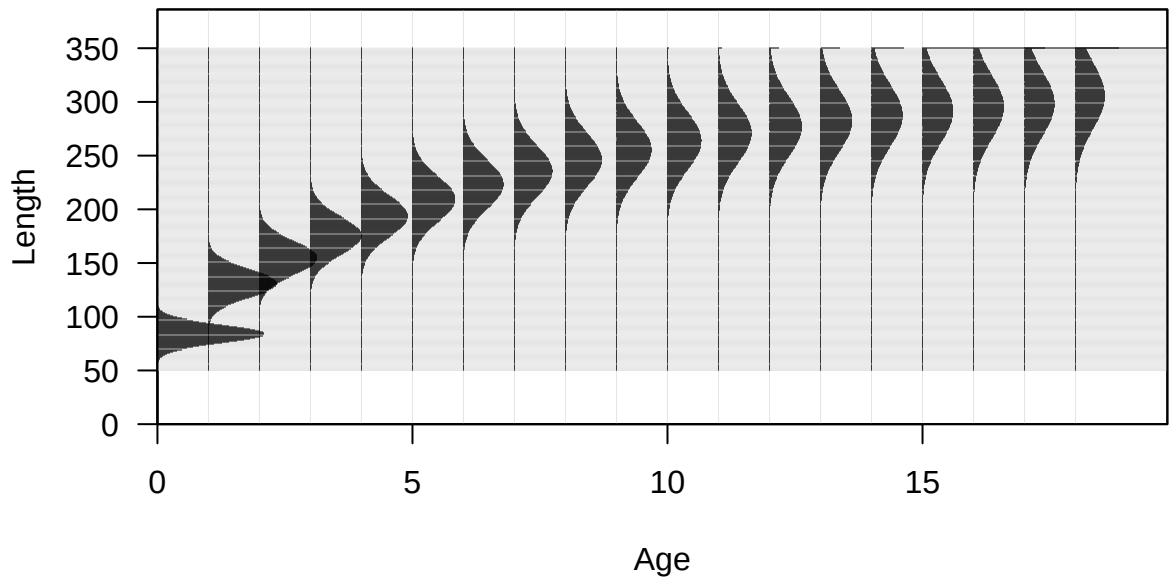


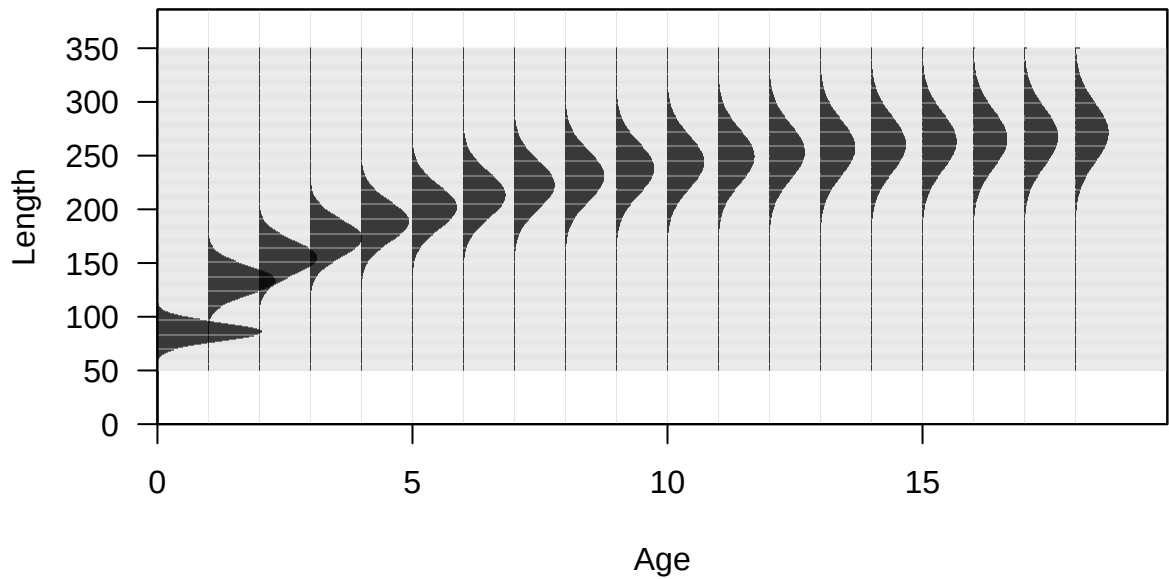


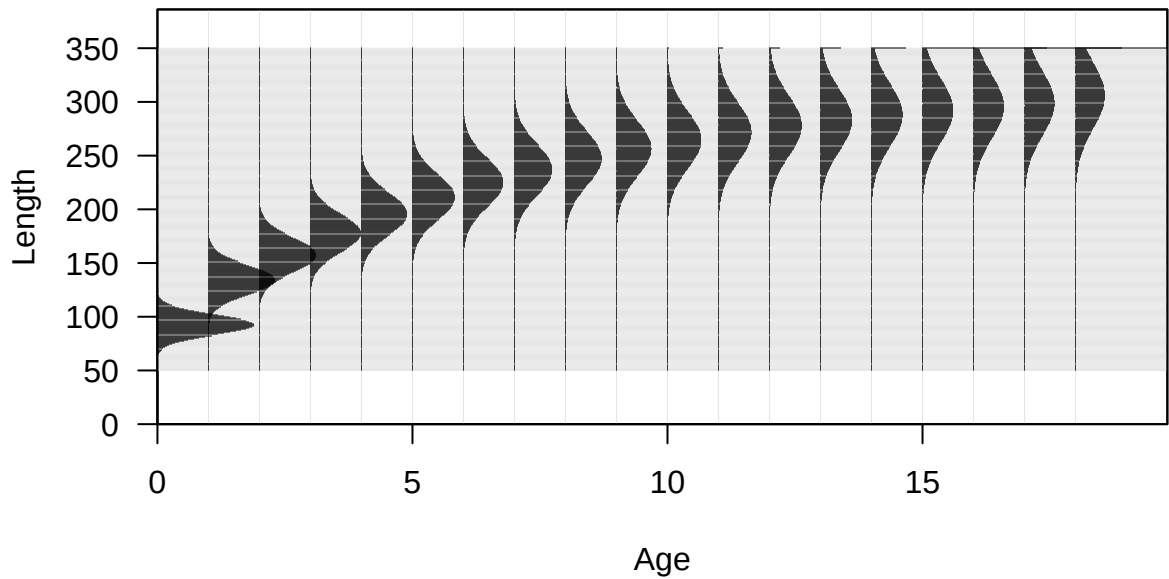


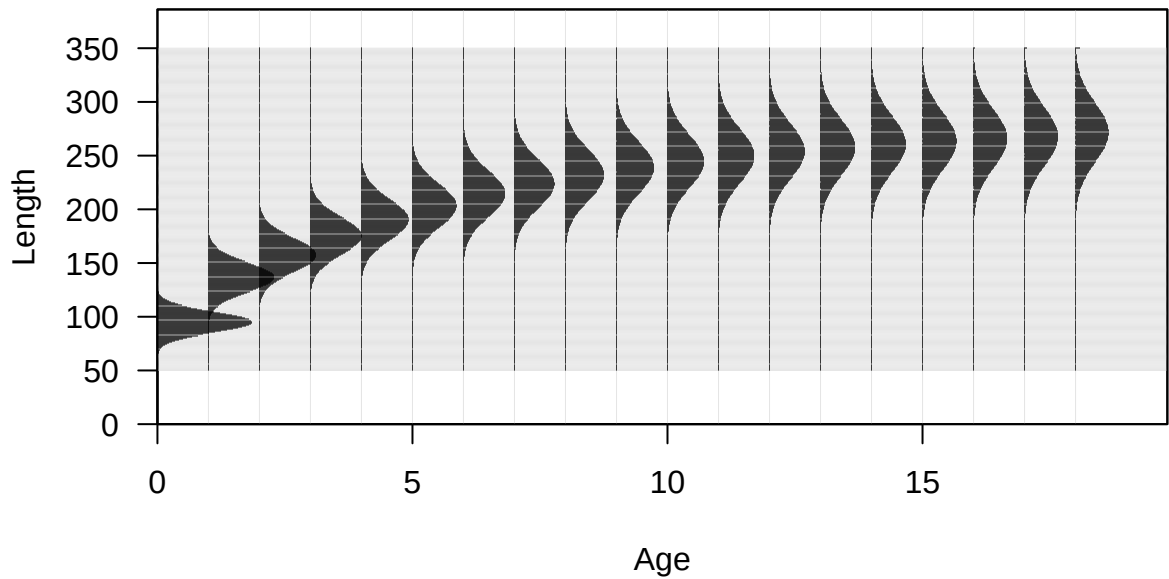


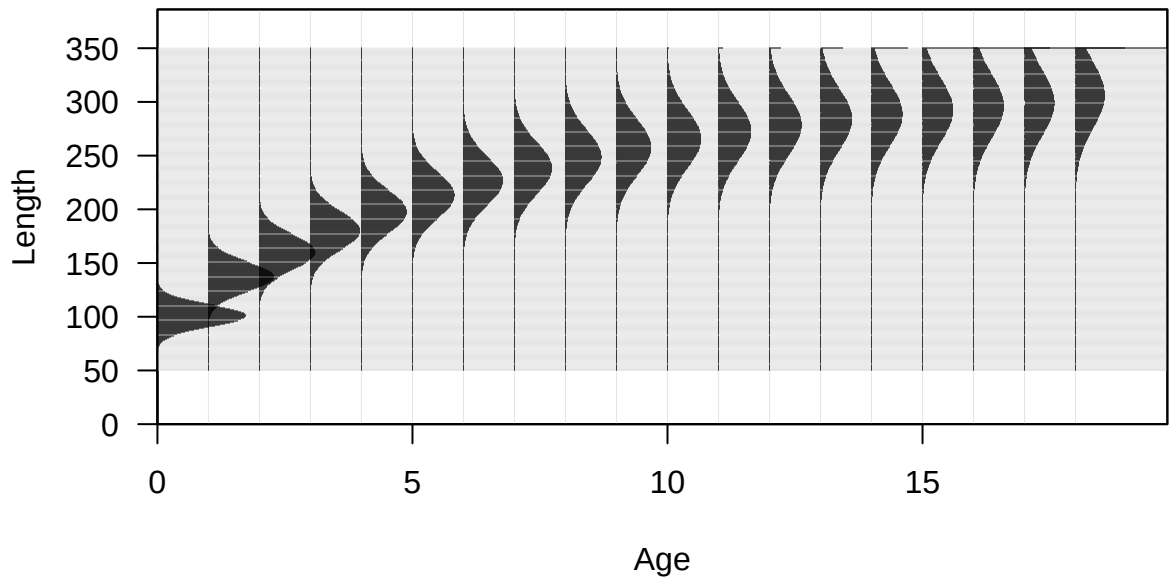


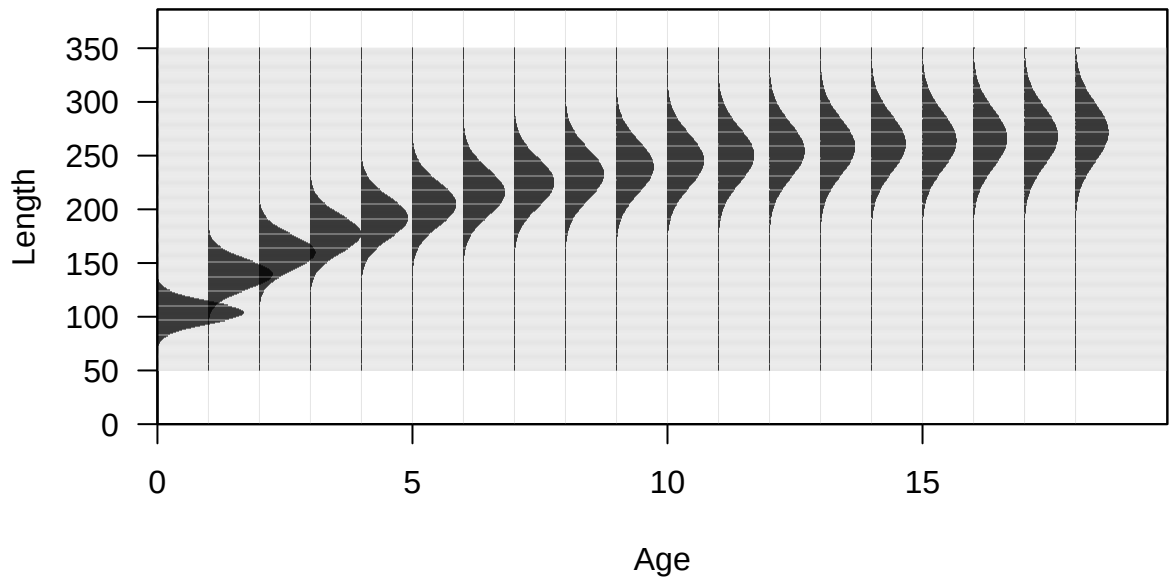


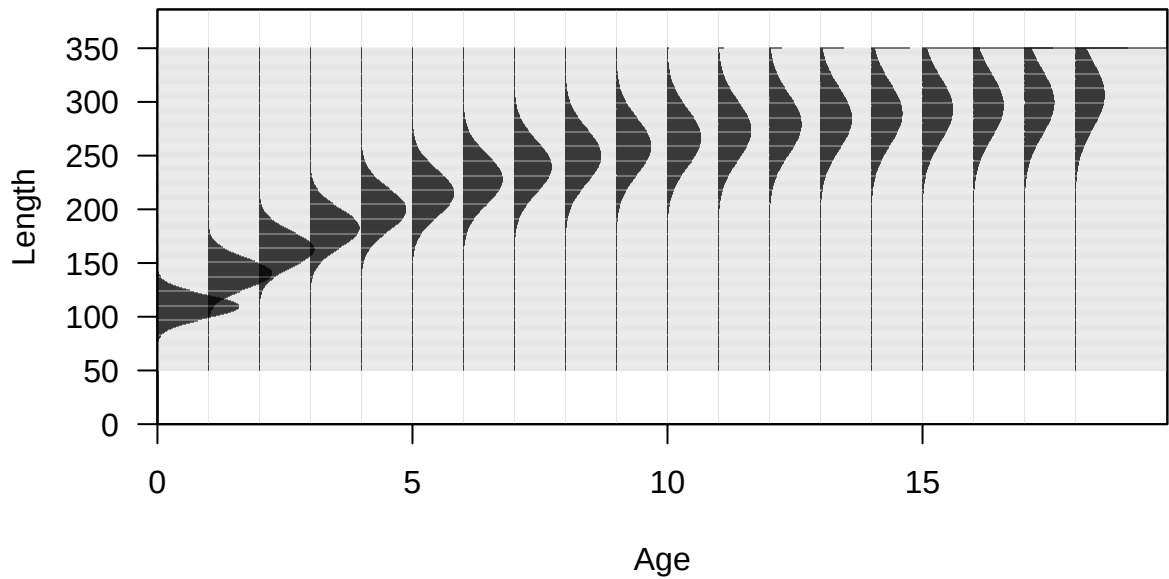


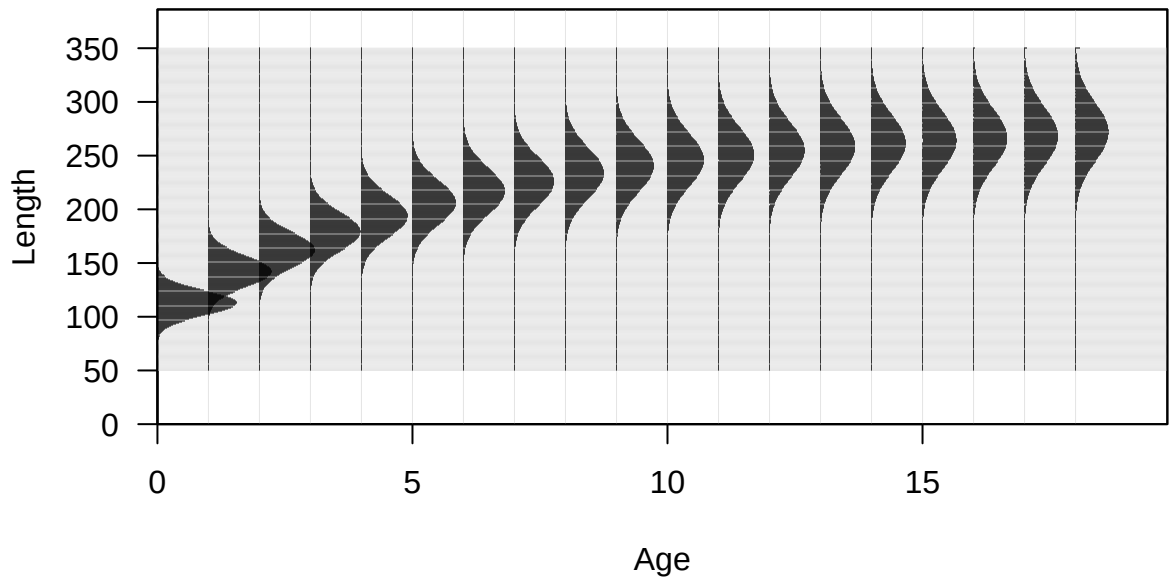


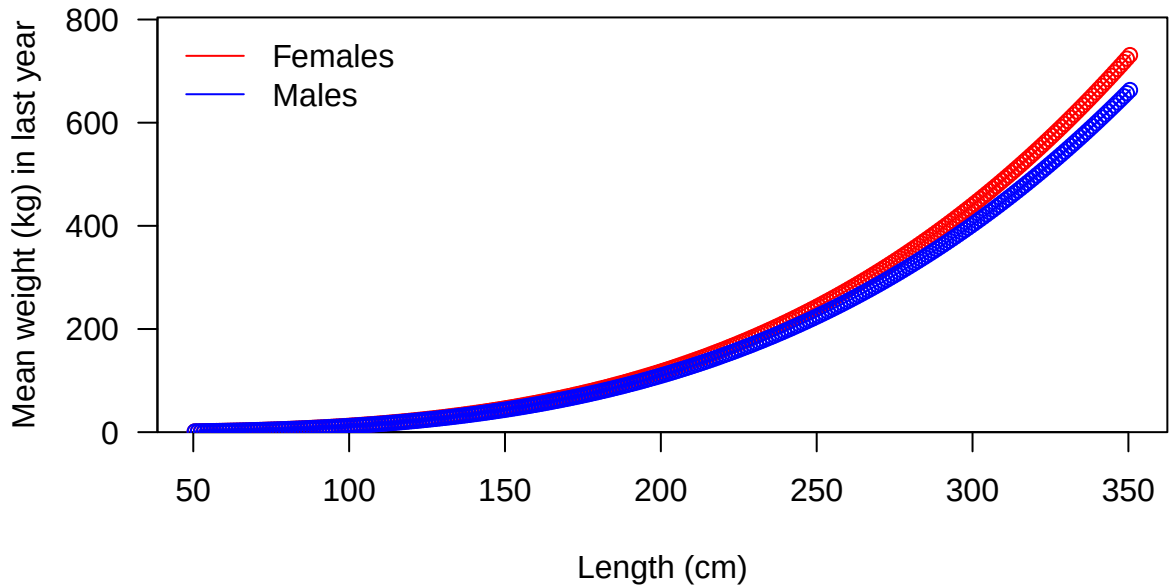


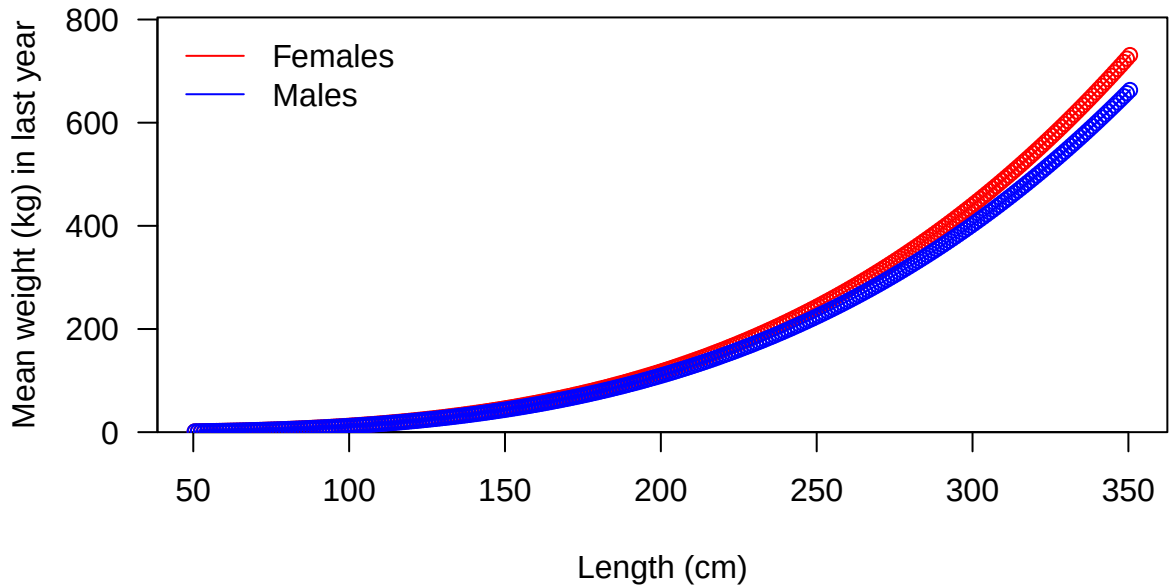


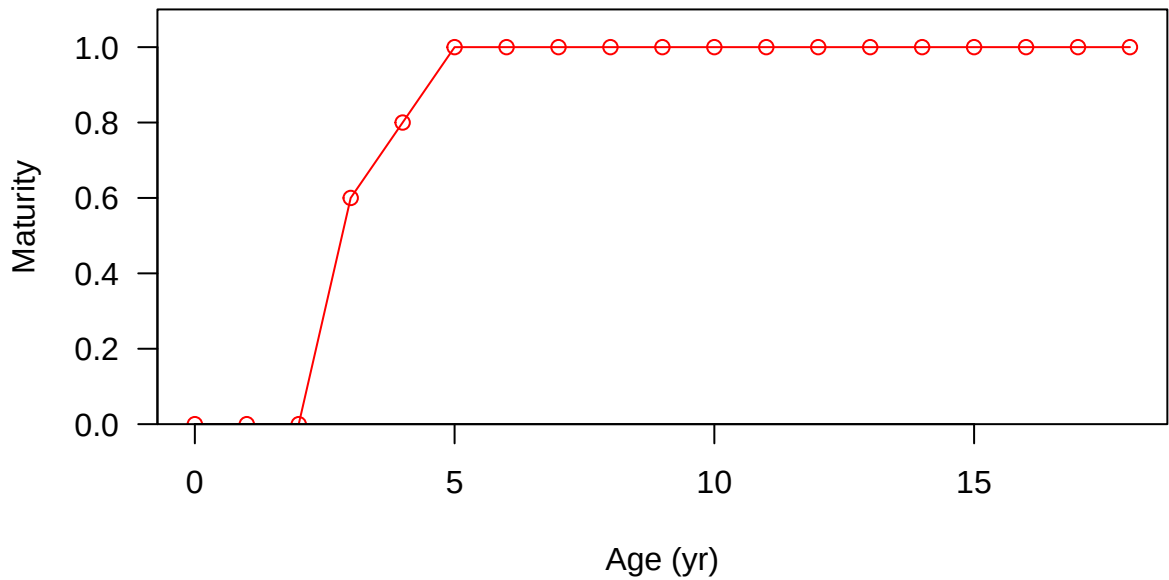


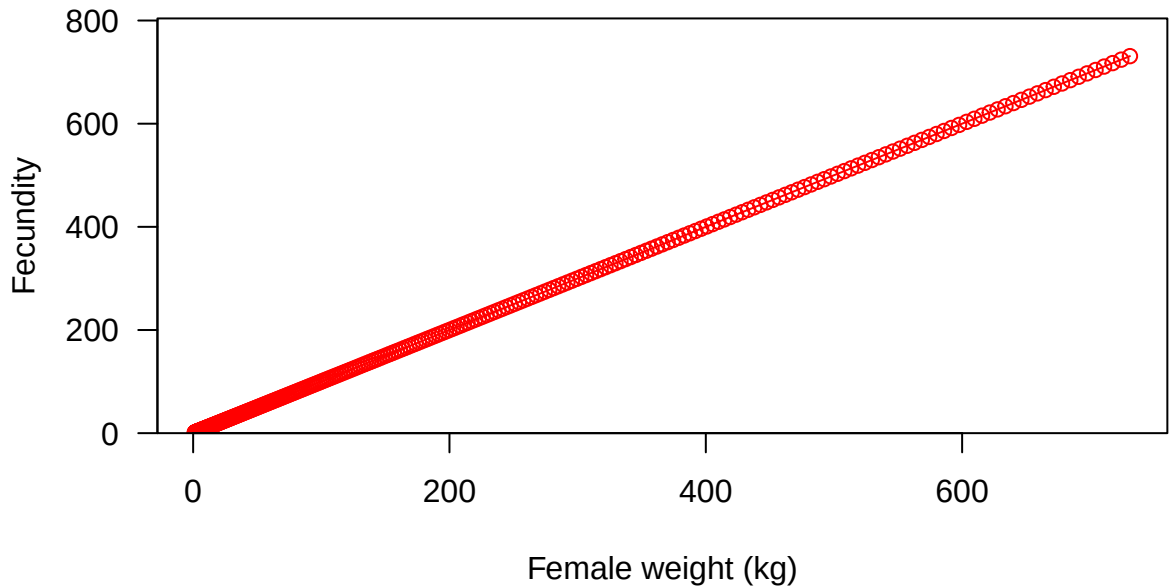


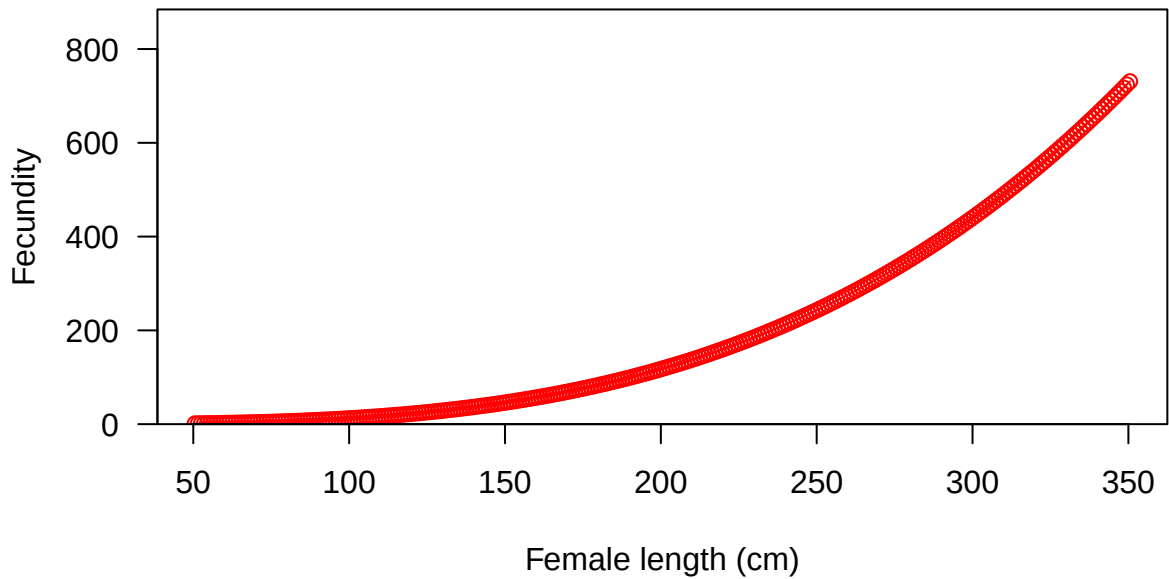


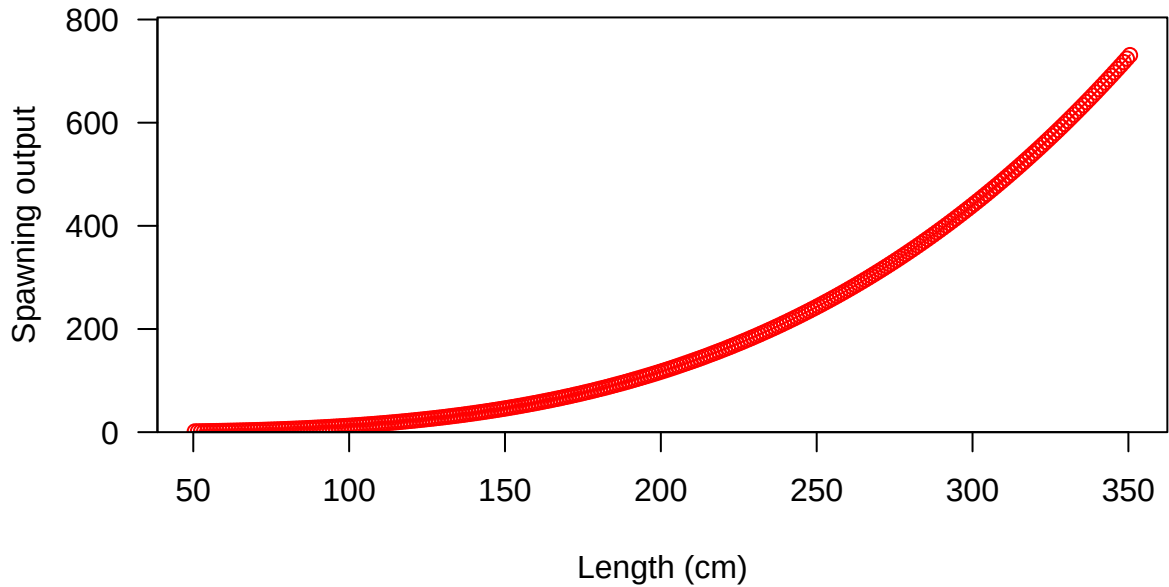


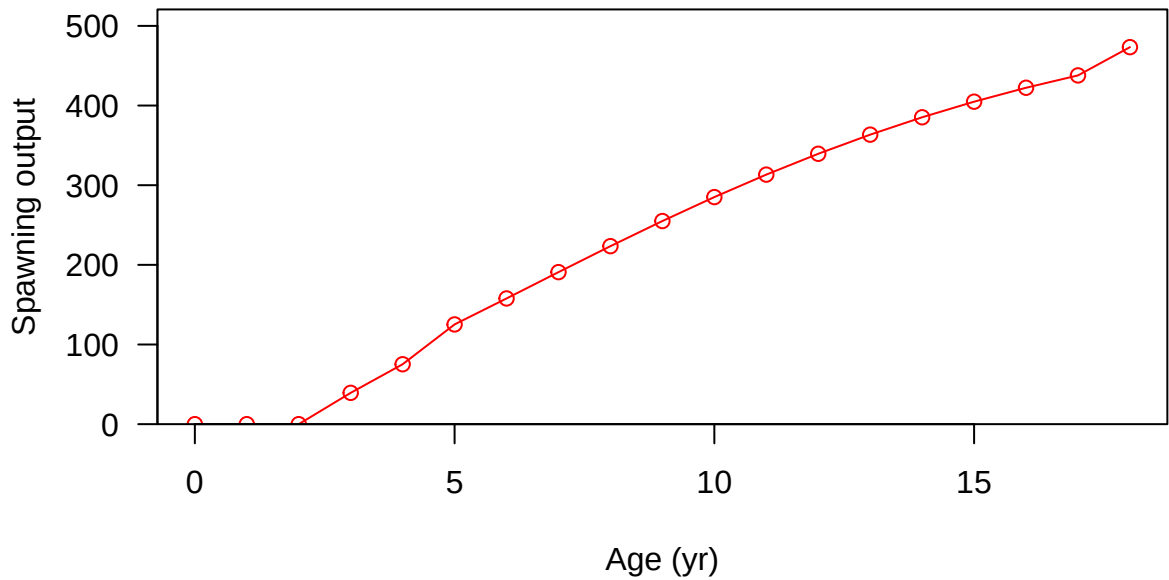




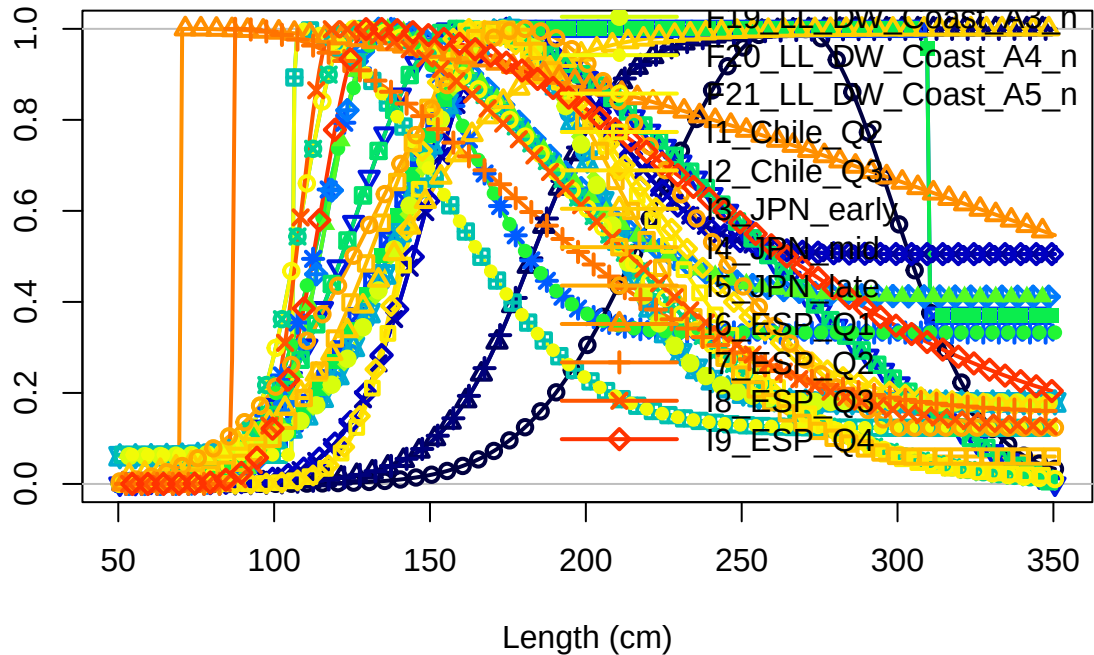




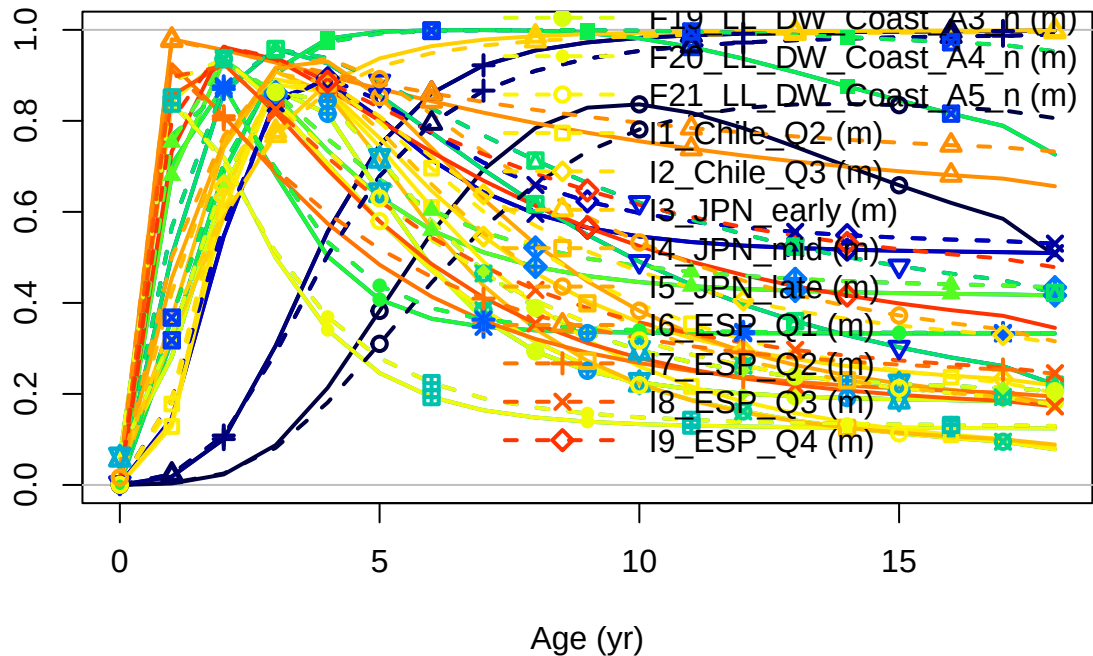




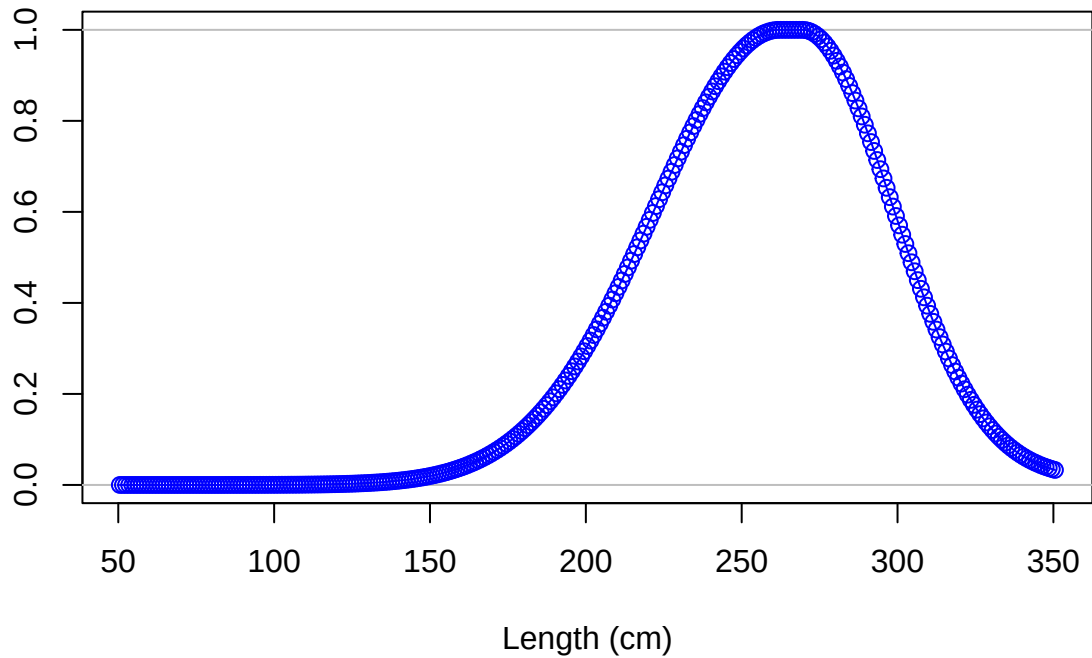
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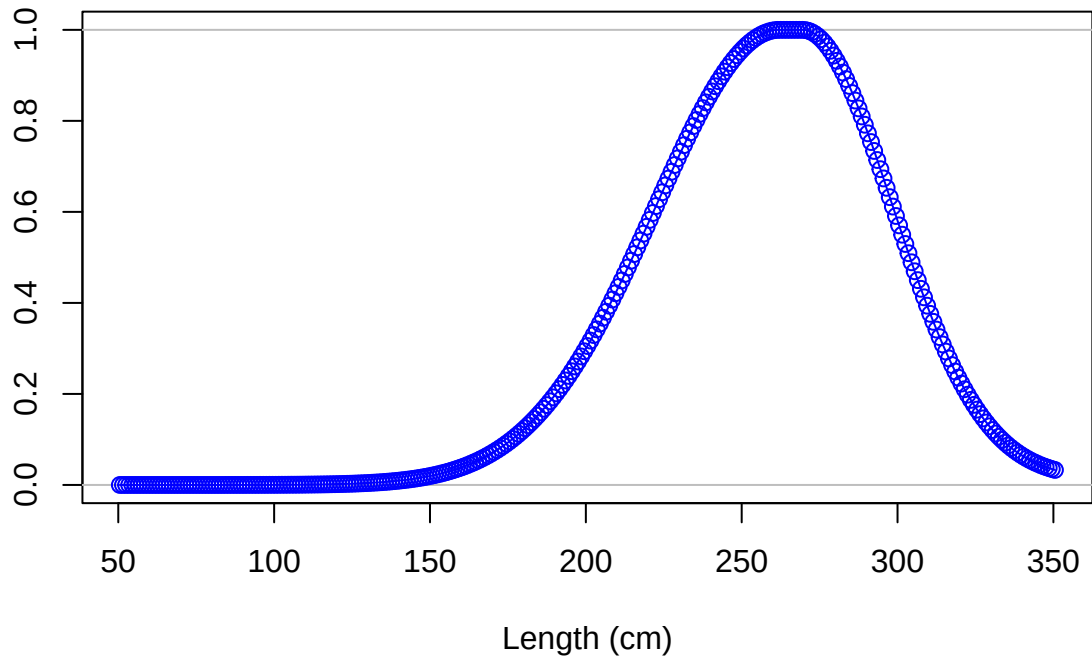
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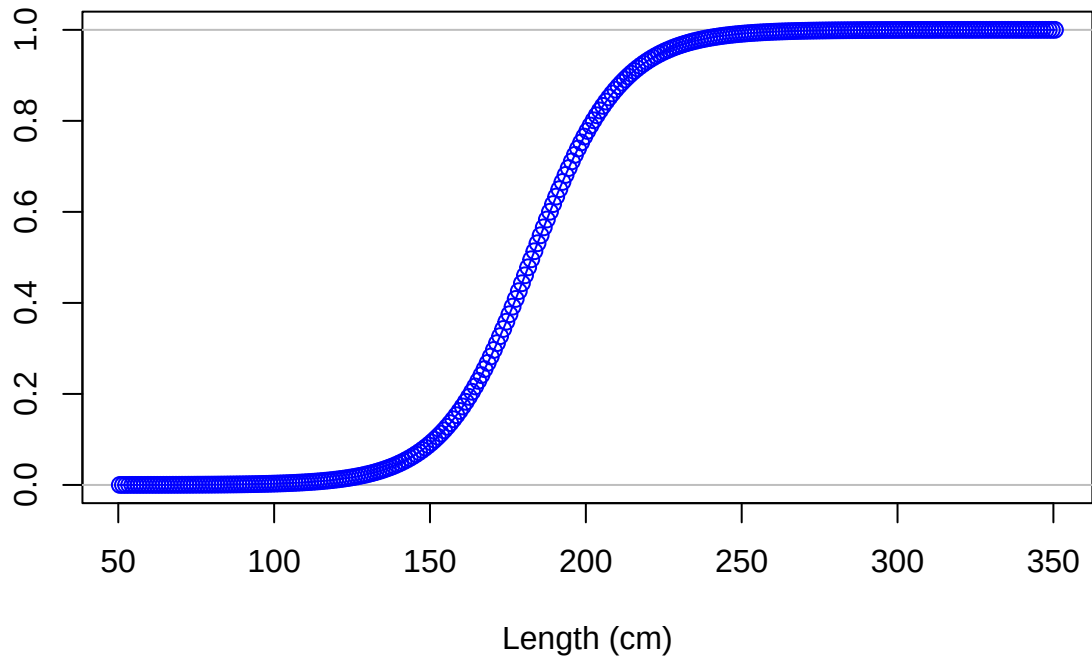
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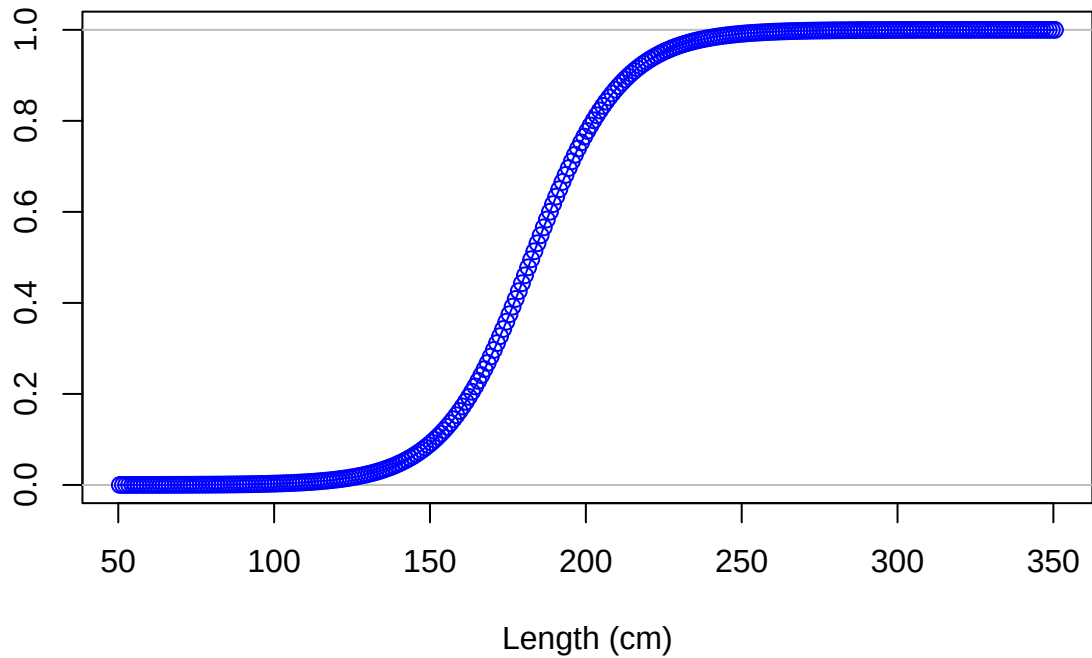
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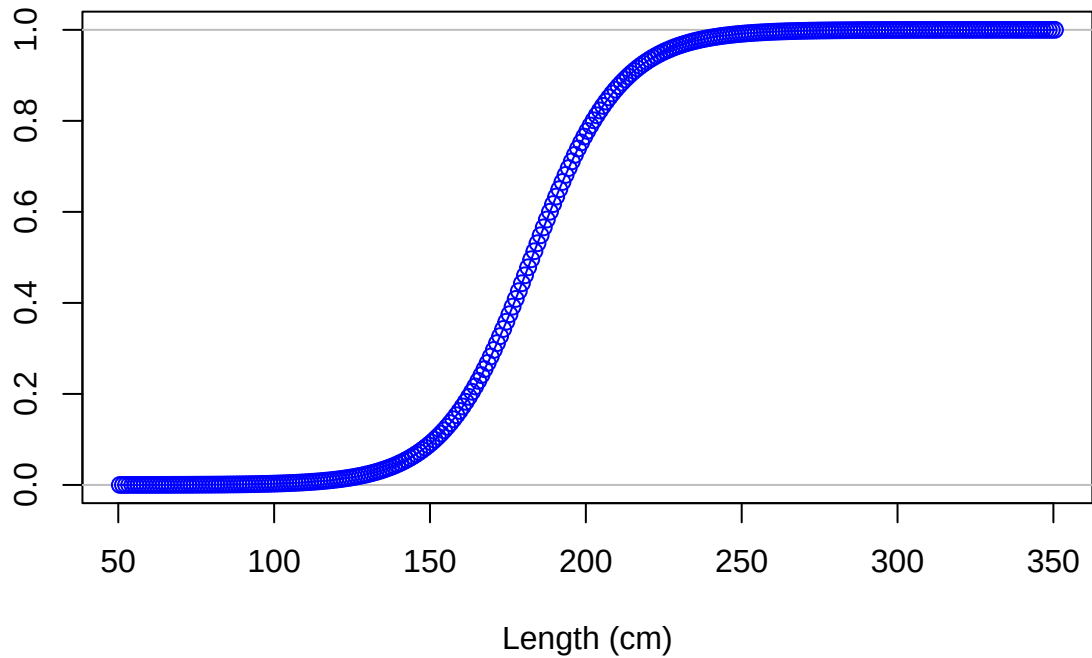
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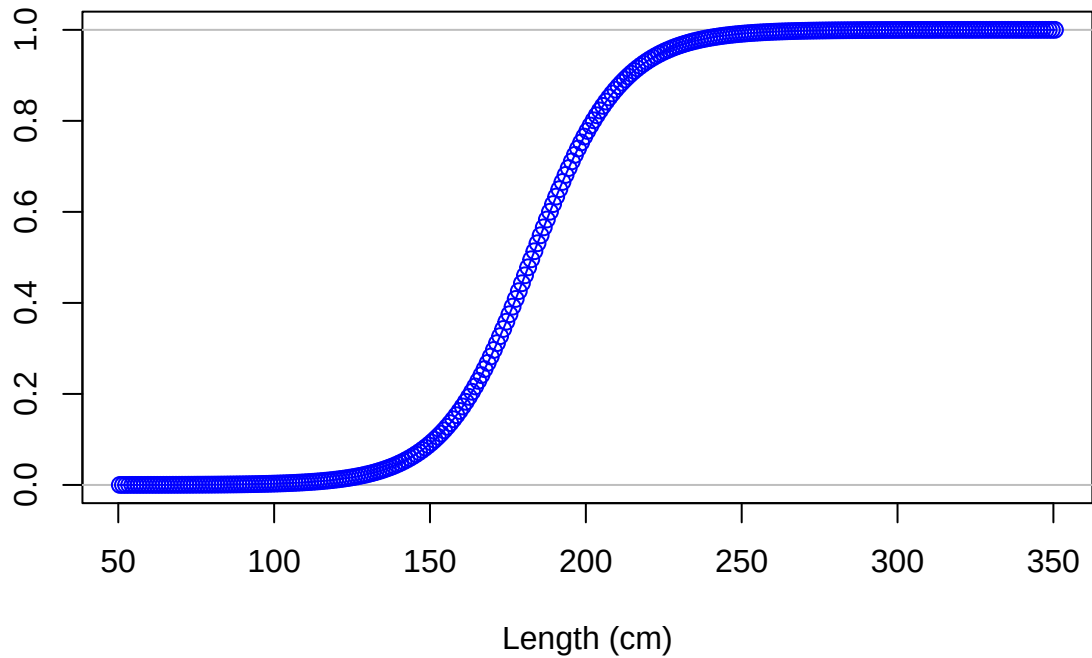
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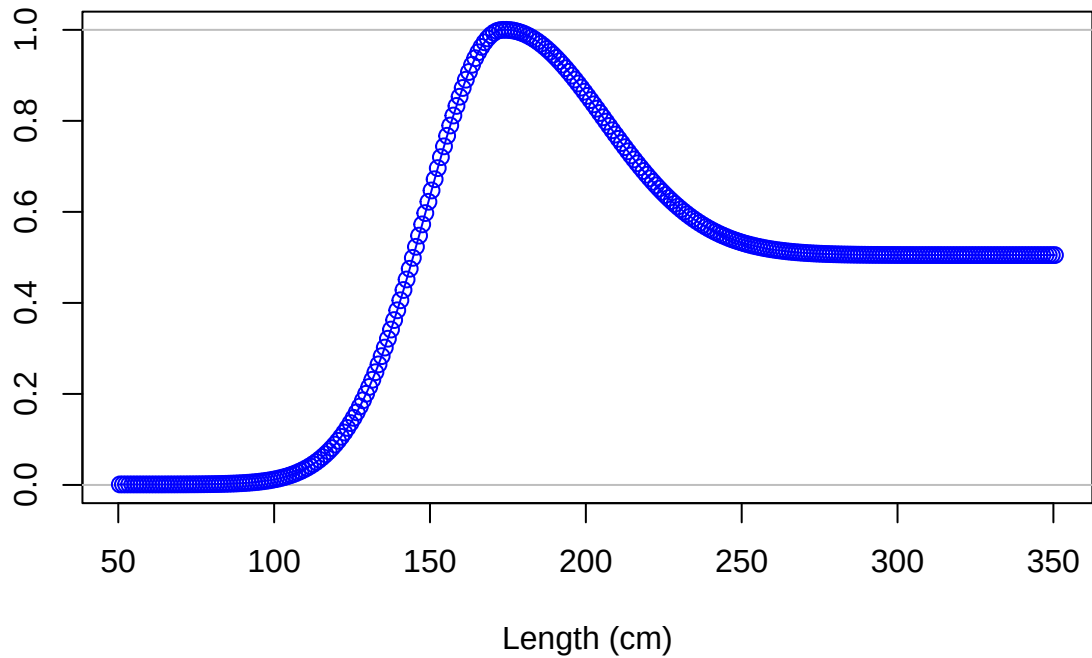
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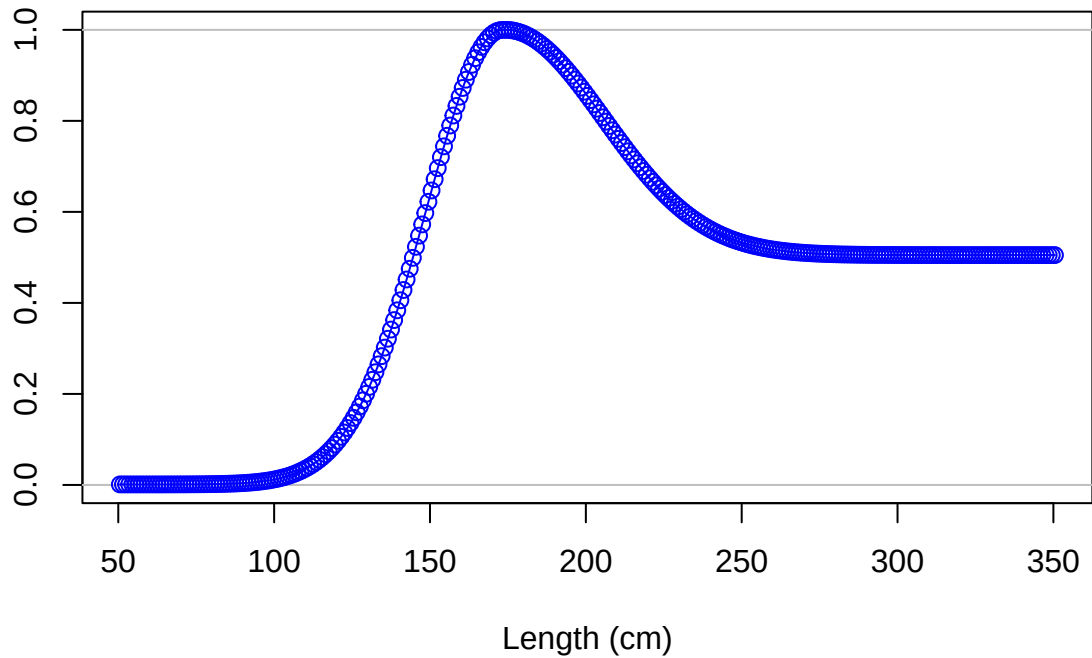
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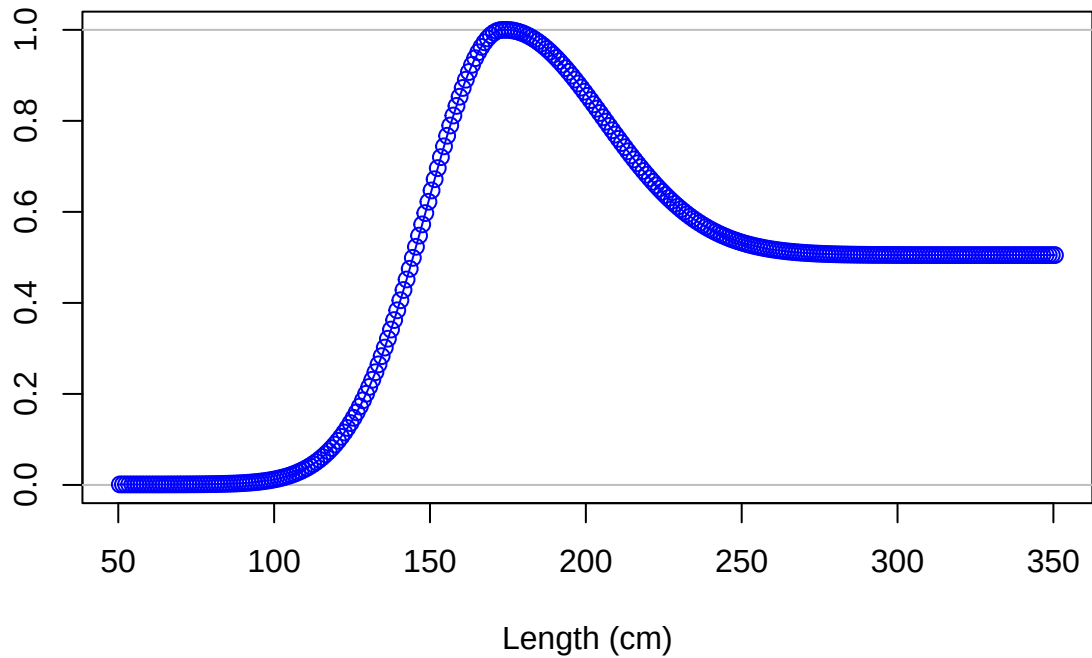
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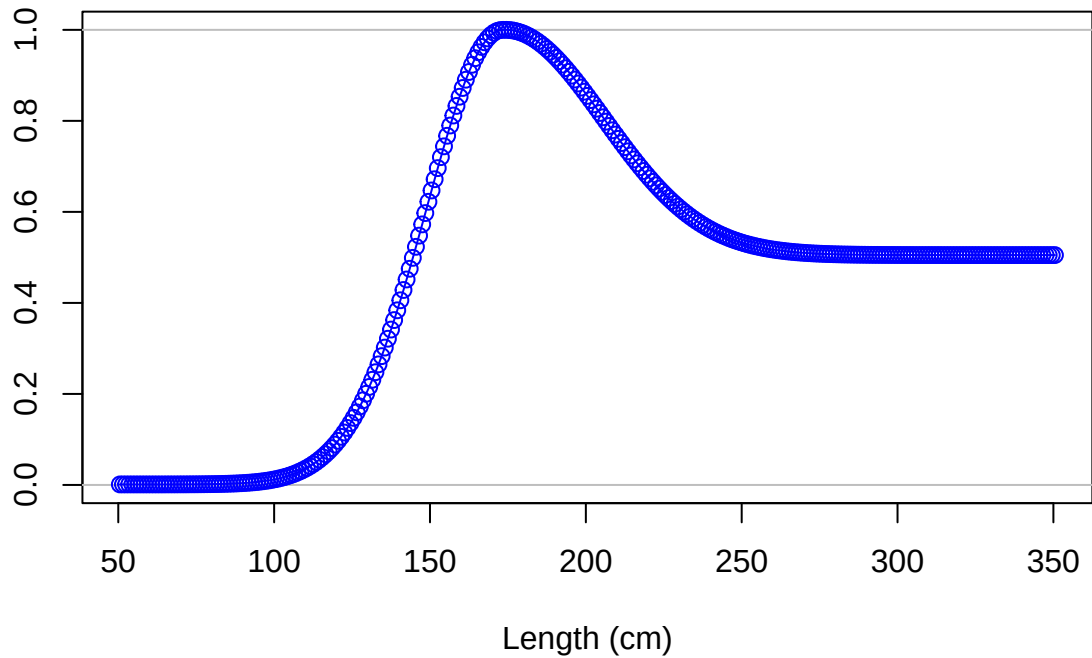
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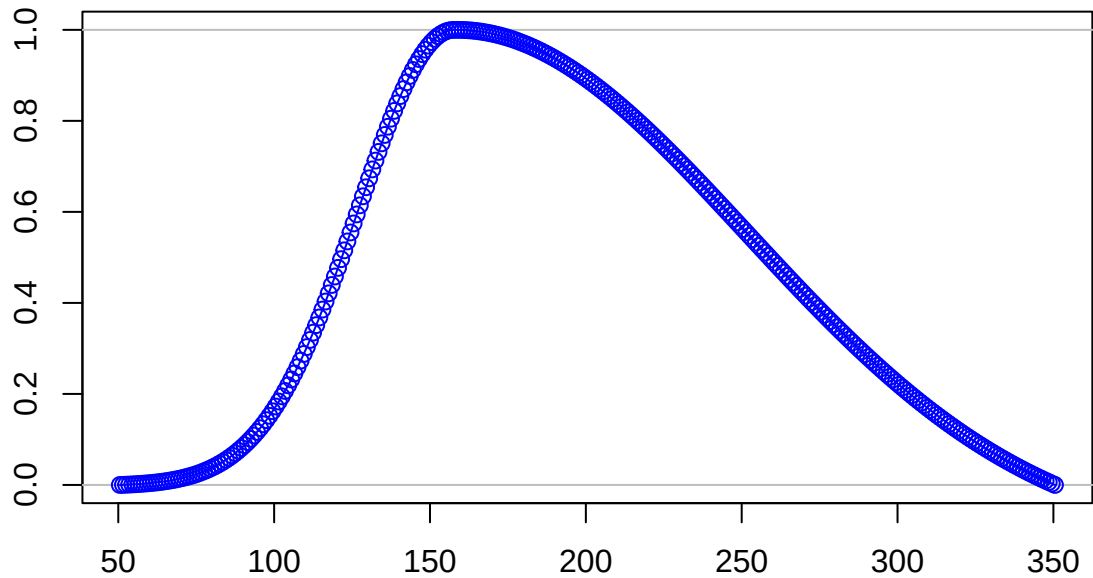
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Selectivity

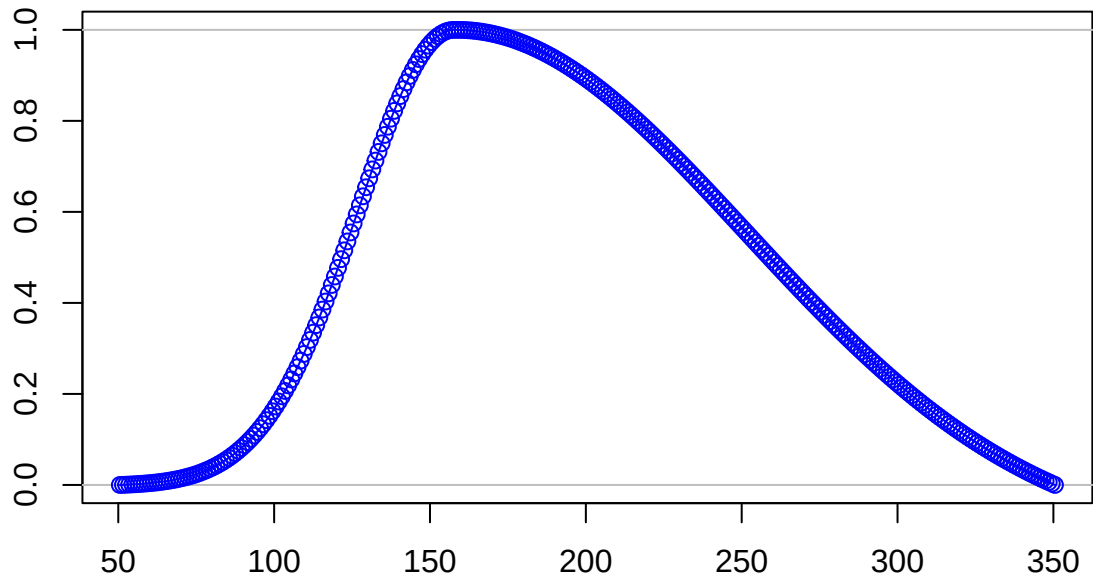


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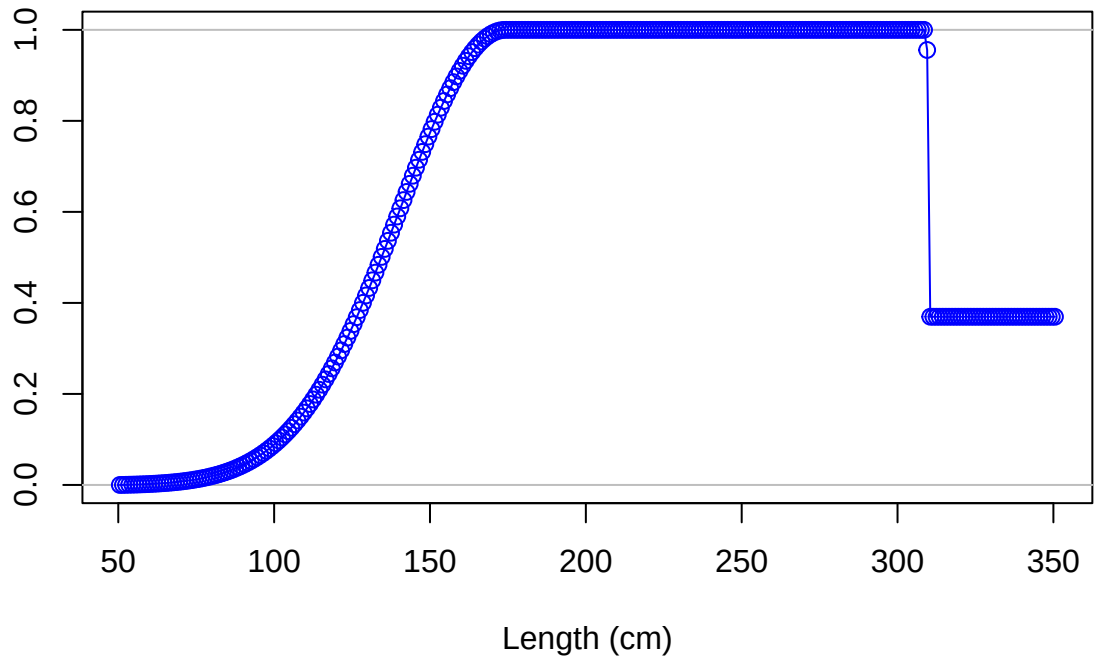
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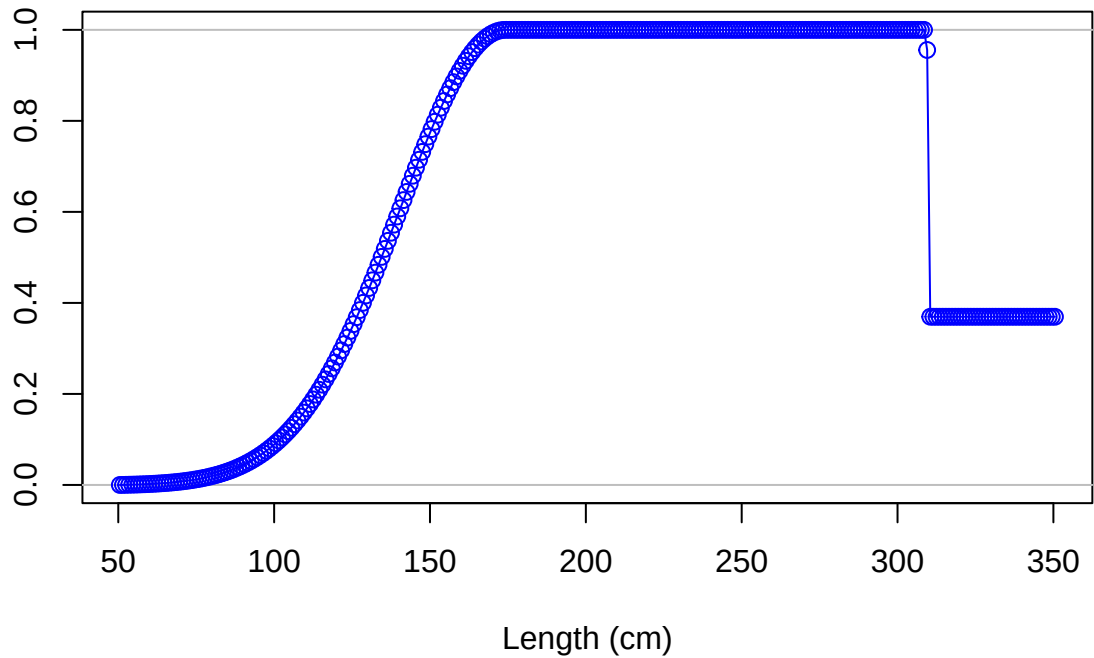


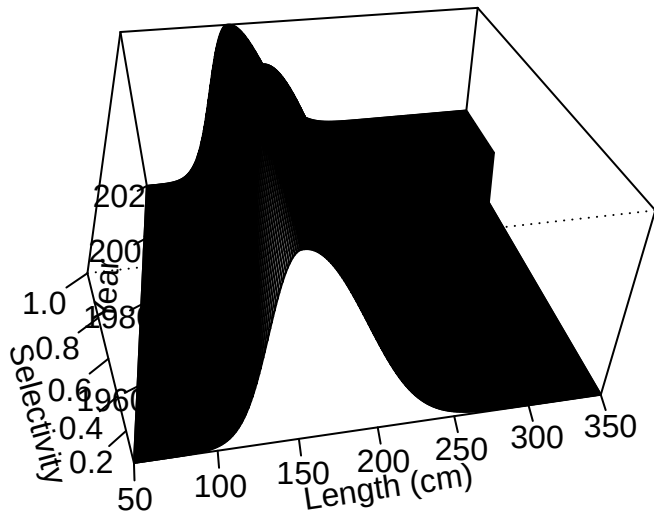
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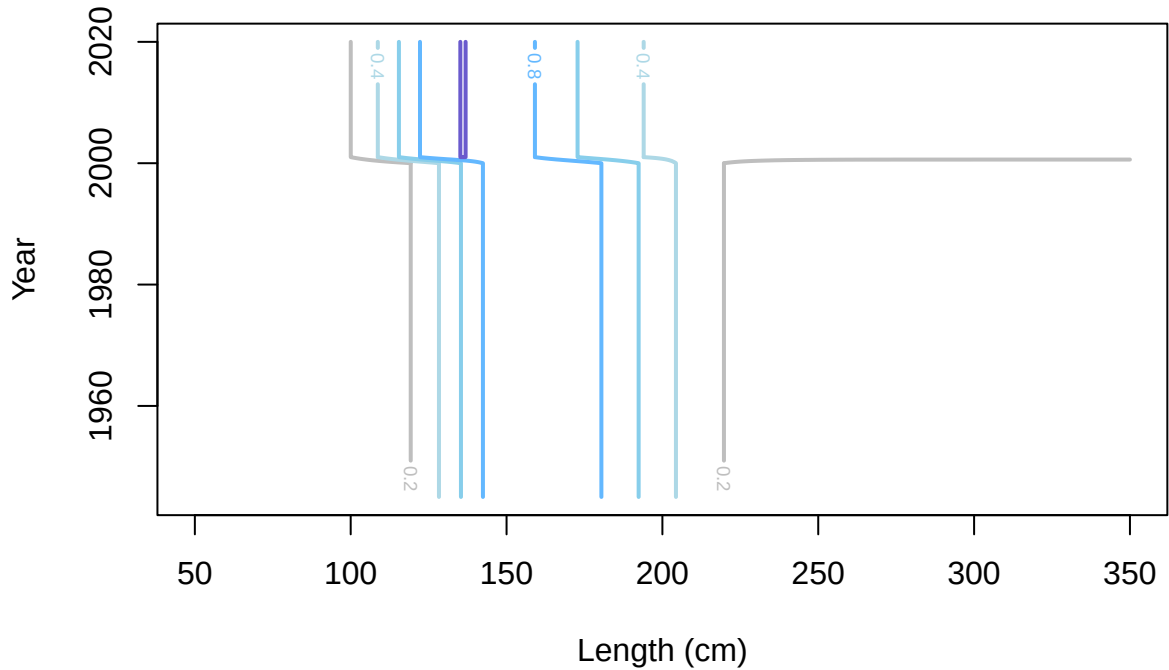
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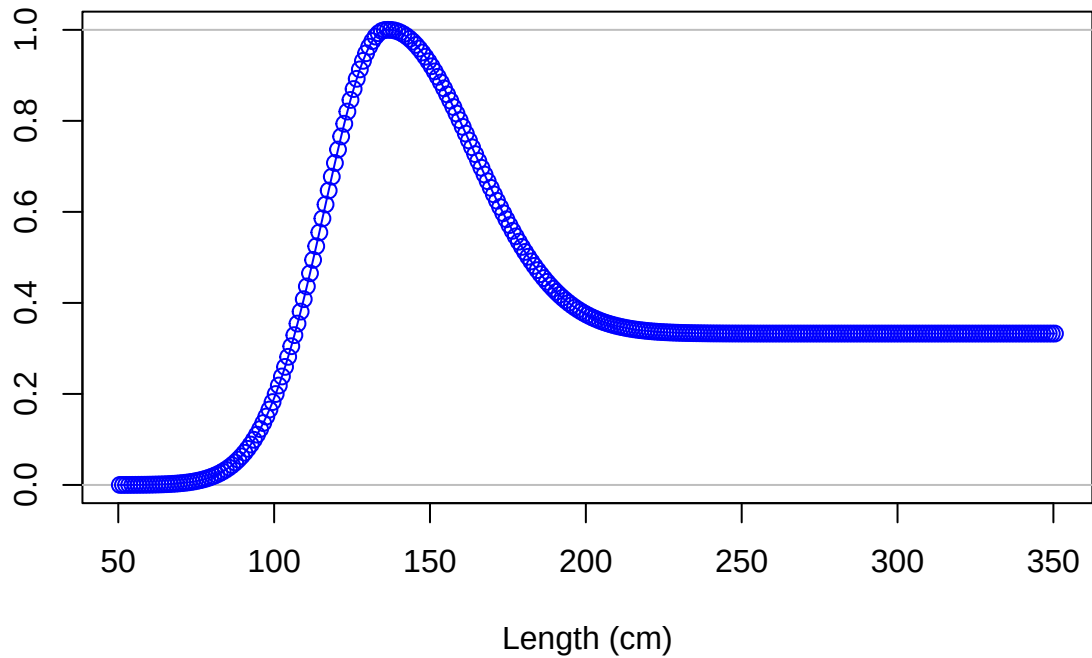
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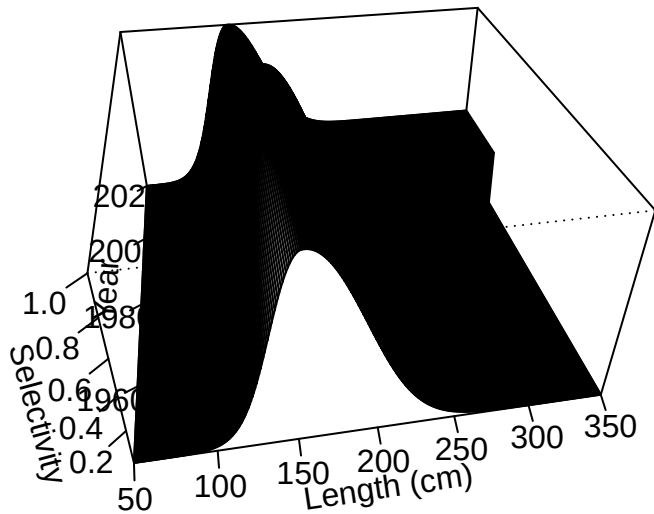


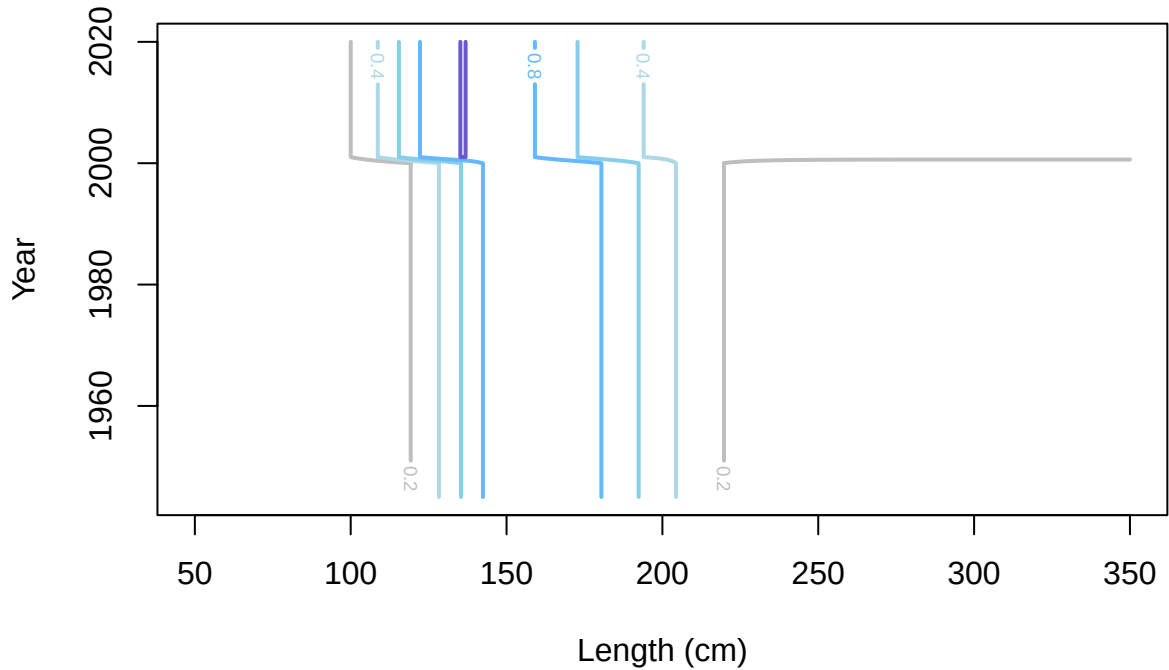




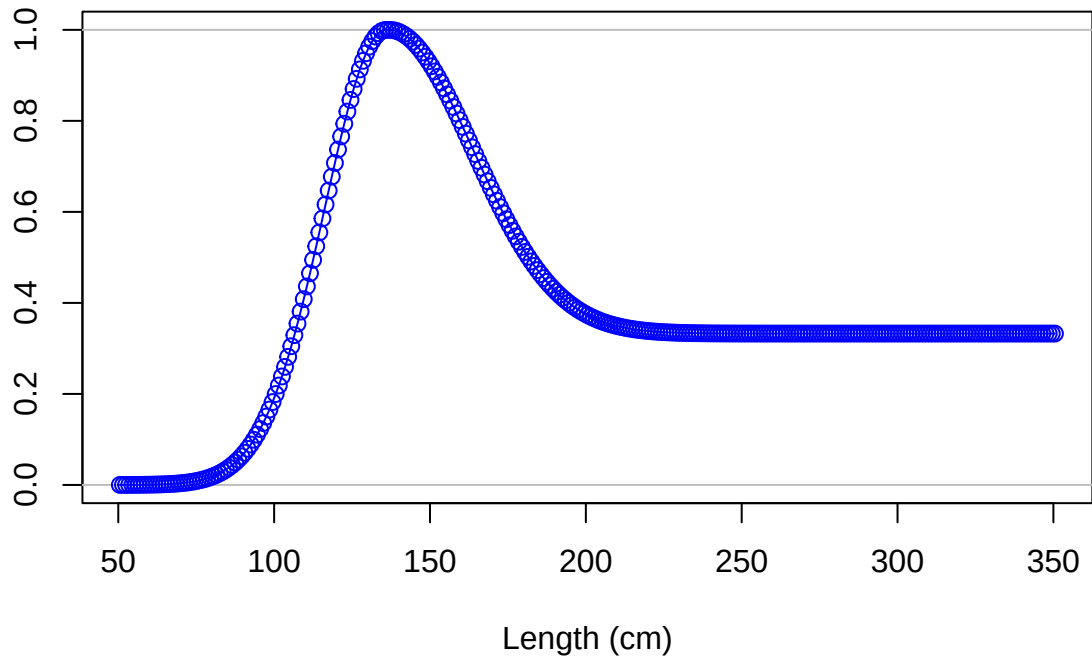
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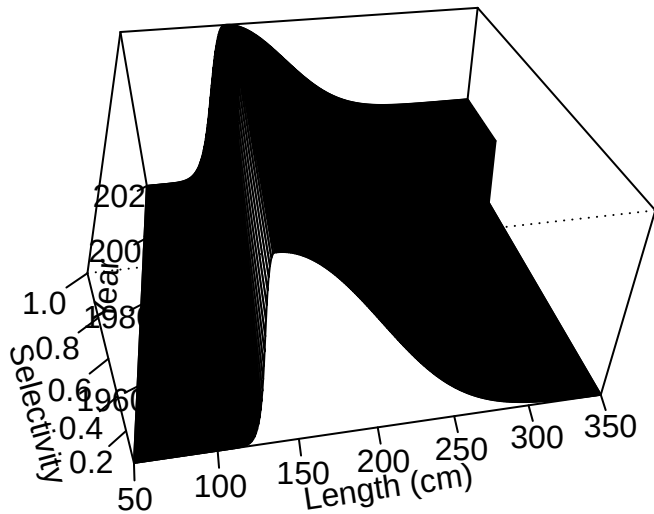


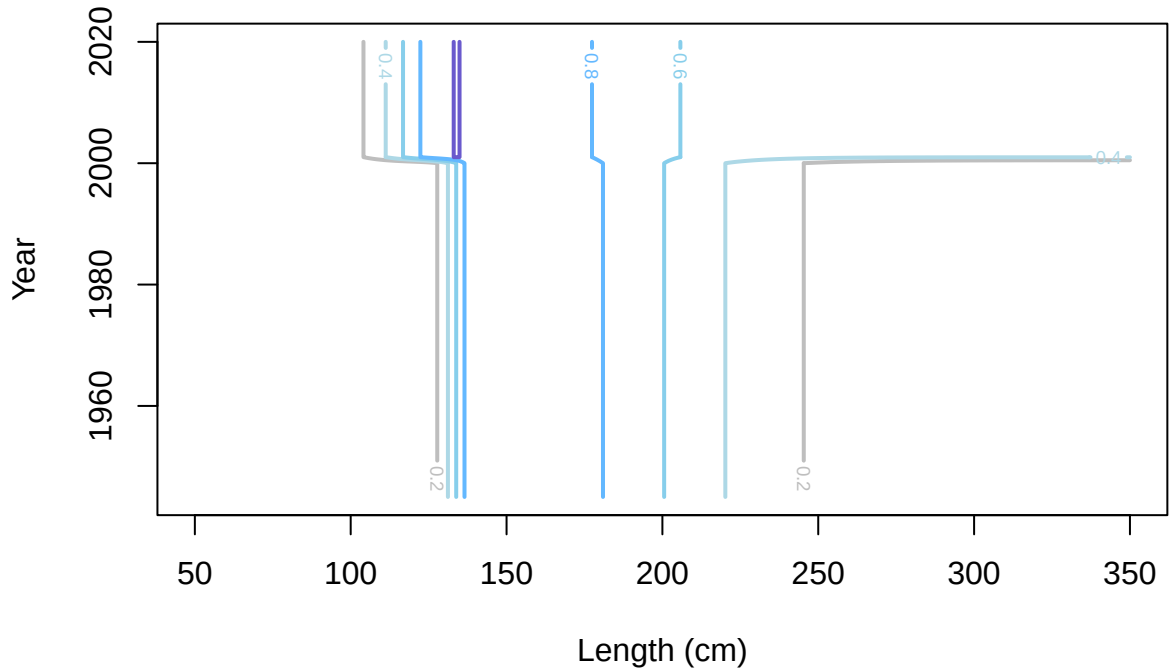




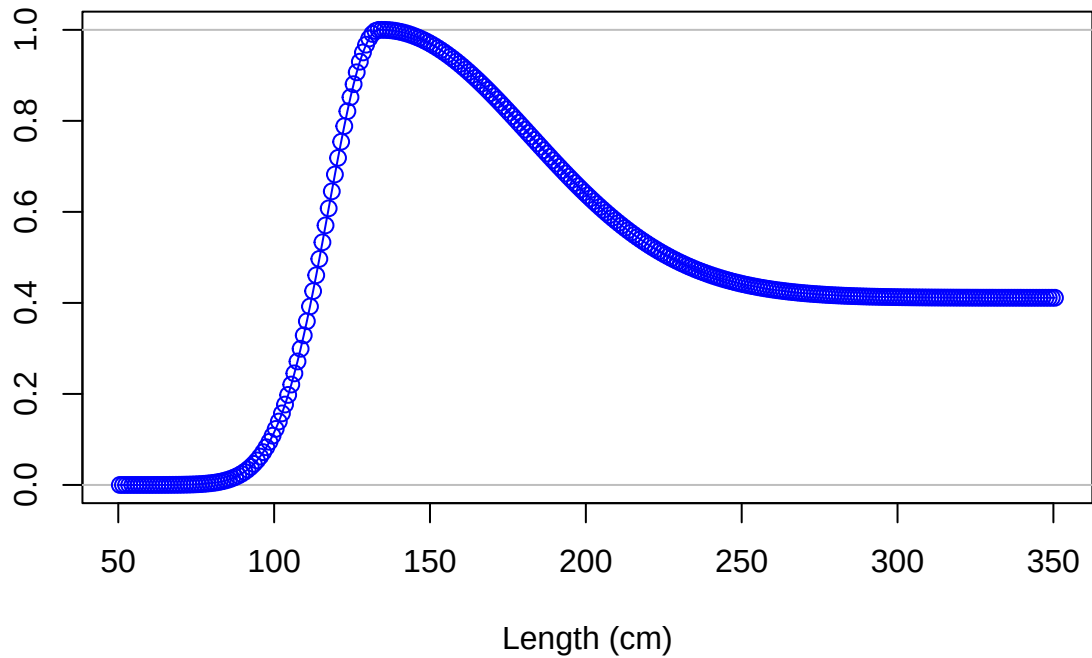
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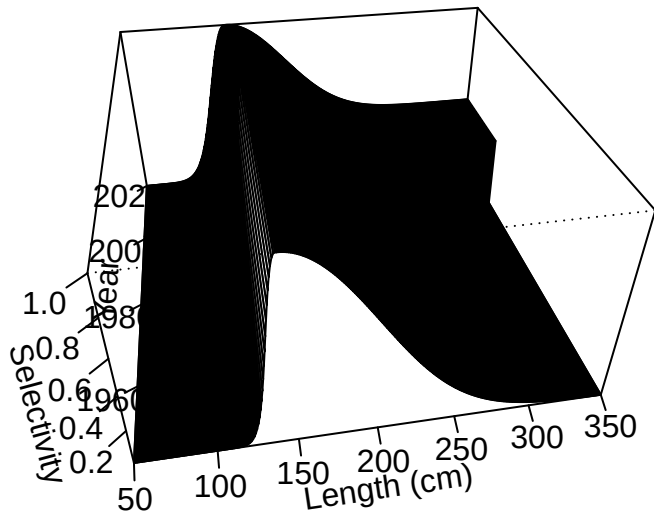


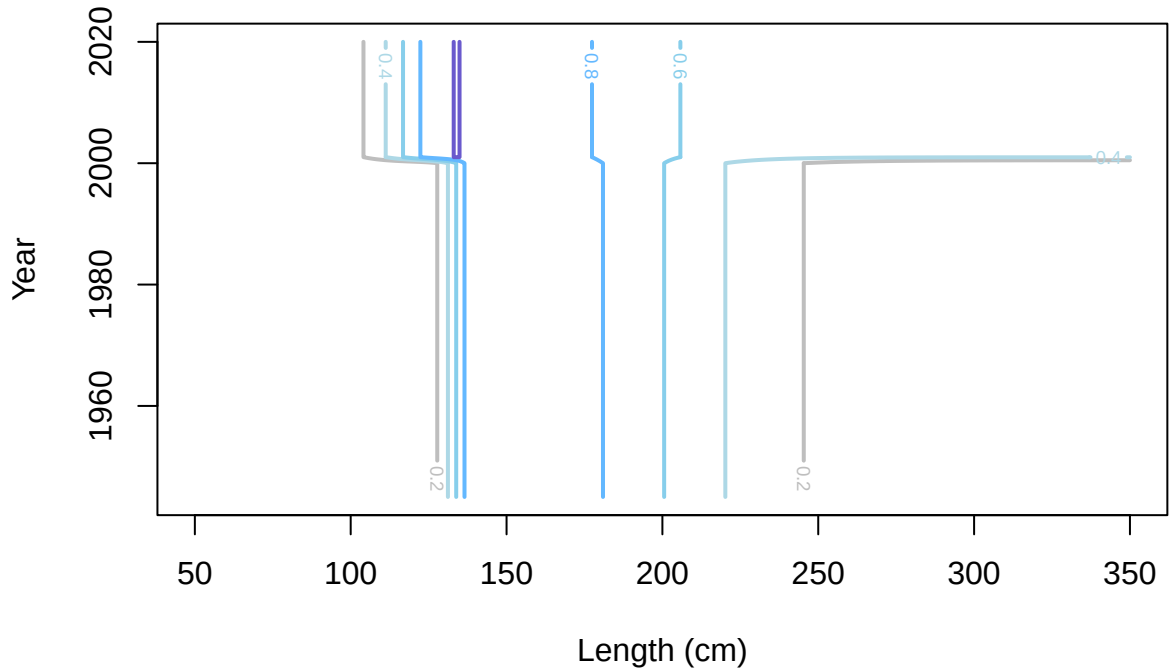




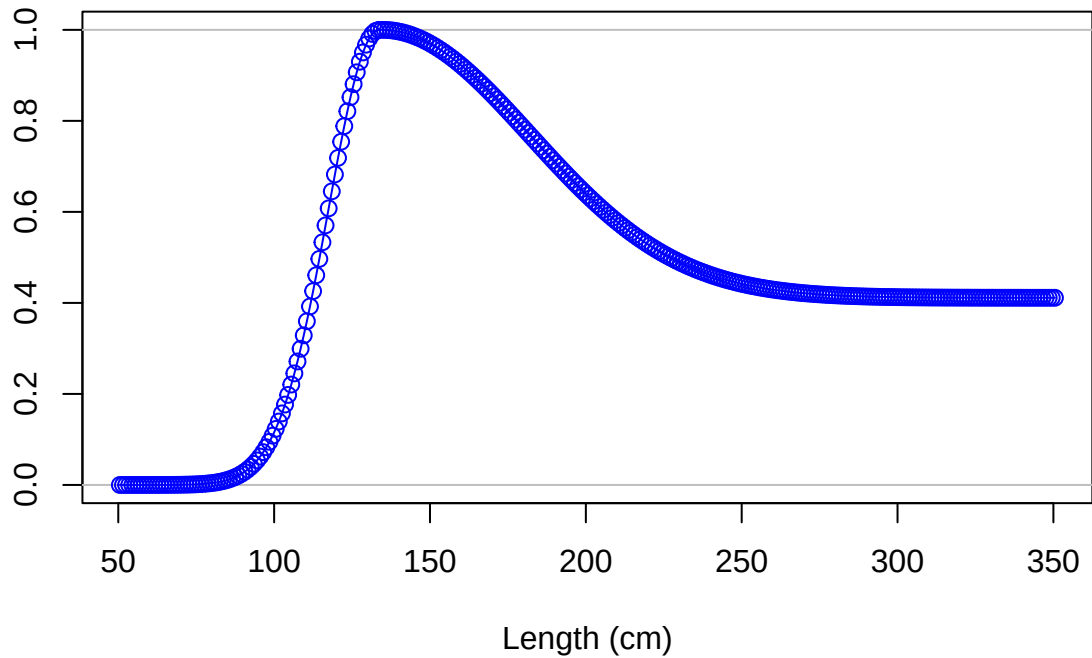
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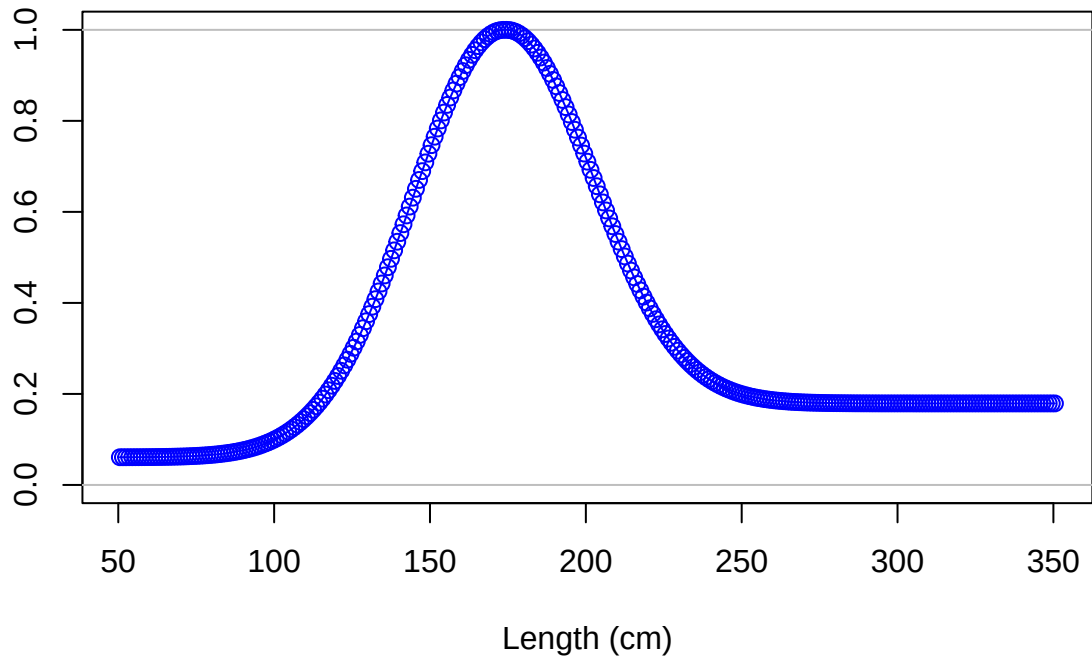




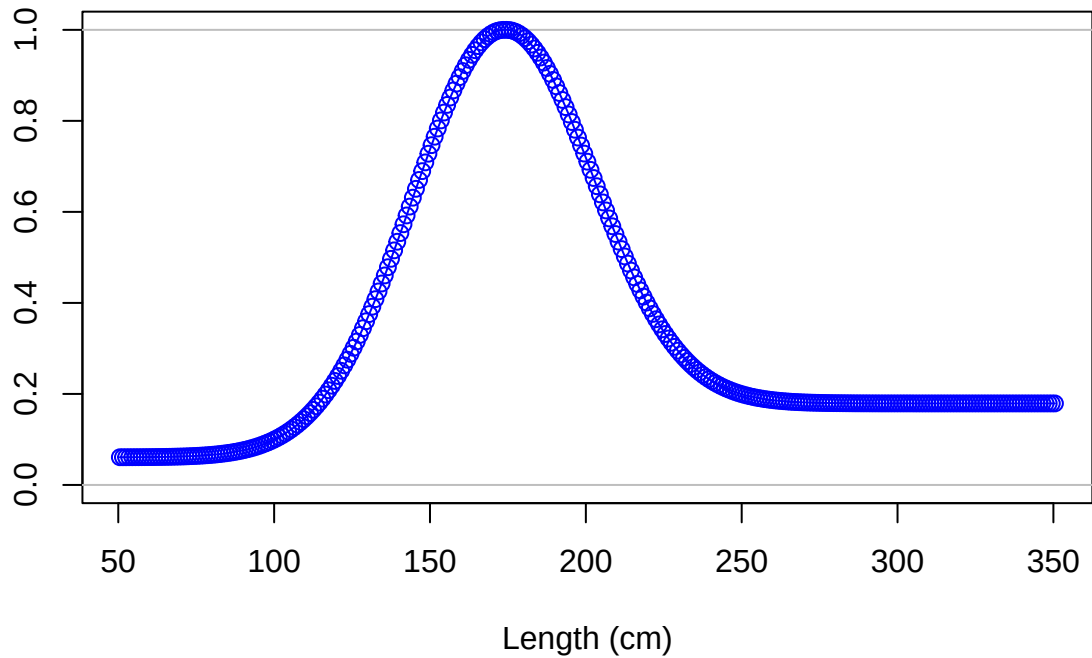
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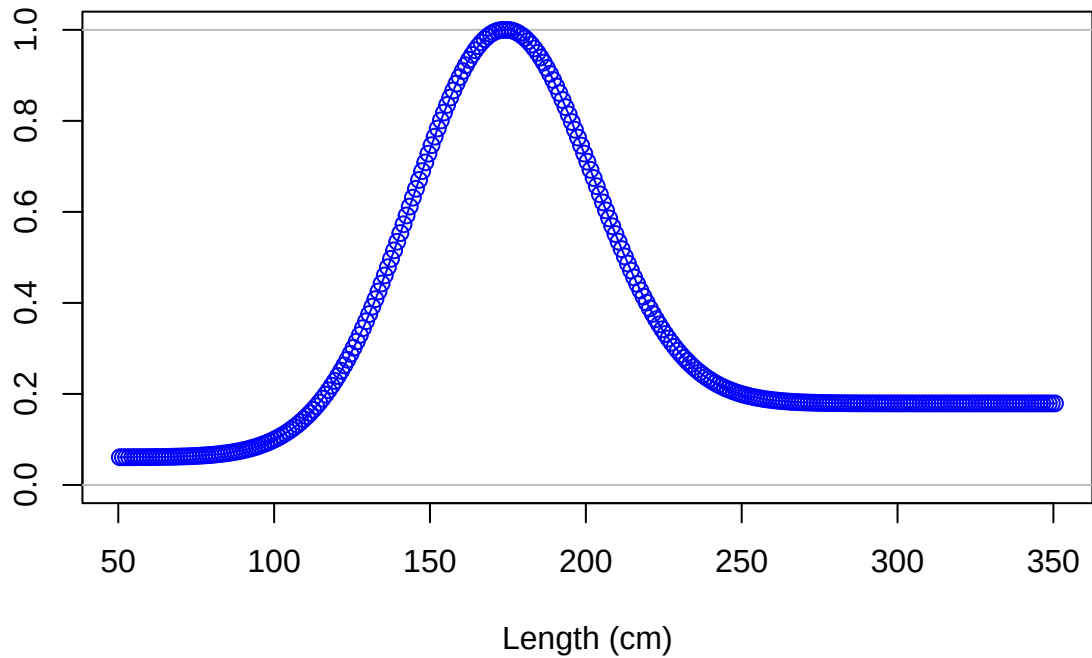
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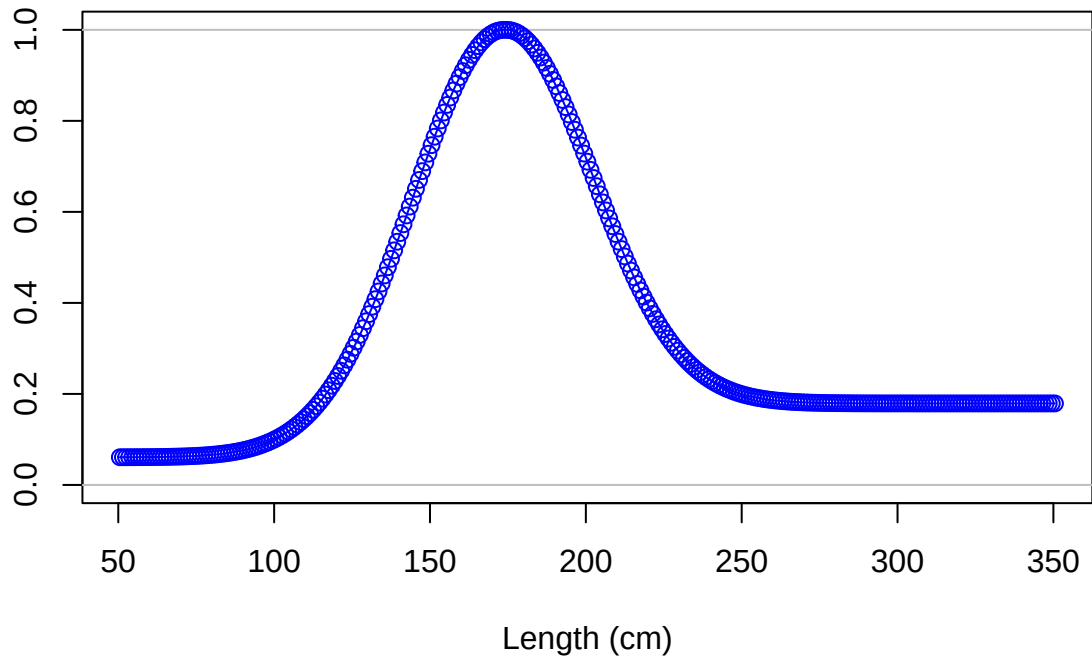
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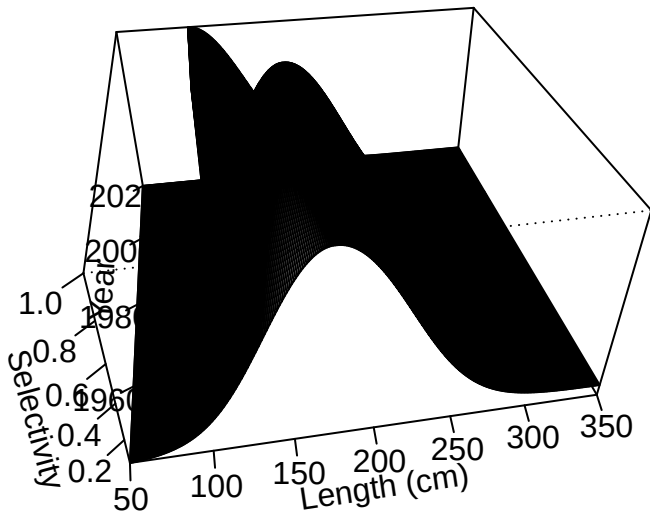


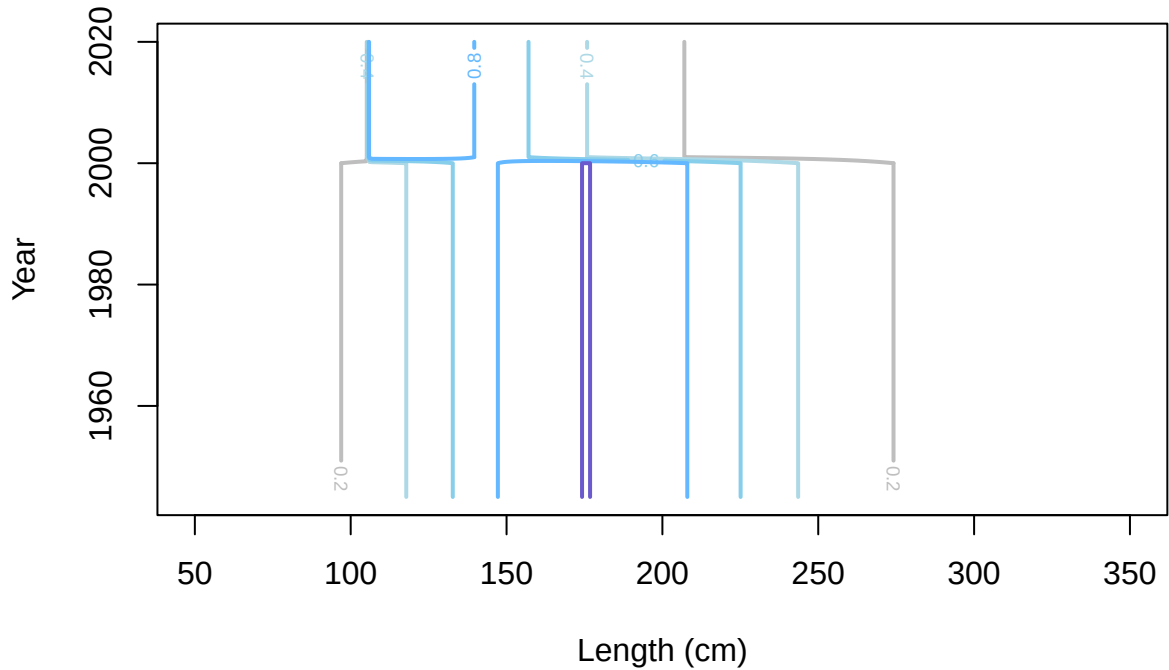
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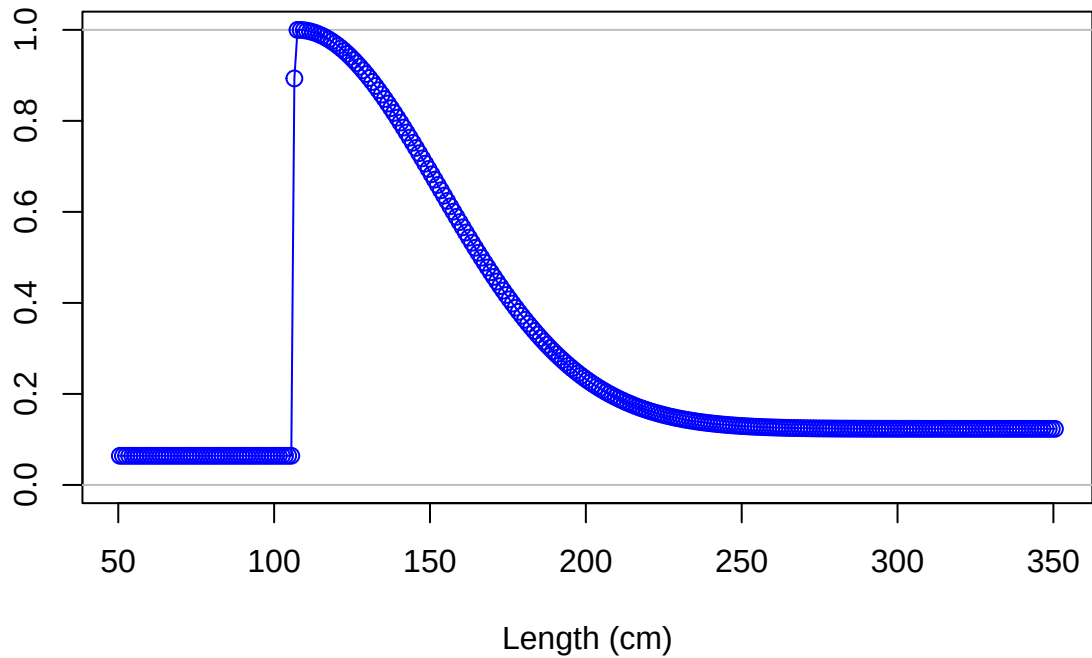
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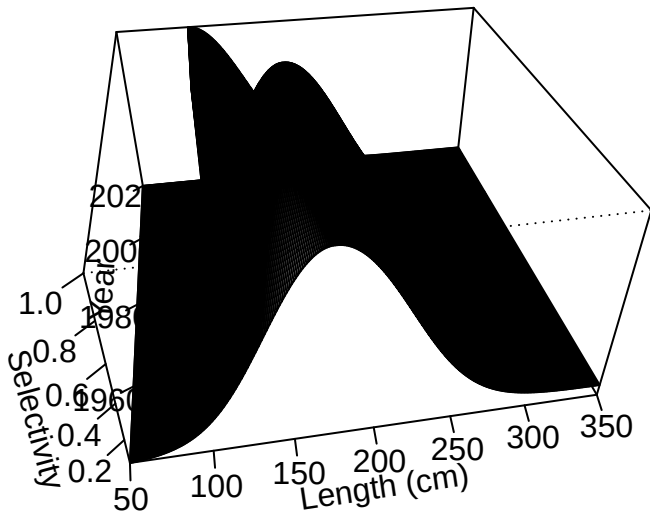


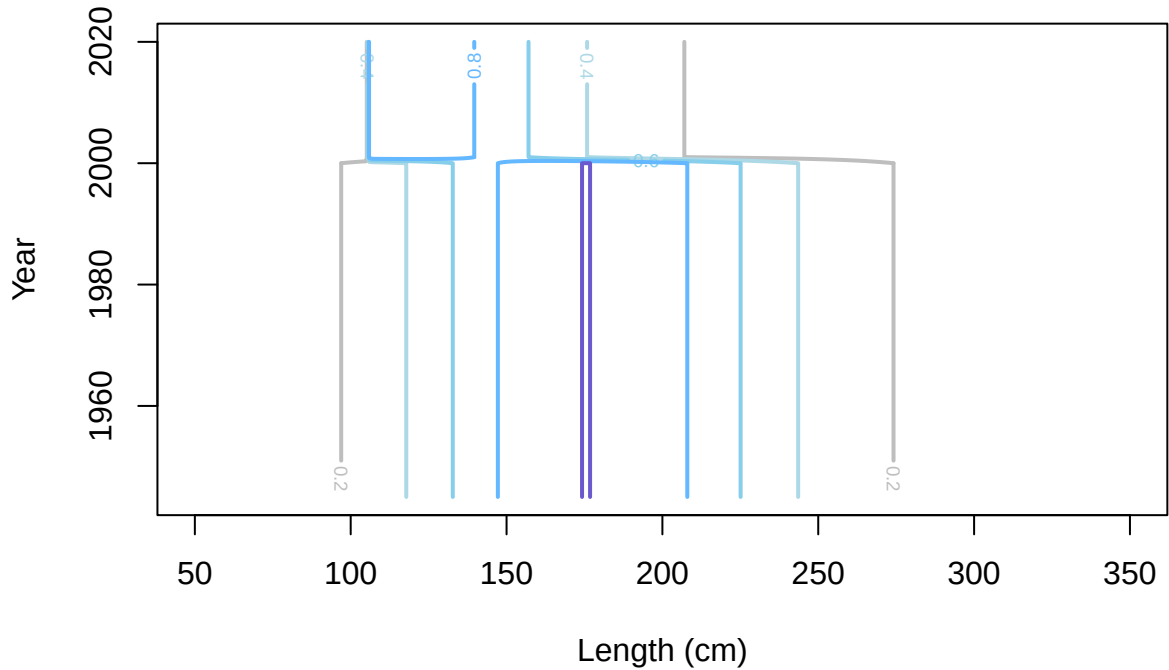




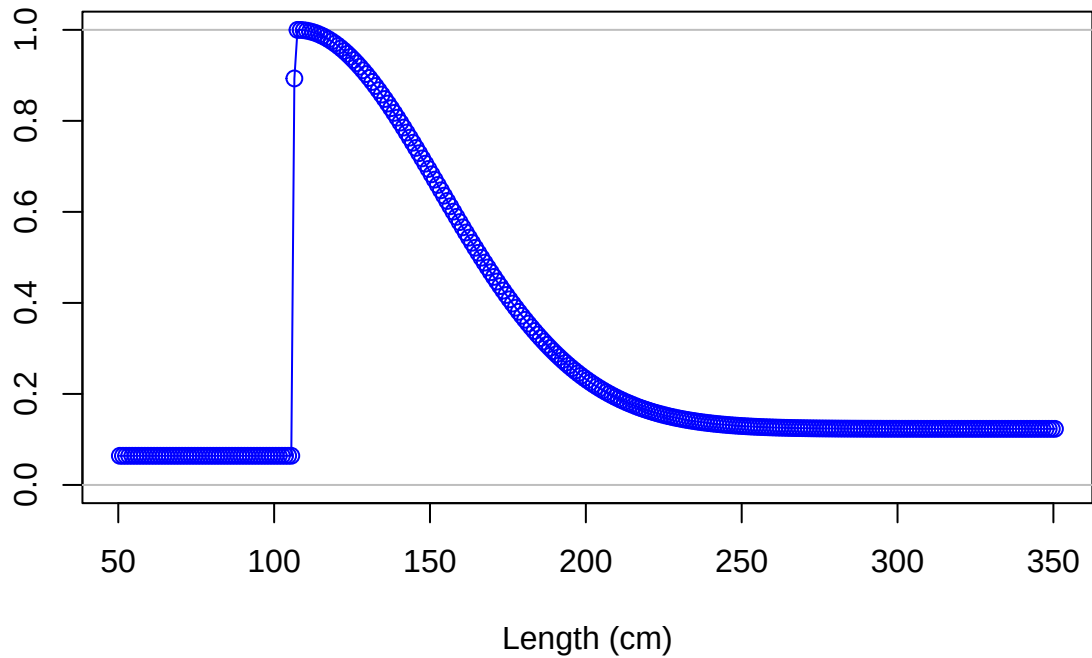
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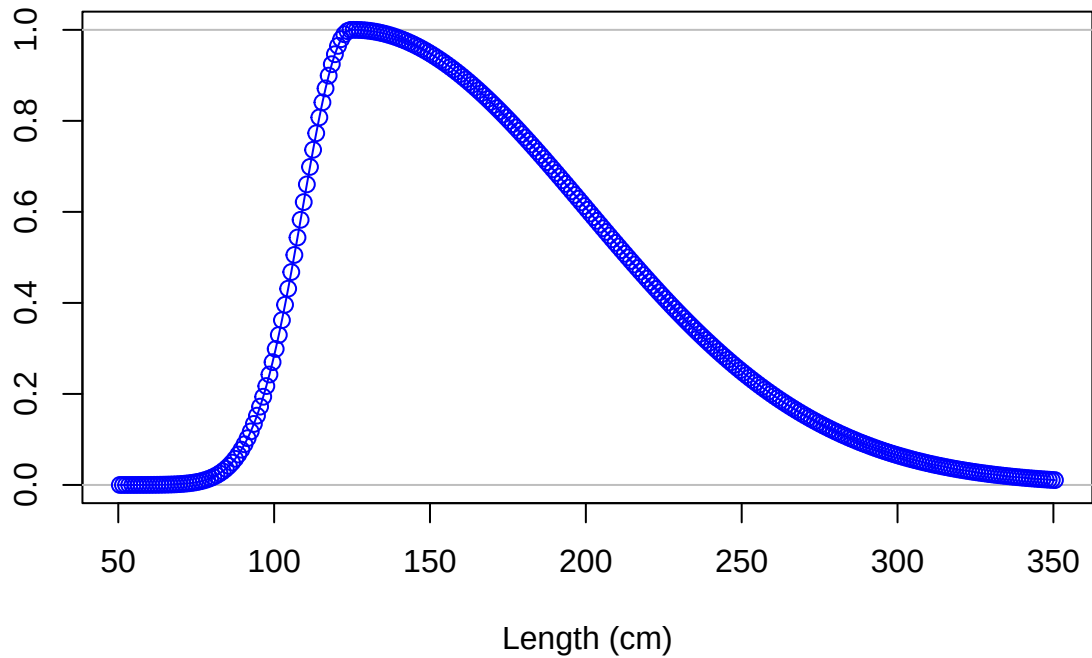




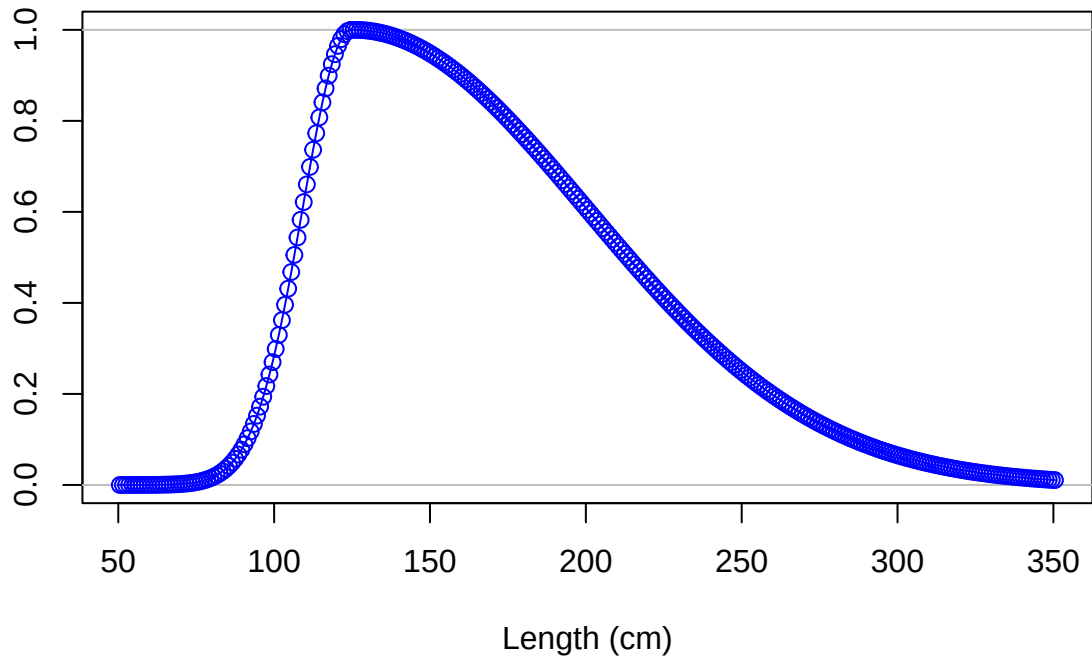
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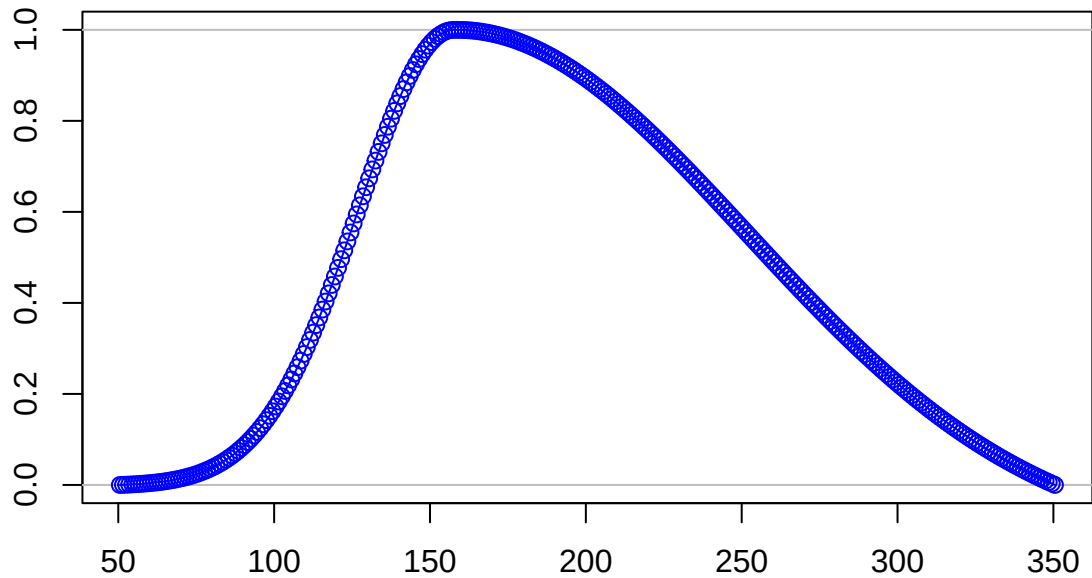
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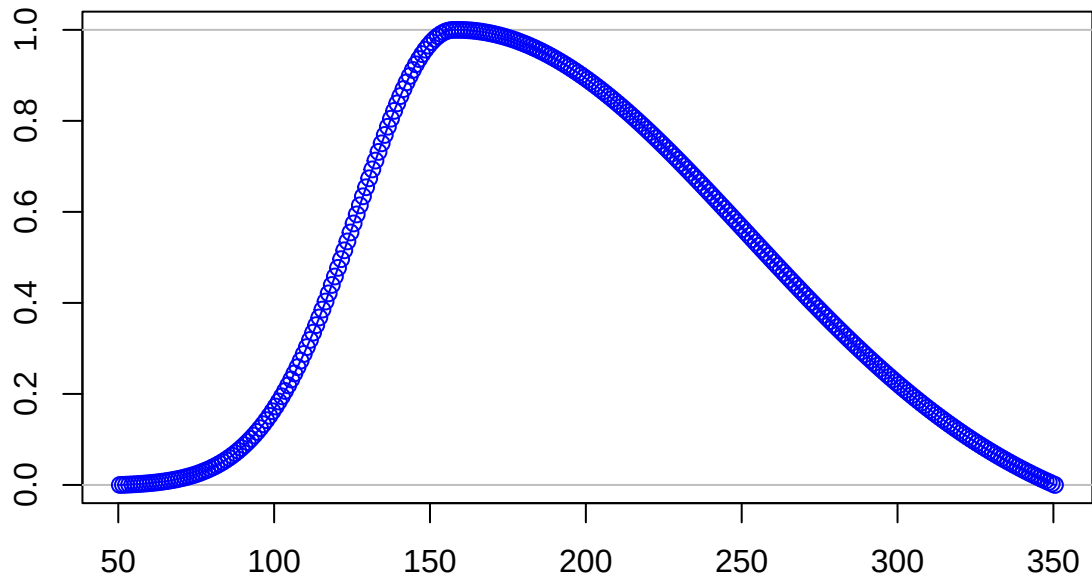


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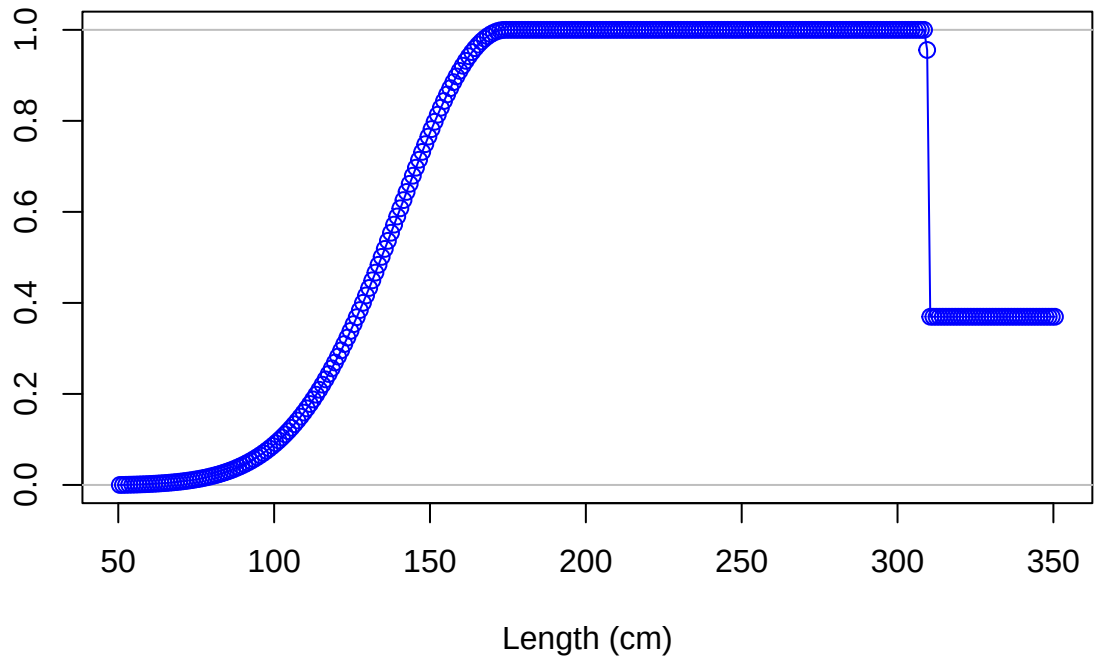
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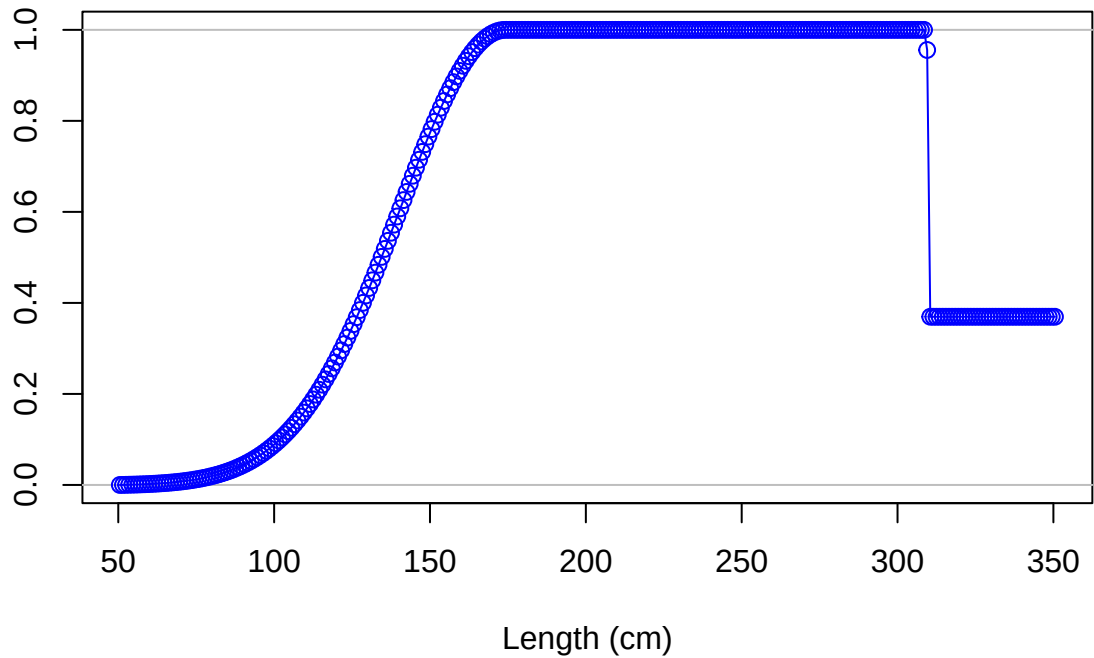


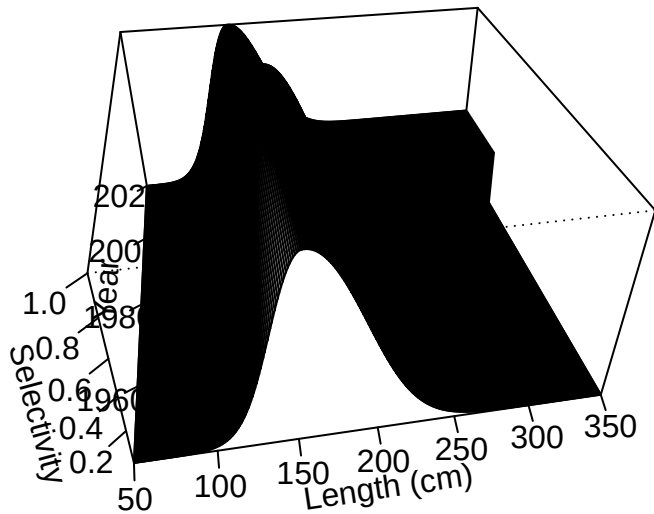
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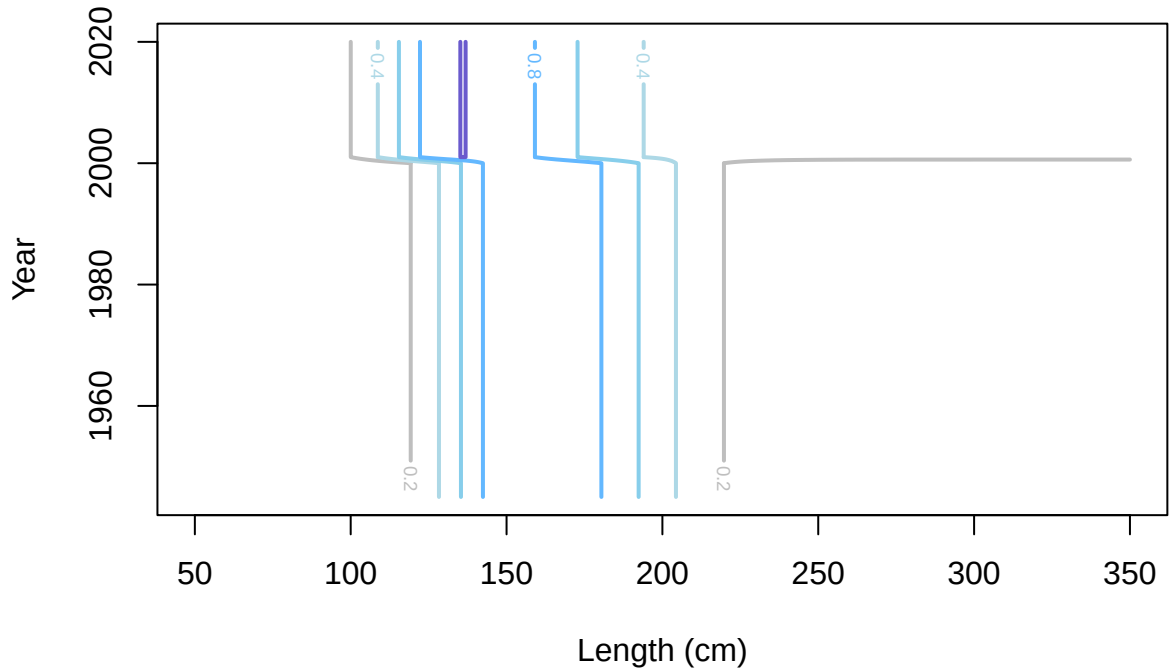
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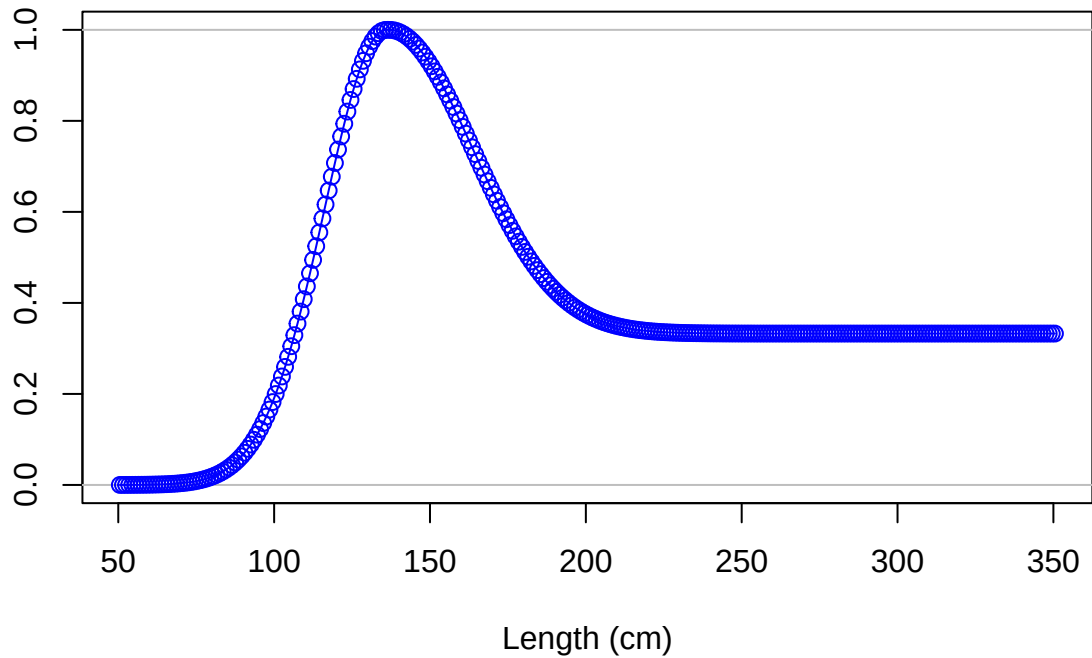
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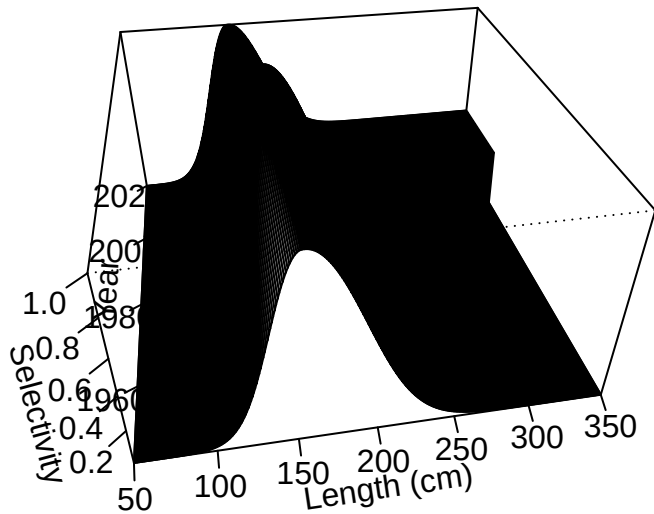


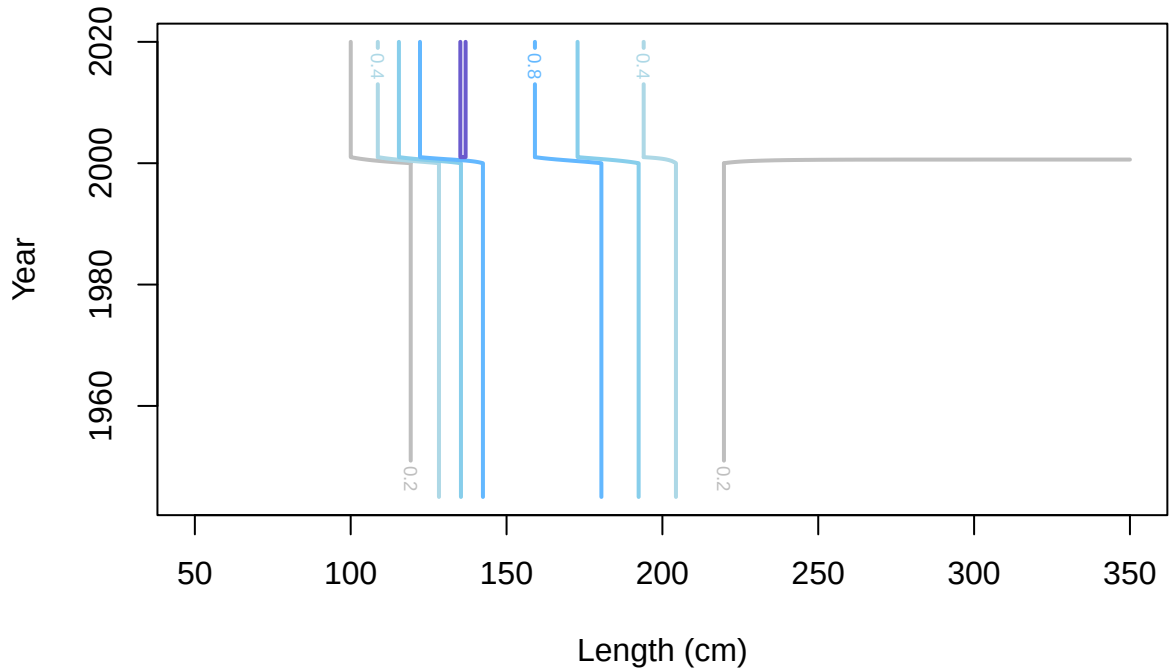




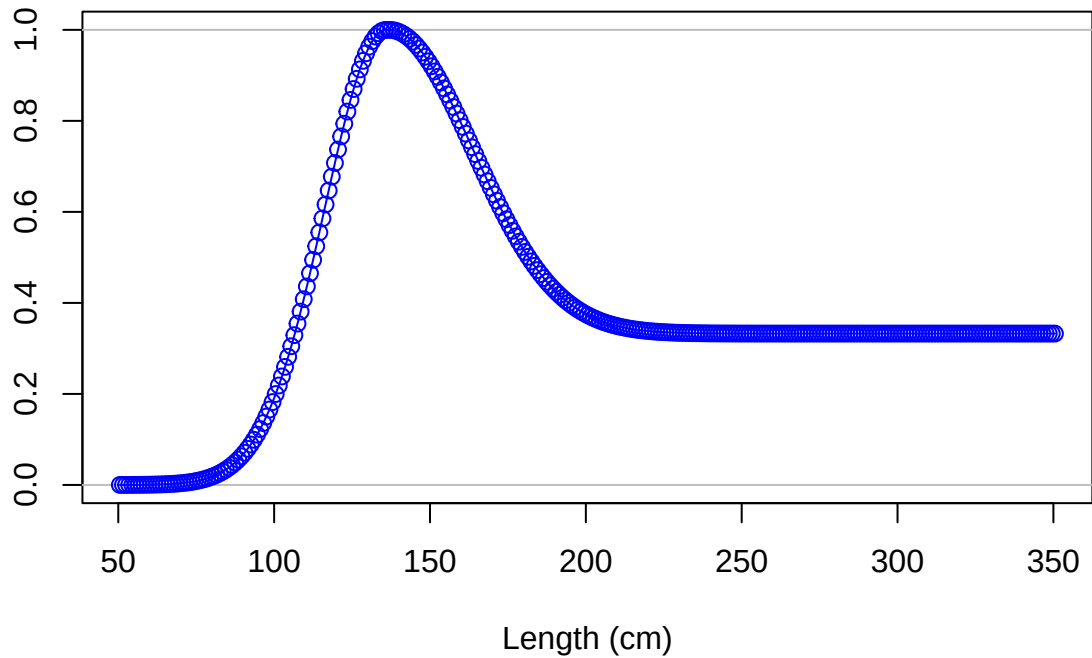
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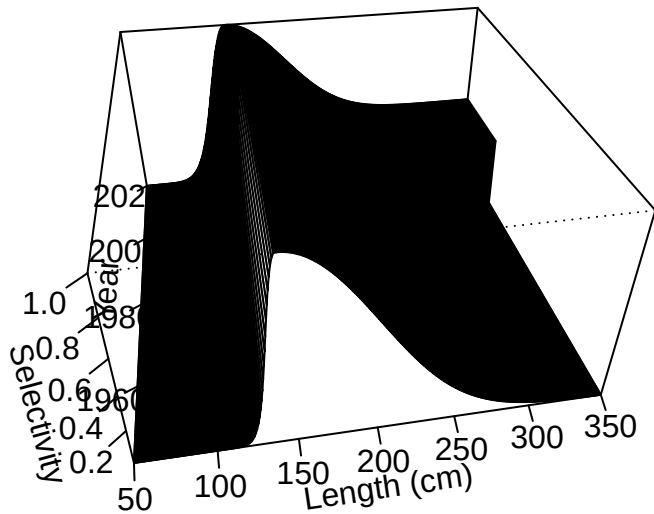


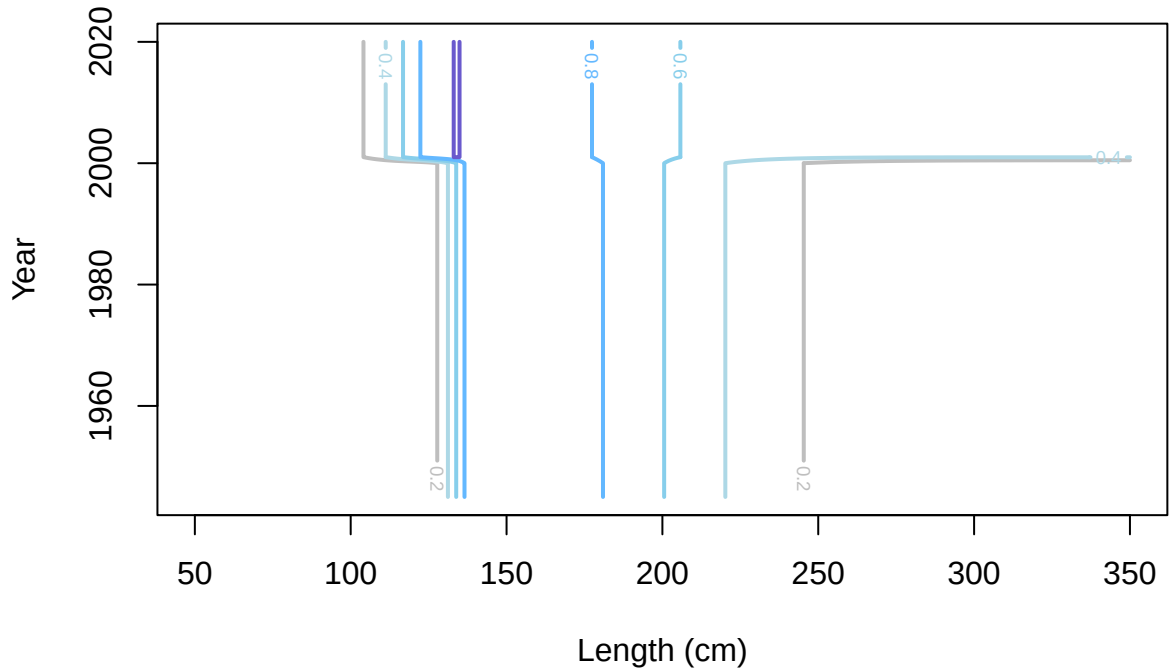




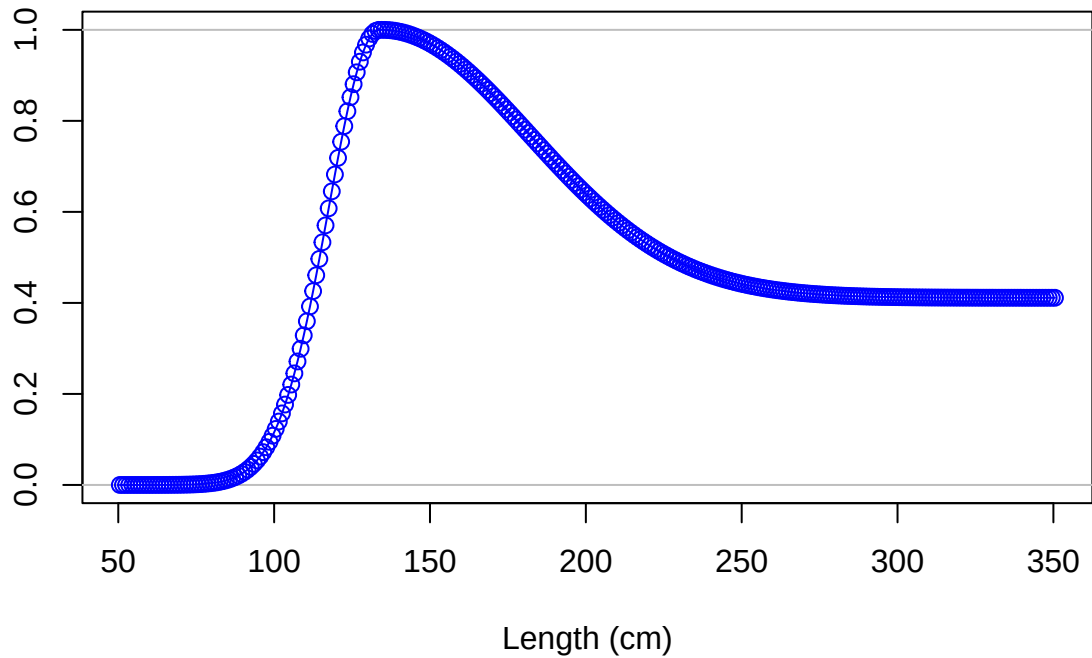
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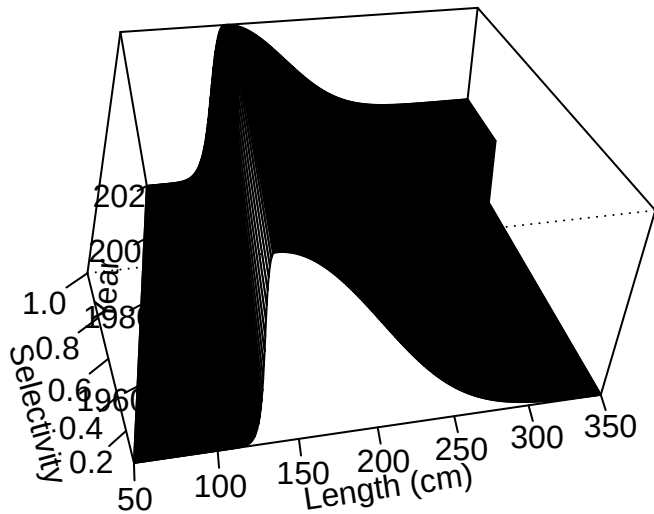


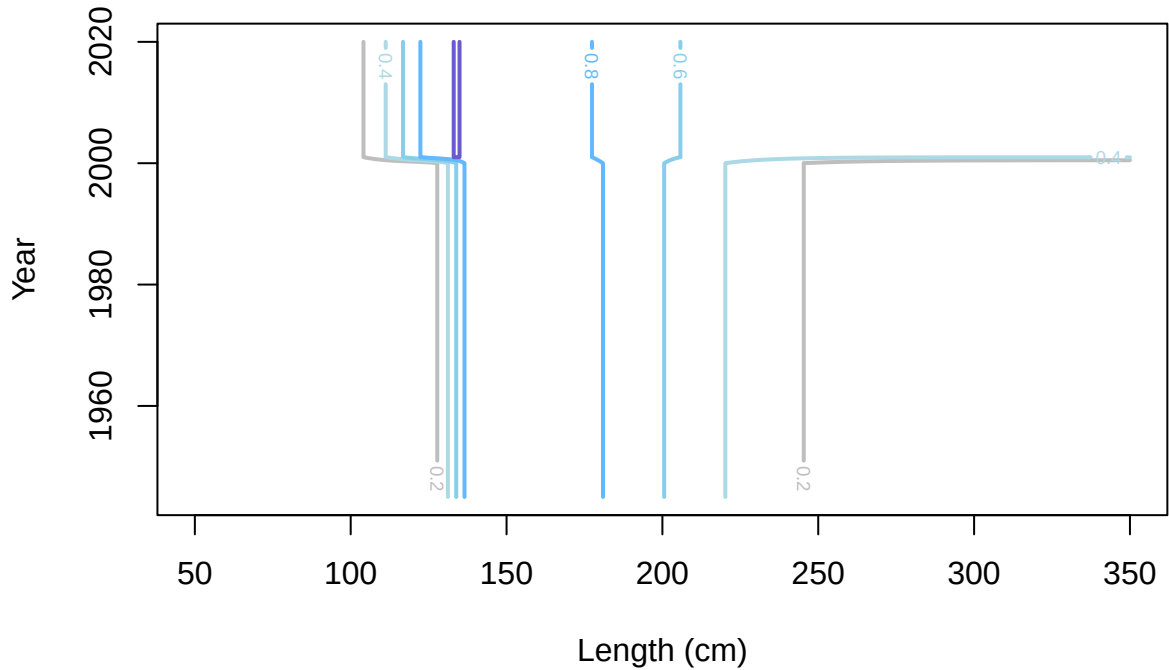




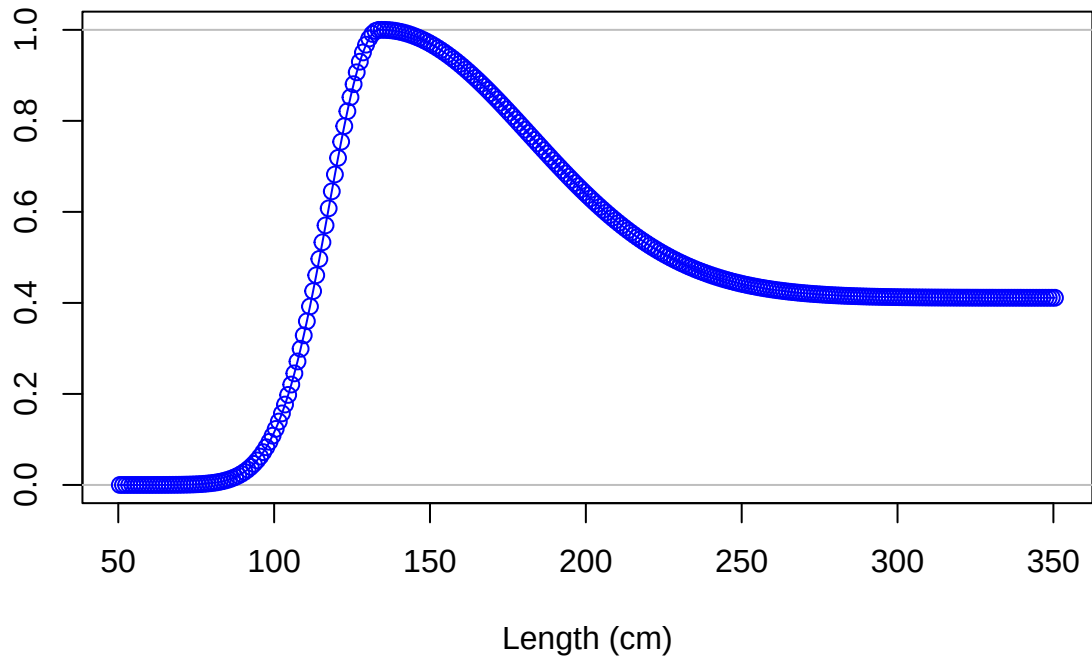
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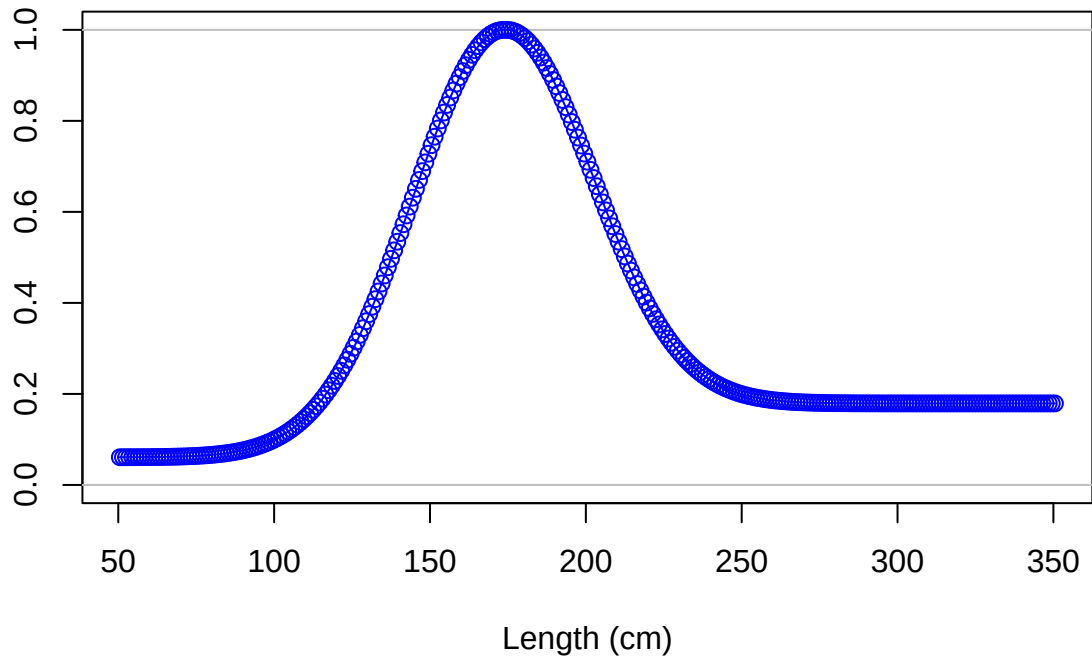




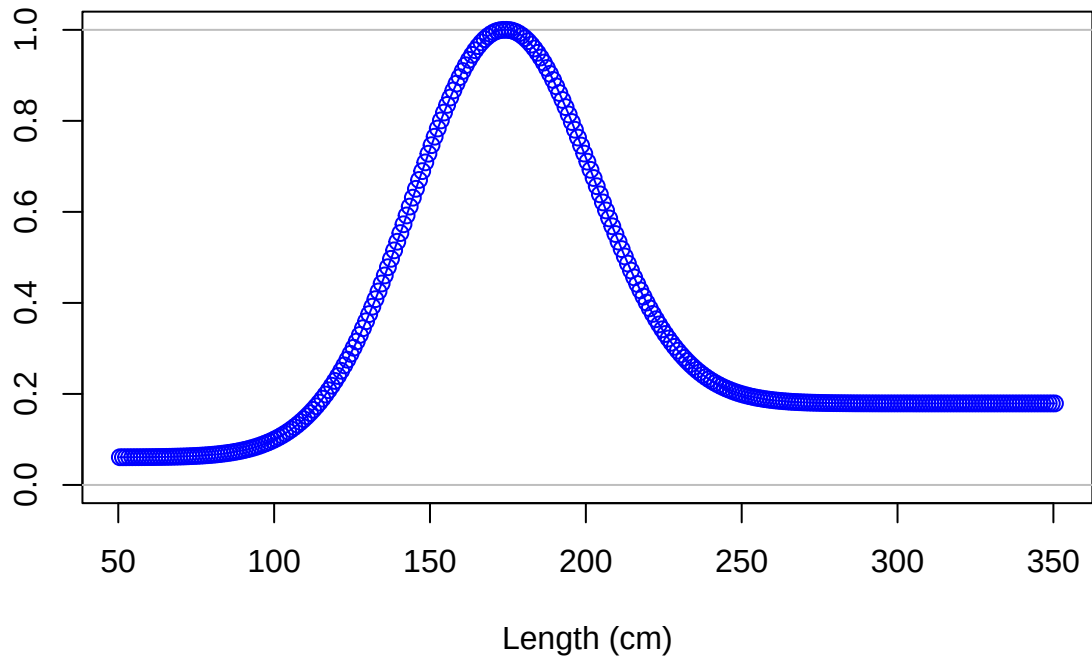
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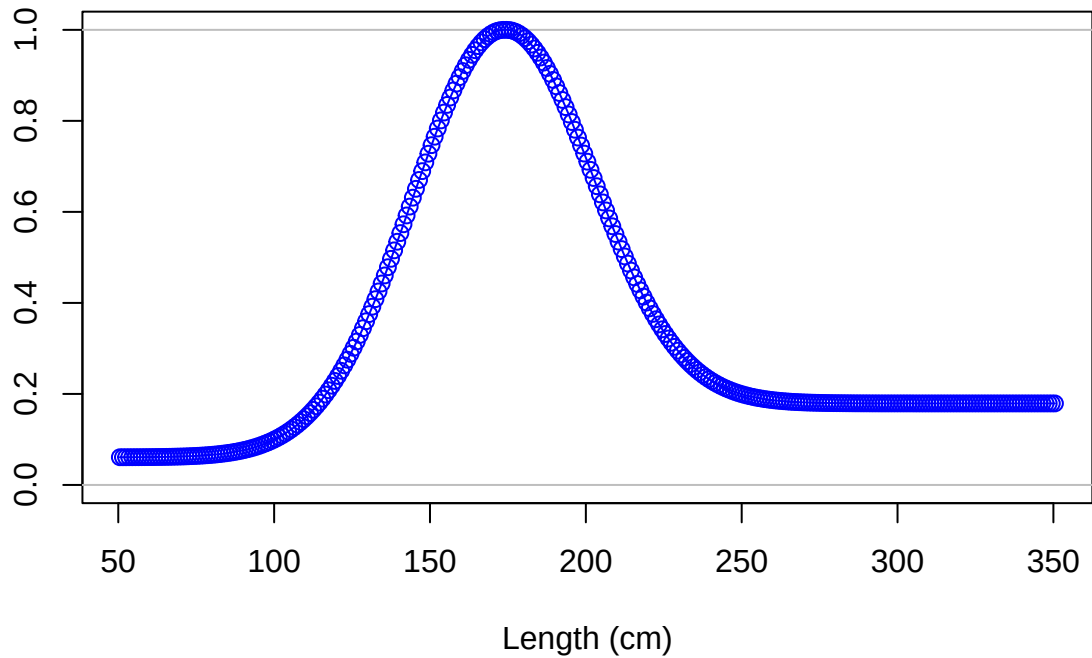
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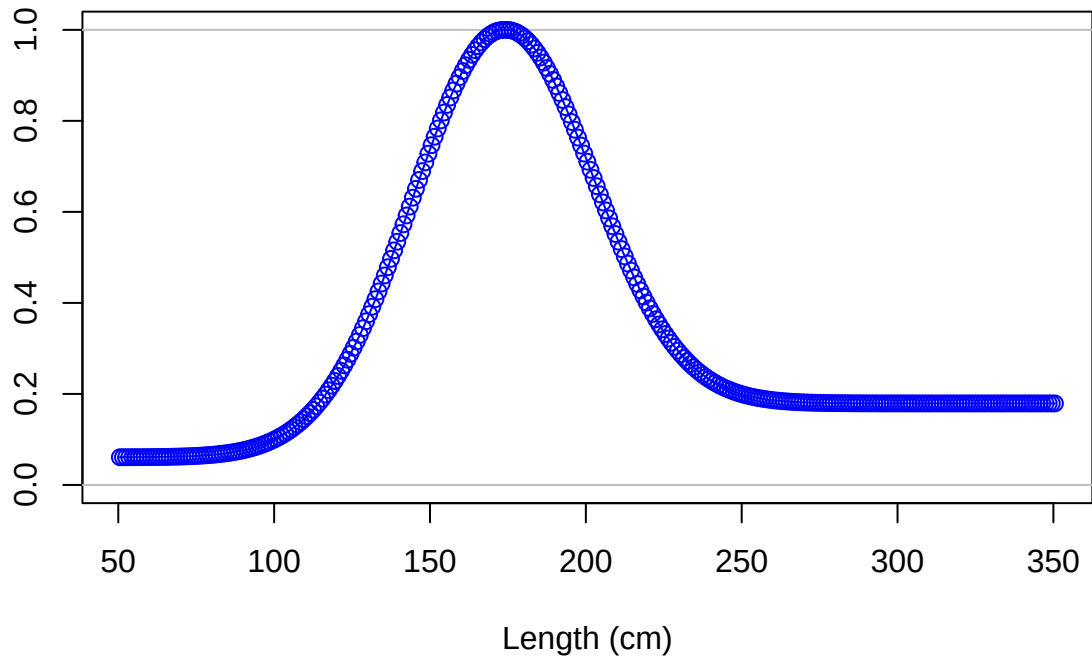
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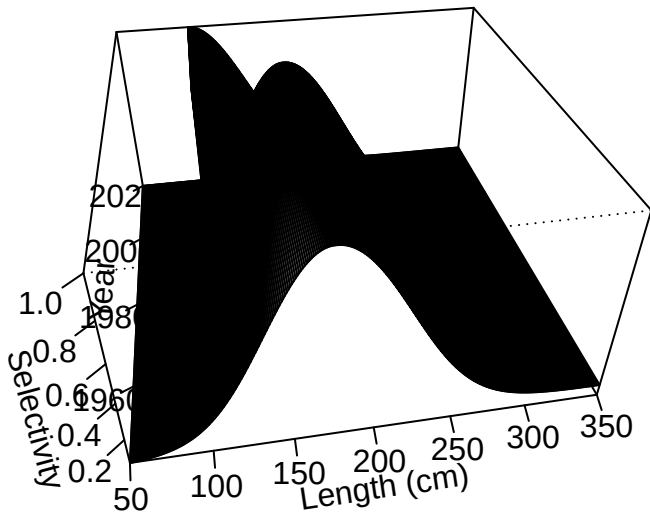


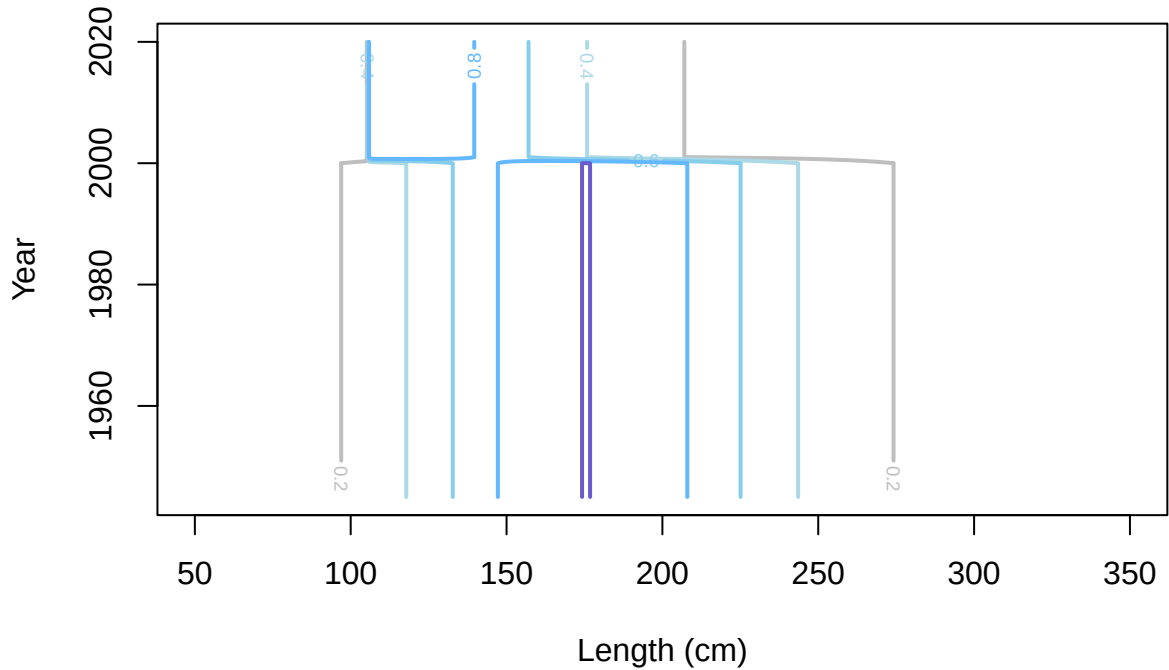
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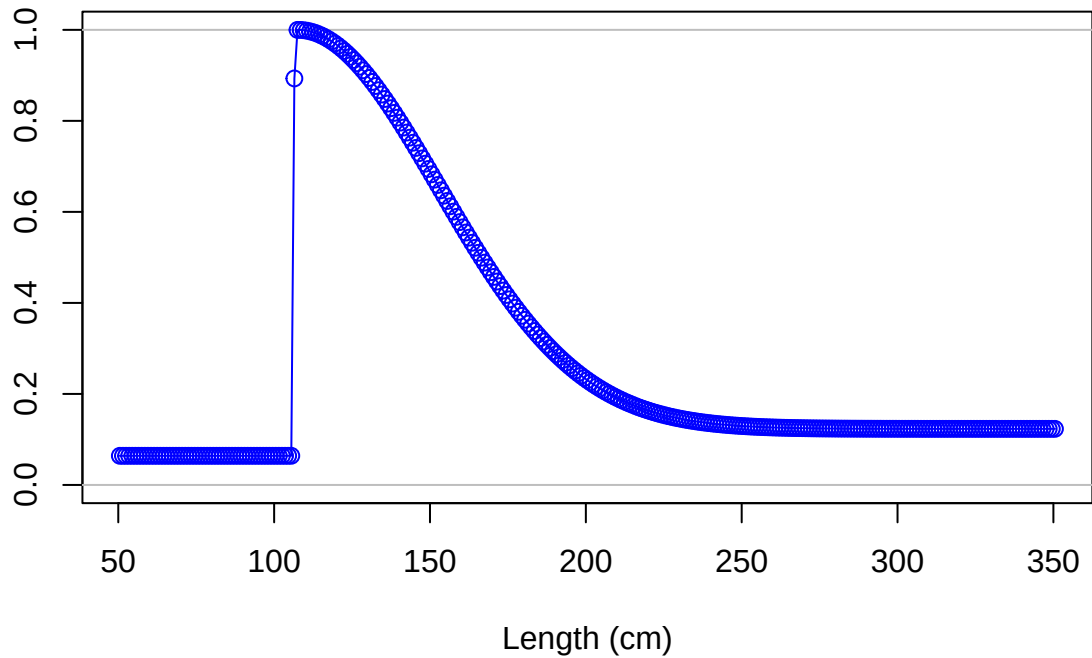
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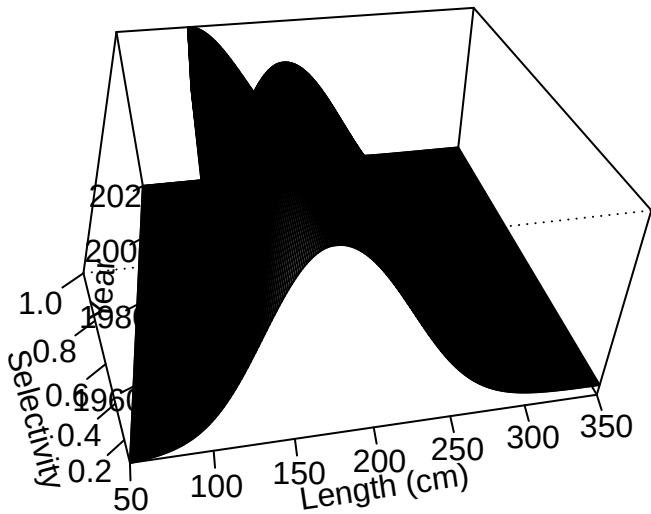


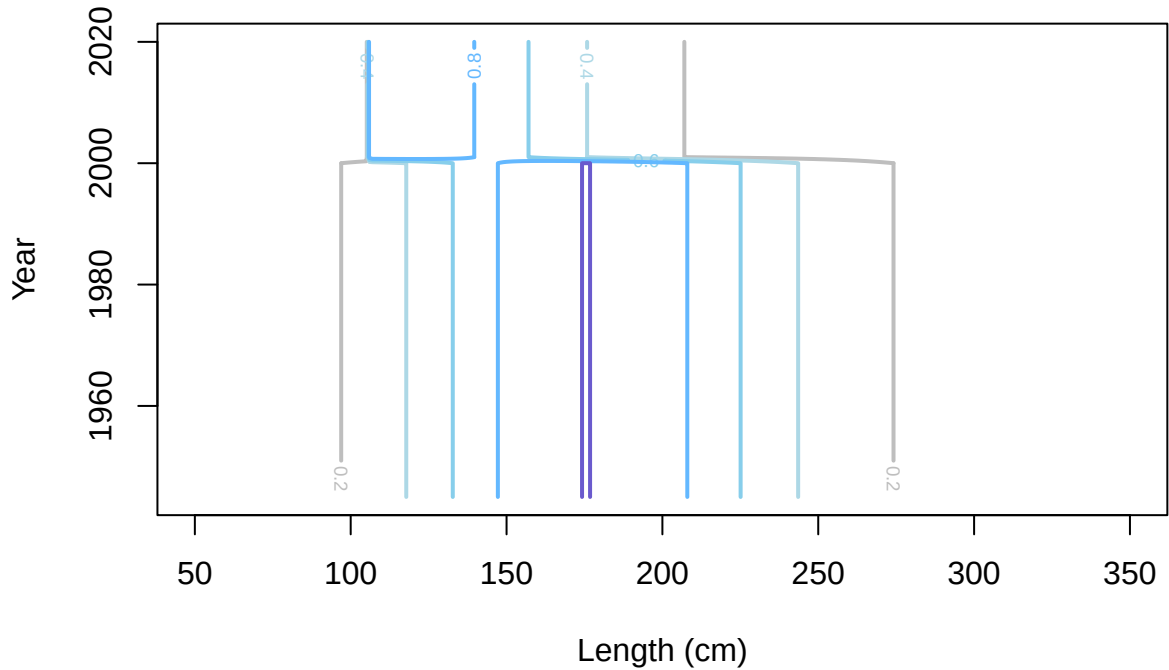




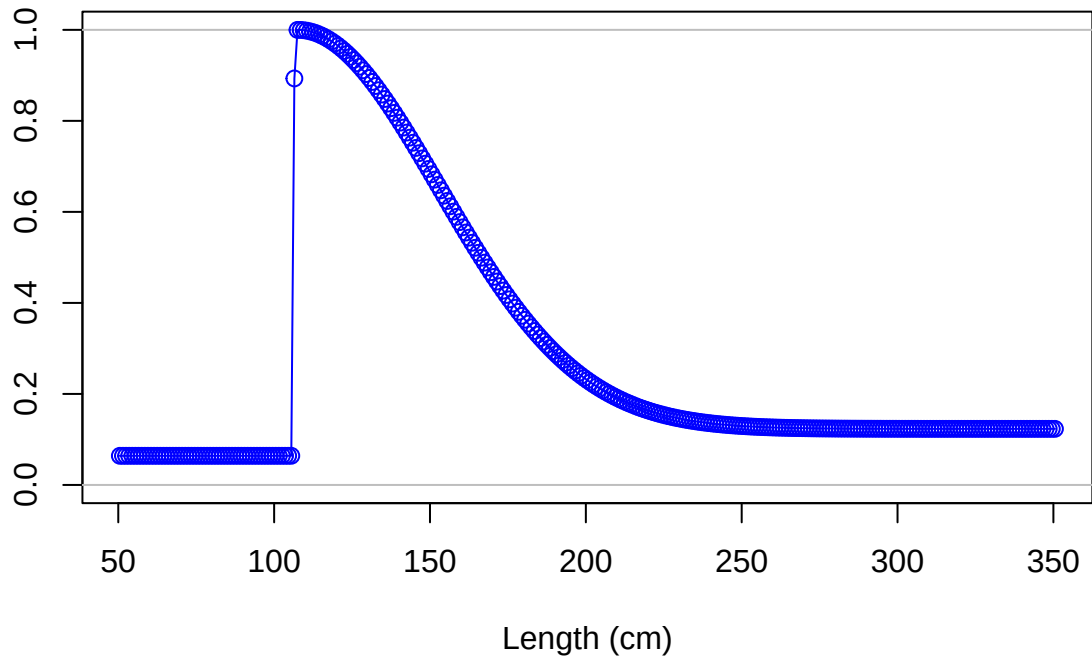
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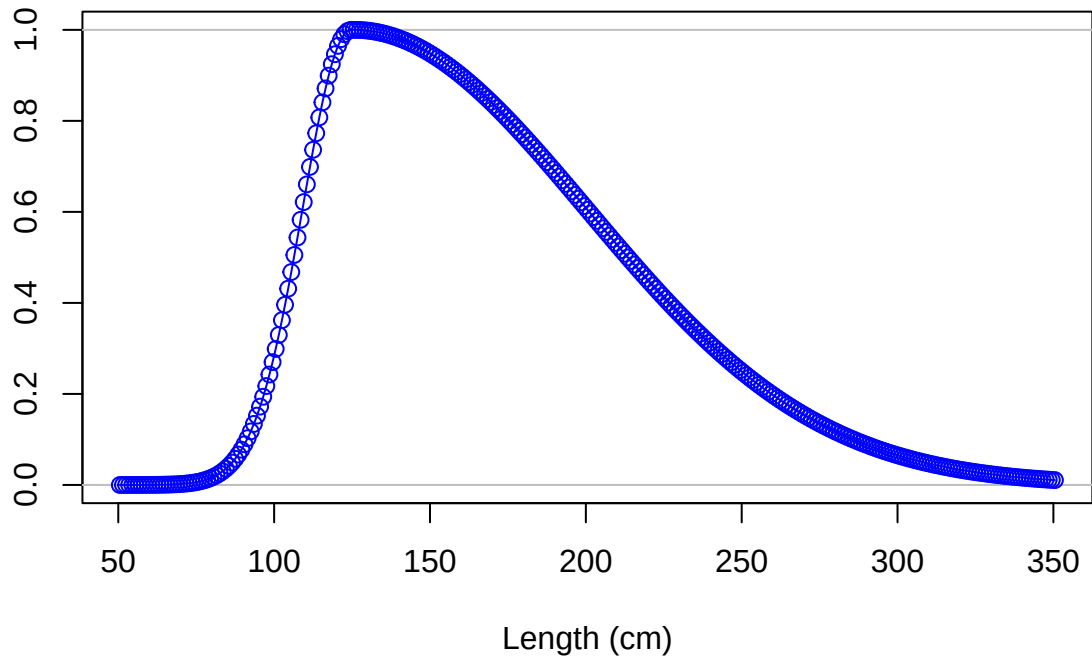




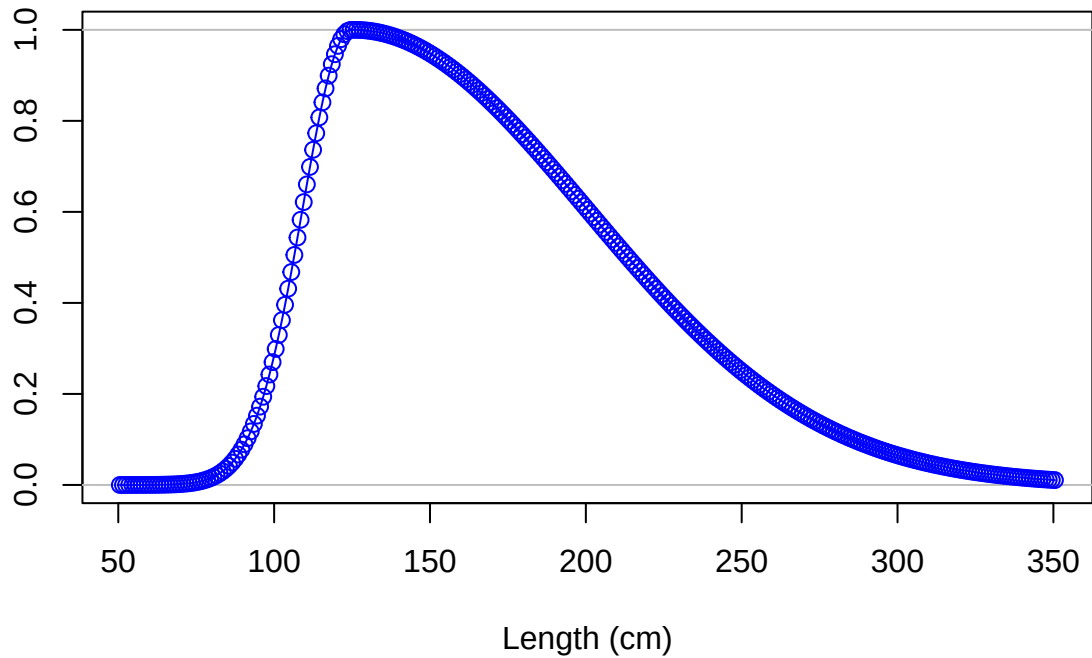
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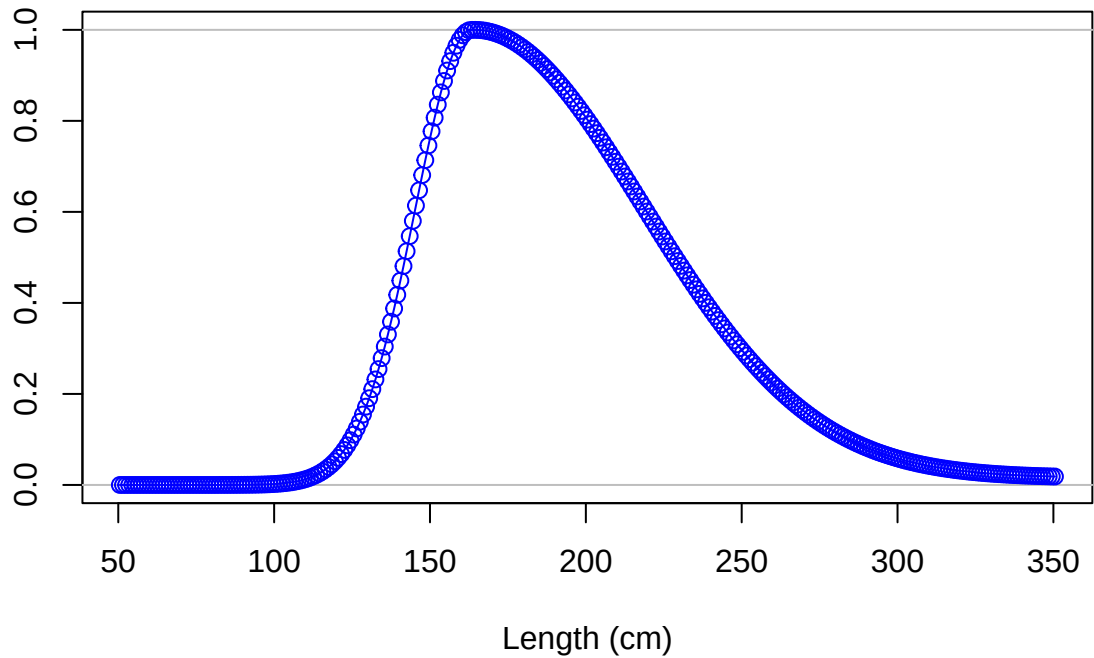
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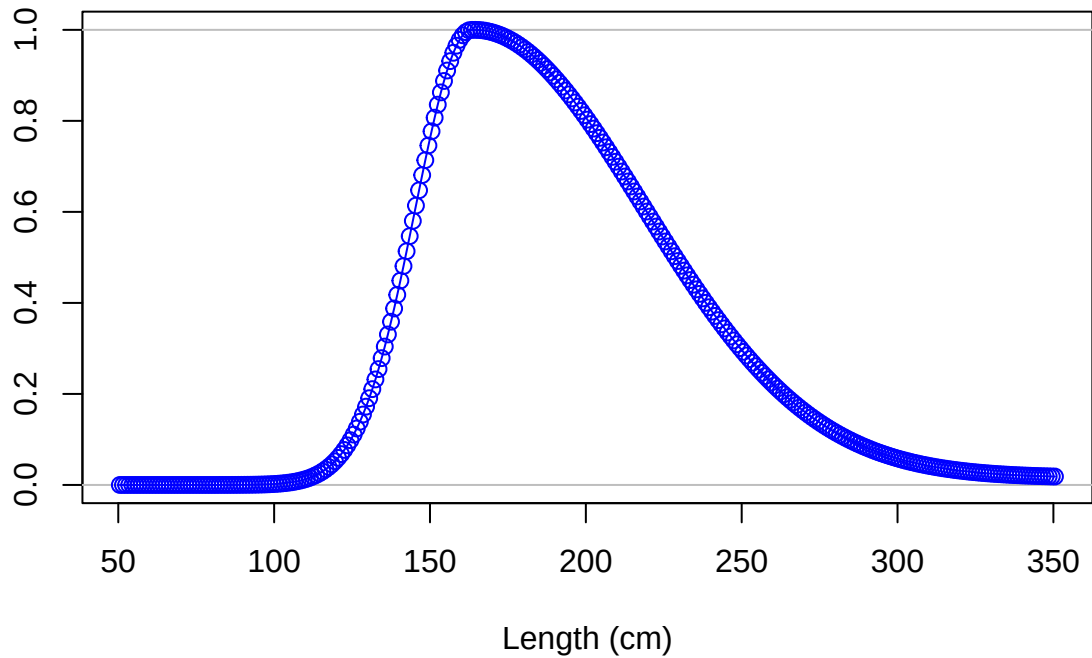
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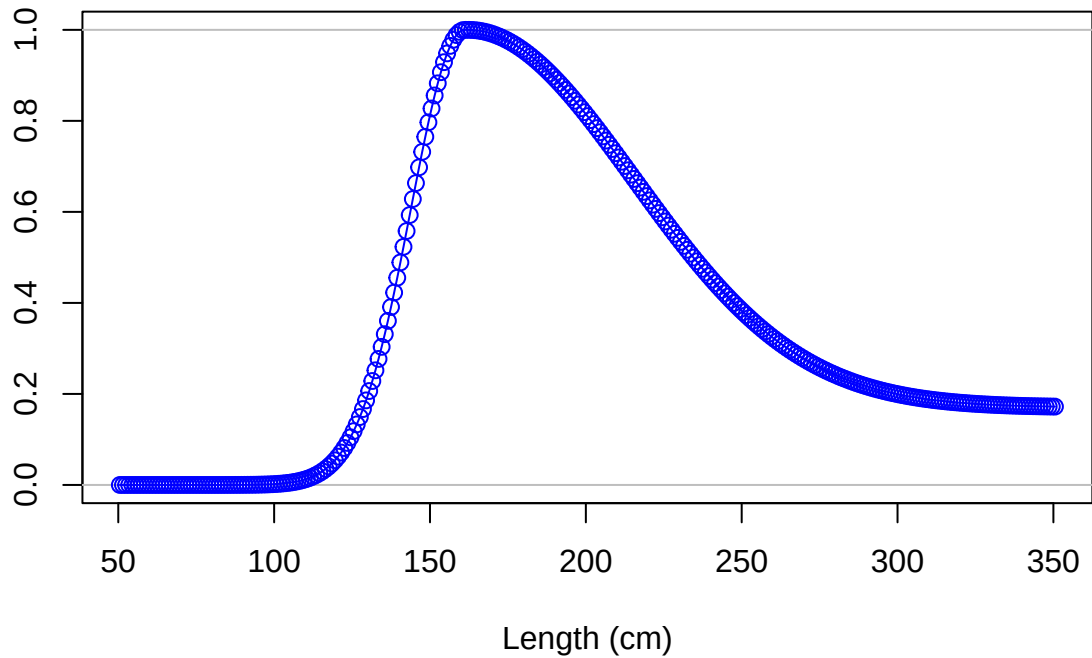
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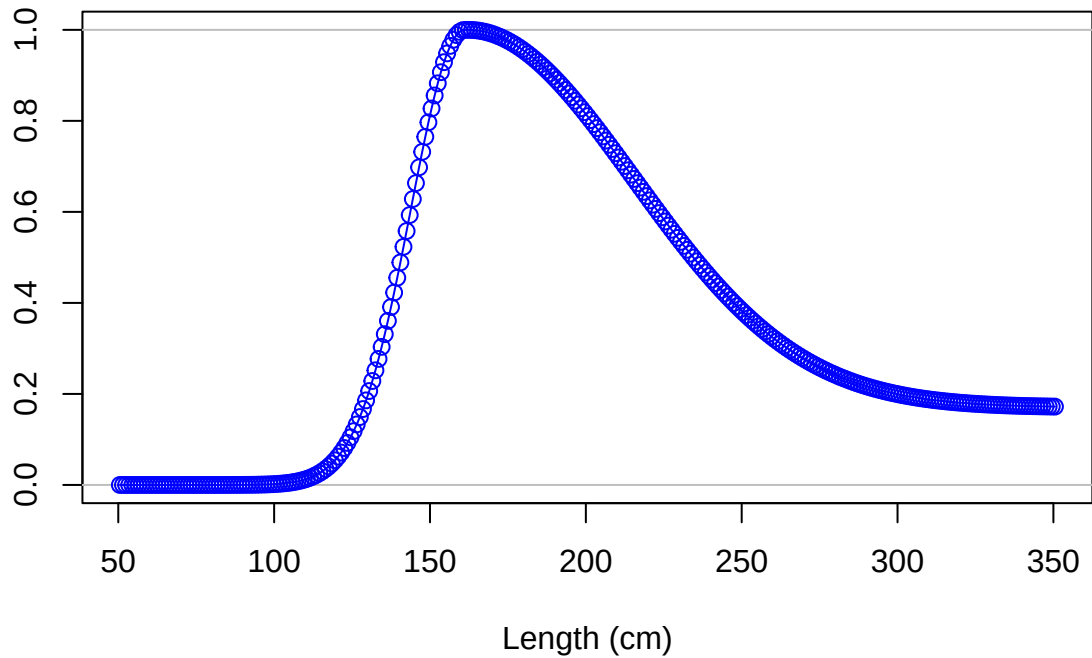
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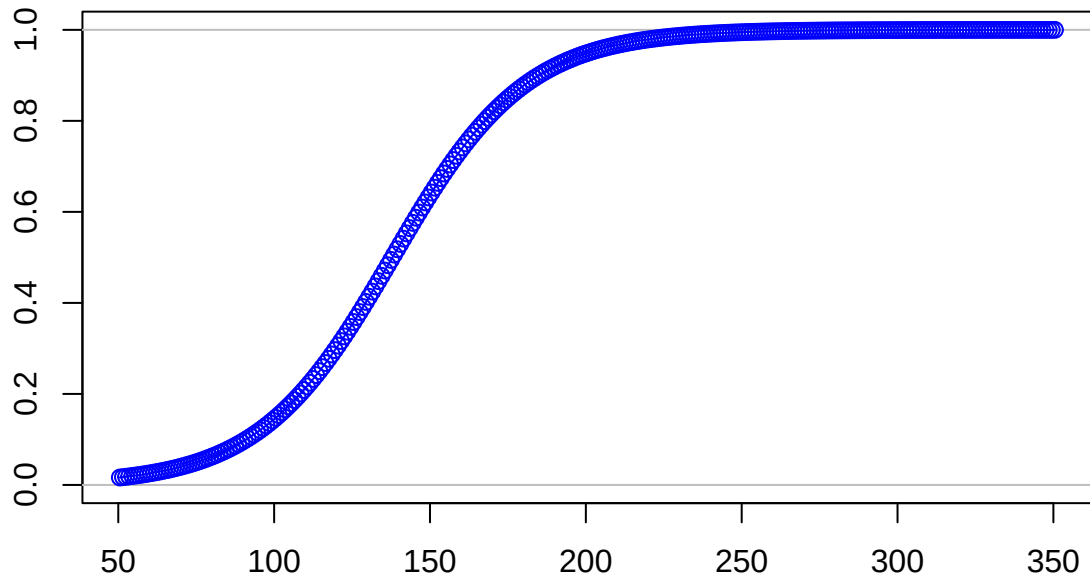
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Selectivity

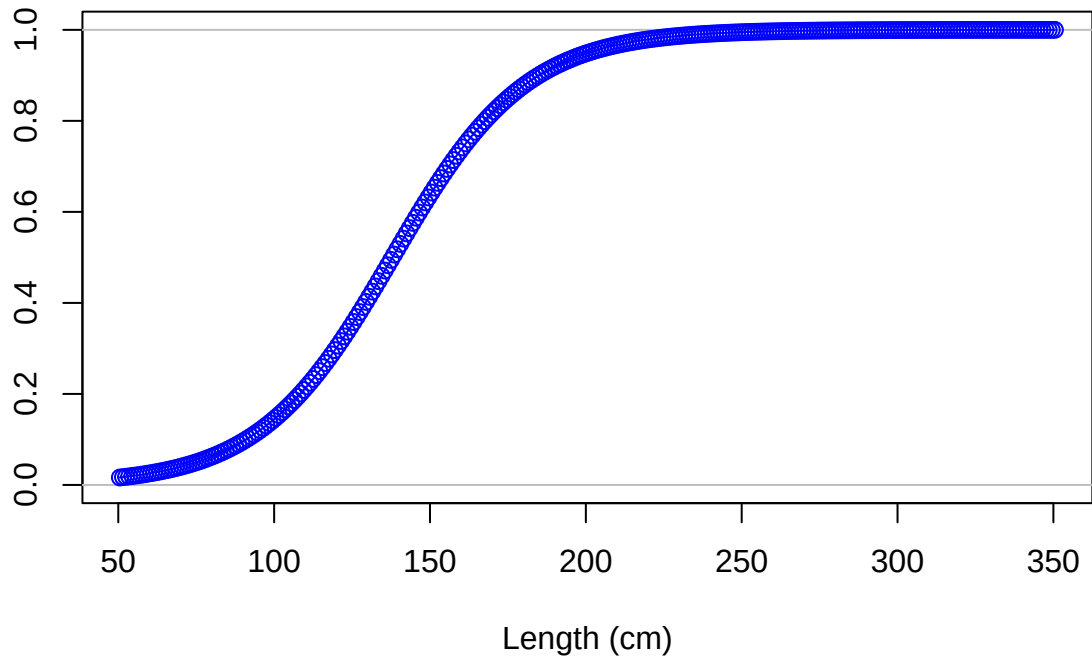


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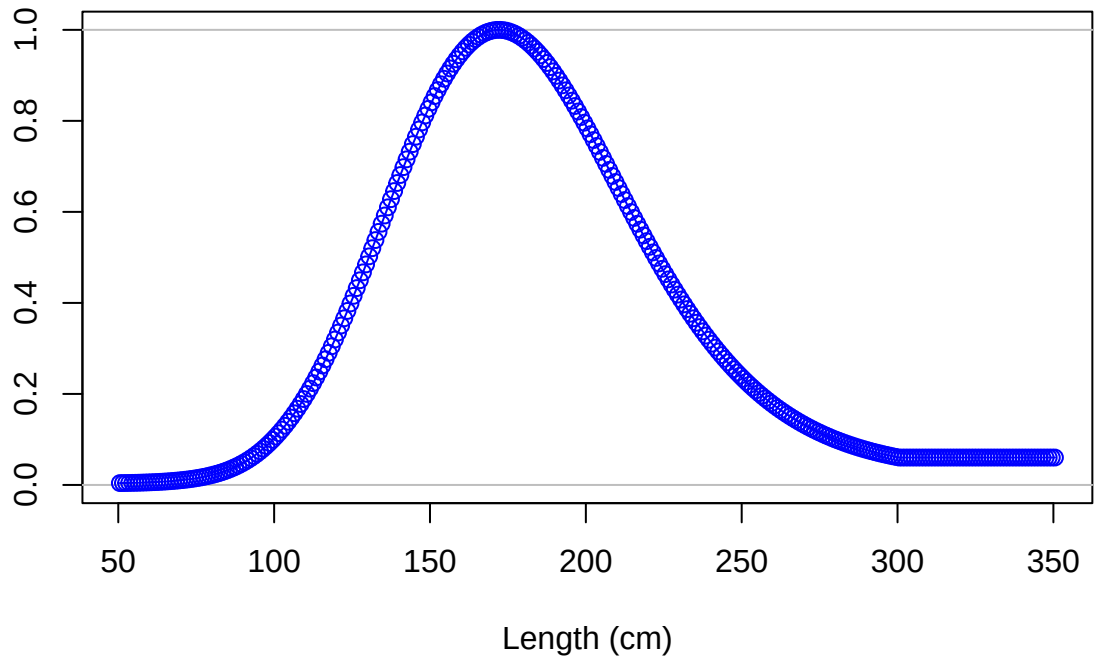


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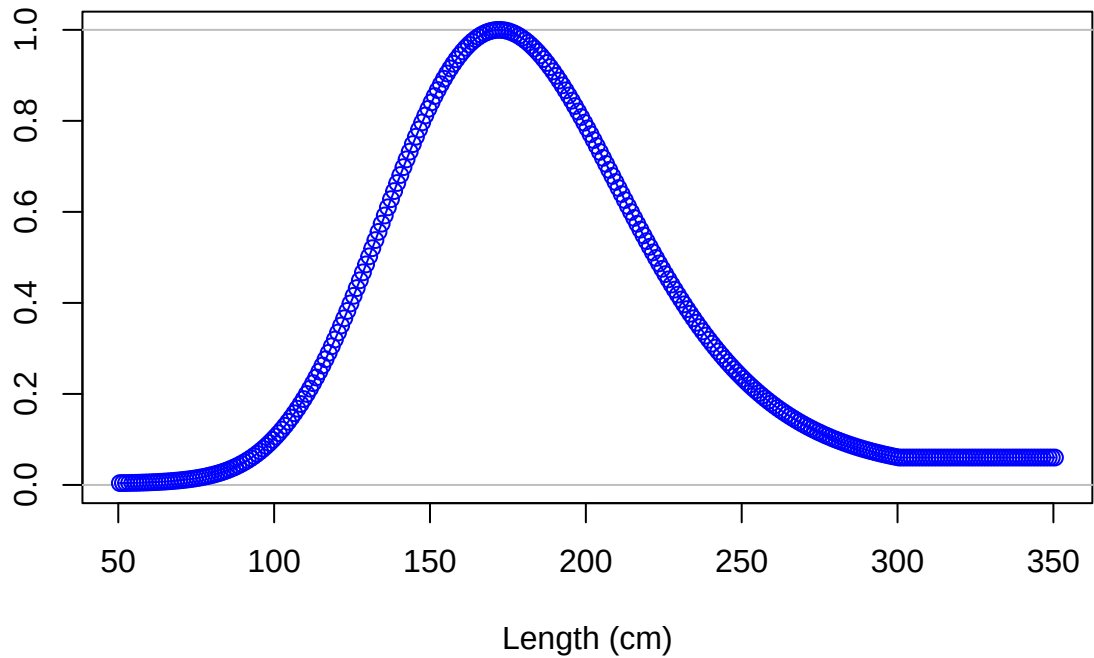
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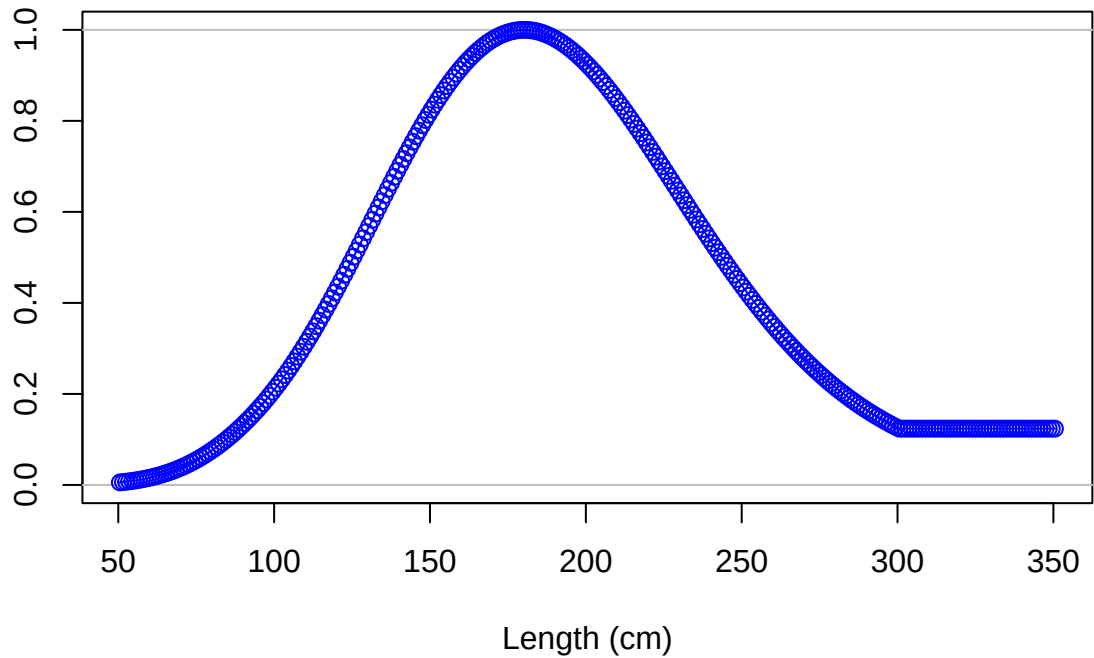
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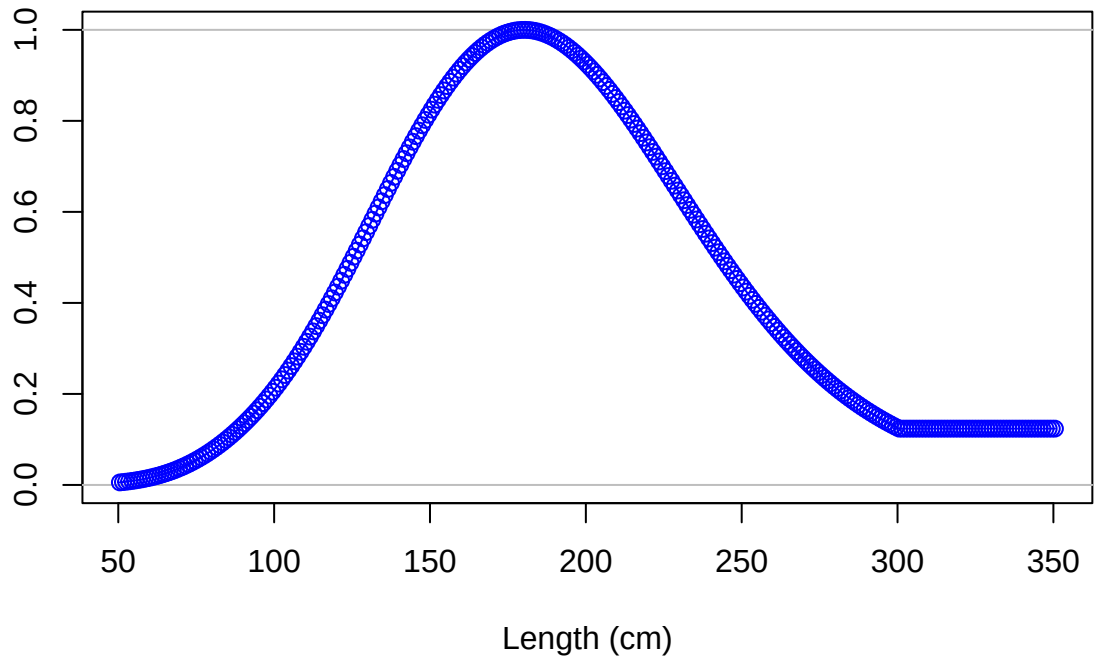
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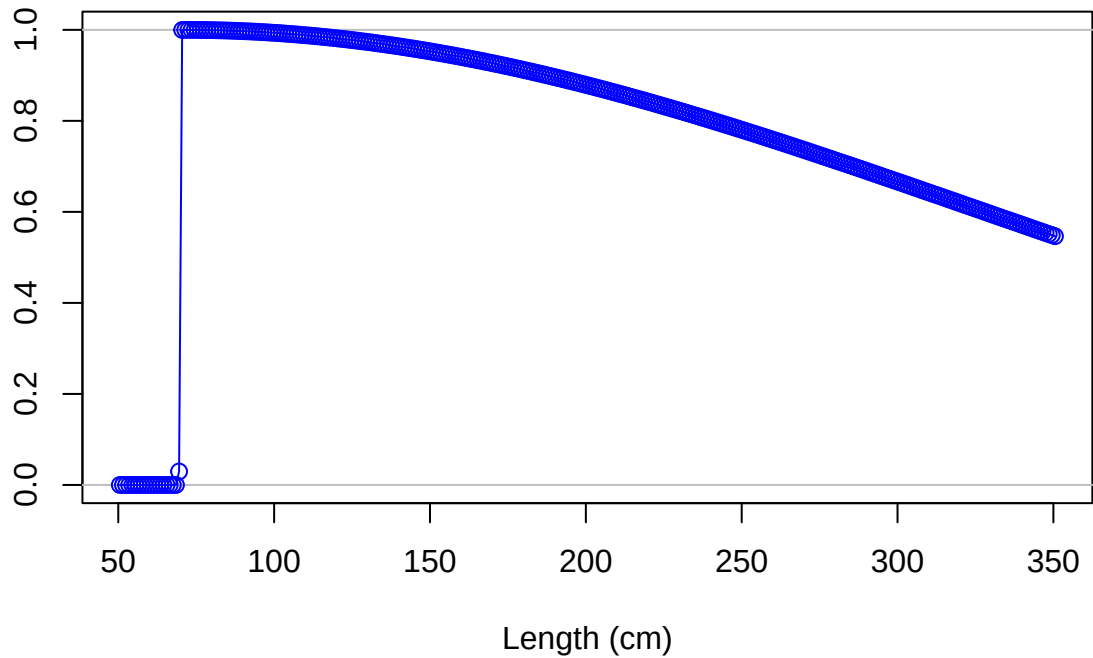
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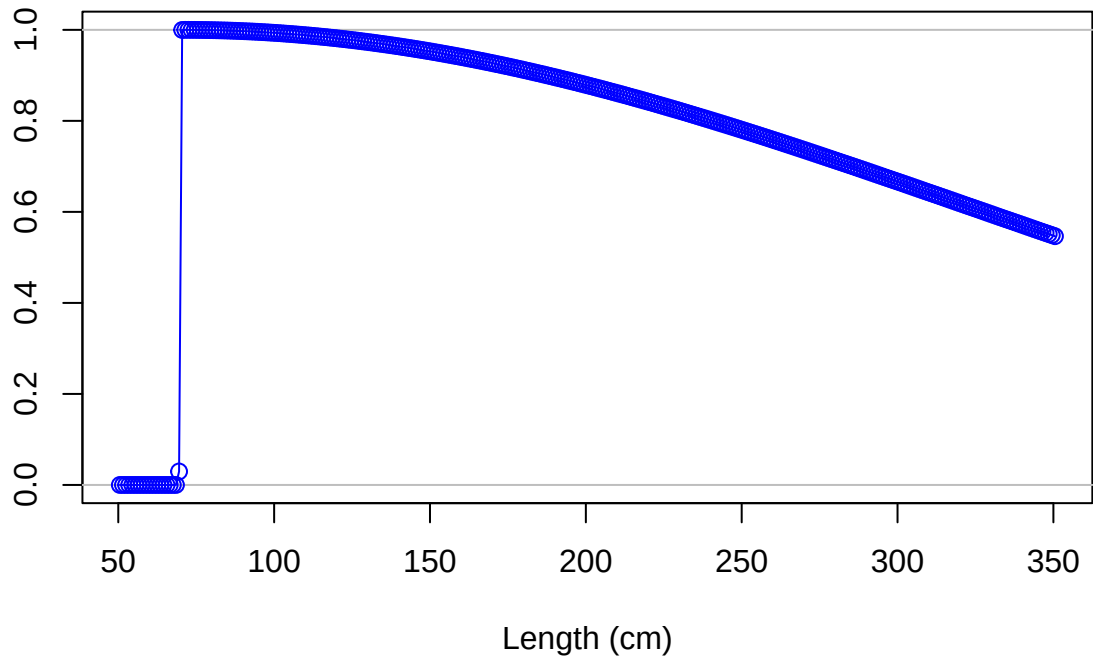
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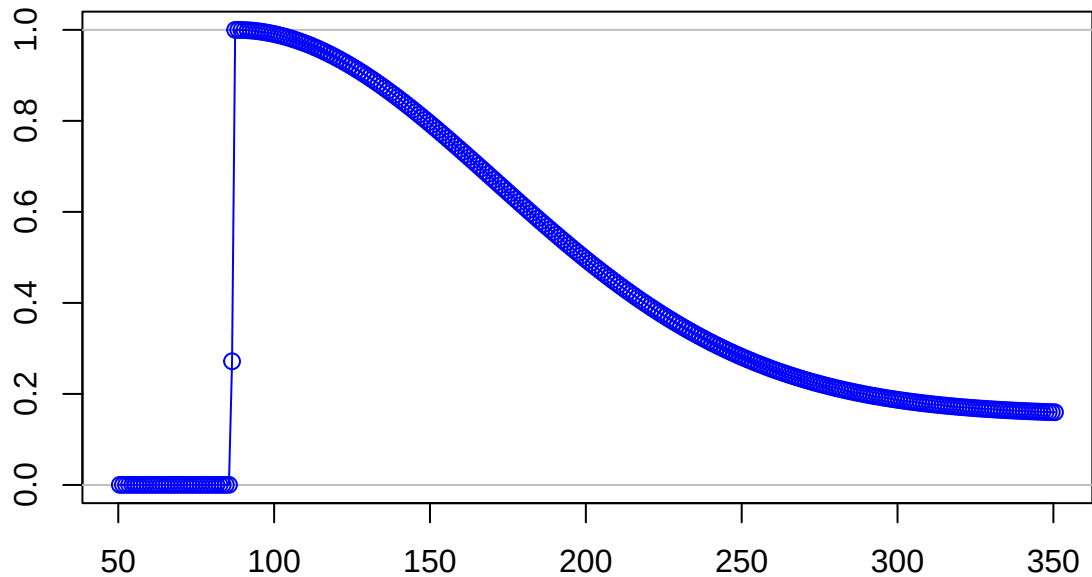
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Selectivity

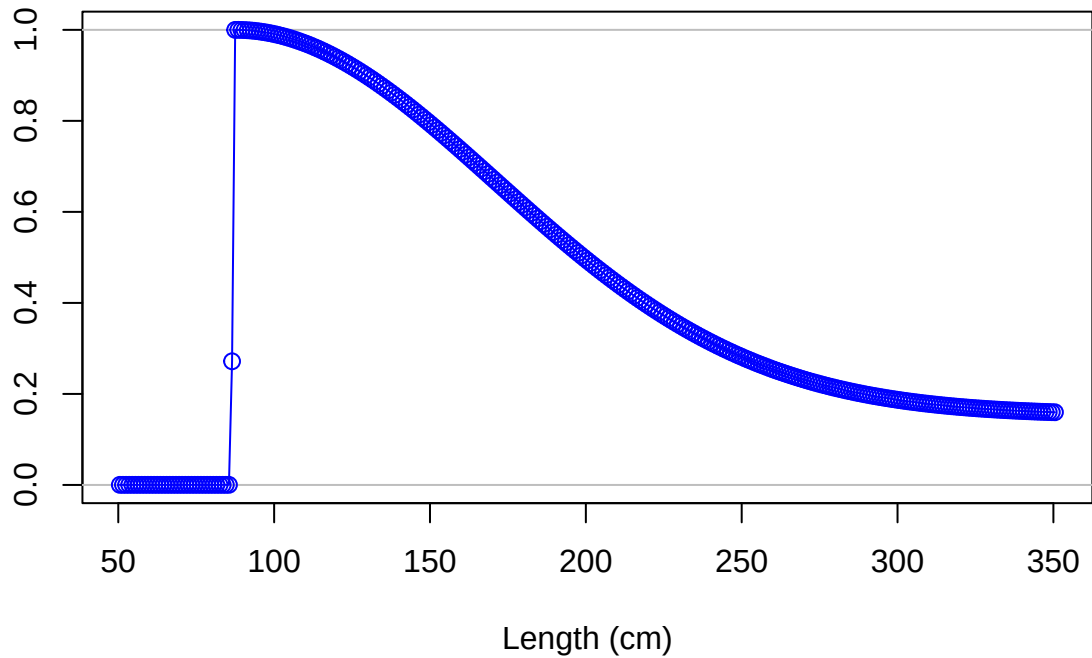


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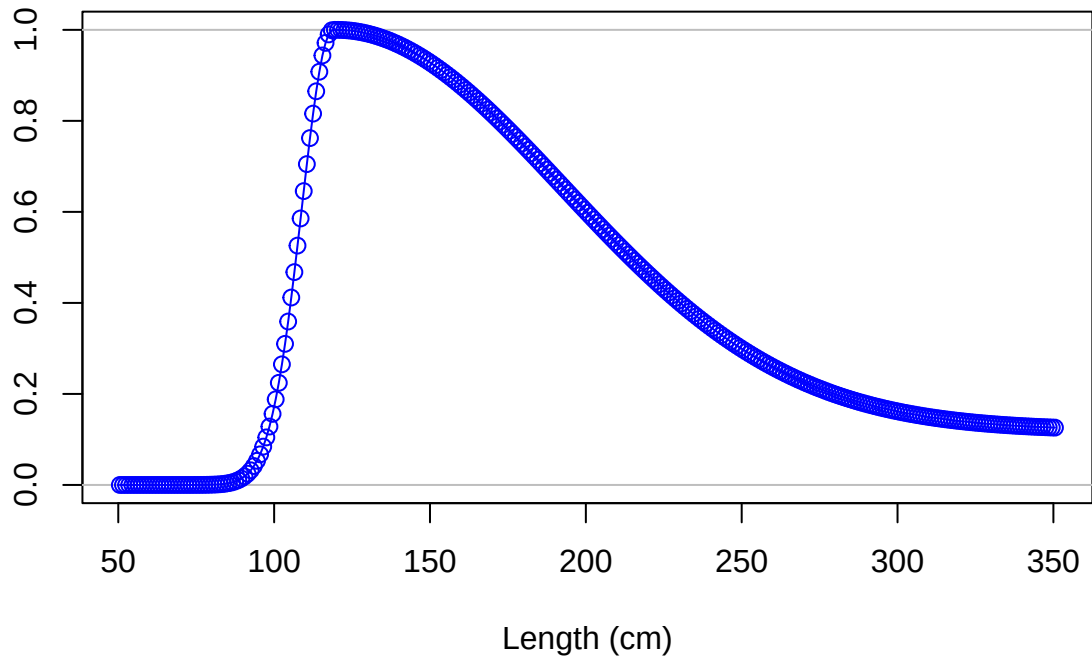


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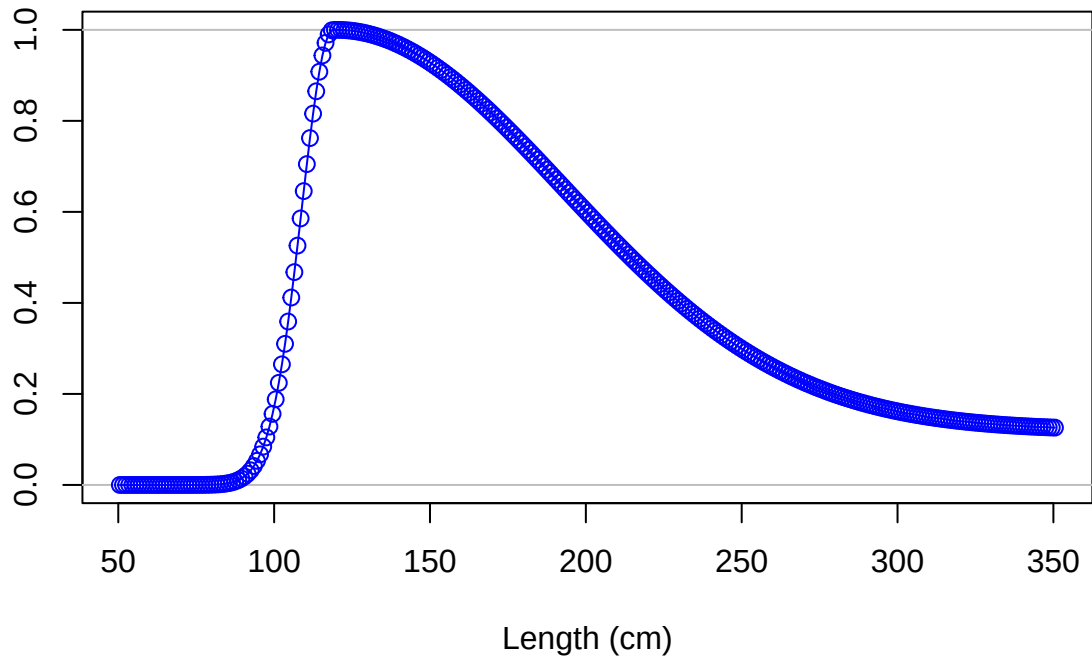
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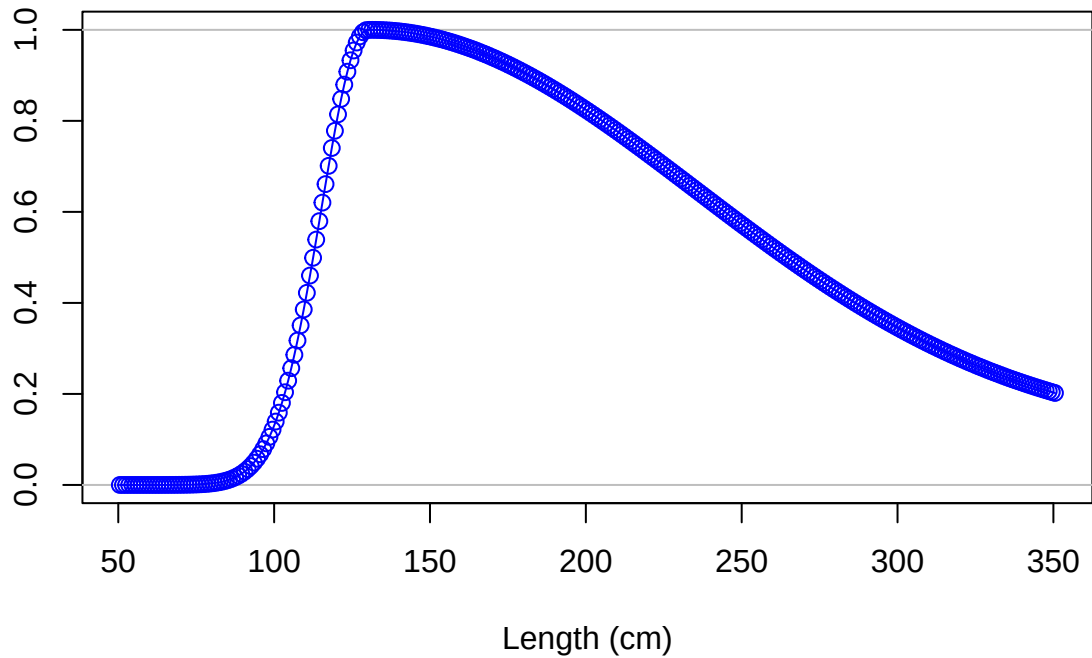
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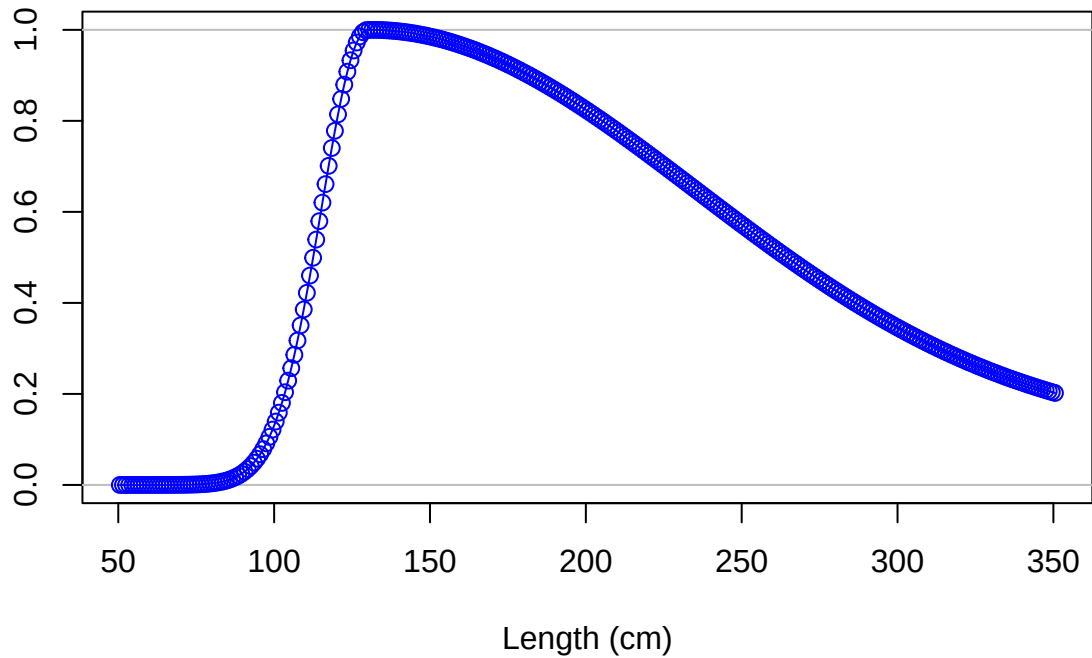
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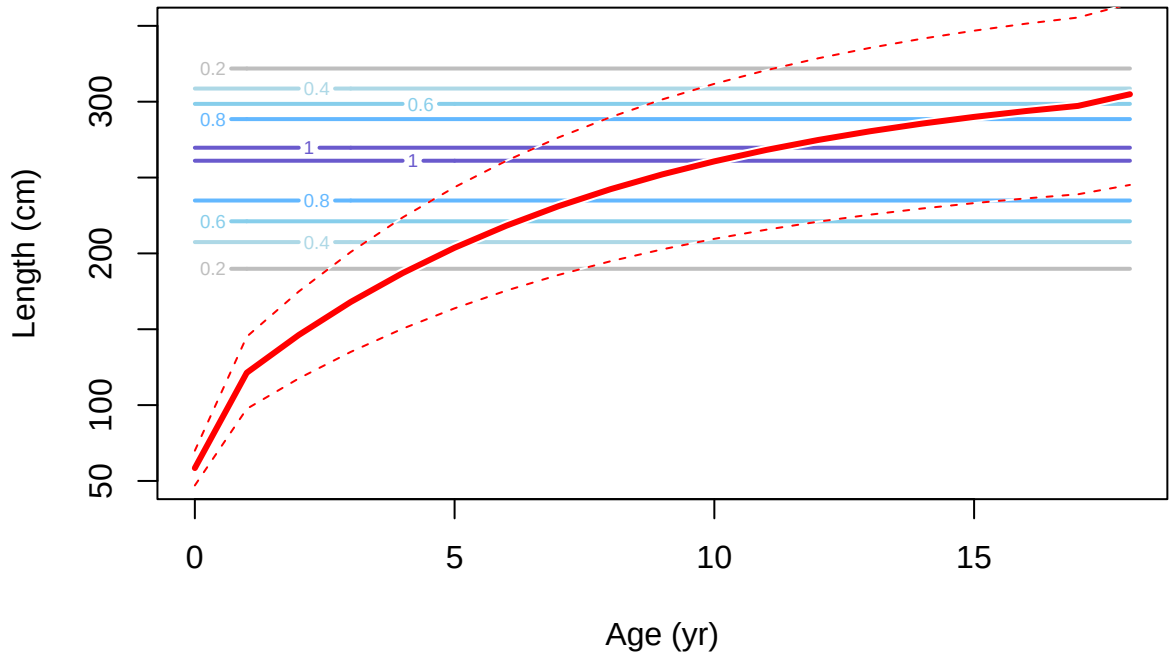


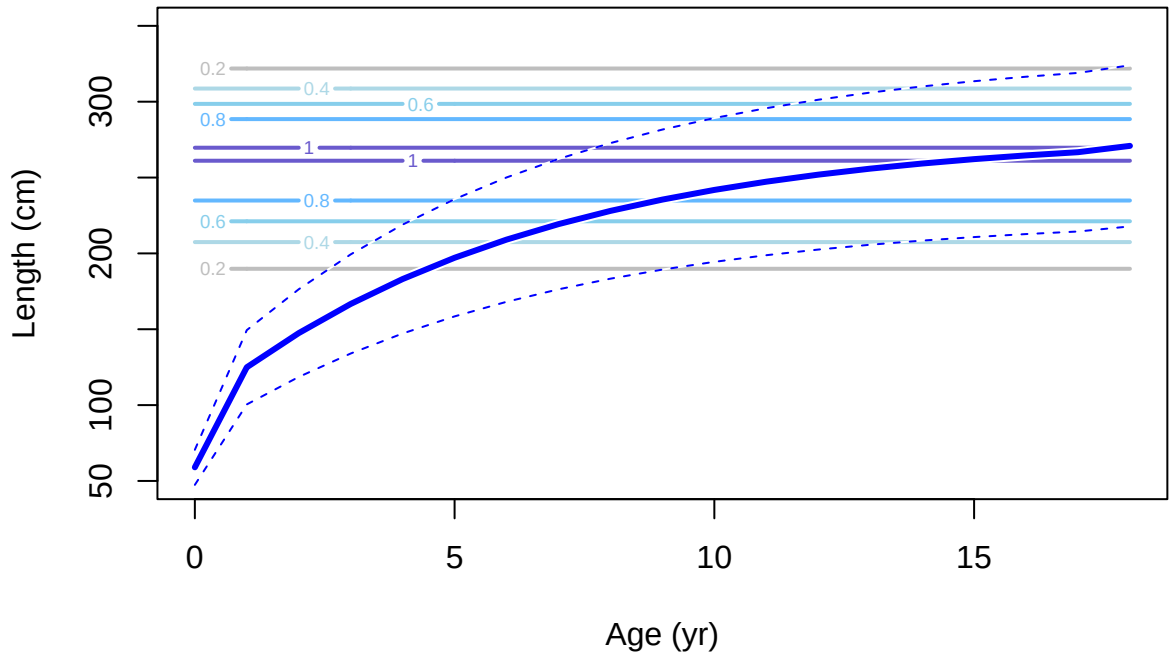
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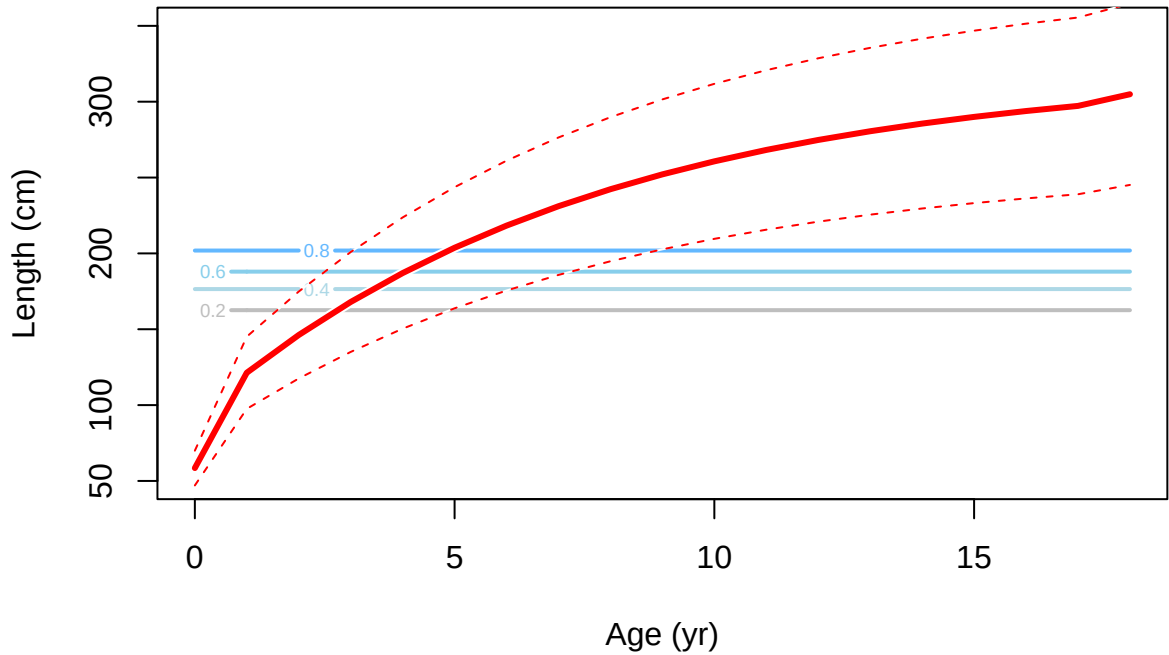


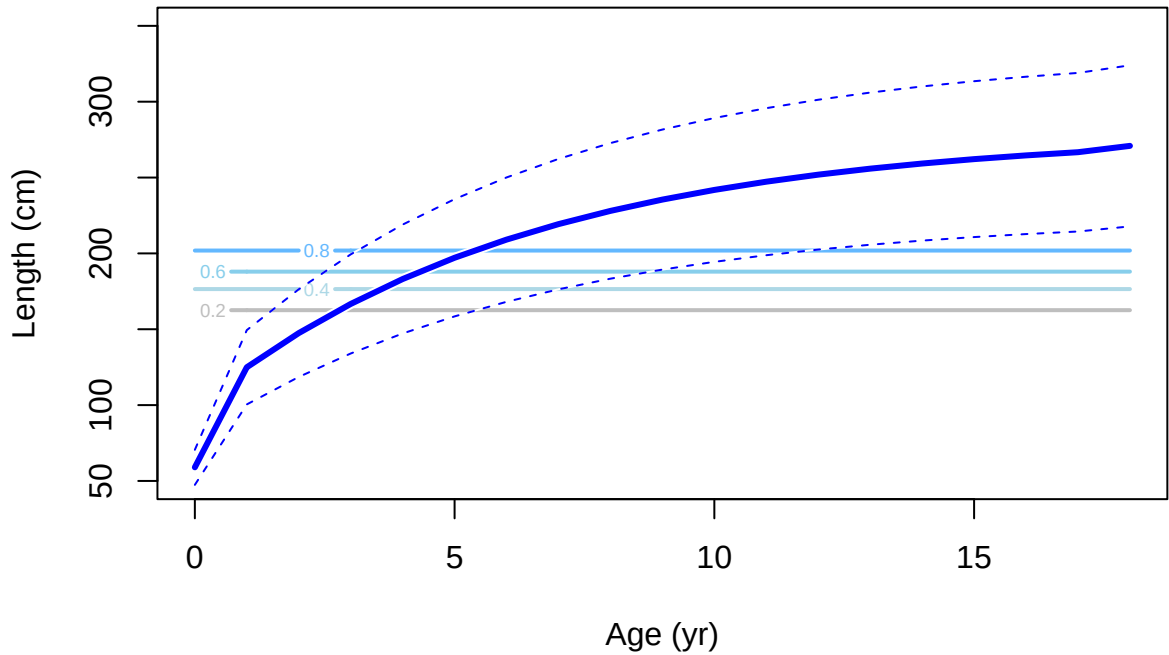
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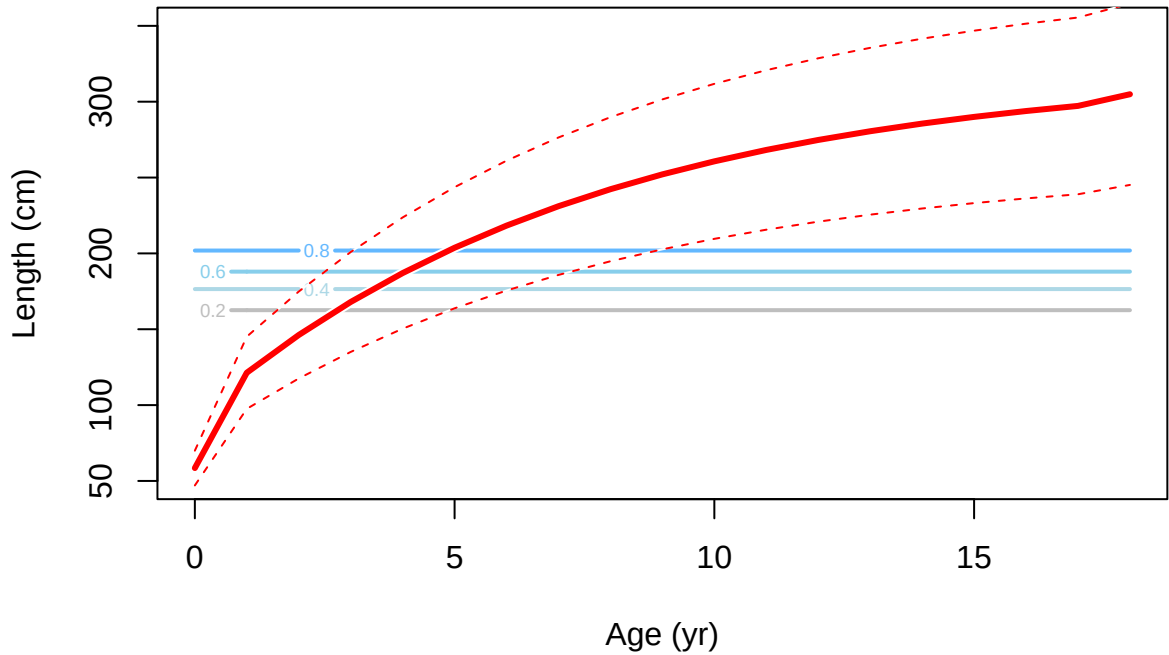


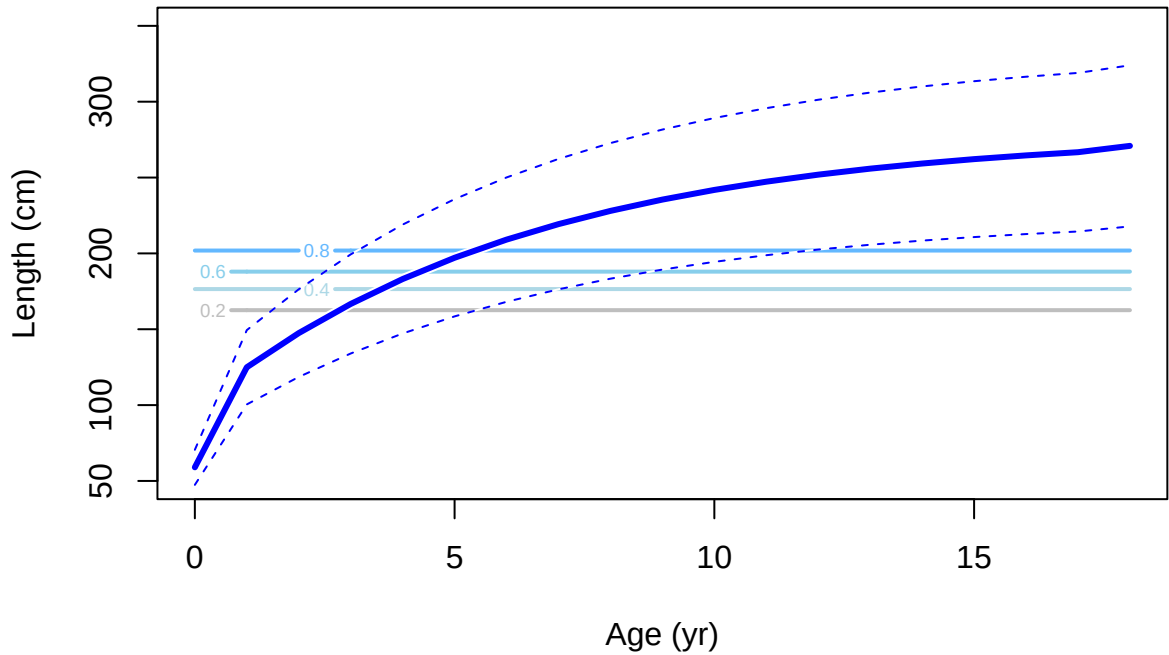


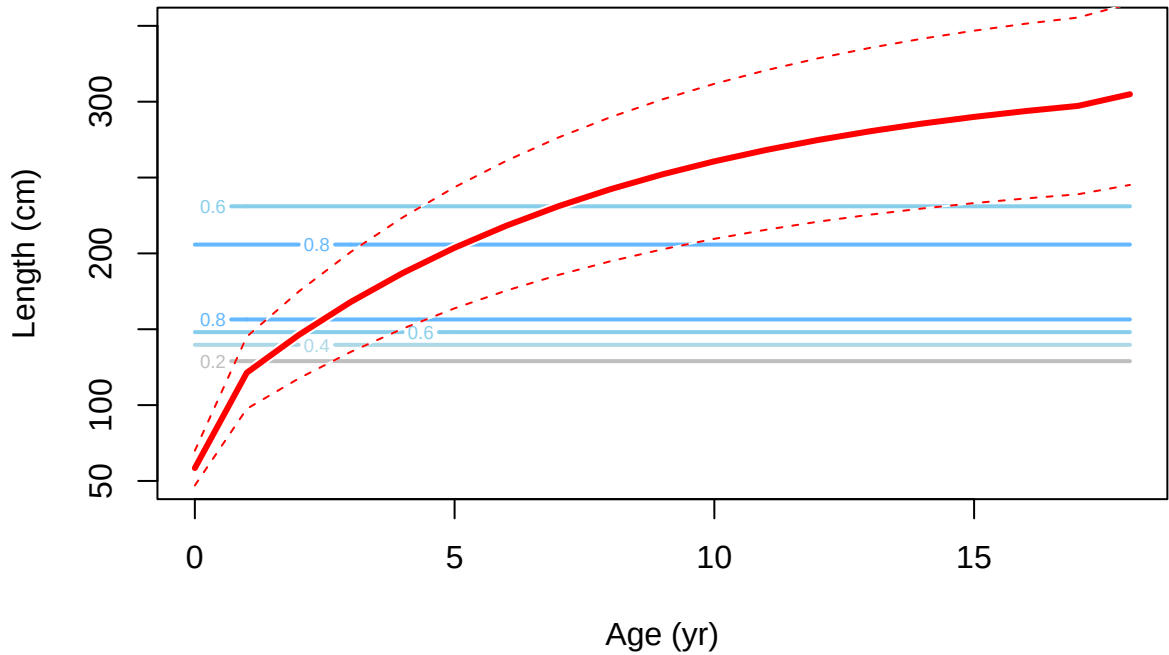


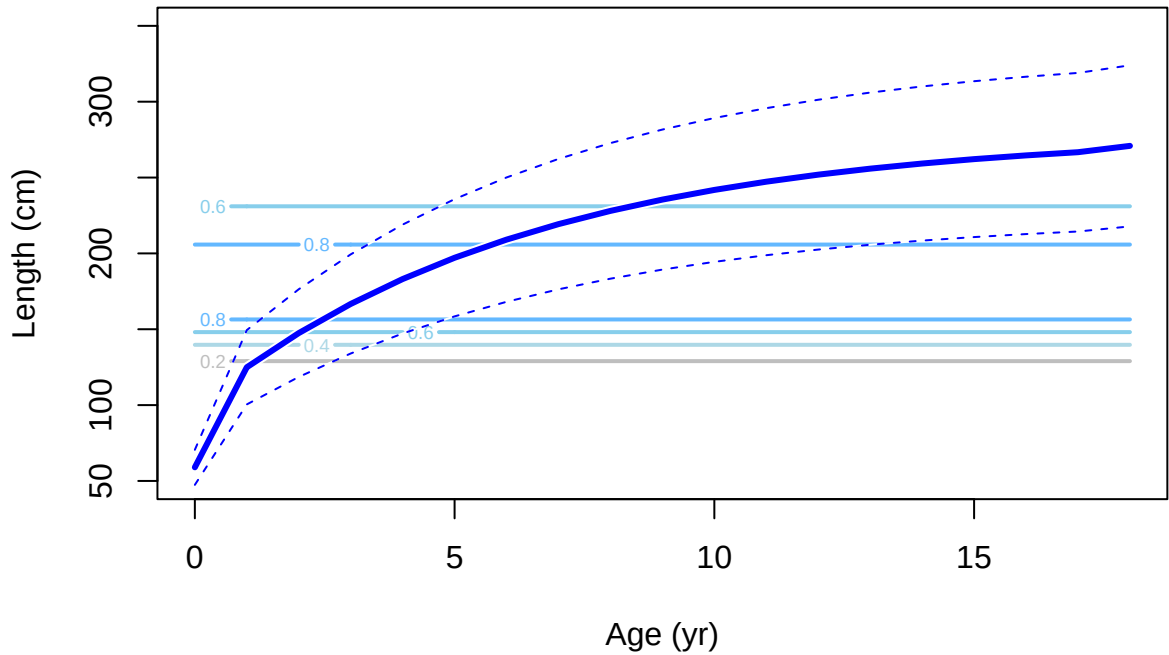


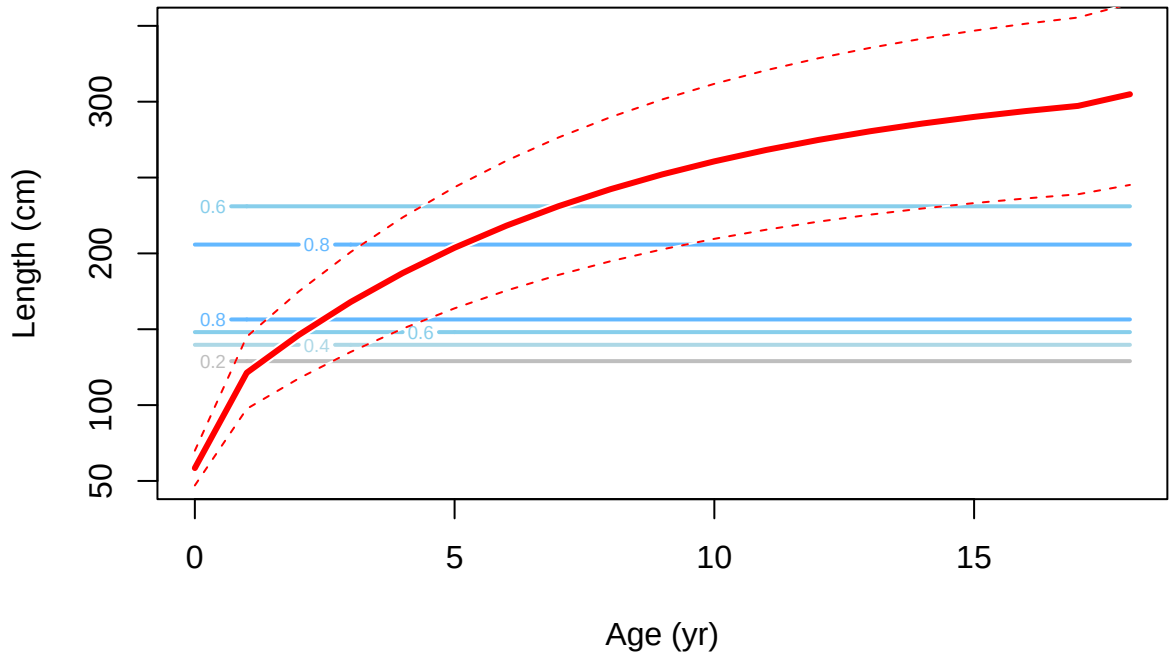


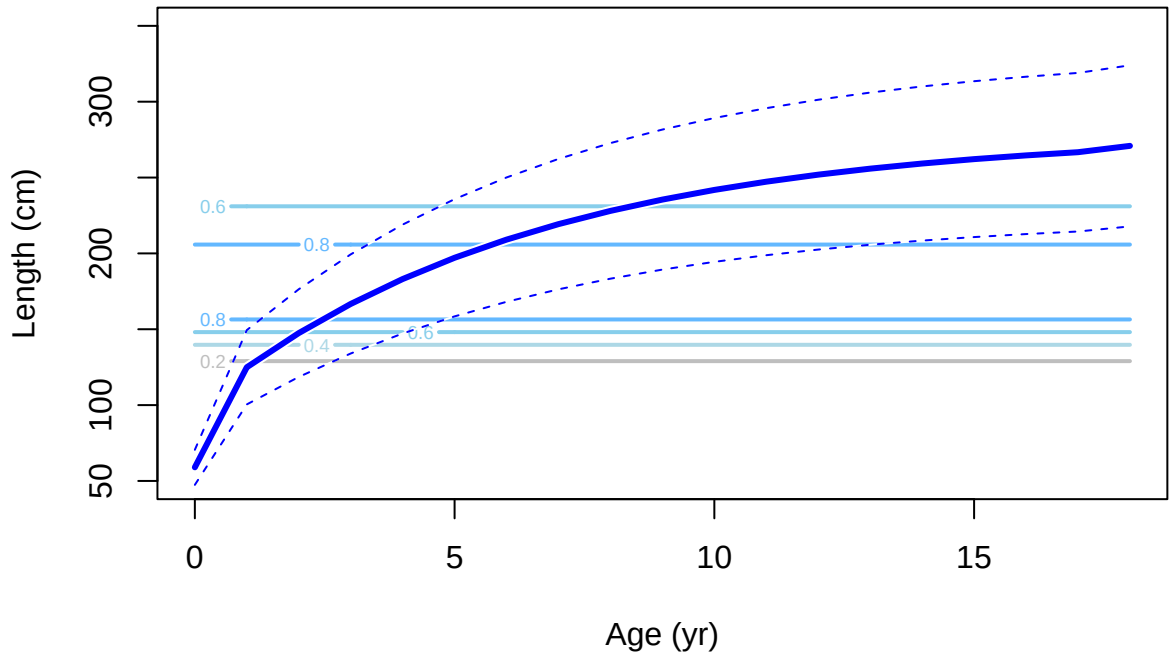


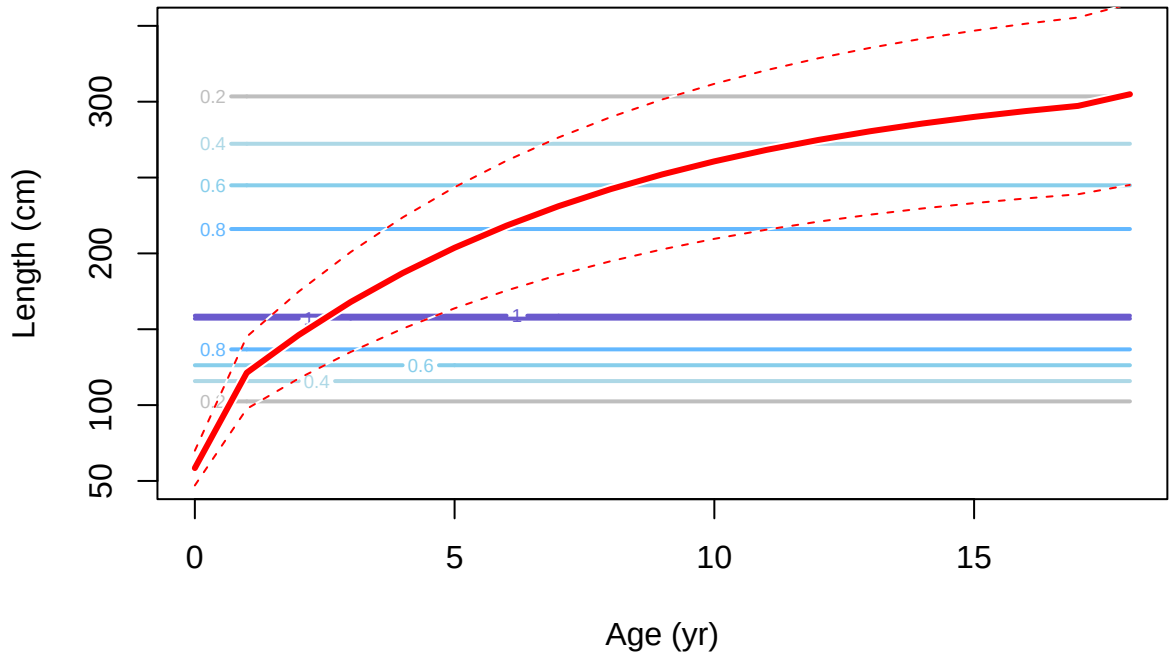


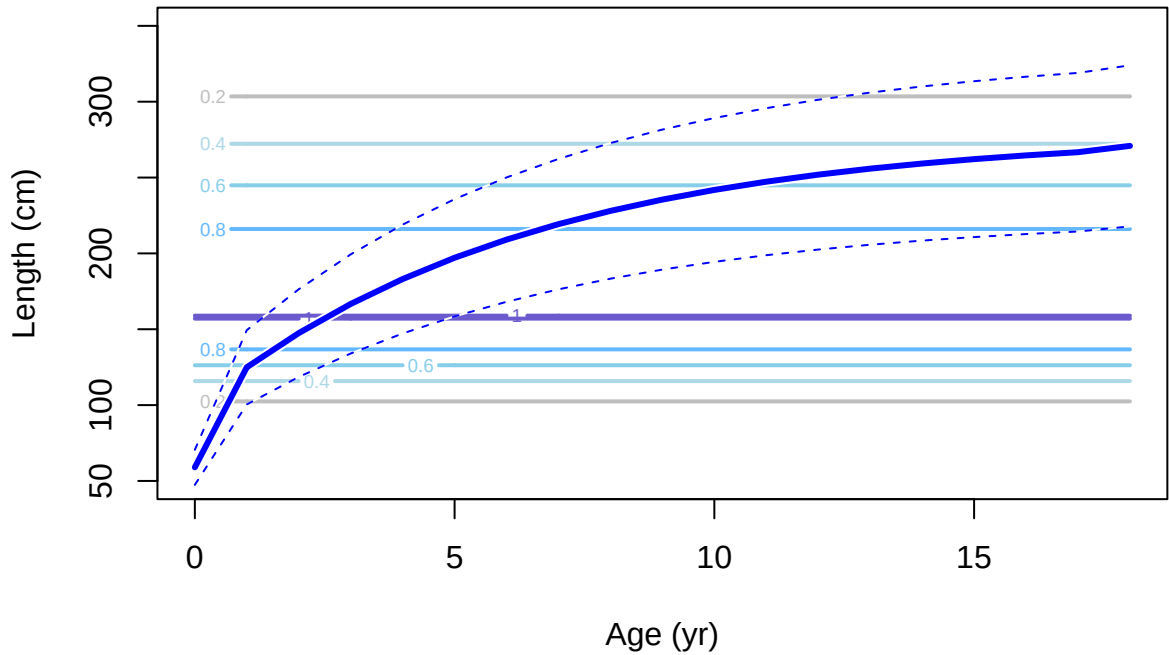


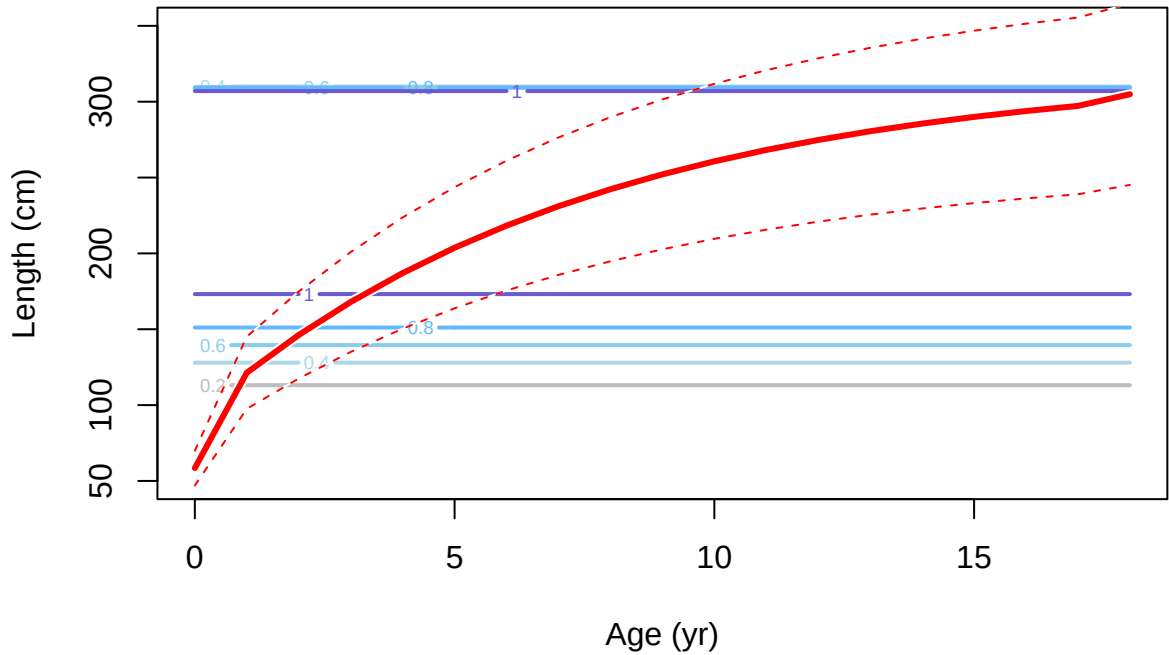


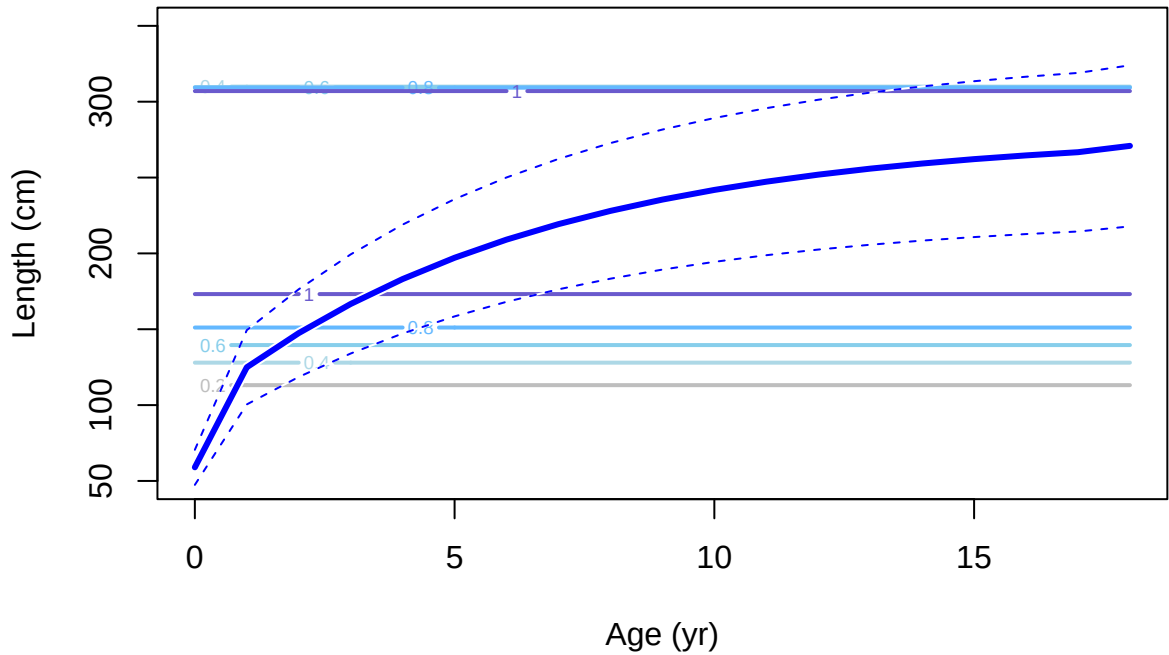


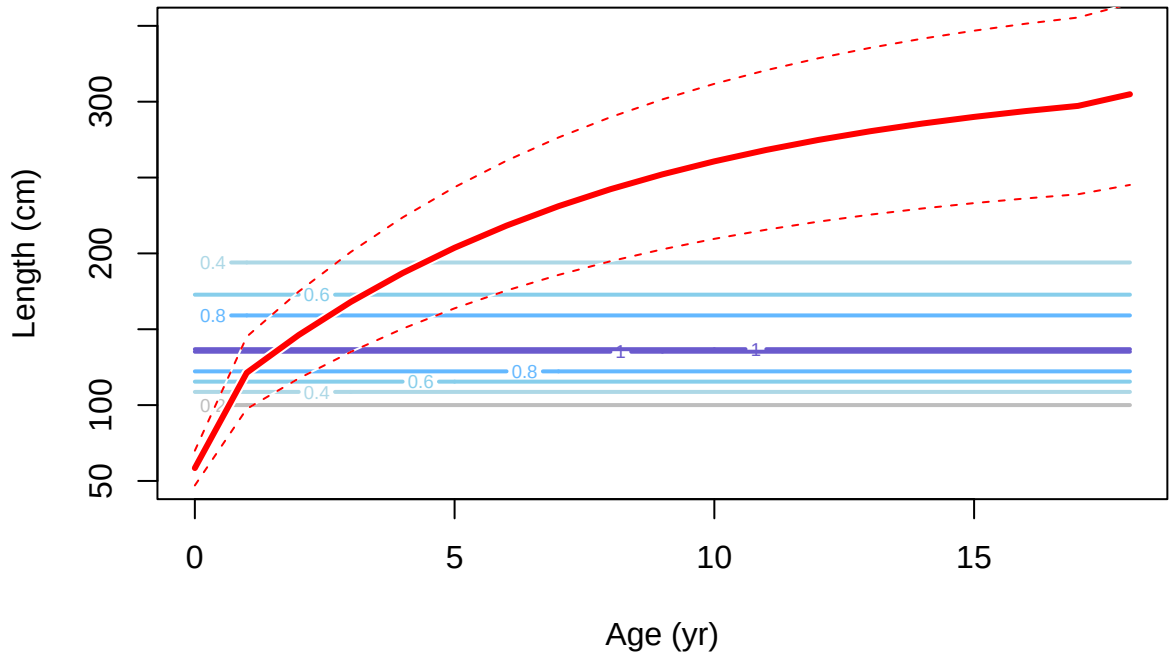


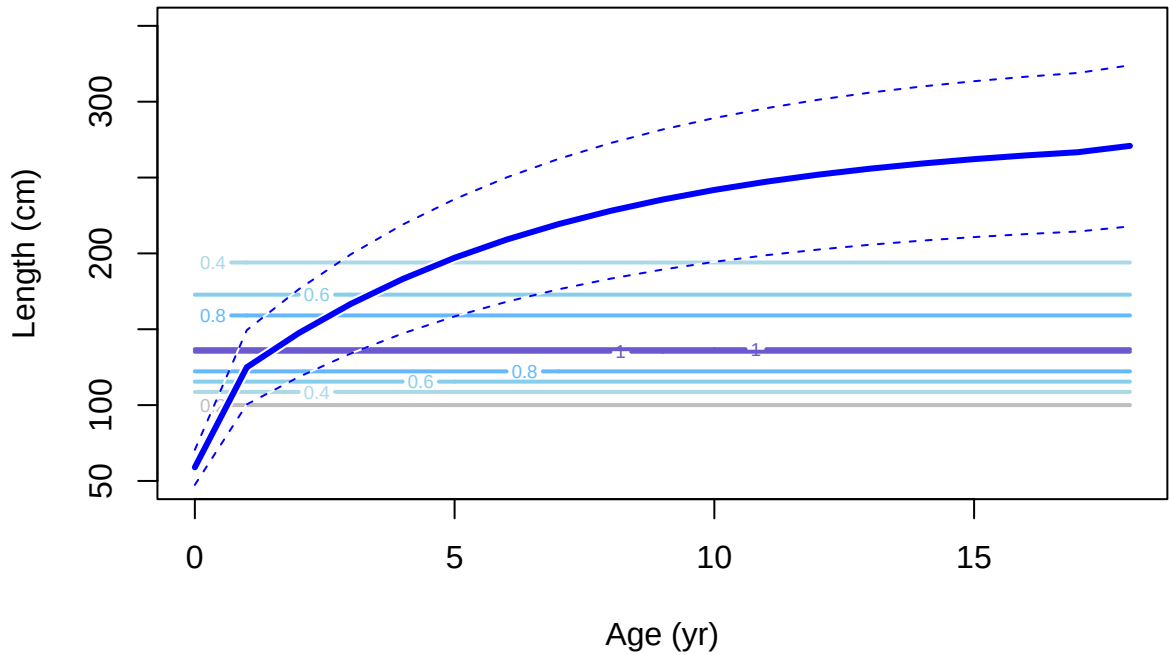


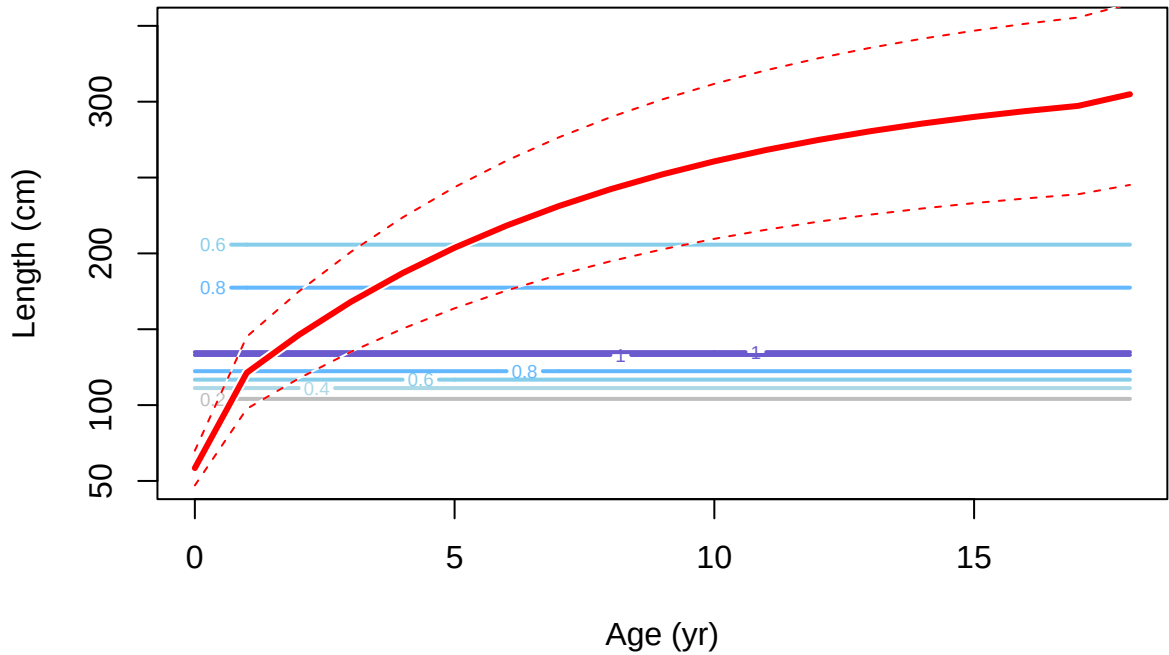


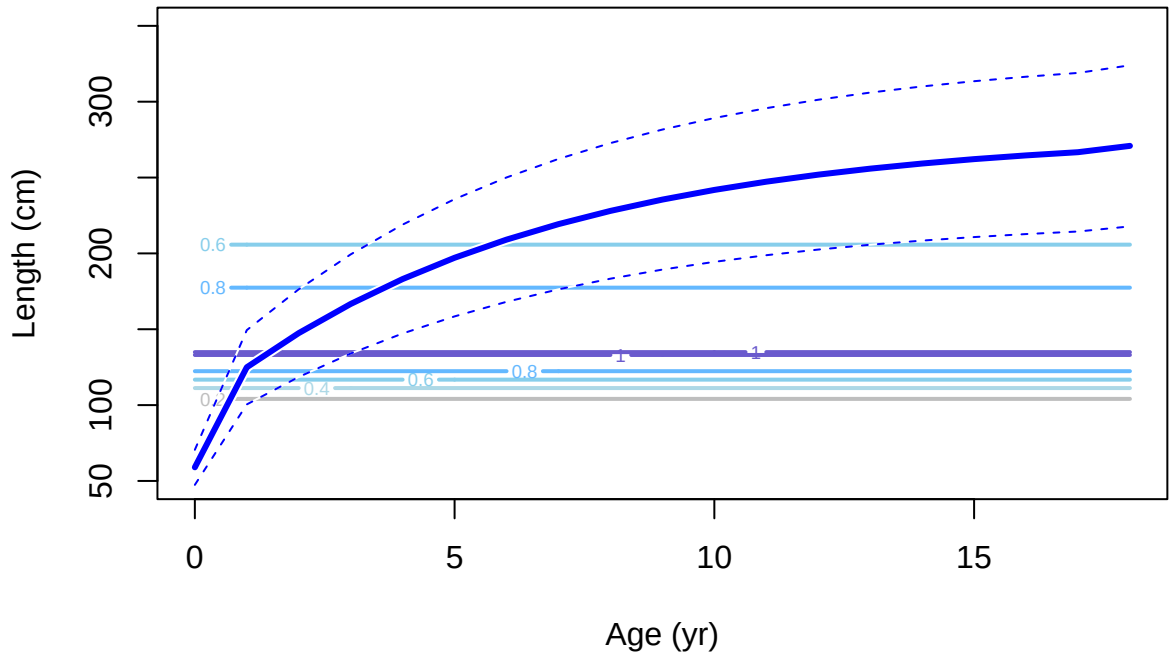


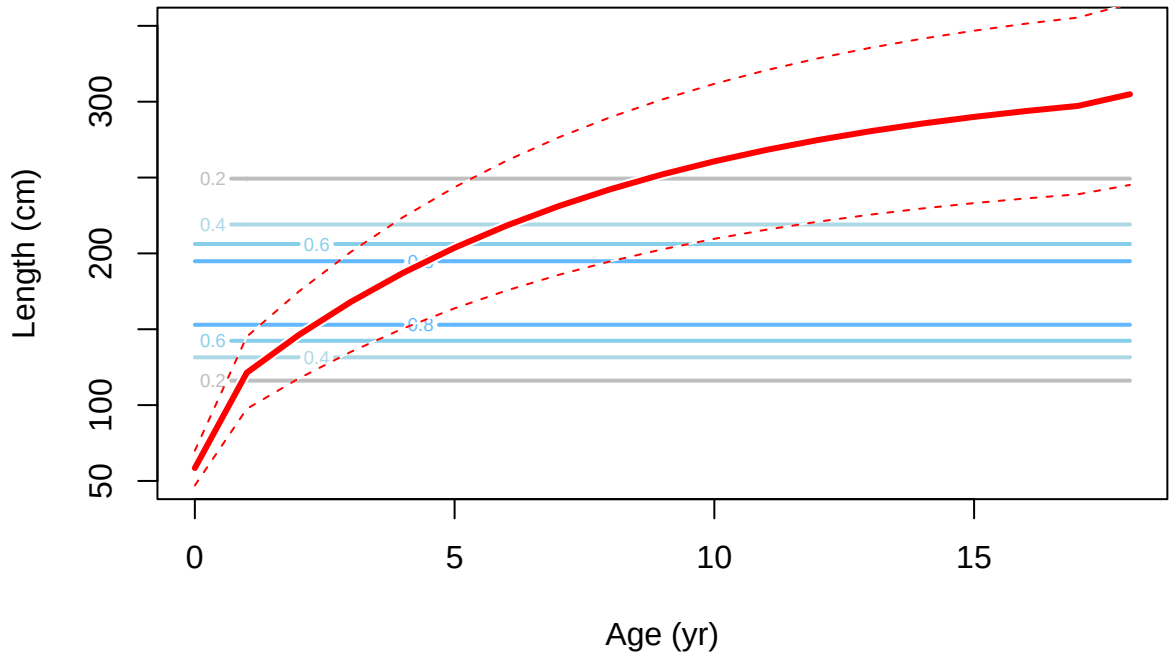


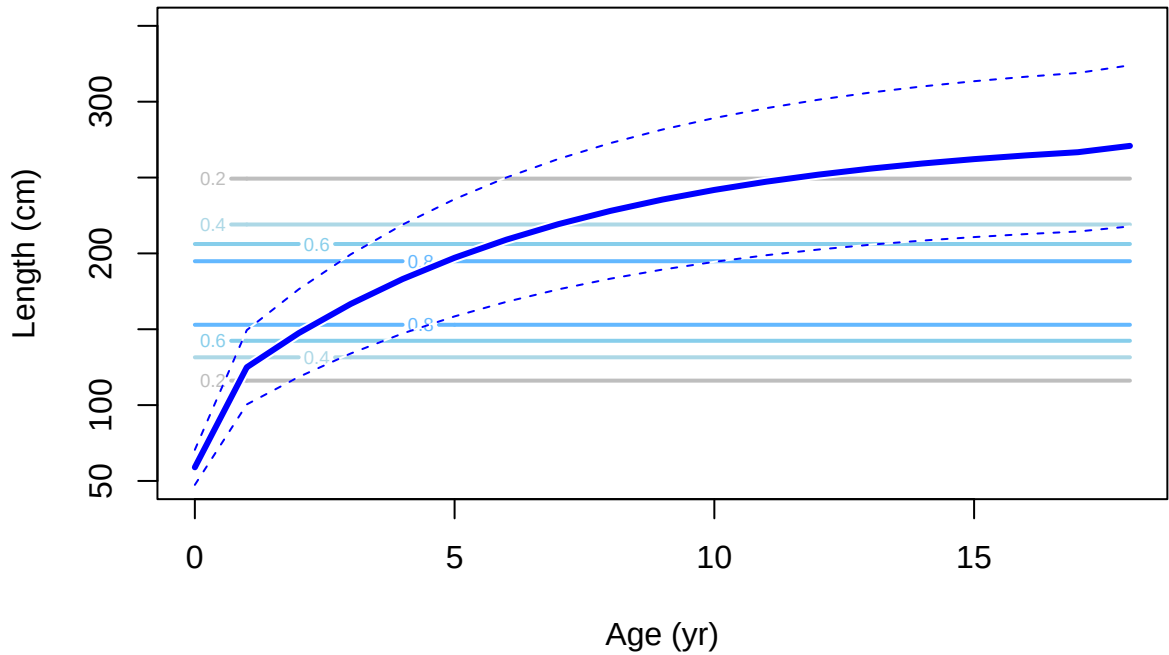


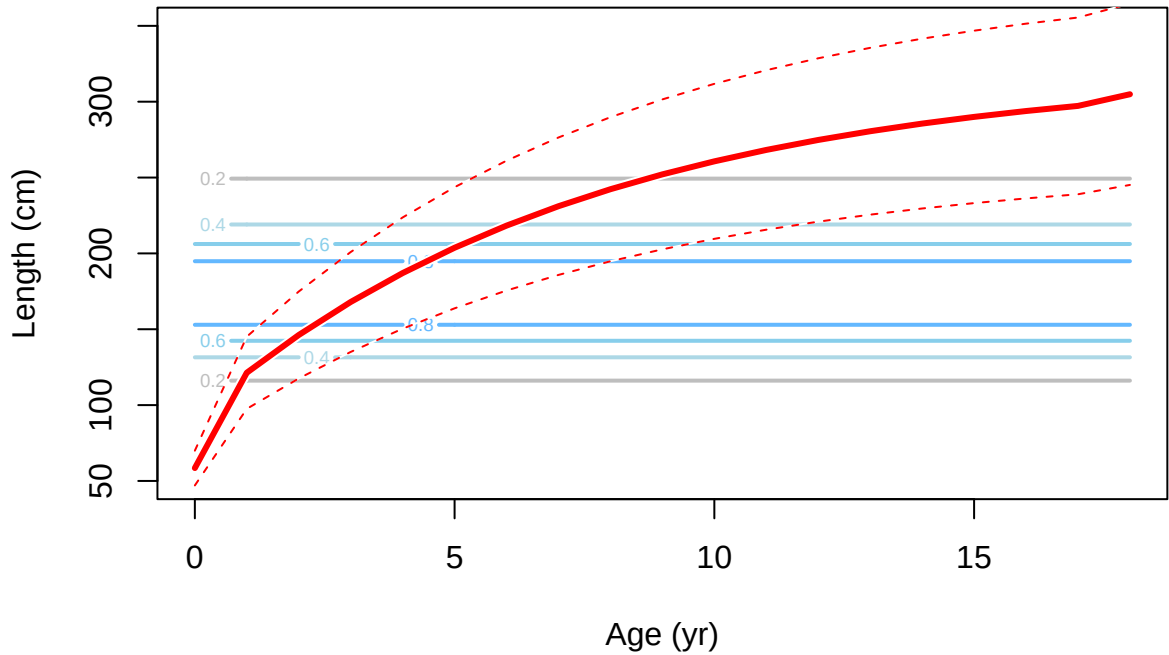


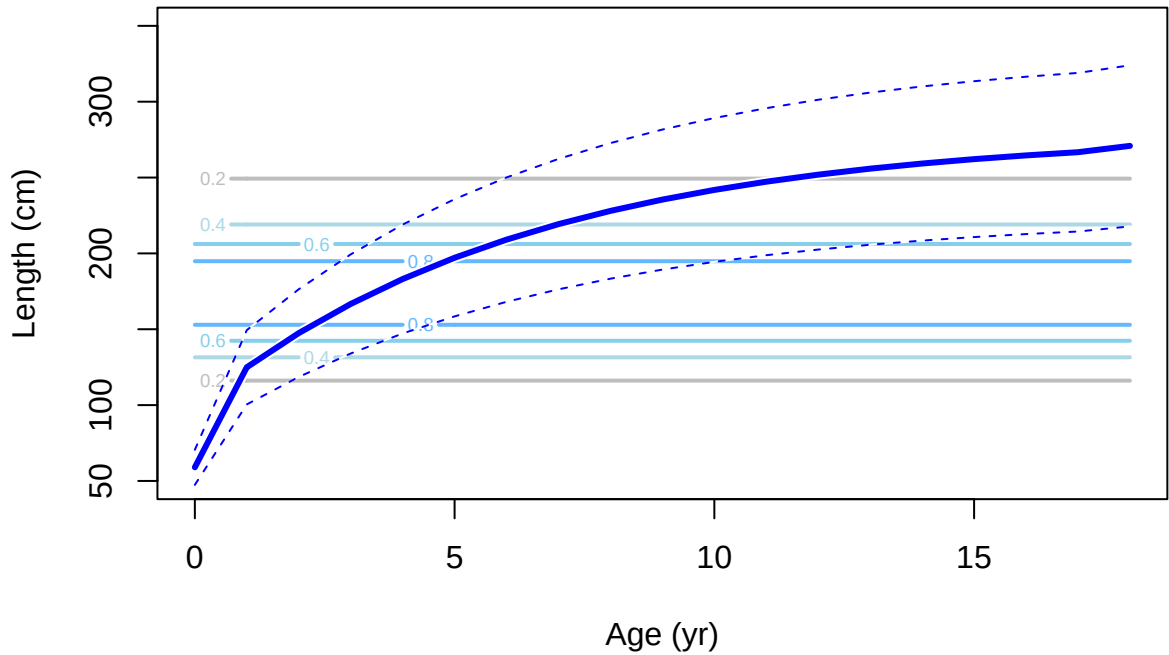


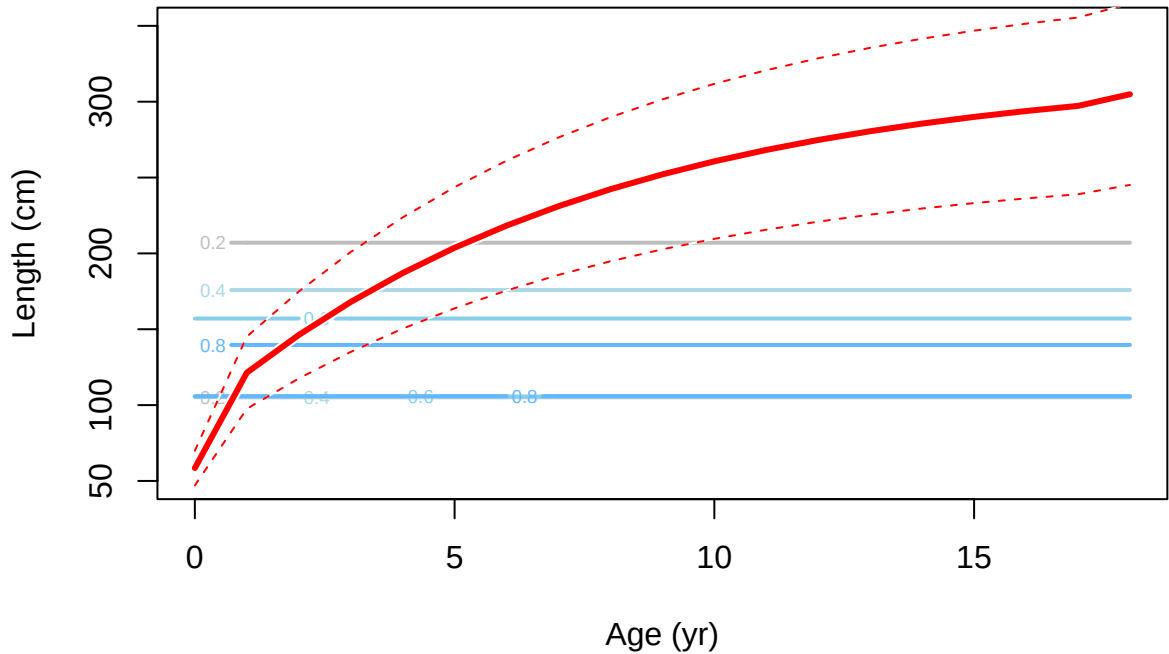


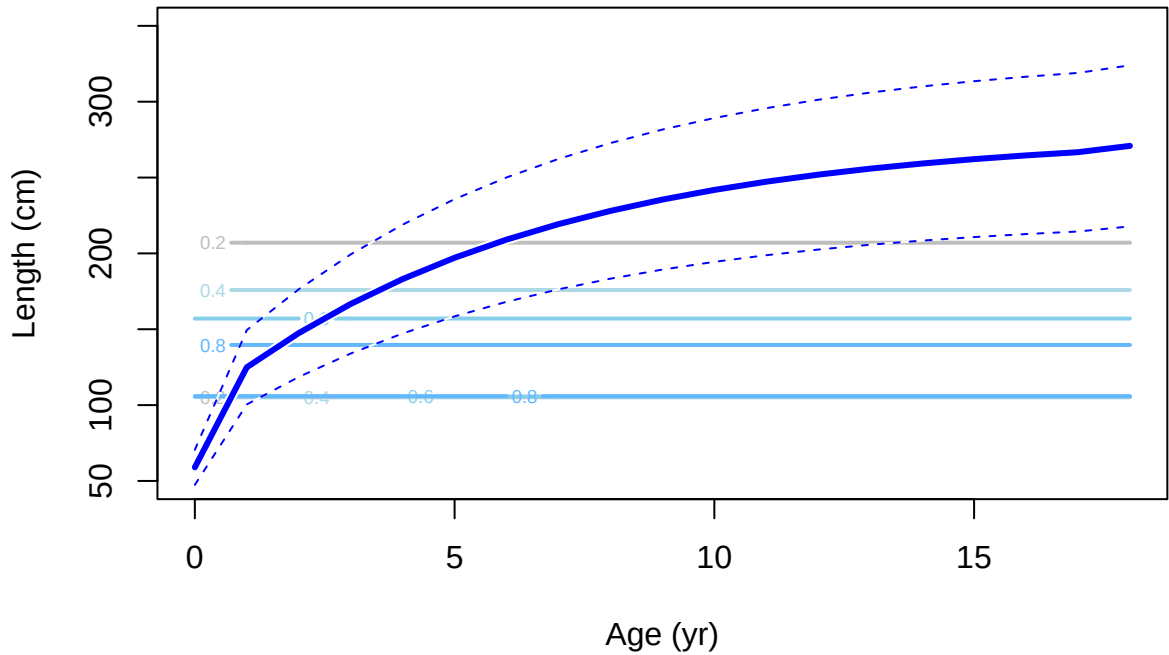


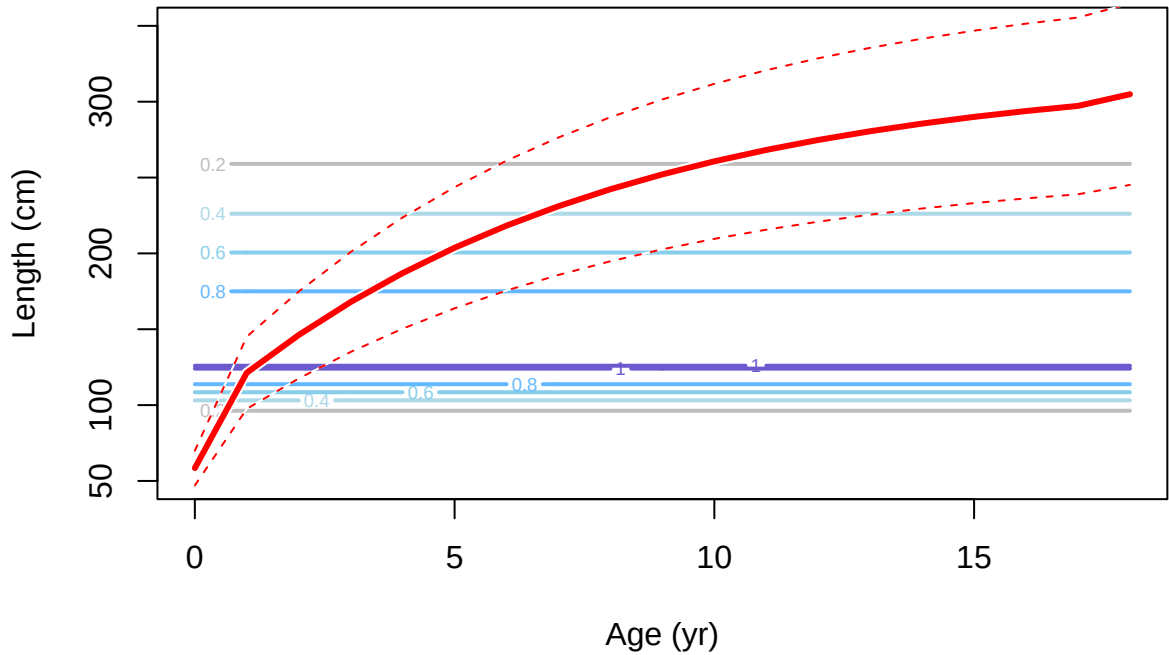


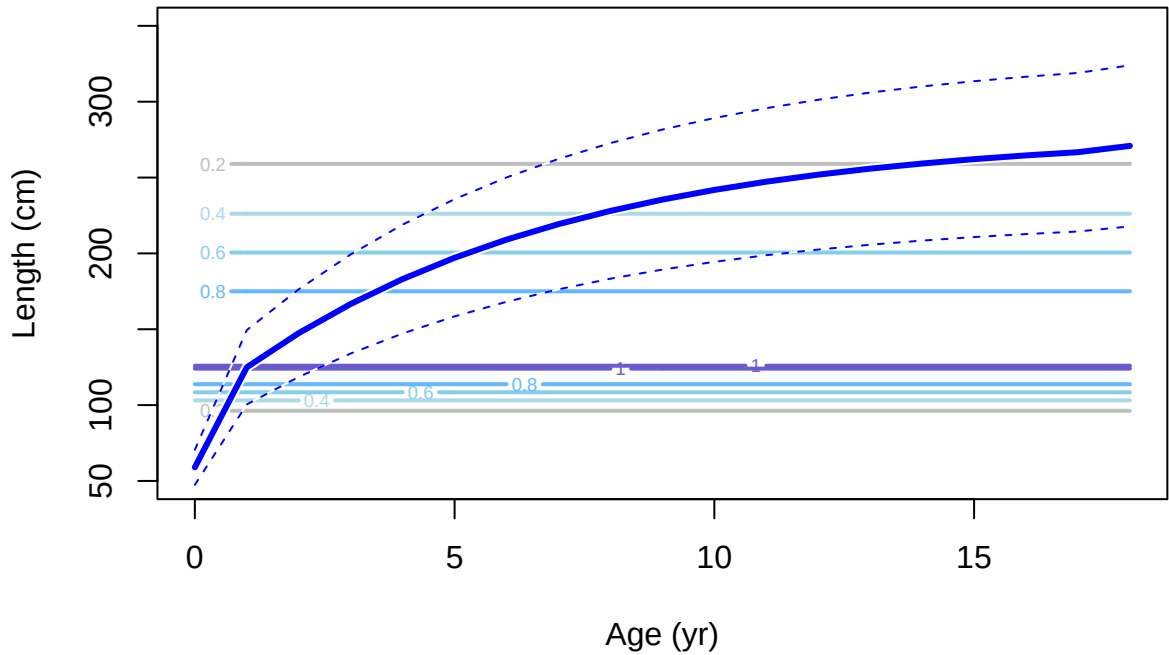


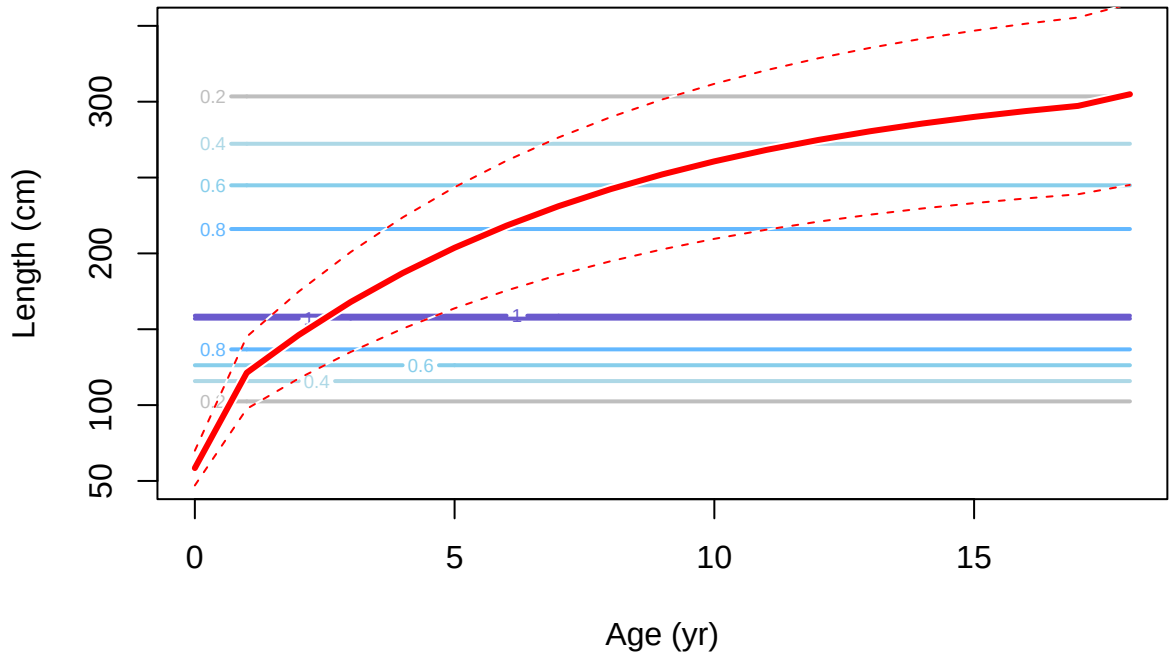


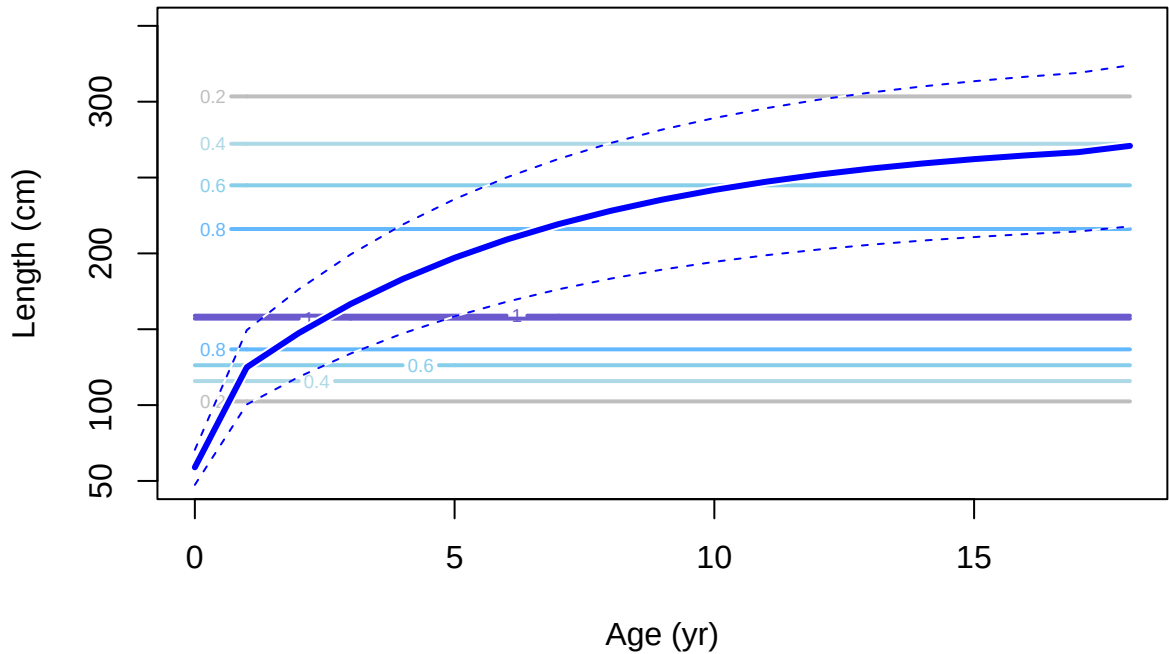


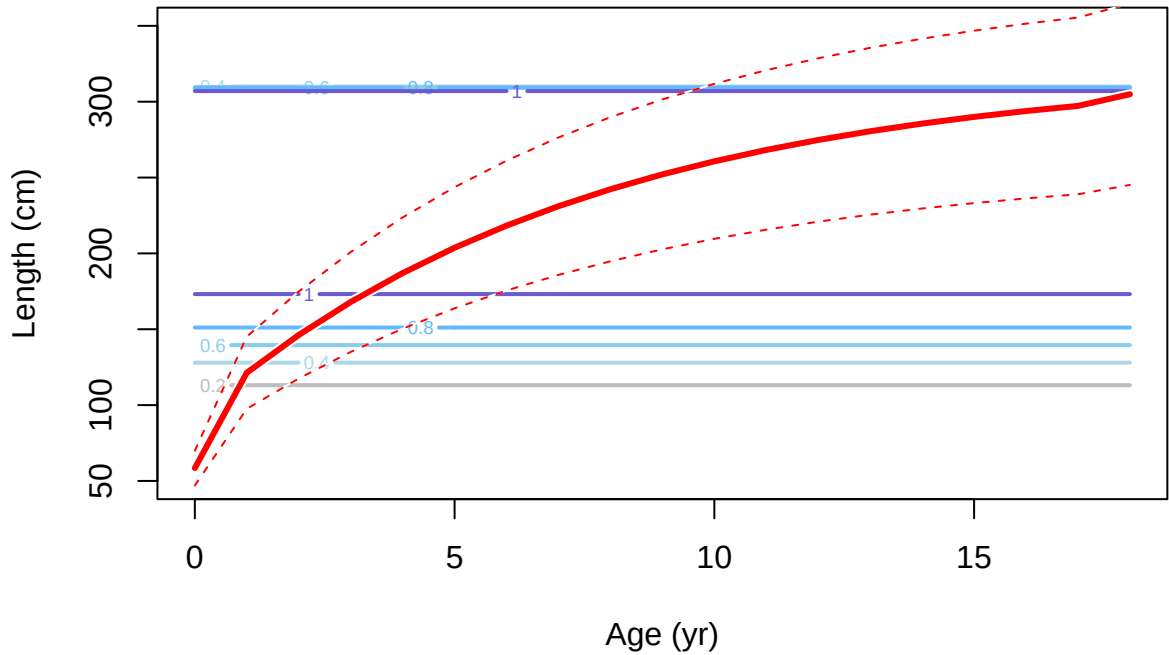


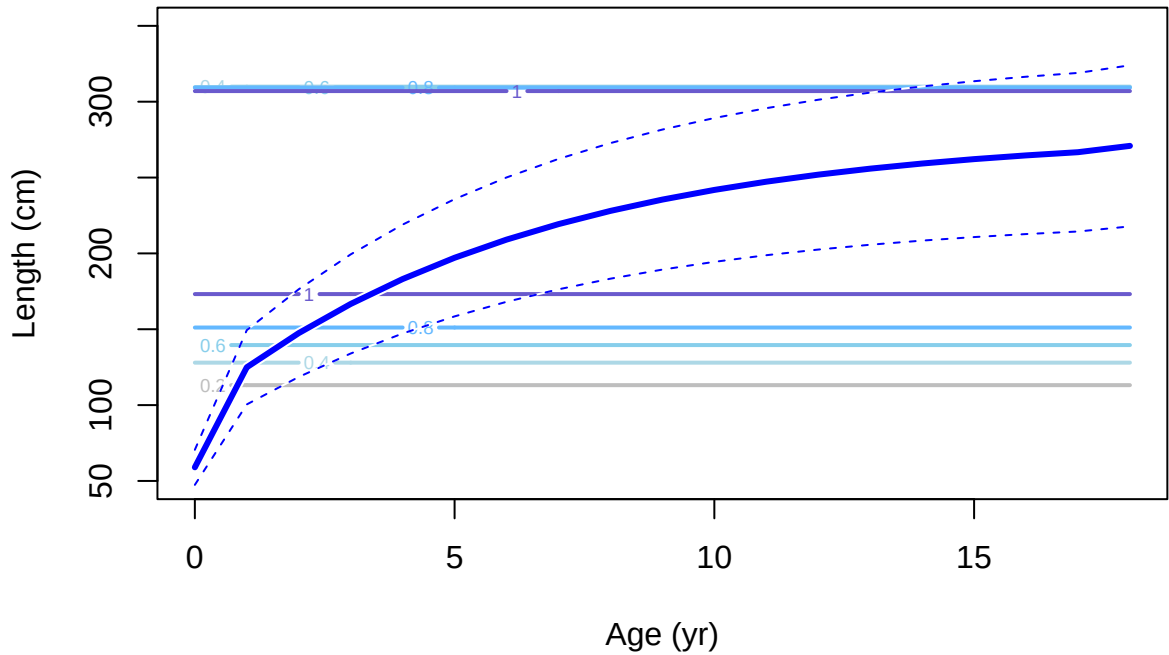


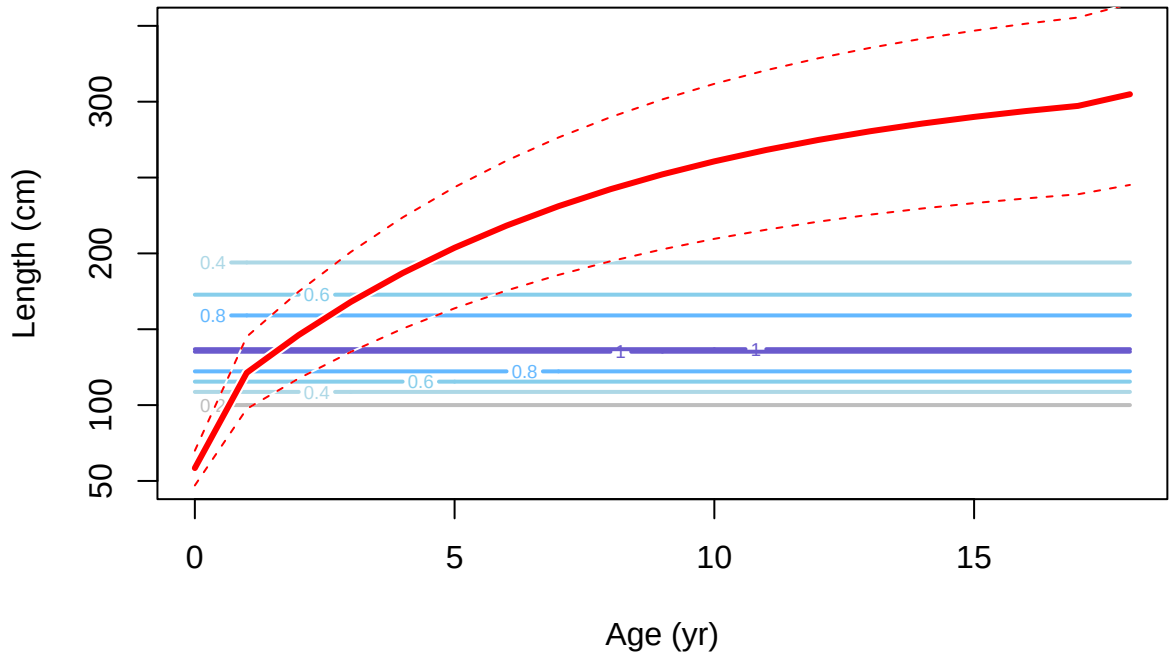


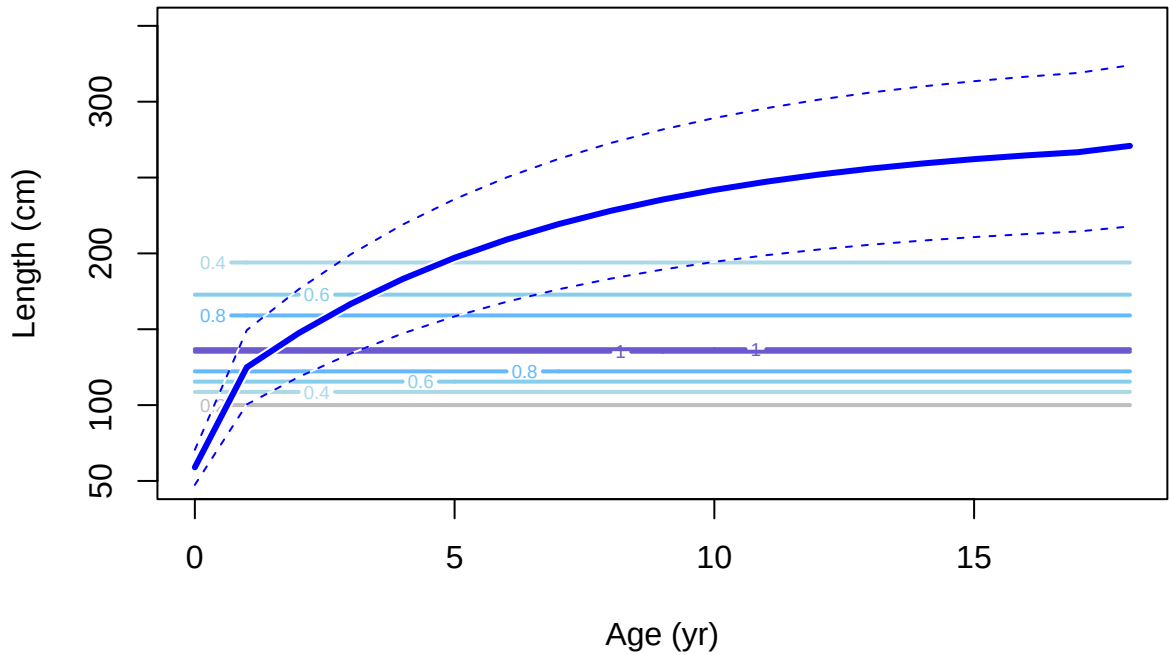


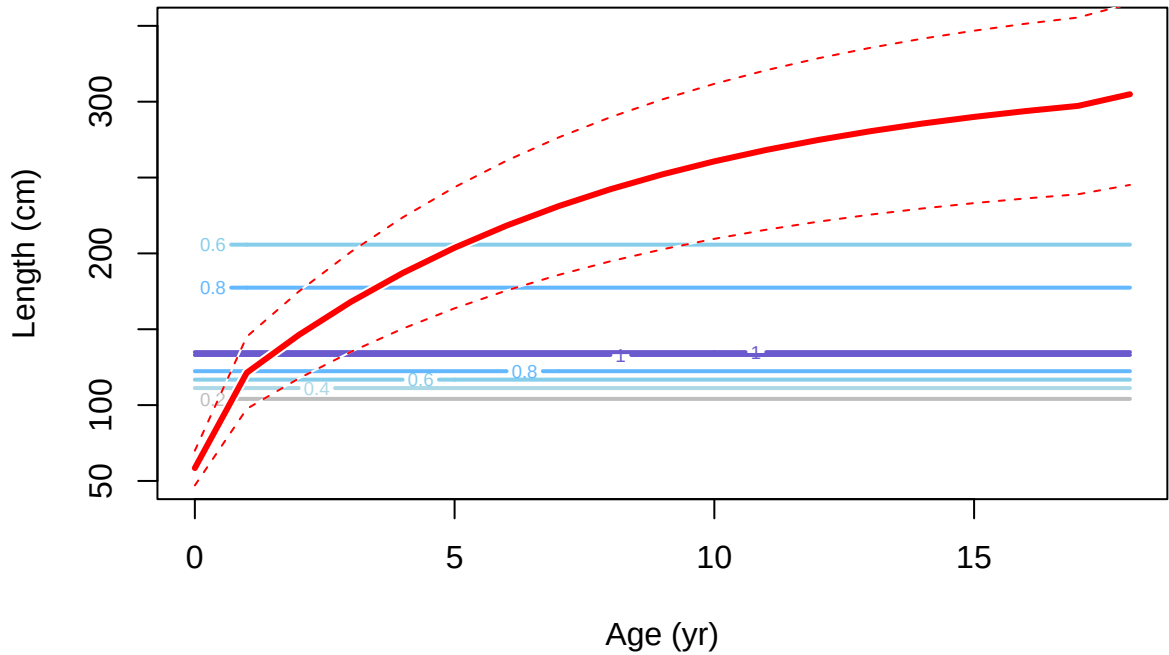


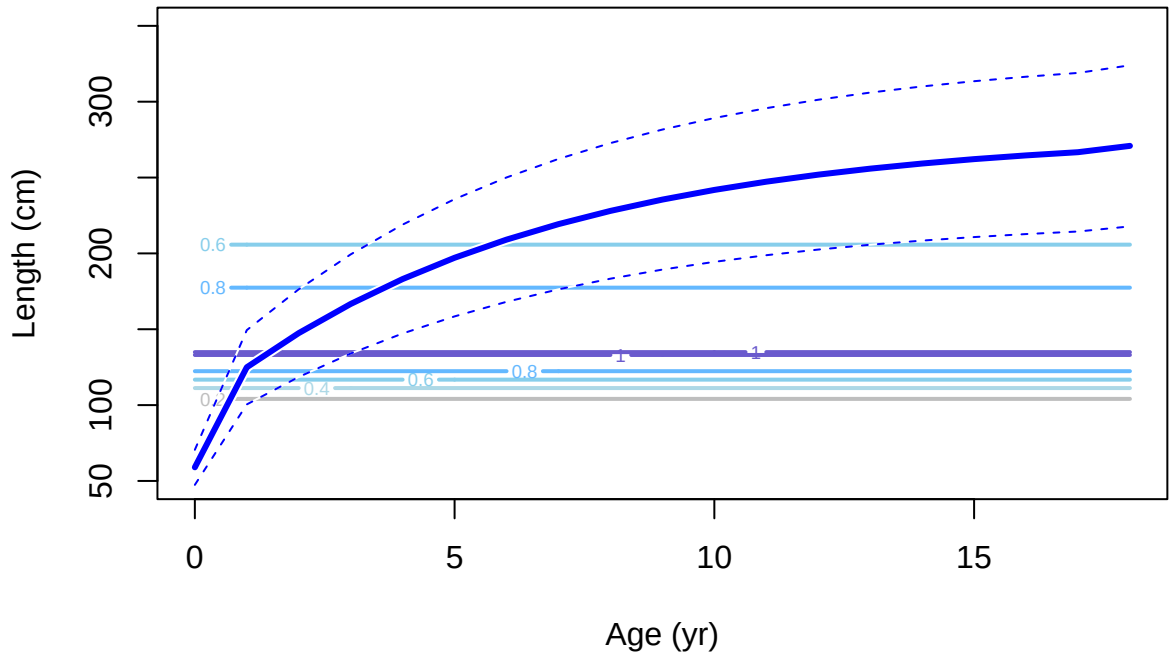


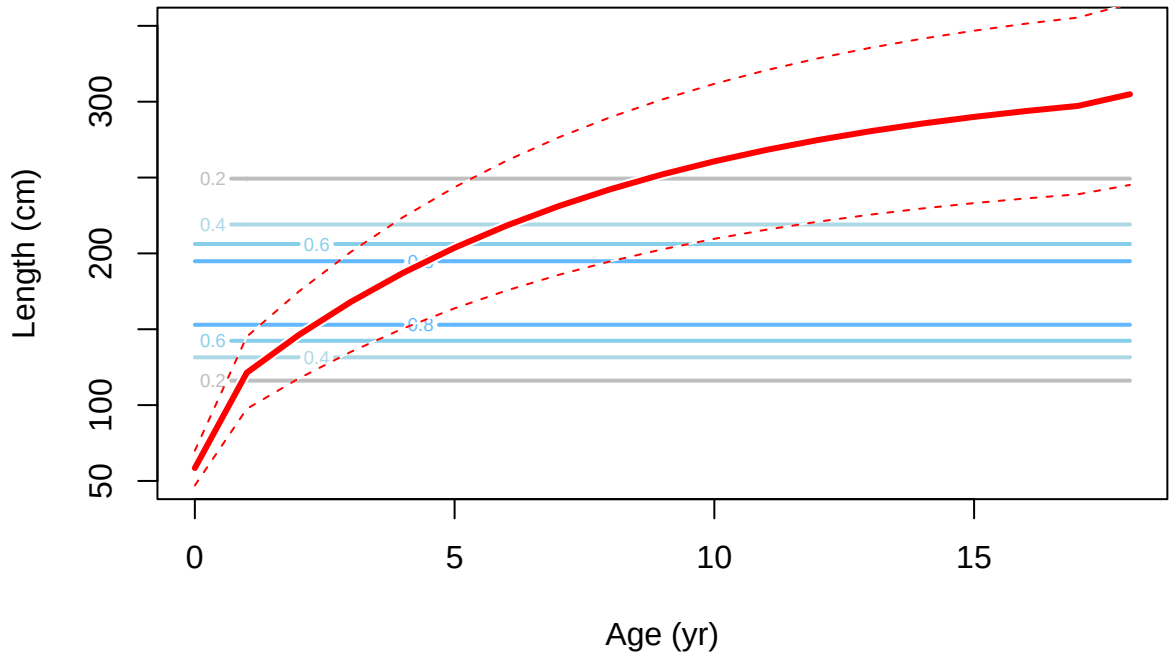


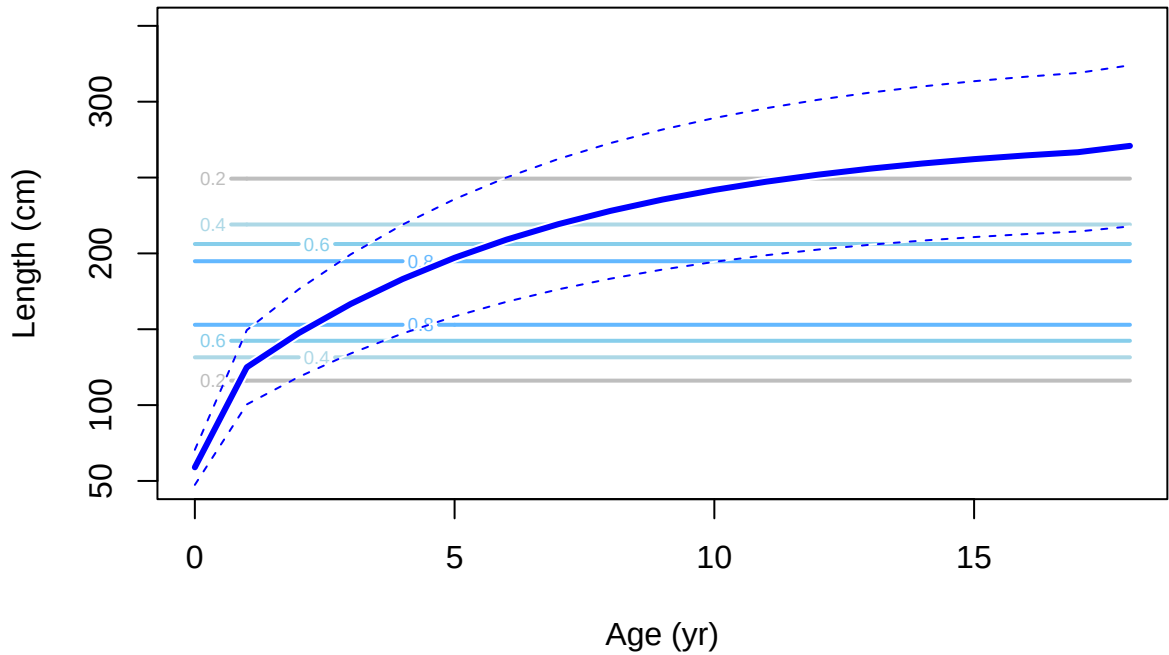


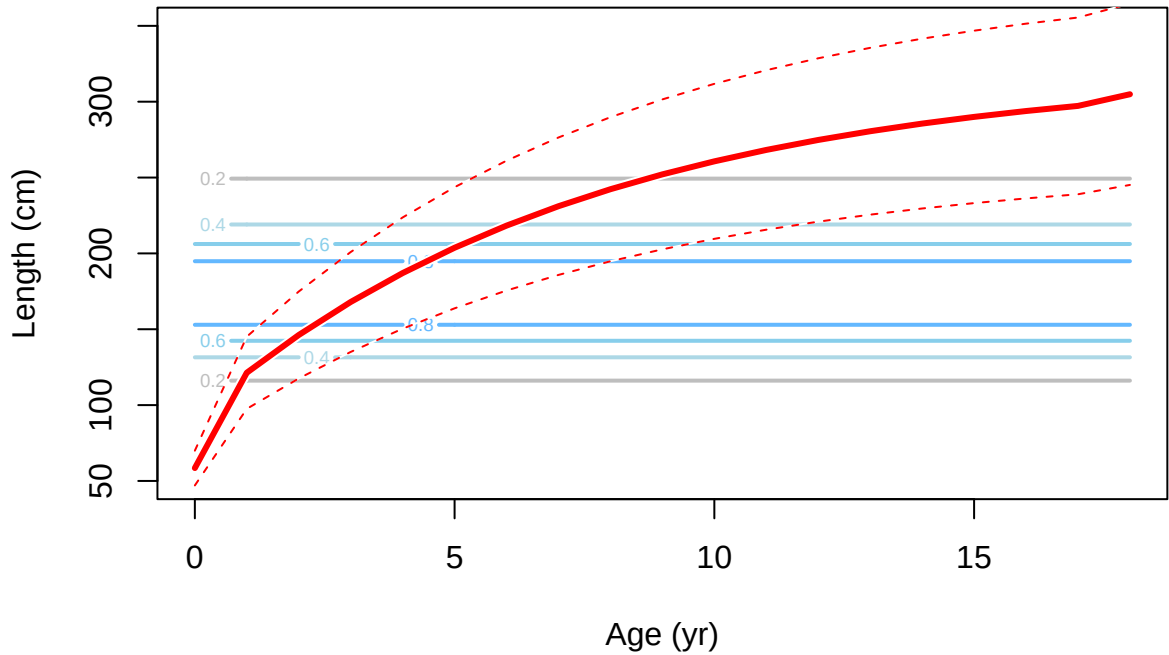


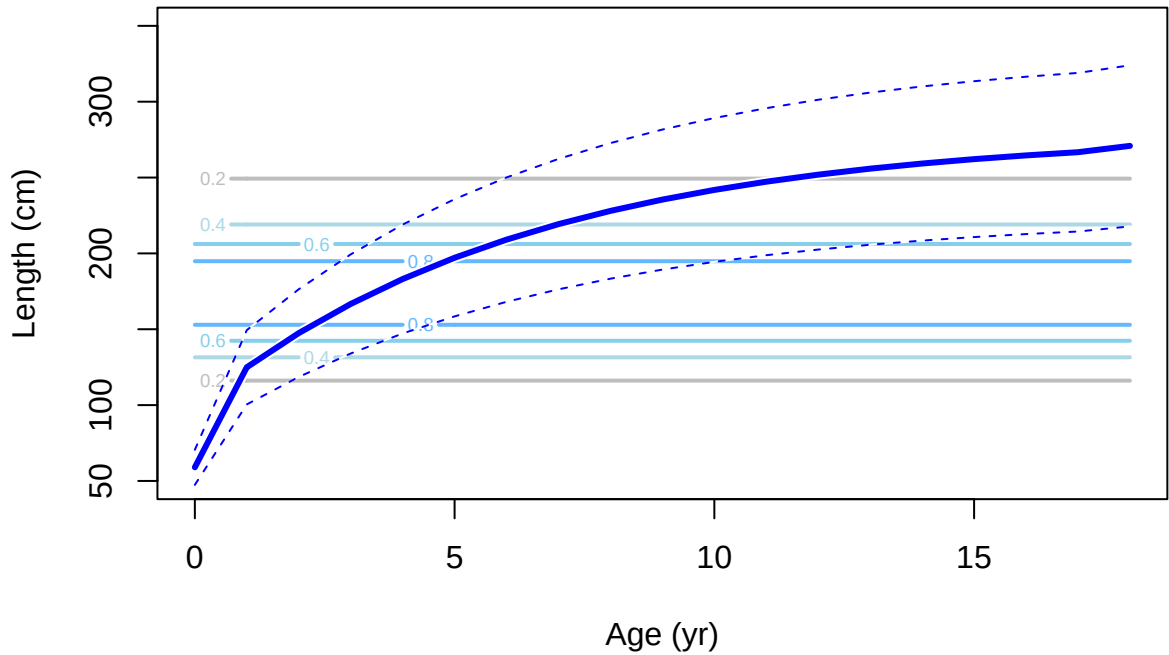


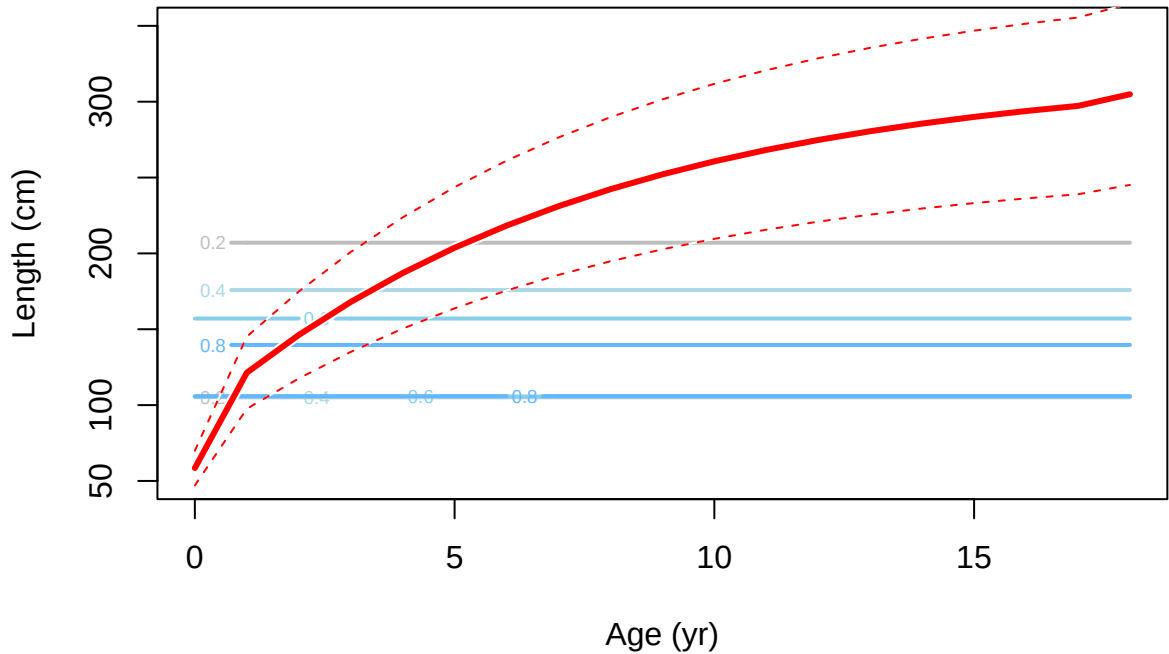


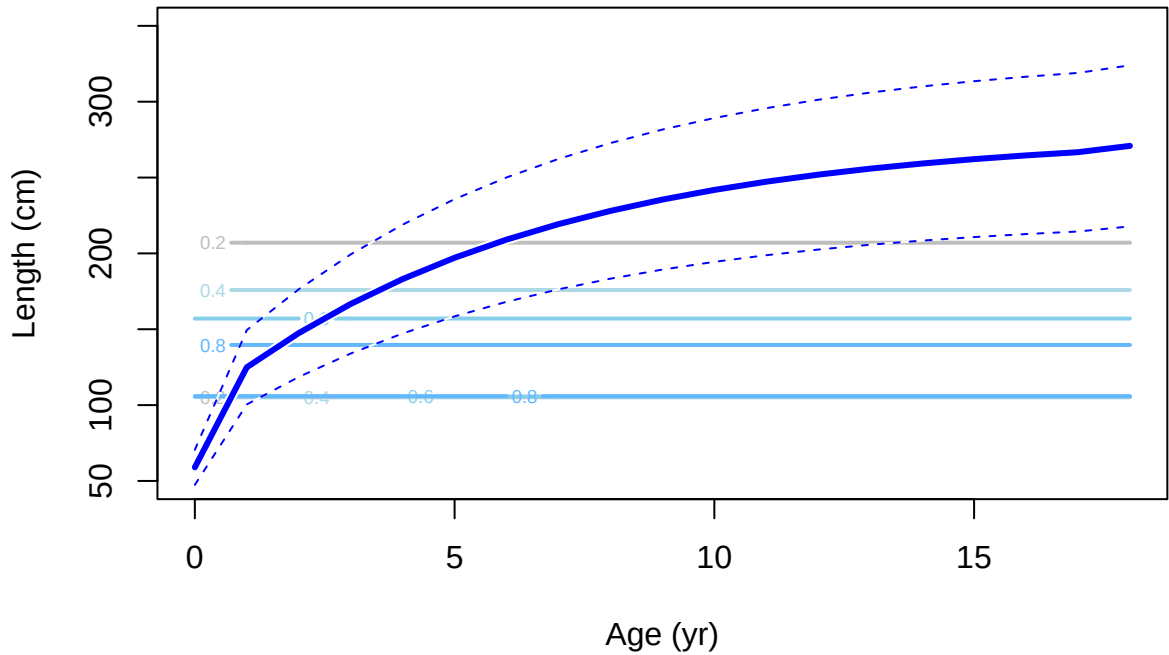


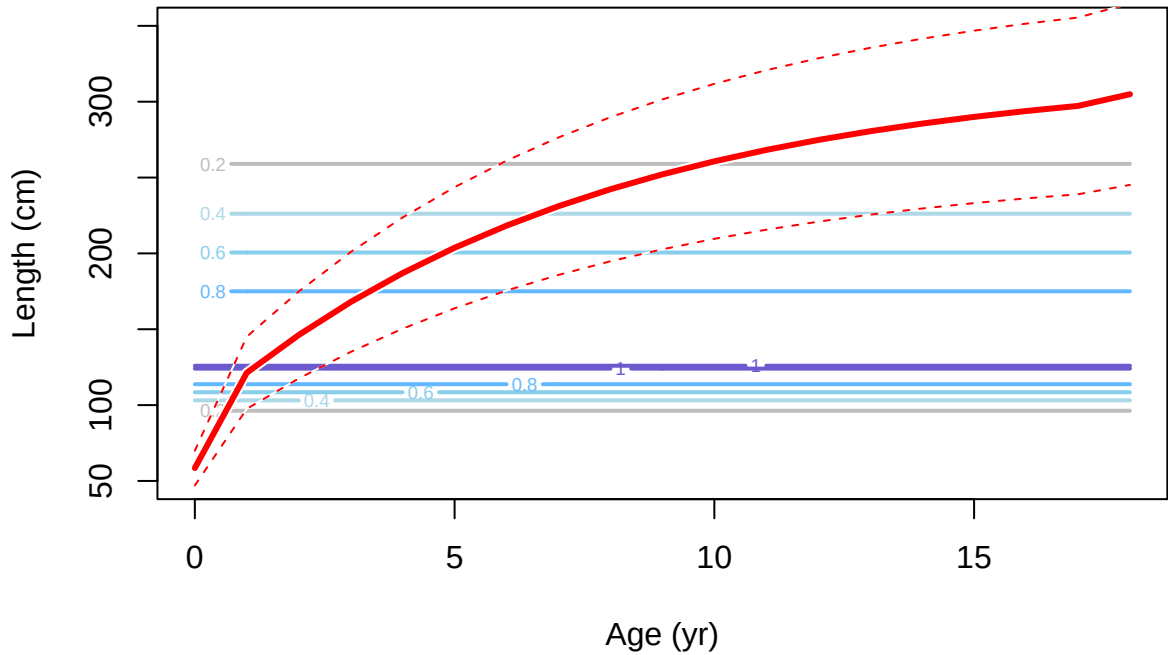


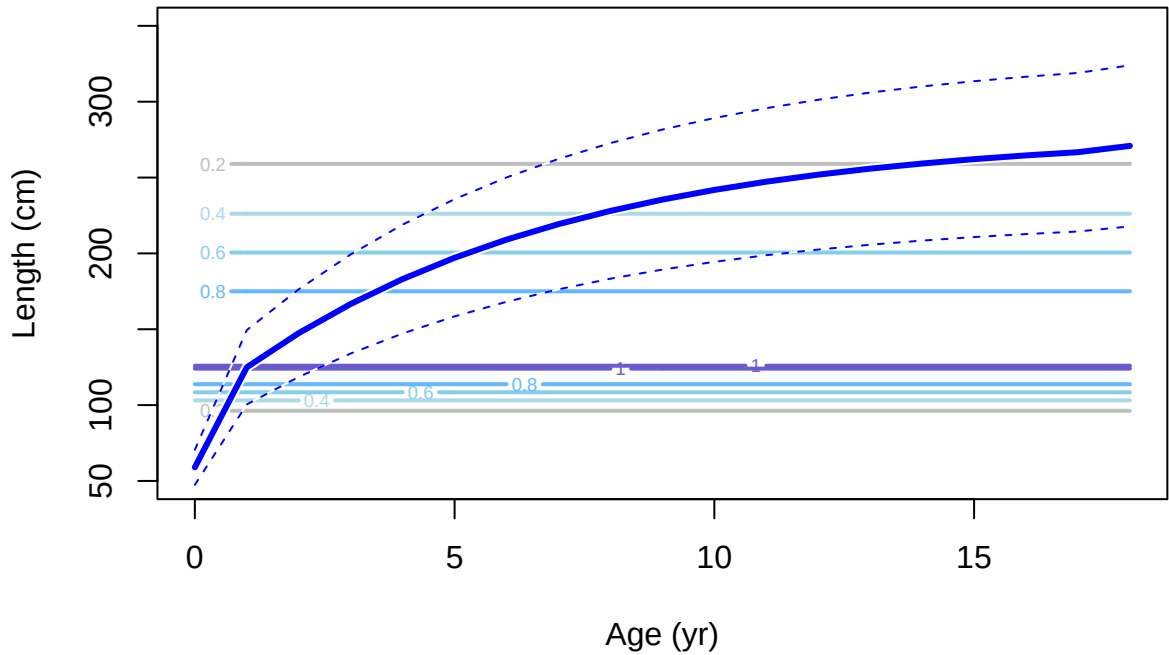


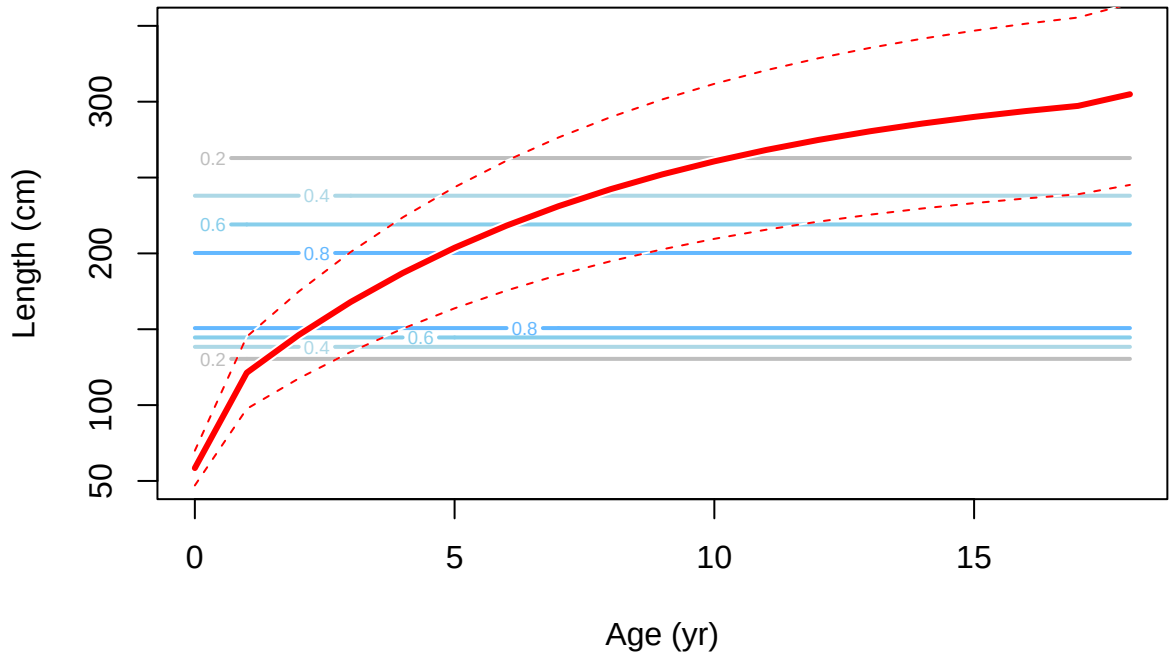


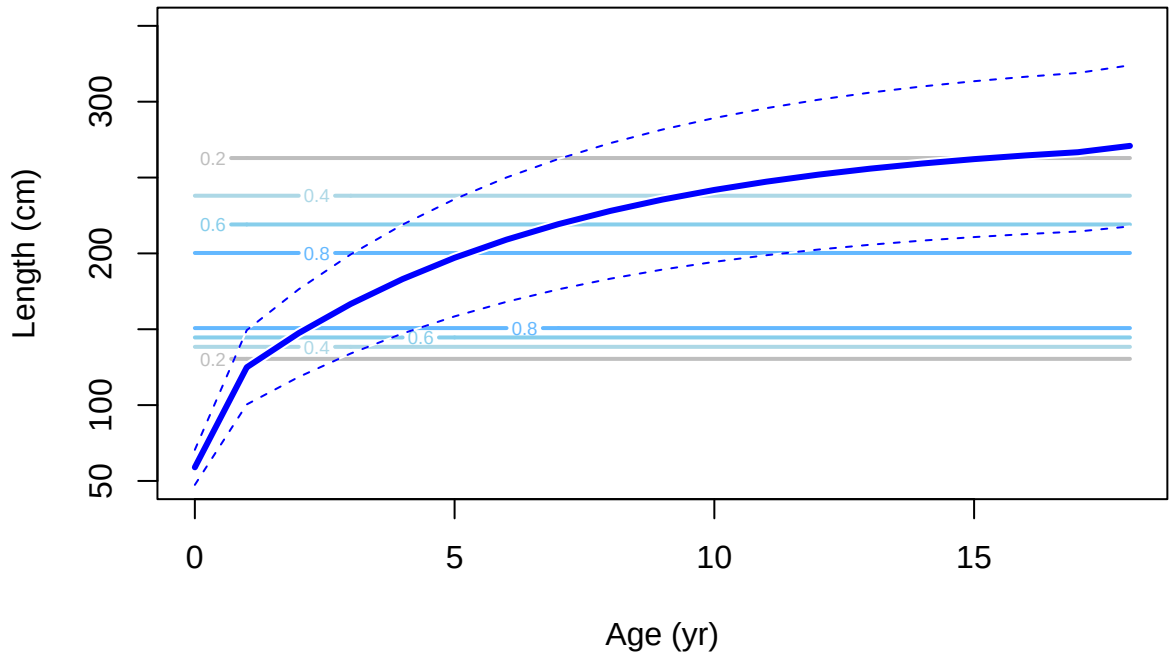


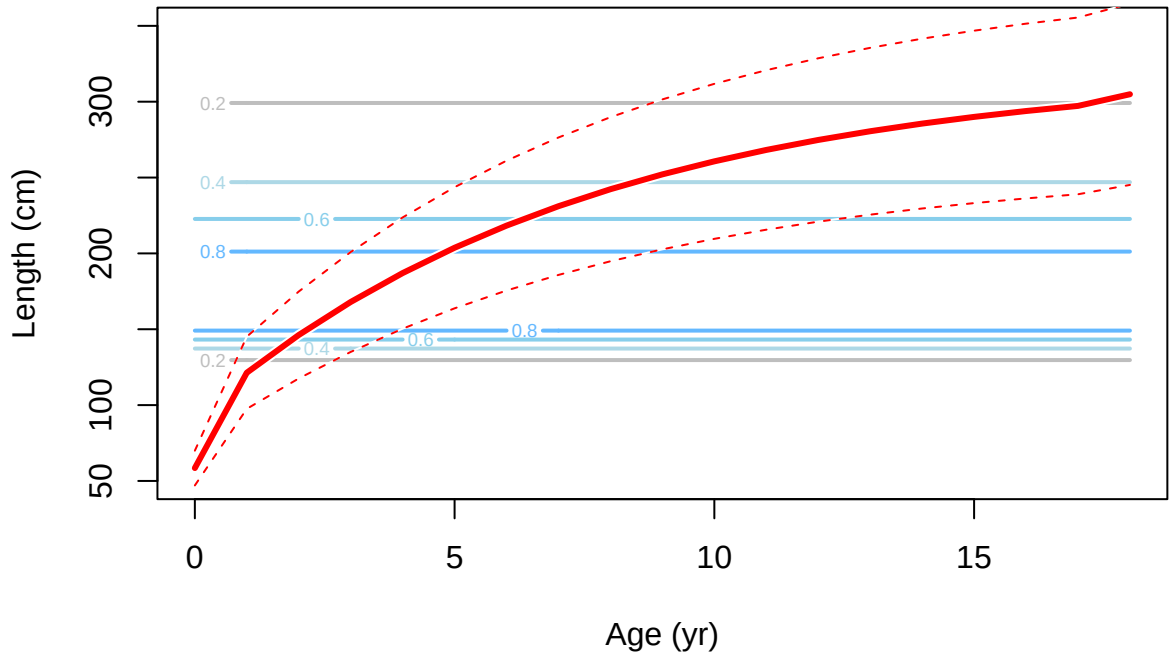


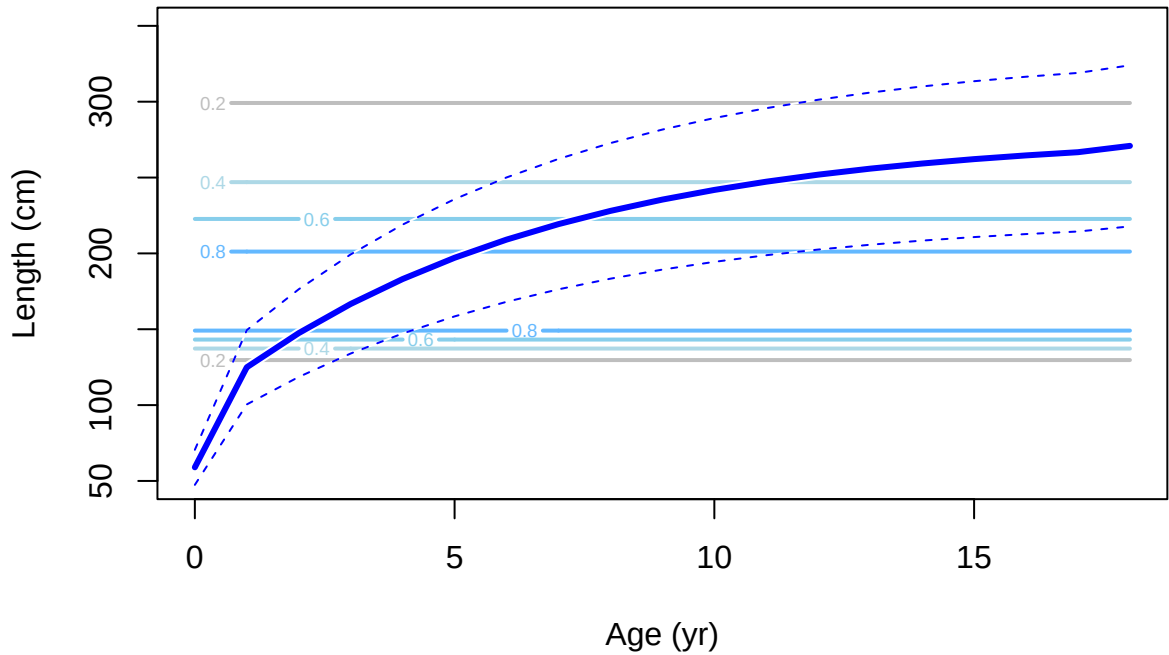


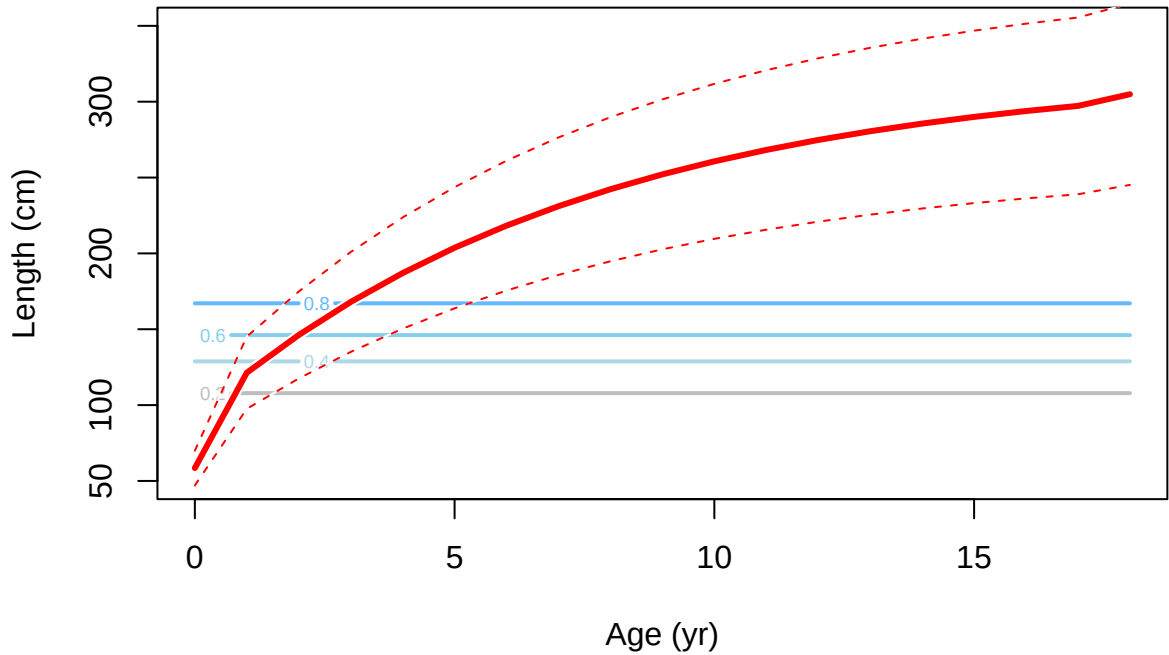


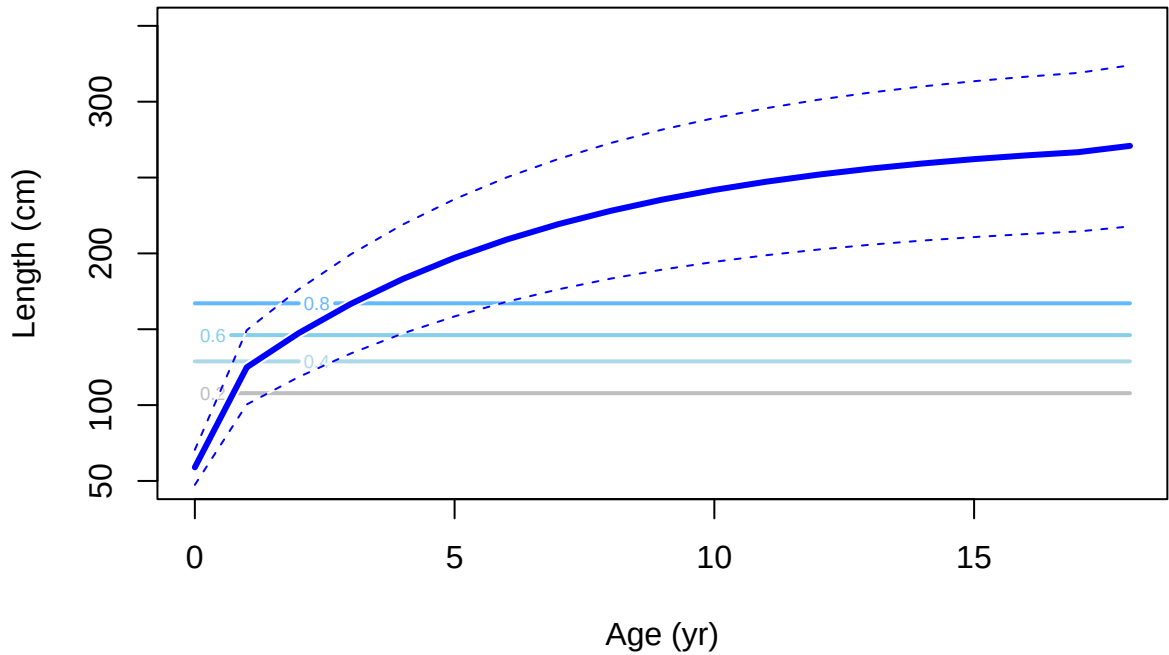


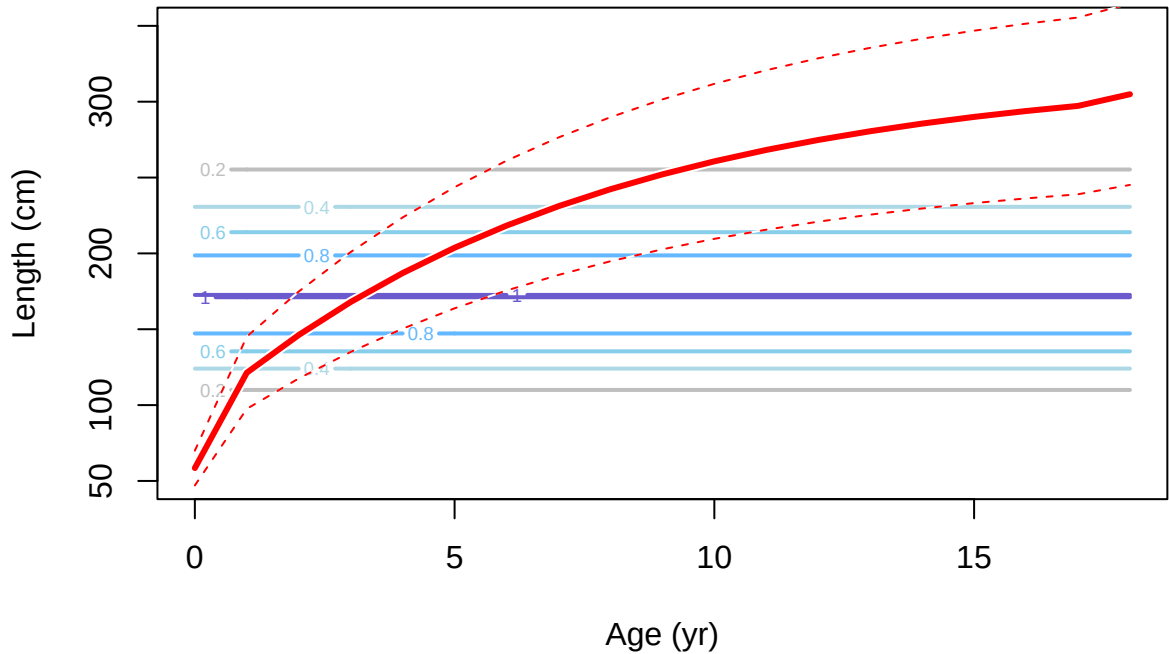


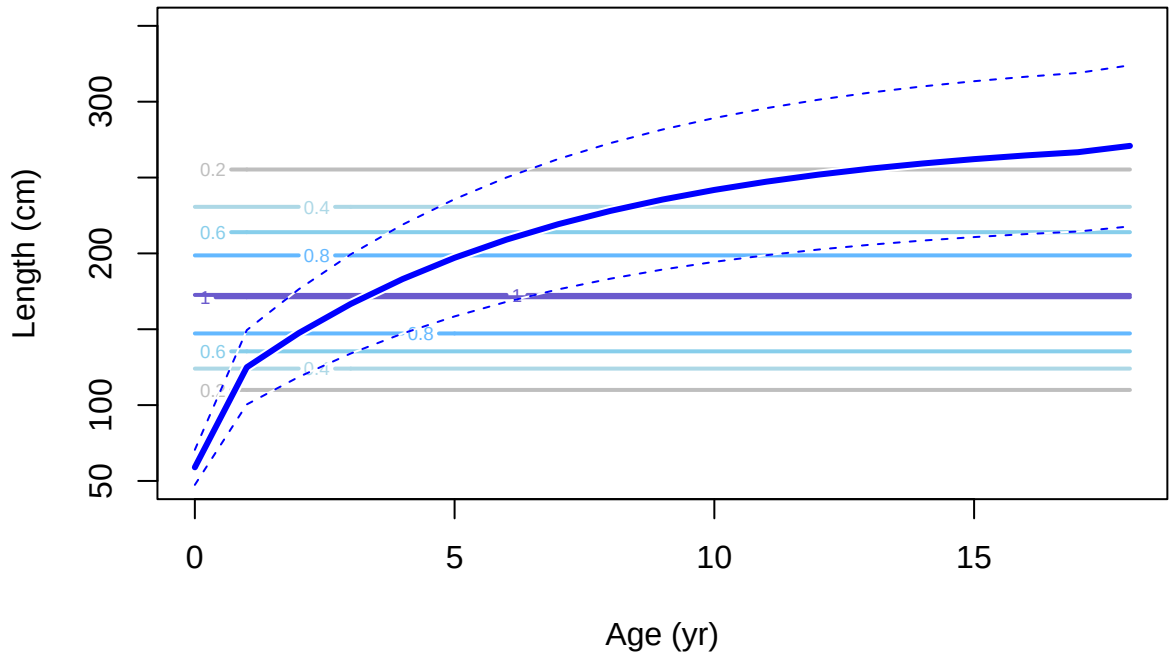


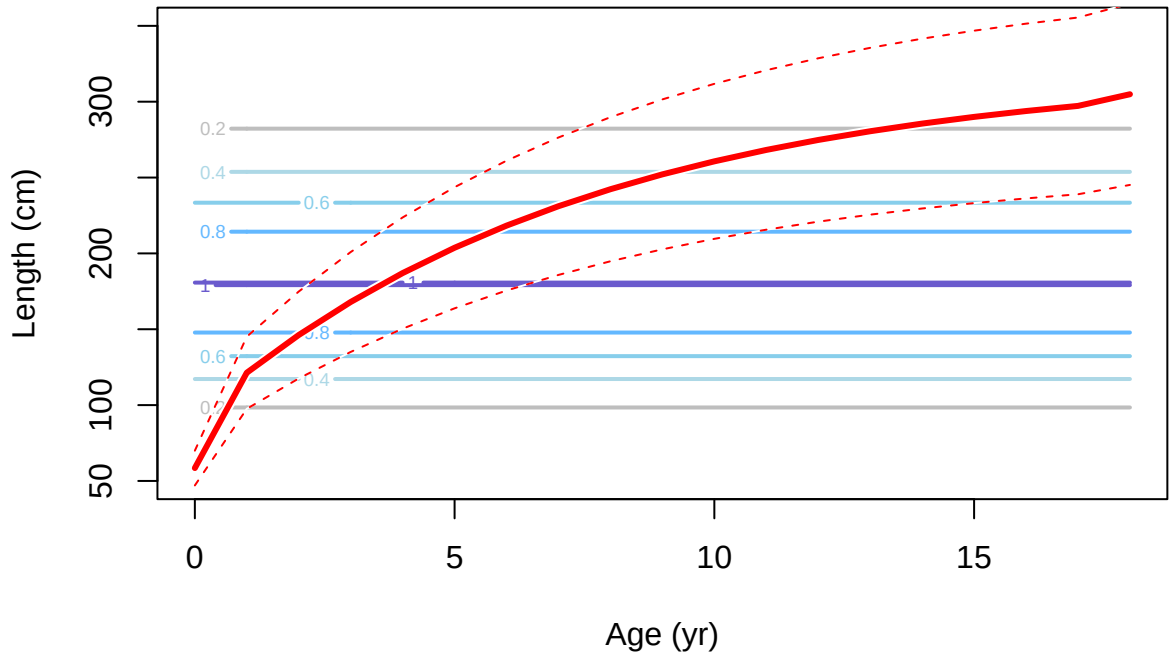


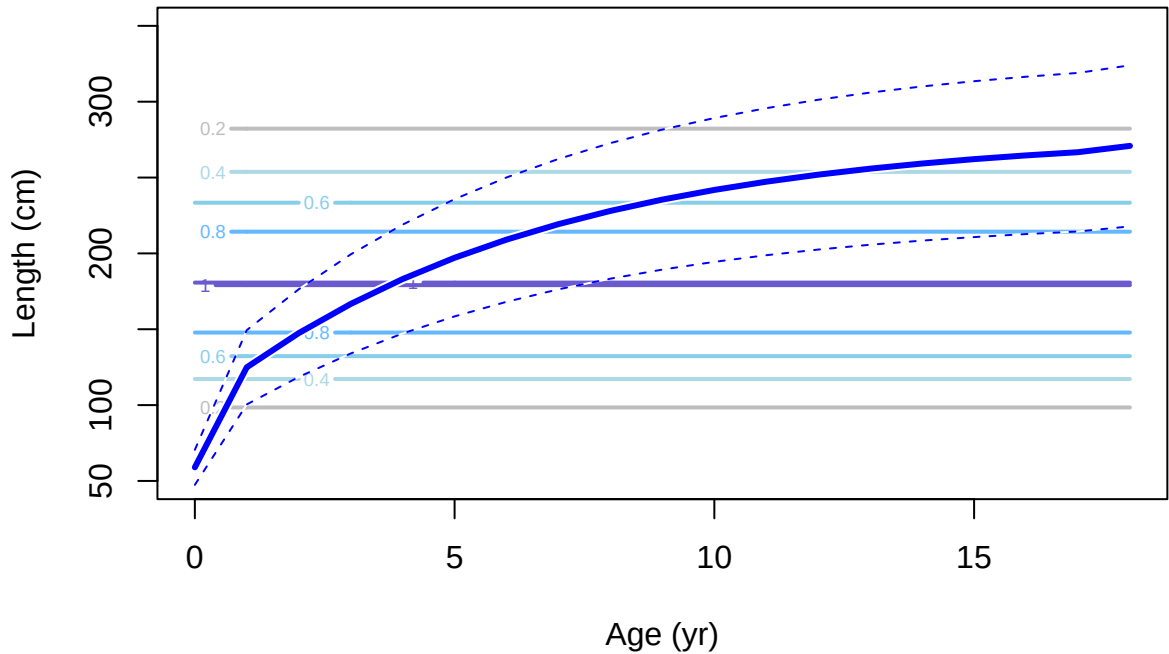


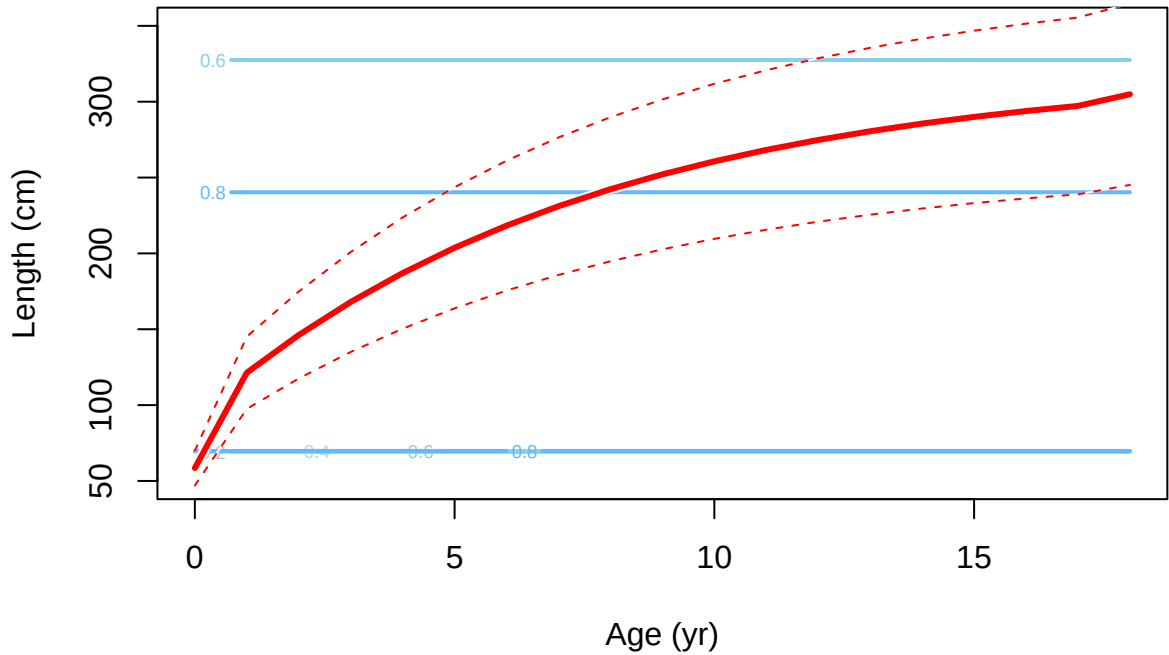


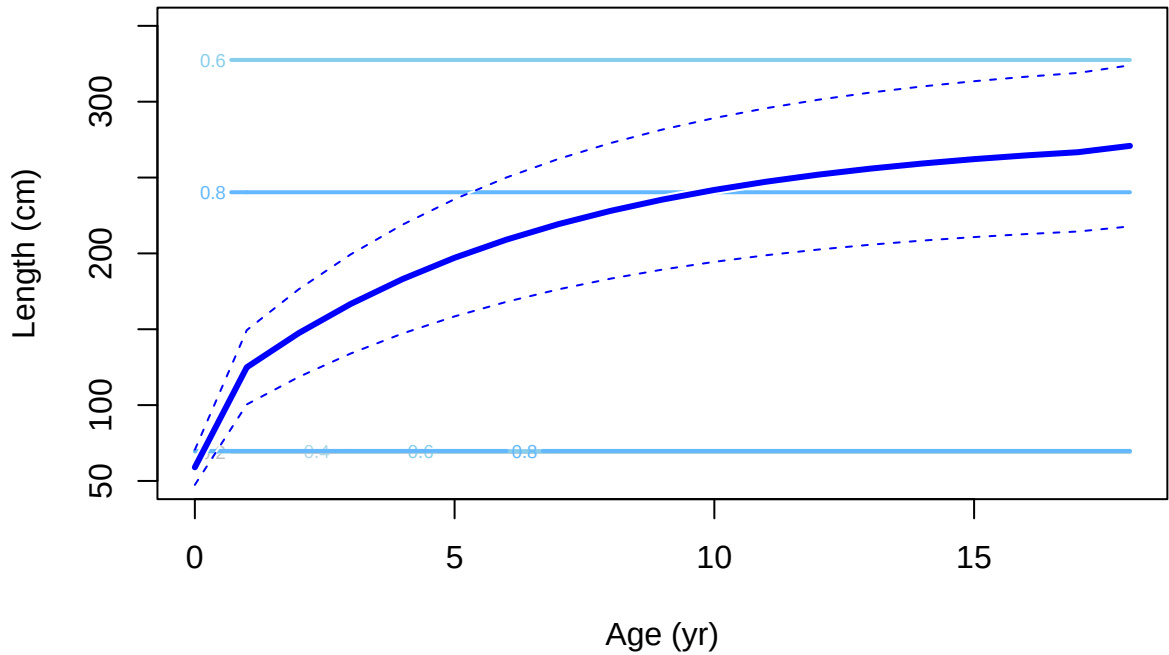


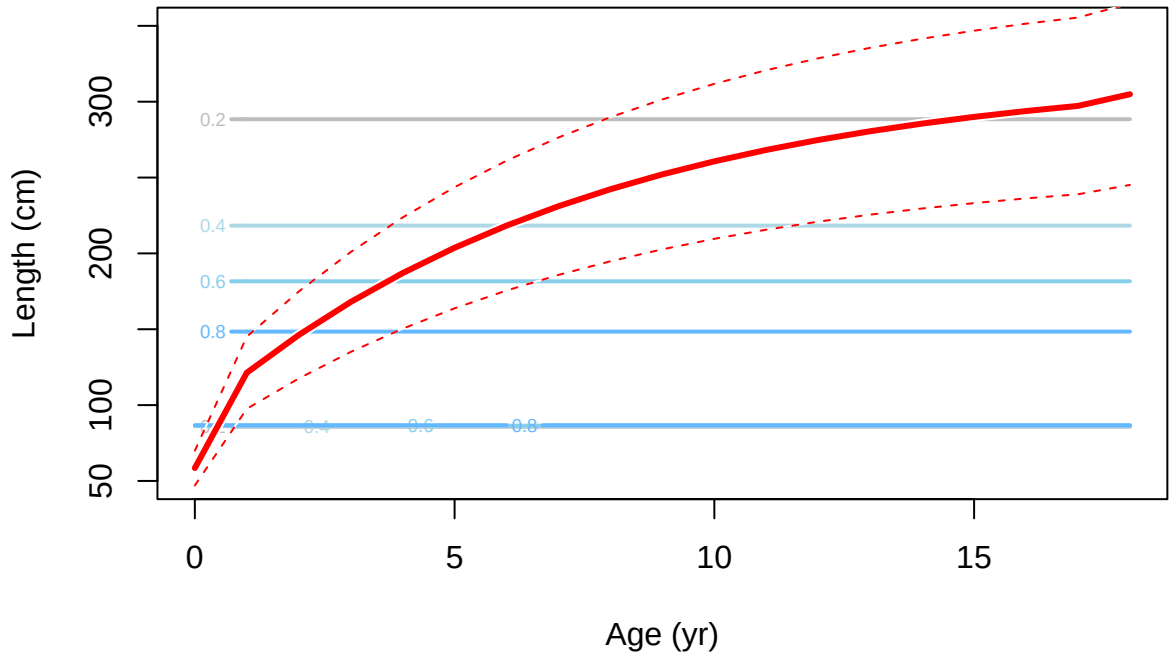


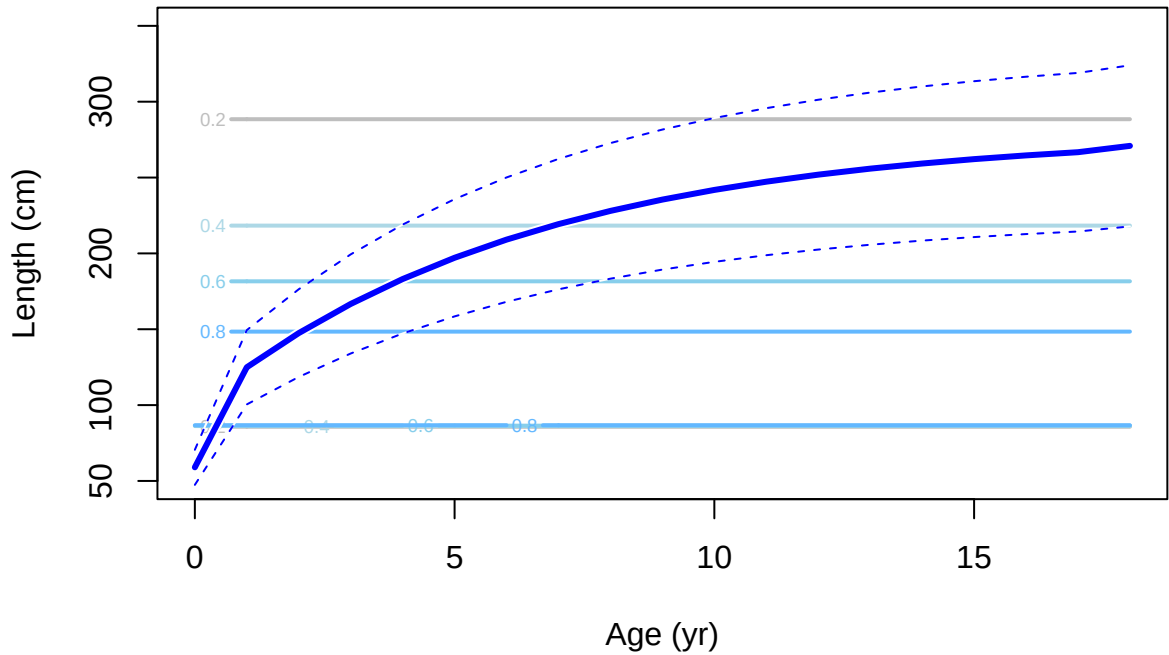


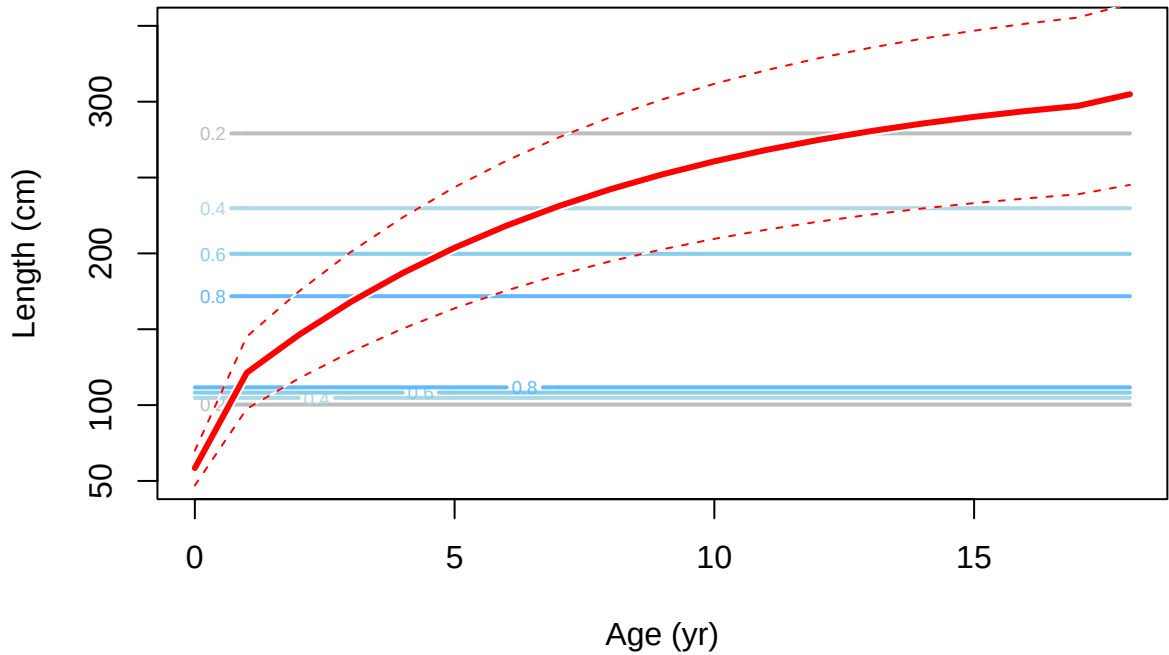


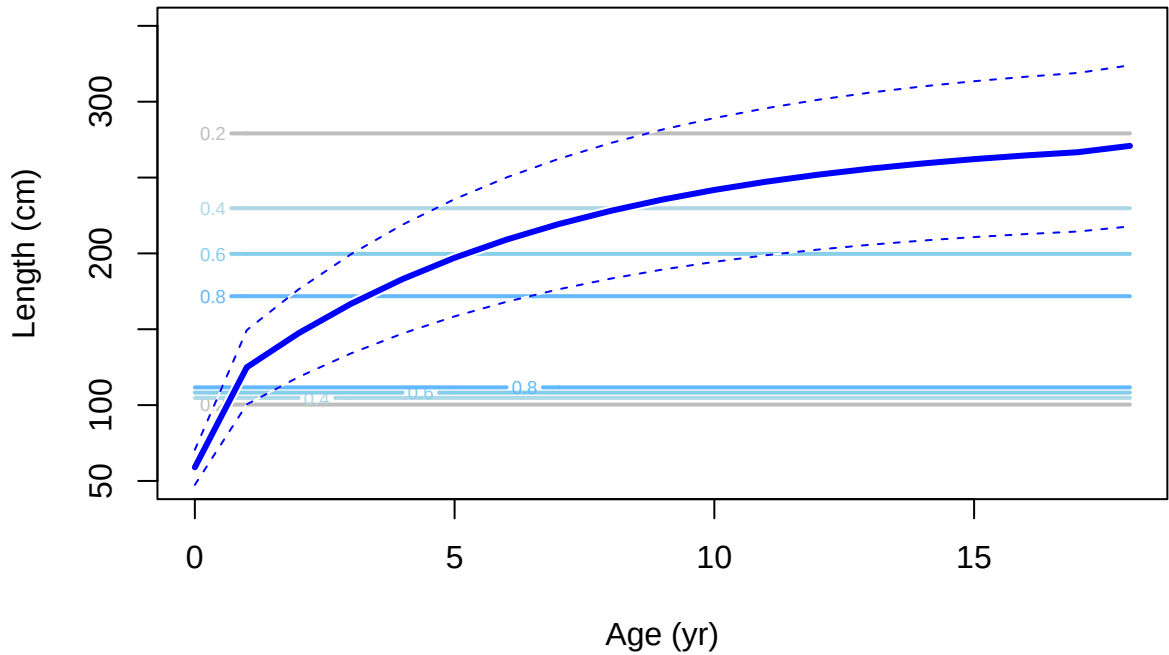


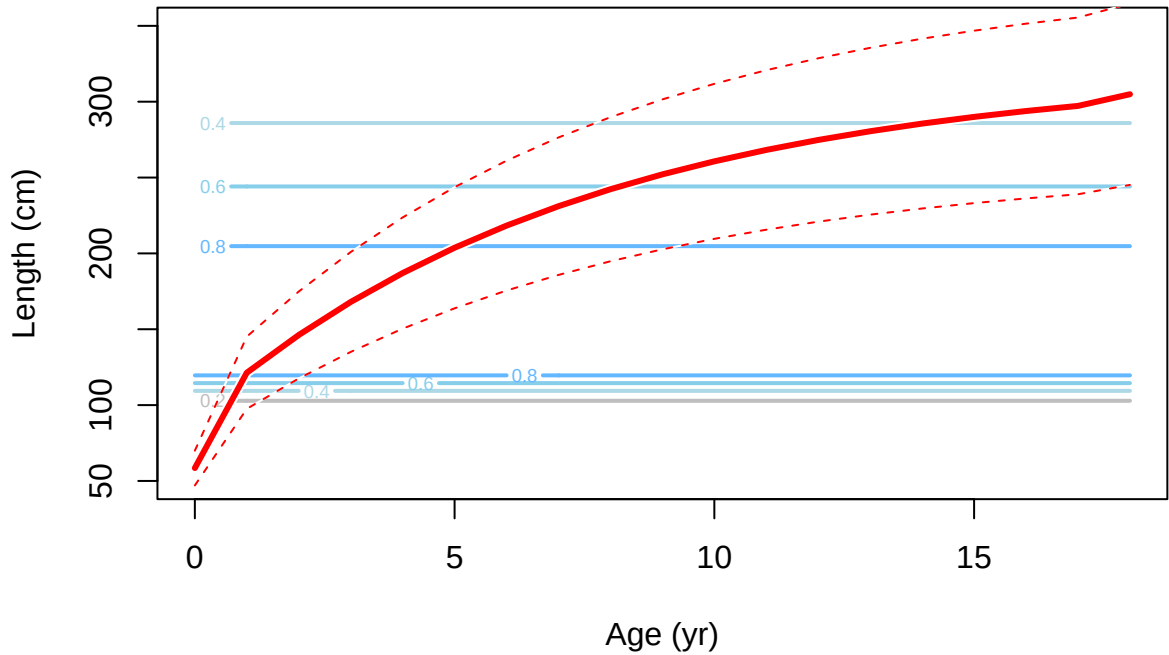


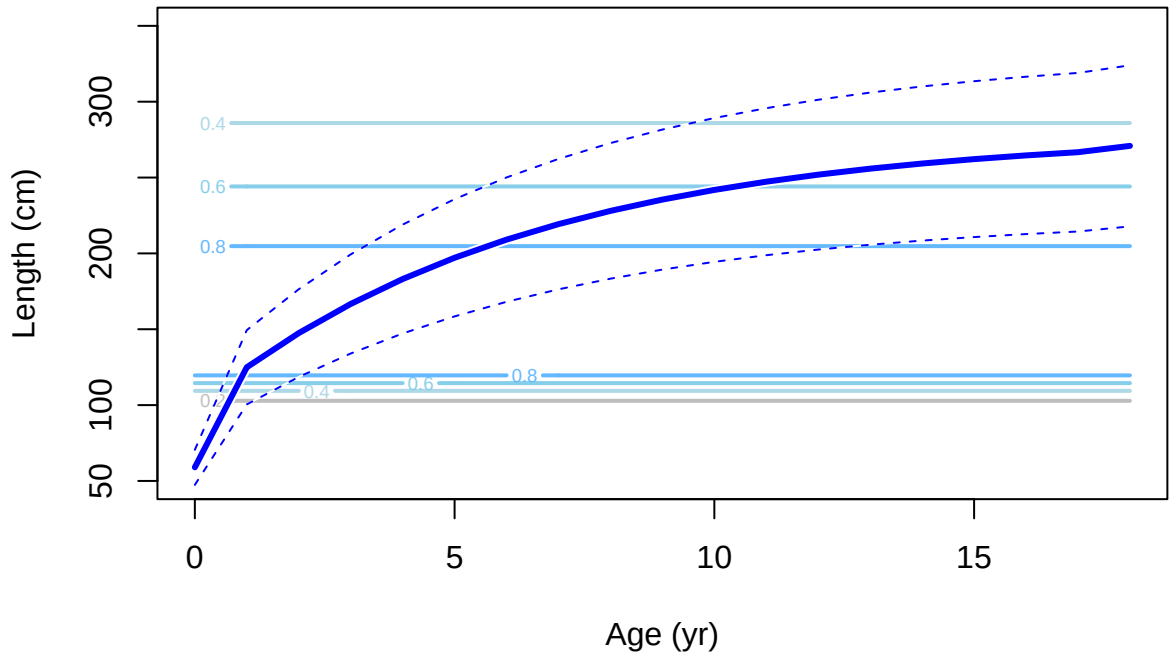




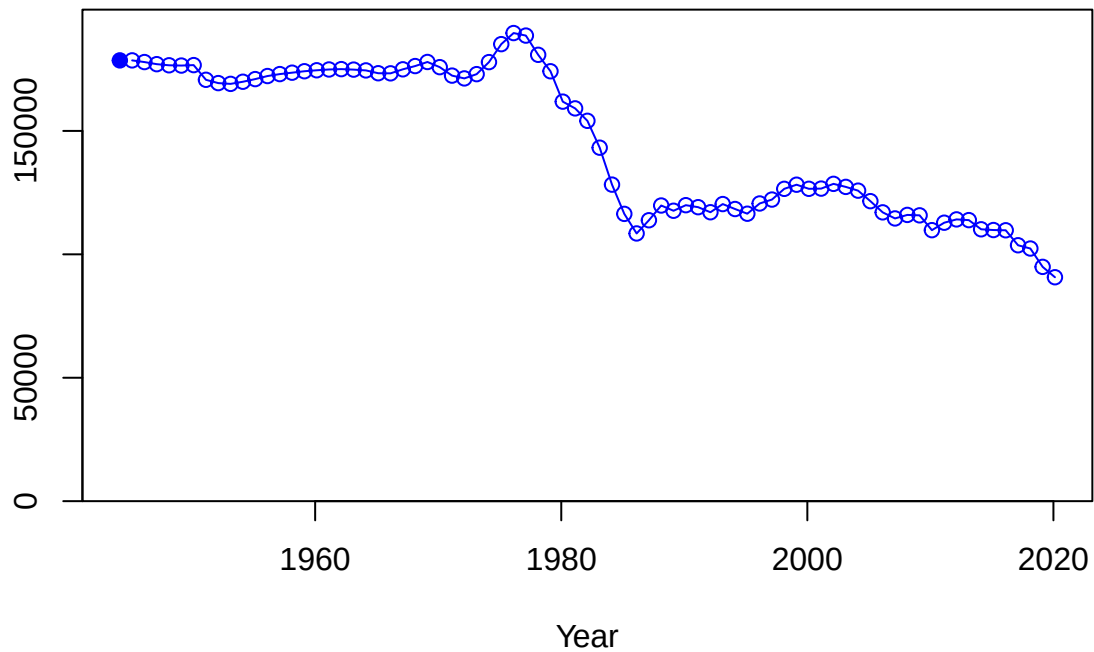




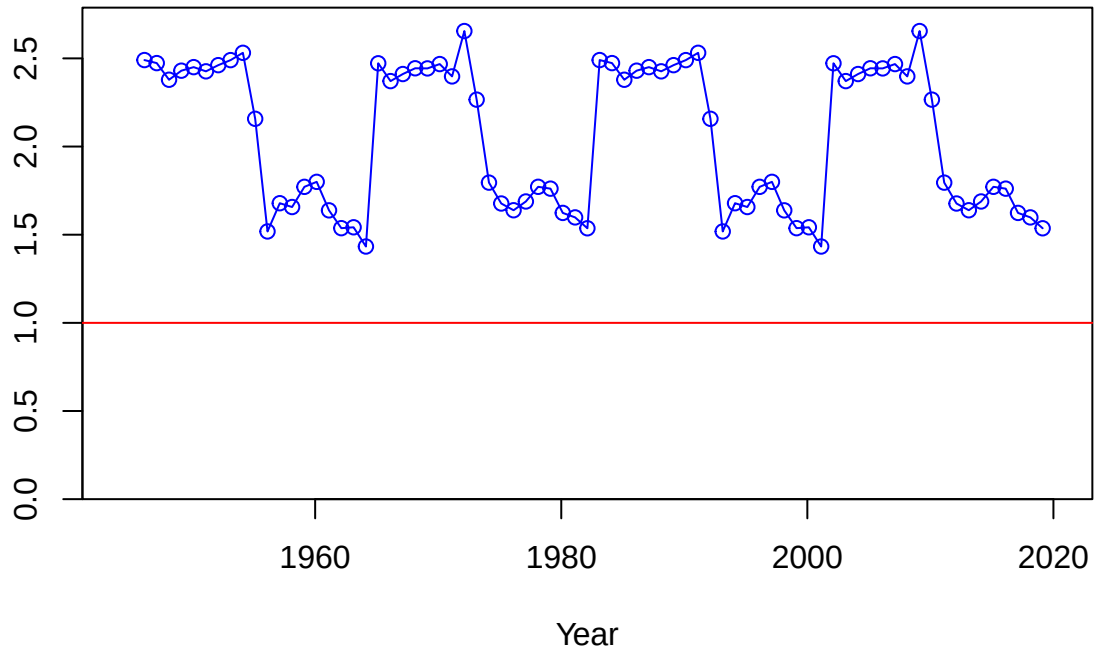


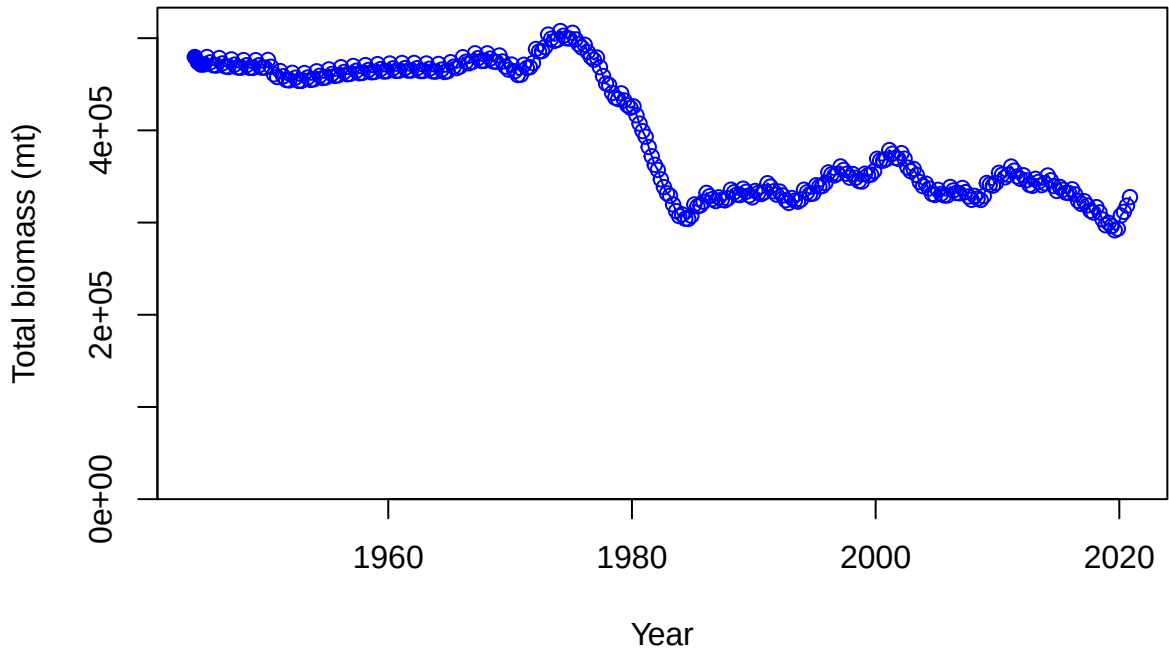


Spawning biomass (mt)

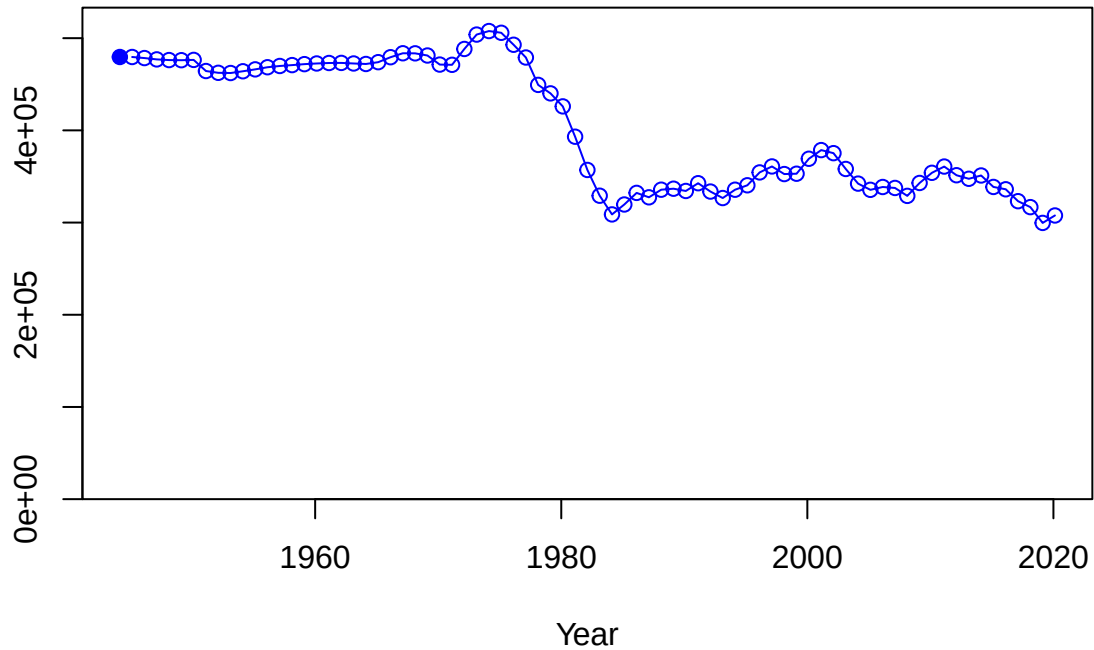


Relative spawning biomass: $B/(40\% \times \text{Virgin_Biomass})$

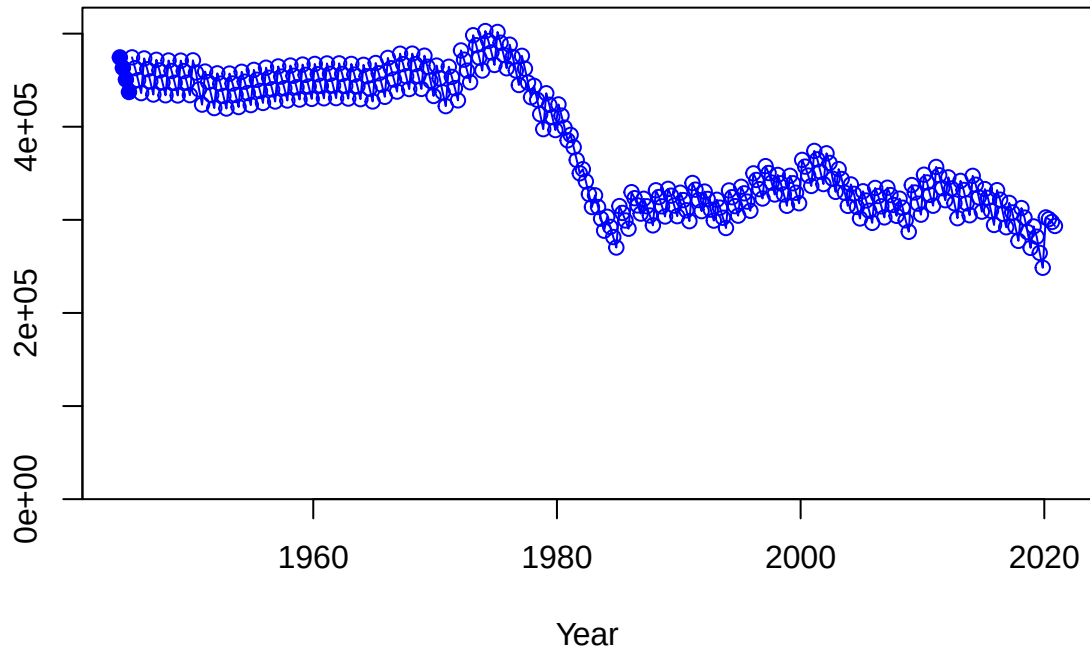




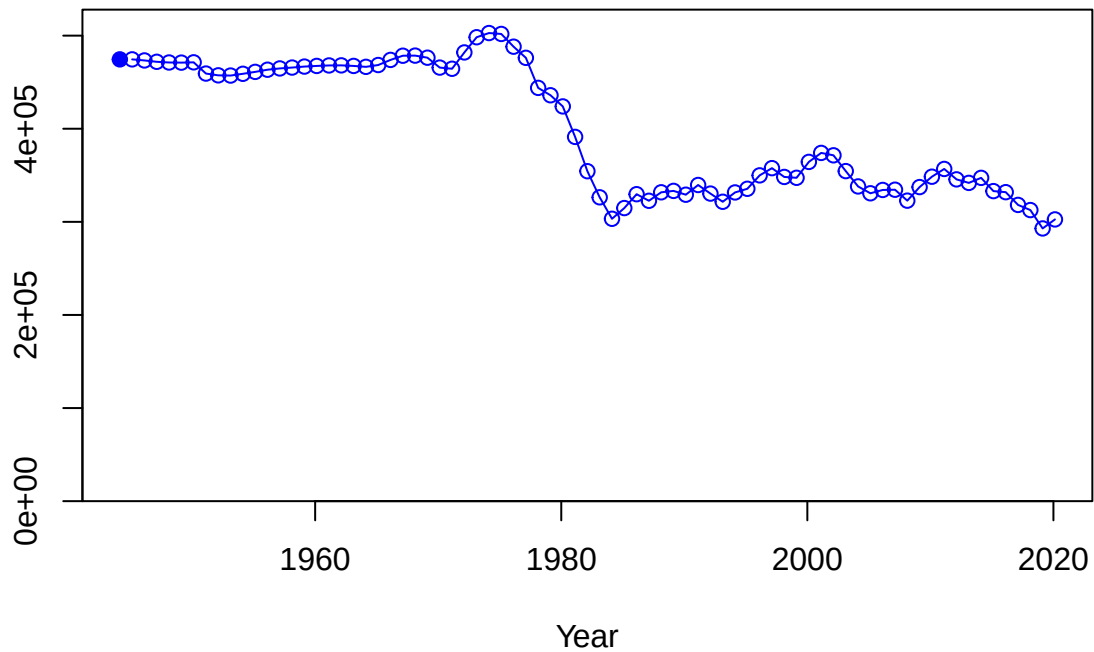
Total biomass (mt) at beginning of season 1



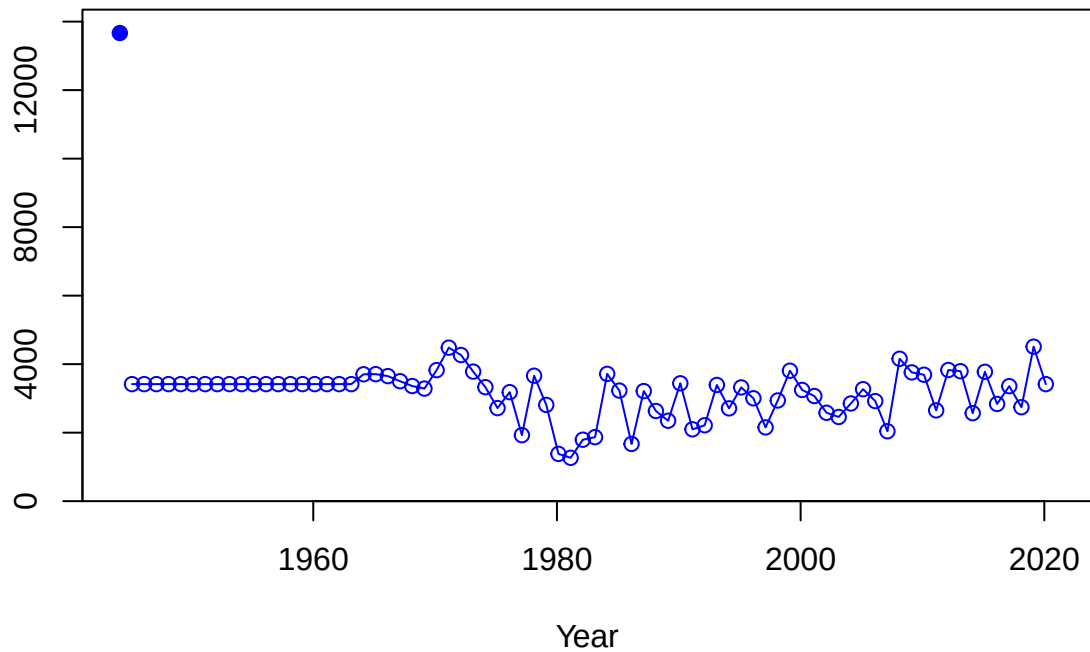
Summary biomass (mt)



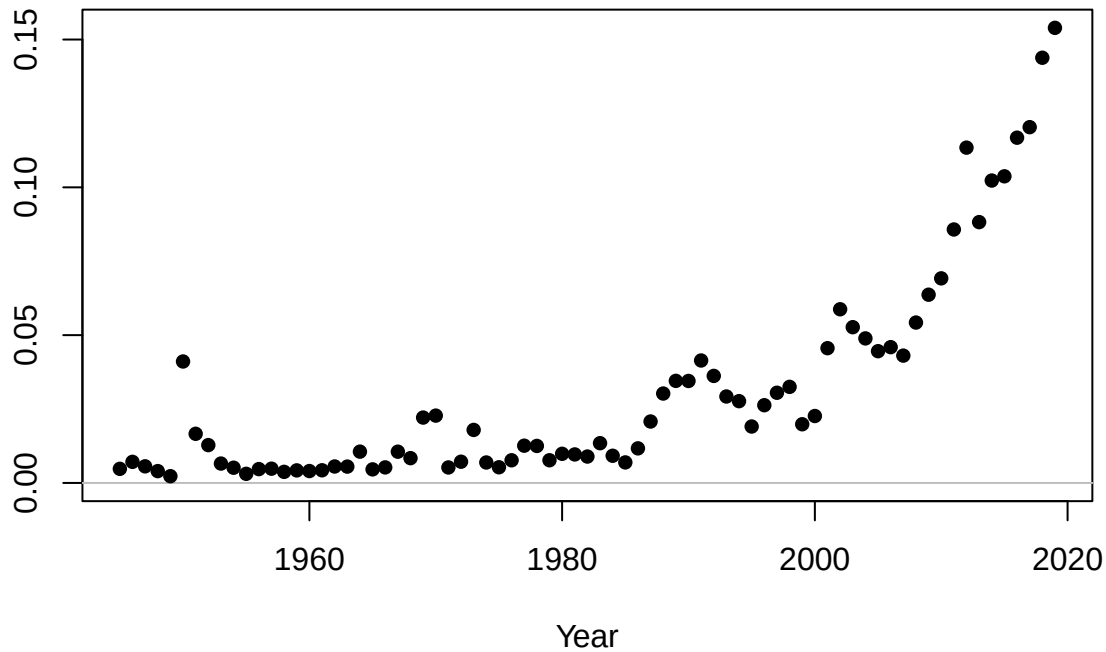
Summary biomass (mt) at beginning of season



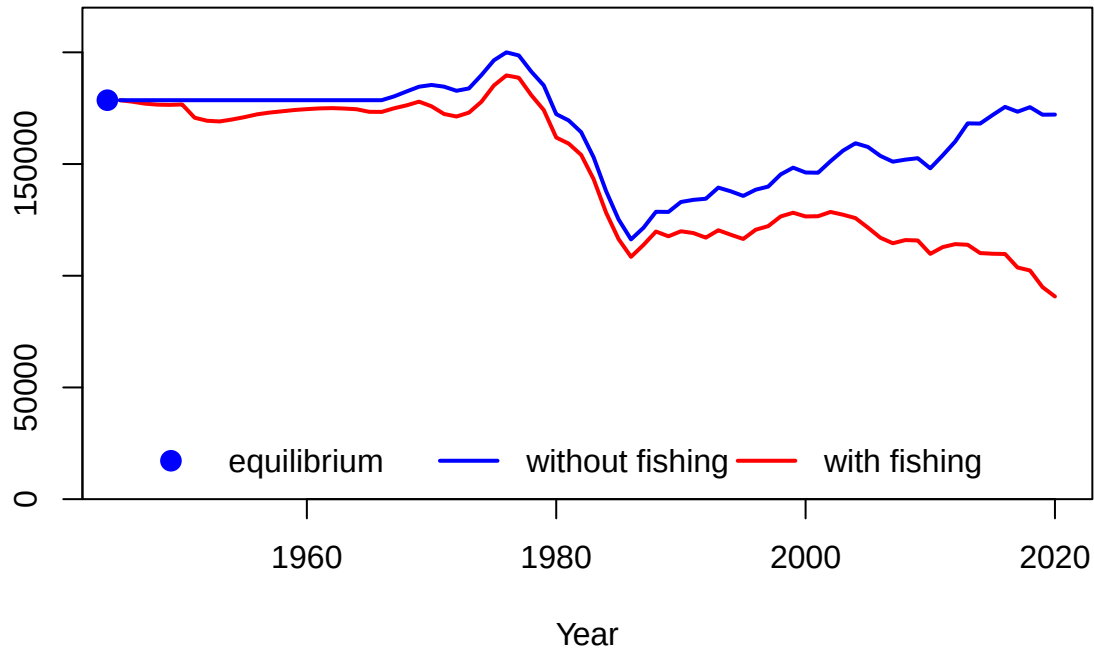
Age-0 recruits (1,000s)



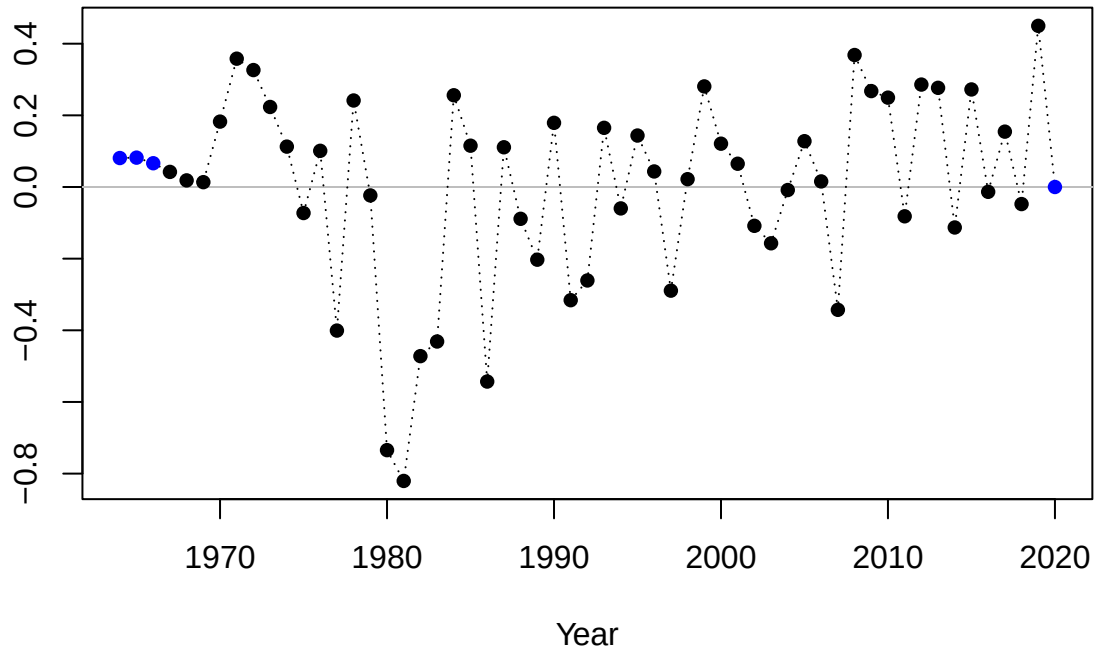
Summary Fishing Mortality

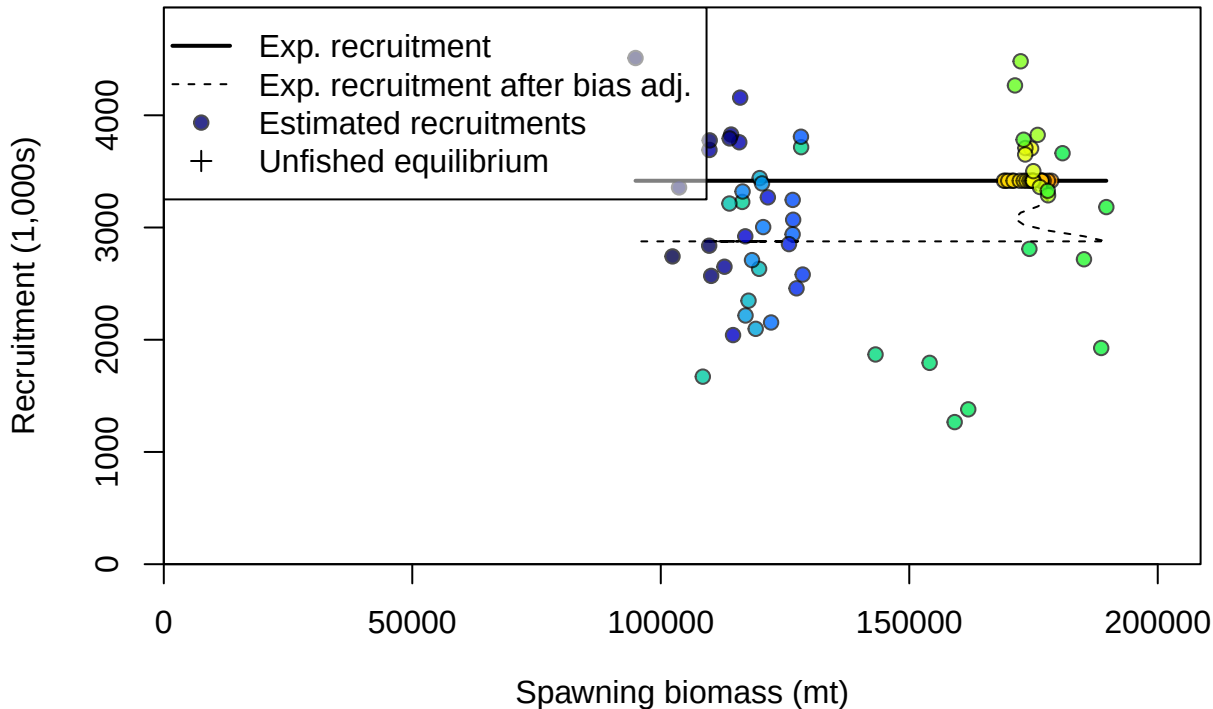


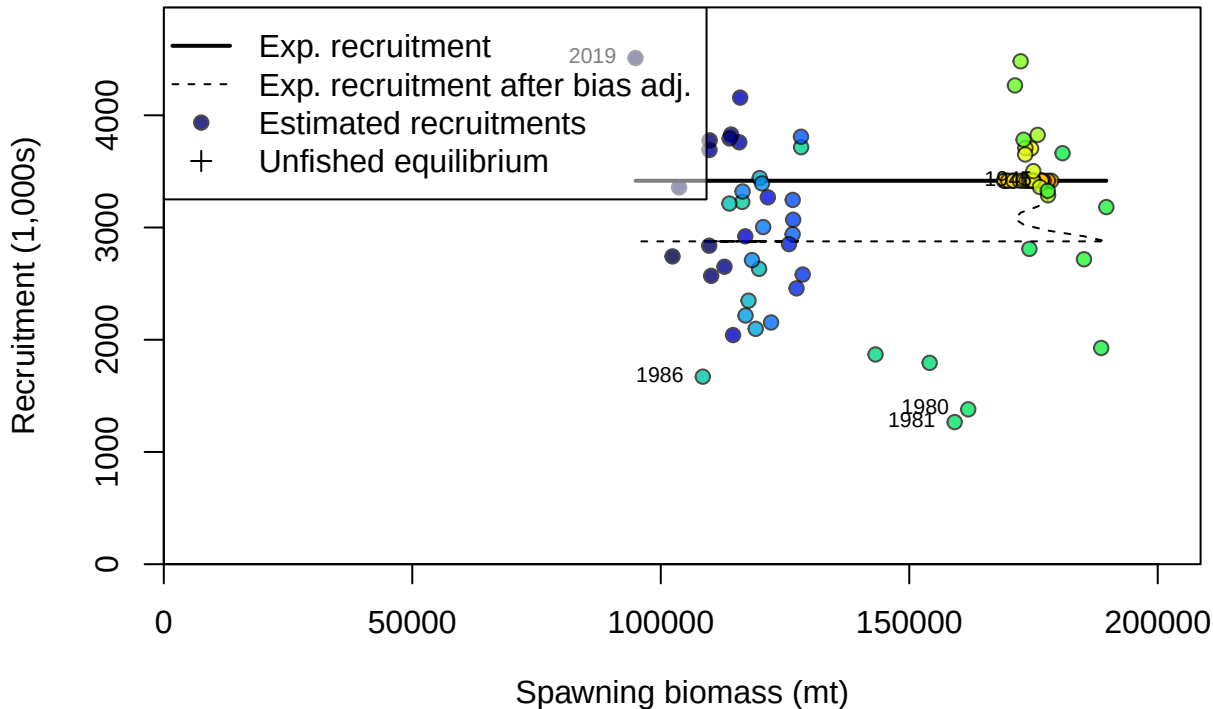
Spawning biomass (mt)



Log recruitment deviation







Log recruitment deviation

2019

1986

1980

1981

0.0

0.2

0.4

0.6

0.8

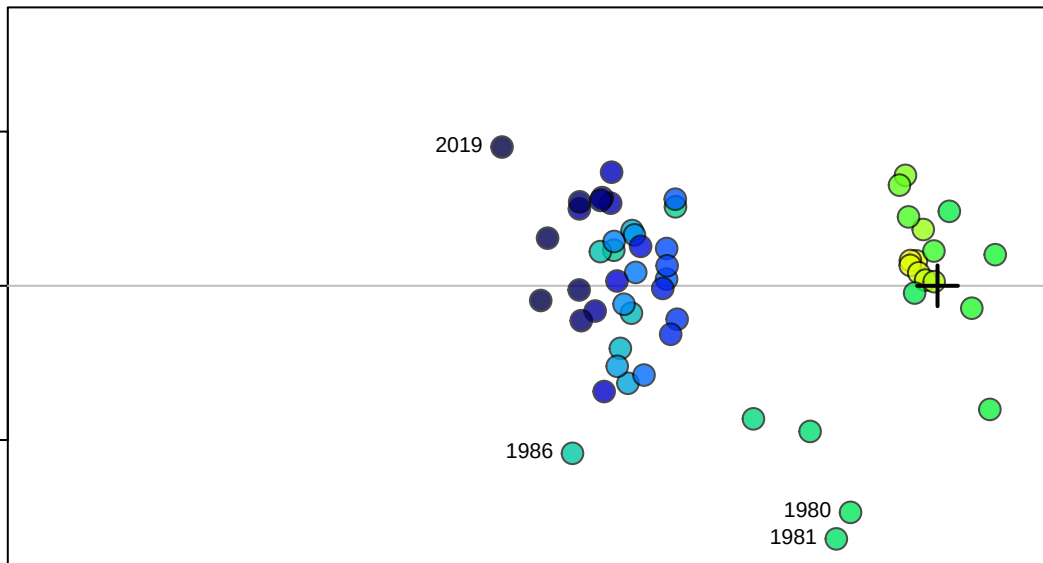
1.0

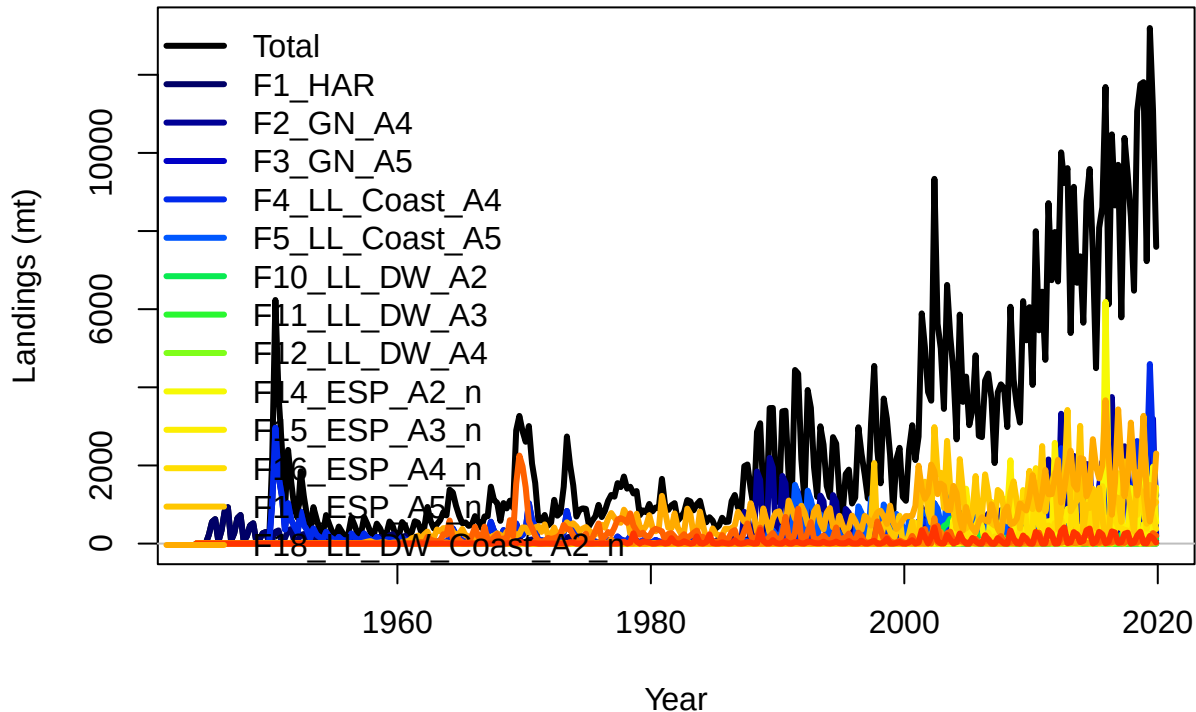
Spawning output (relative to B_0)

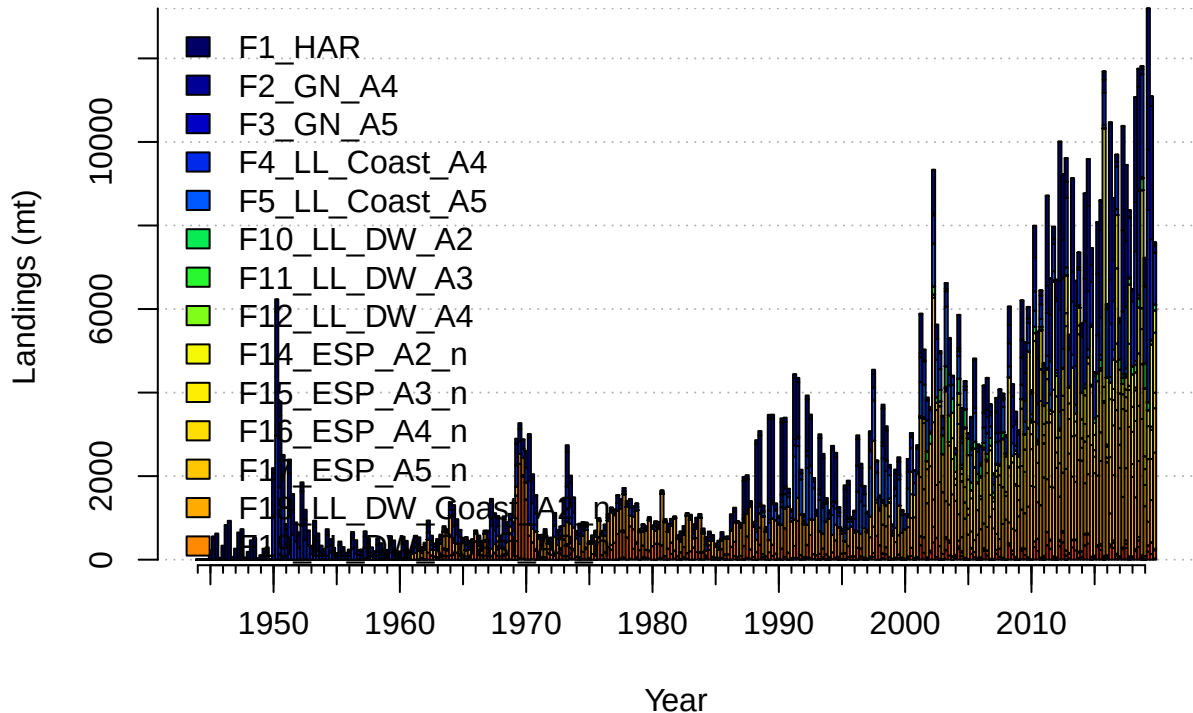
0.5

0.0

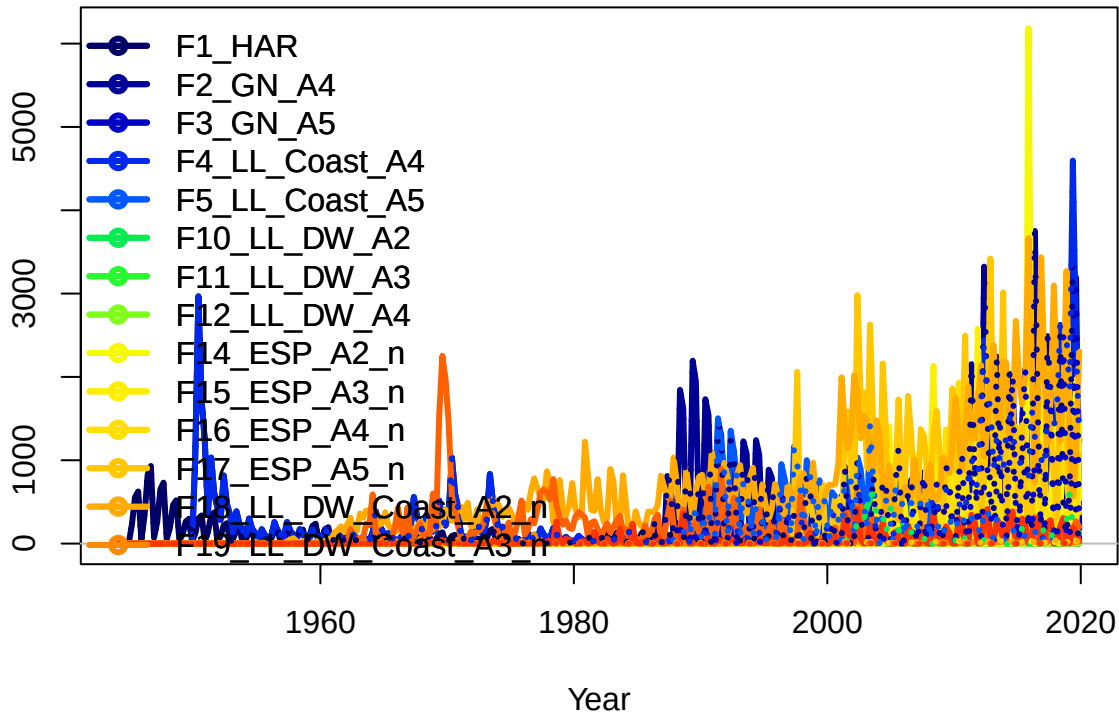
-0.5



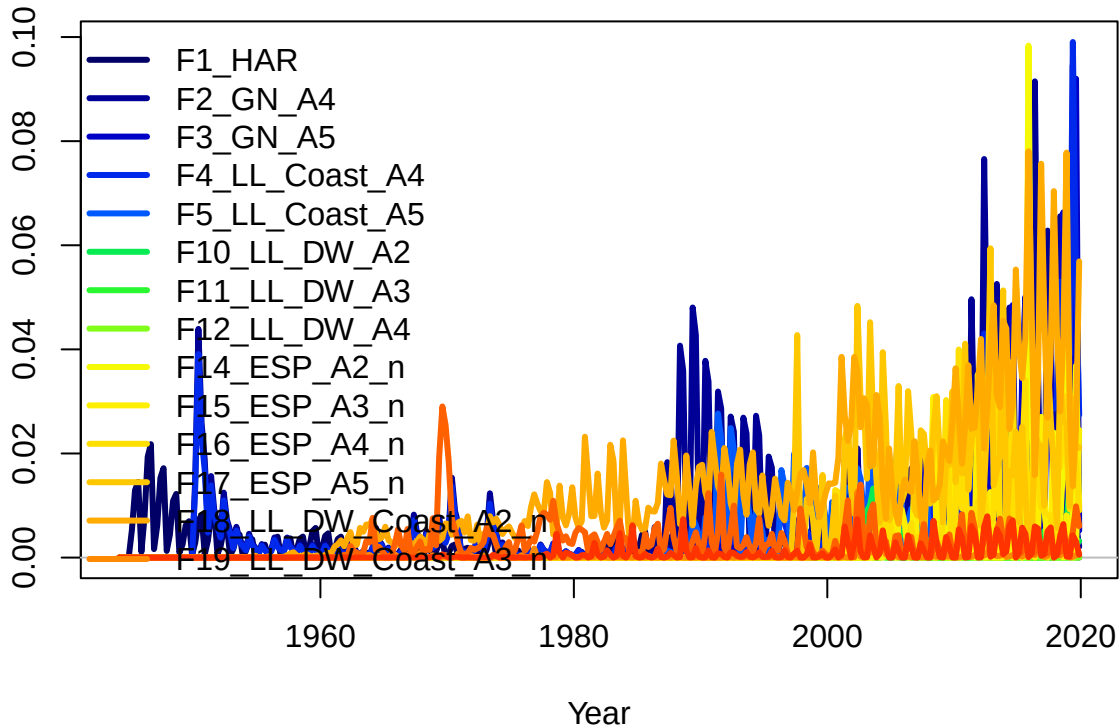


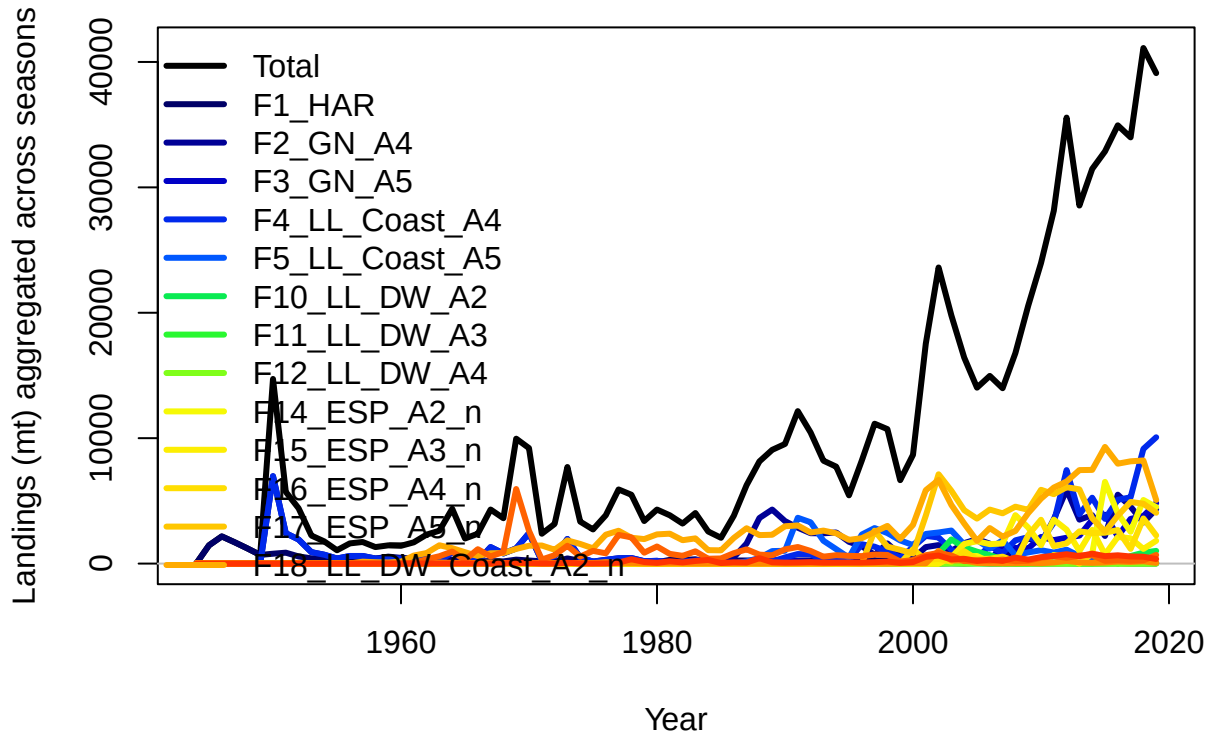


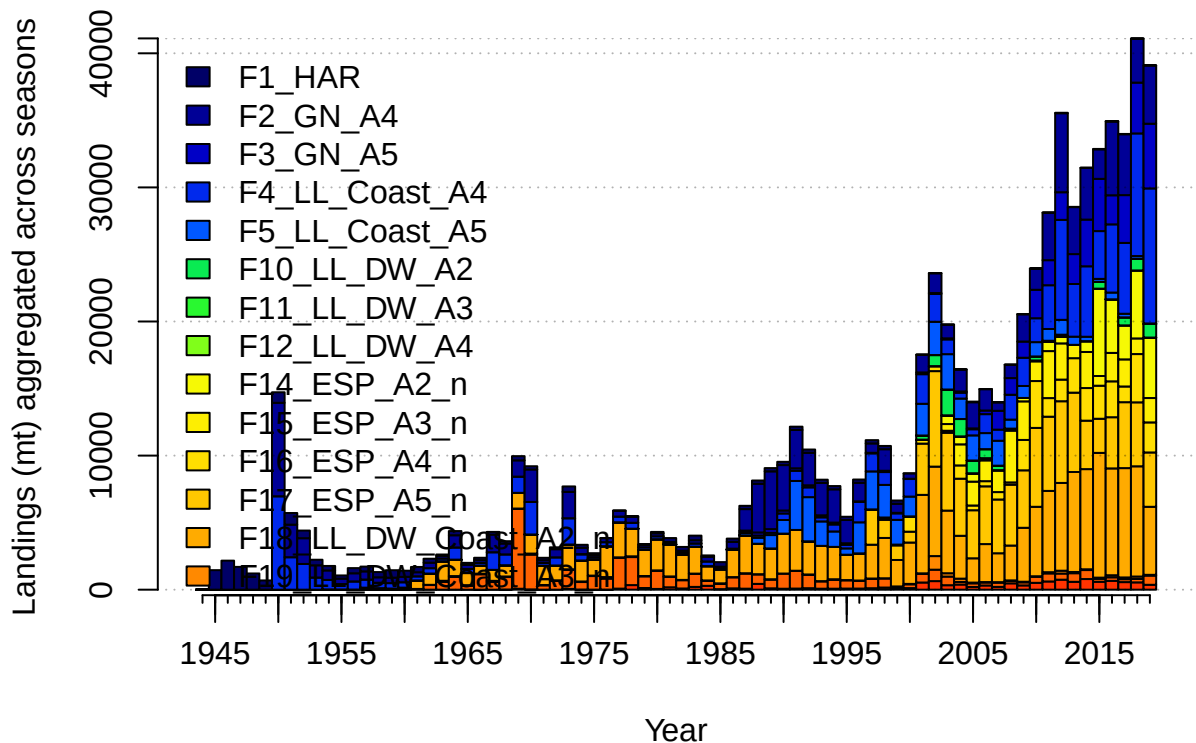
Observed and expected Landings (mt)



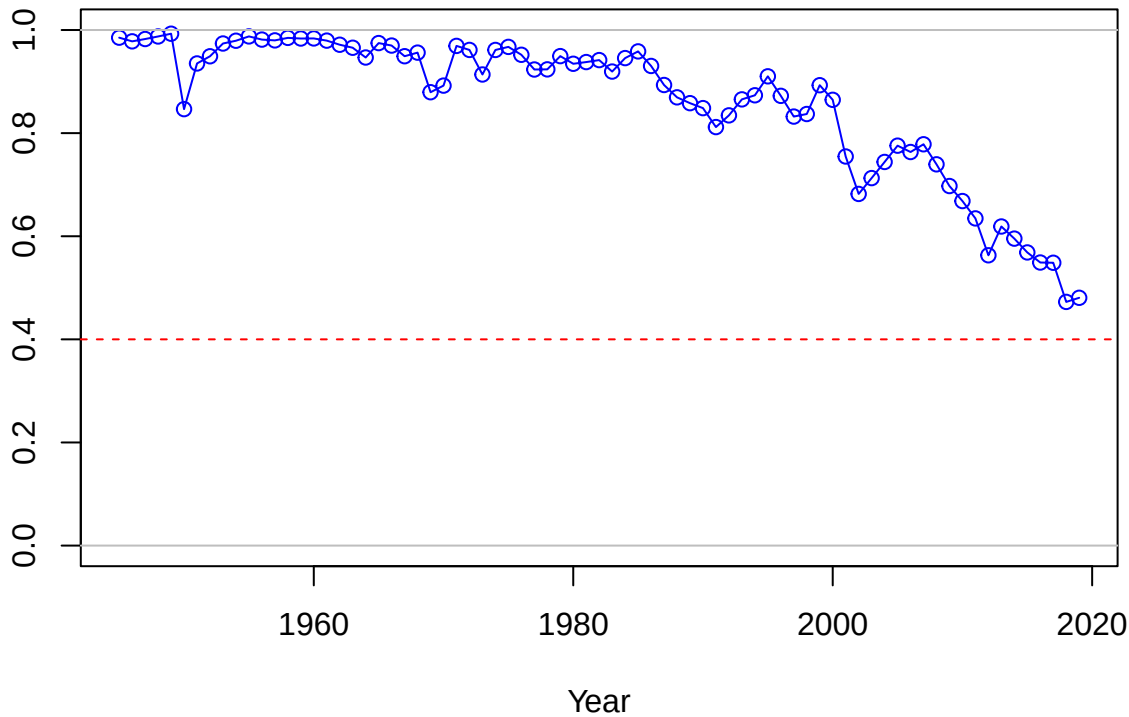
Continuous F



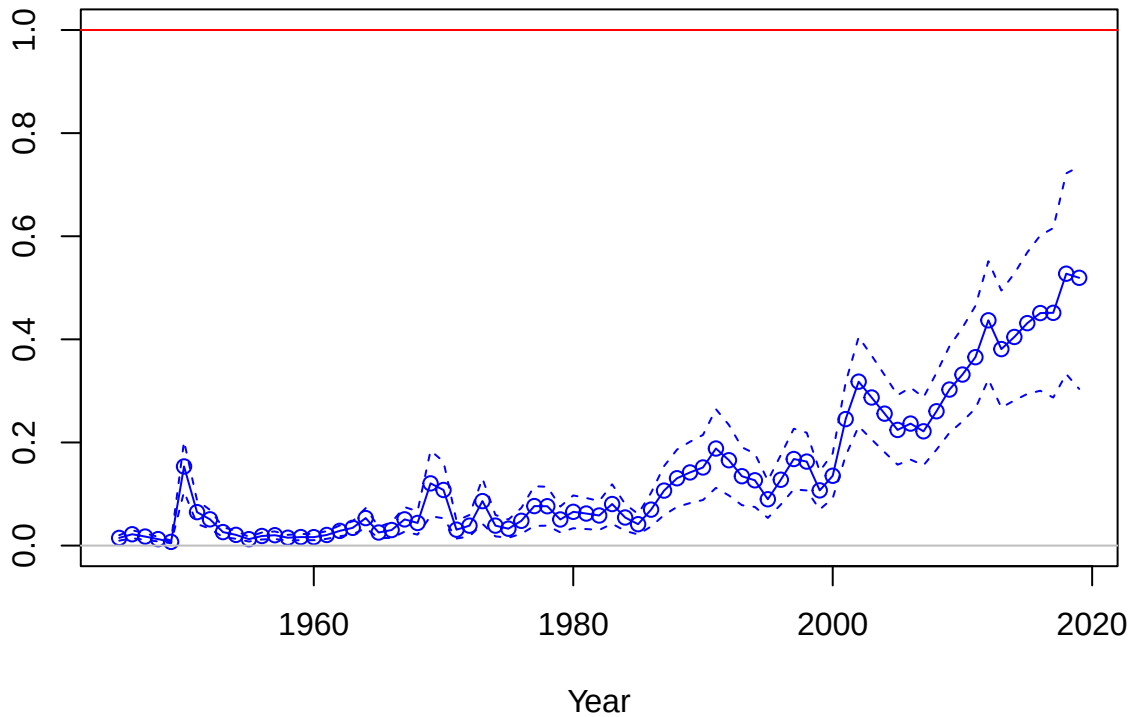




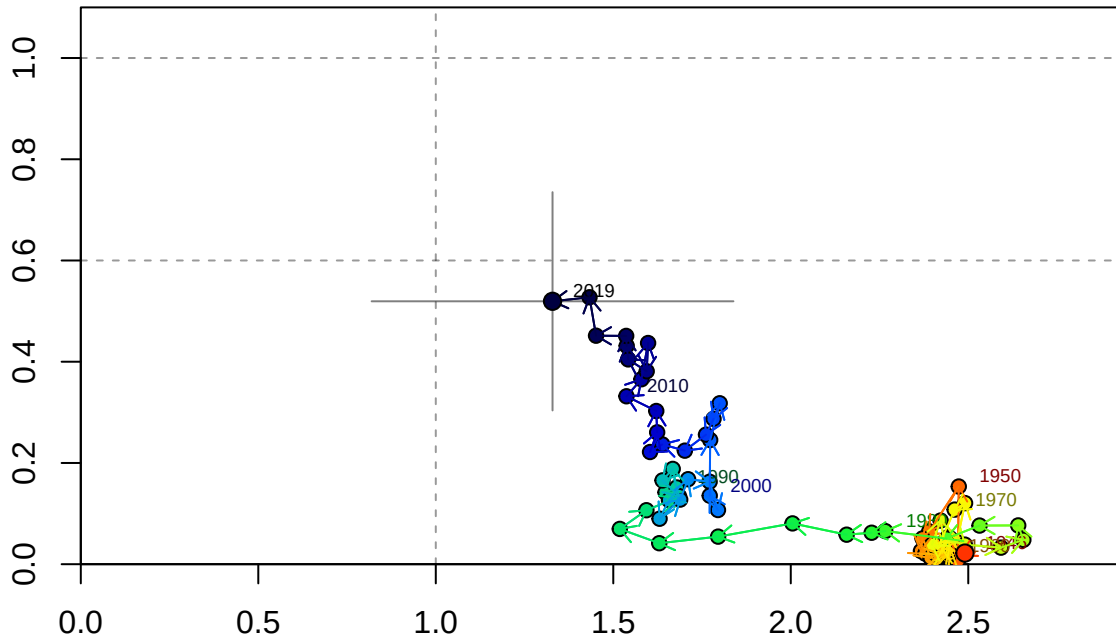
SPR



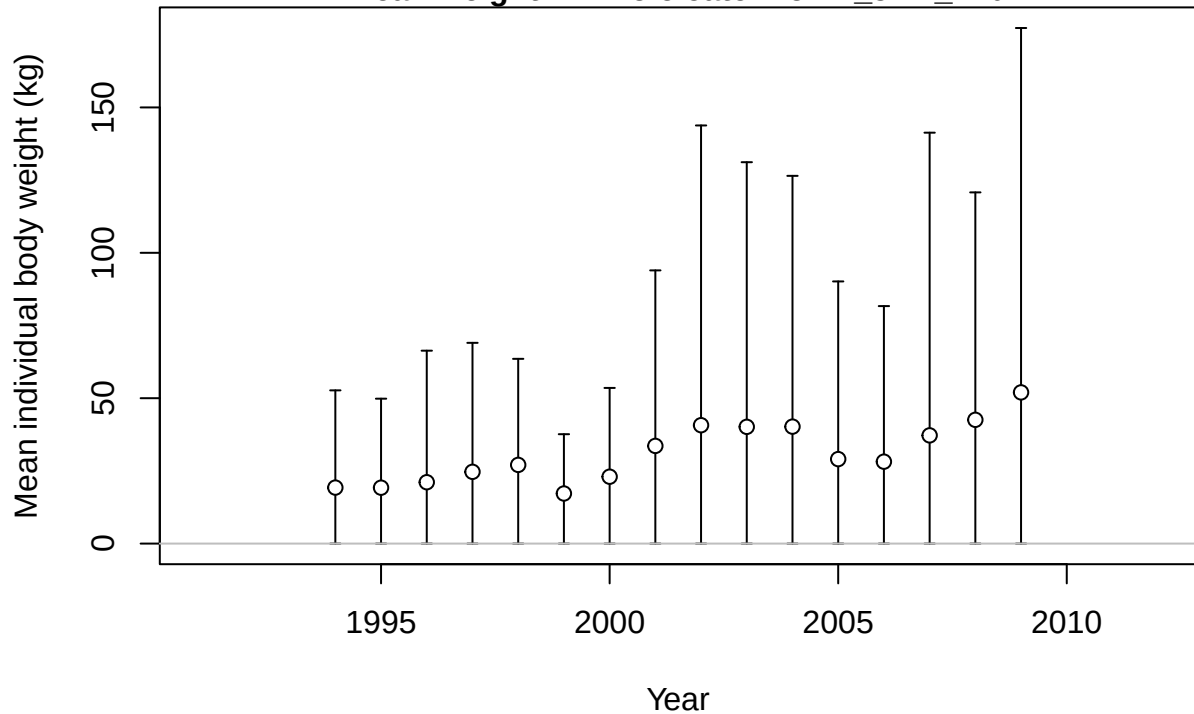
Fishing intensity: 1-SPR



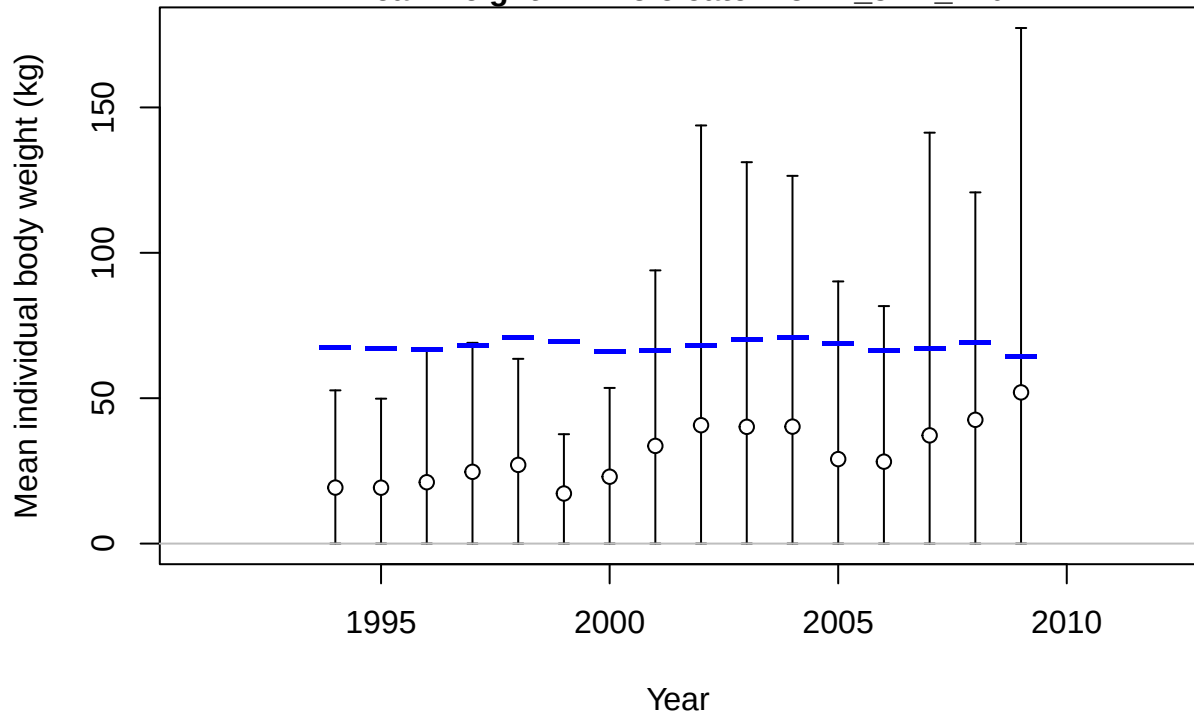
Fishing intensity: 1-SPR



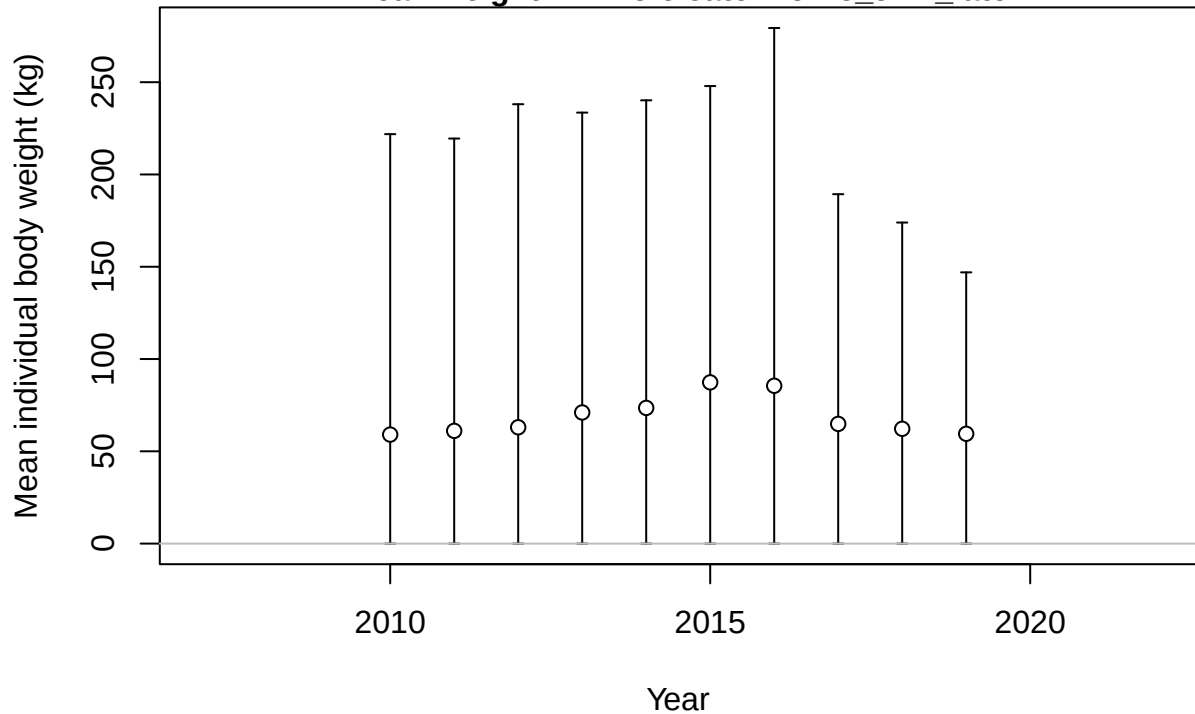
Mean weight in whole catch for I4_JPN_mid



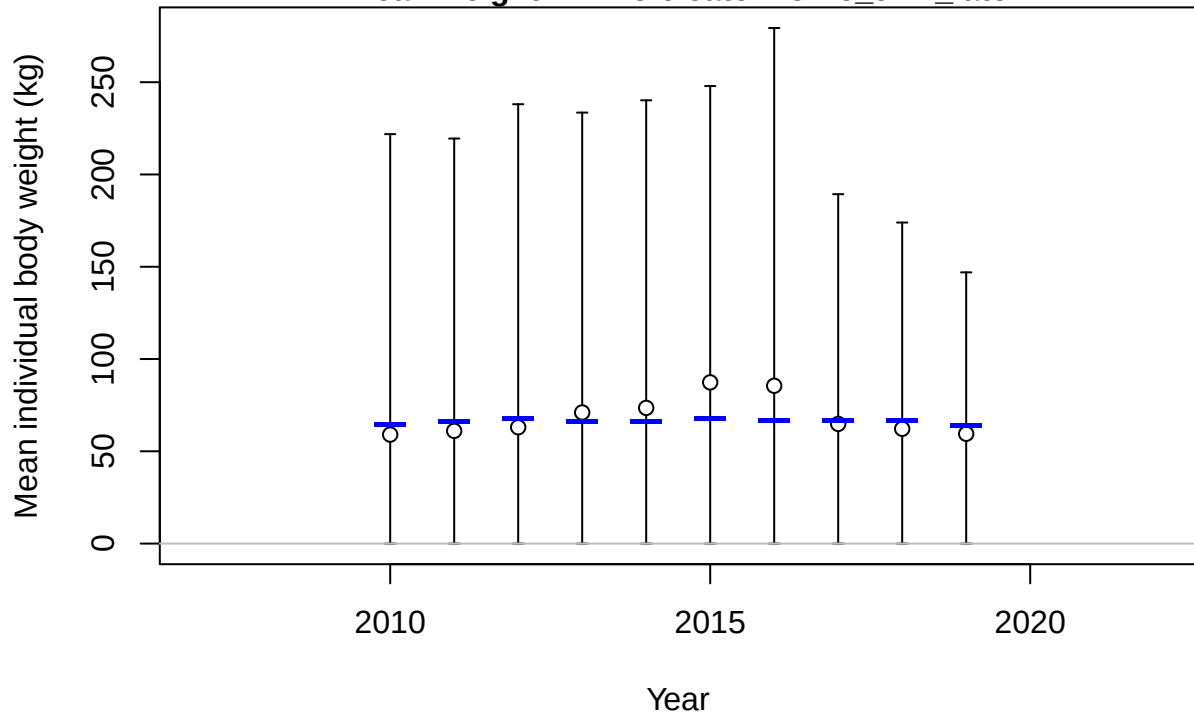
Mean weight in whole catch for I4_JPN_mid



Mean weight in whole catch for I5_JPN_late



Mean weight in whole catch for I5_JPN_late



Index

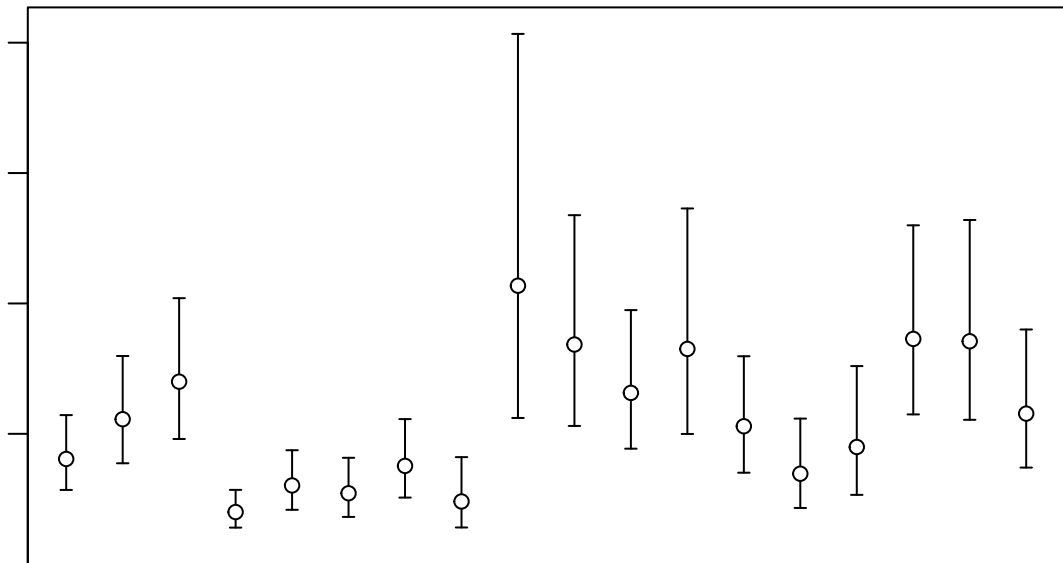
0.4
0.3
0.2
0.1
0.0

2005

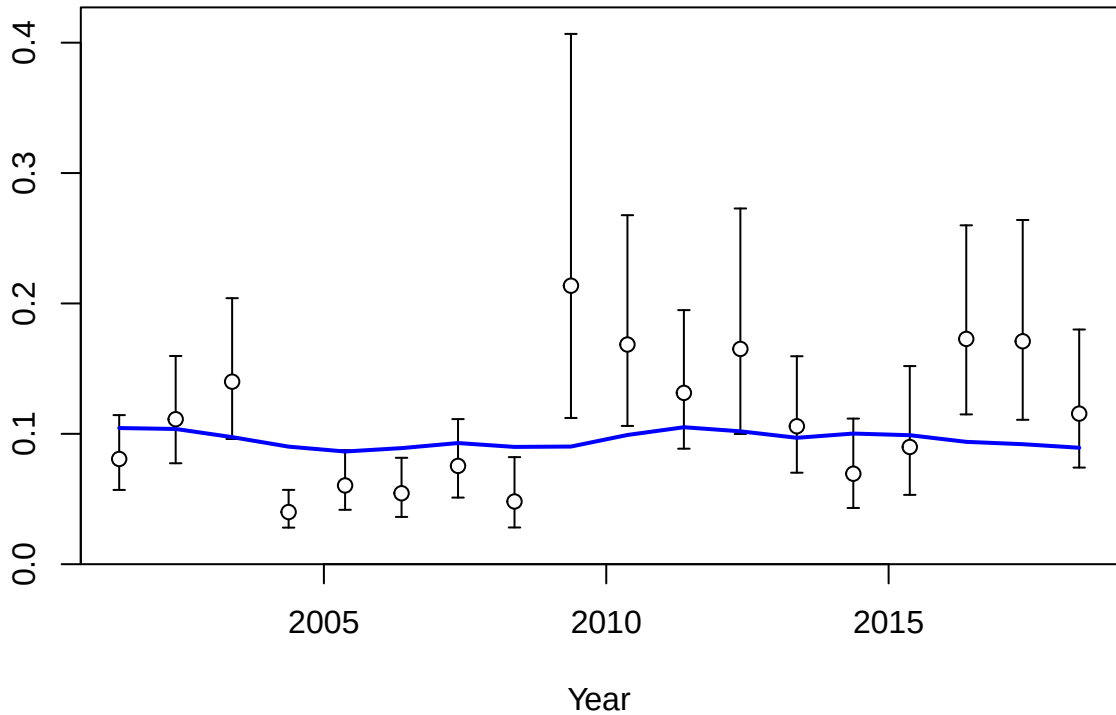
2010

2015

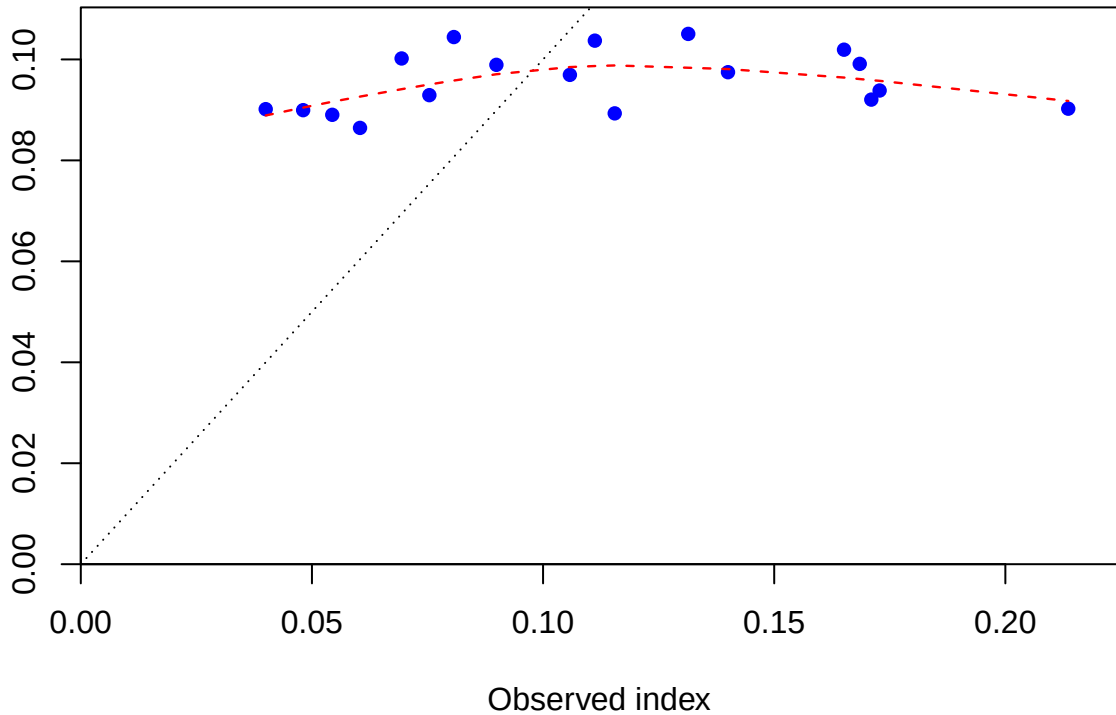
Year



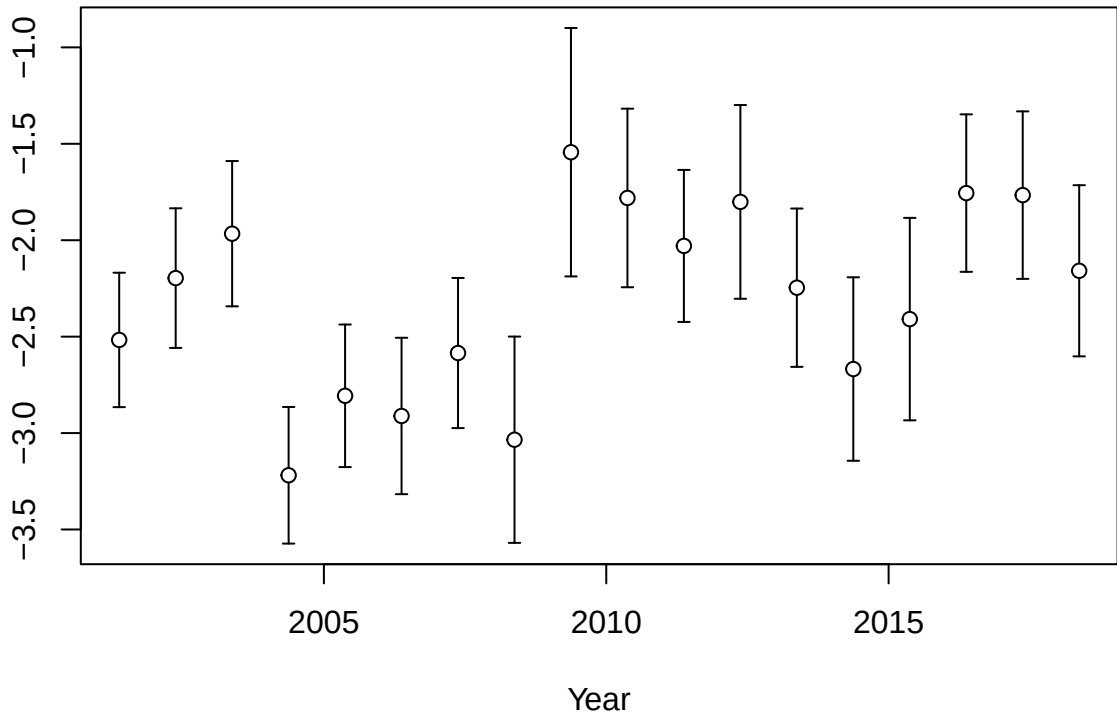
Index



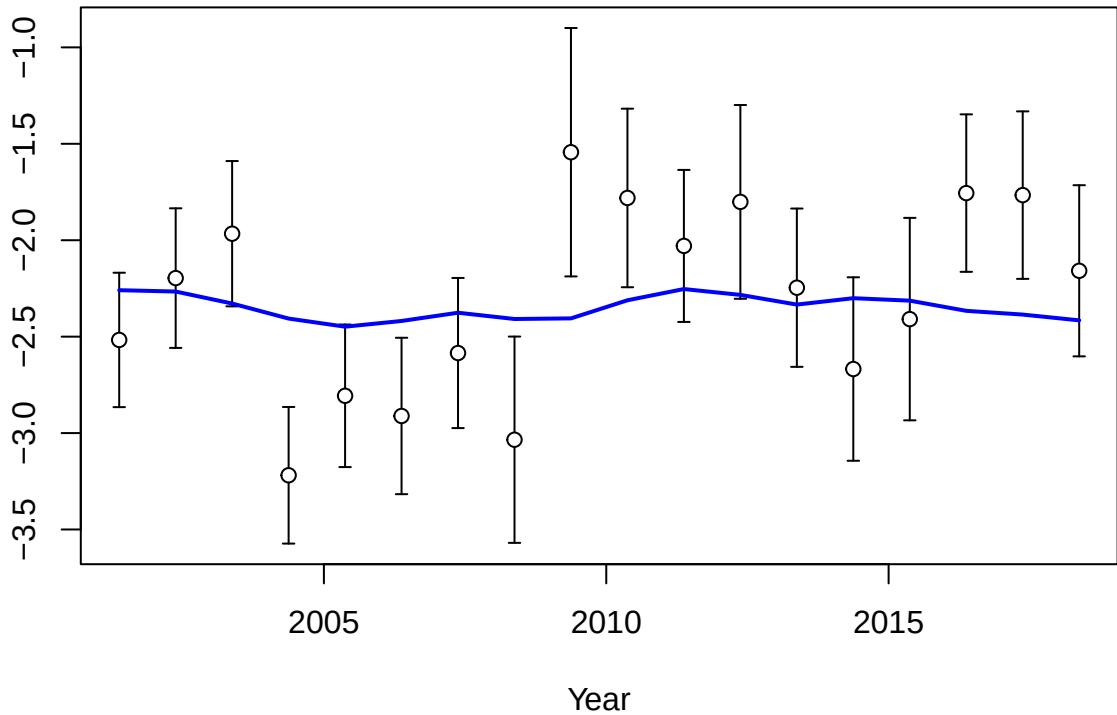
Expected index

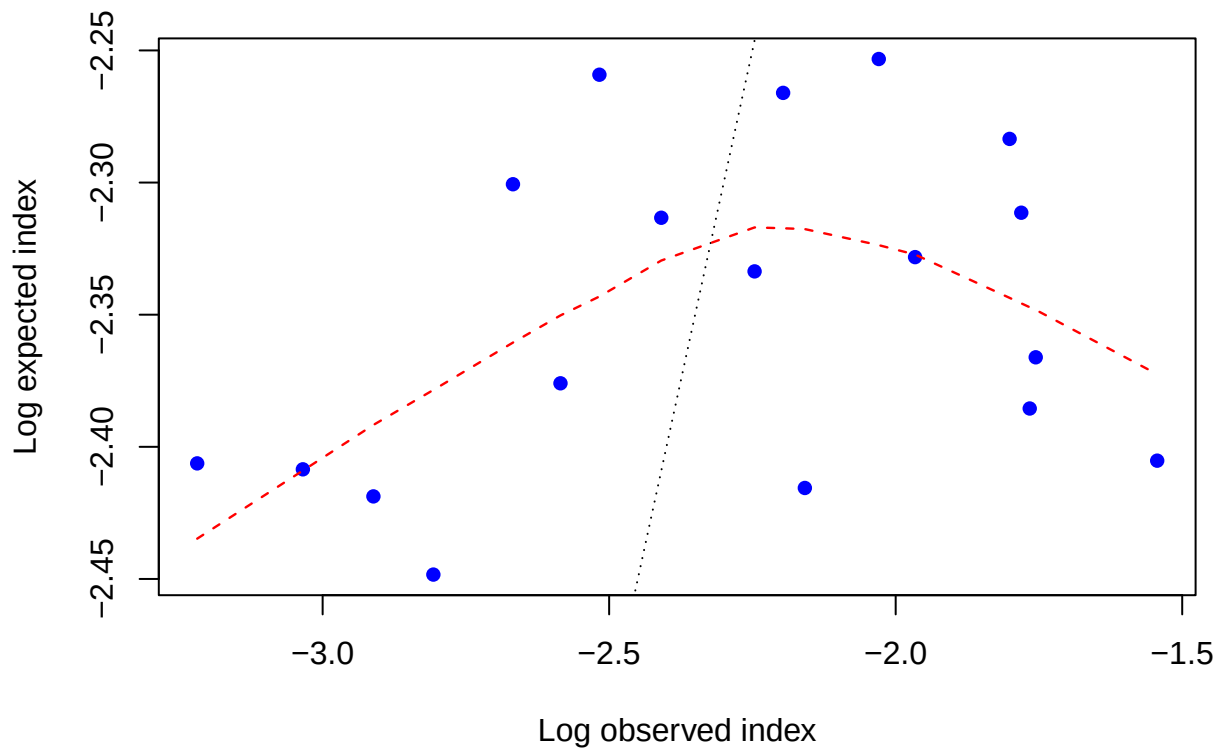


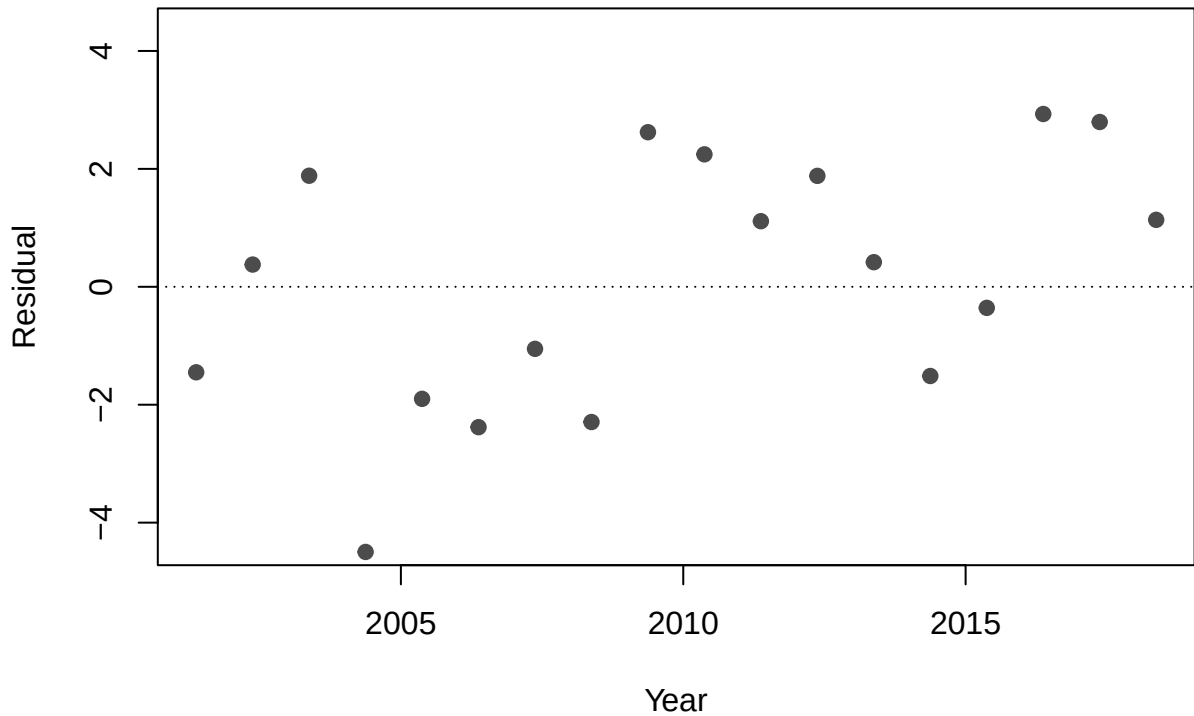
Log index

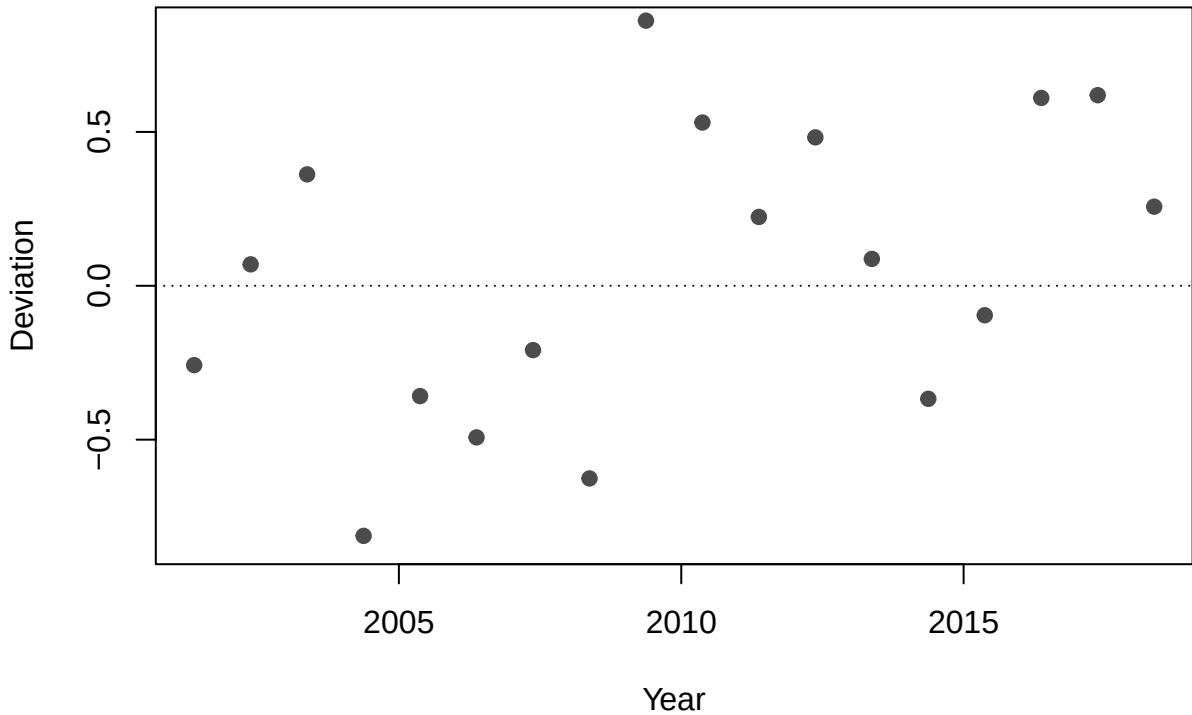


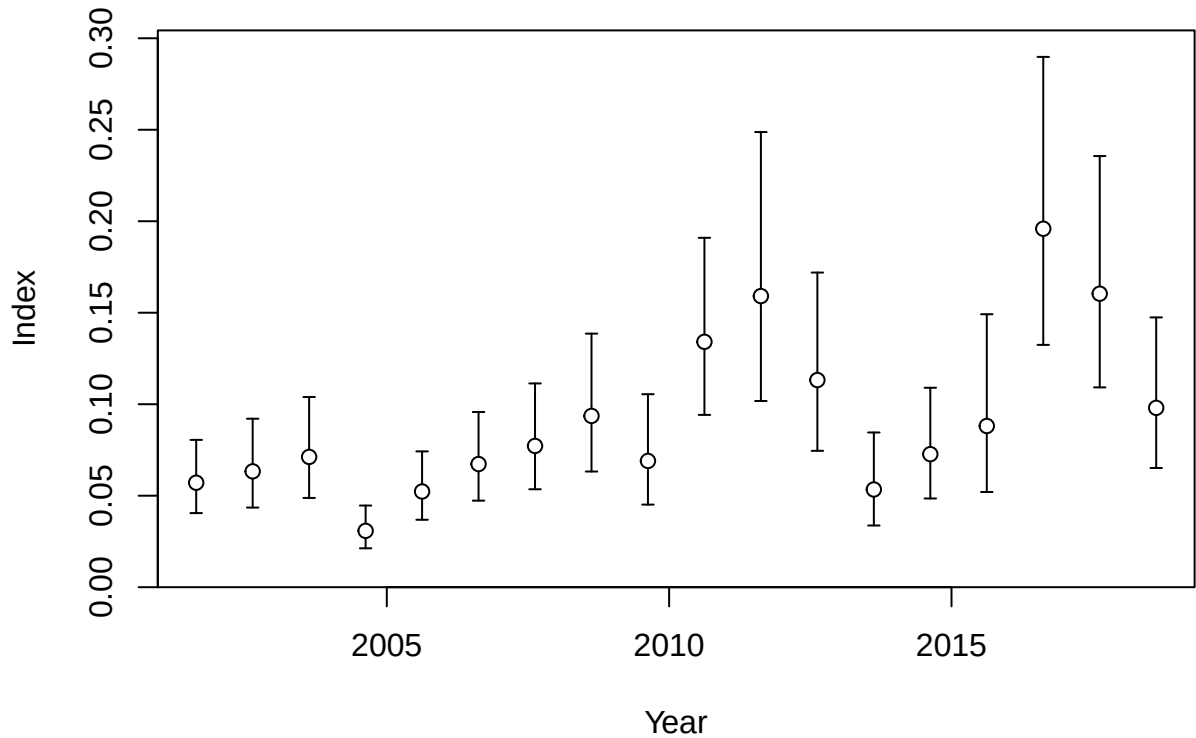
Log index

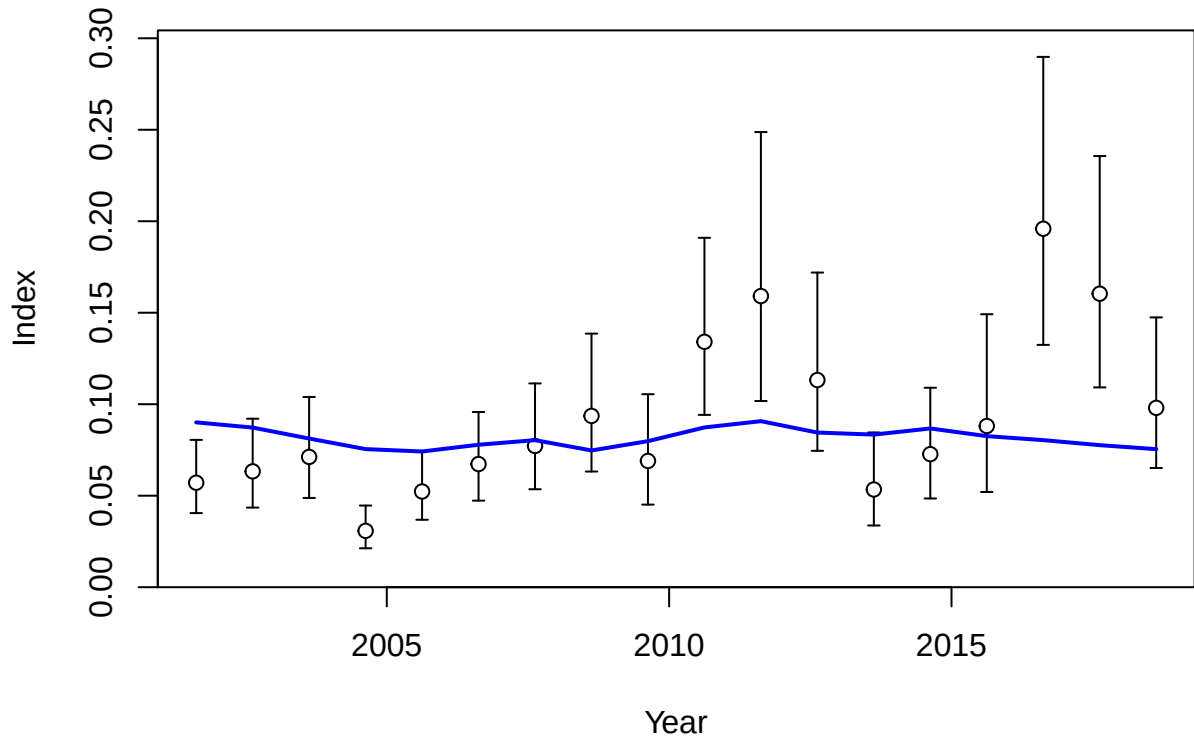




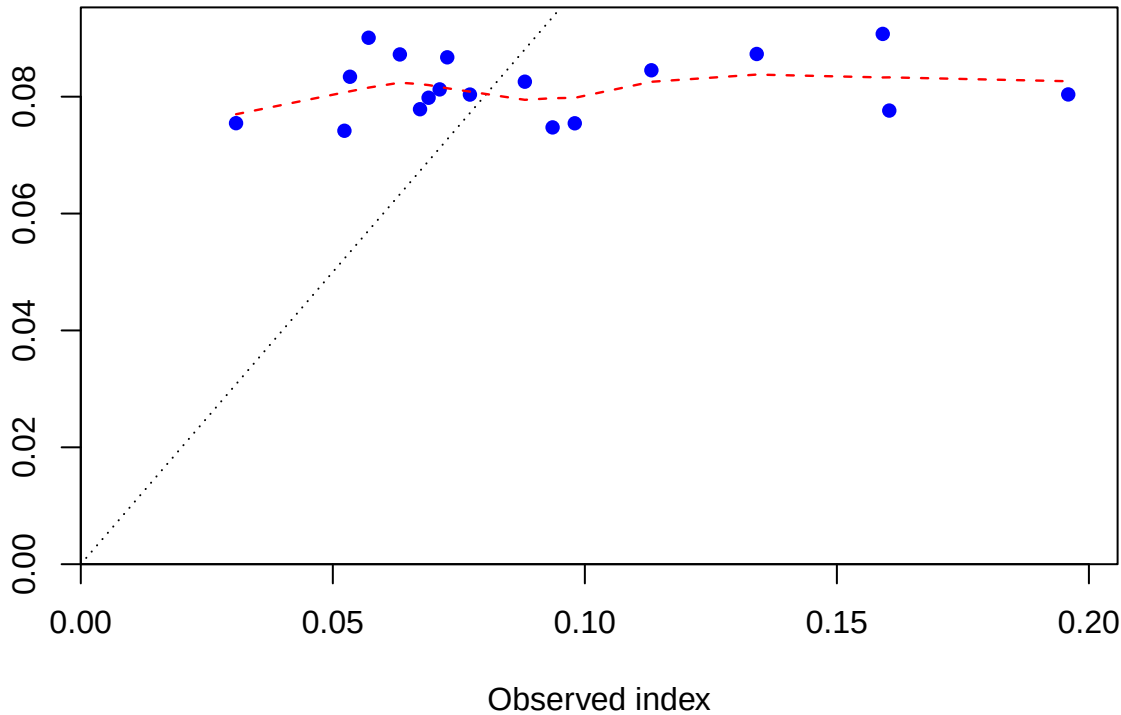








Expected index



Log index

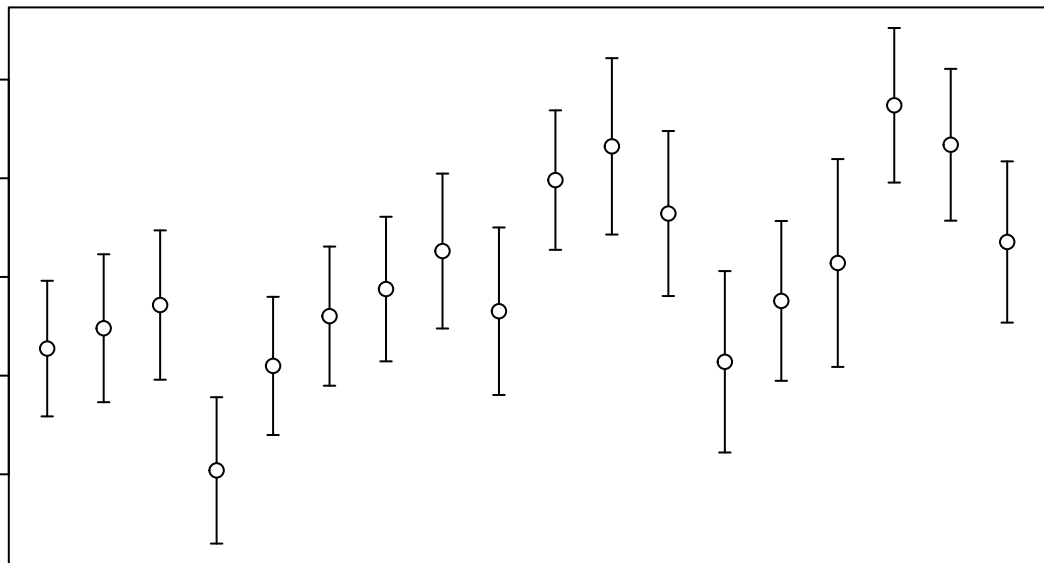
-3.5
-3.0
-2.5
-2.0
-1.5

2005

2010

2015

Year



Log index

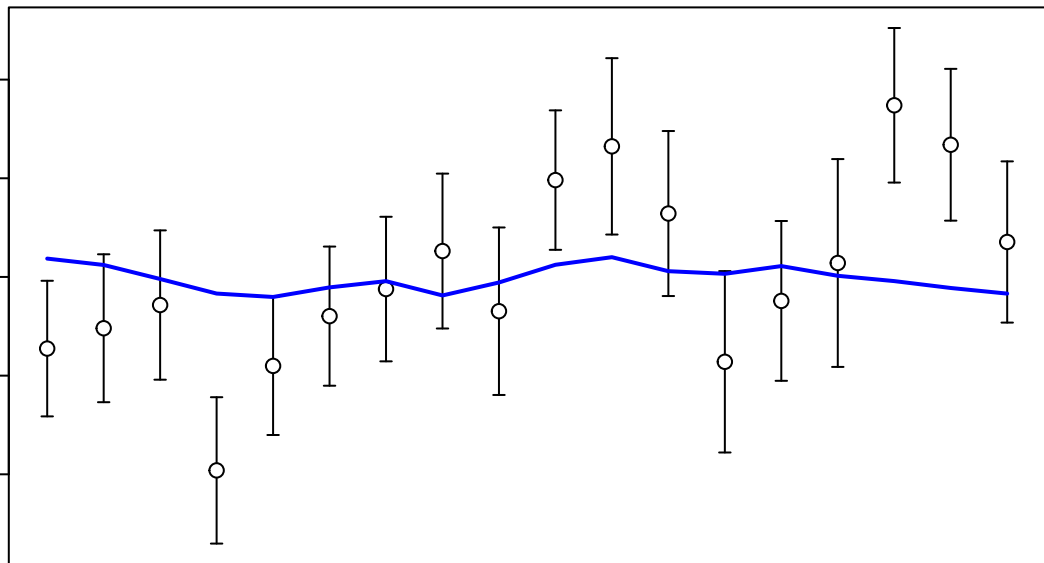
-3.5
-3.0
-2.5
-2.0
-1.5

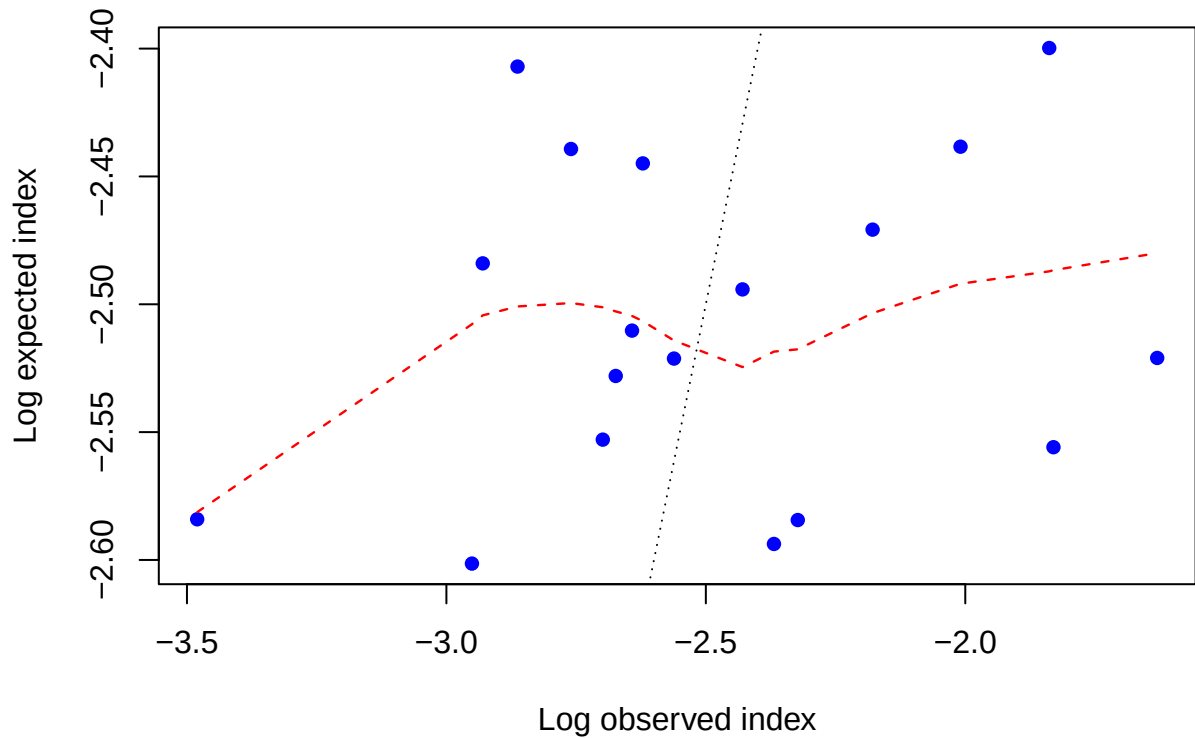
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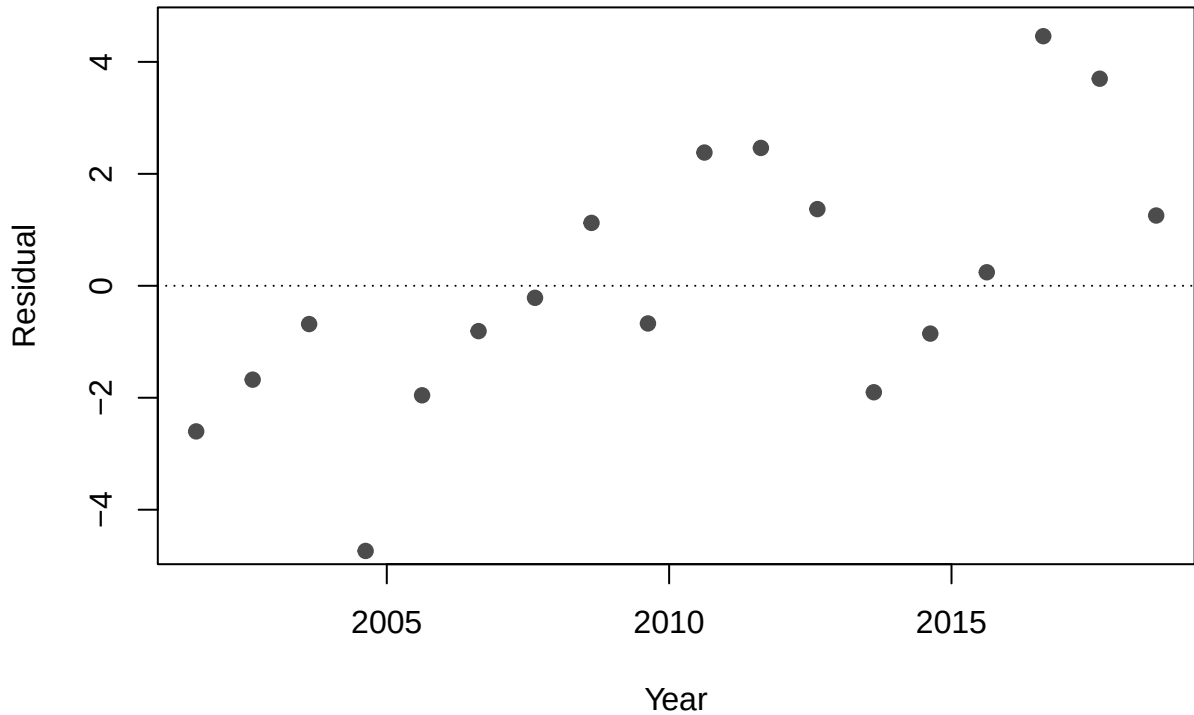
2010

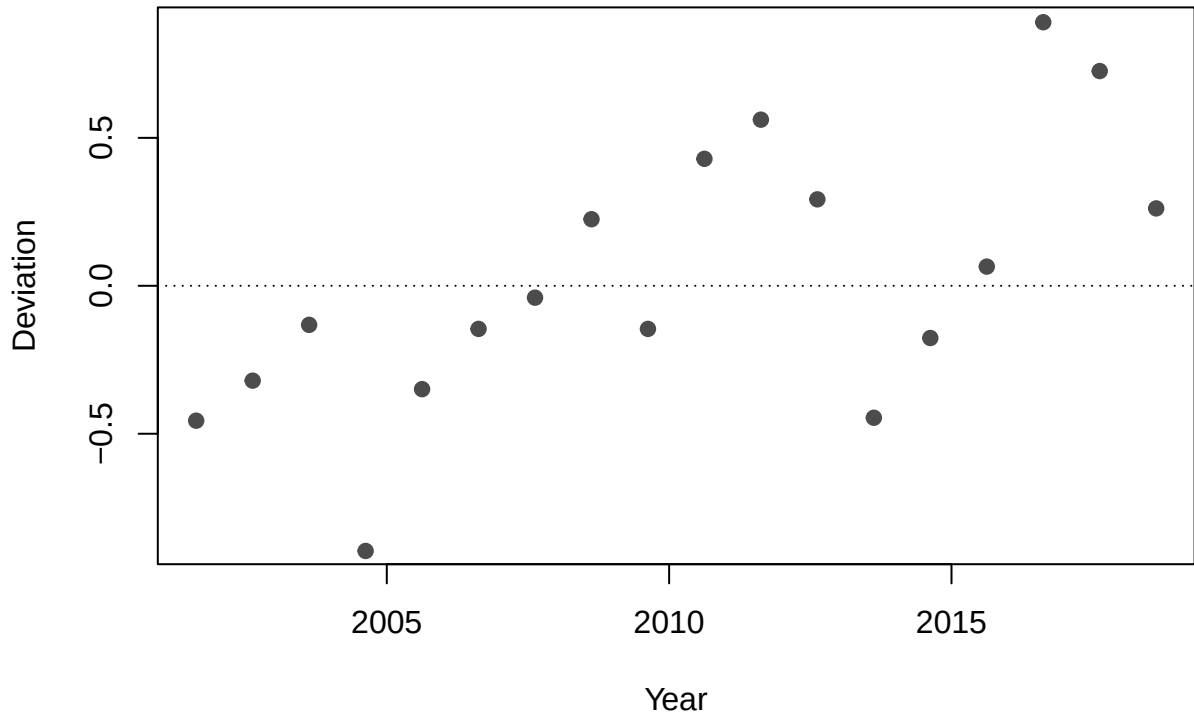
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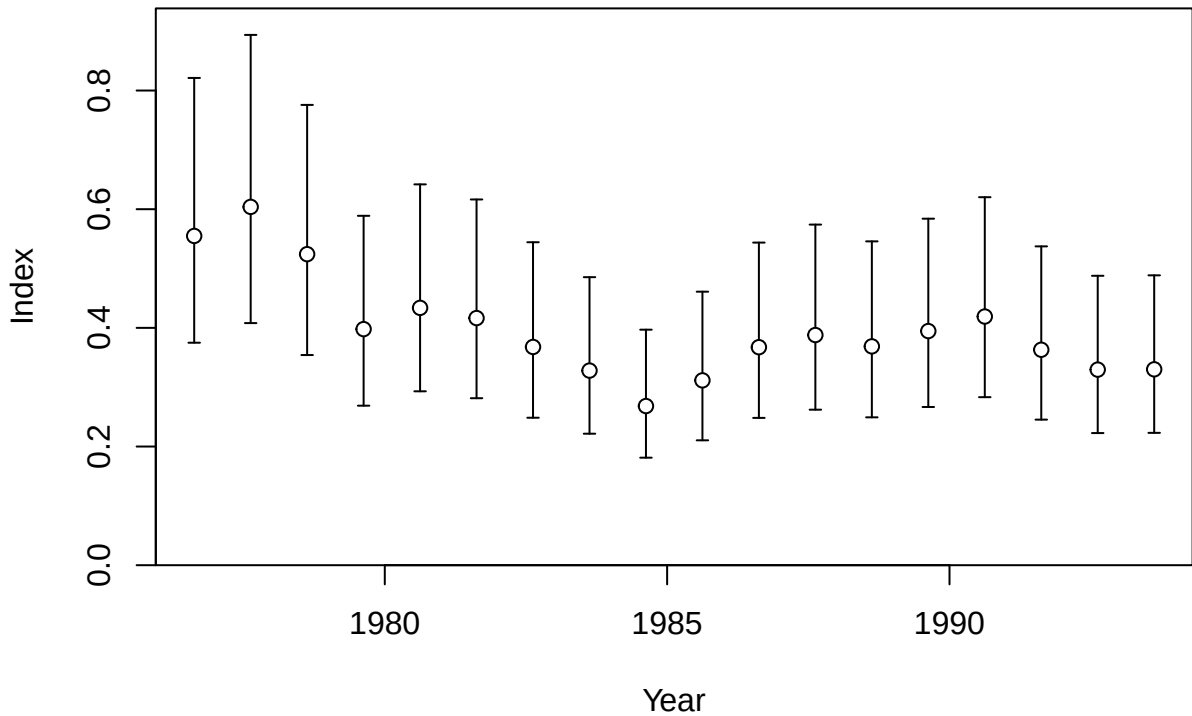
Year

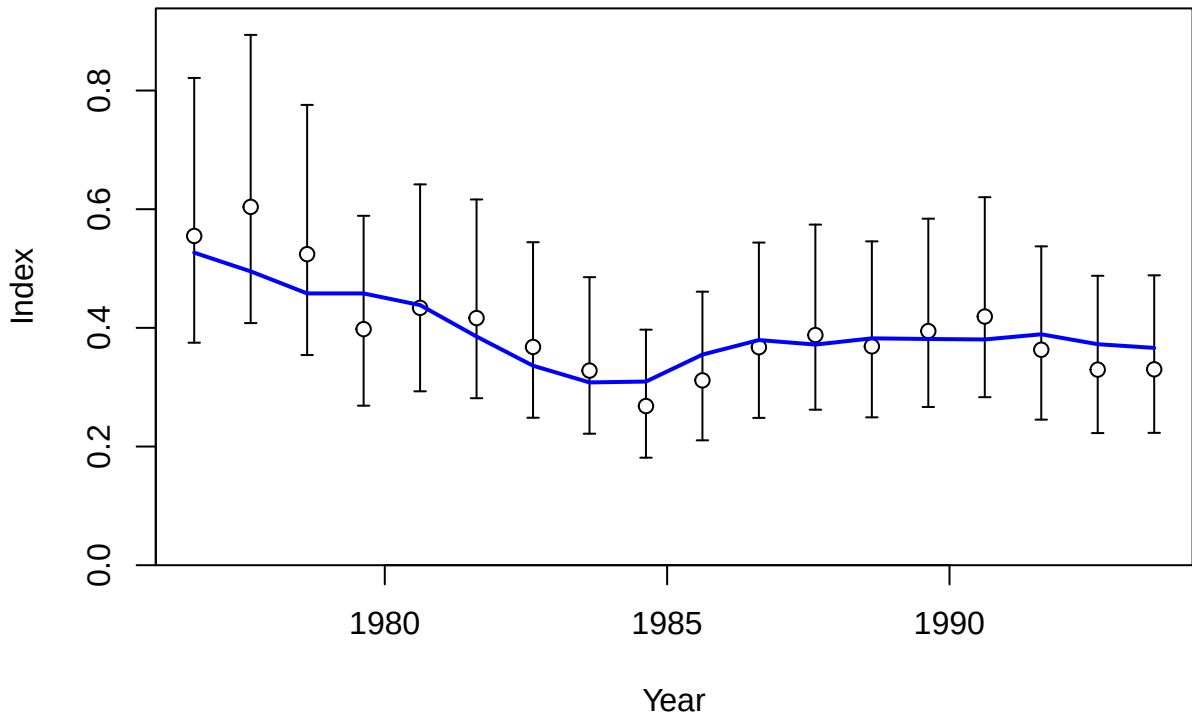


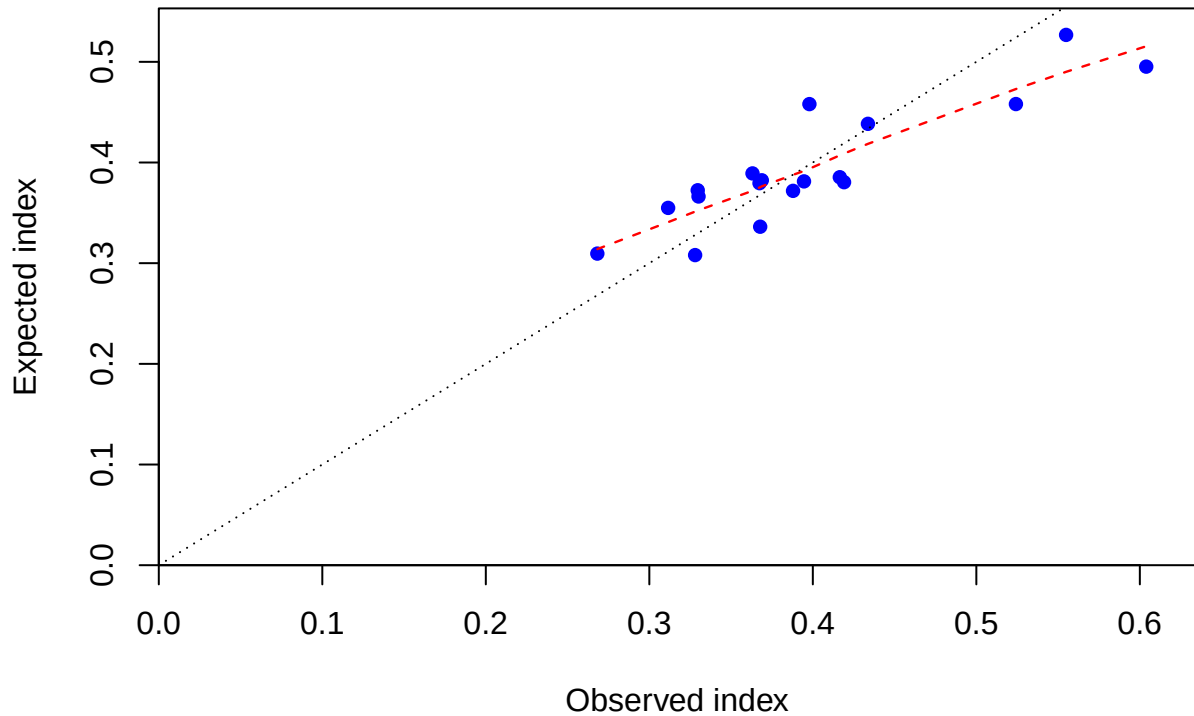












Log index

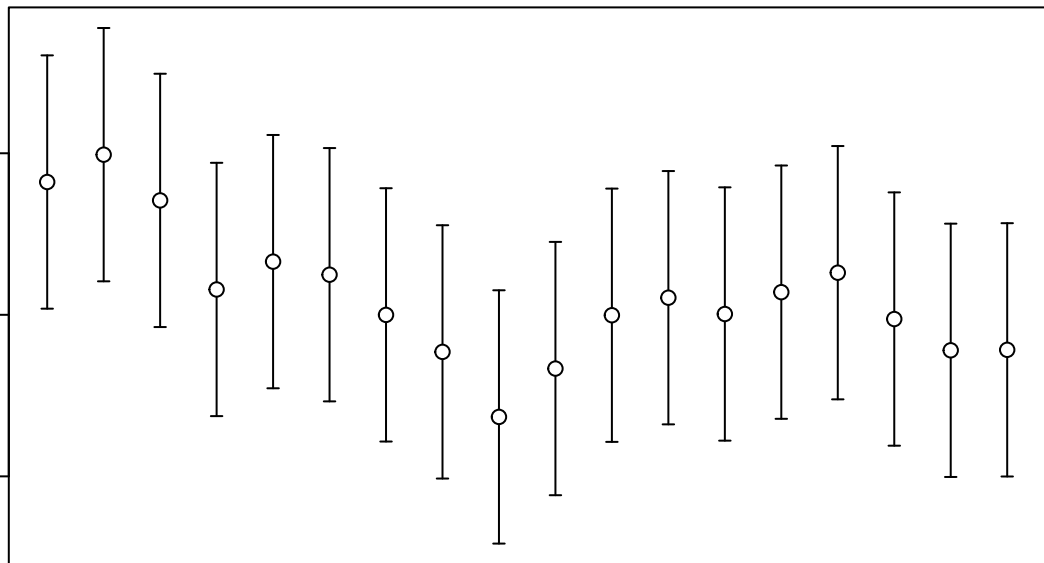
-0.5
-1.0
-1.5

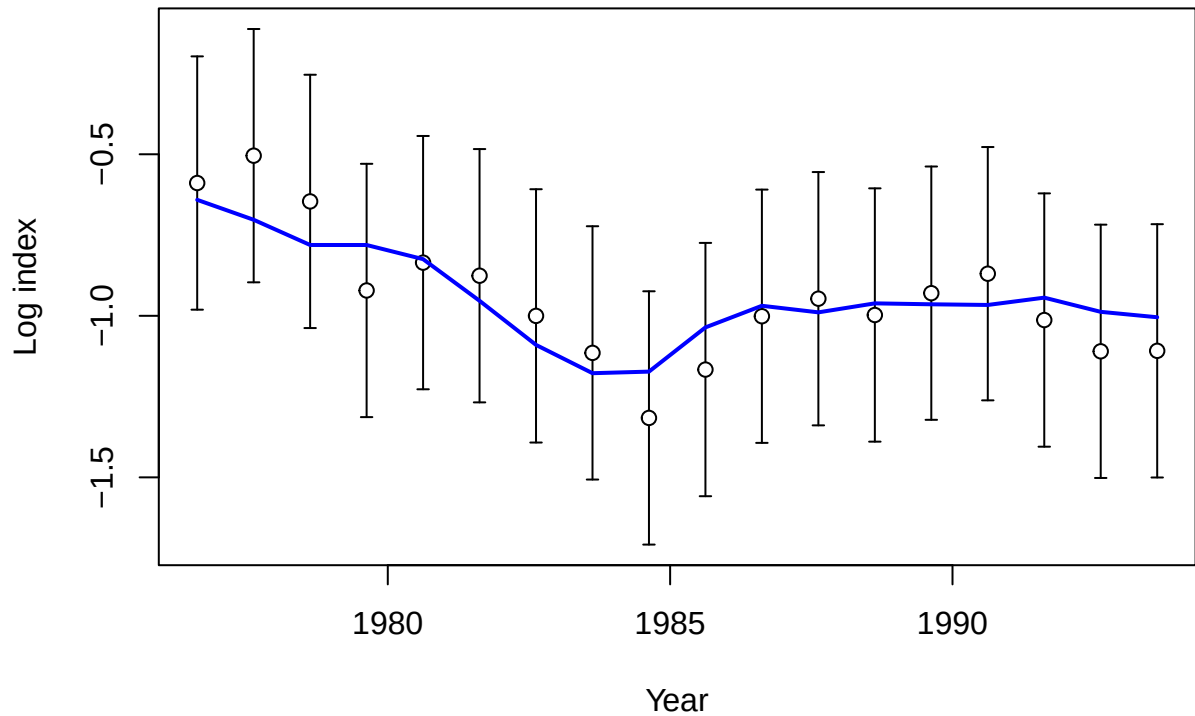
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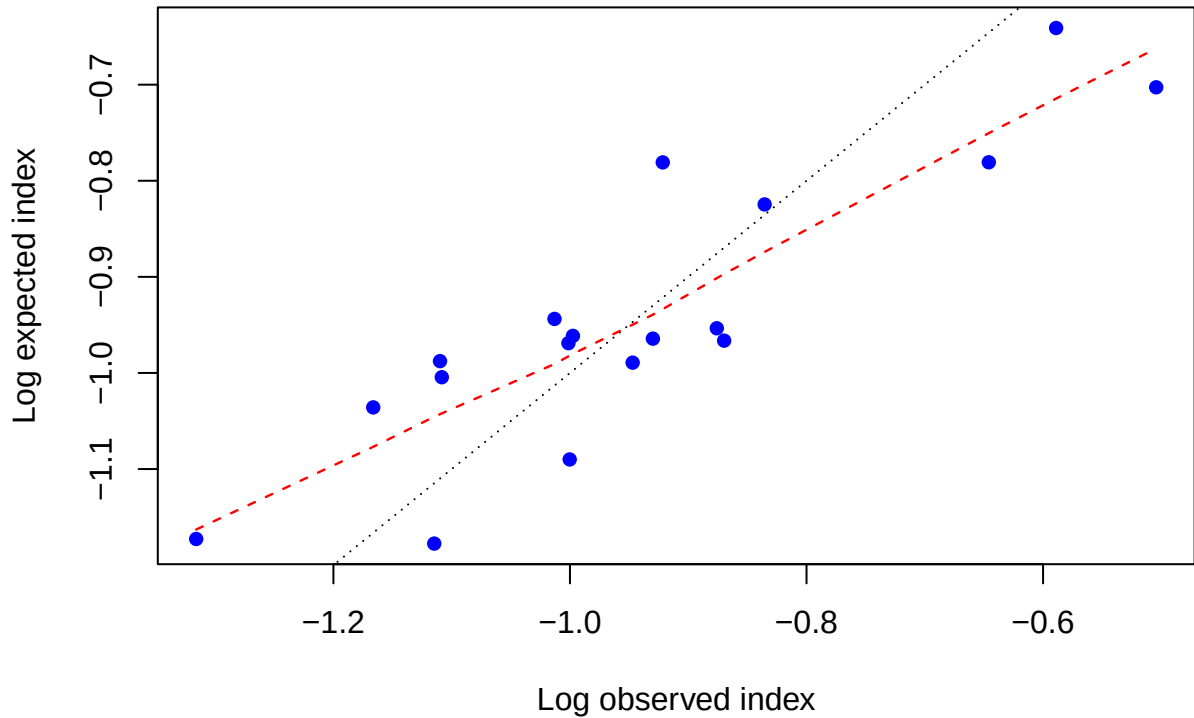
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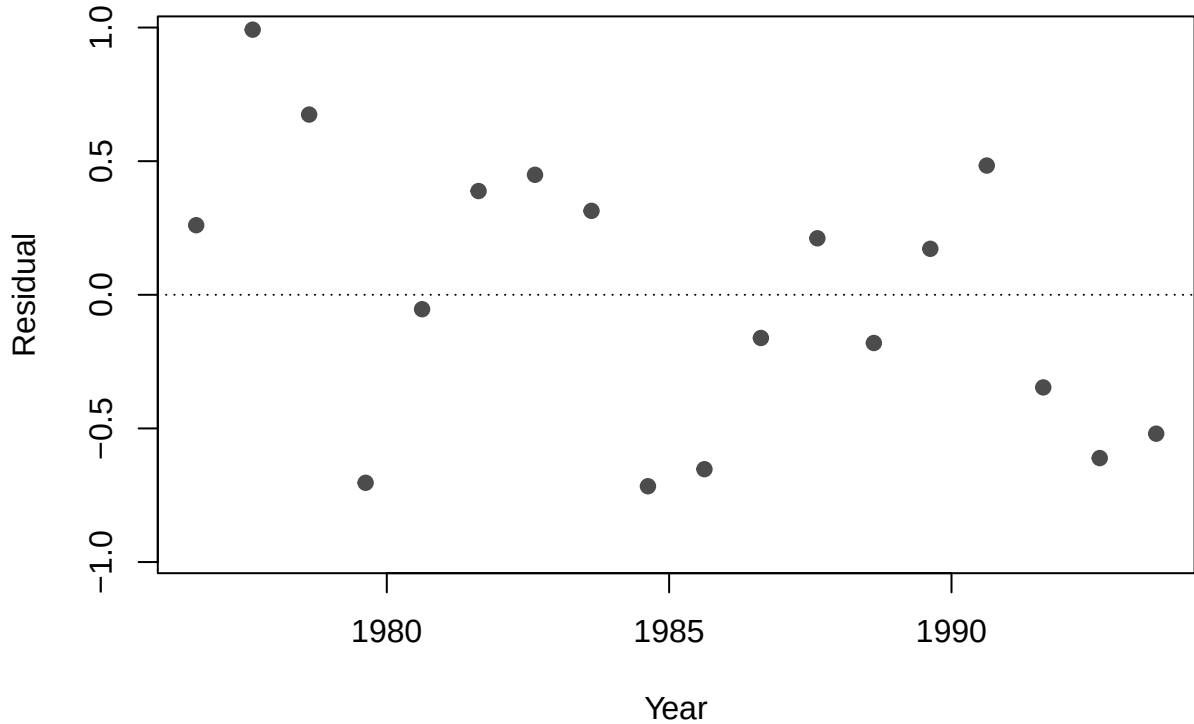
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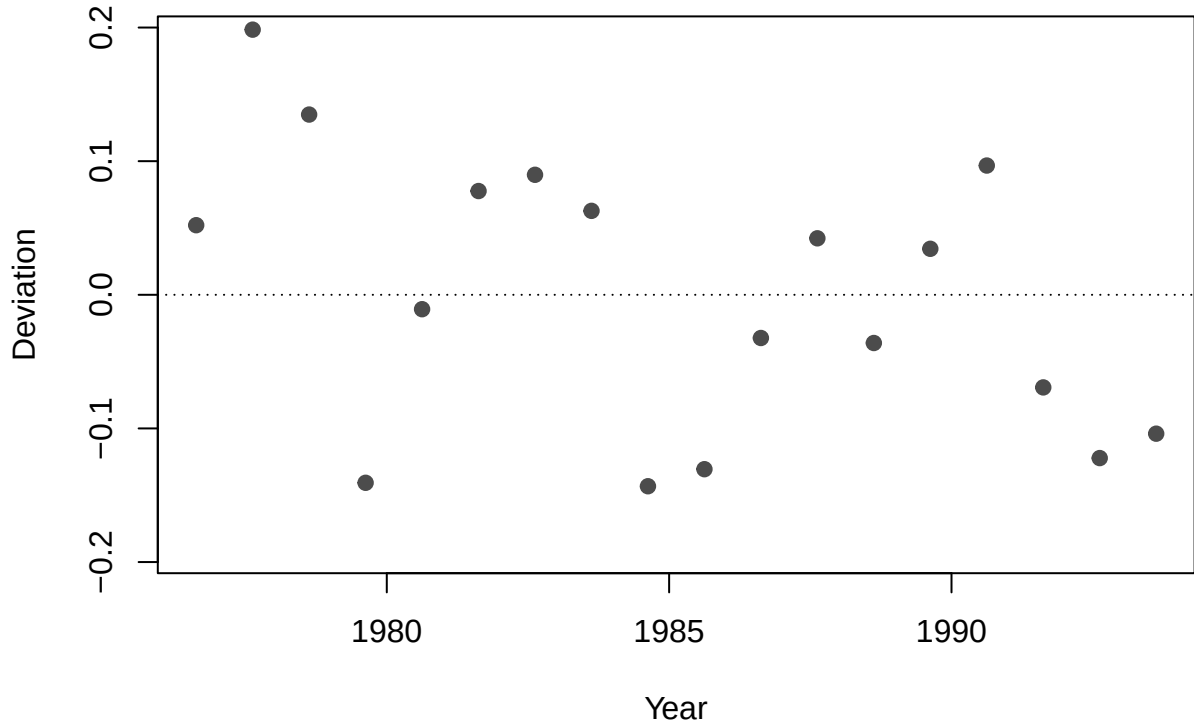
Year



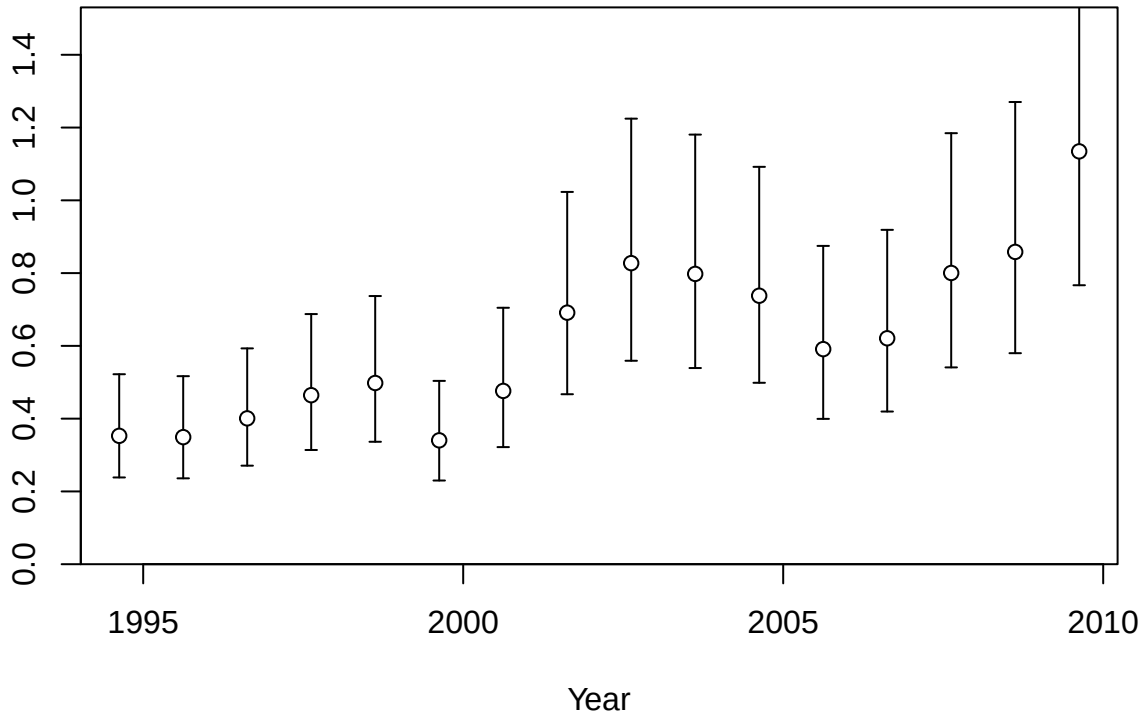




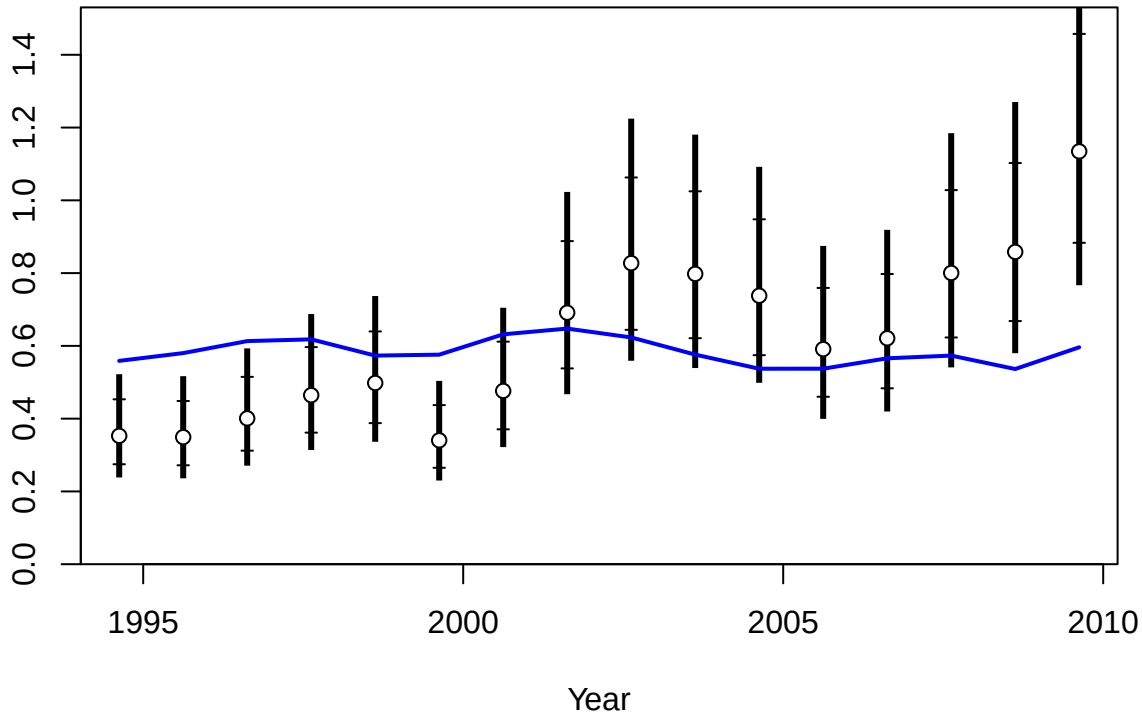




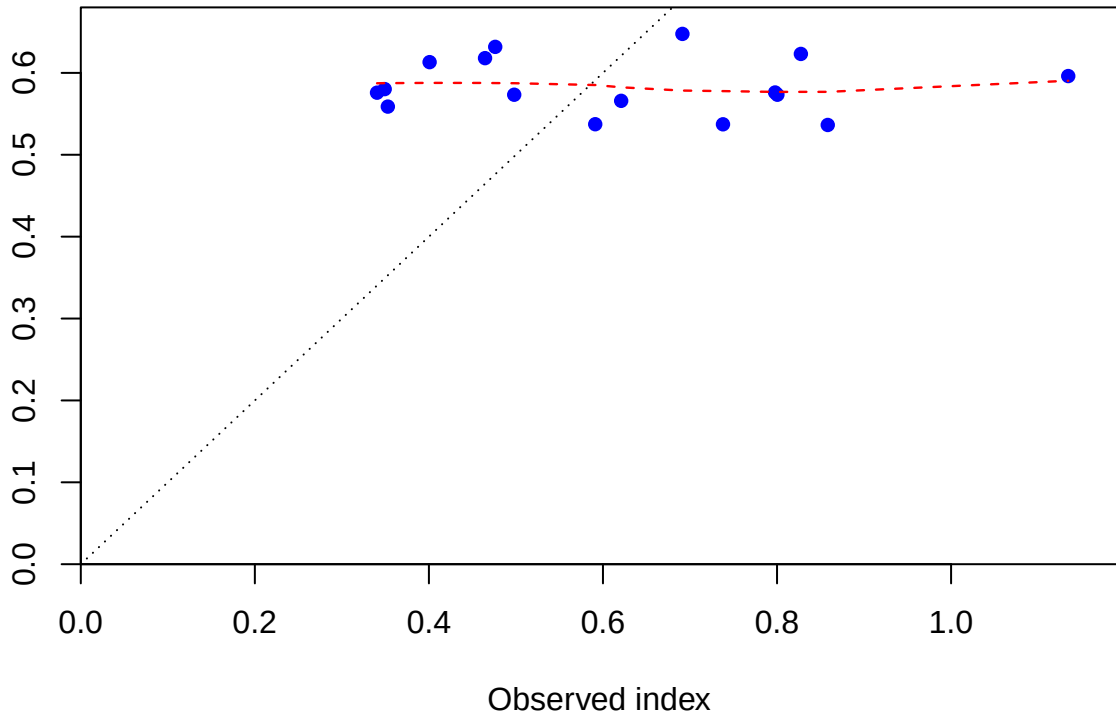
Index



Index



Expected index



Log index

0.0
-0.5
-1.0

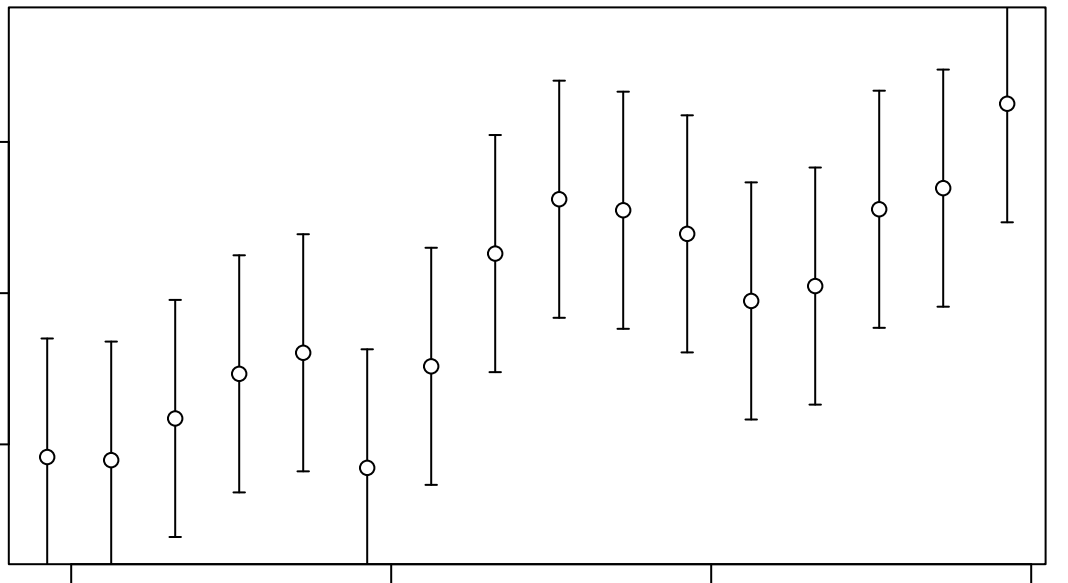
1995

2000

2005

2010

Year



Log index

-1.0
-0.5
0.0

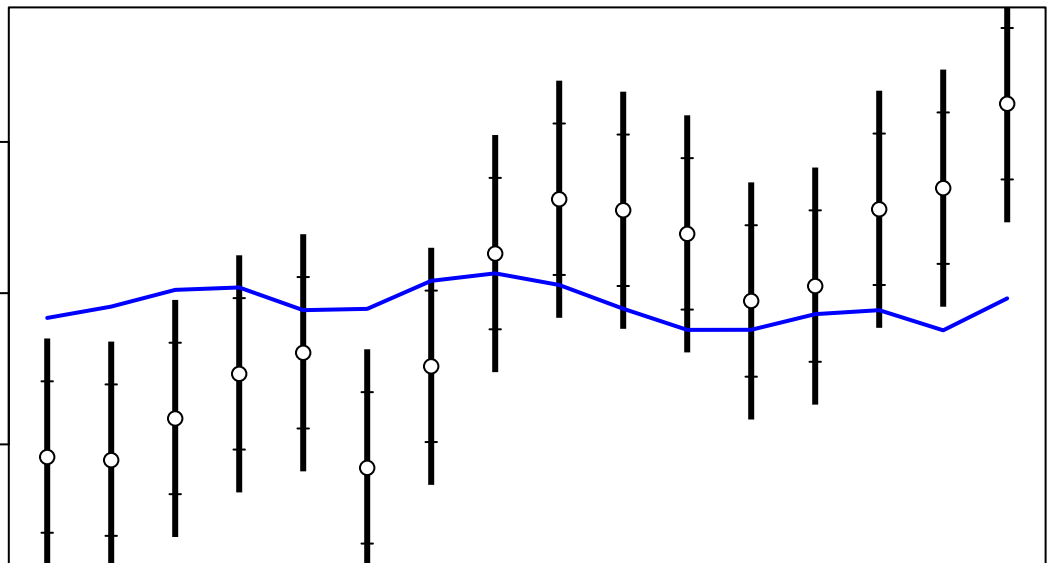
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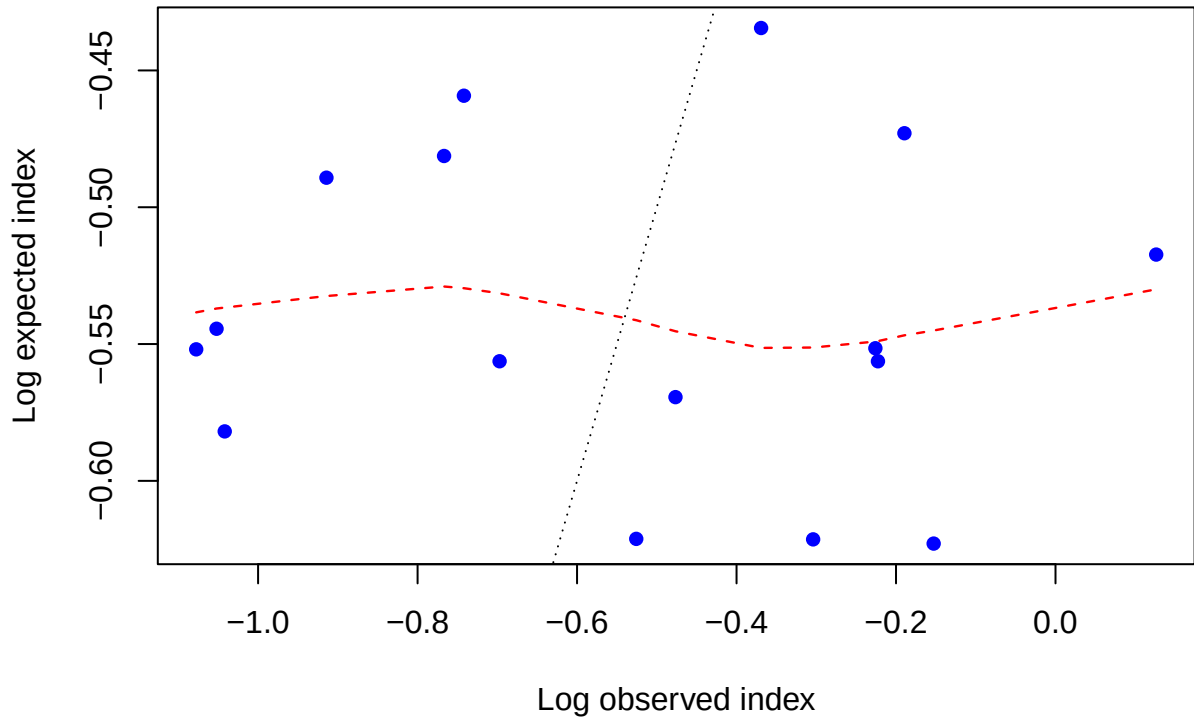
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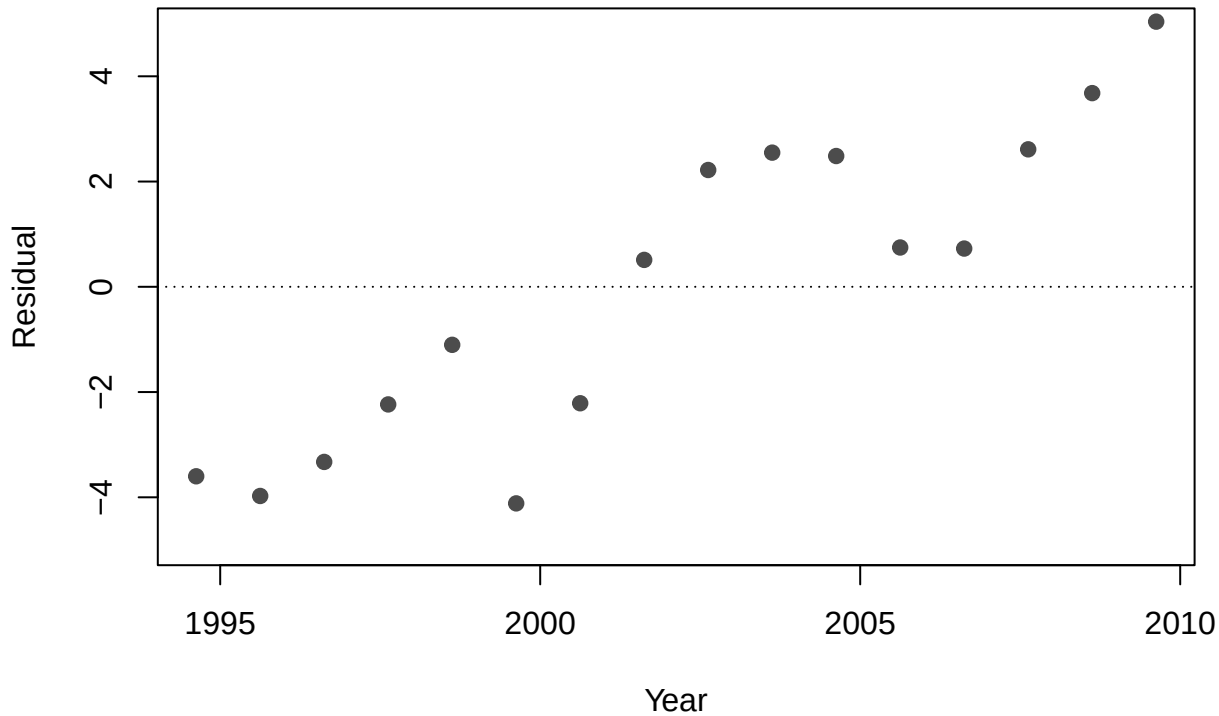
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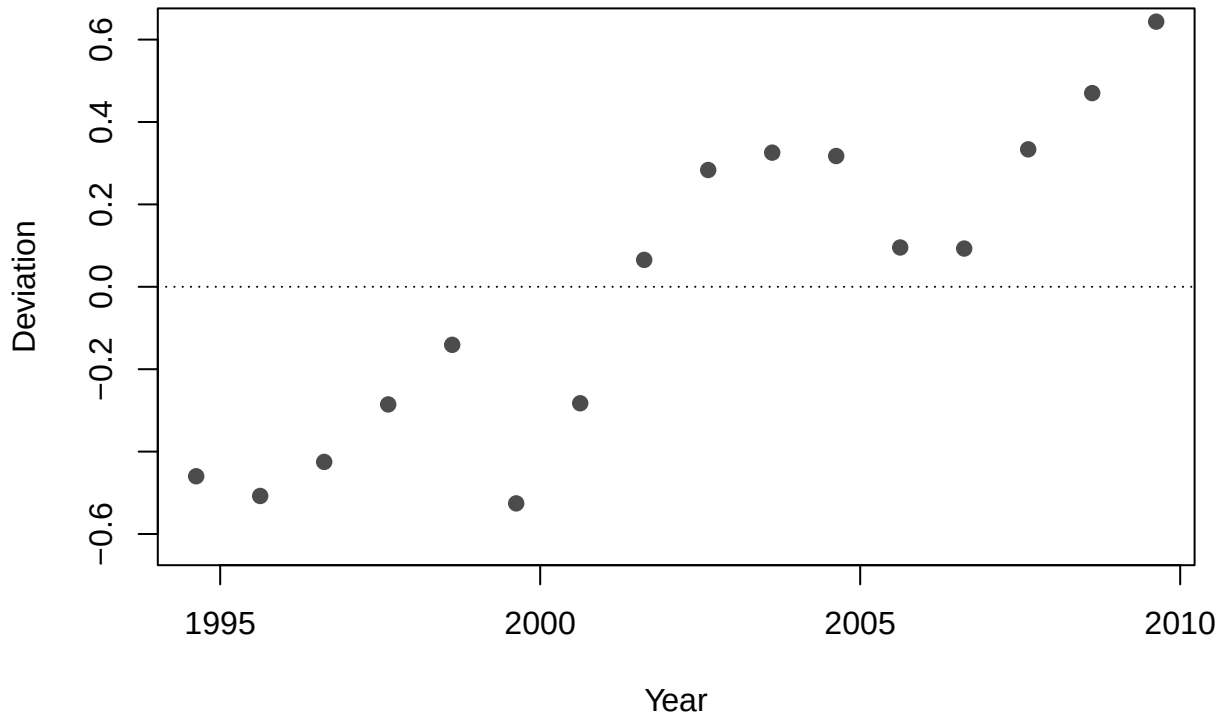
2010

Year









Index

2.5
2.0
1.5
1.0
0.5
0.0

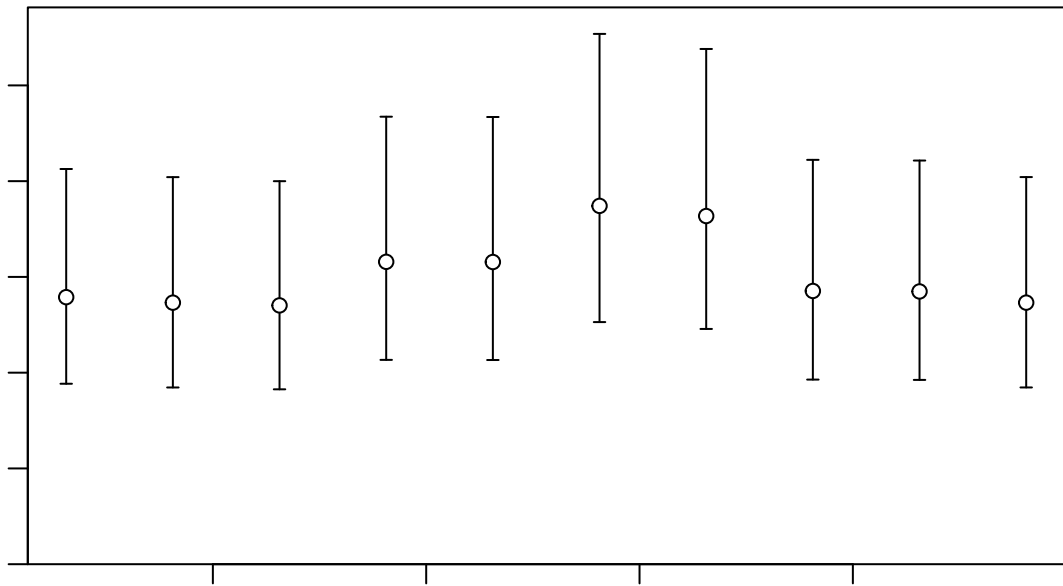
2012

2014

2016

2018

Year



Index

2.5
2.0
1.5
1.0
0.5
0.0

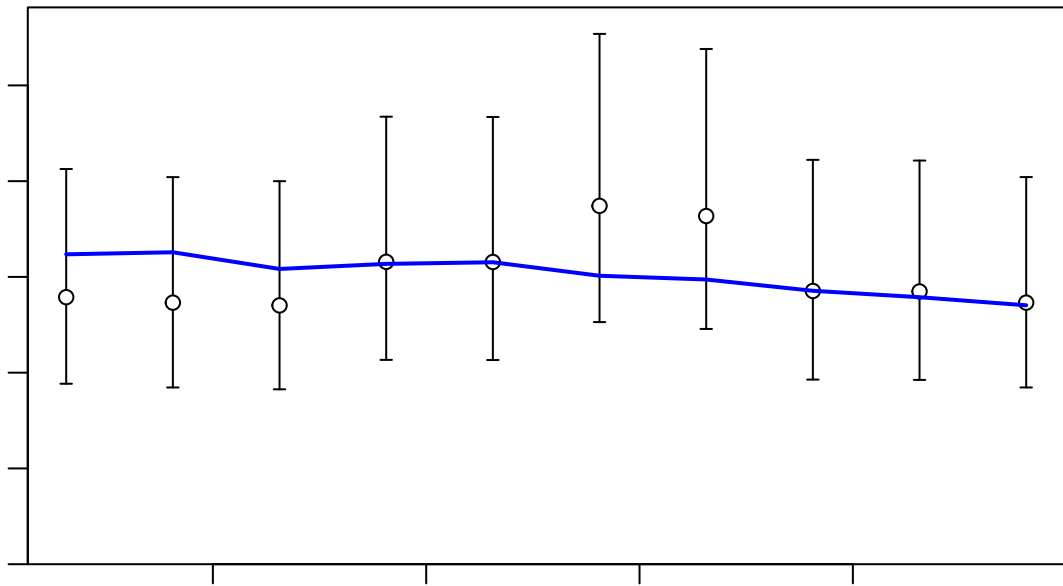
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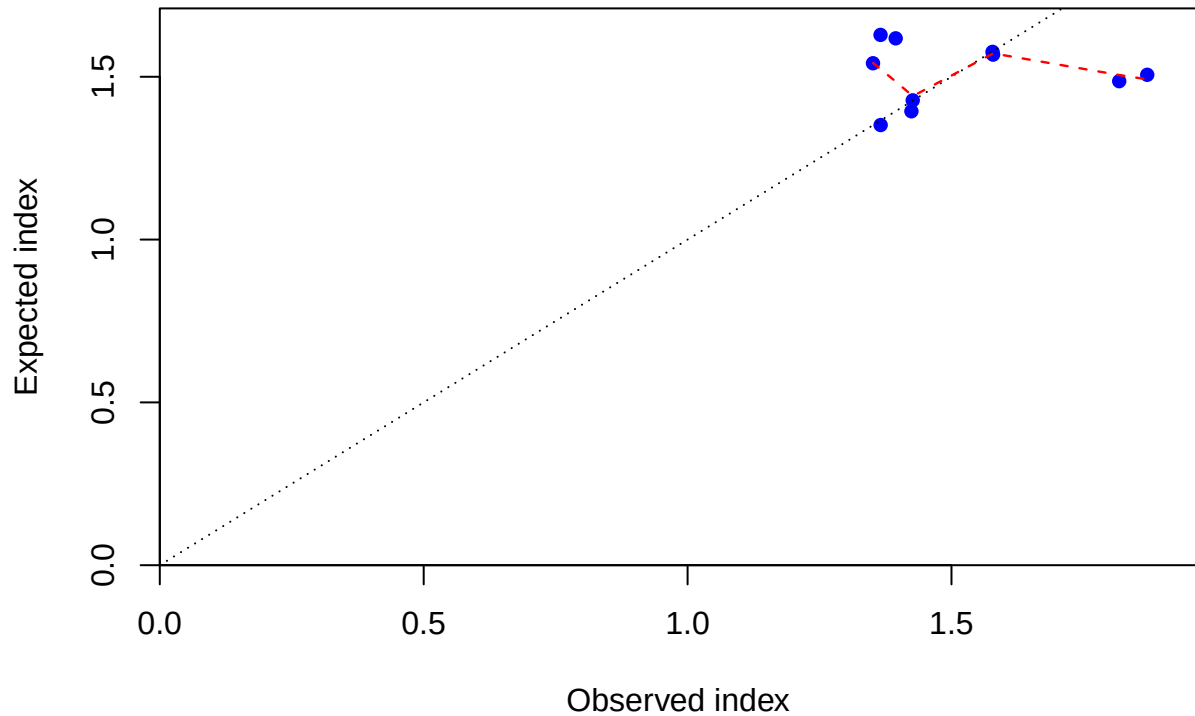
2014

2016

2018

Year





Log index

1.0
0.8
0.6
0.4
0.2
0.0

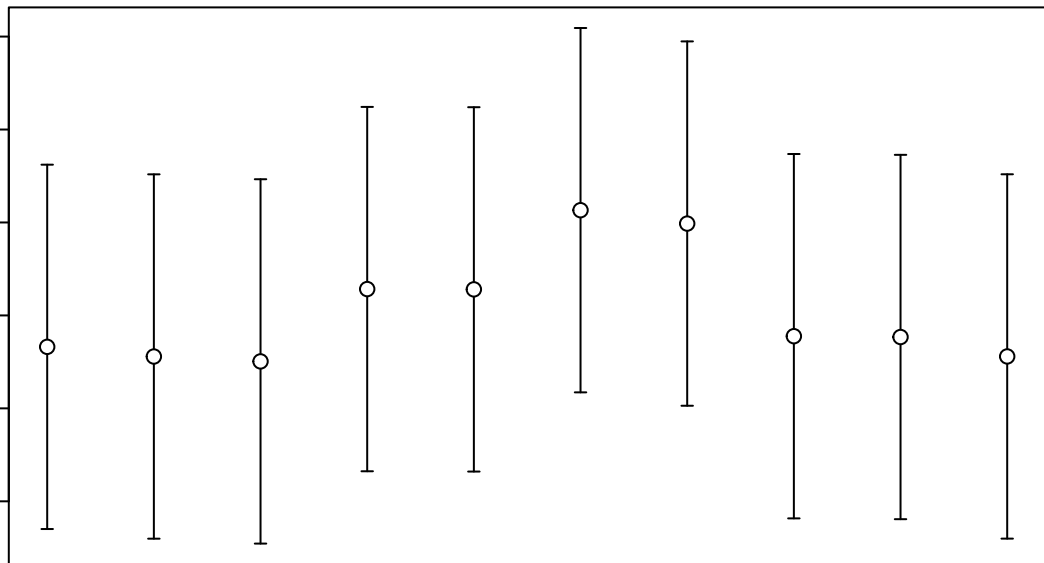
2012

2014

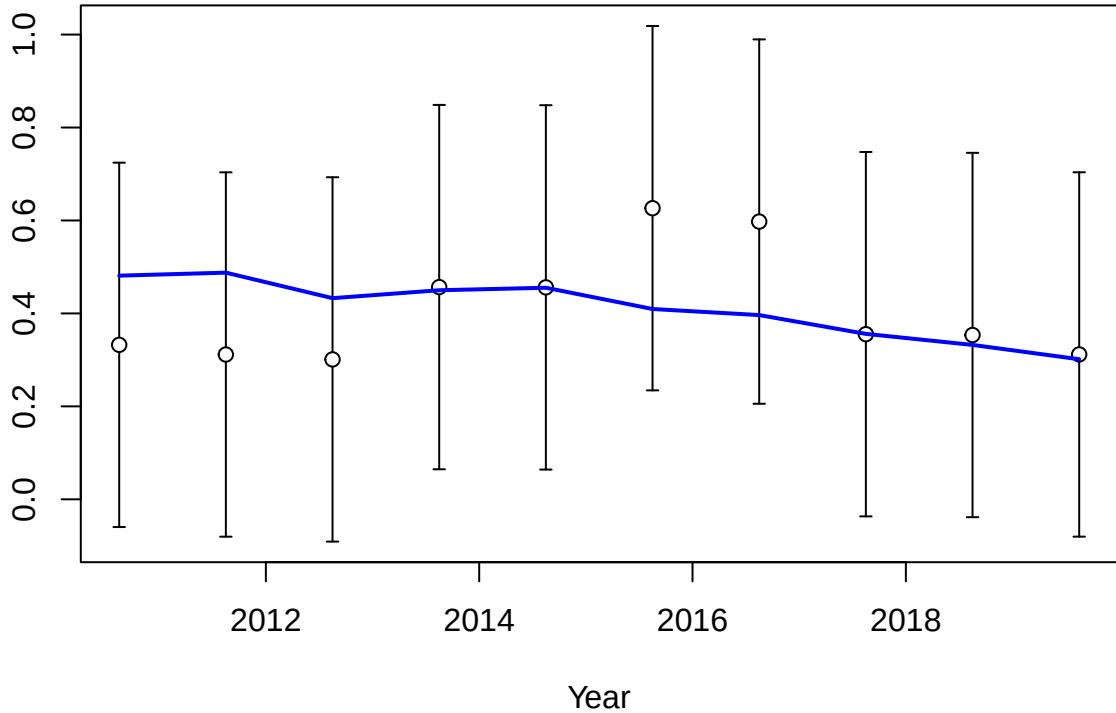
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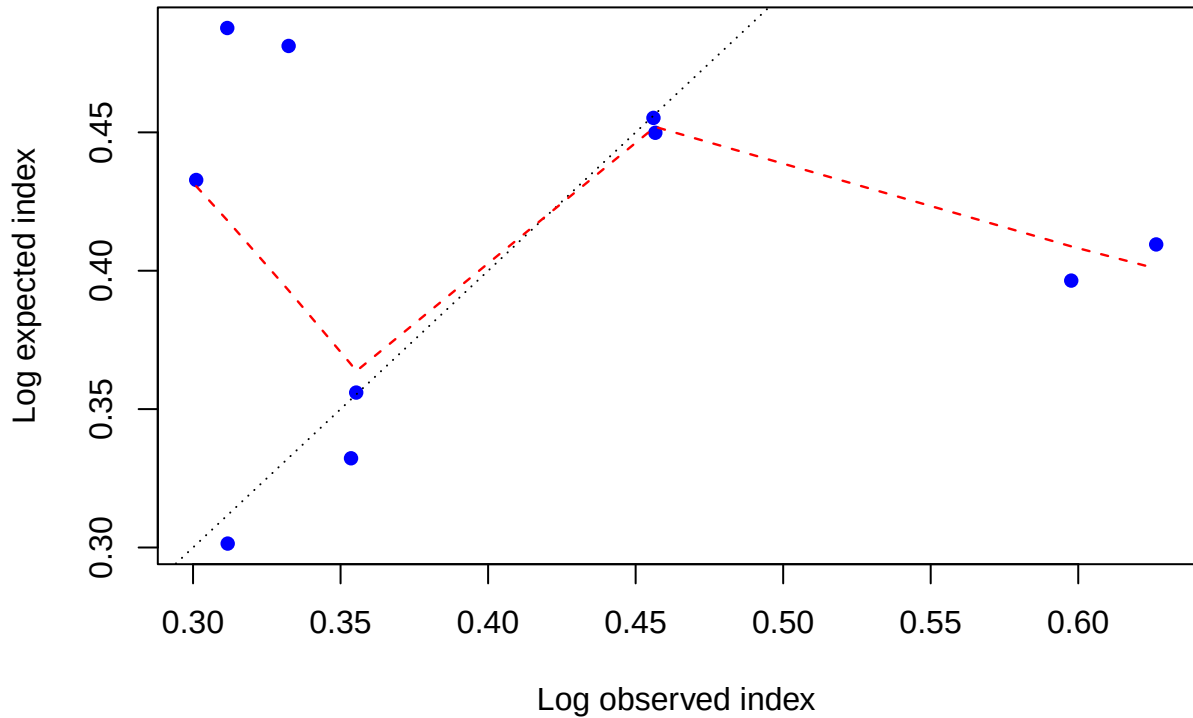
2018

Year

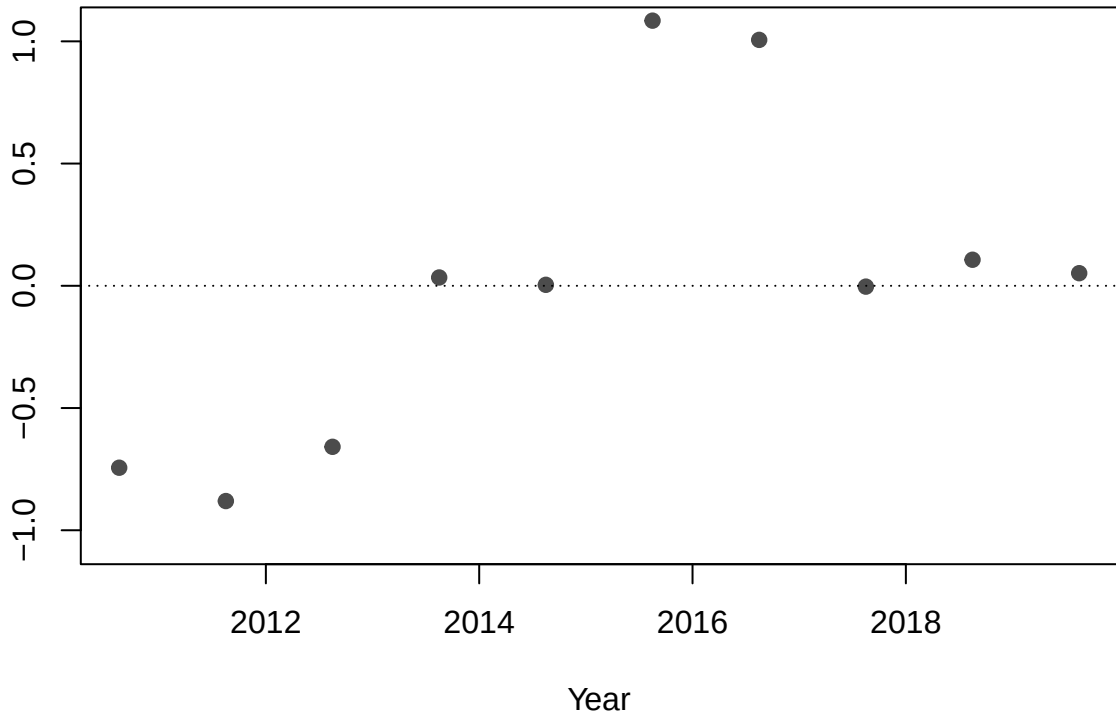


Log index

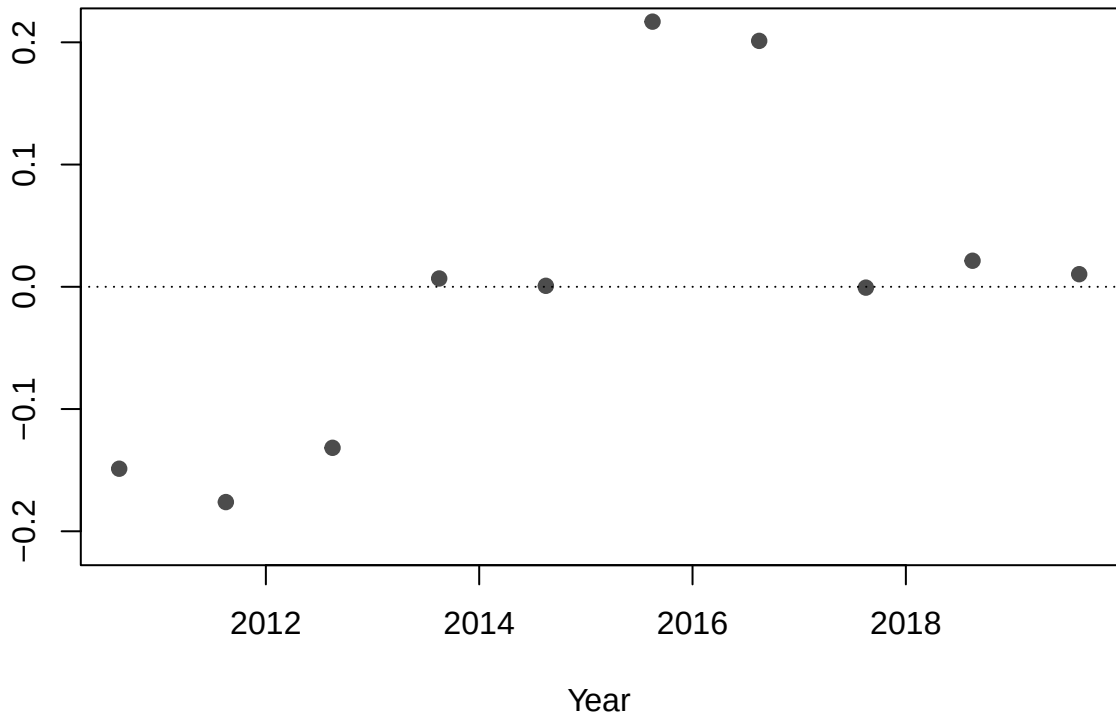




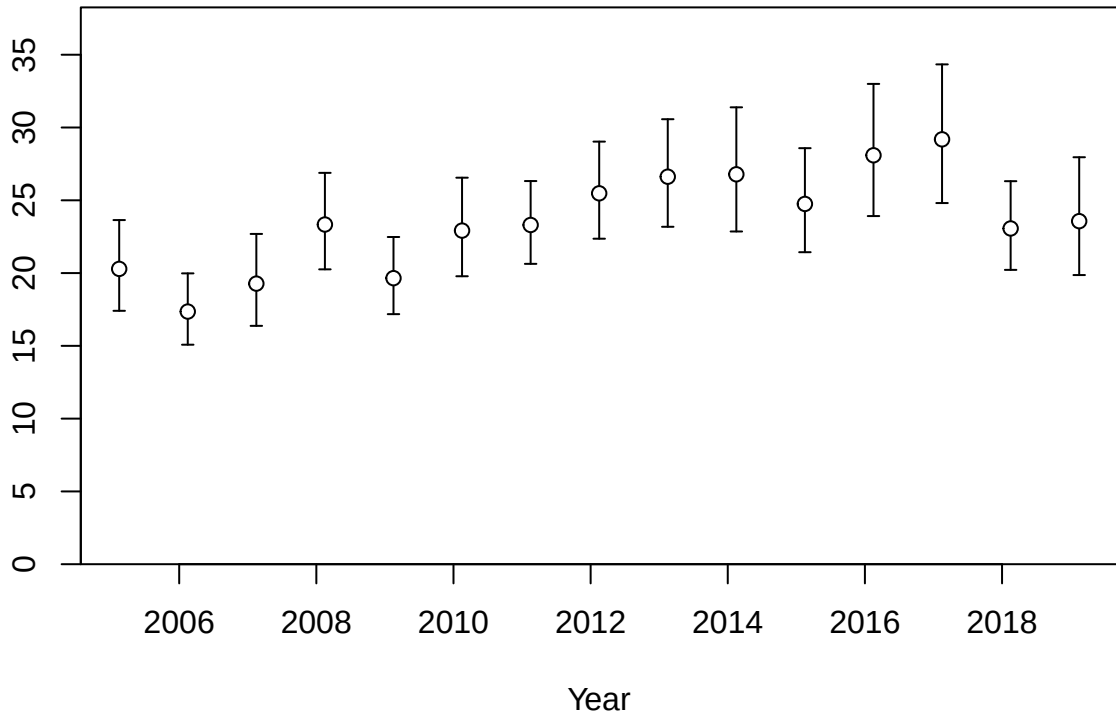
Residual



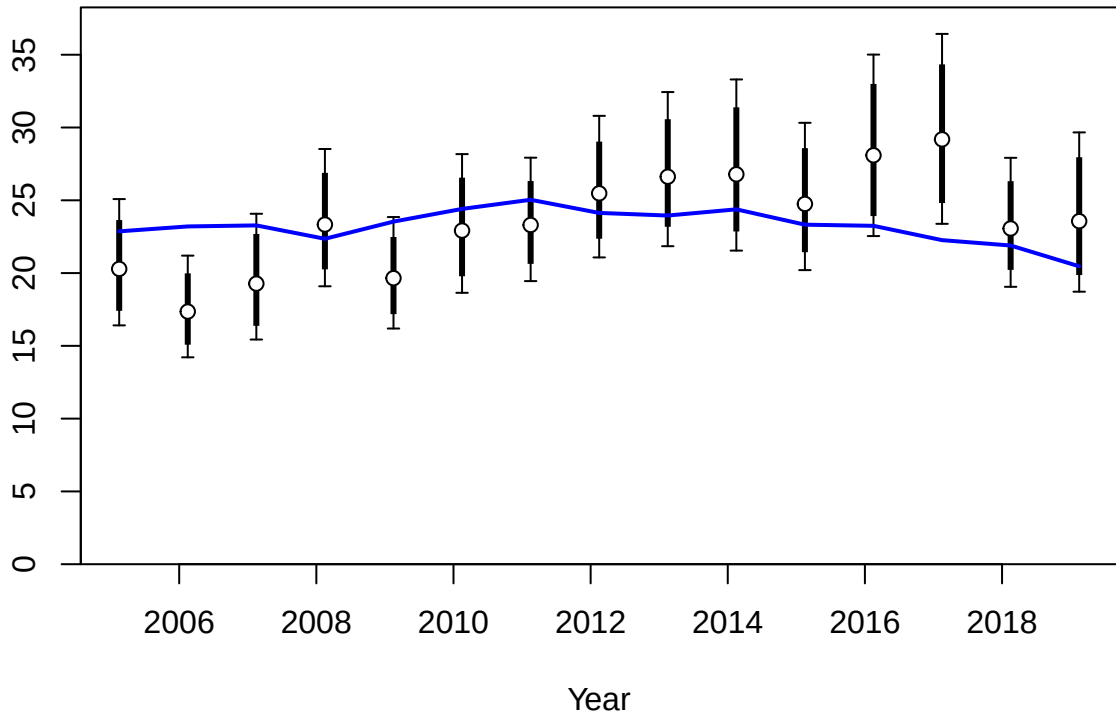
Deviation

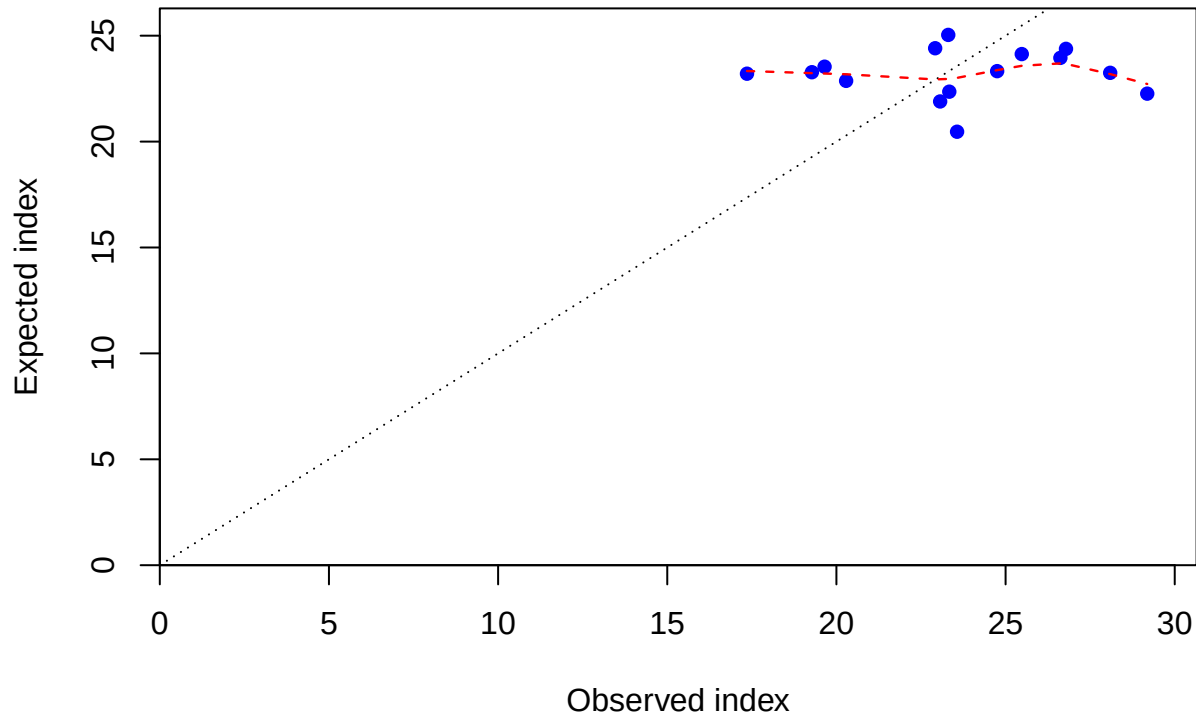


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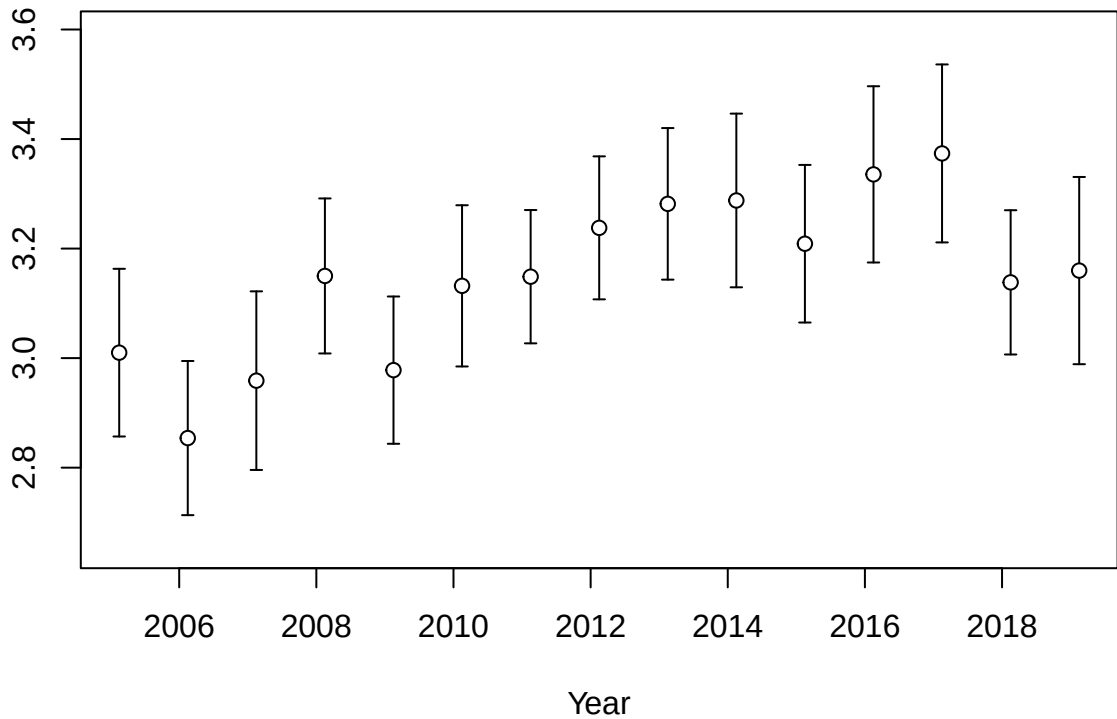


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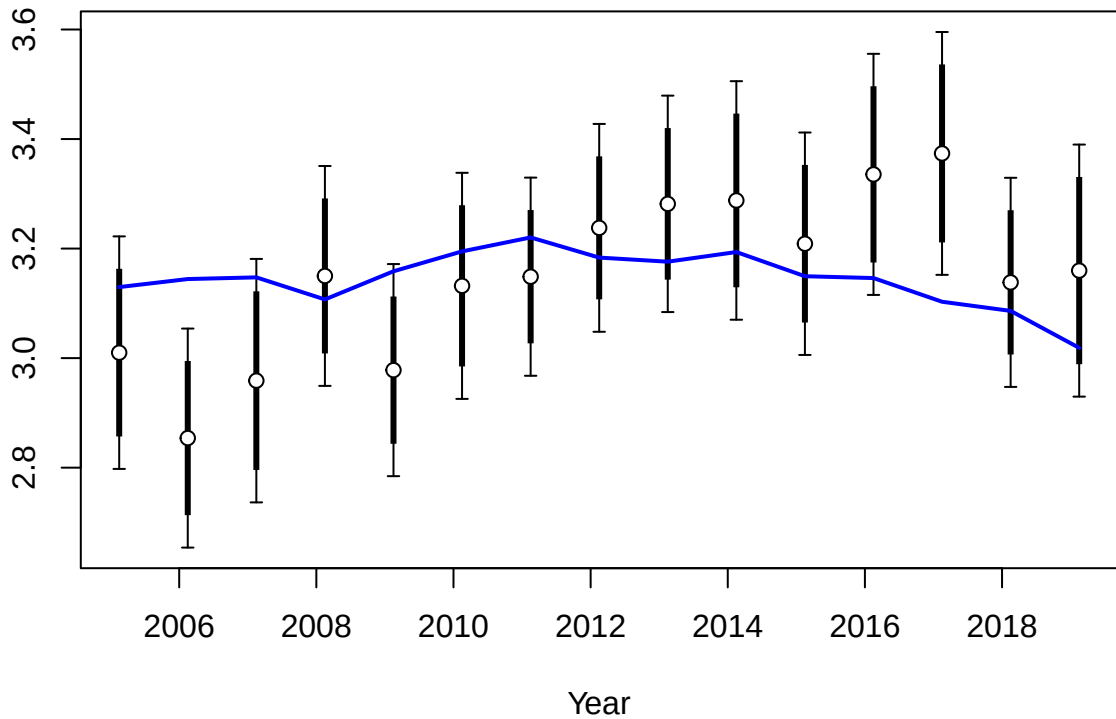


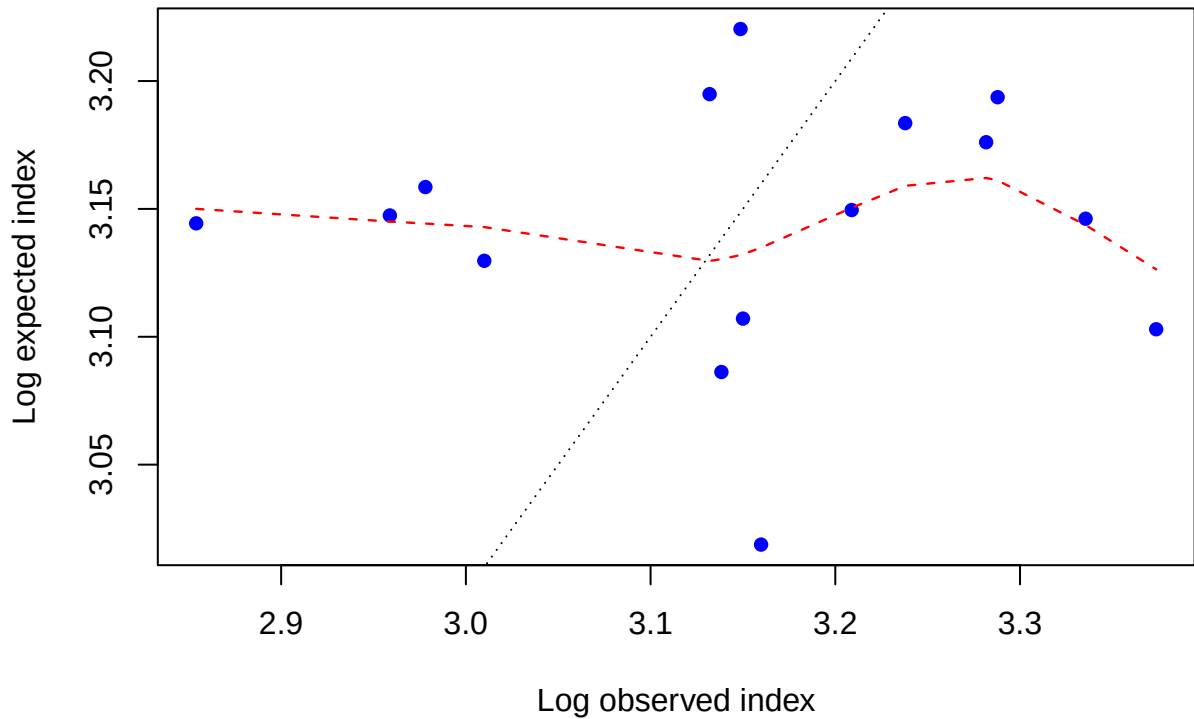


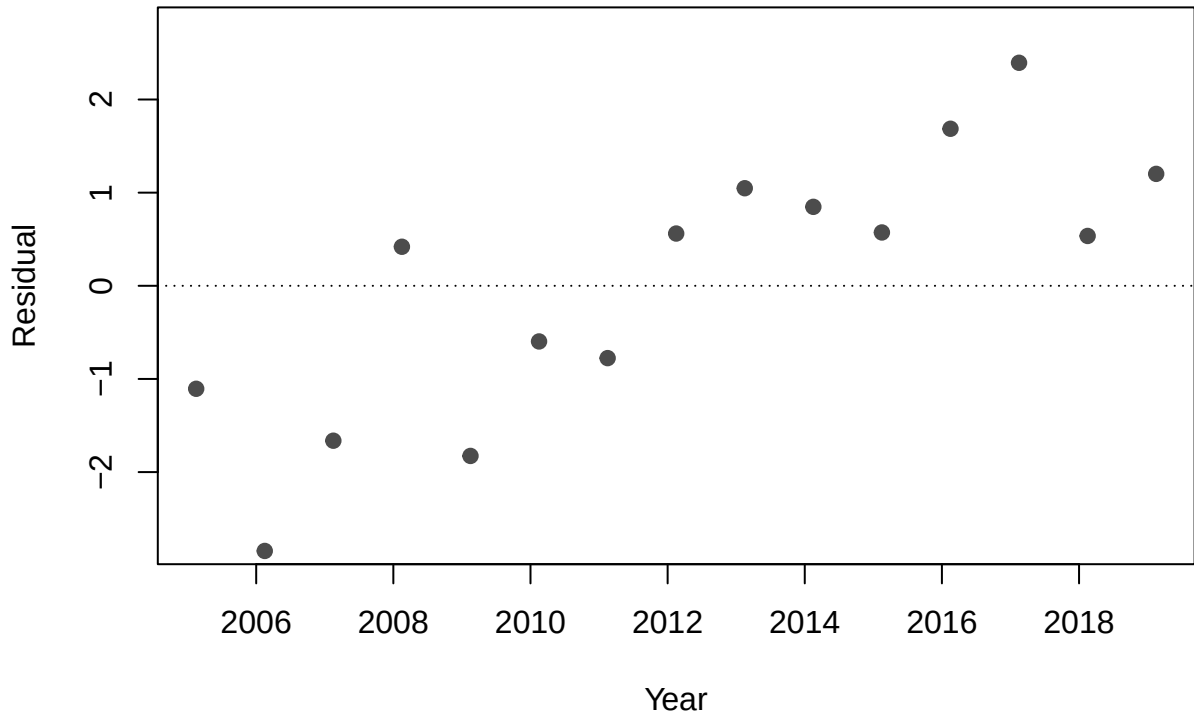
Log index

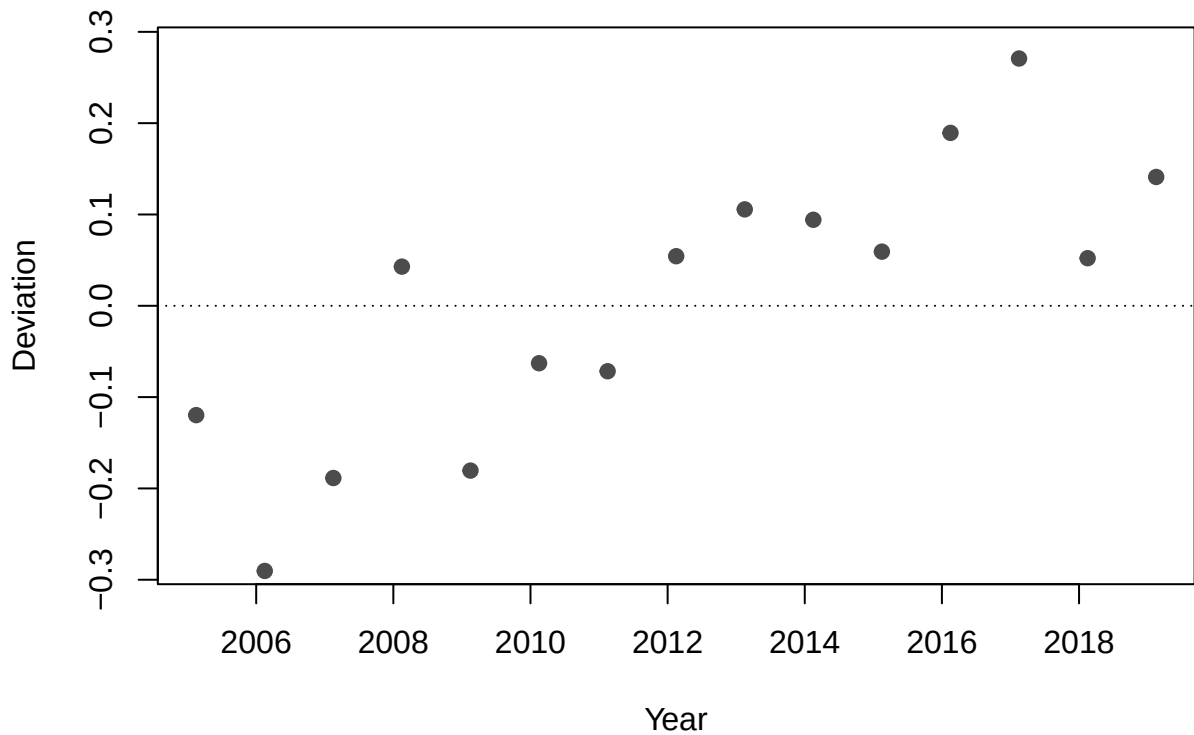


Log index









Index

30

20

10

0

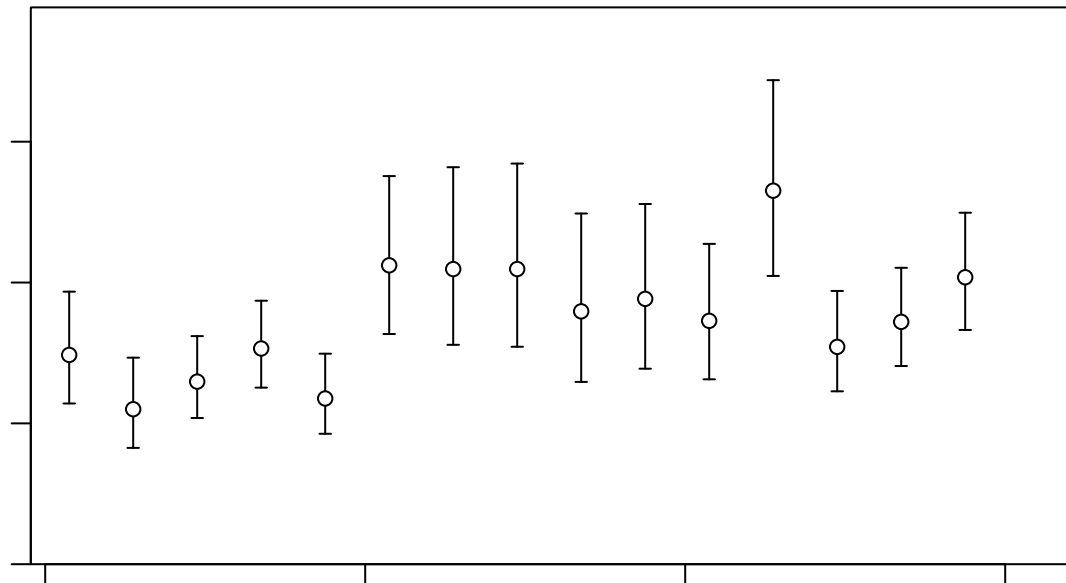
2005

2010

2015

2020

Year



Index

30

20

10

0

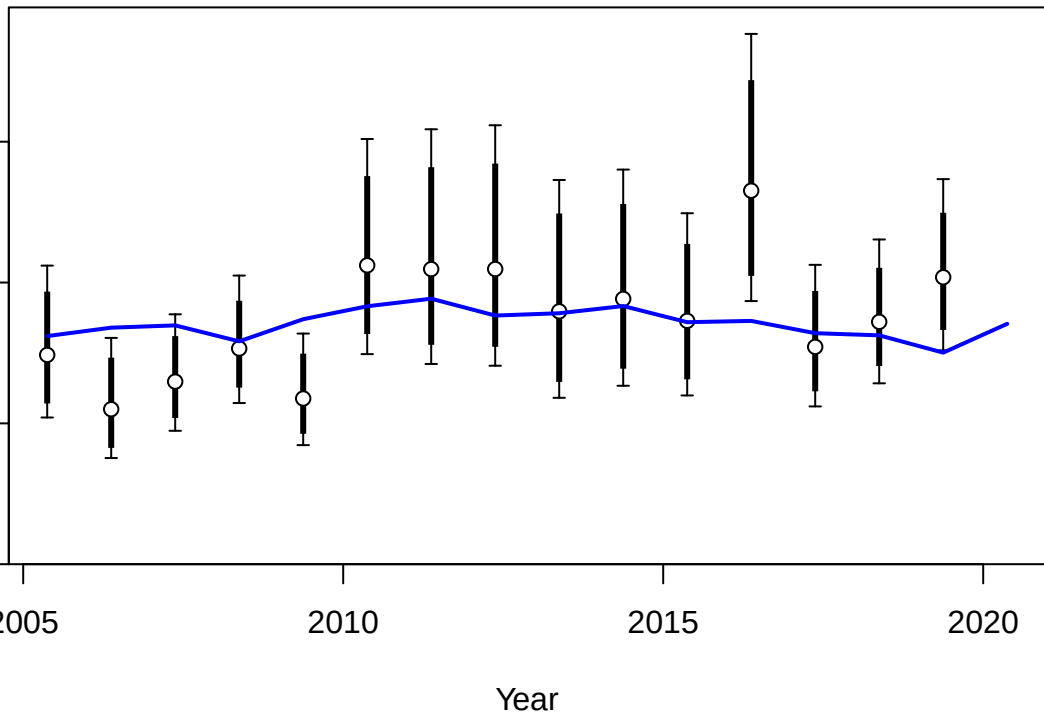
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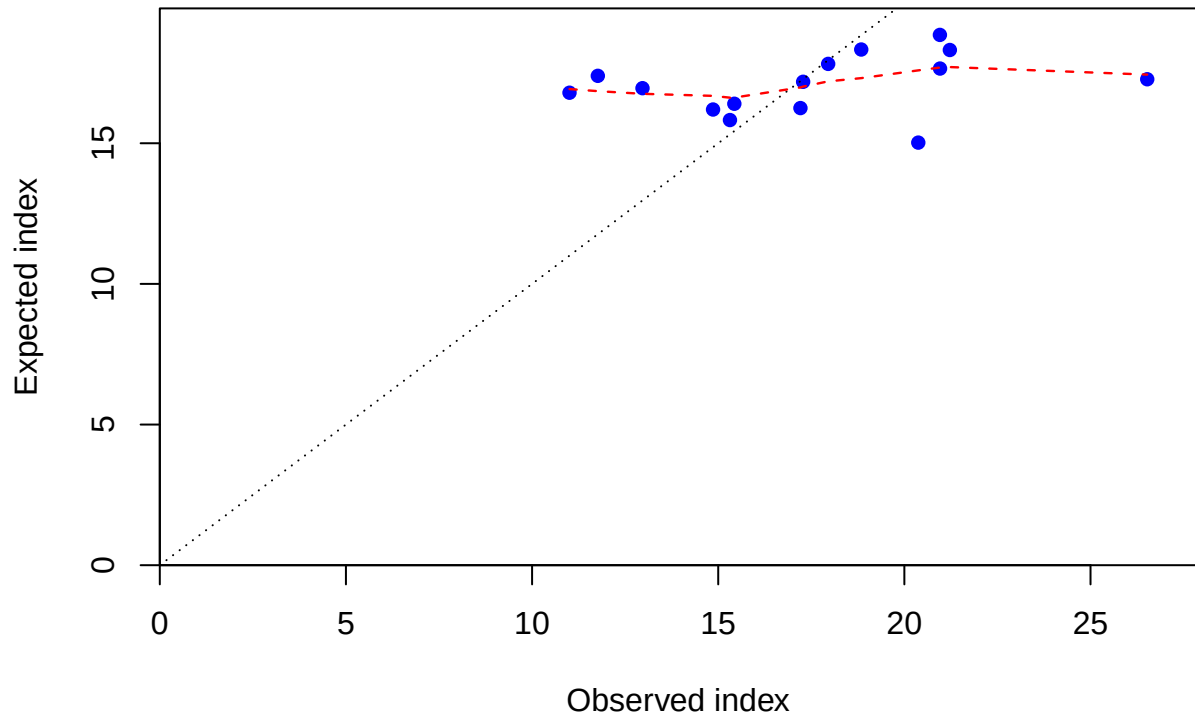
2010

2015

2020

Year





Log index

3.5
3.0
2.5
2.0

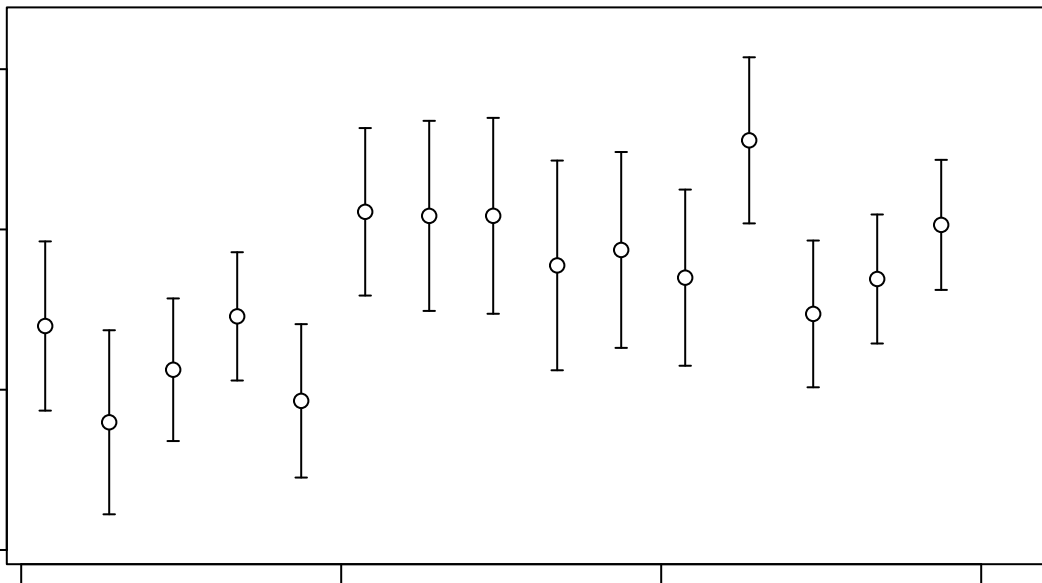
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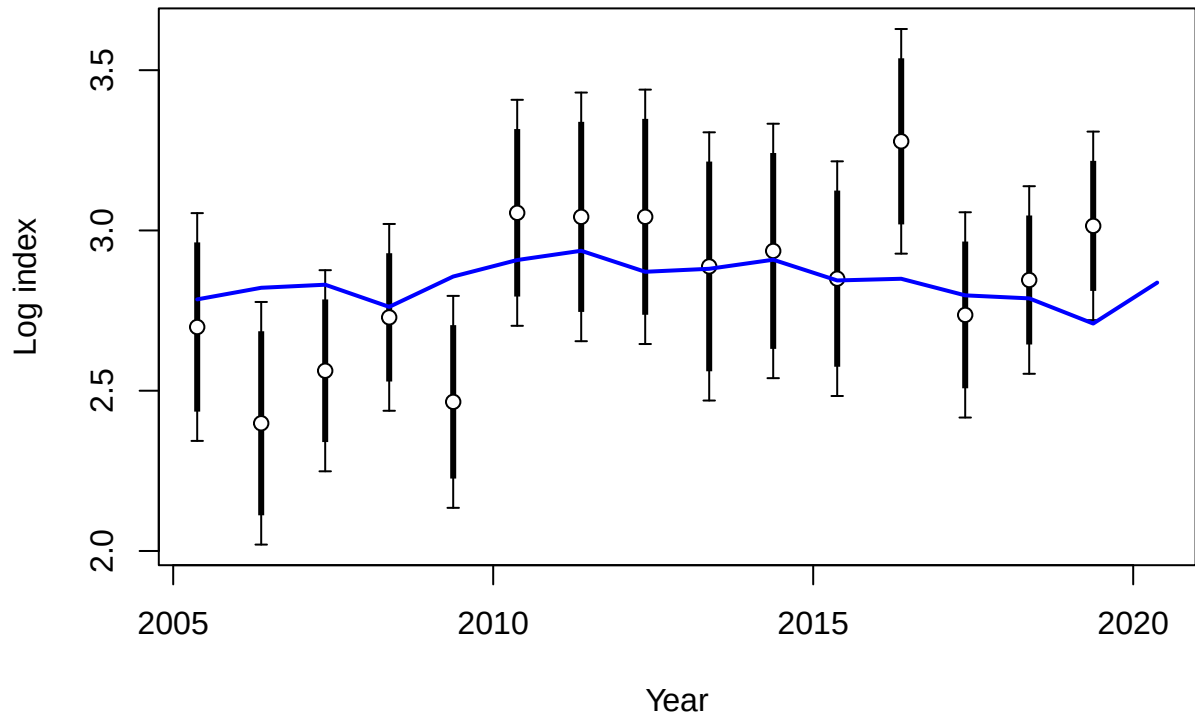
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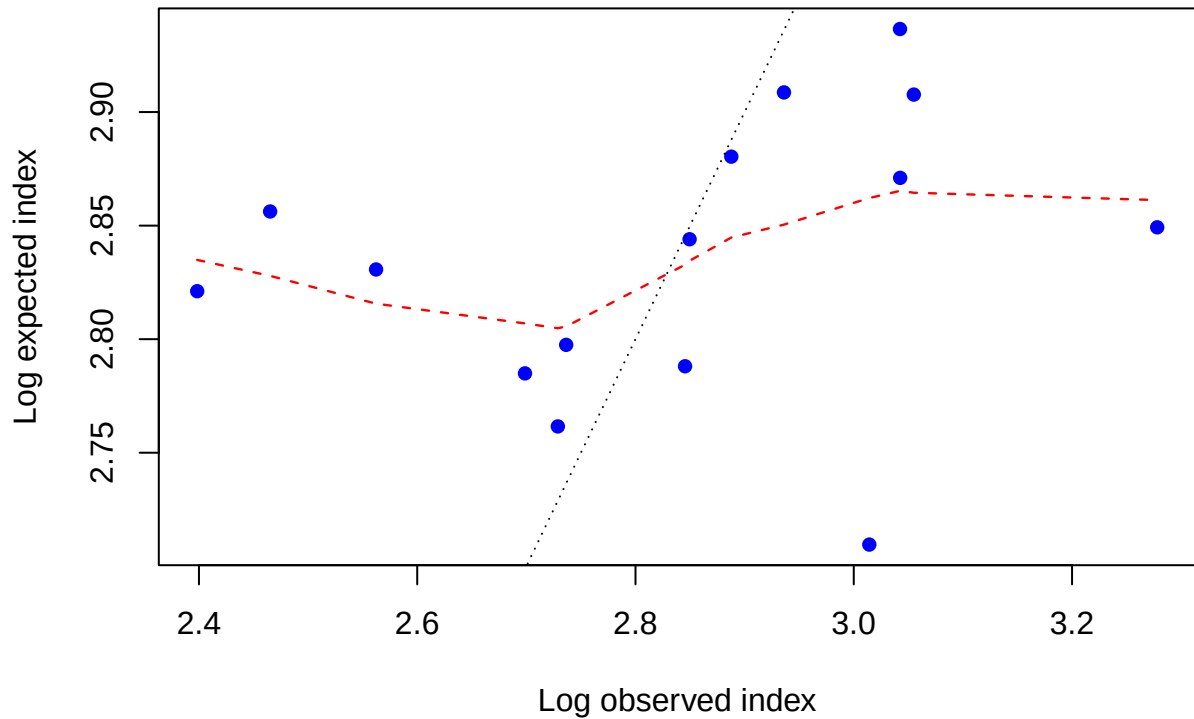
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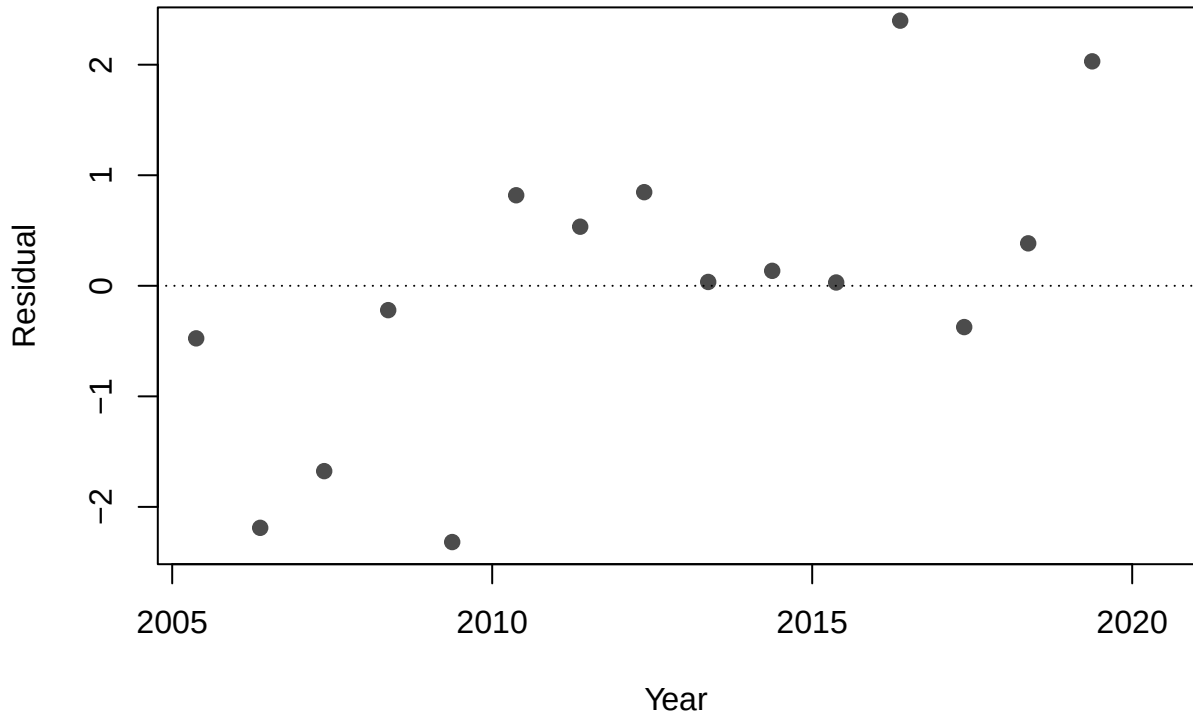
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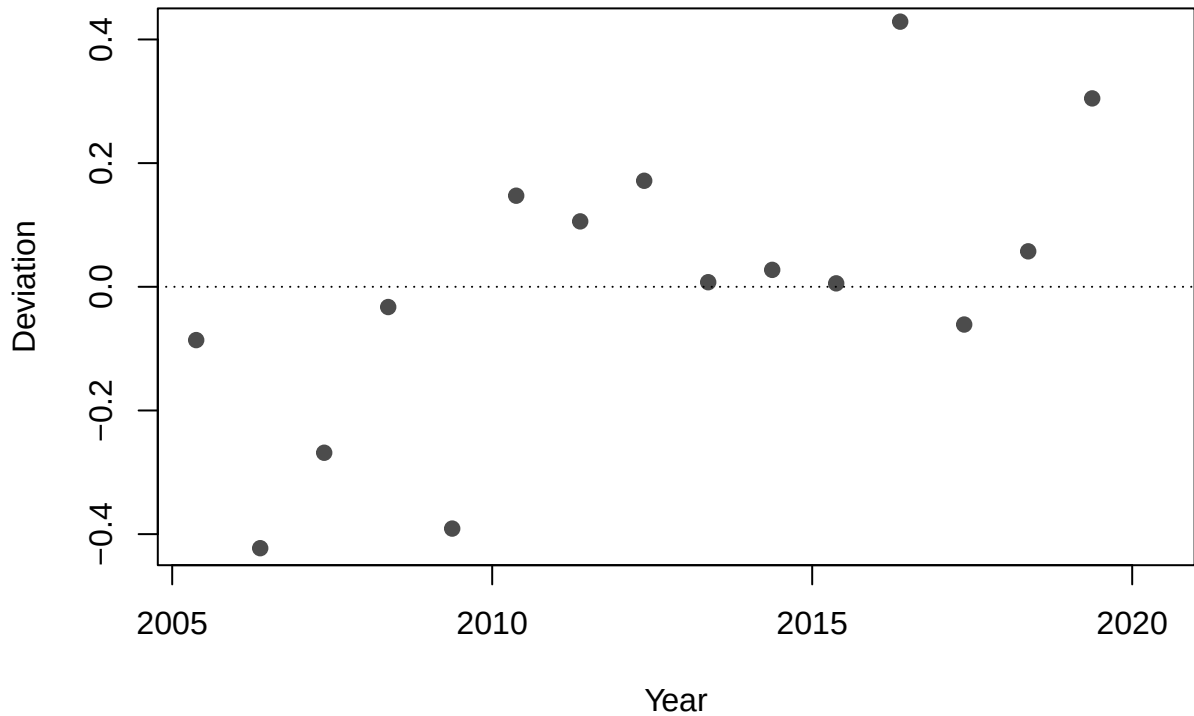
Year



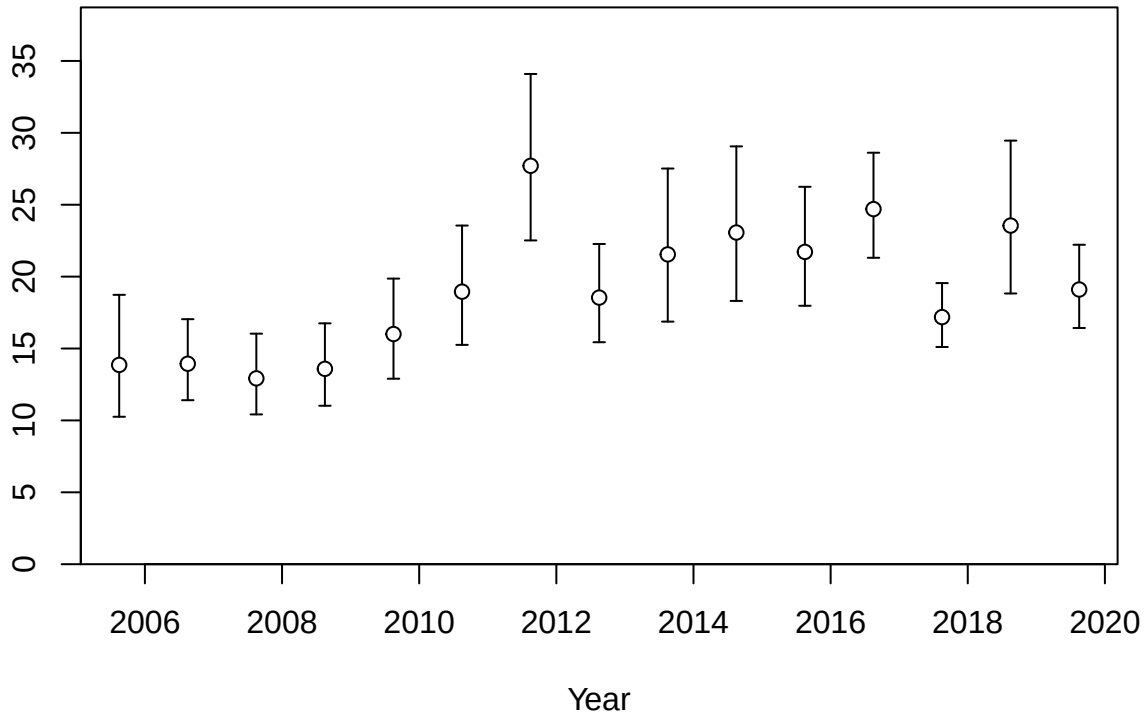




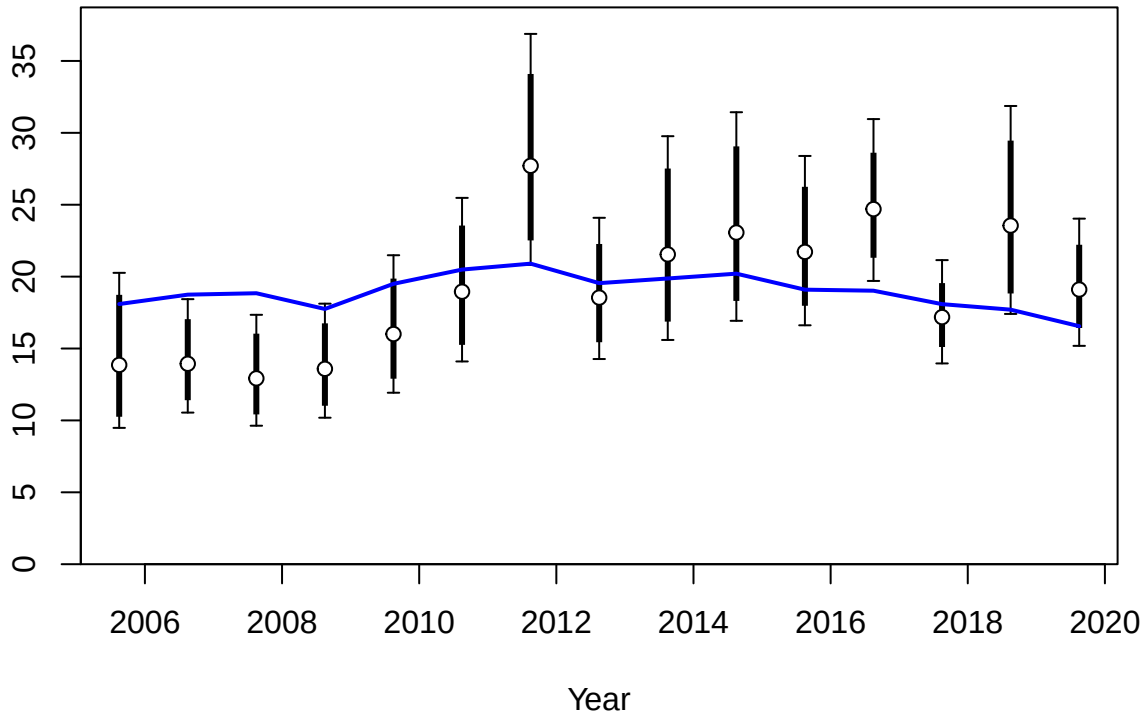


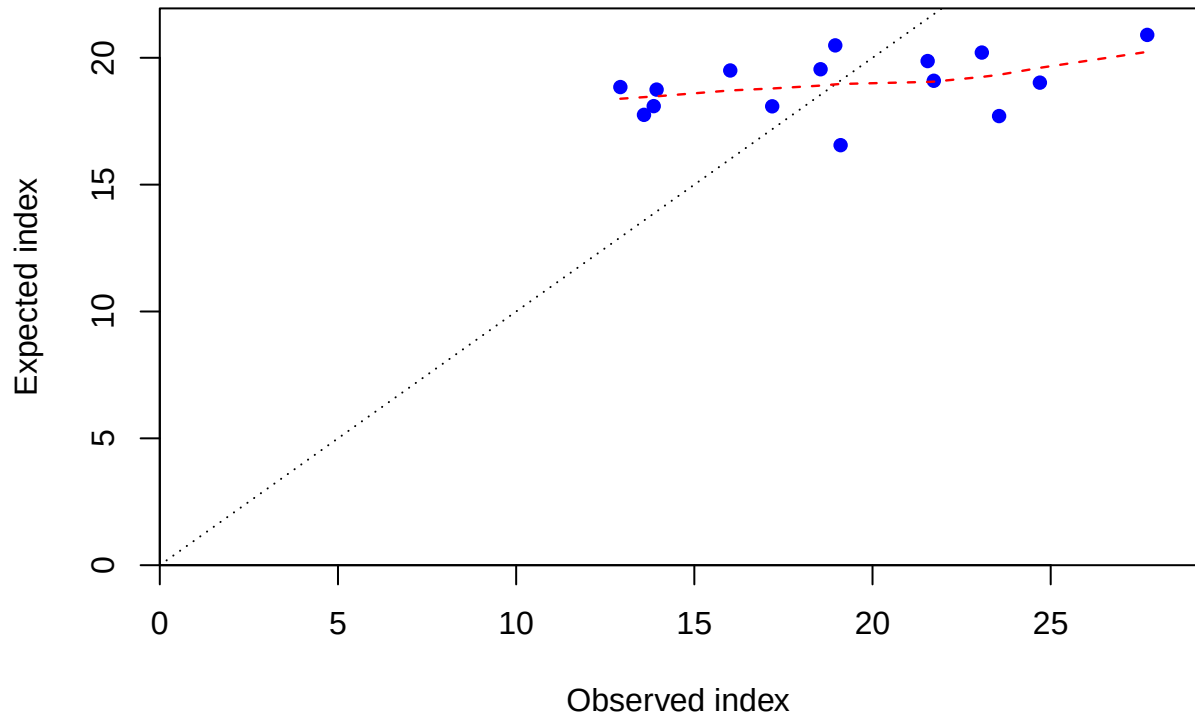


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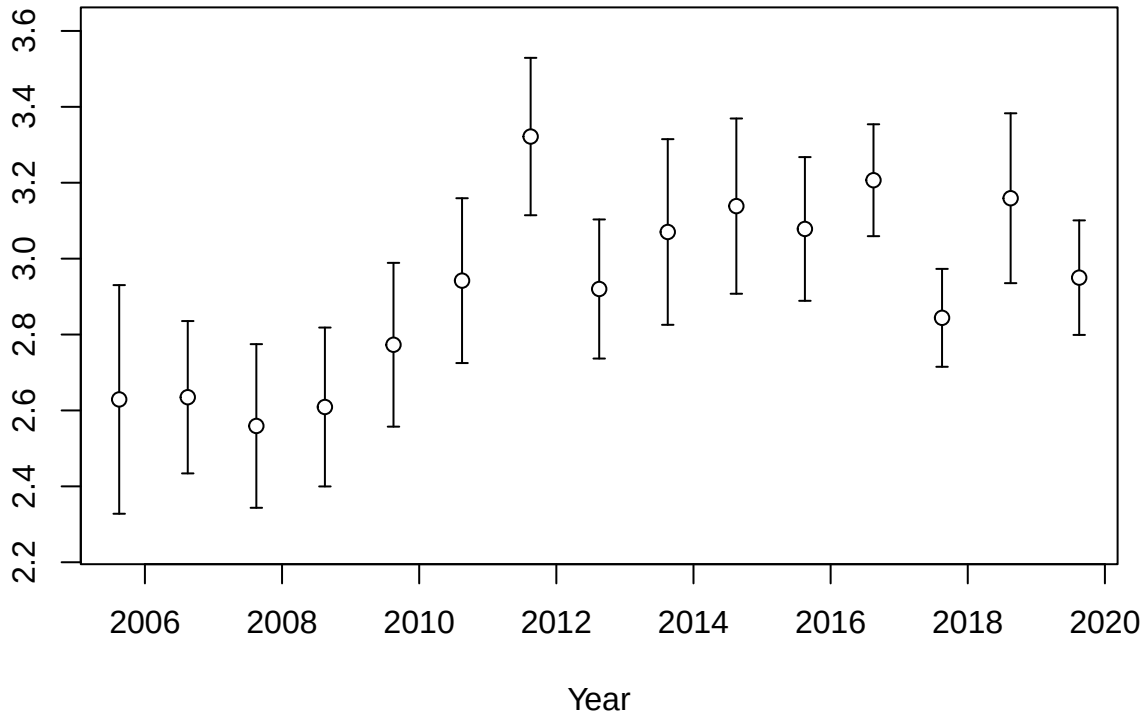


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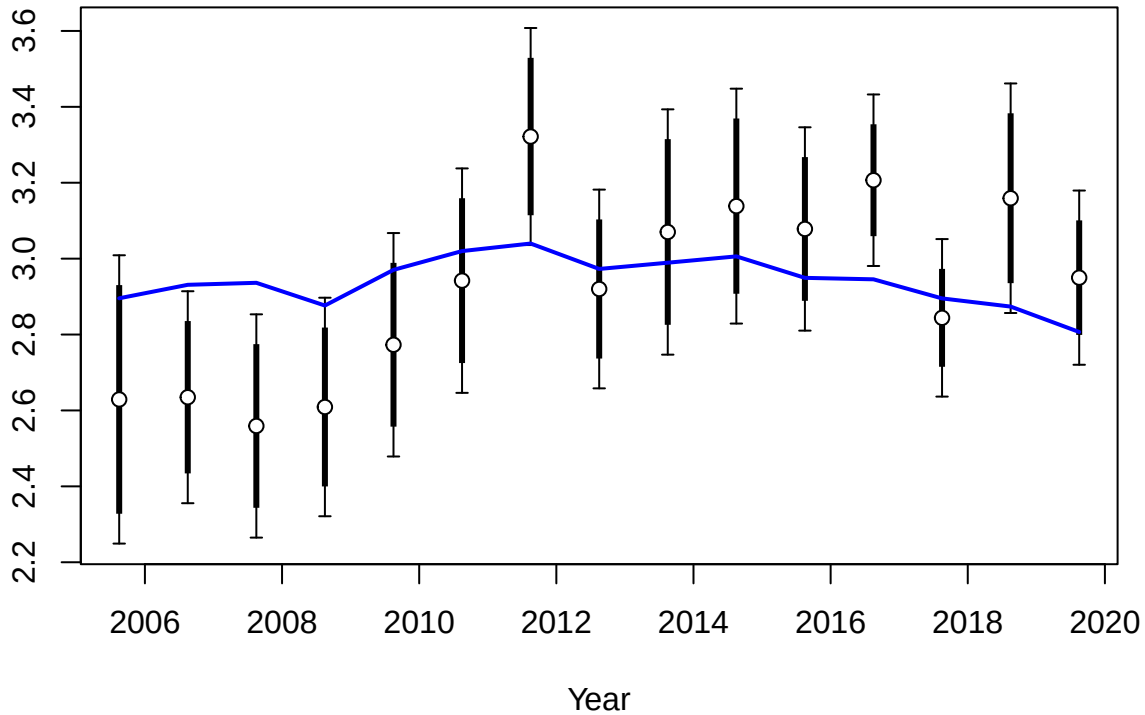


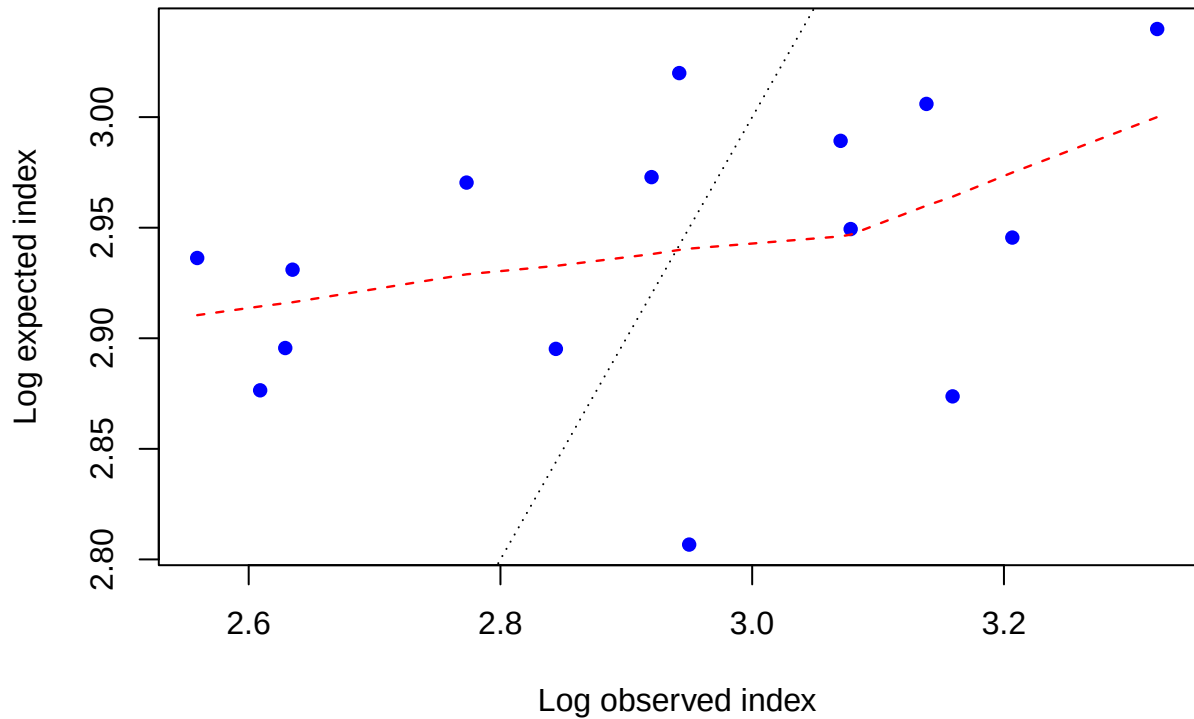


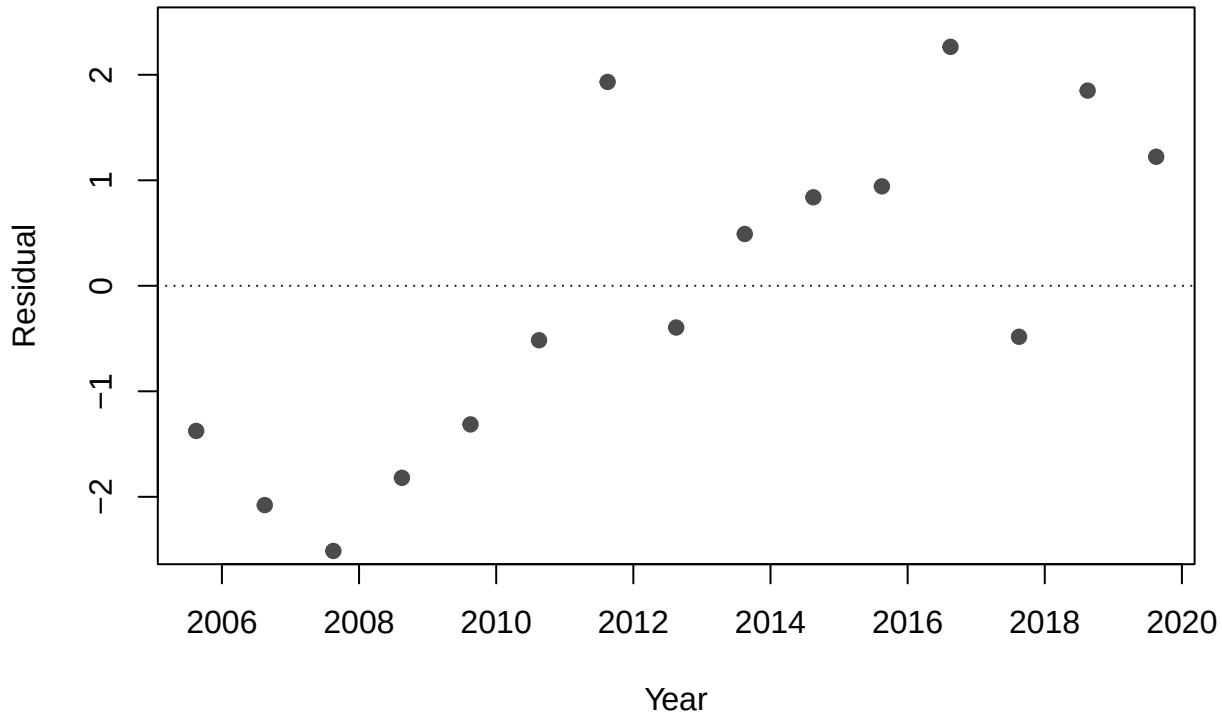
Log index

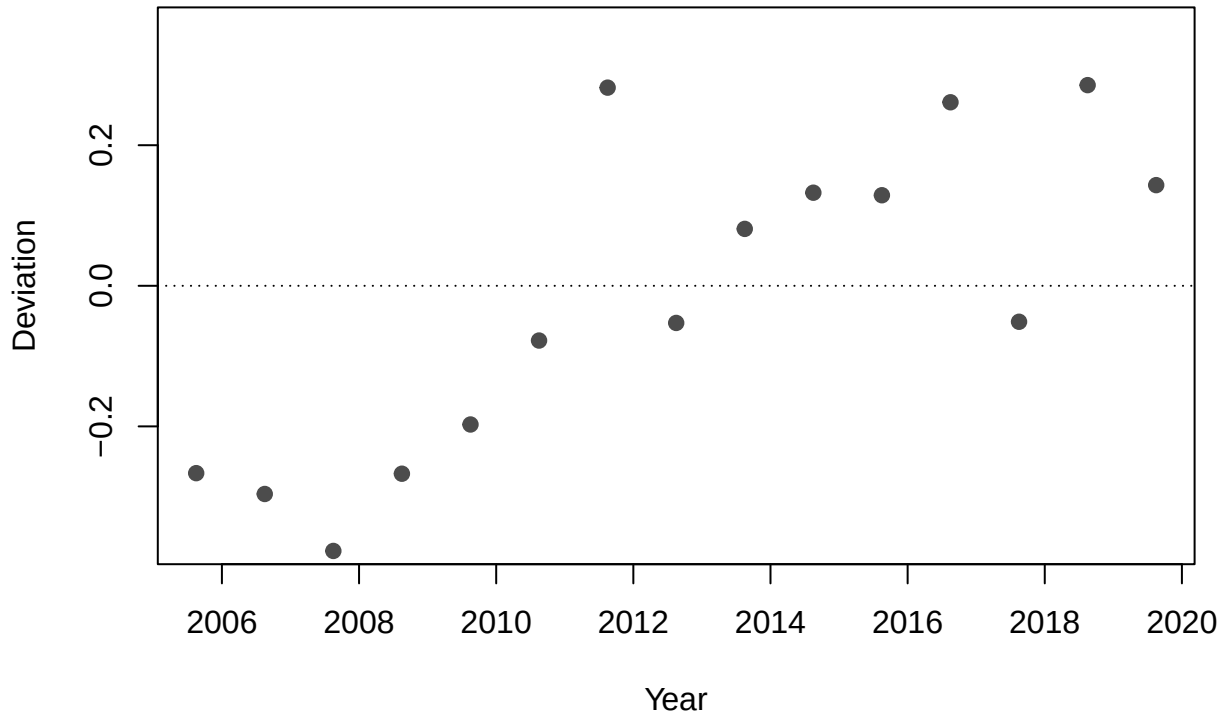


Log index









Index

0
10
20
30
40

2006

2008

2010

2012

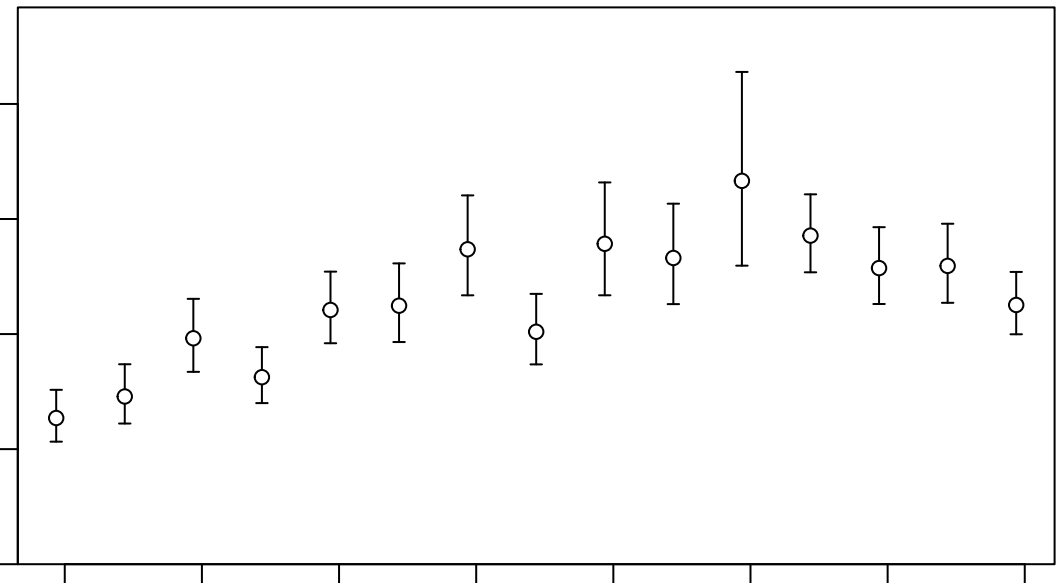
2014

2016

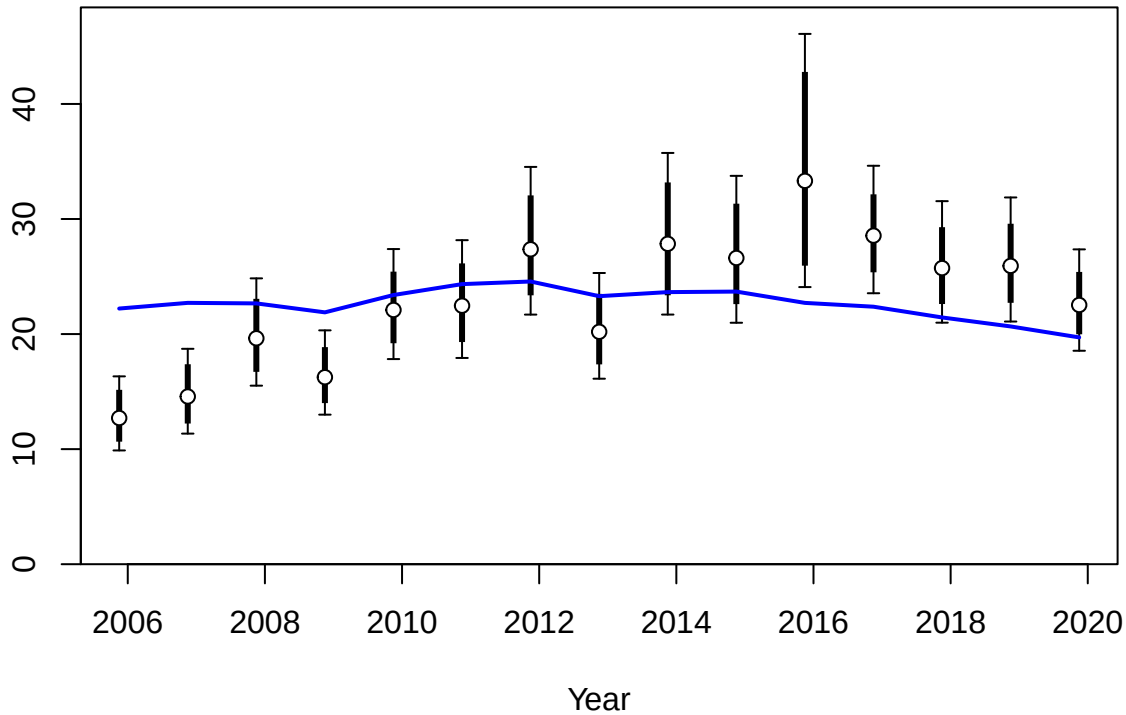
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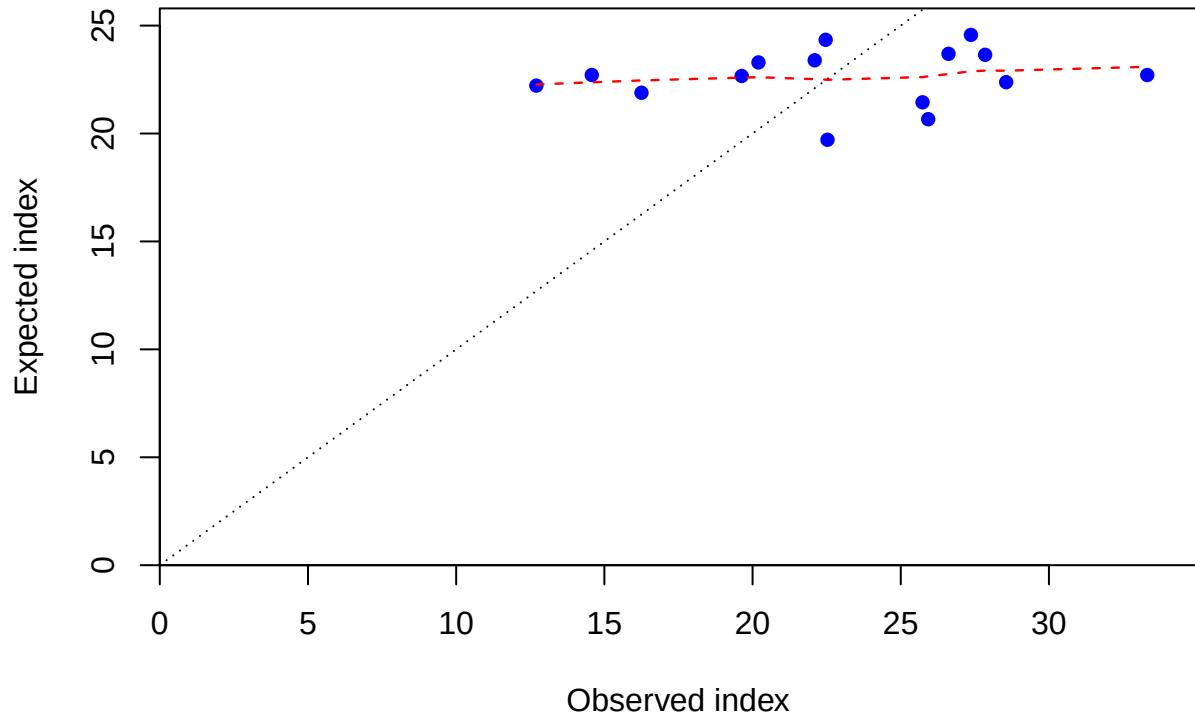
2020

Year



Index





Log index

2.5
3.0
3.5

2006

2008

2010

2012

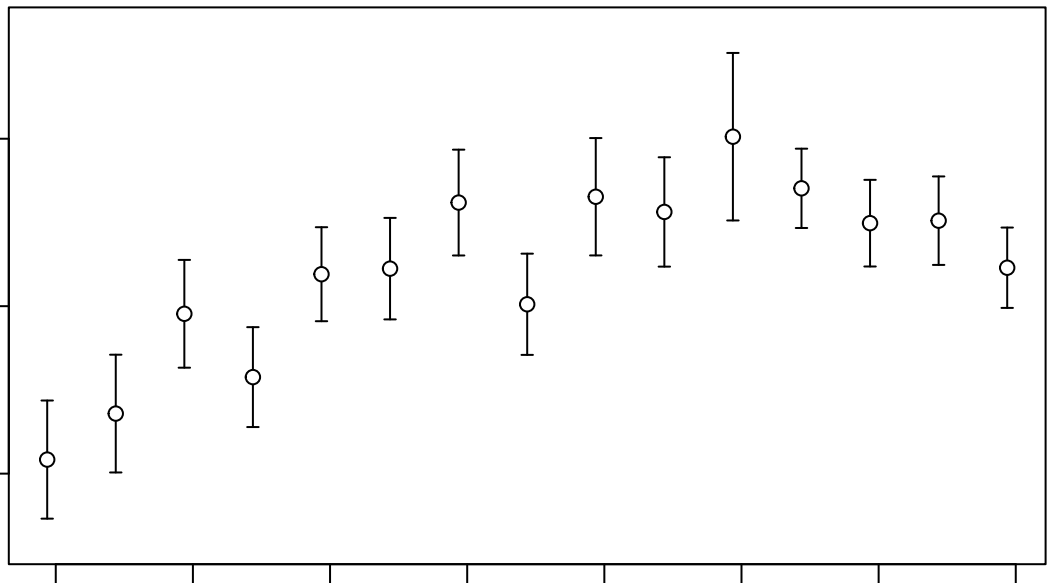
2014

2016

2018

2020

Year



Log index

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3.0
3.5

2006

2008

2010

2012

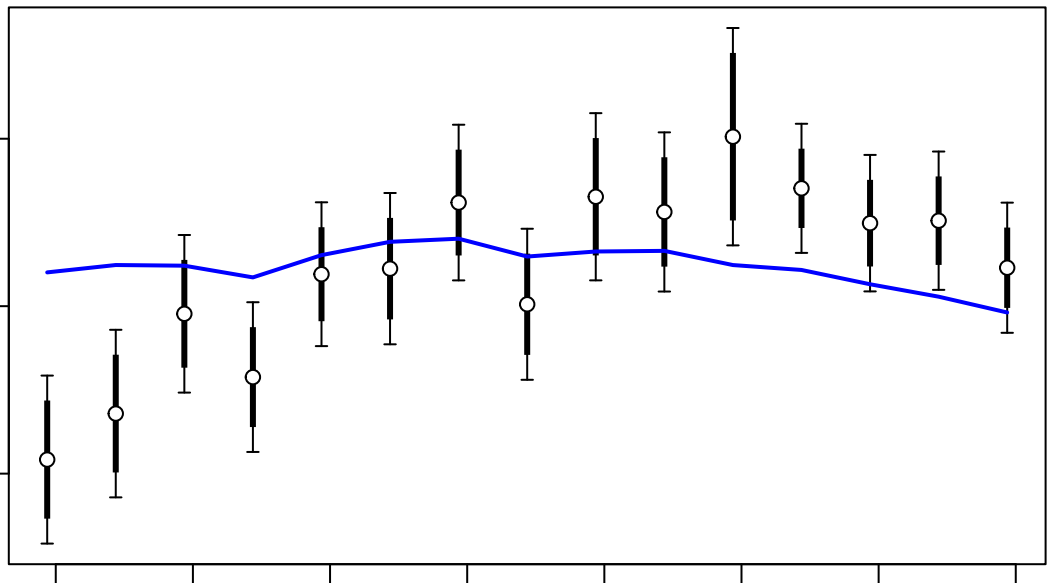
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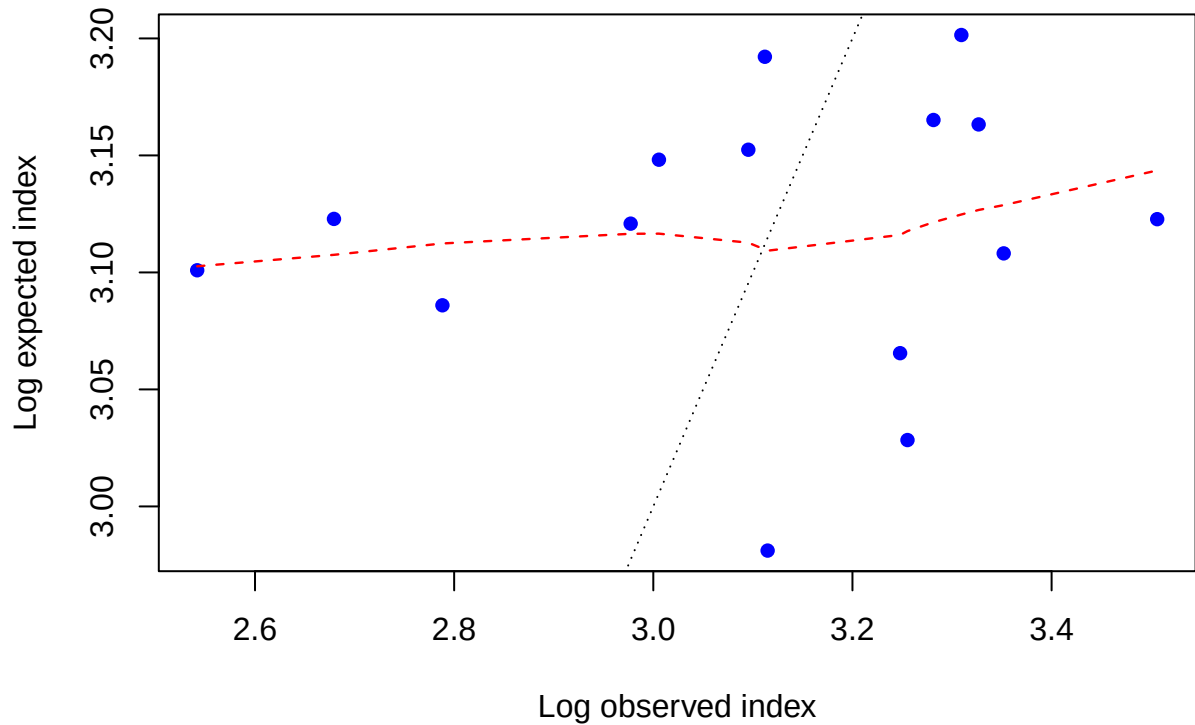
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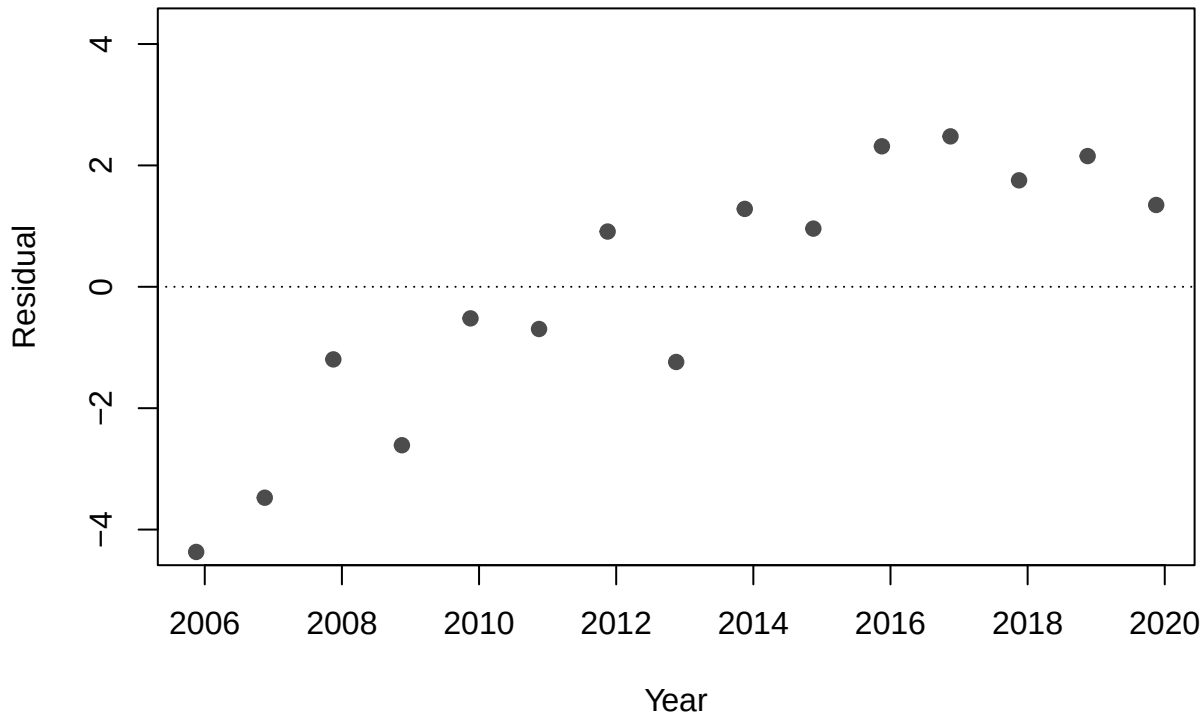
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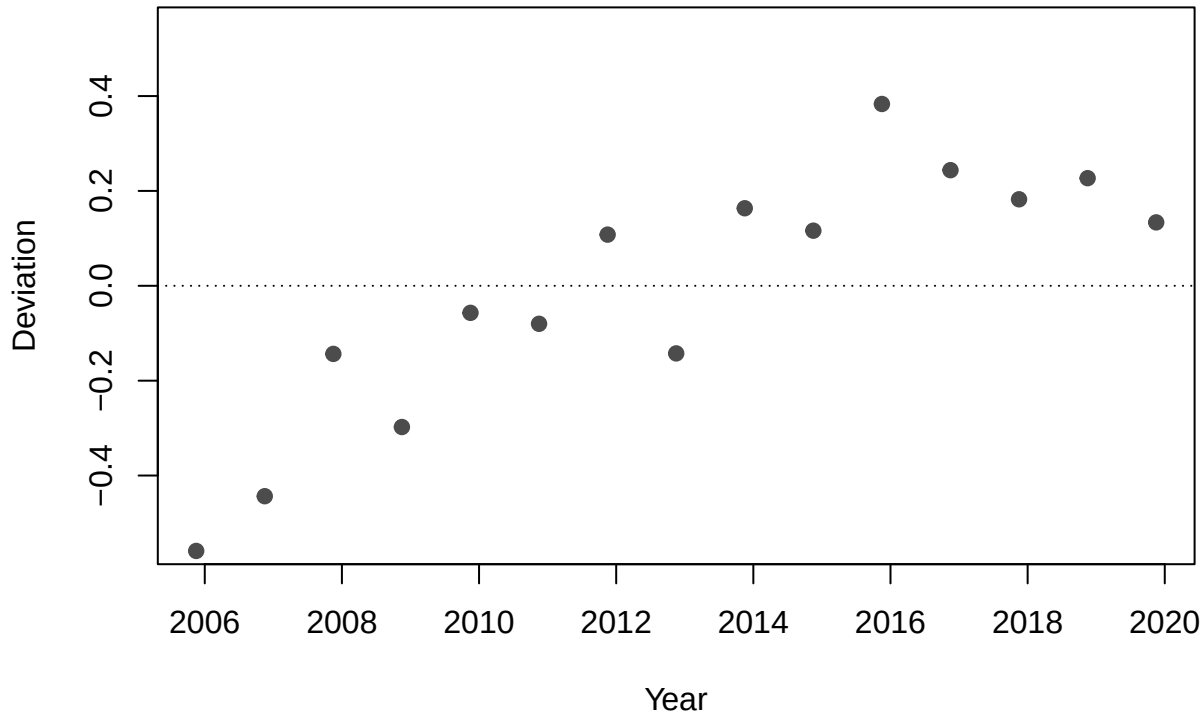
2020

Year

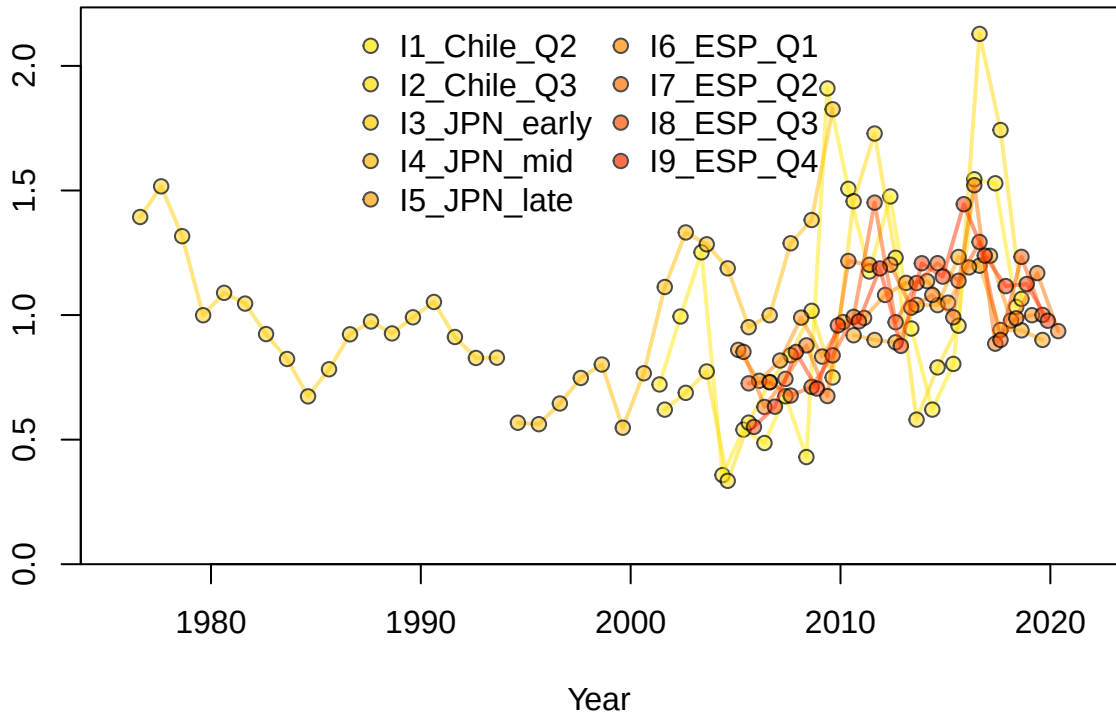




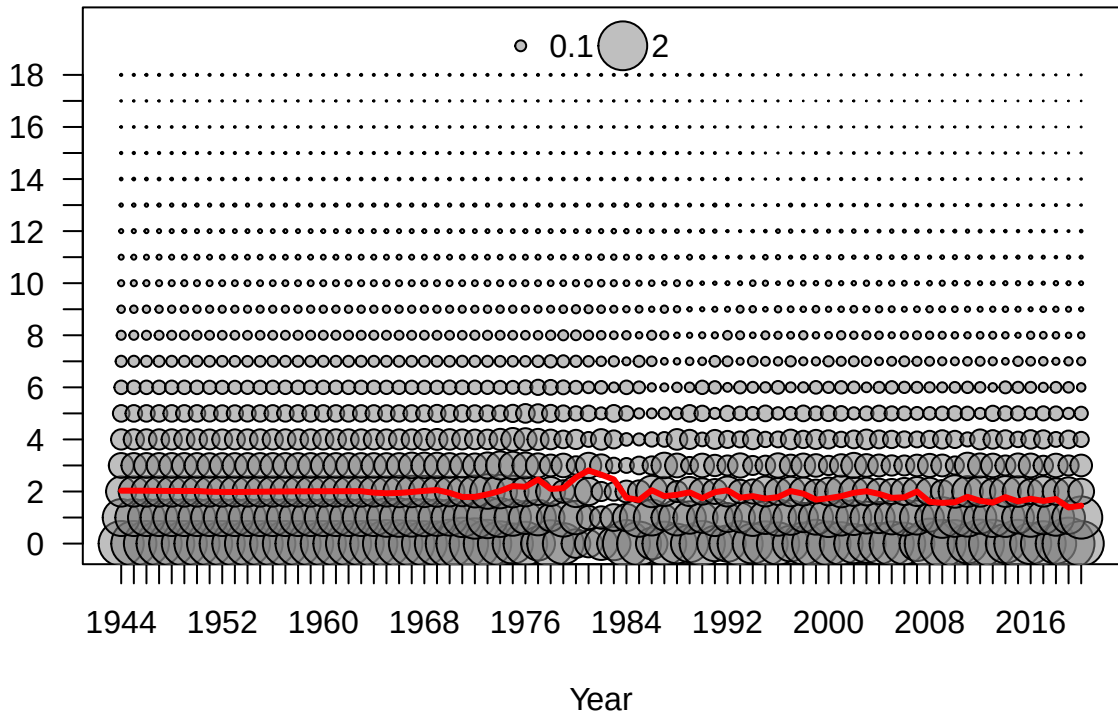




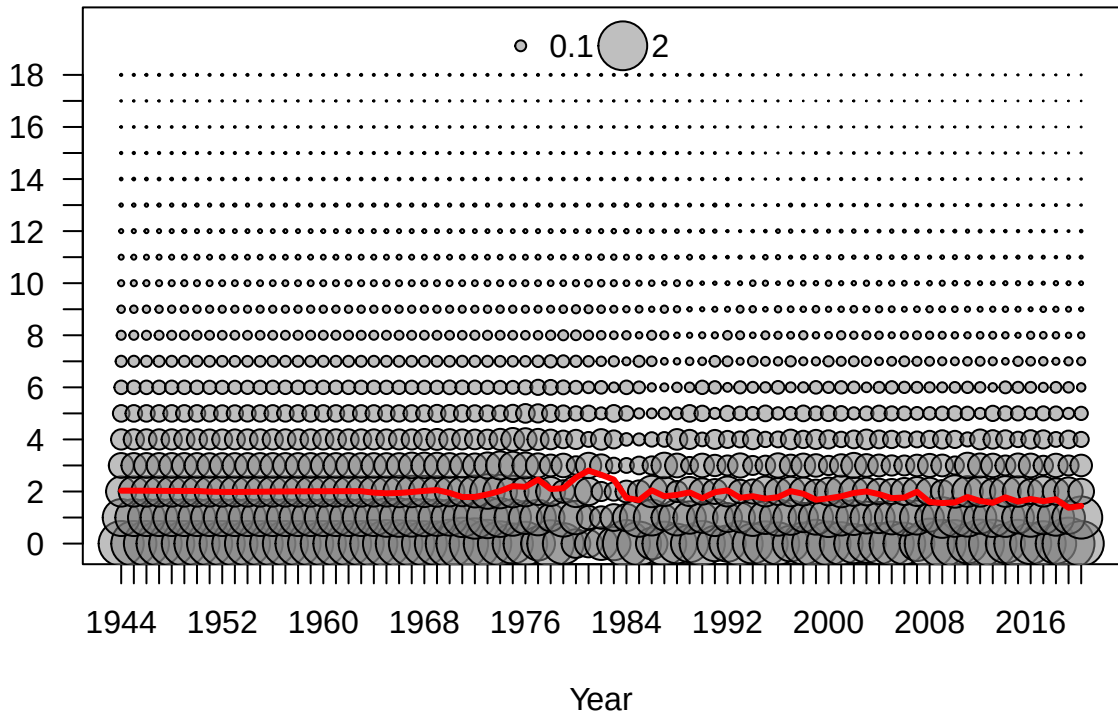
Standardized index

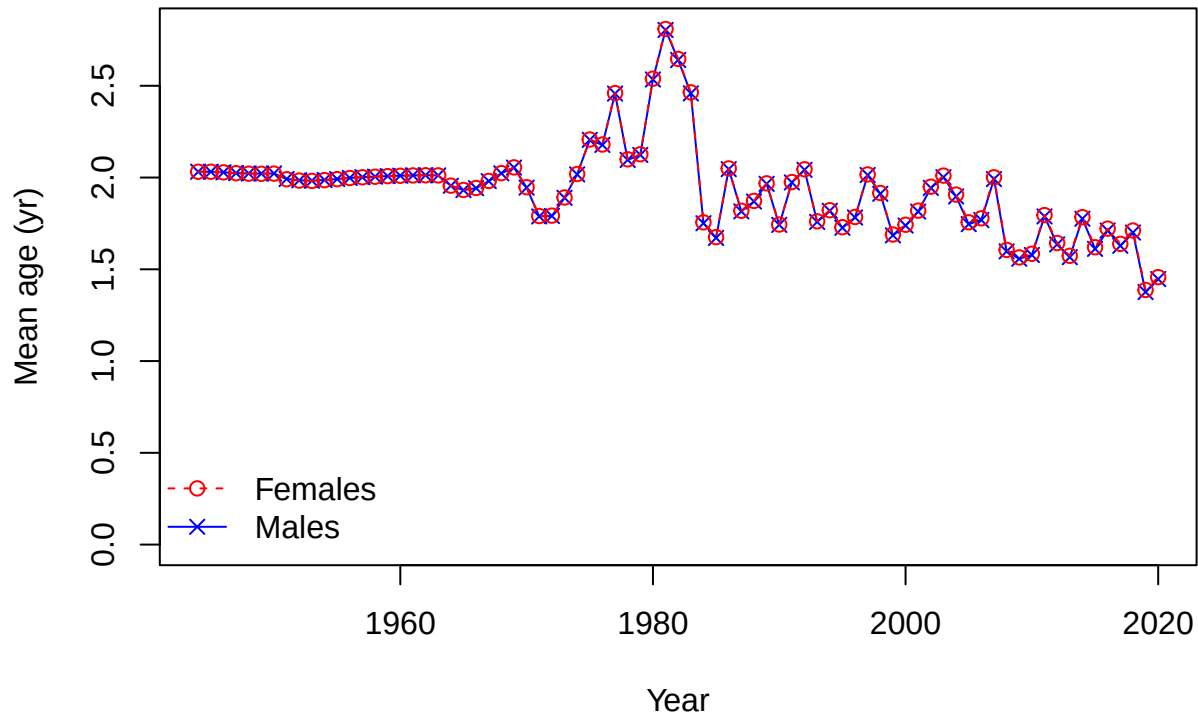


Age

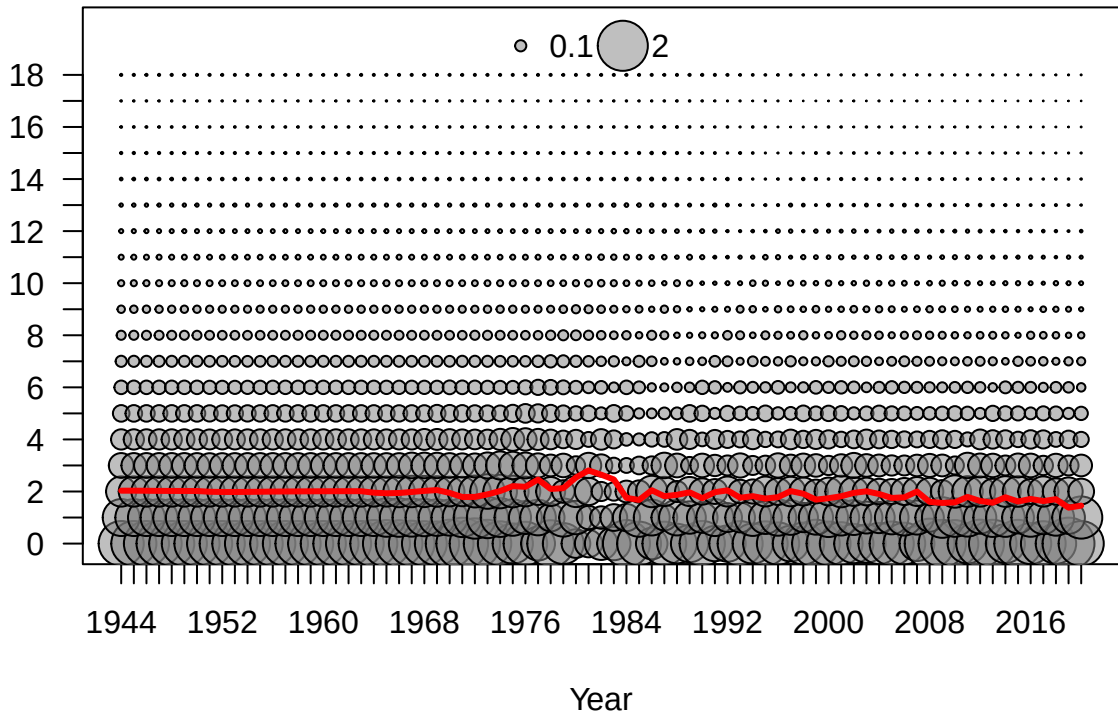


Age

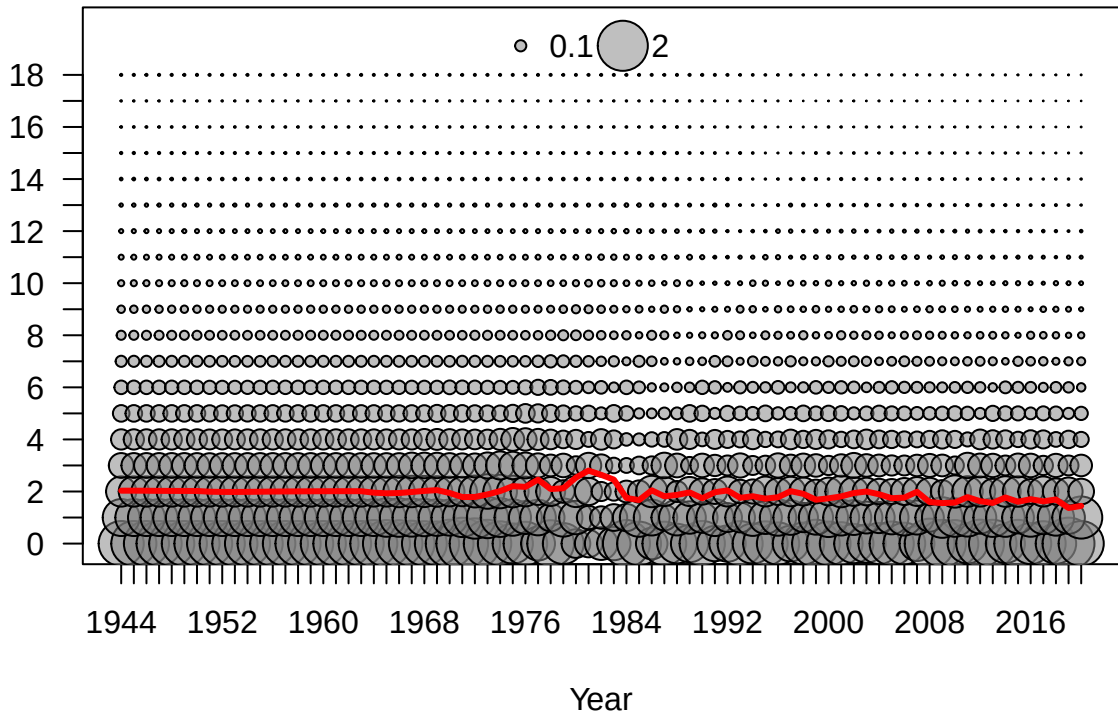


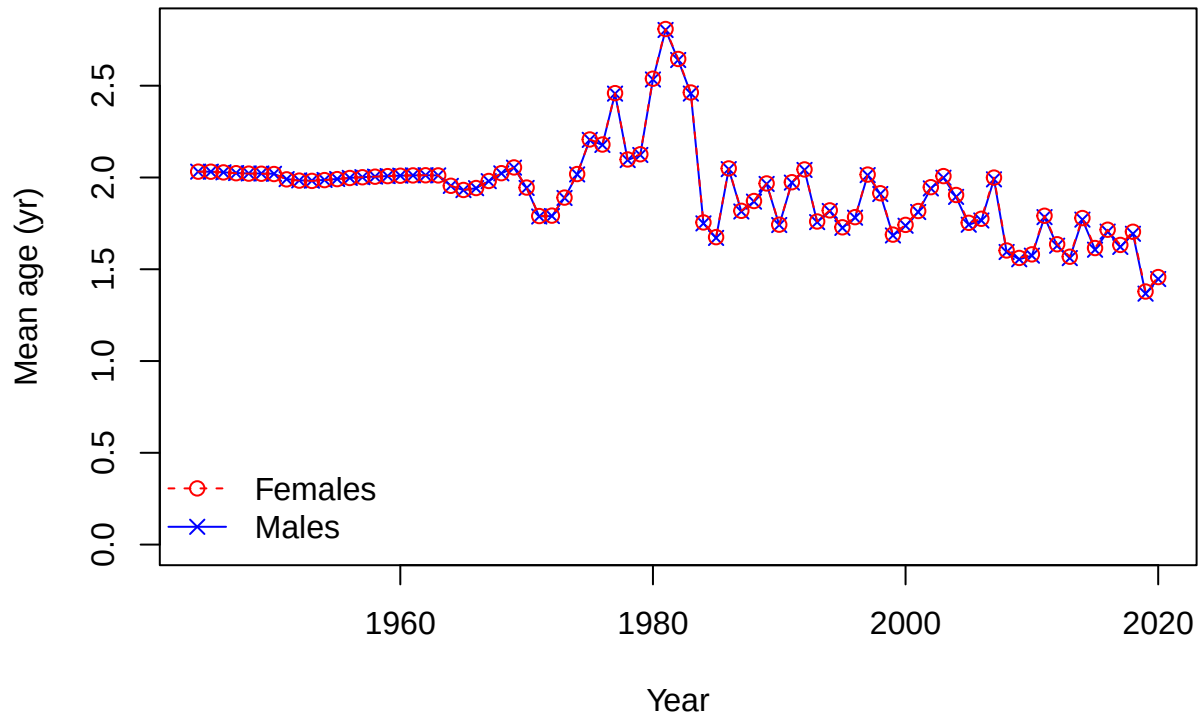


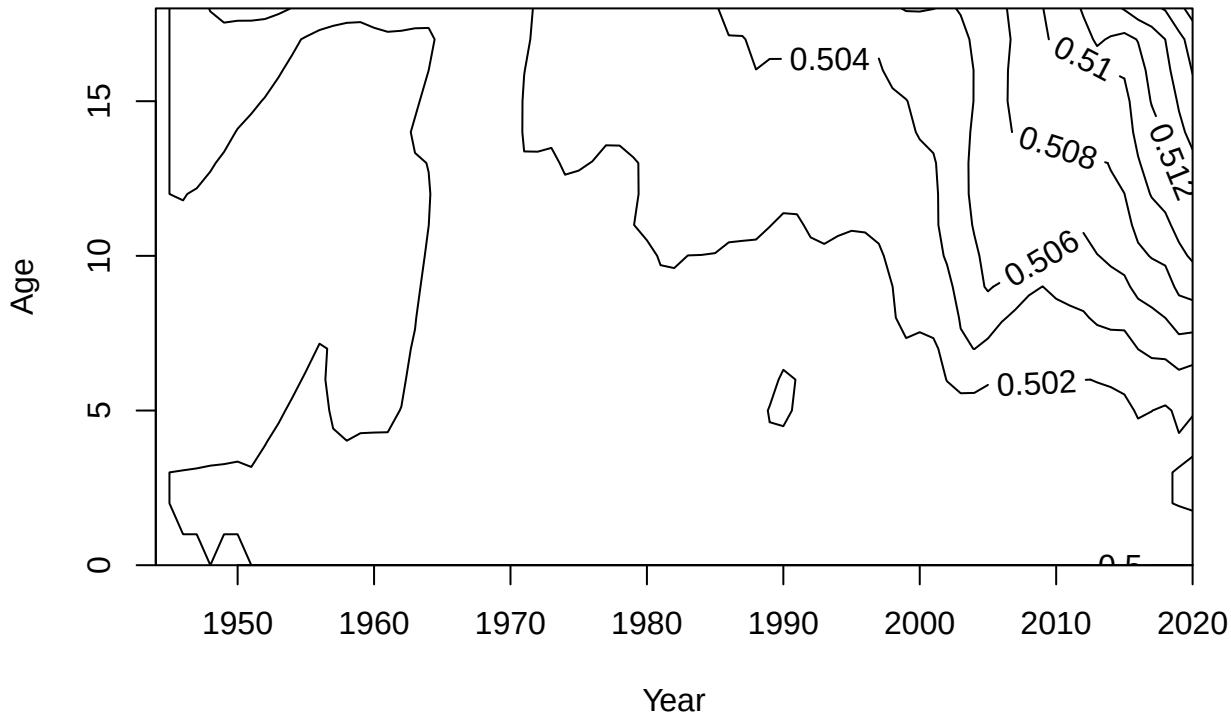
Age

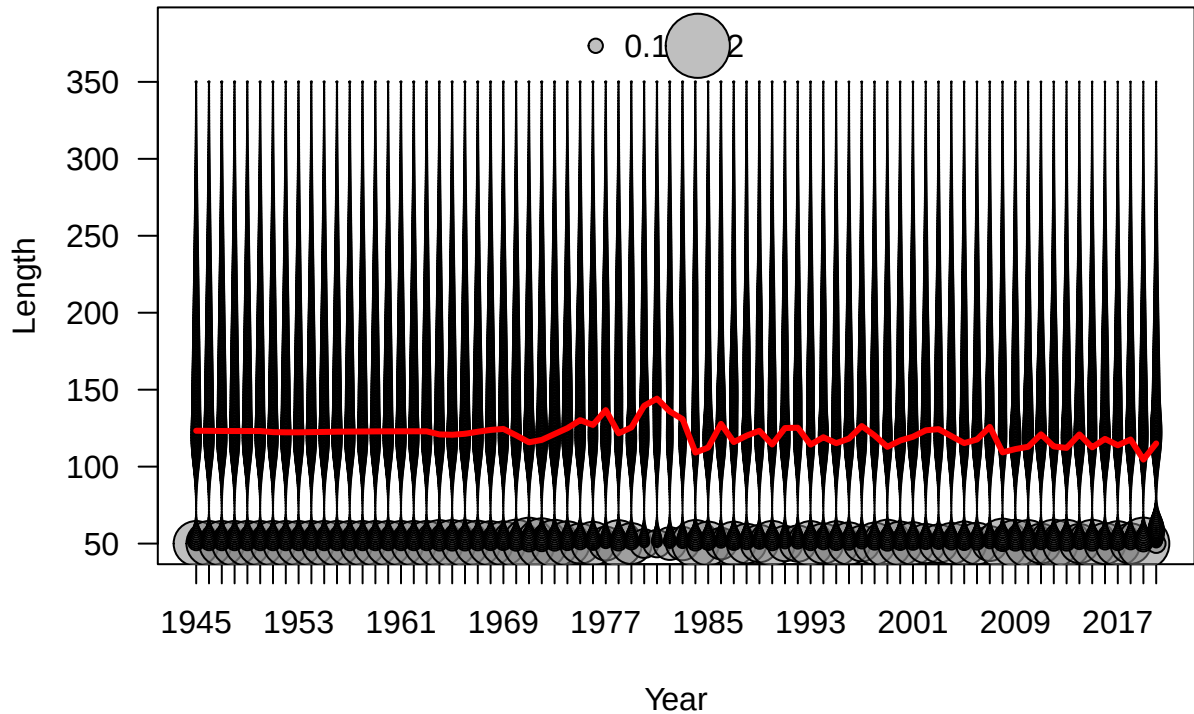


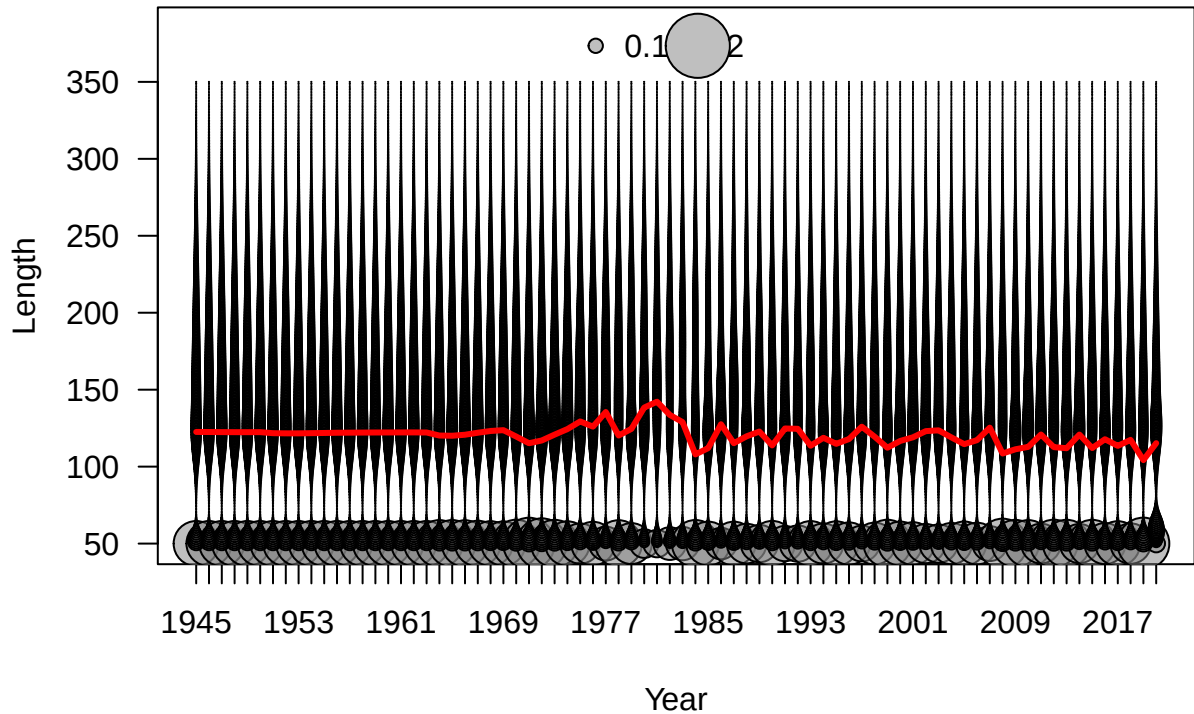
Age

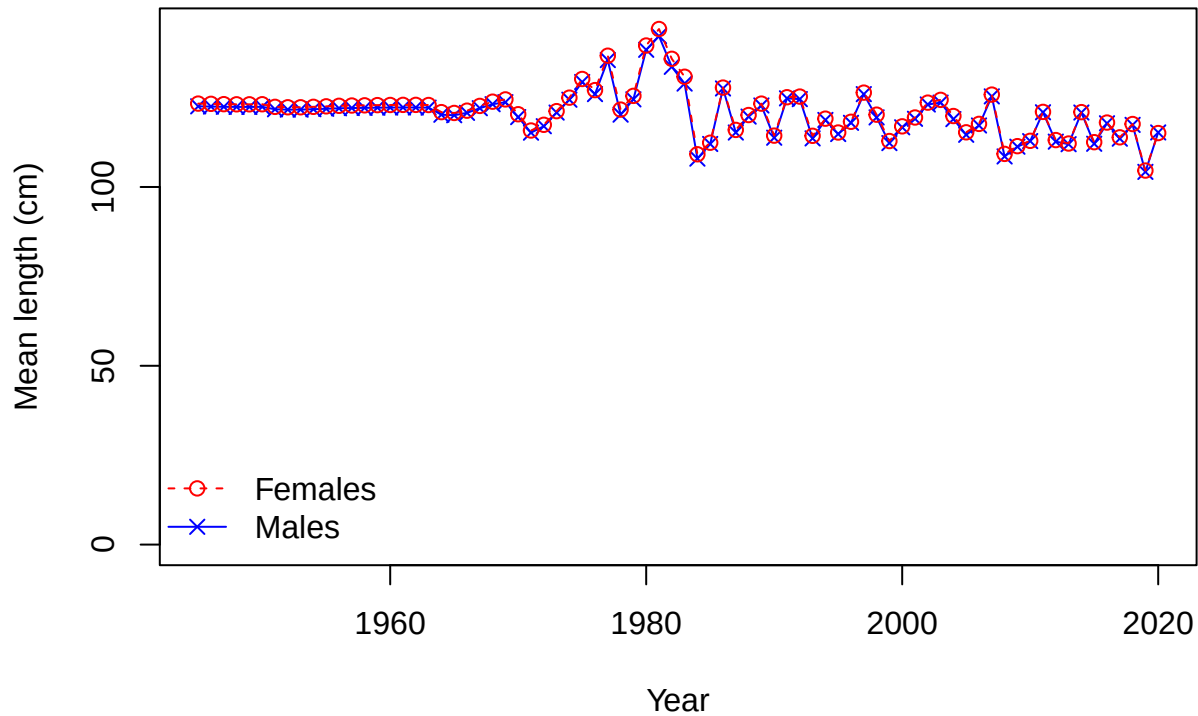


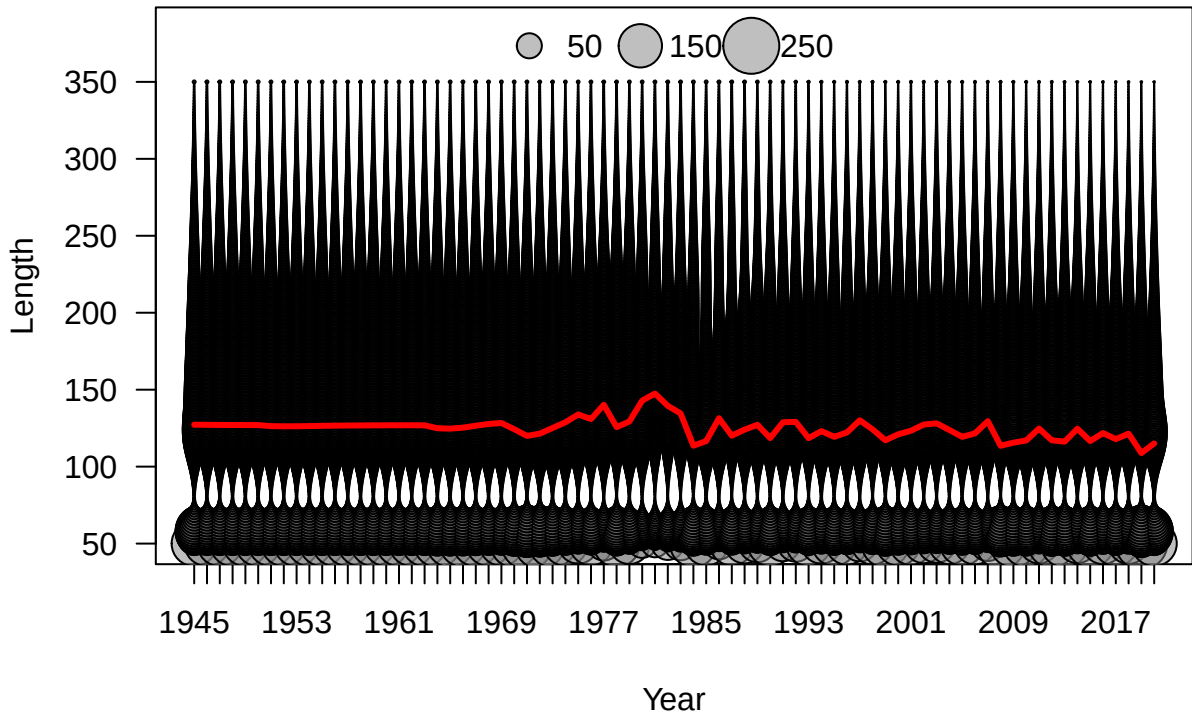


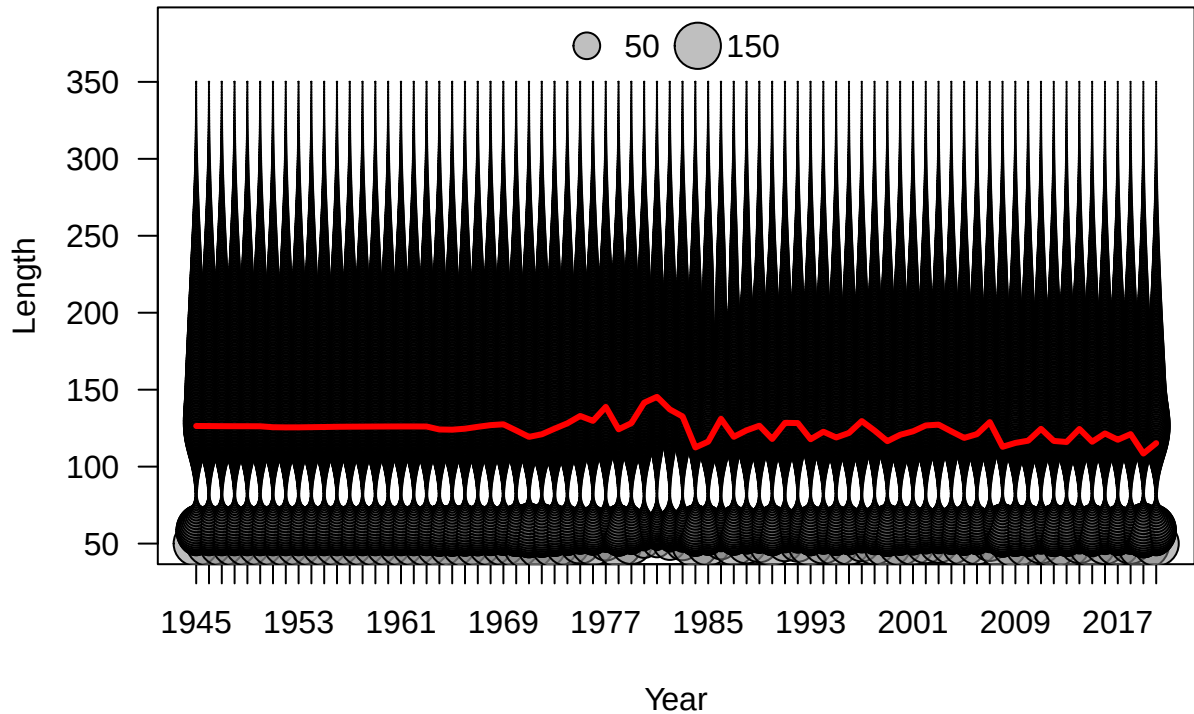


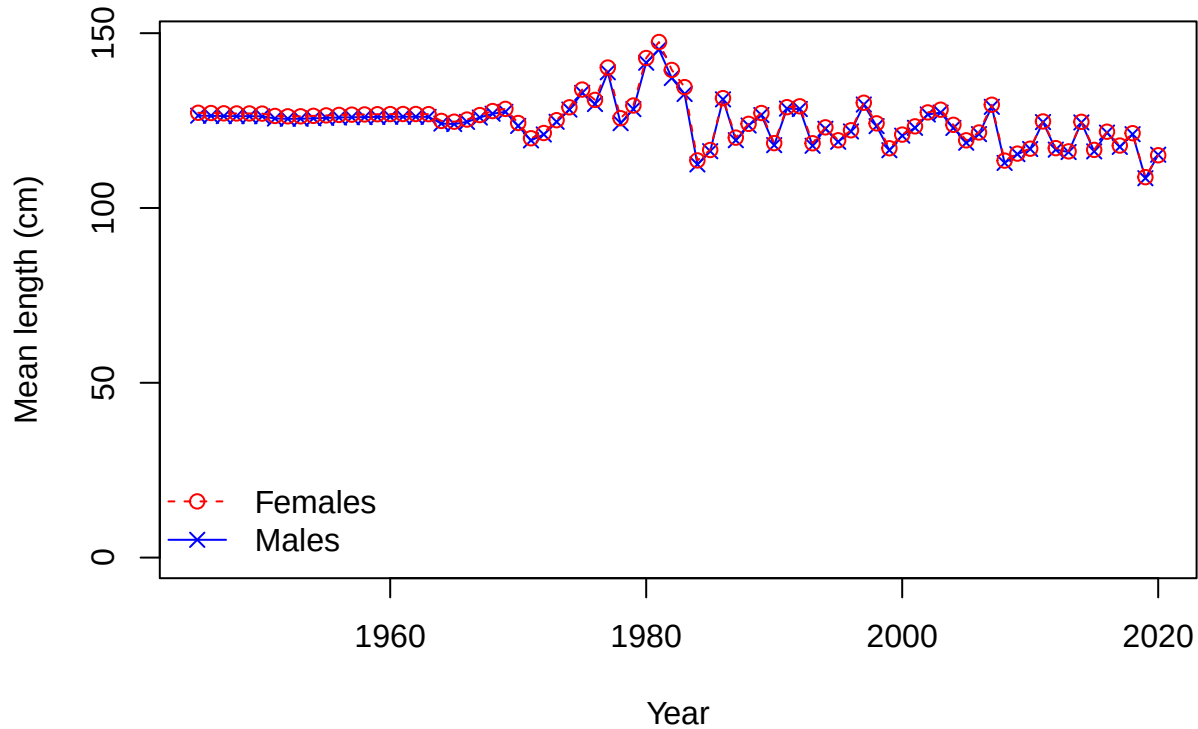


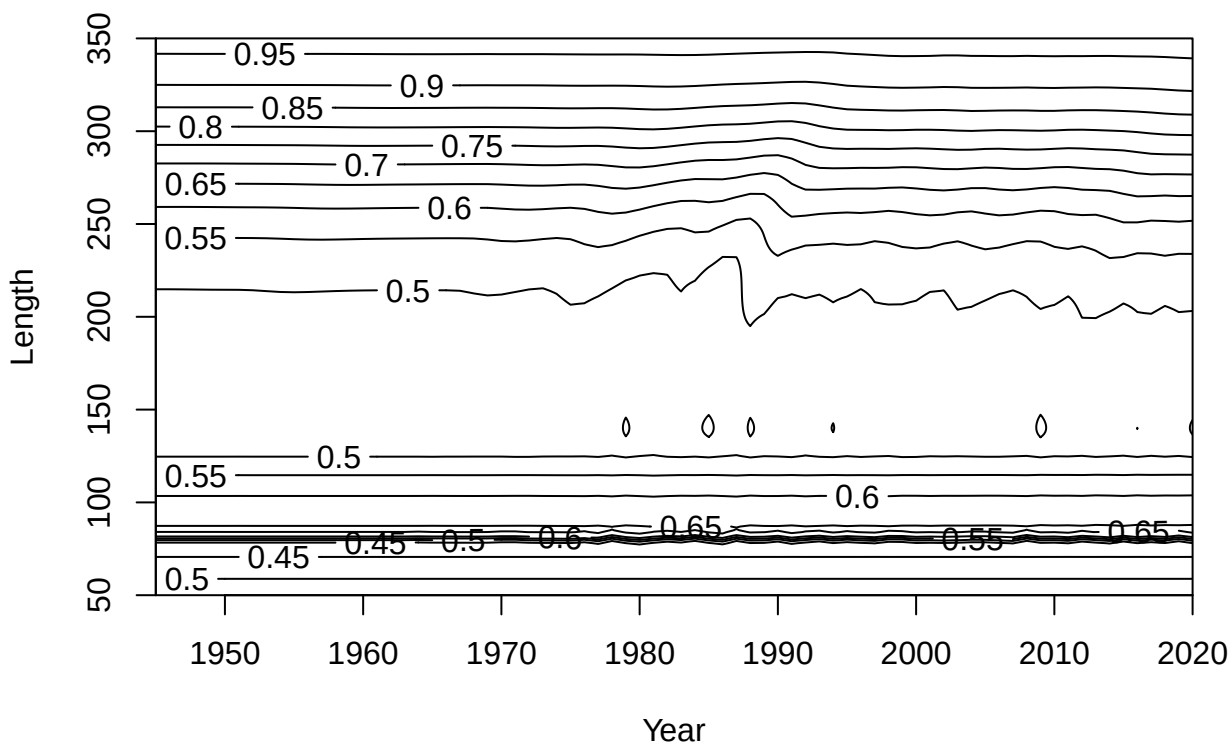


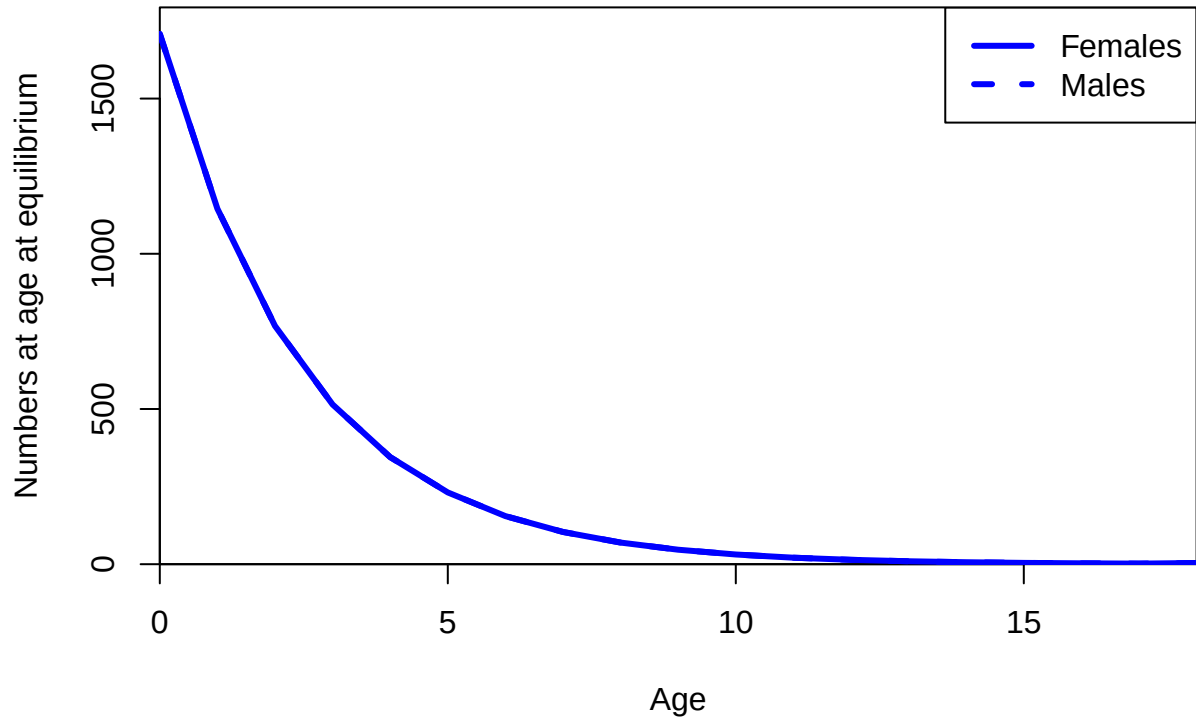


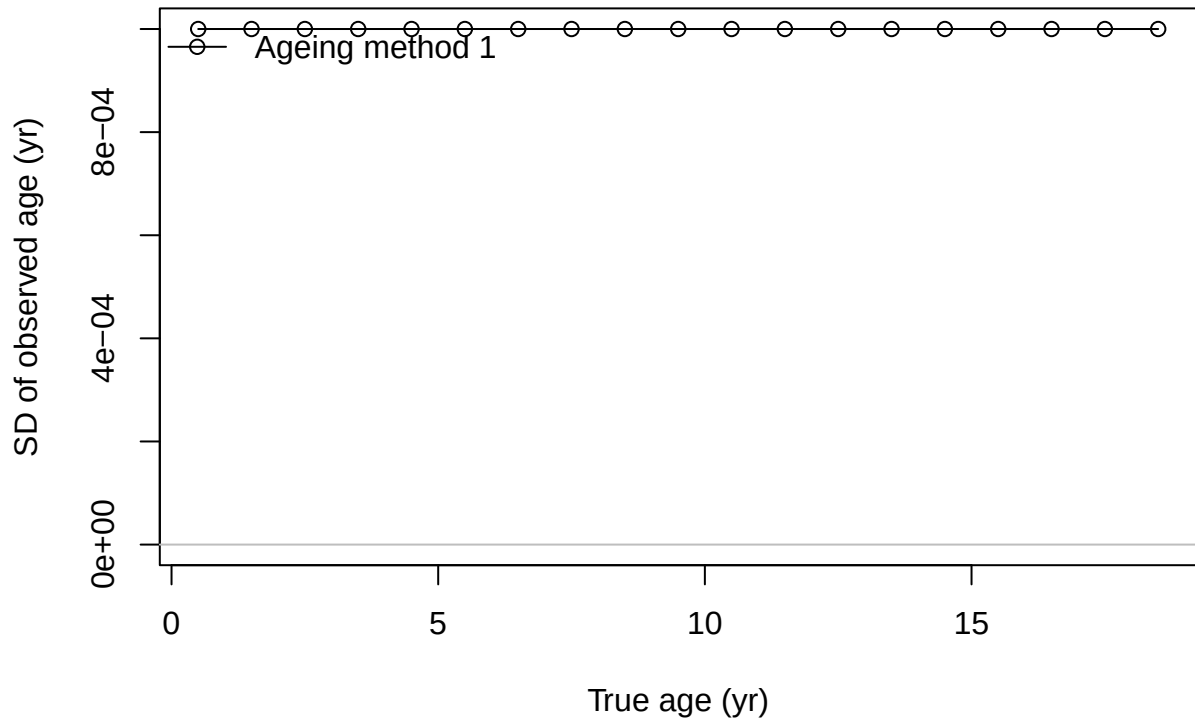


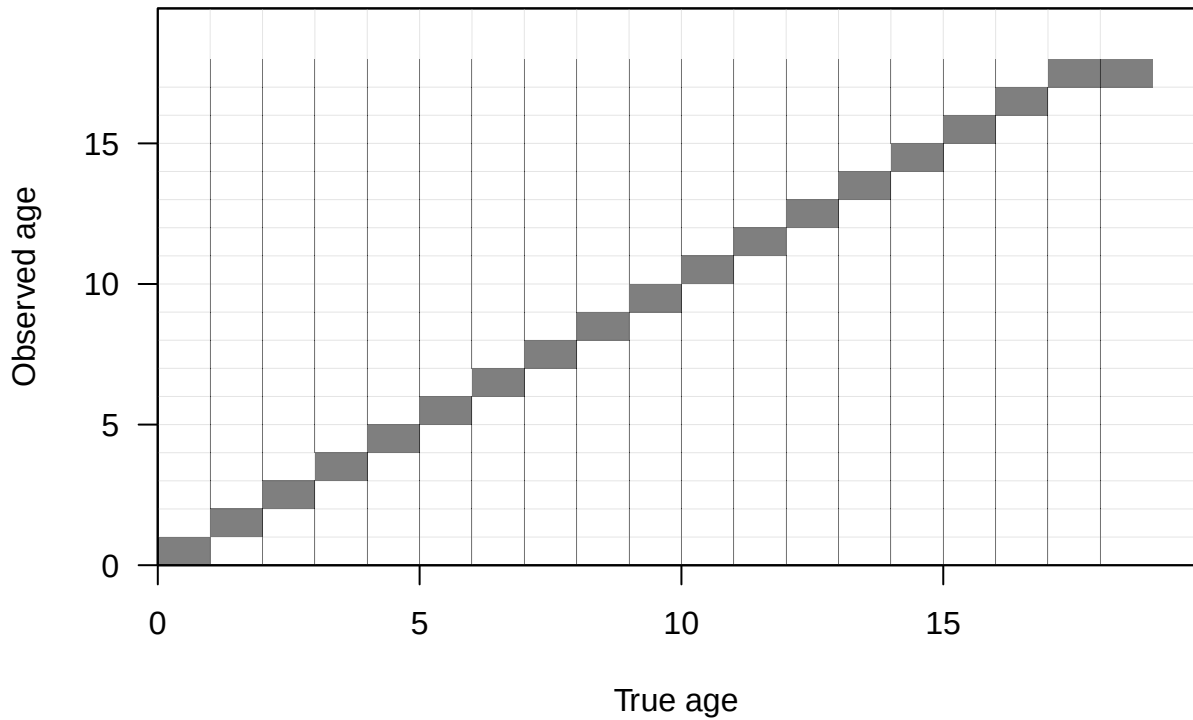


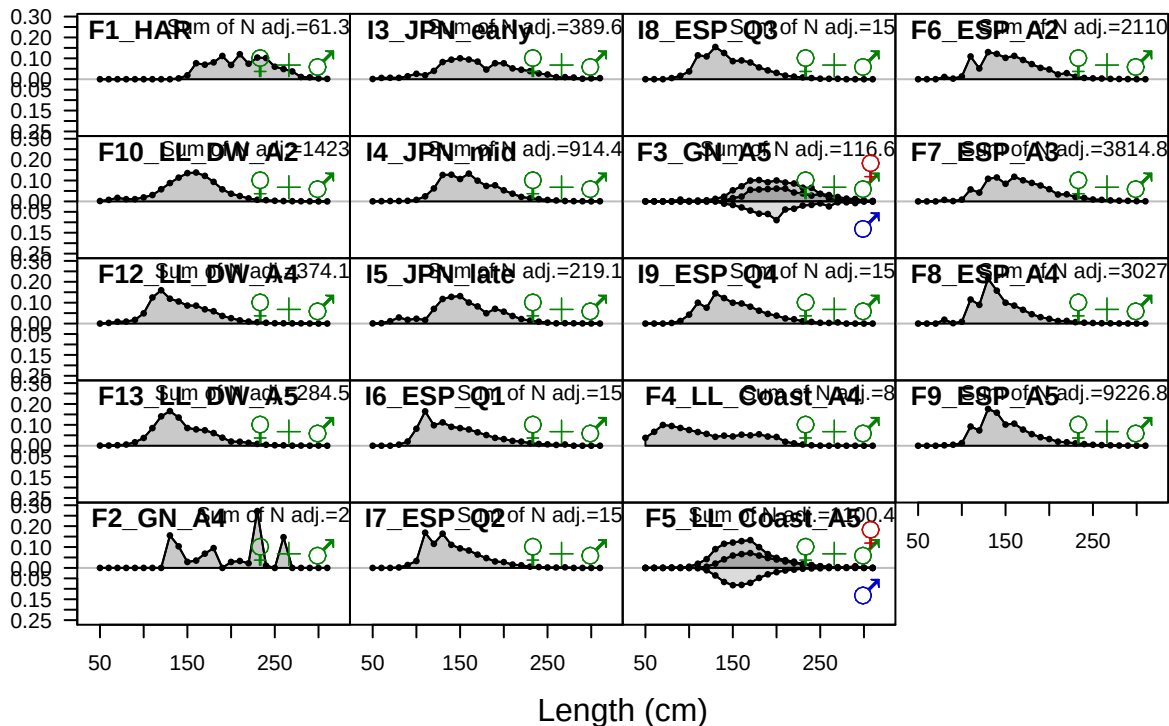


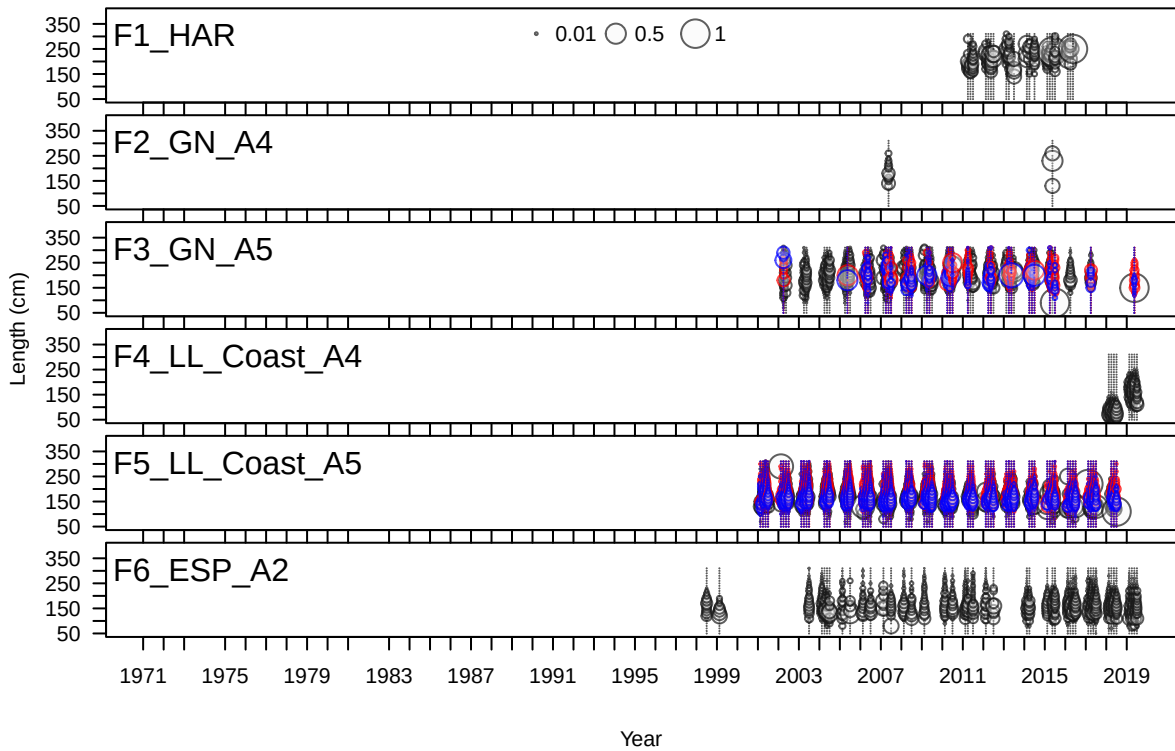


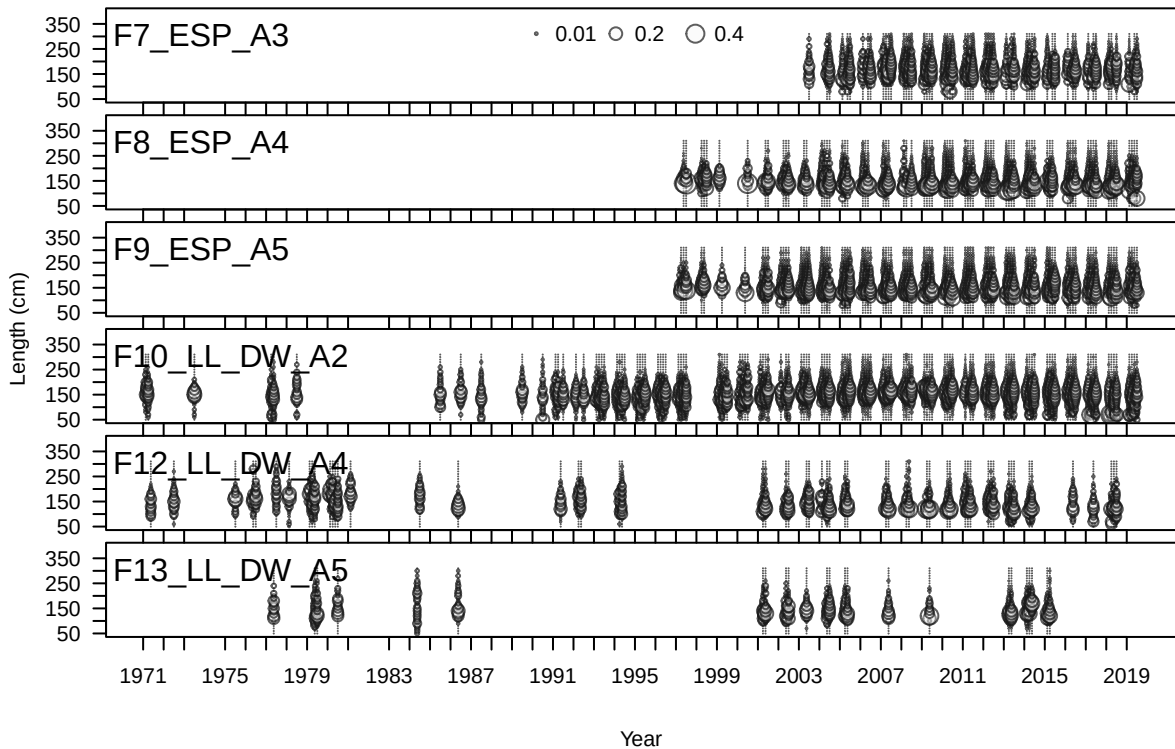


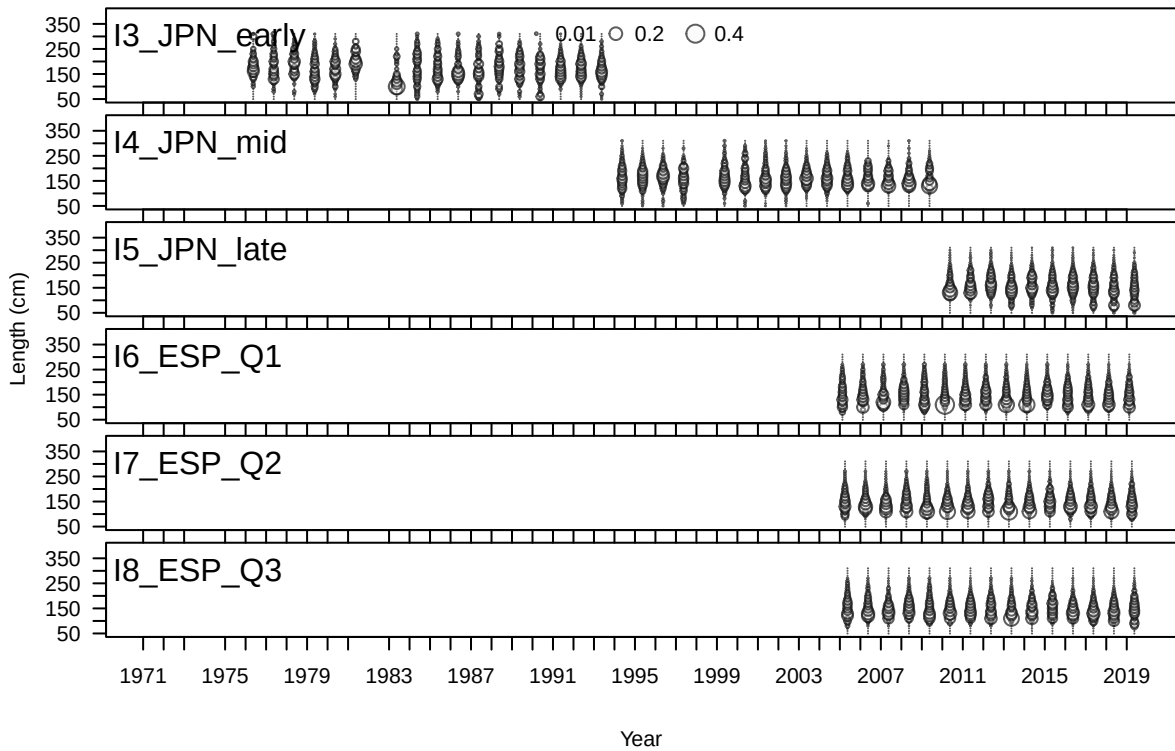


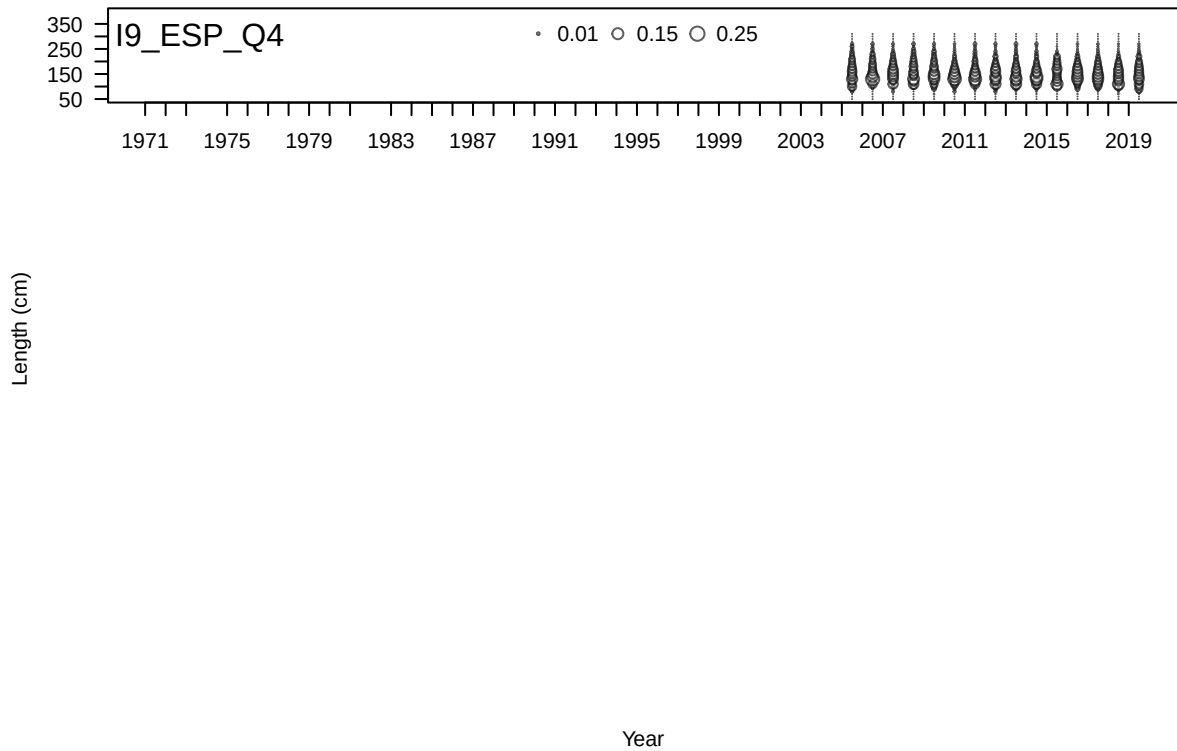




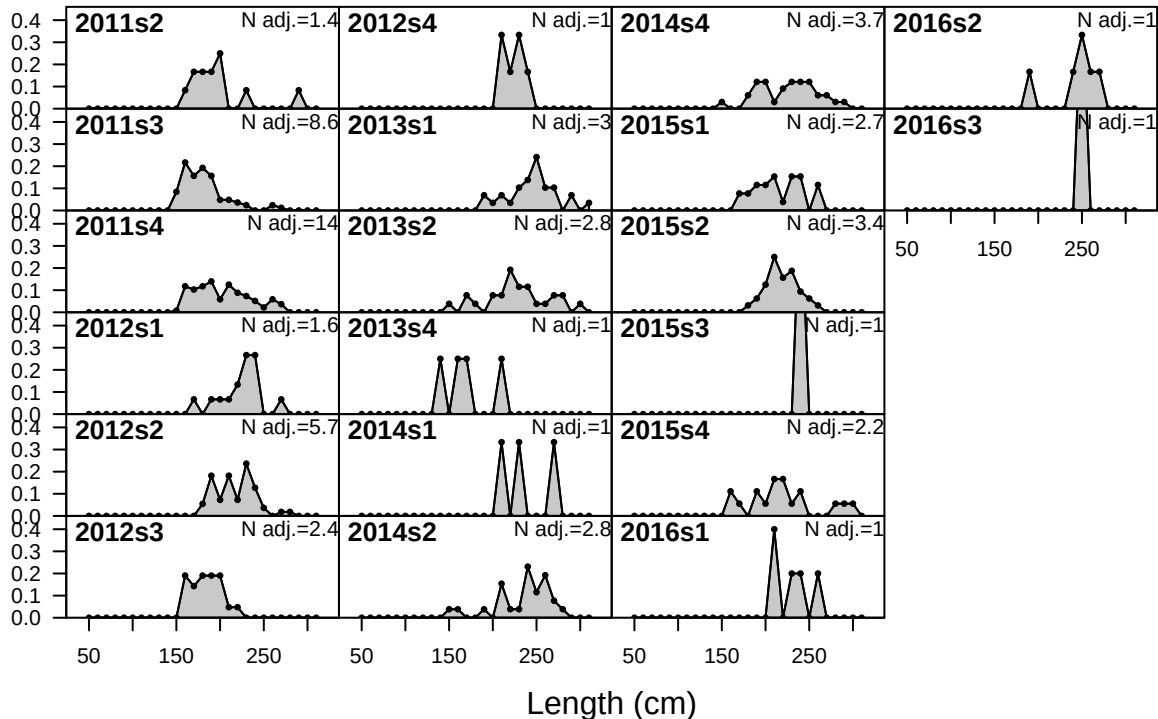


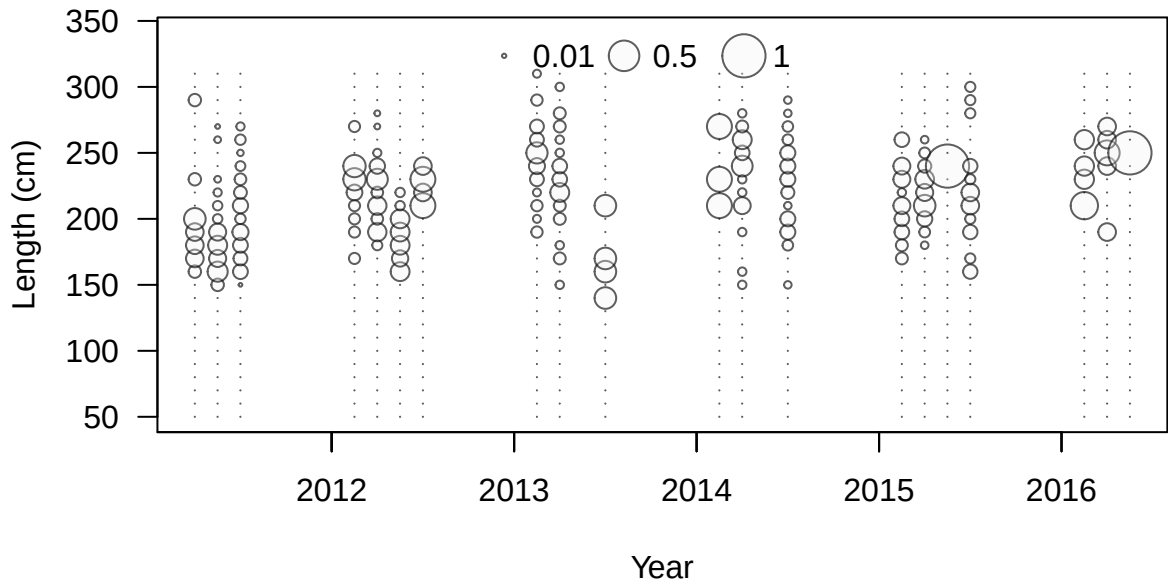




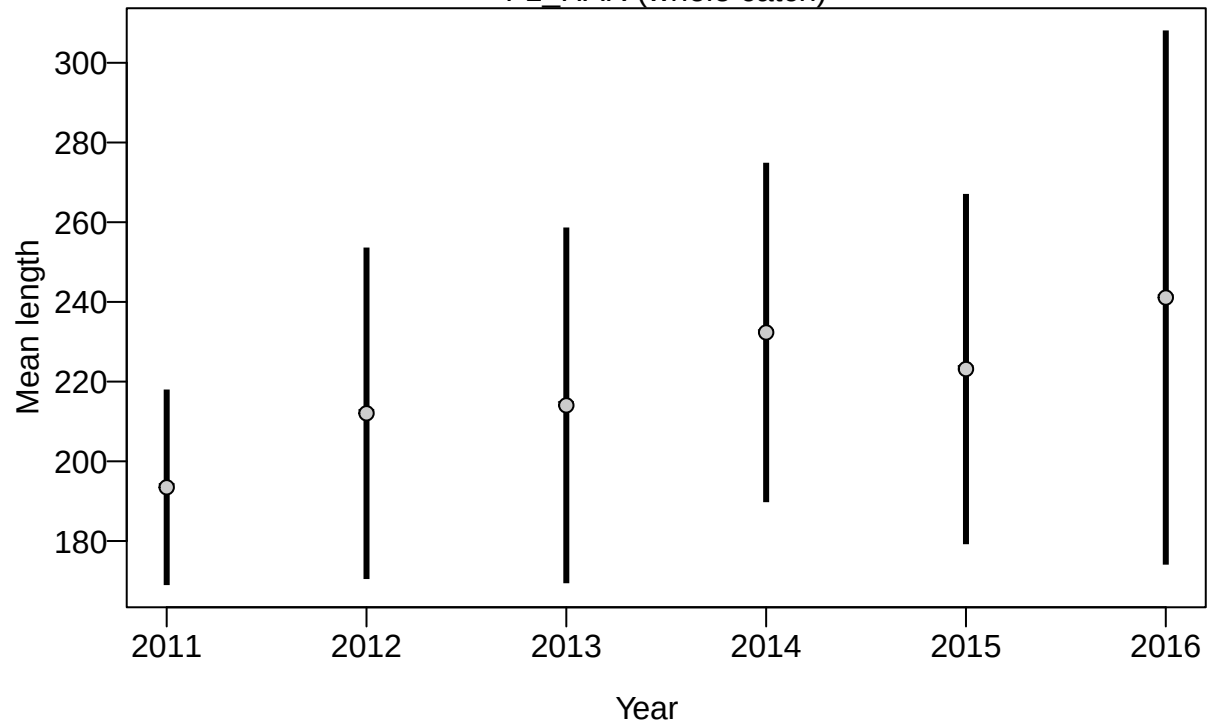


Proportion

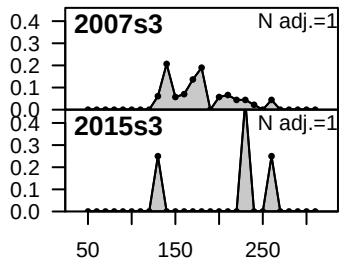




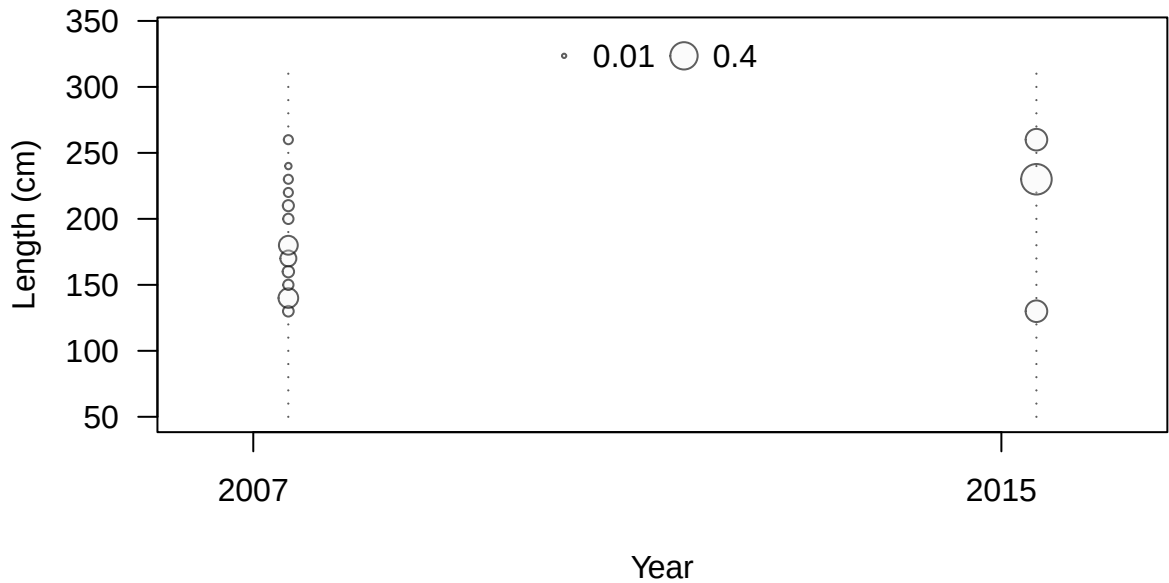
F1_HAR (whole catch)



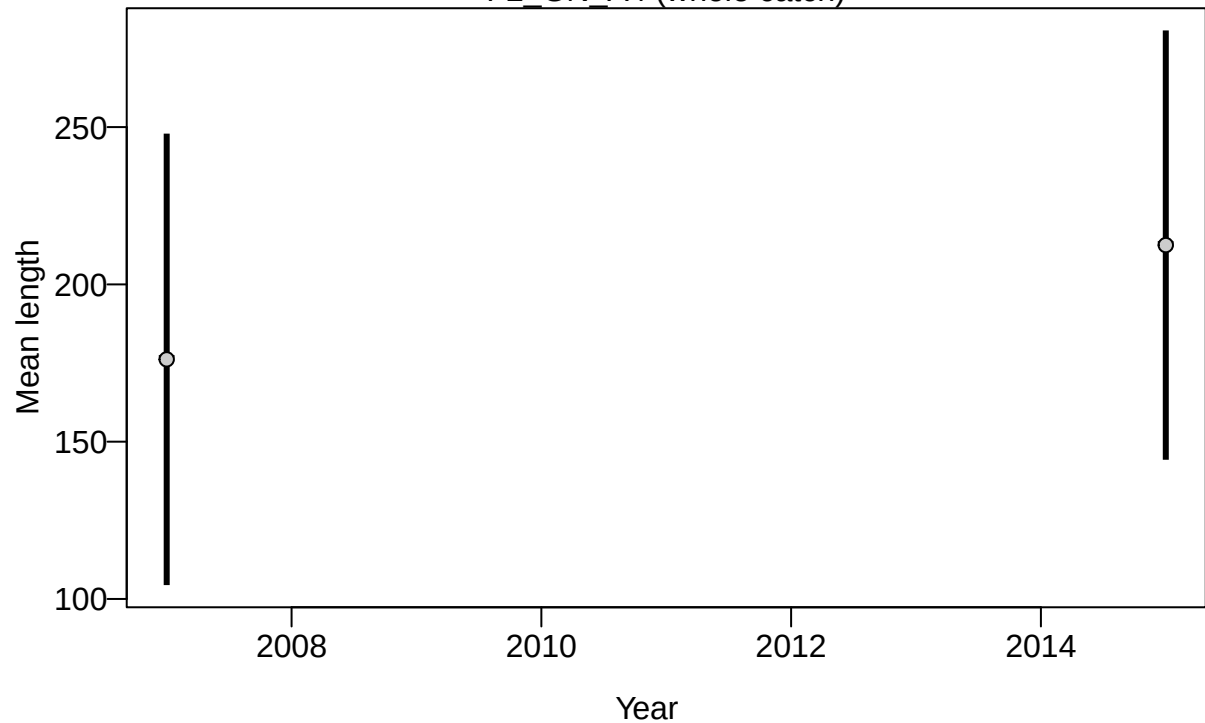
Proportion



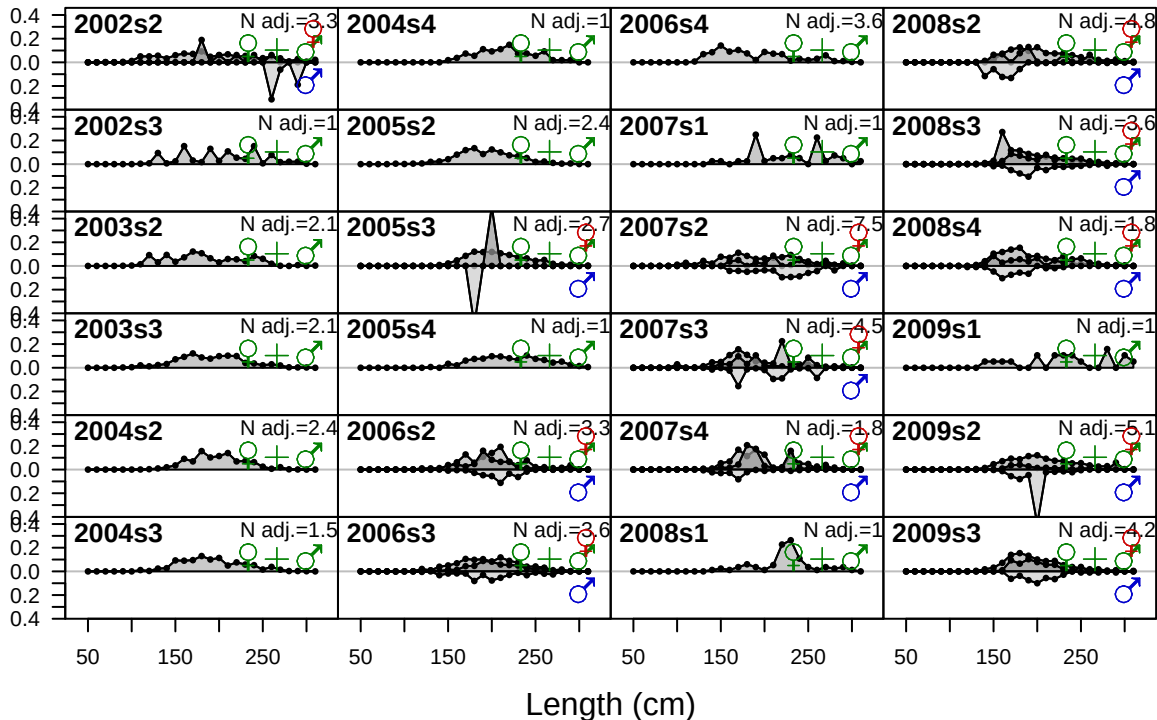
Length (cm)



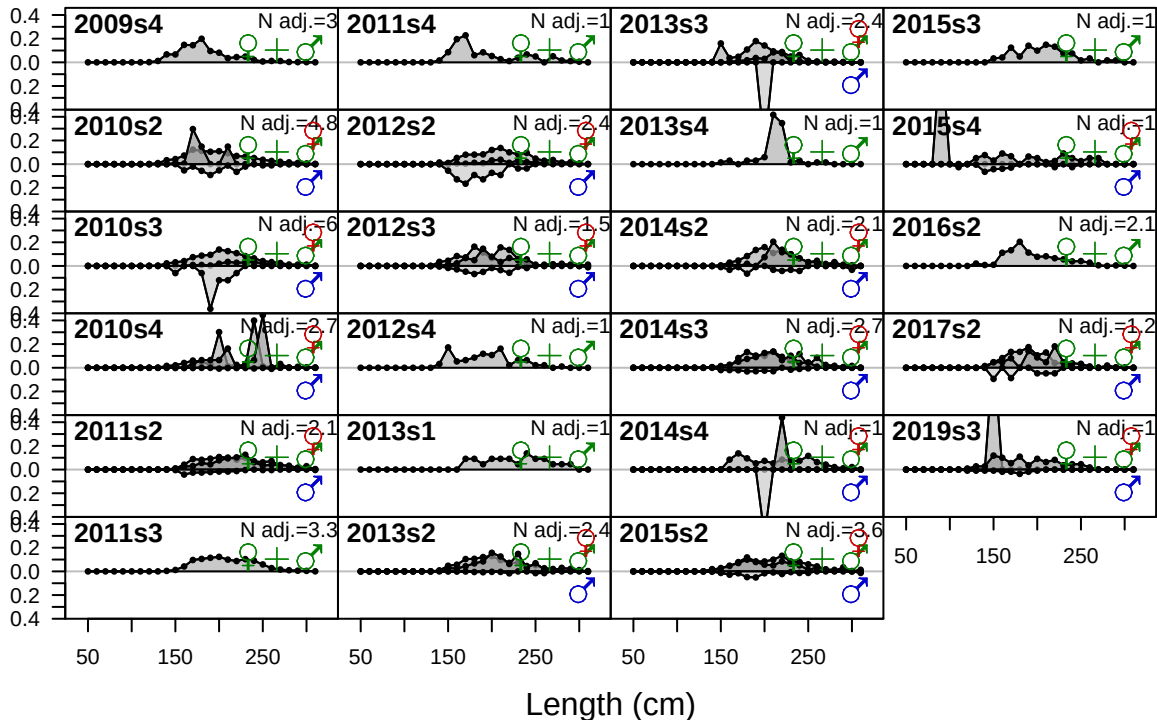
F2_GN_A4 (whole catch)

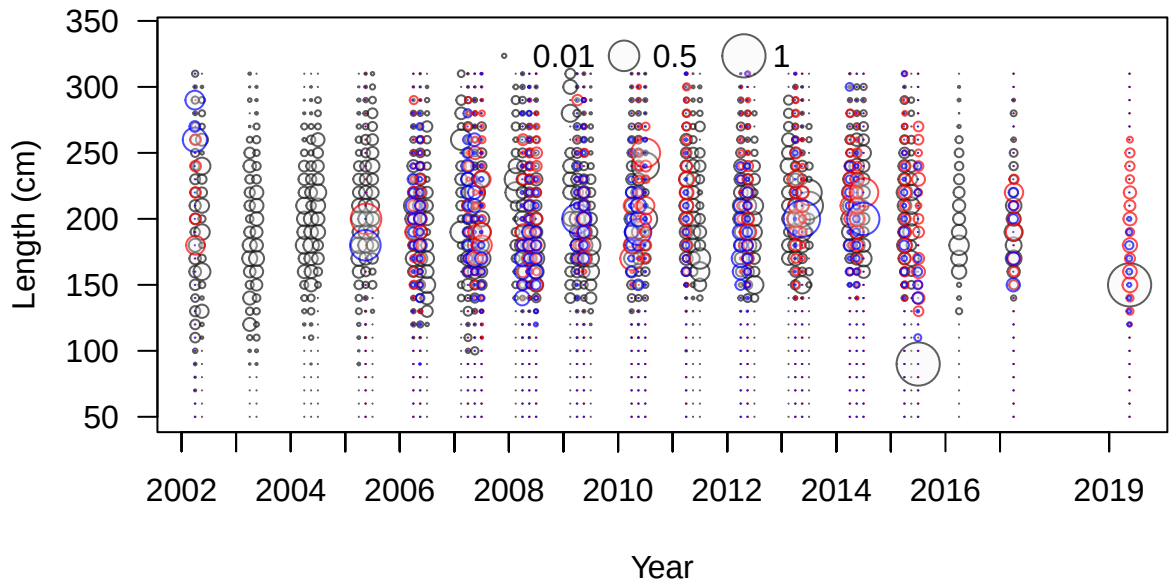


Proportion

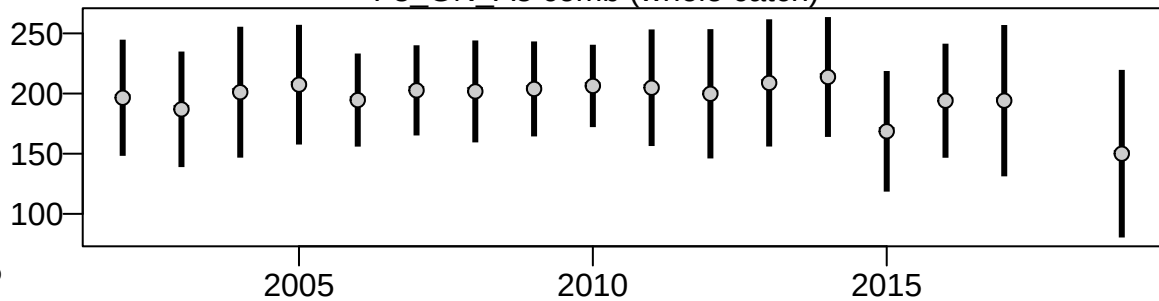


Proportion

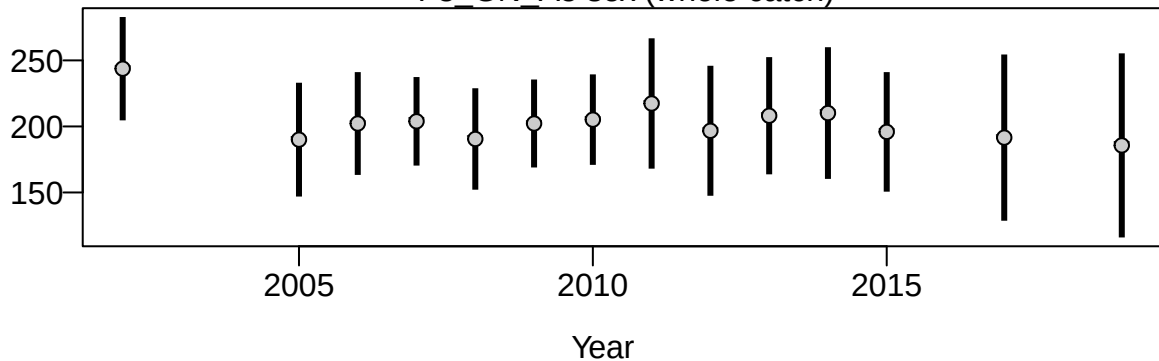




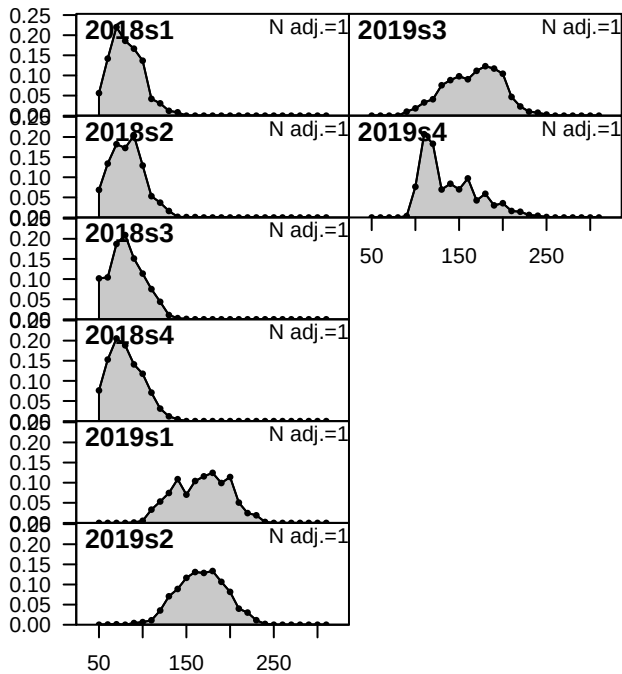
F3_GN_A5 comb (whole catch)



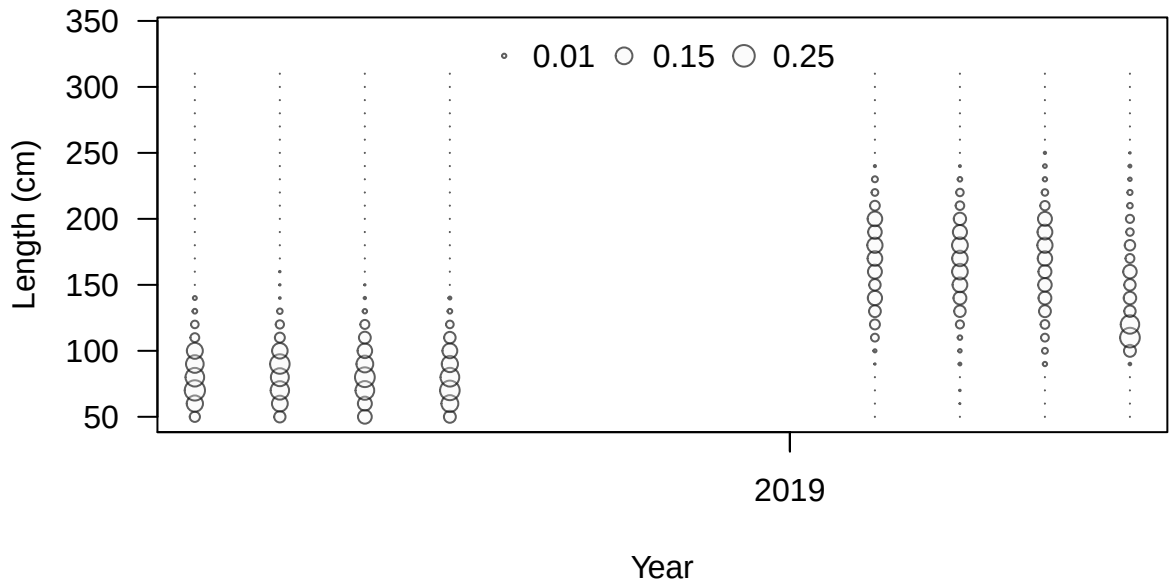
F3_GN_A5 sex (whole catch)



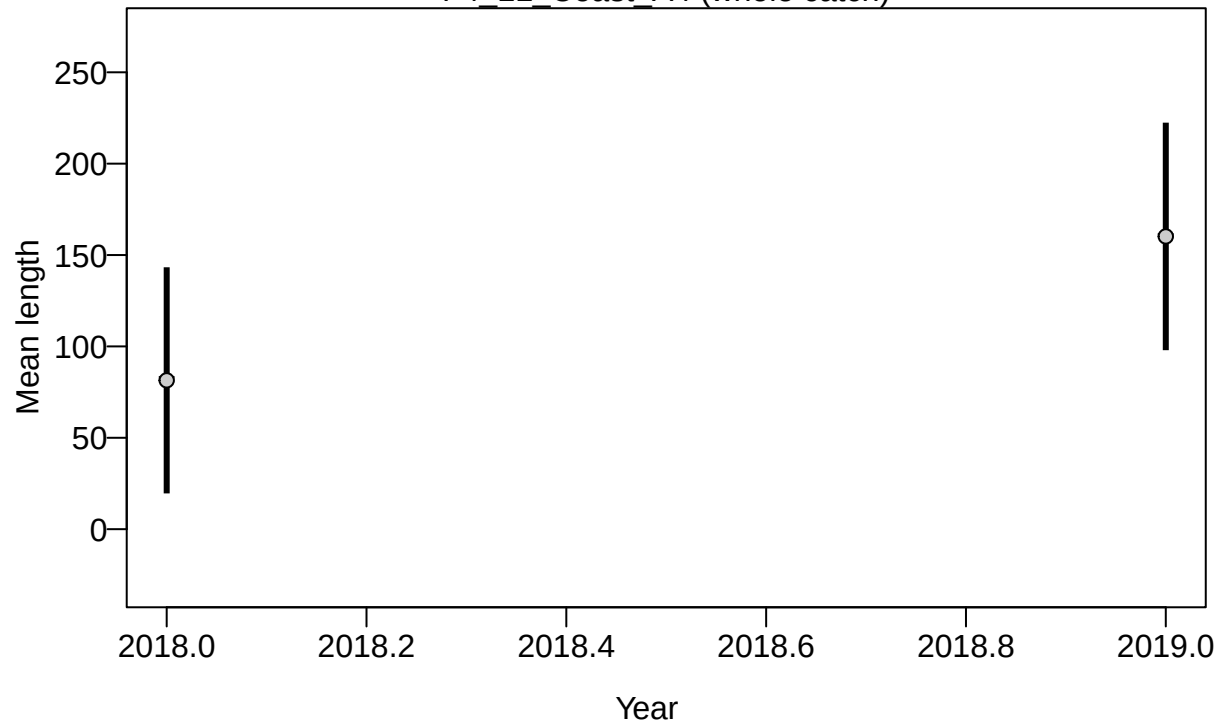
Proportion



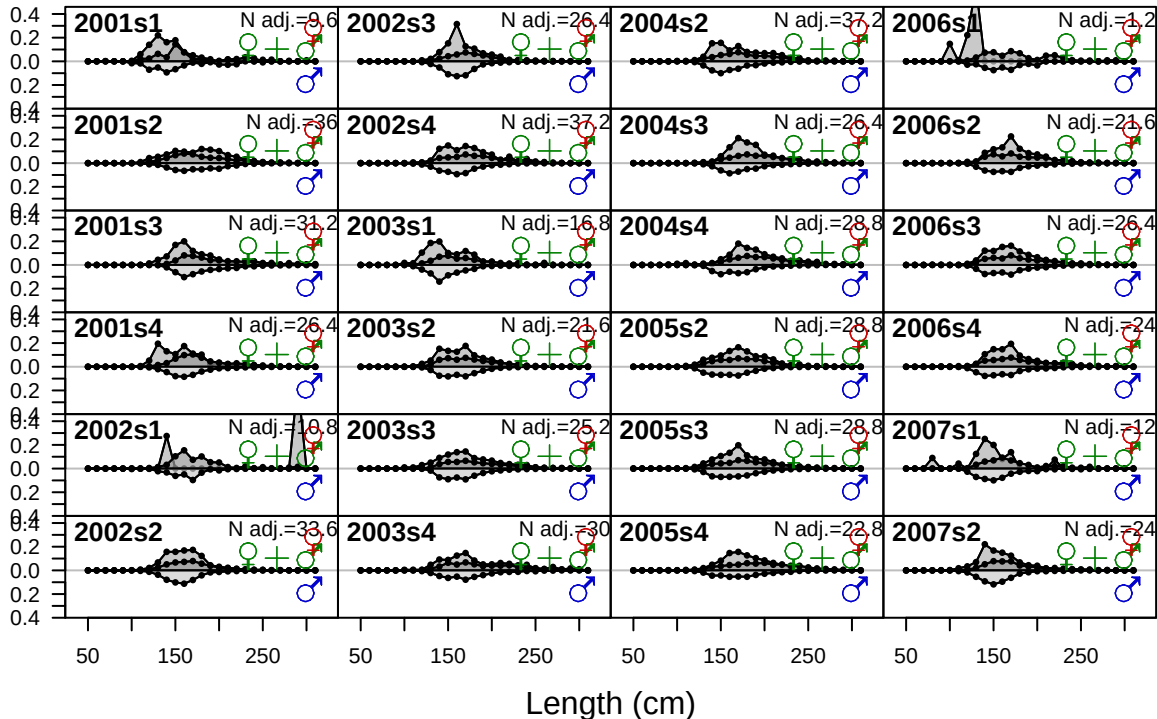
Length (cm)



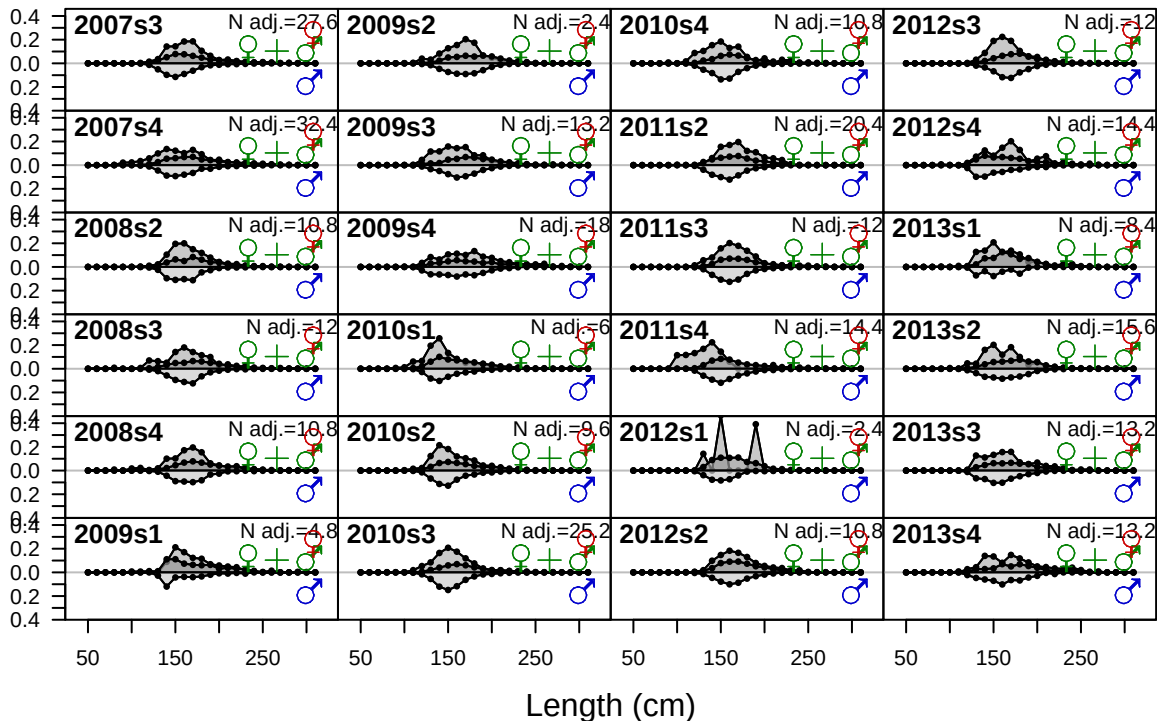
F4_LL_Coast_A4 (whole catch)



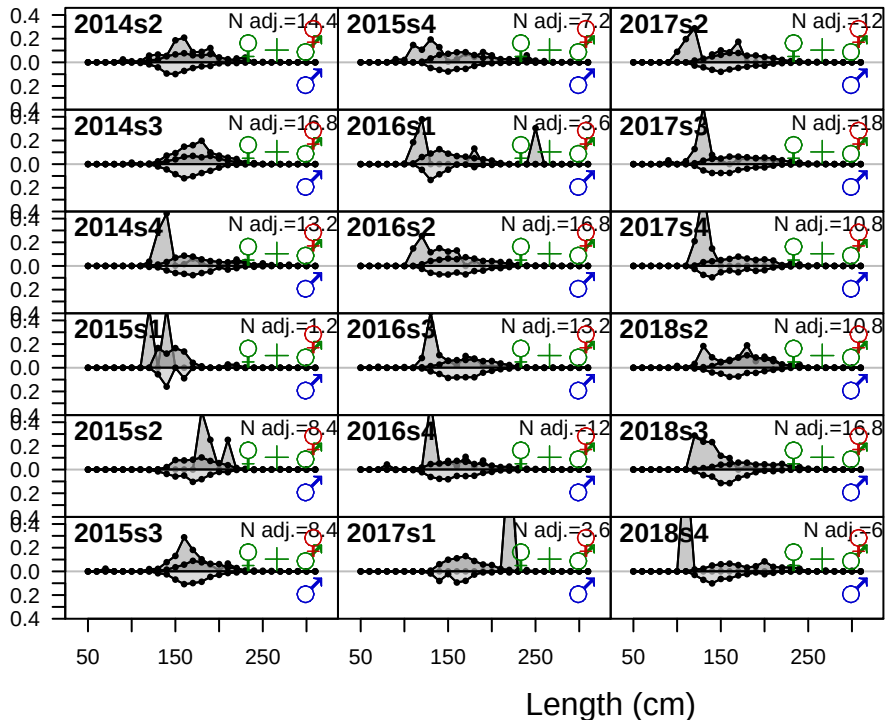
Proportion

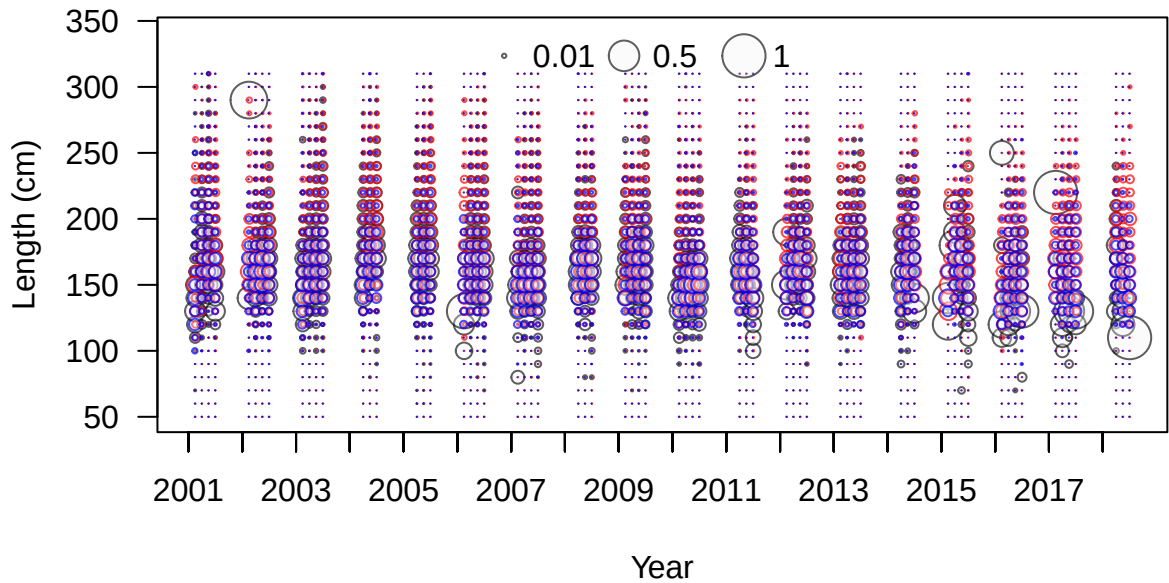


Proportion

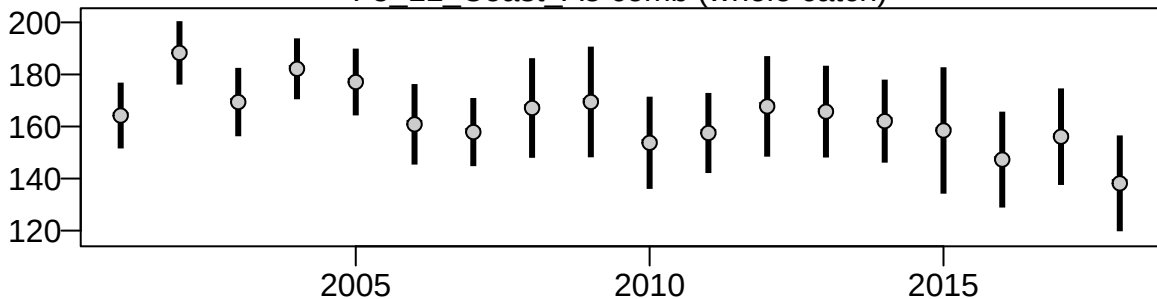


Proportion

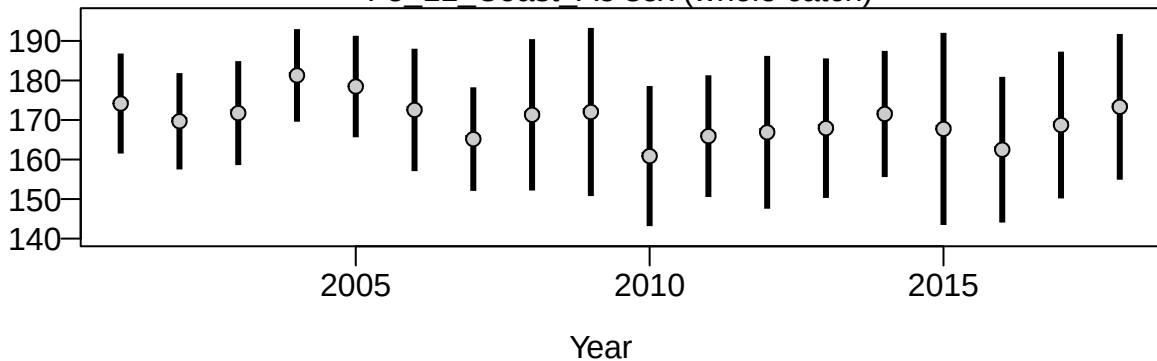




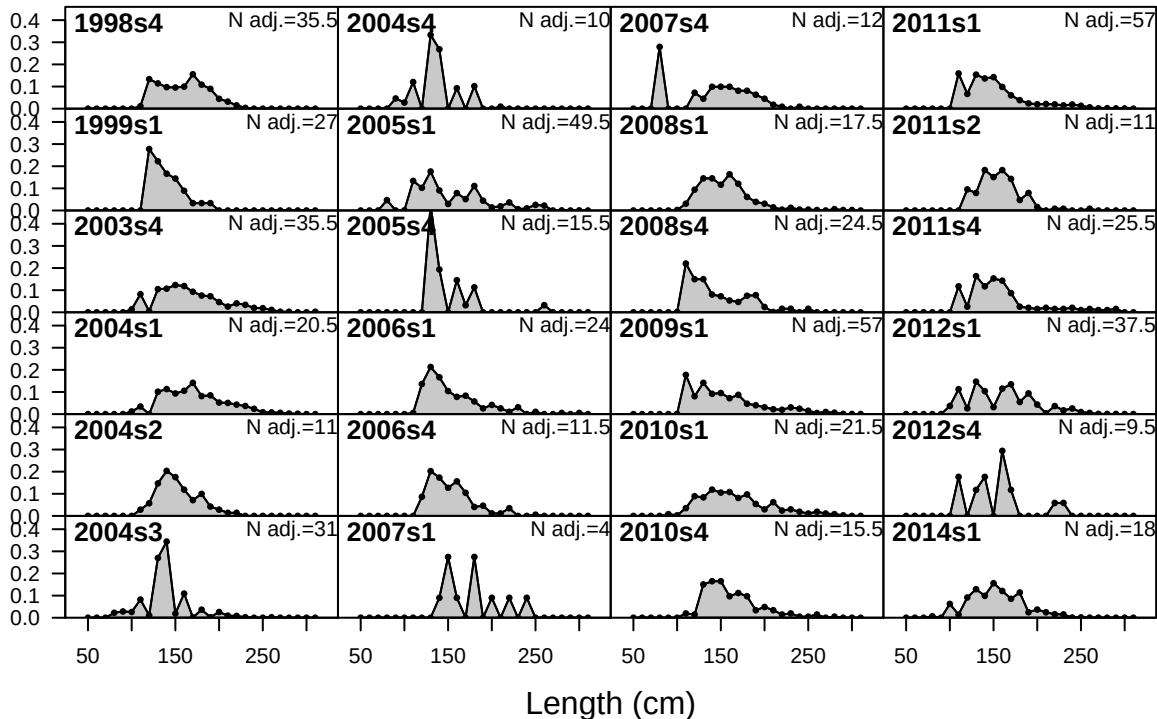
F5_LL_Coast_A5 comb (whole catch)



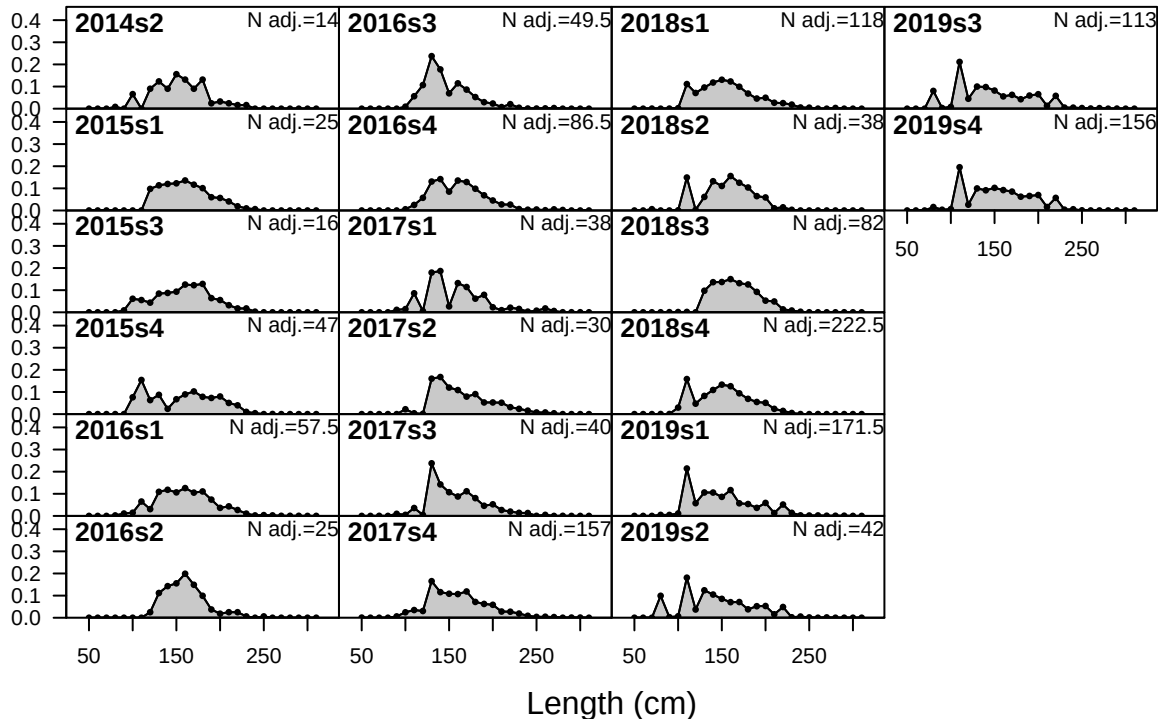
F5_LL_Coast_A5 sex (whole catch)

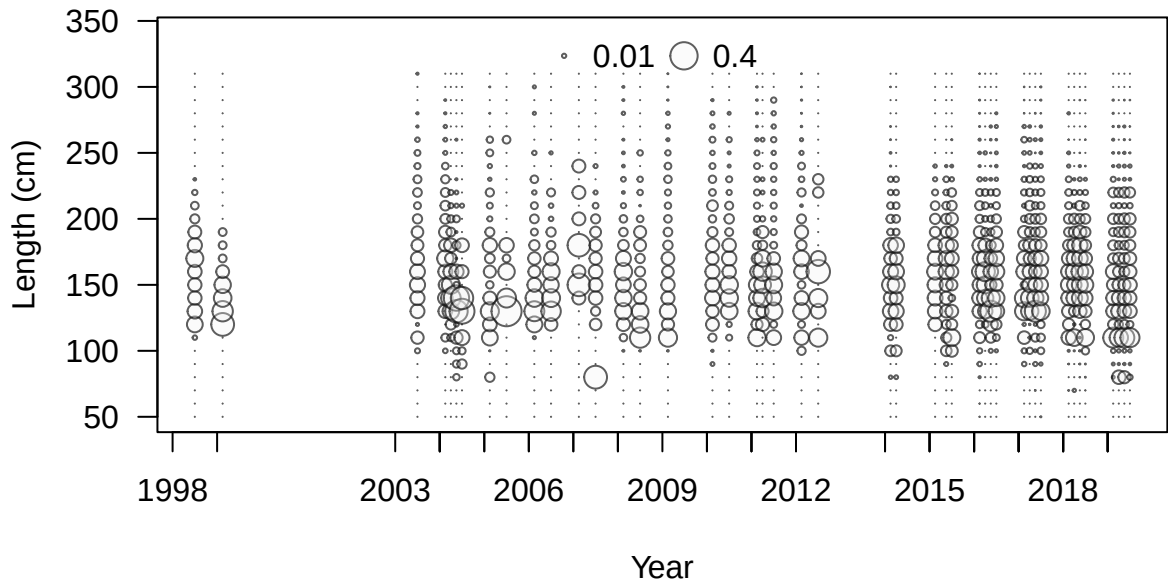


Proportion

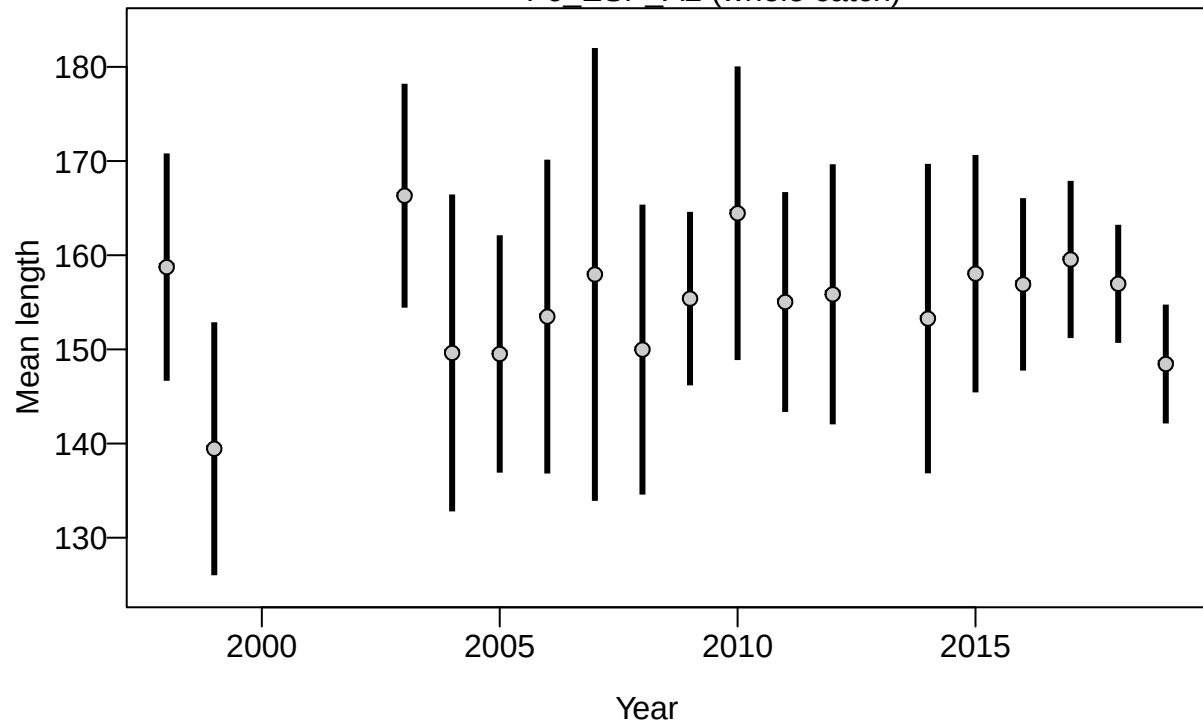


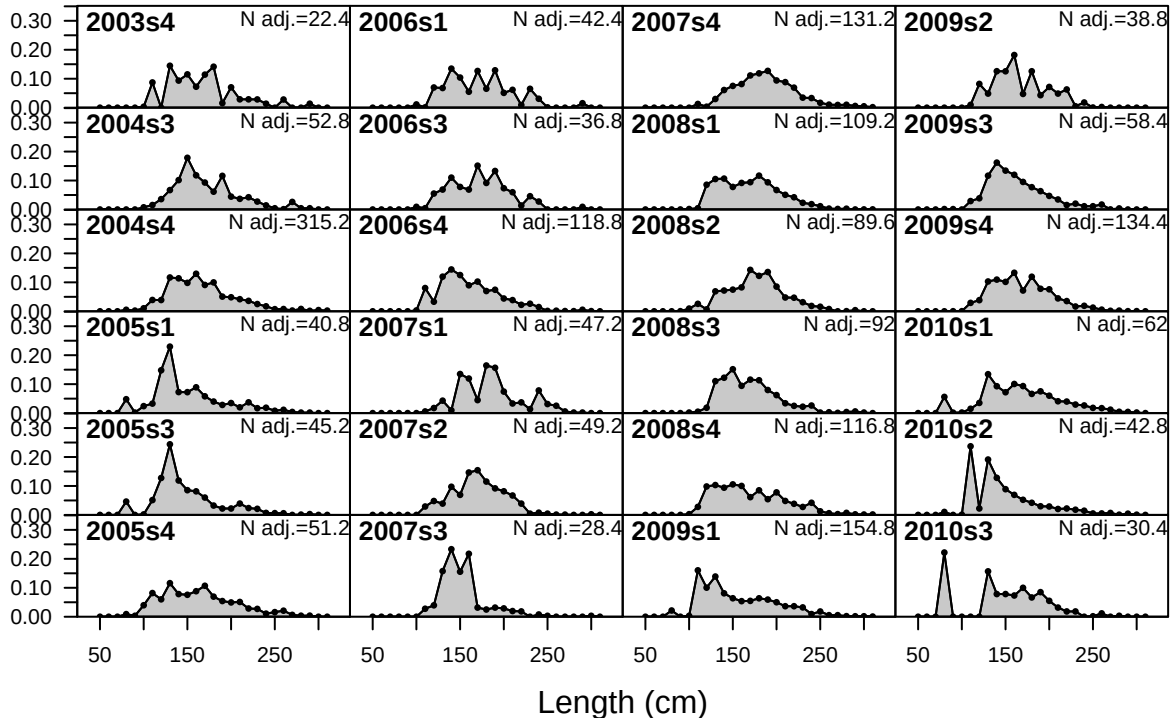
Proportion

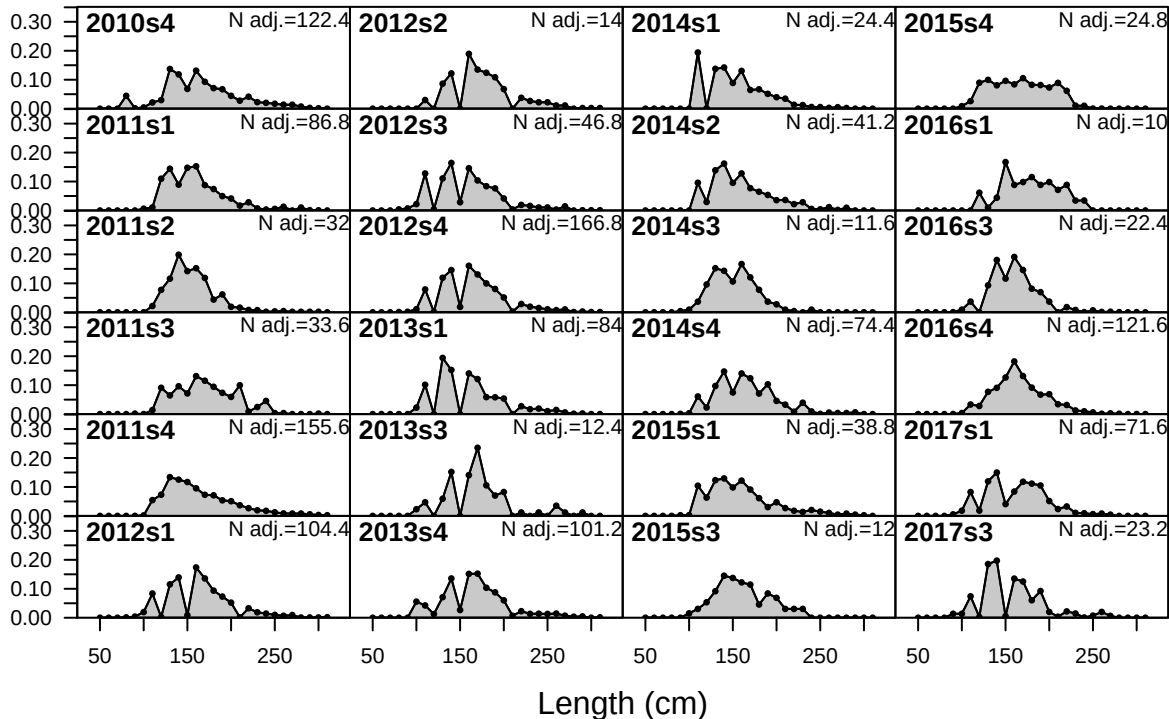




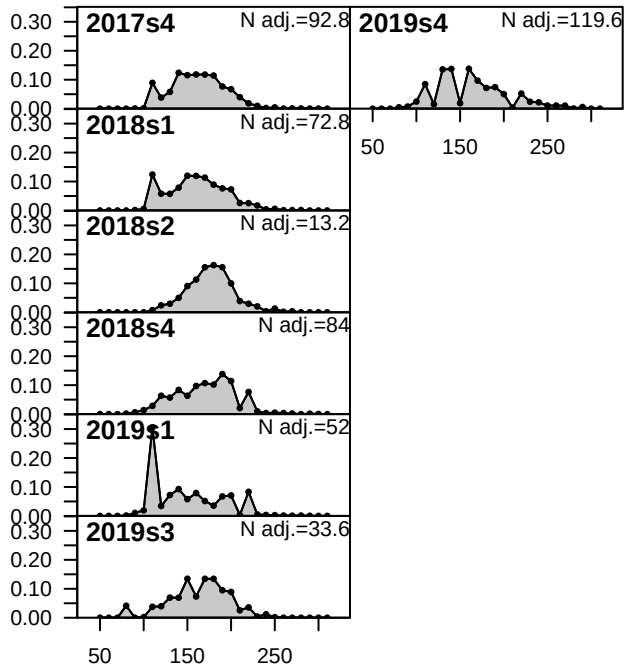
F6_ESP_A2 (whole catch)



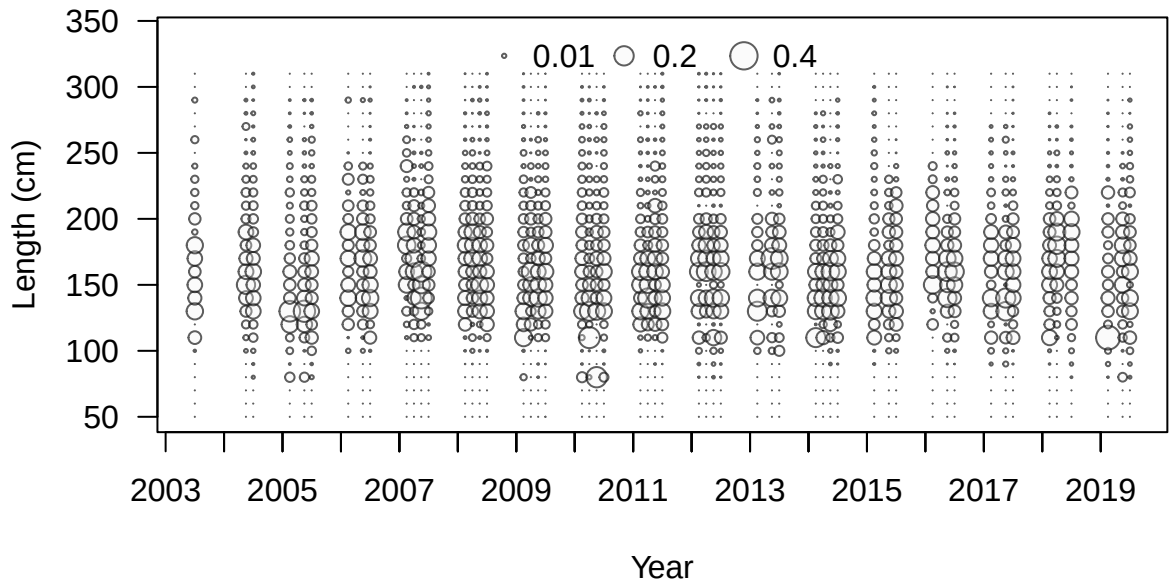




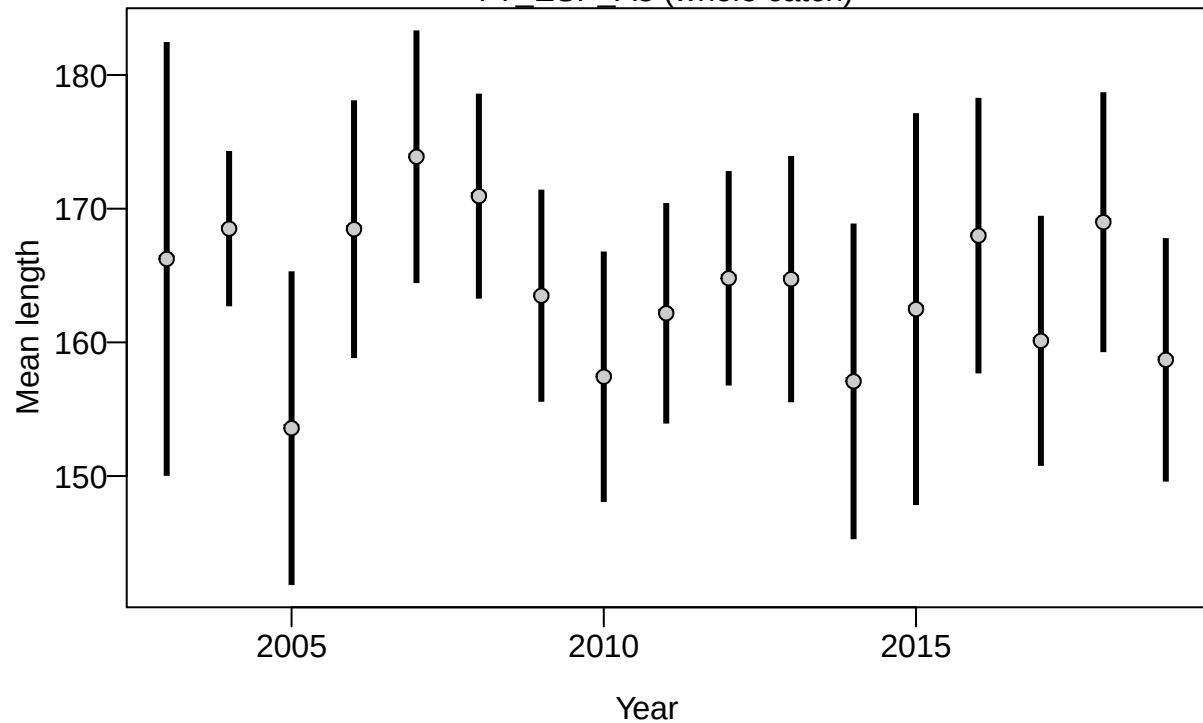
Proportion



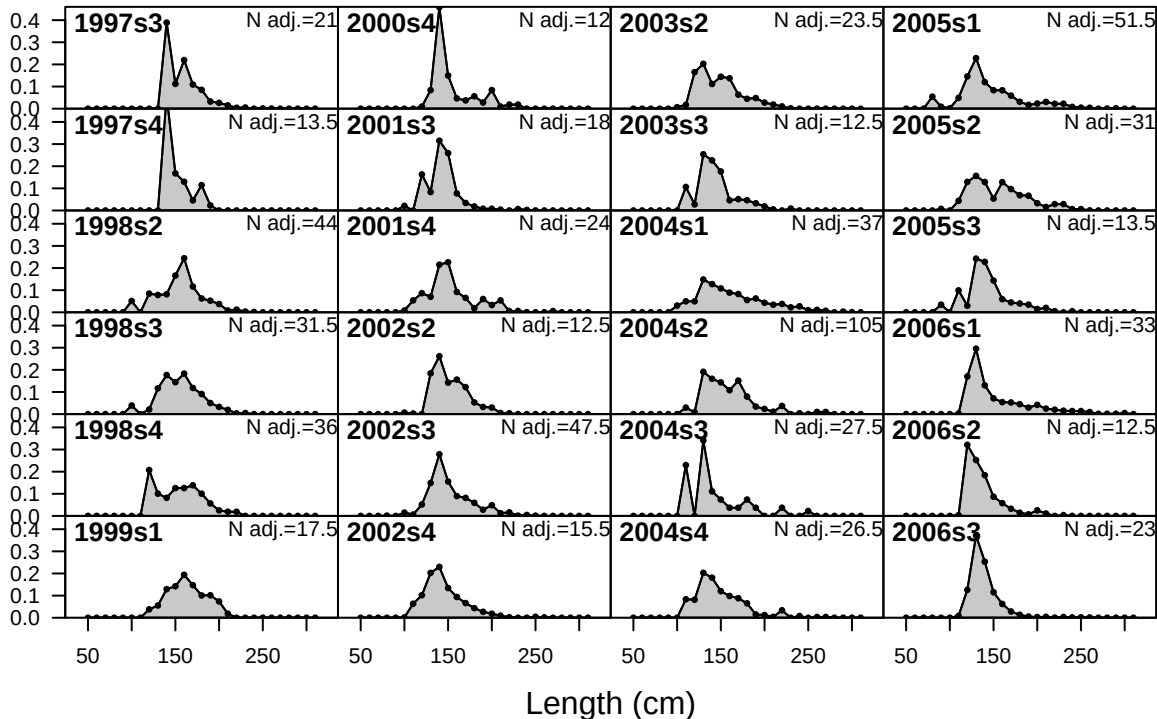
Length (cm)



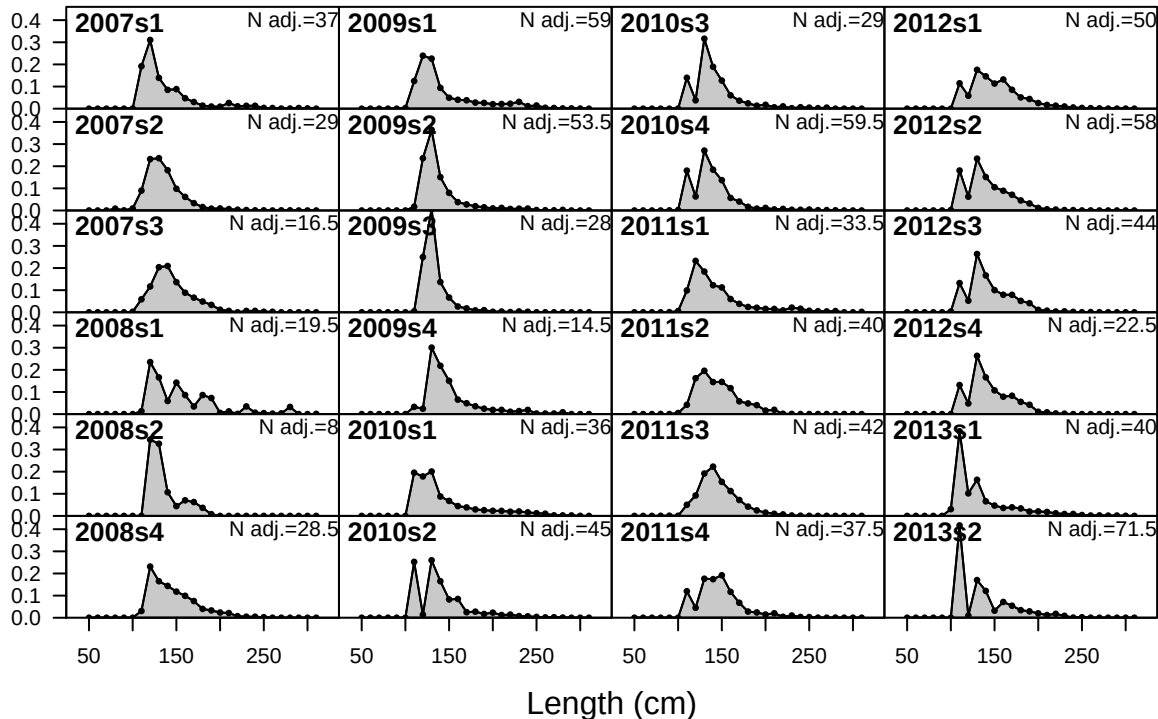
F7_ESP_A3 (whole catch)

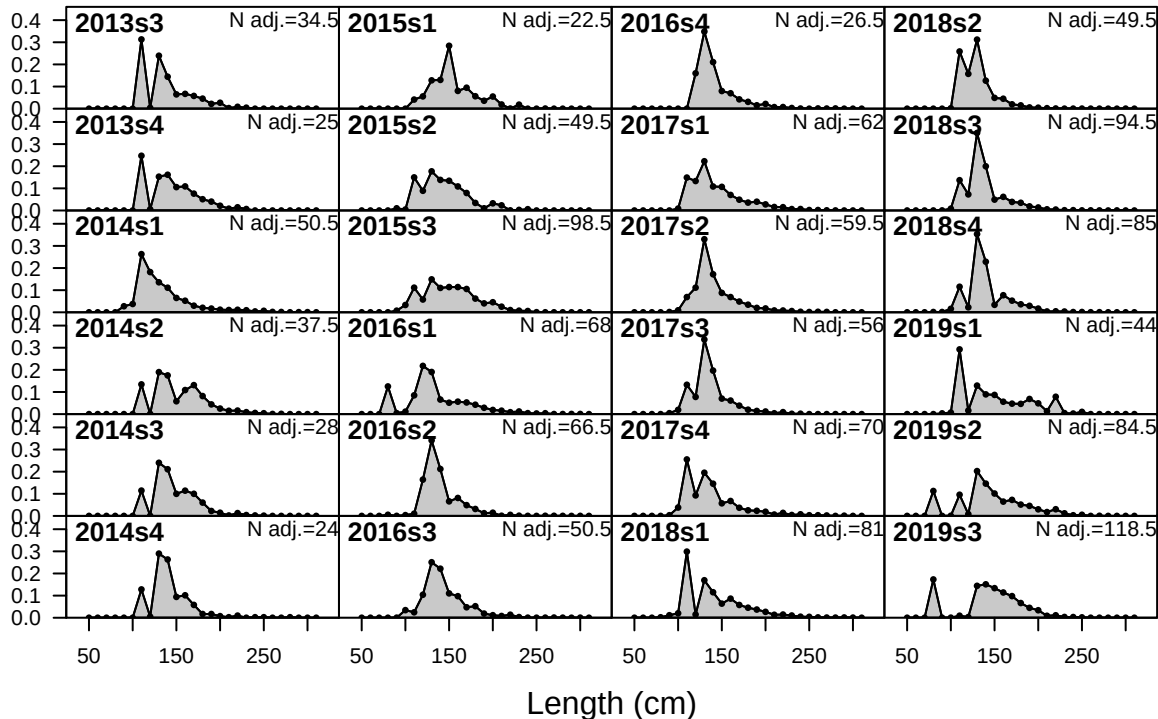


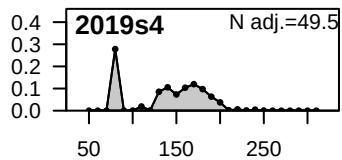
Proportion



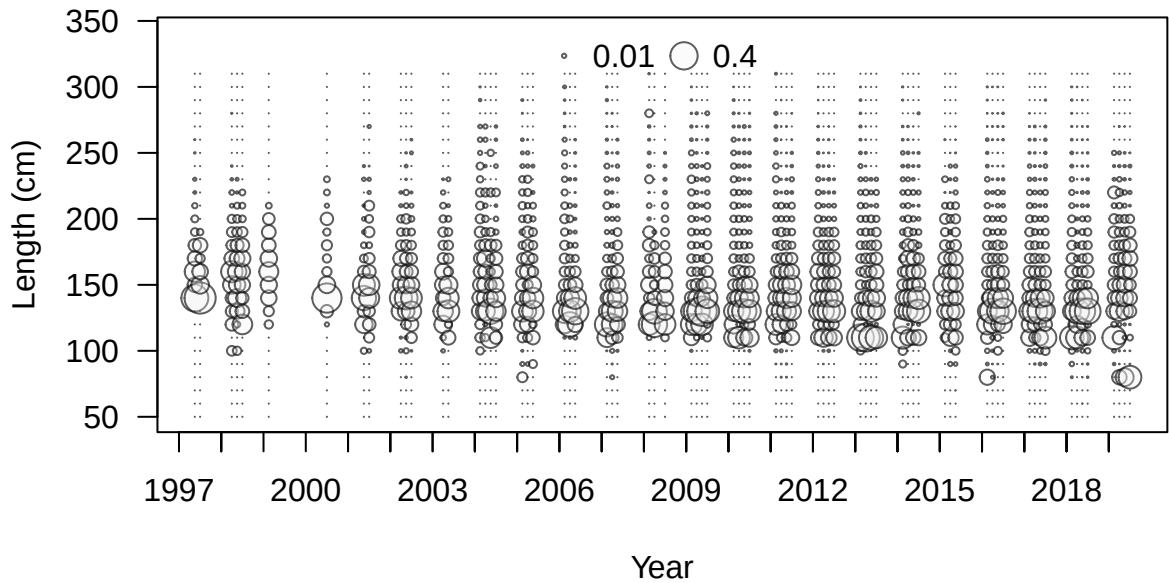
Proportion



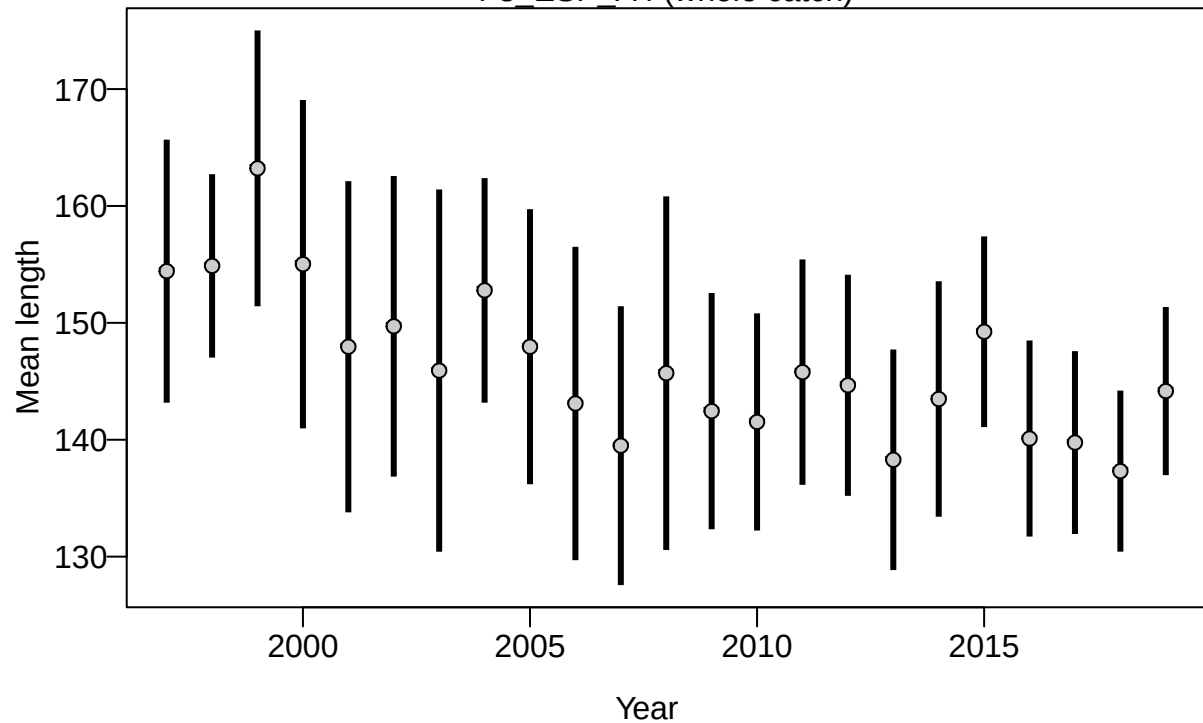




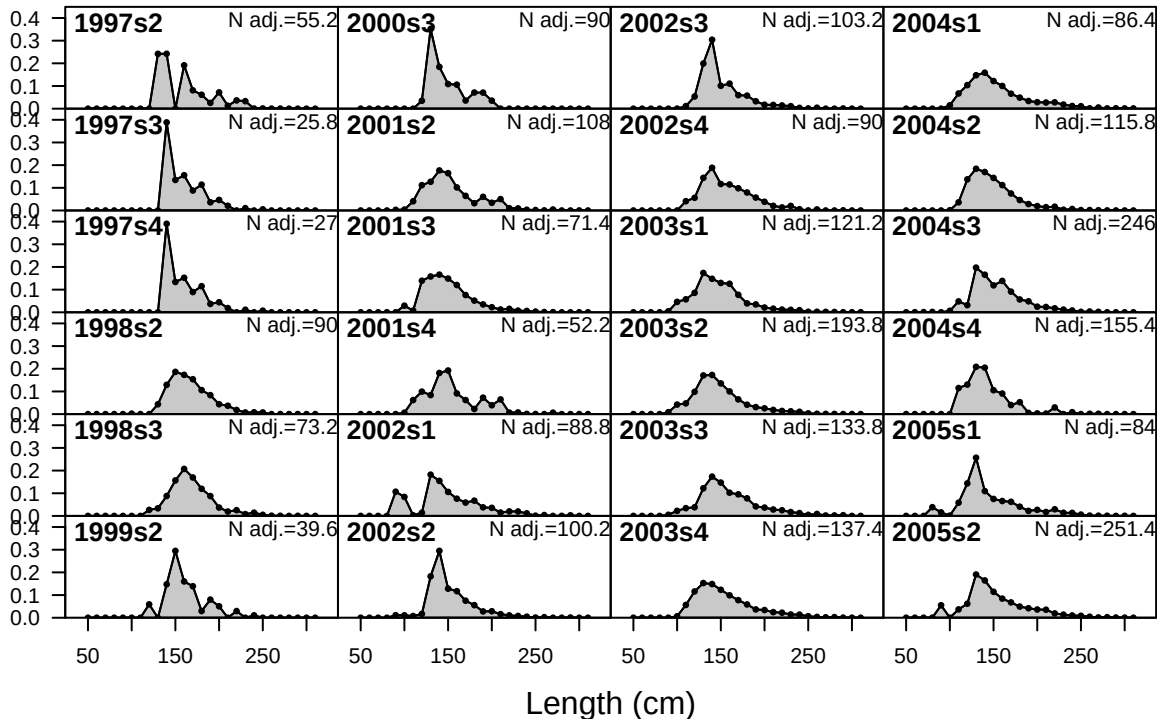
Length (cm)



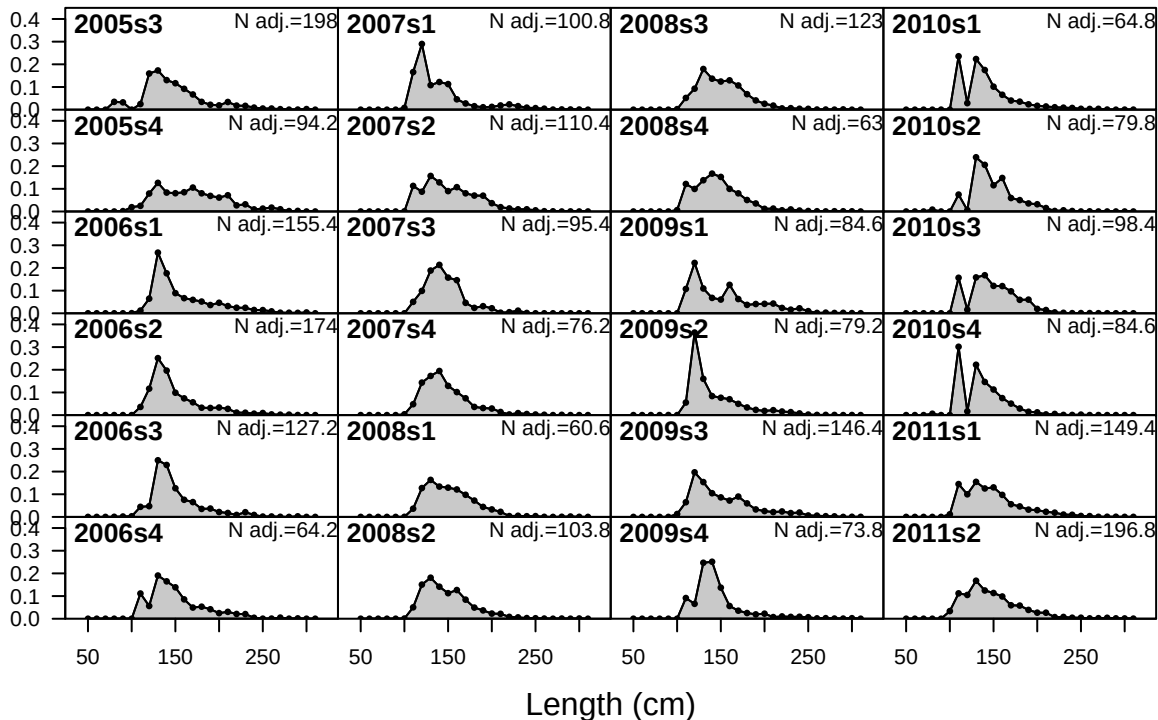
F8_ESP_A4 (whole catch)



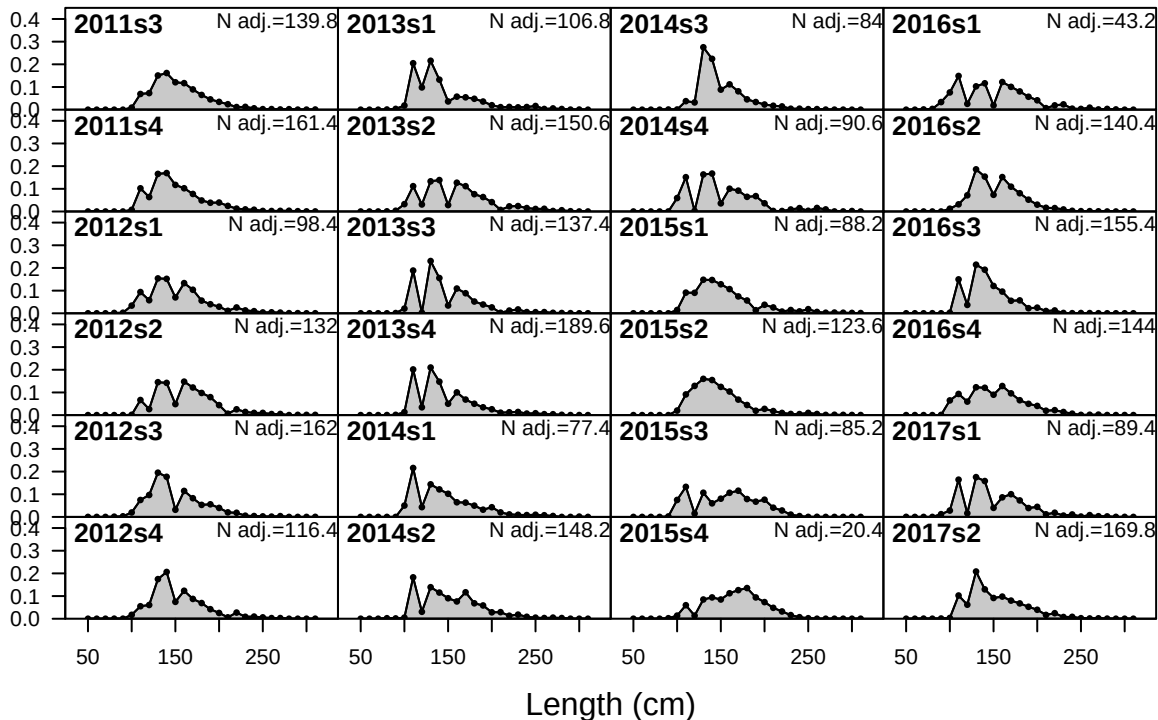
Proportion



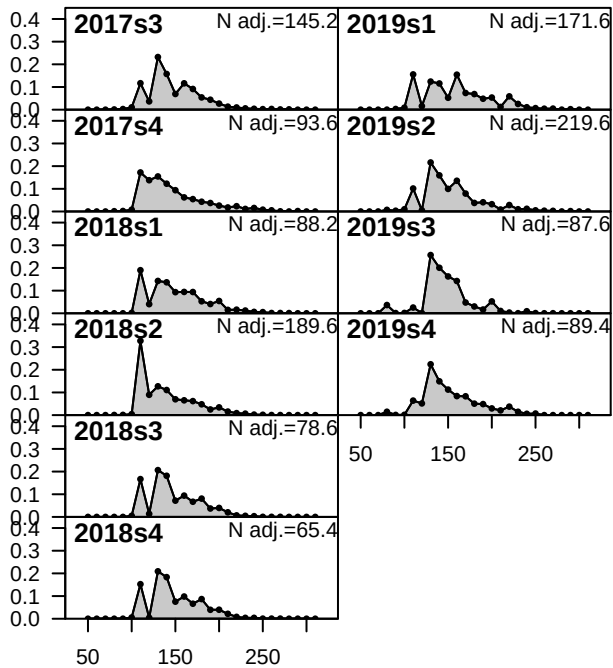
Proportion



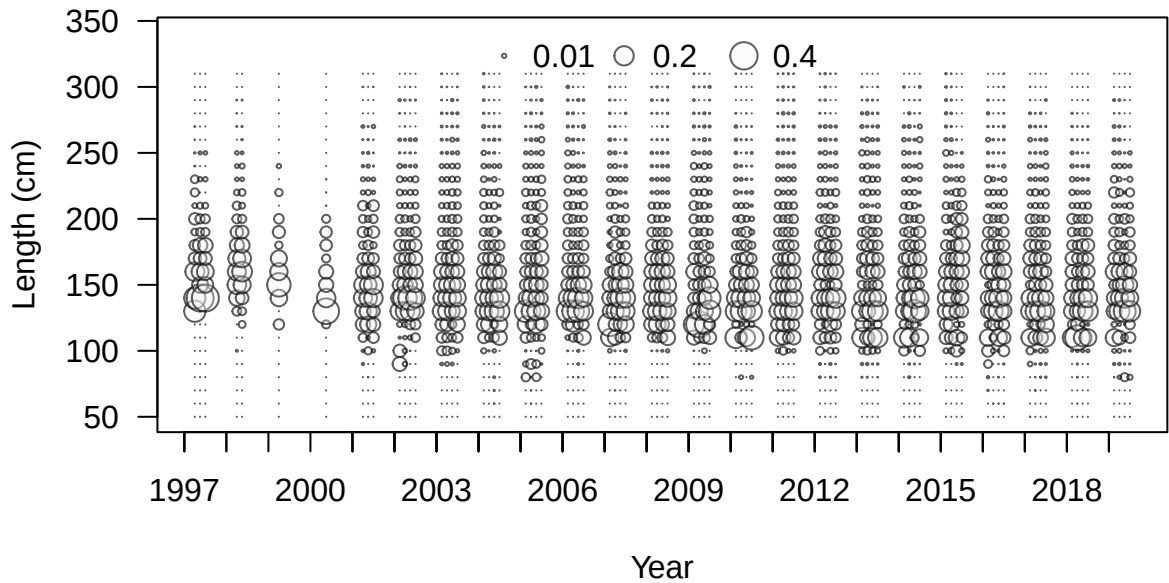
Proportion



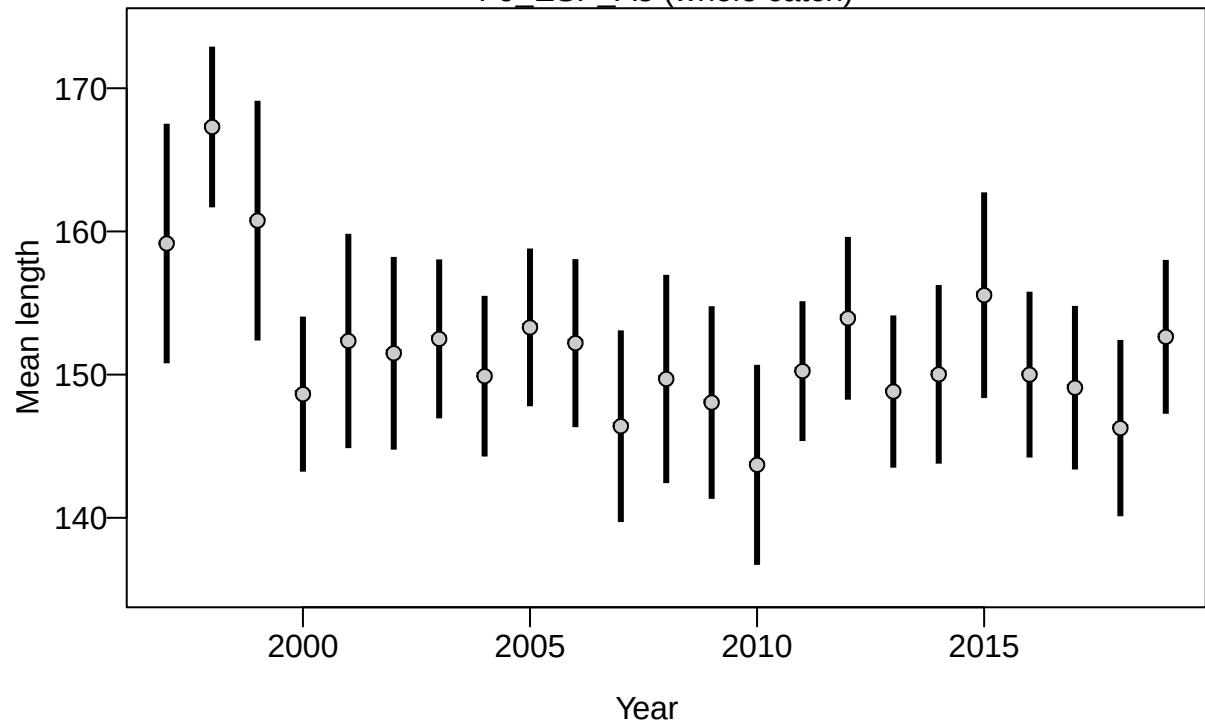
Proportion



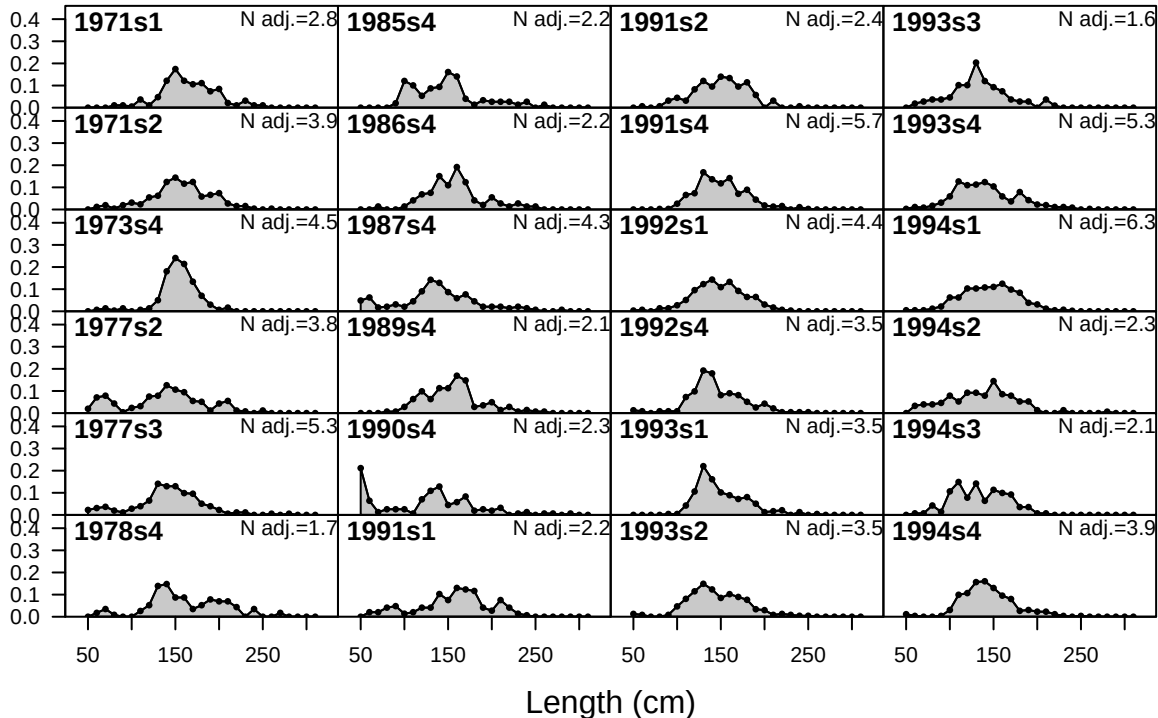
Length (cm)



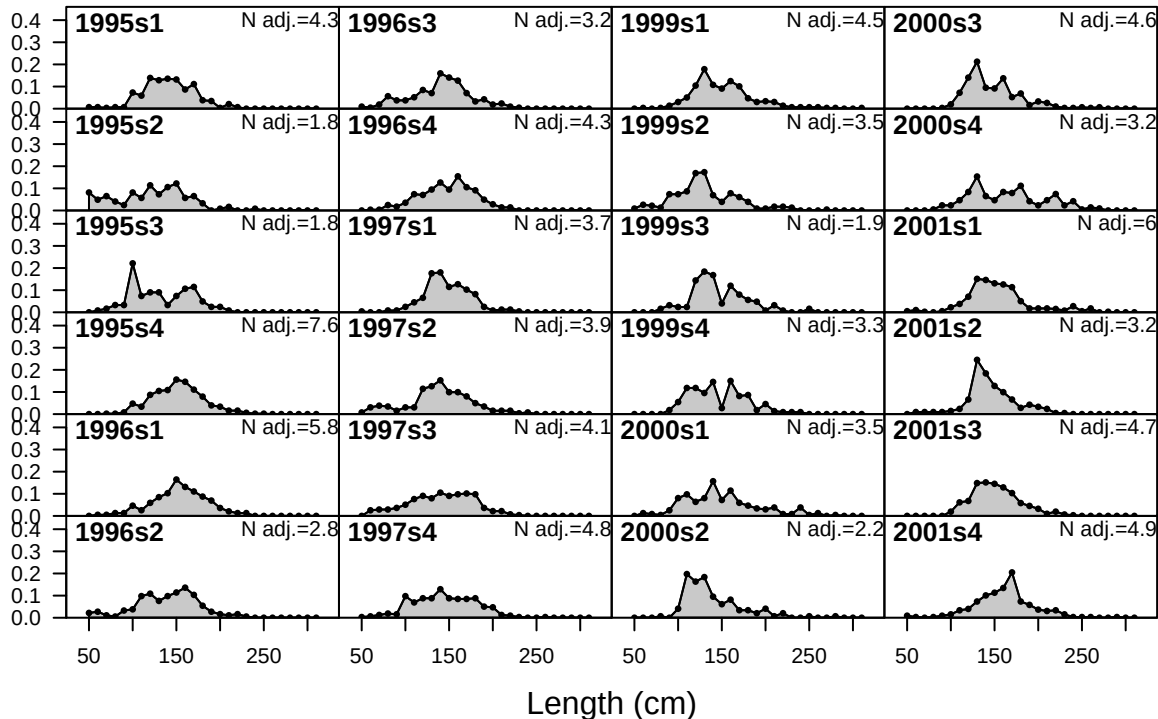
F9_ESP_A5 (whole catch)

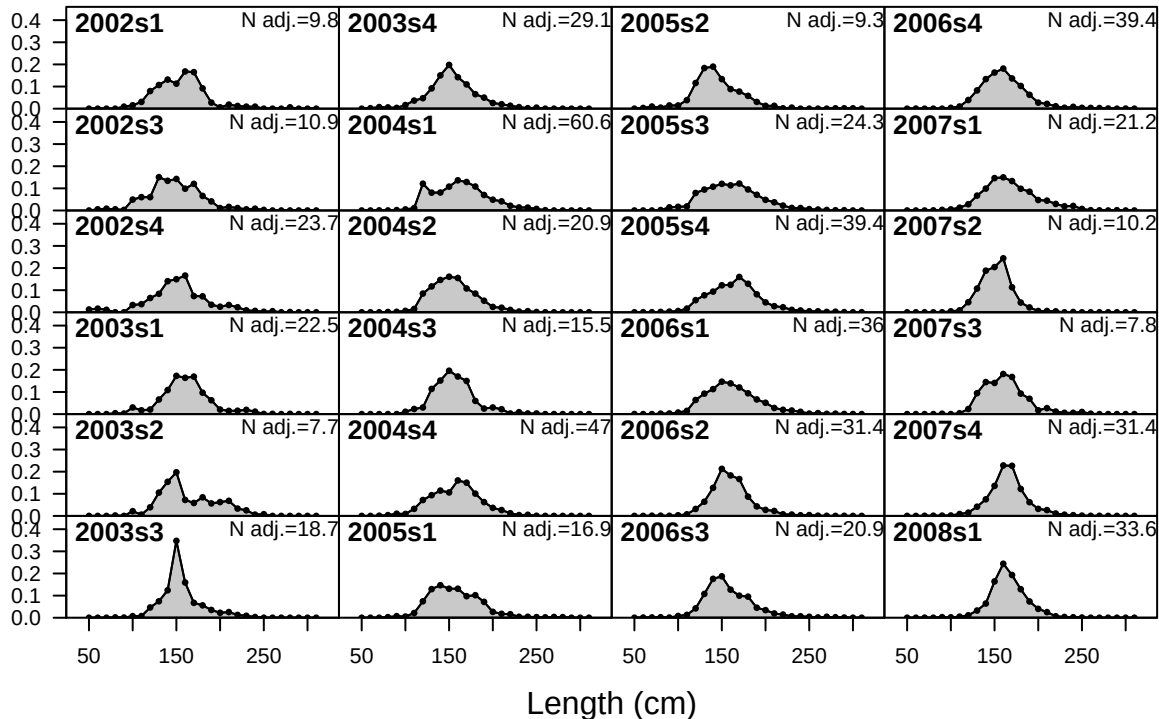


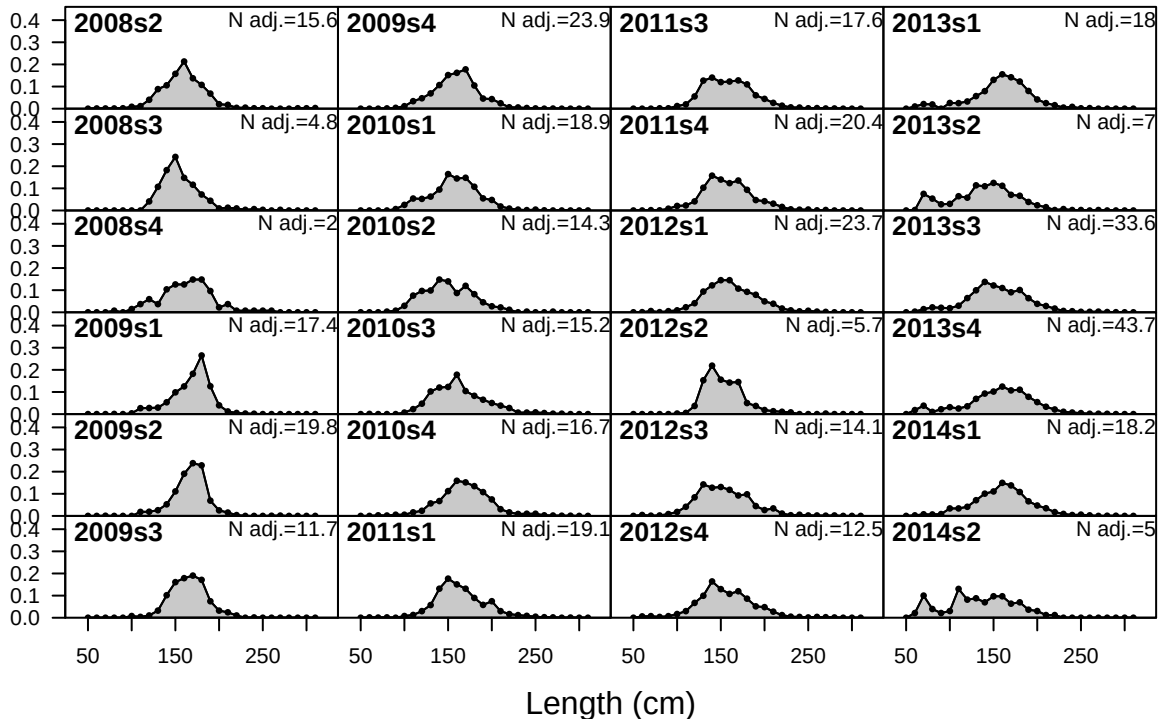
Proportion



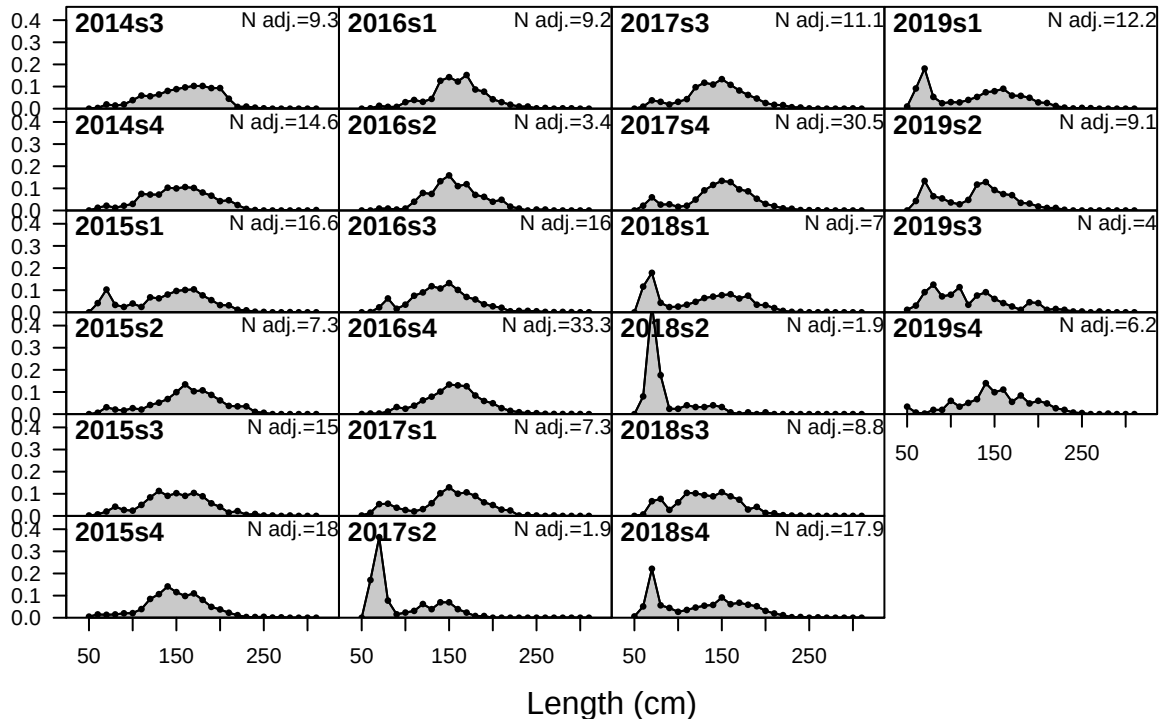
Proportion

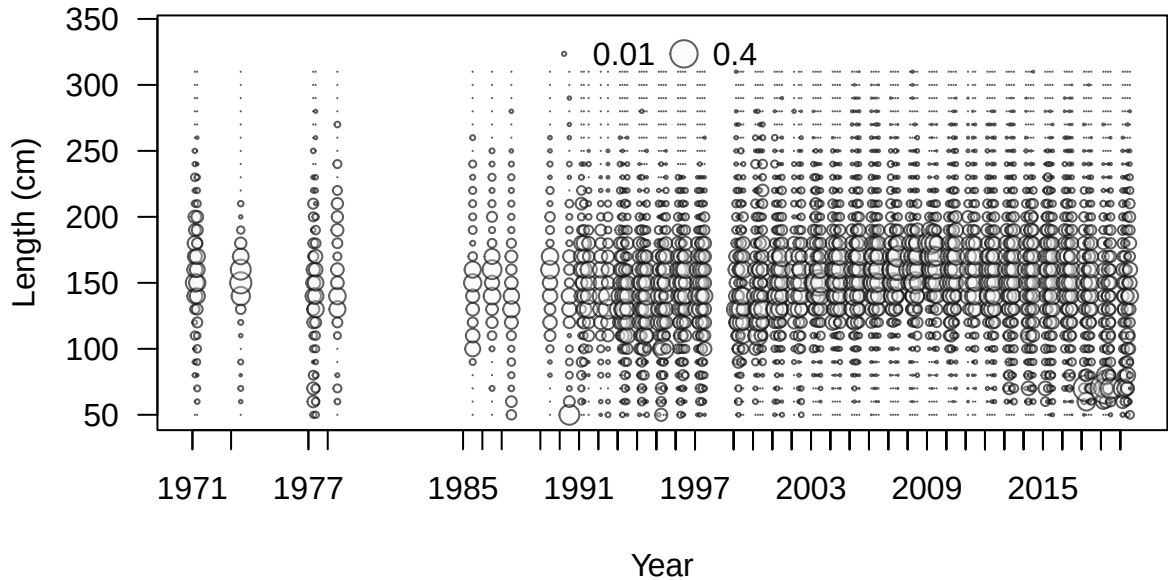




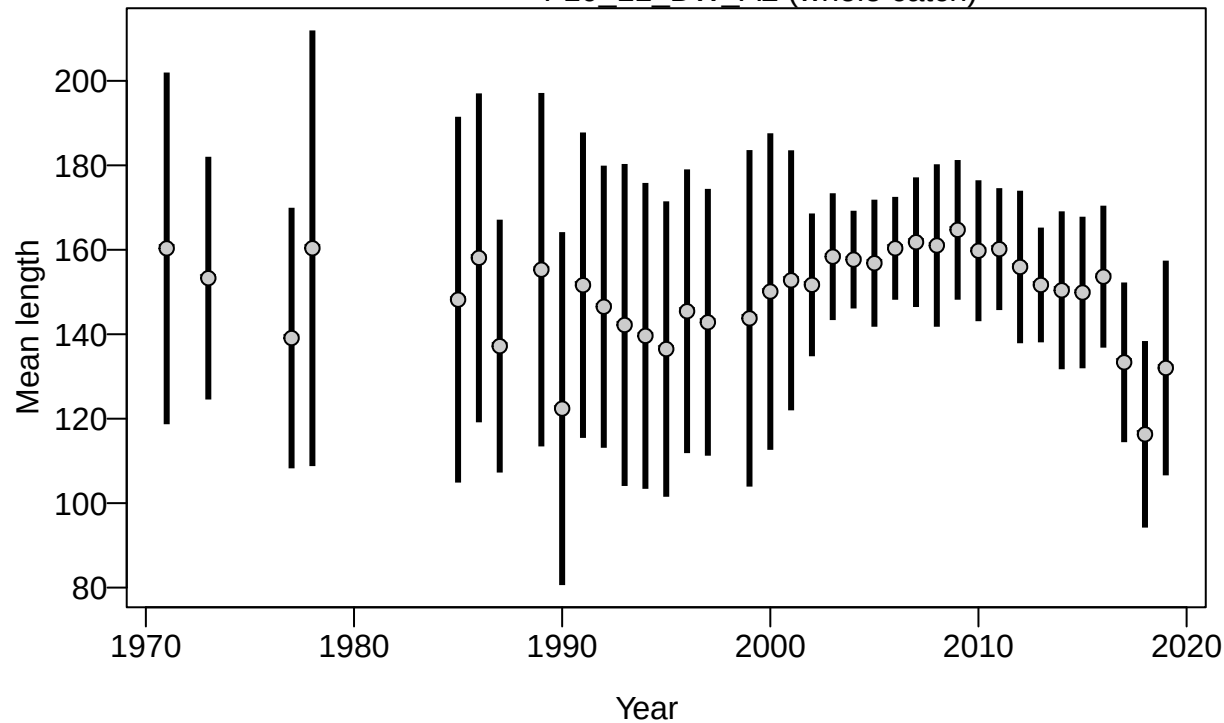


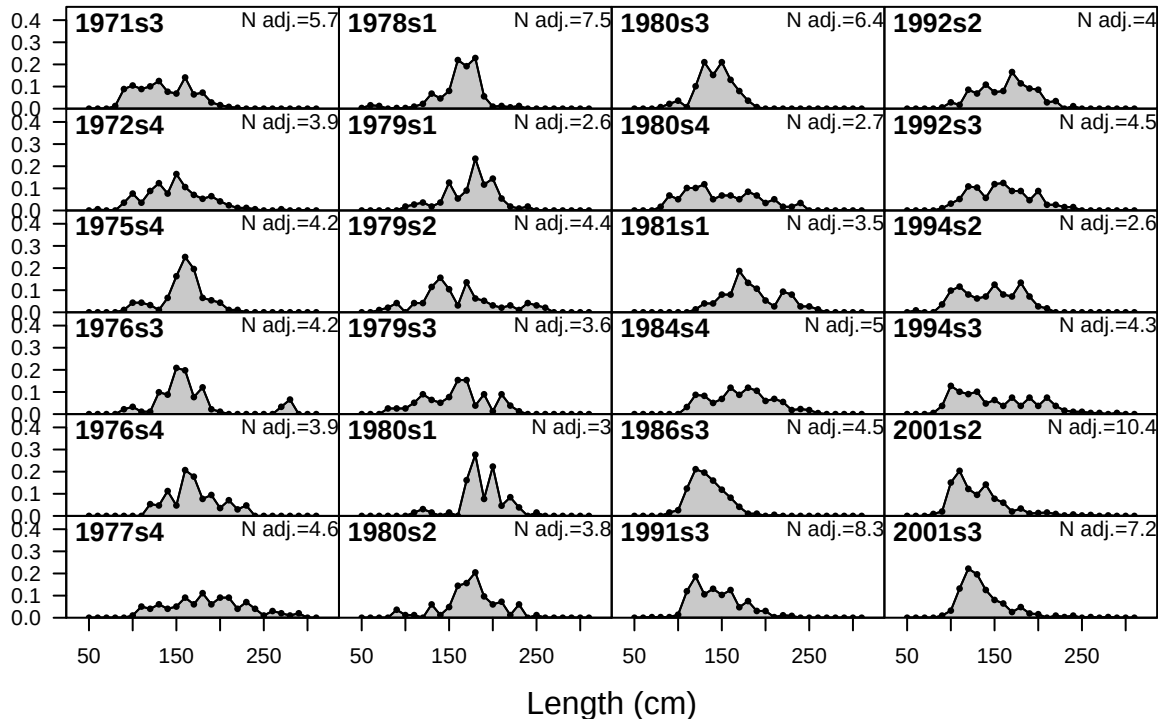
Proportion



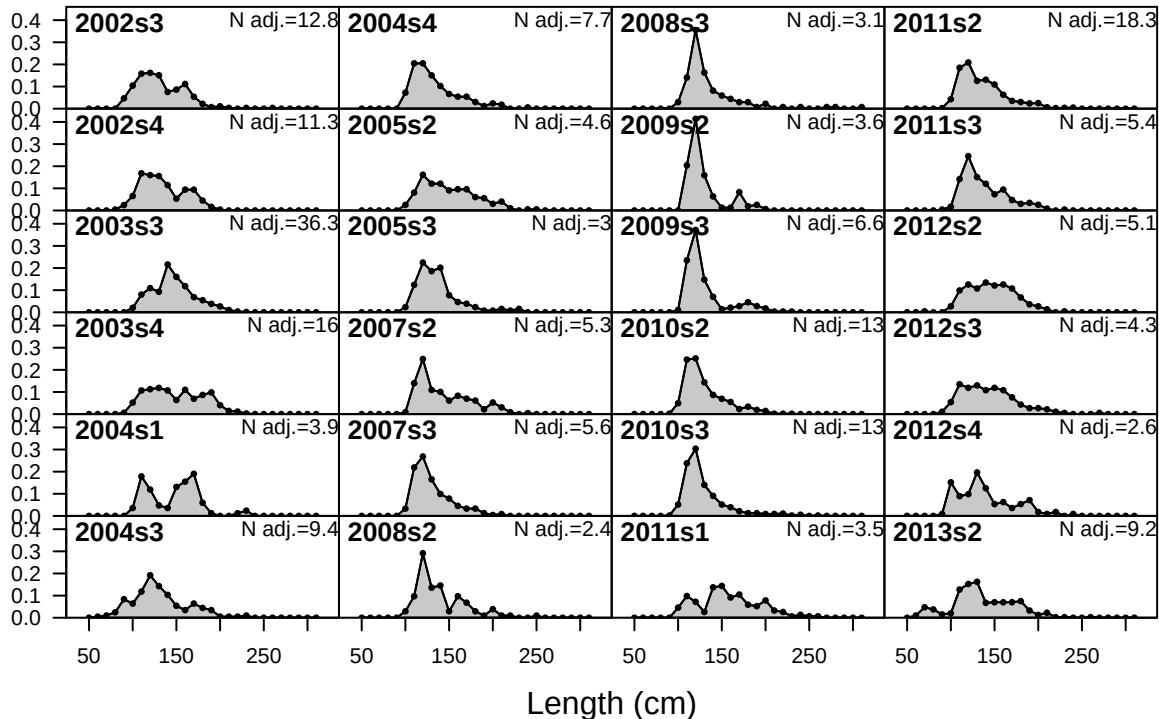


F10_LL_DW_A2 (whole catch)

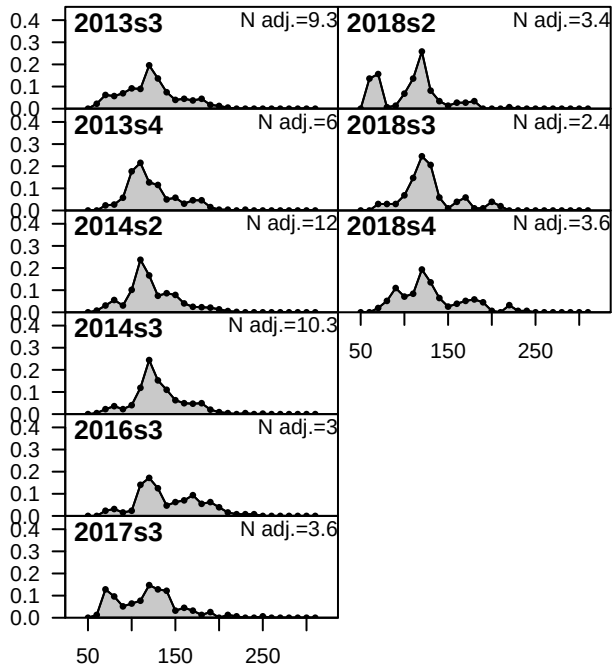




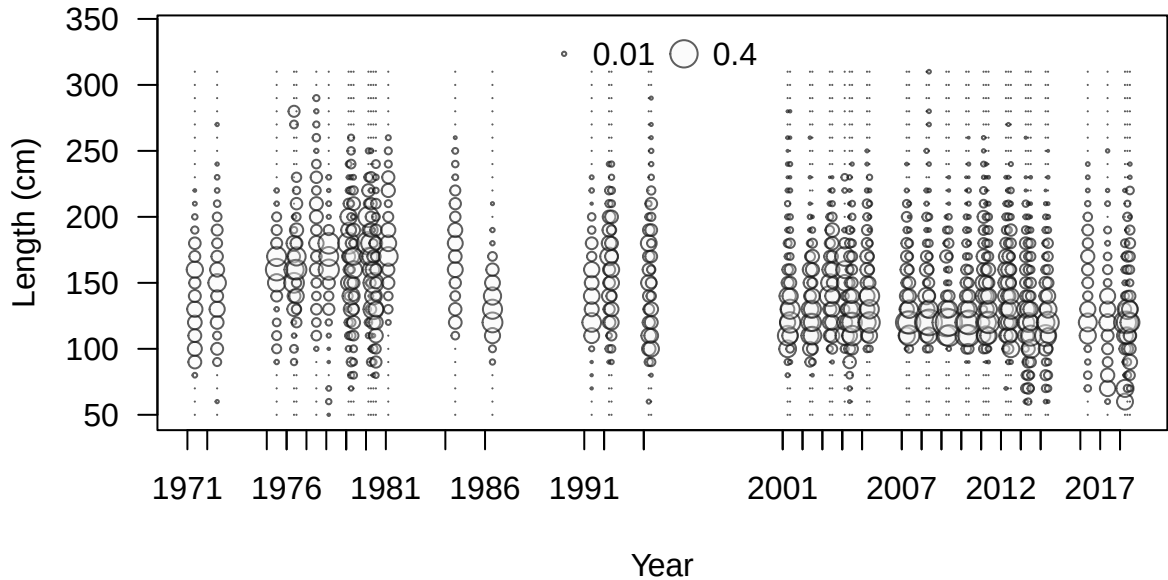
Proportion



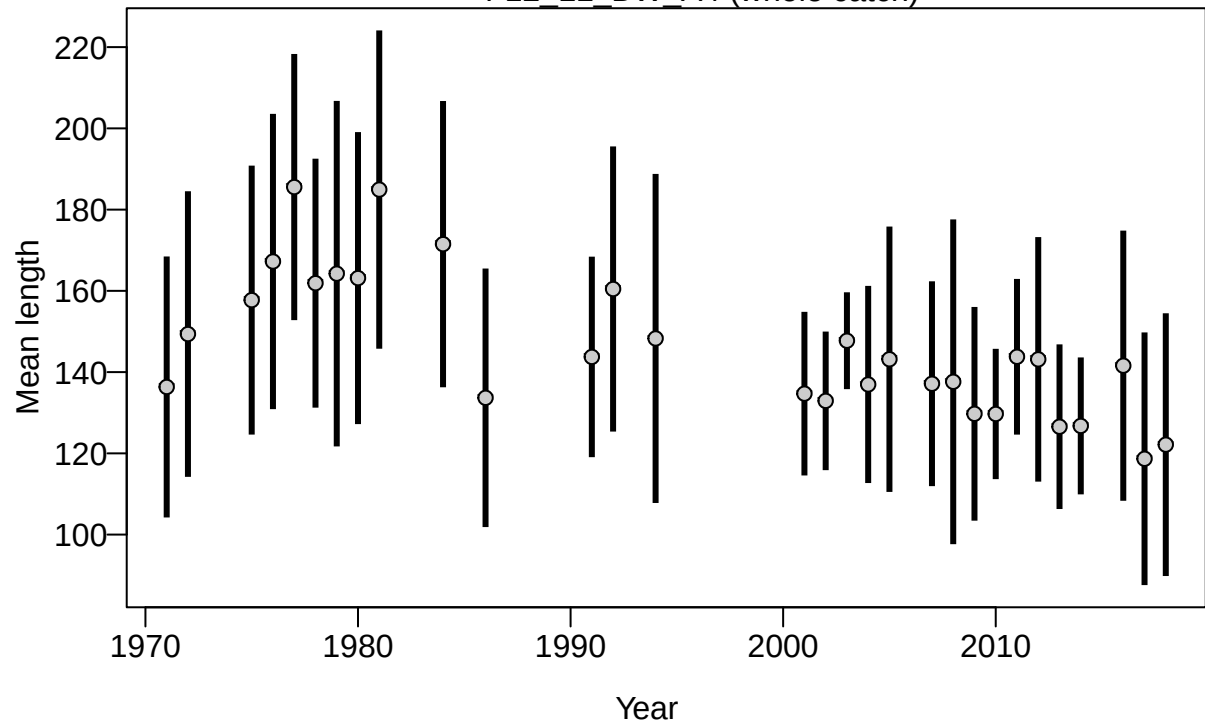
Proportion



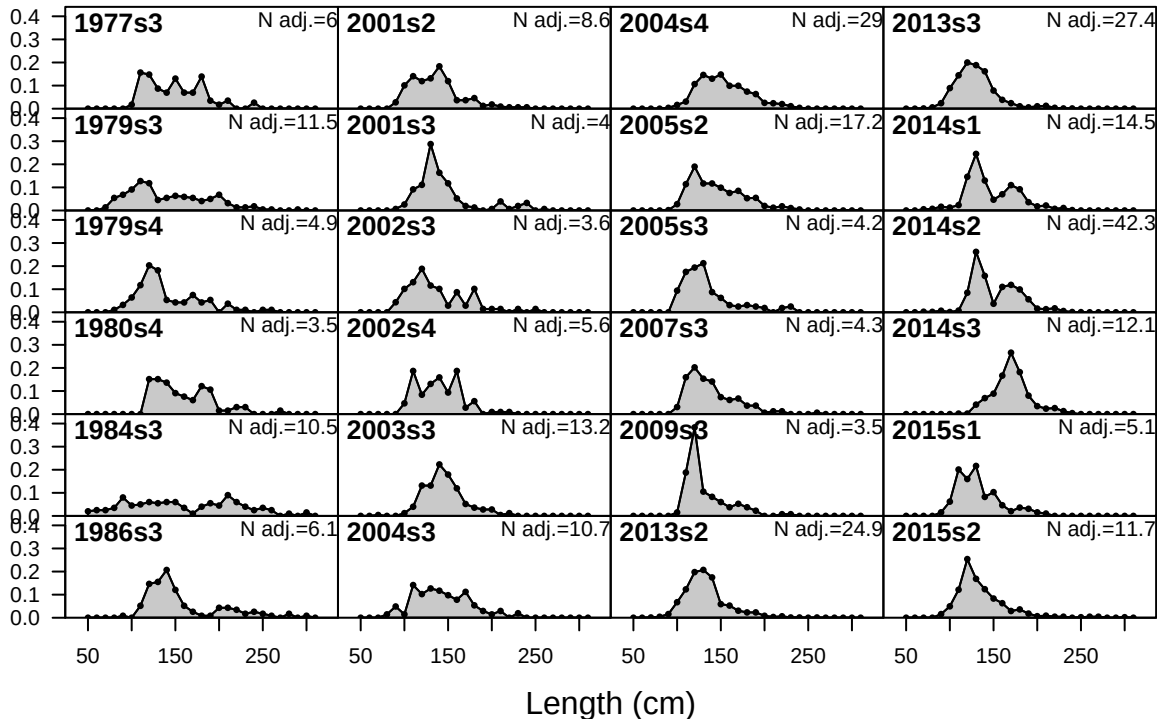
Length (cm)

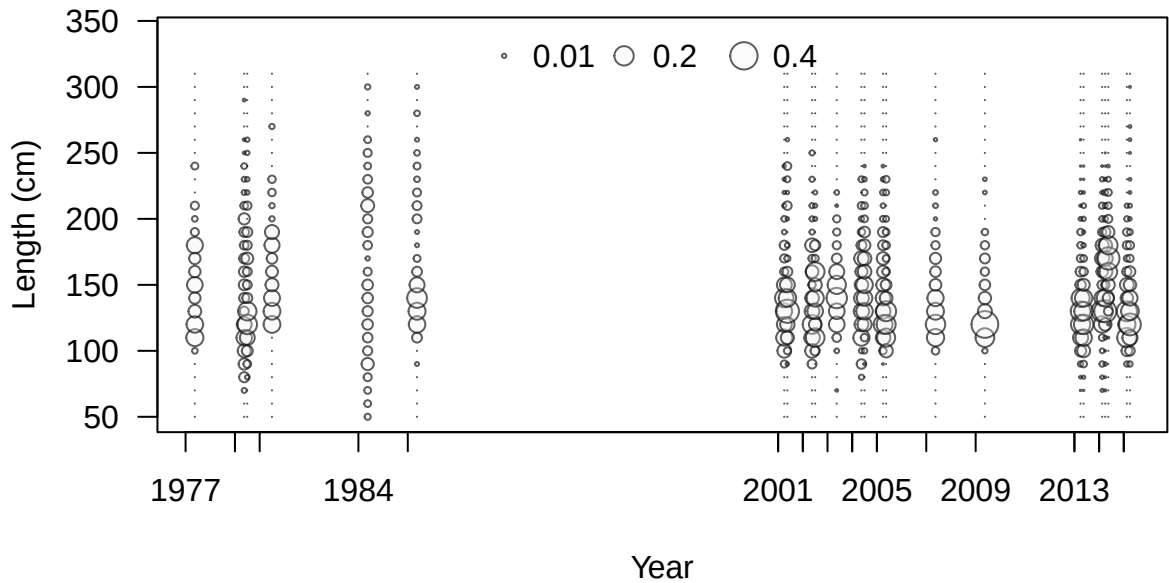


F12_LL_DW_A4 (whole catch)

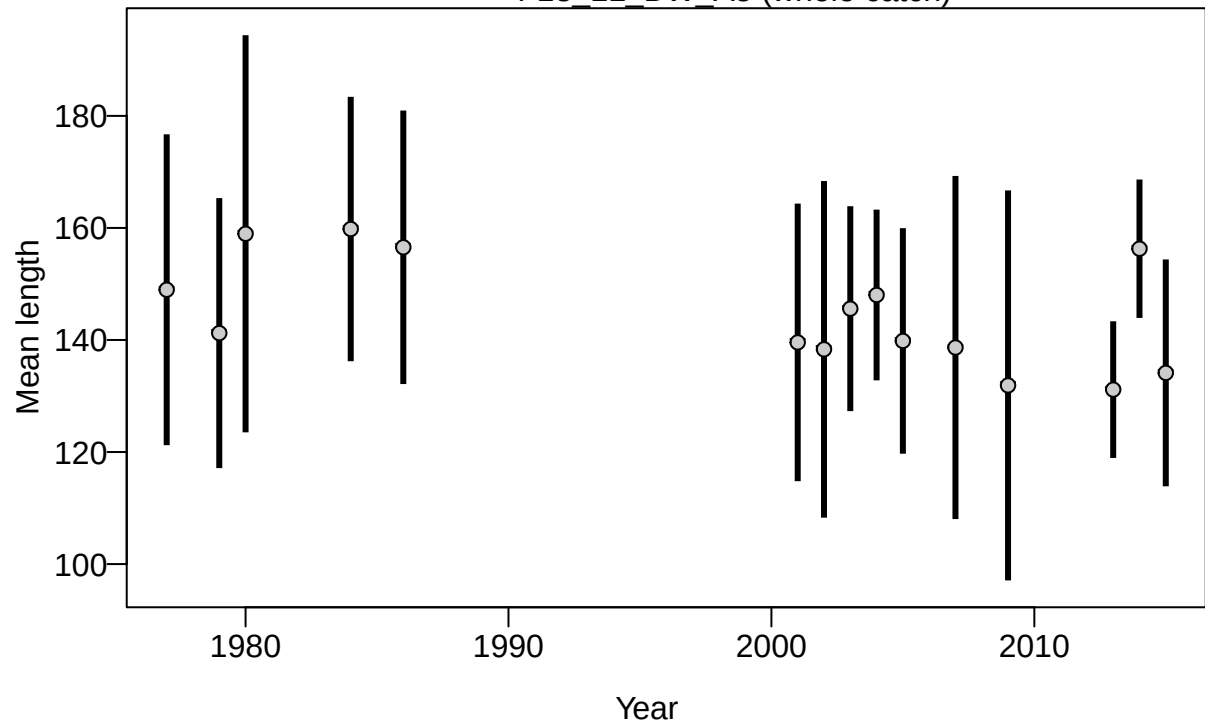


Proportion

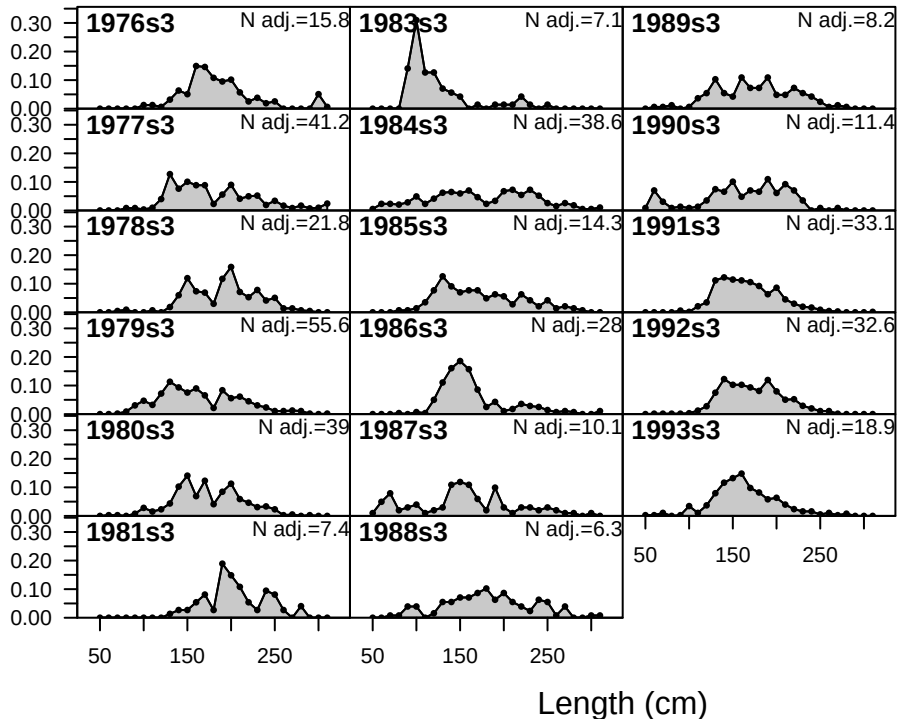


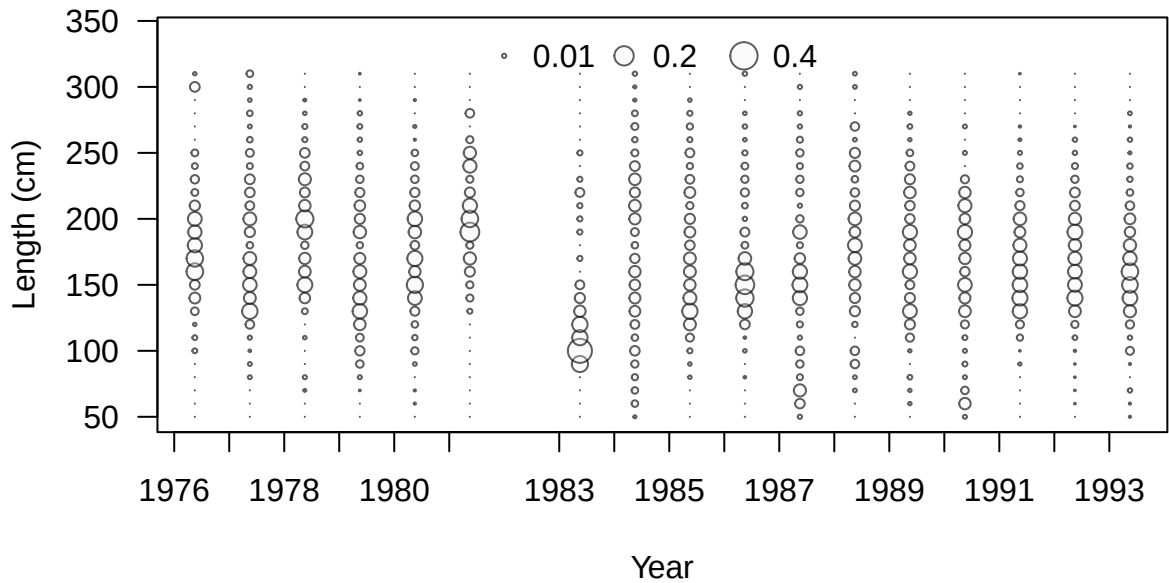


F13_LL_DW_A5 (whole catch)

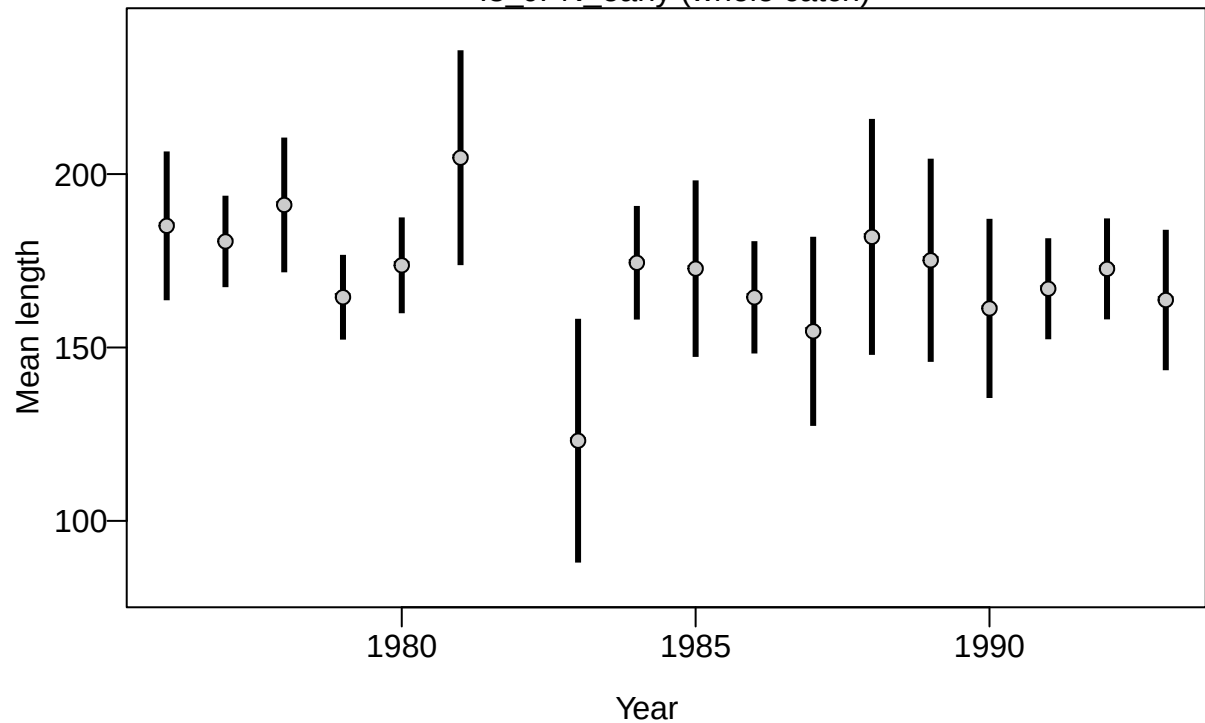


Proportion

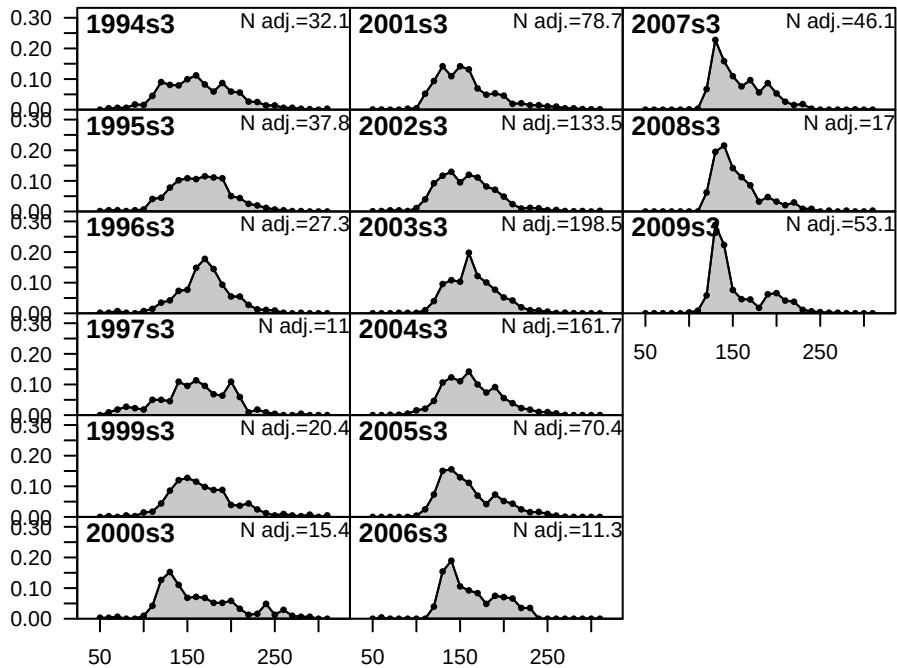




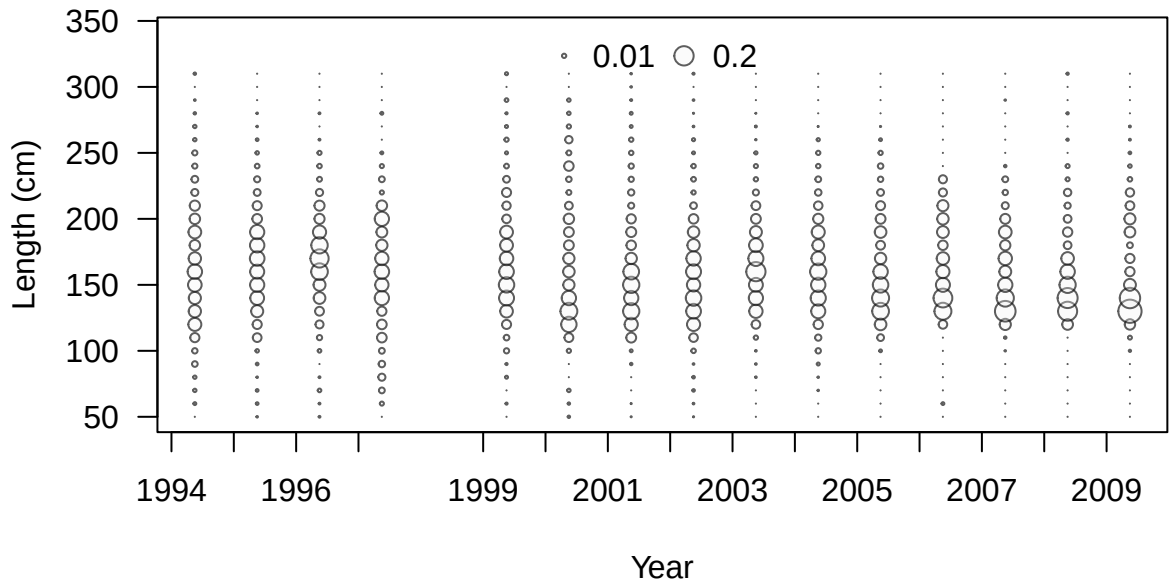
I3_JPN_early (whole catch)



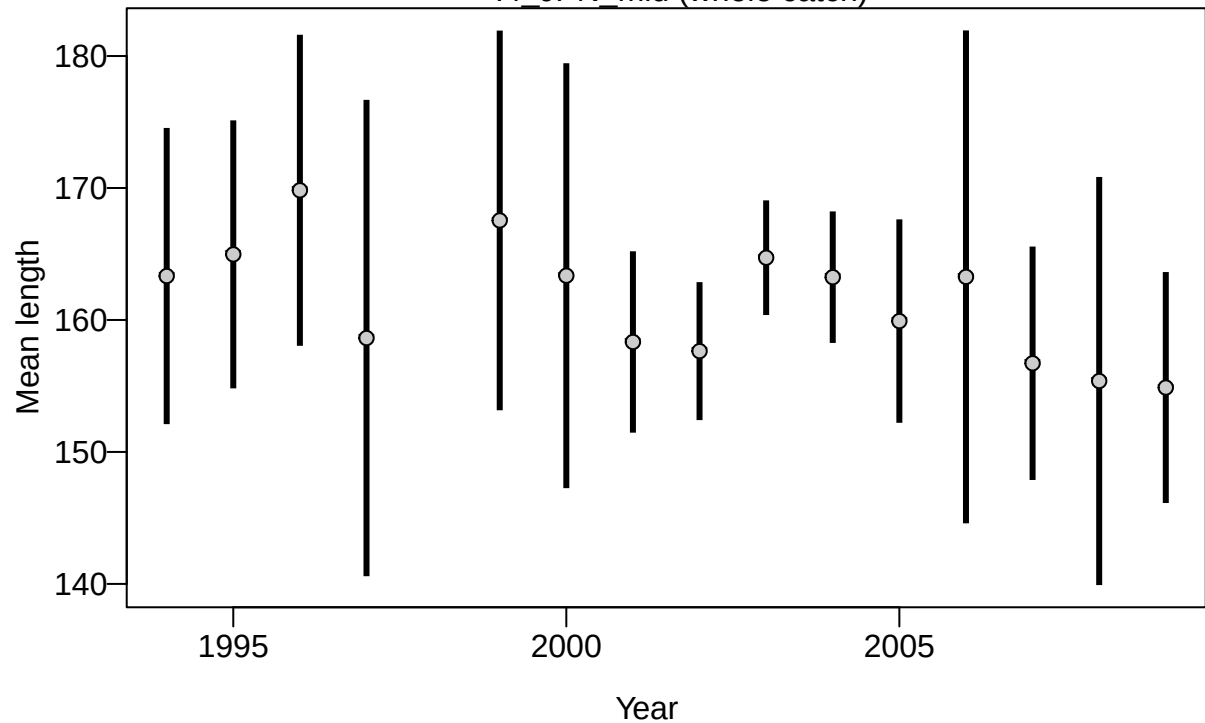
Proportion



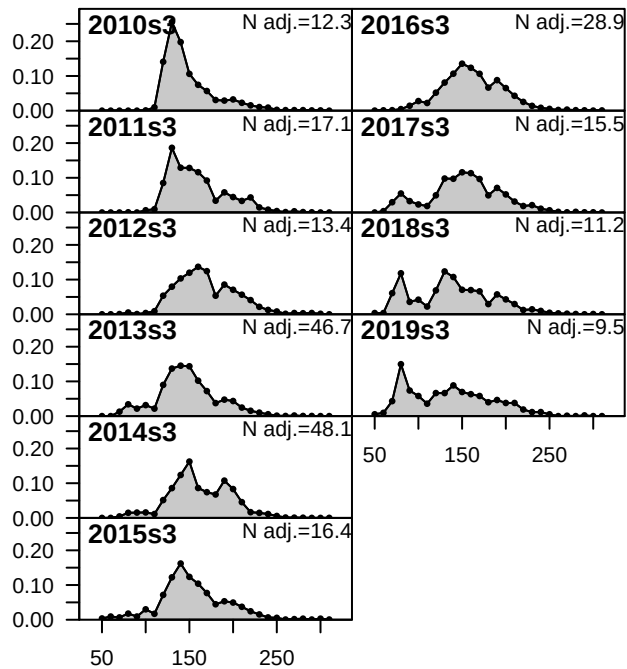
Length (cm)



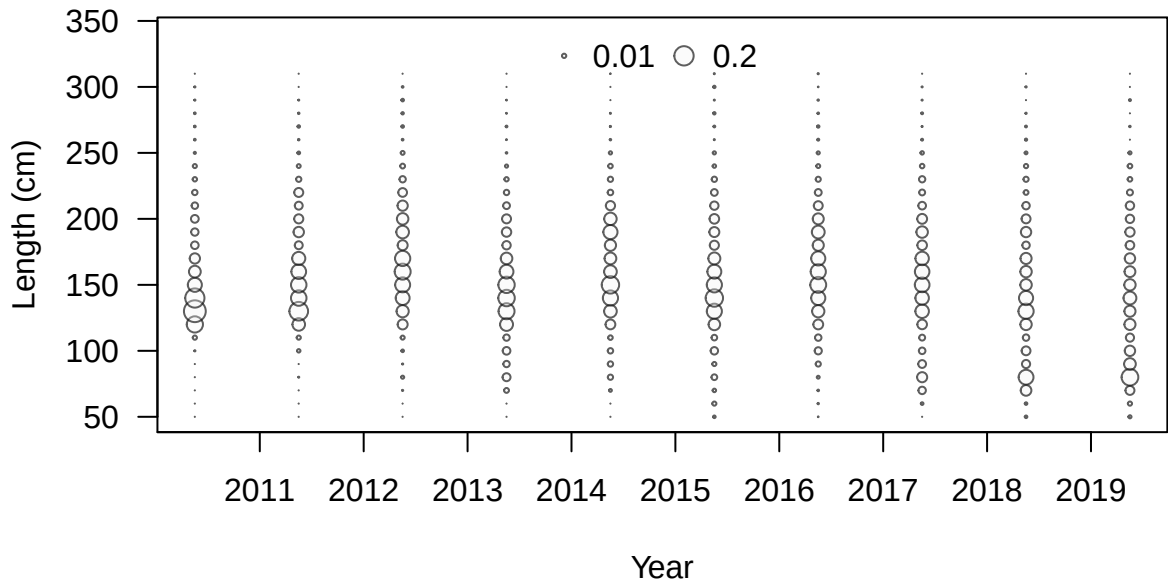
I4_JPN_mid (whole catch)



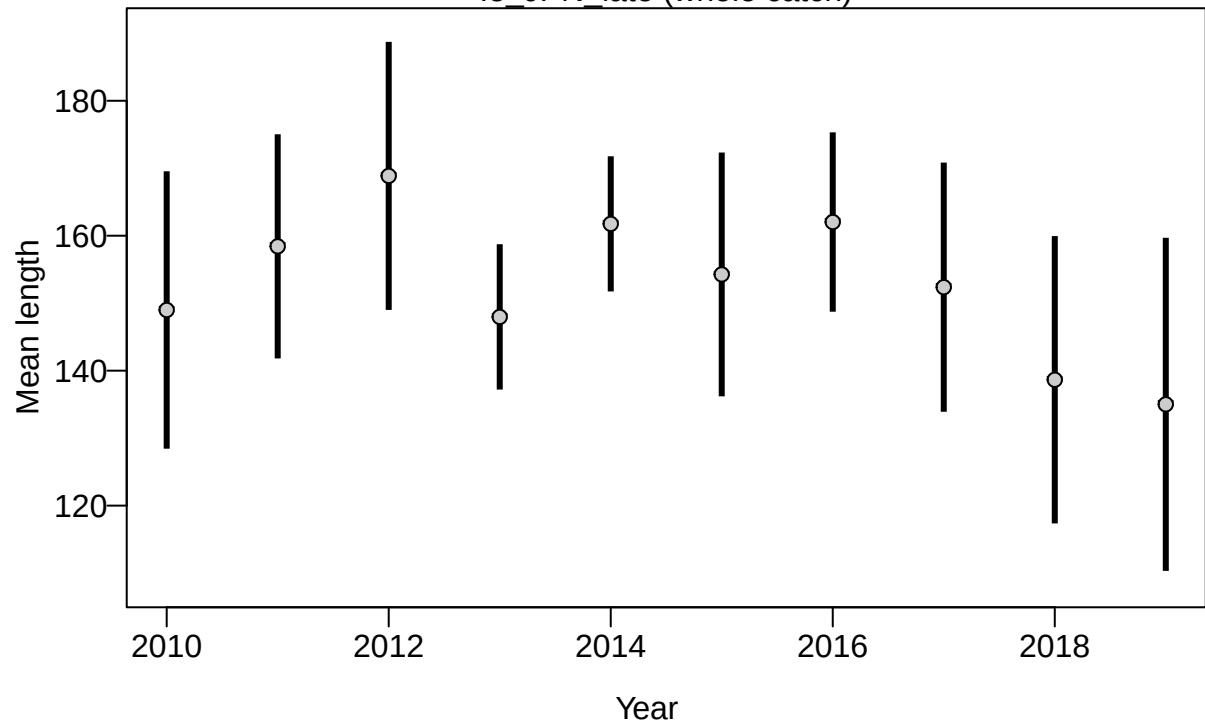
Proportion



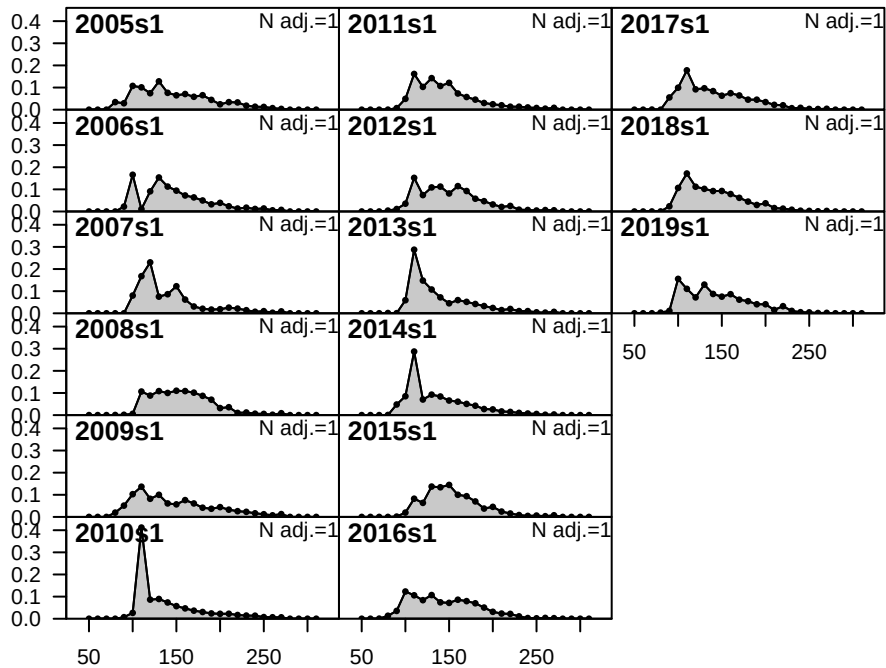
Length (cm)



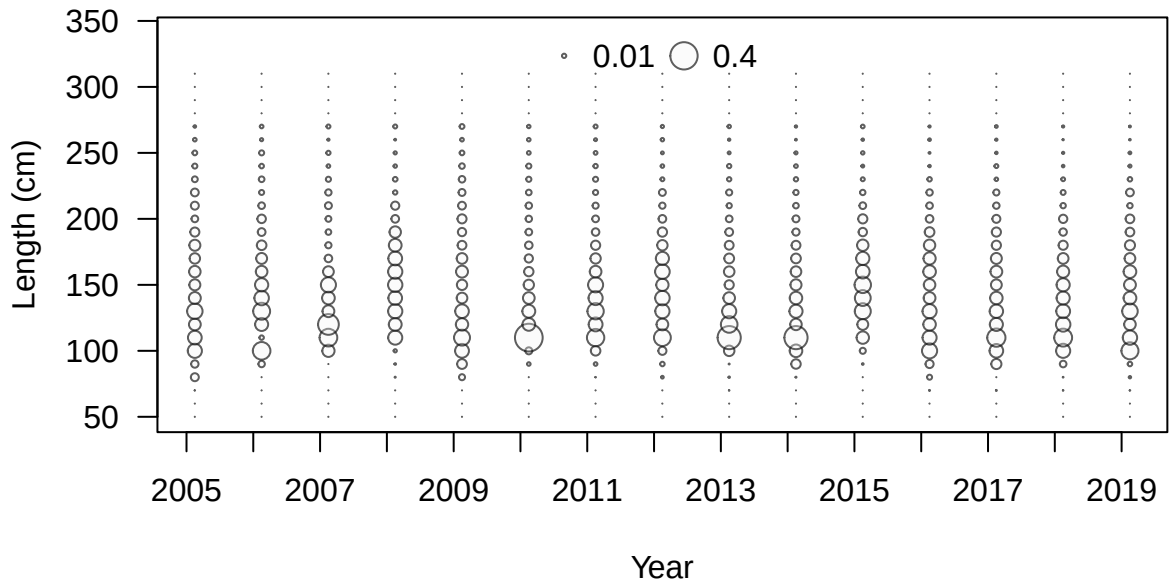
I5_JPN_late (whole catch)



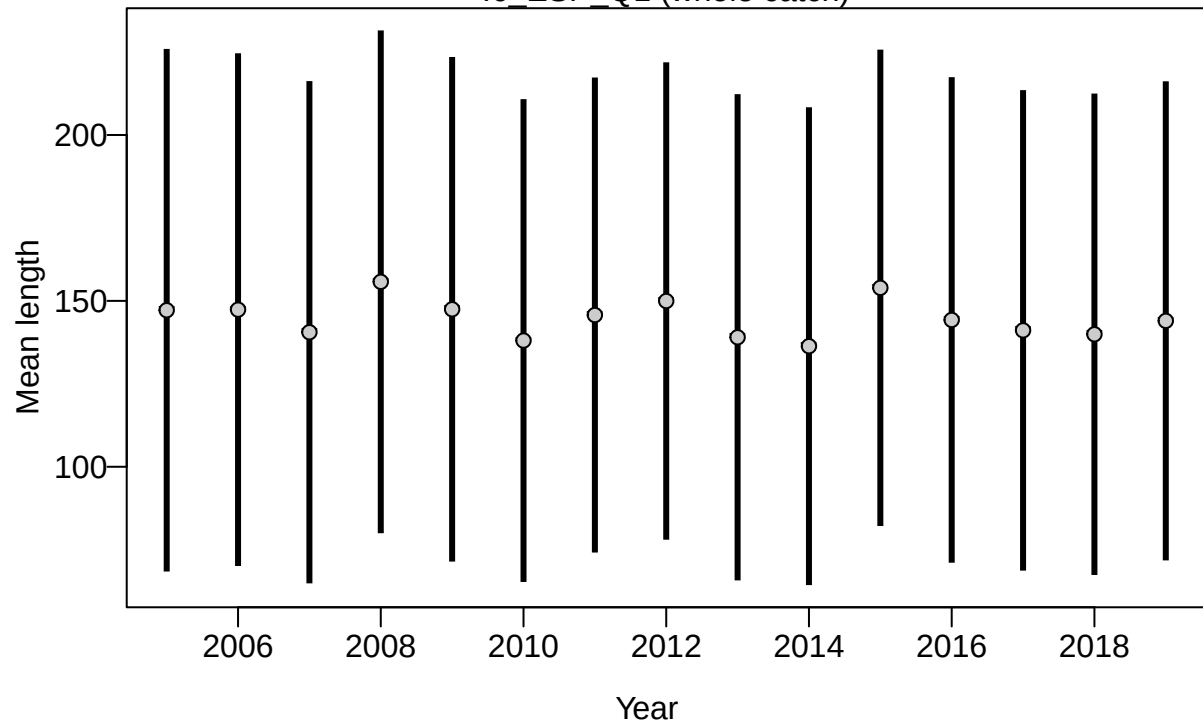
Proportion



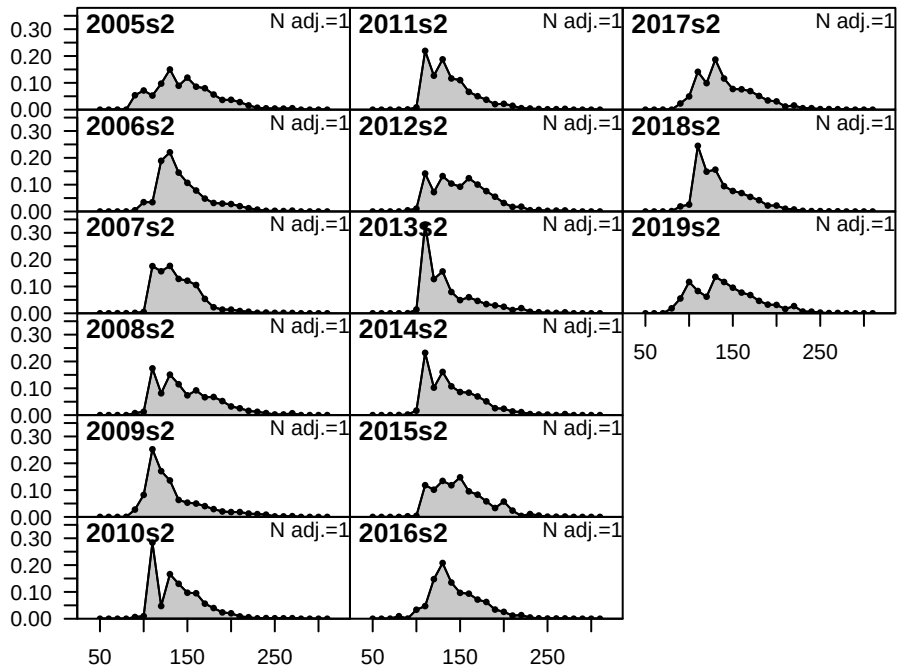
Length (cm)



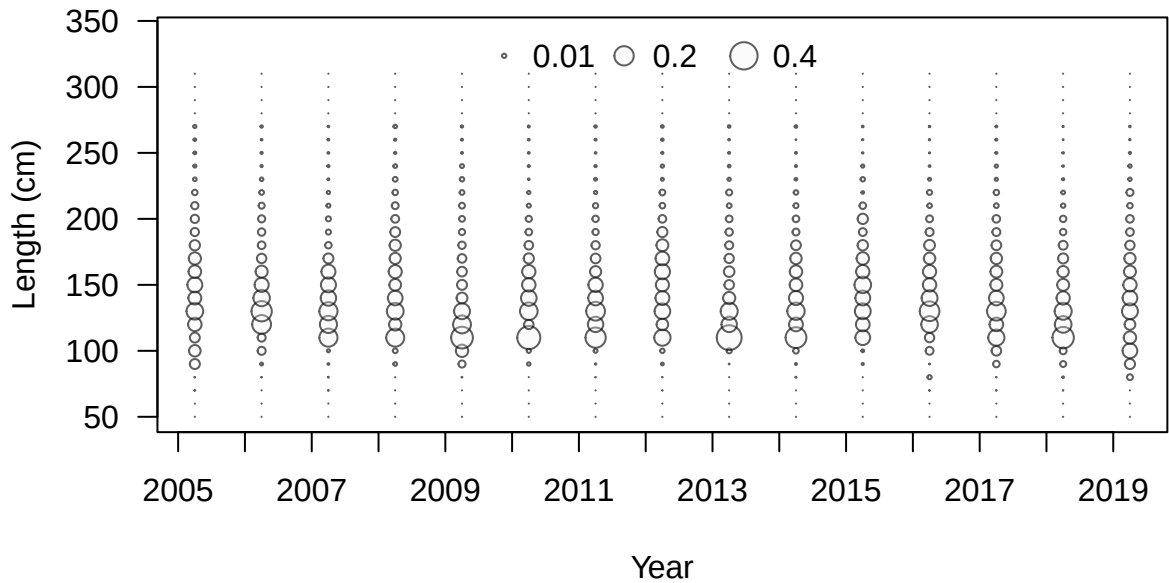
I6_ESP_Q1 (whole catch)



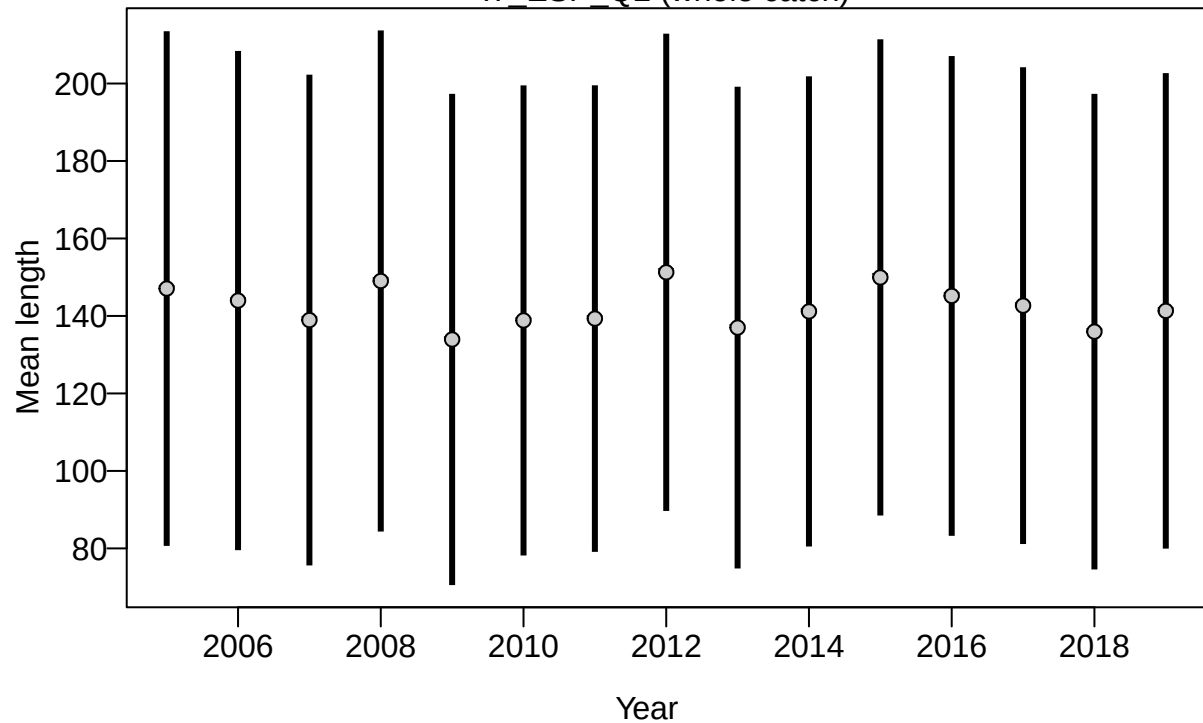
Proportion



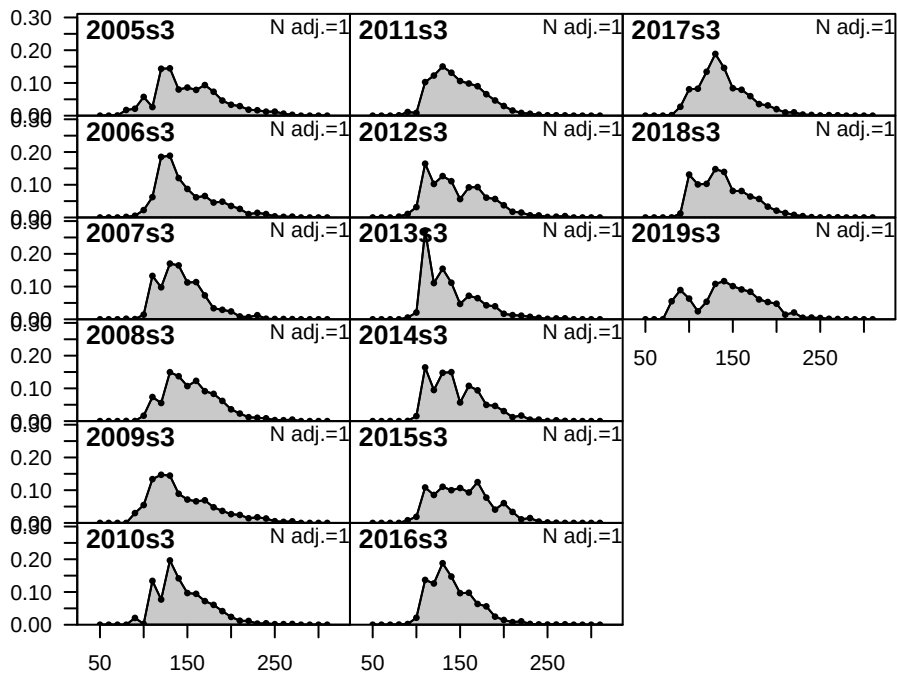
Length (cm)



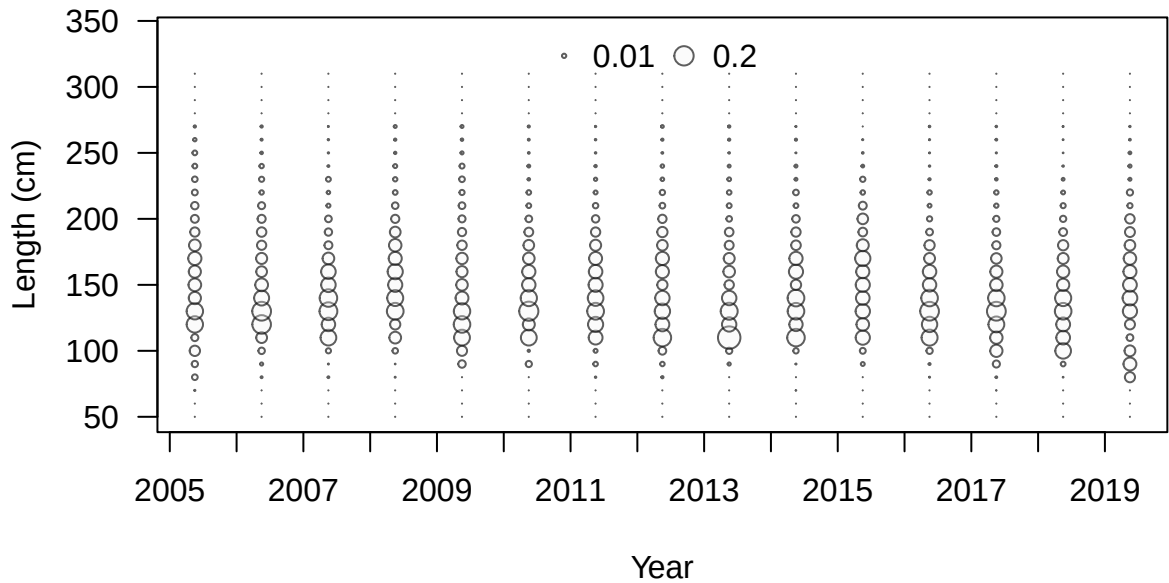
I7_ESP_Q2 (whole catch)



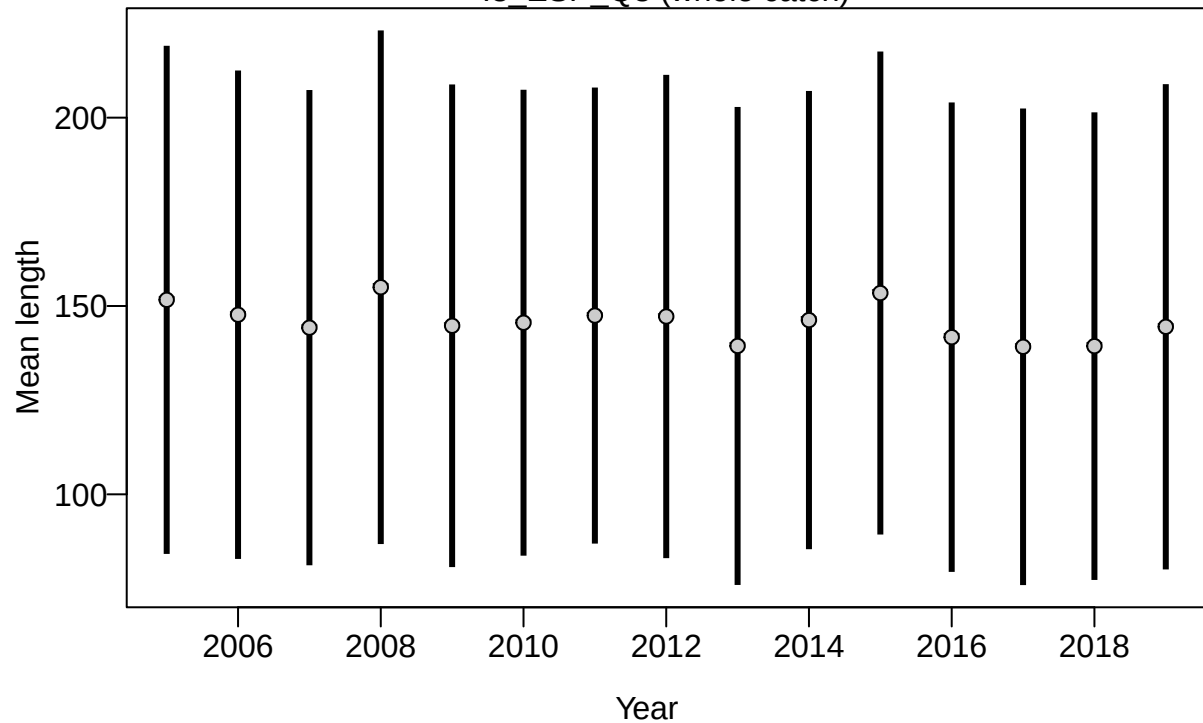
Proportion



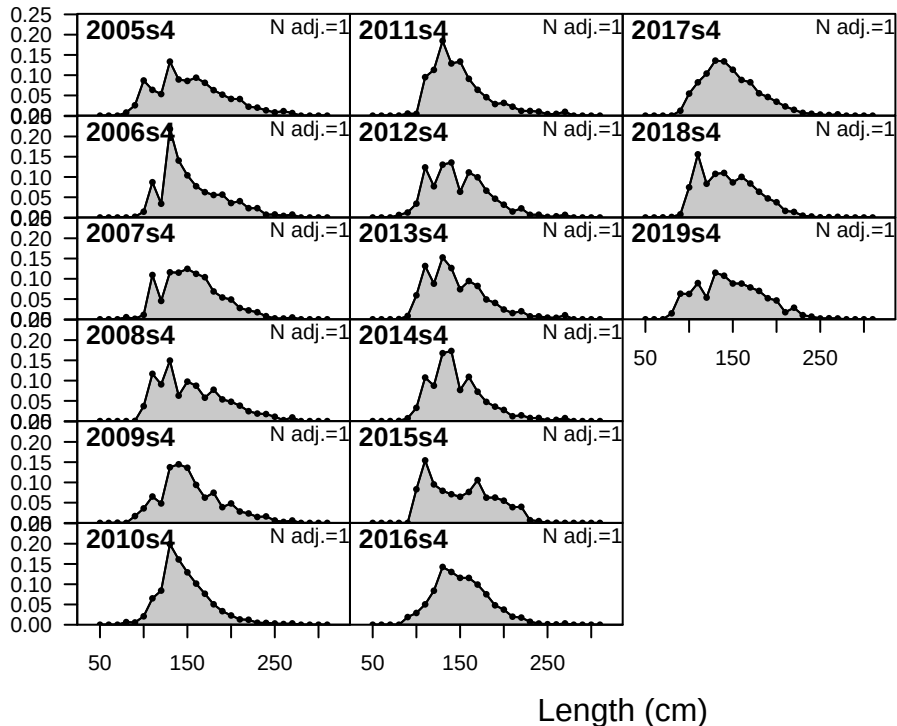
Length (cm)

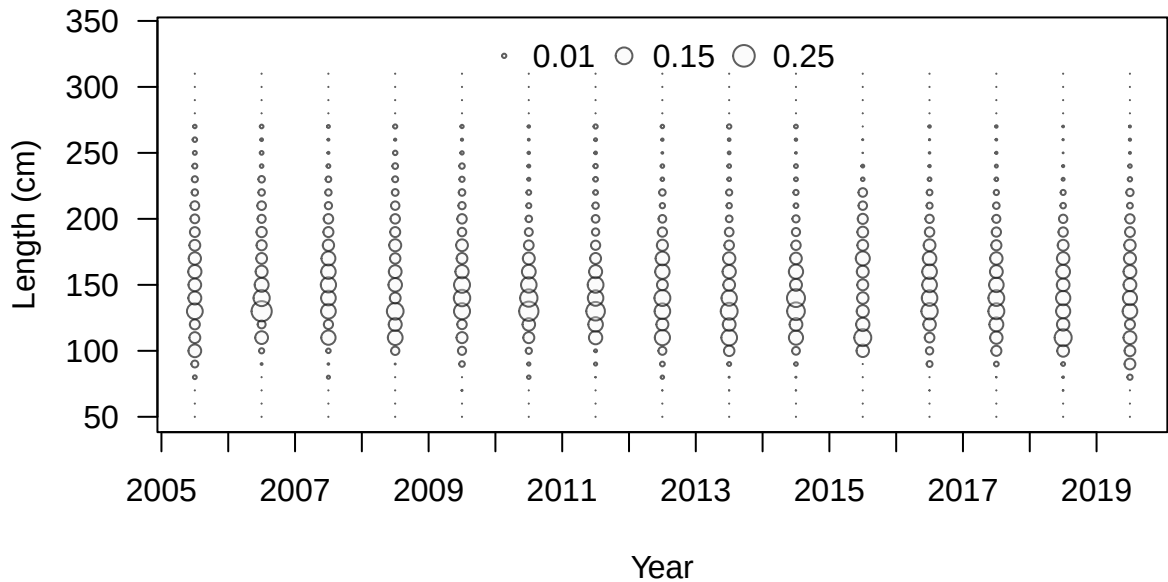


I8_ESP_Q3 (whole catch)

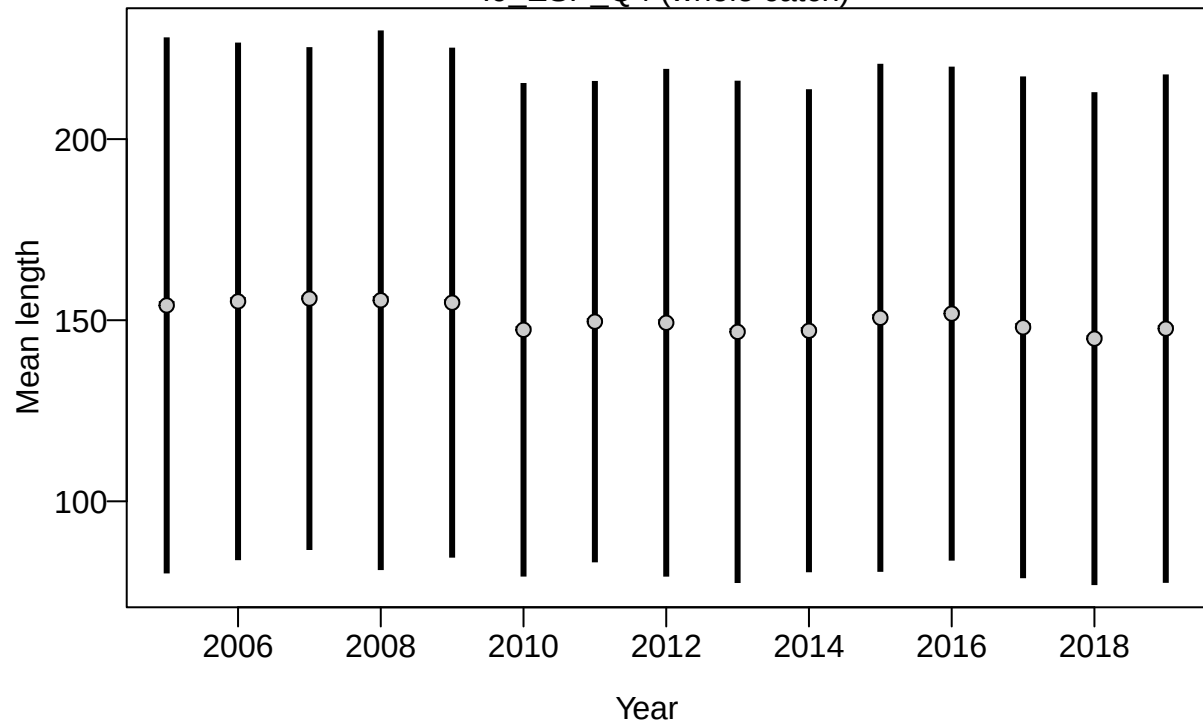


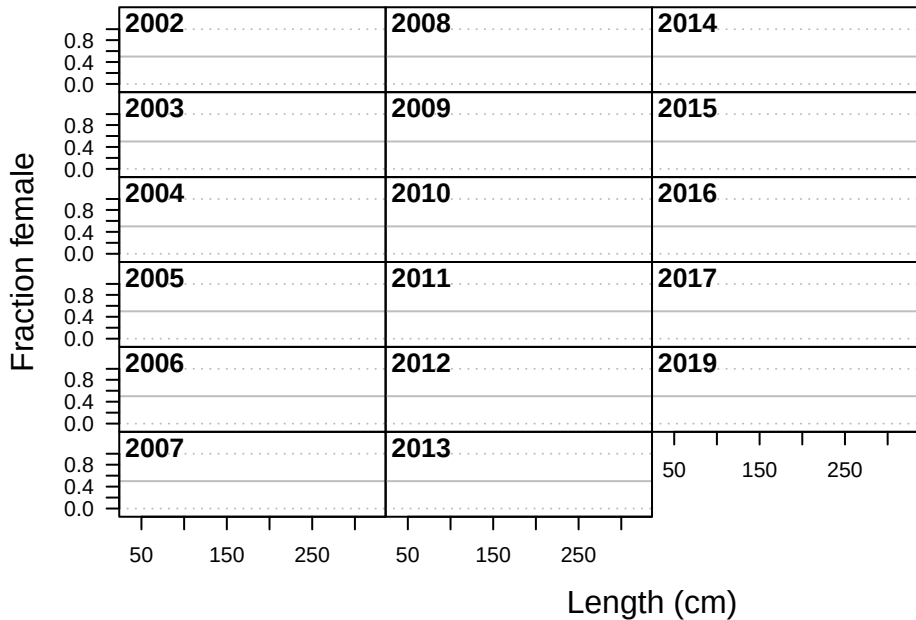
Proportion



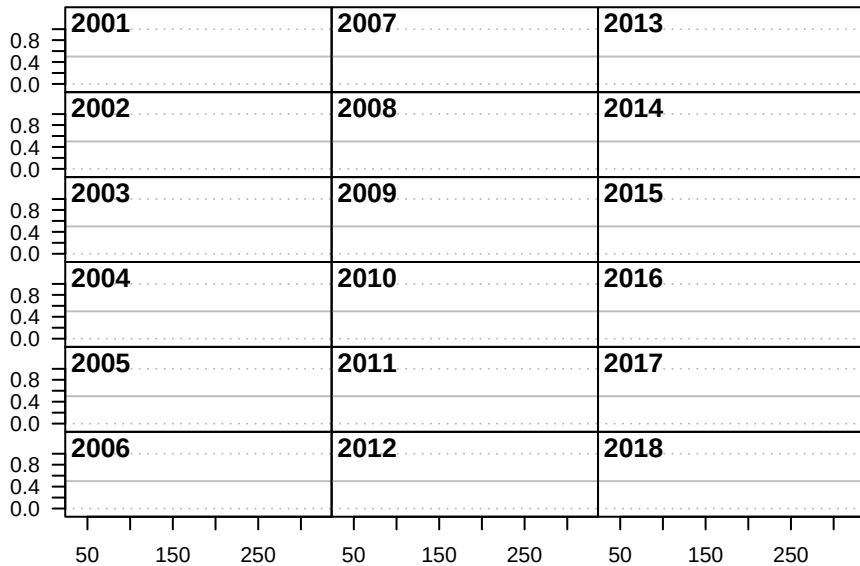


I9_ESP_Q4 (whole catch)





Fraction female



Length (cm)

Proportion

I1_Chile_Q2

Sum of N adj.=641.3

I2_Chile_Q3

Sum of N adj.=485.6

100

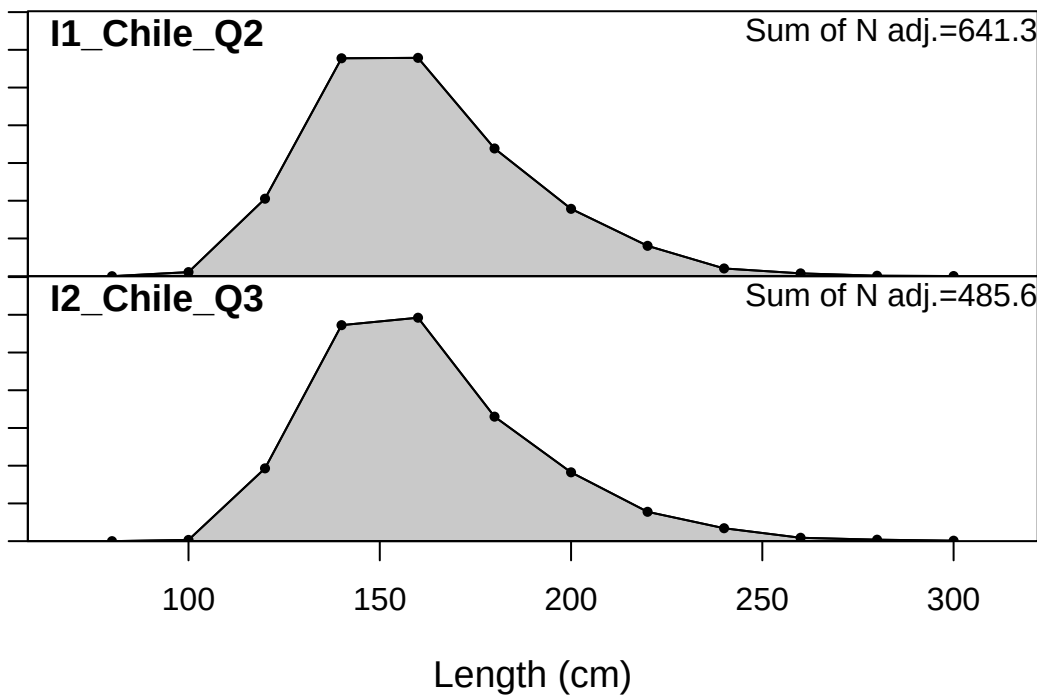
150

200

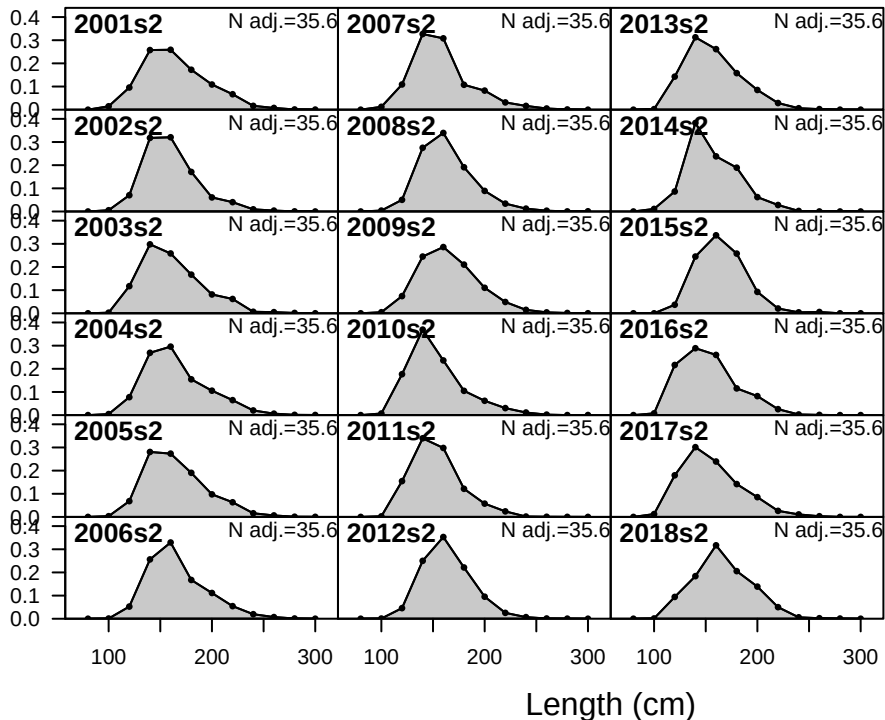
250

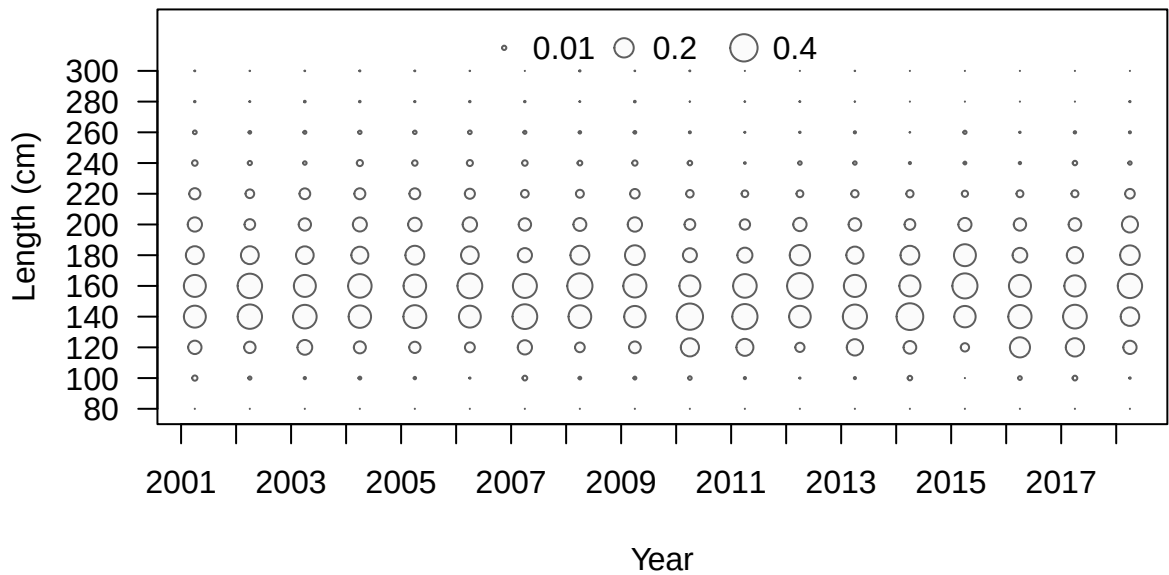
300

Length (cm)

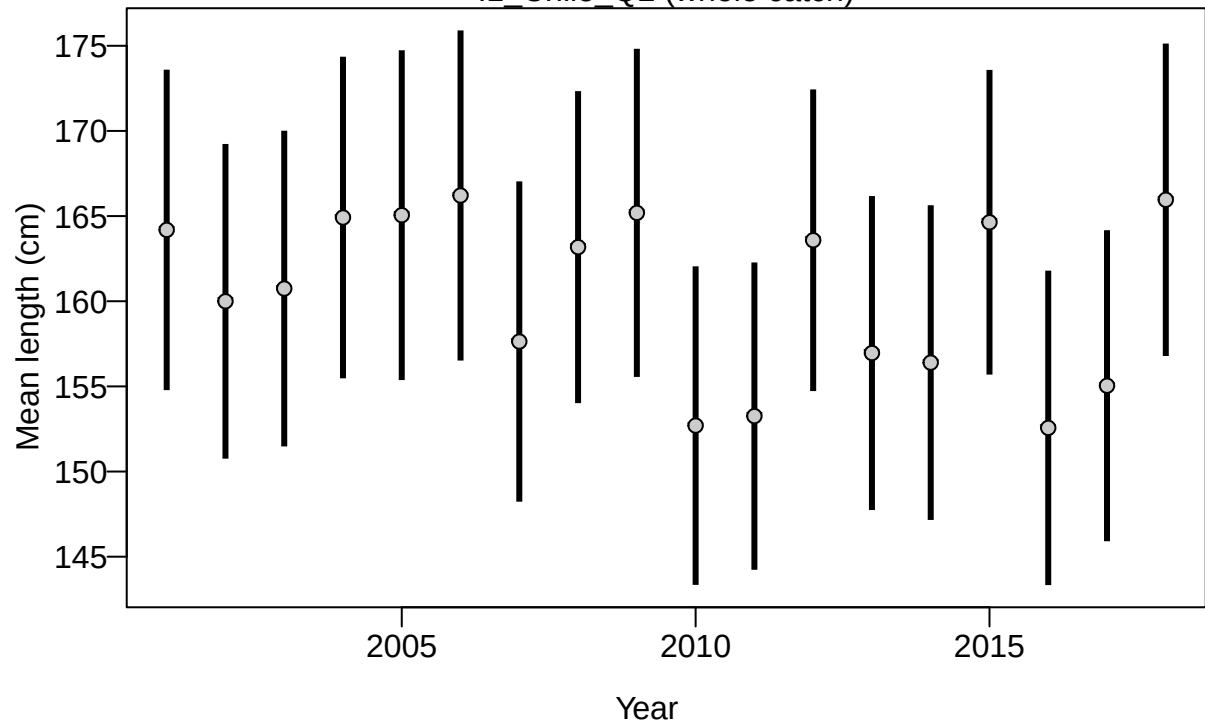


Proportion

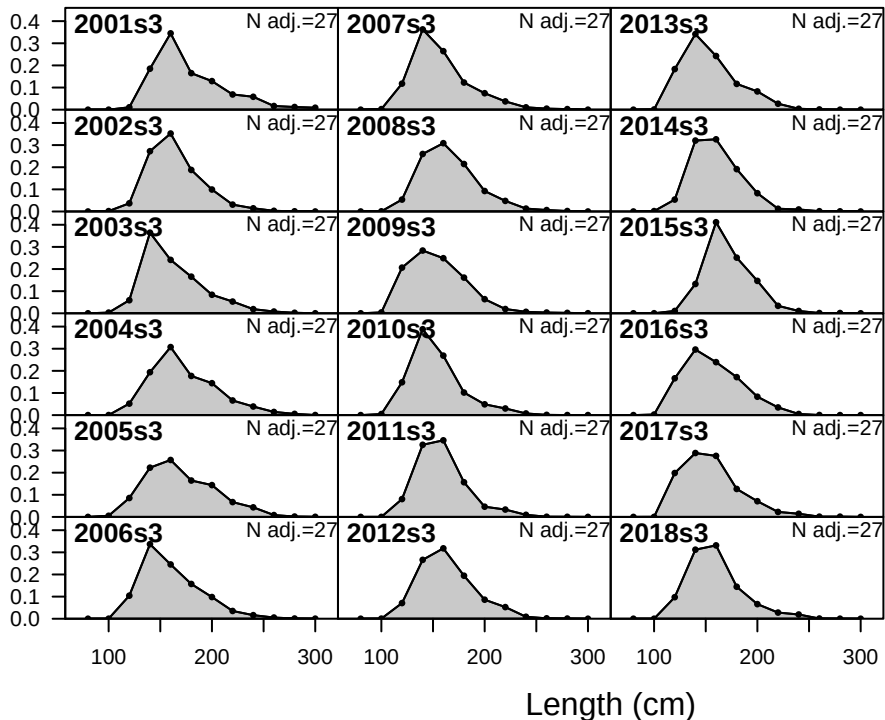


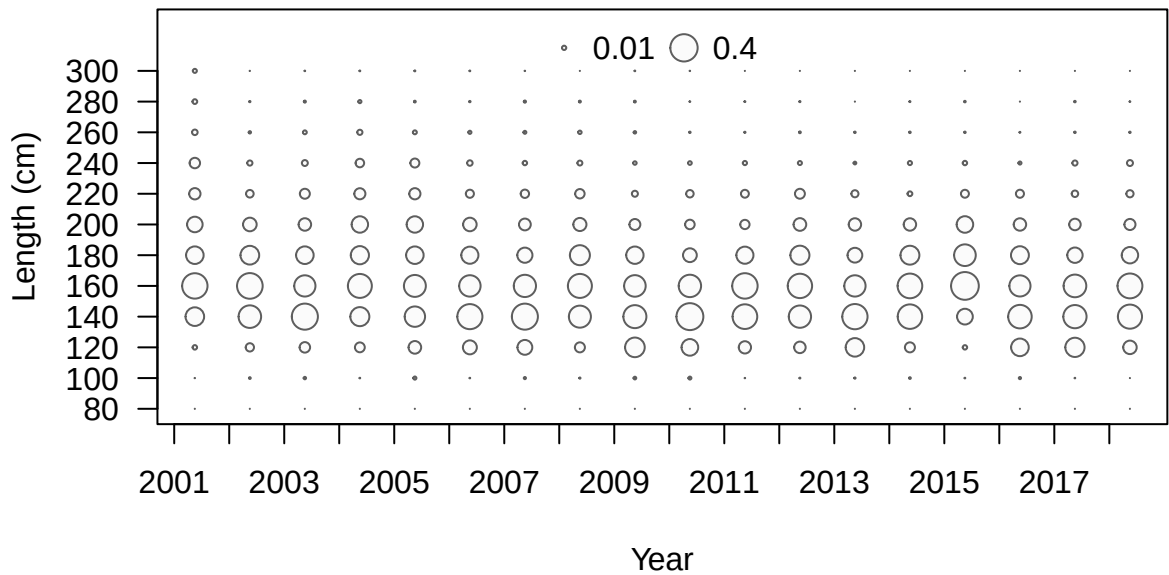


I1_Chile_Q2 (whole catch)

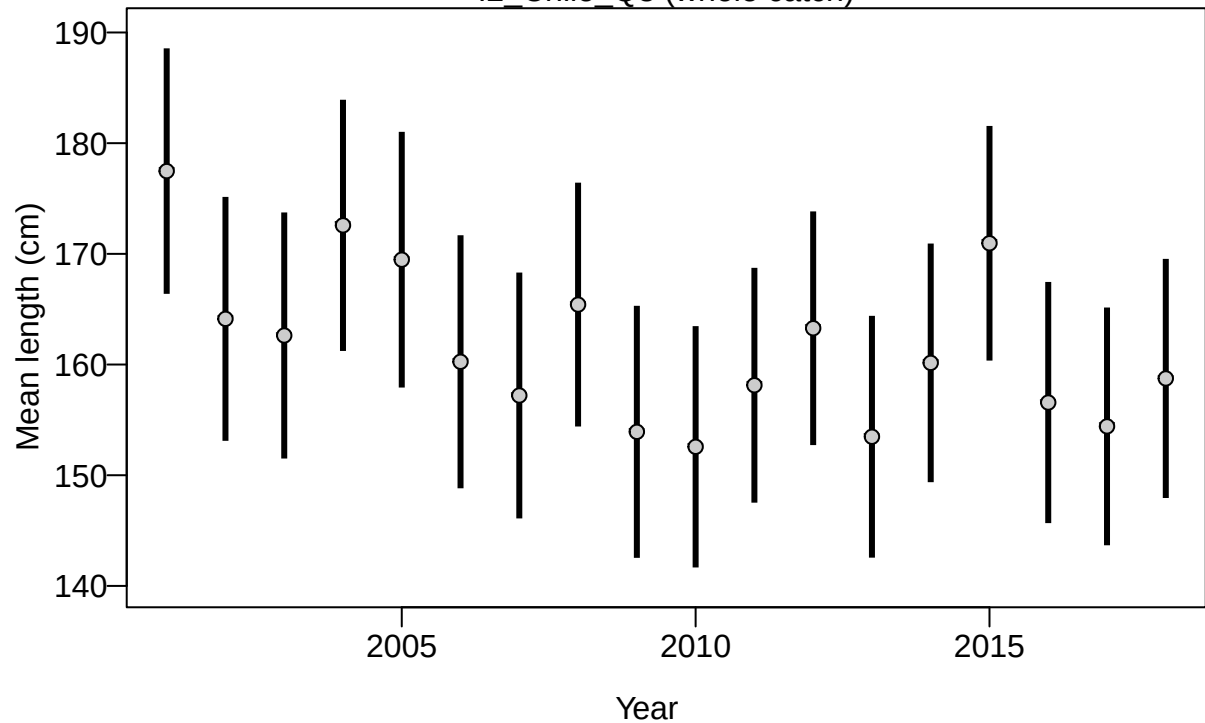


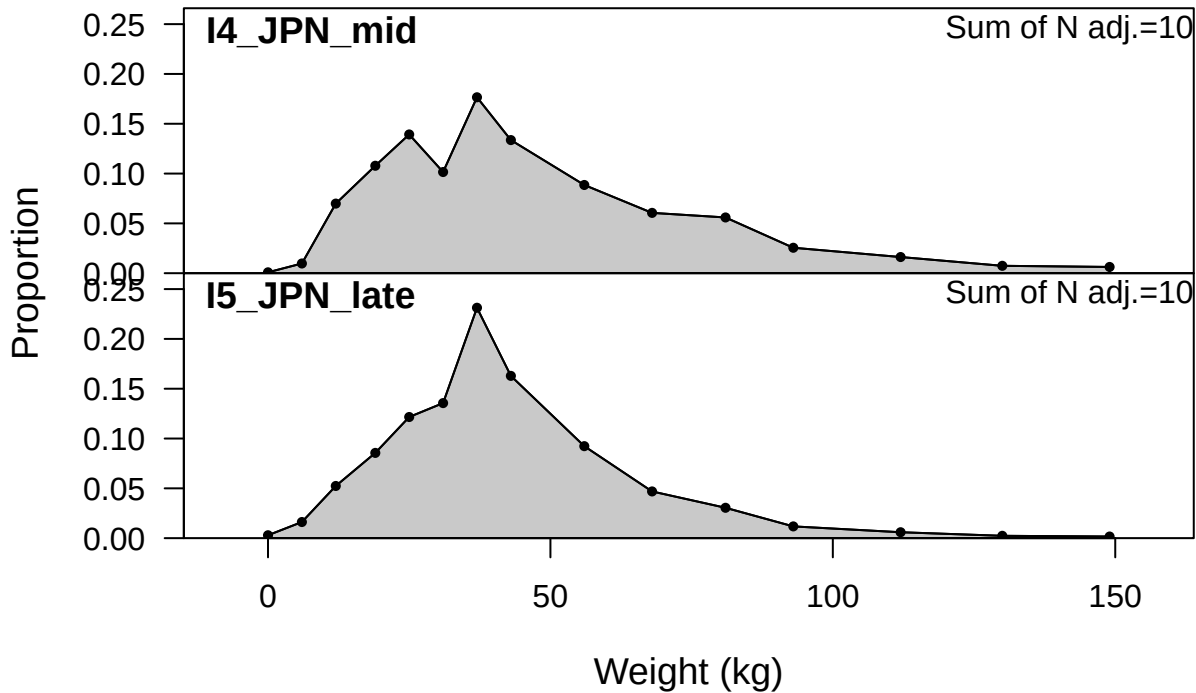
Proportion

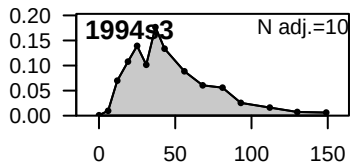




I2_Chile_Q3 (whole catch)

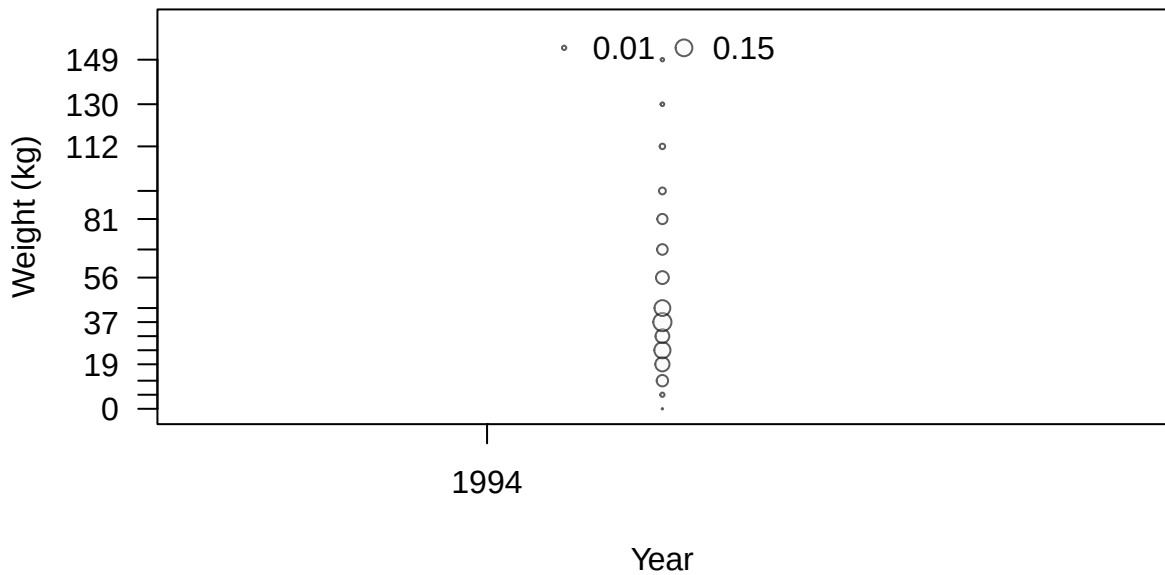


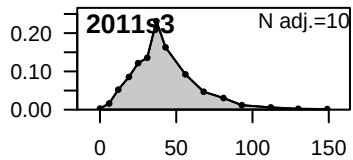




Proportion

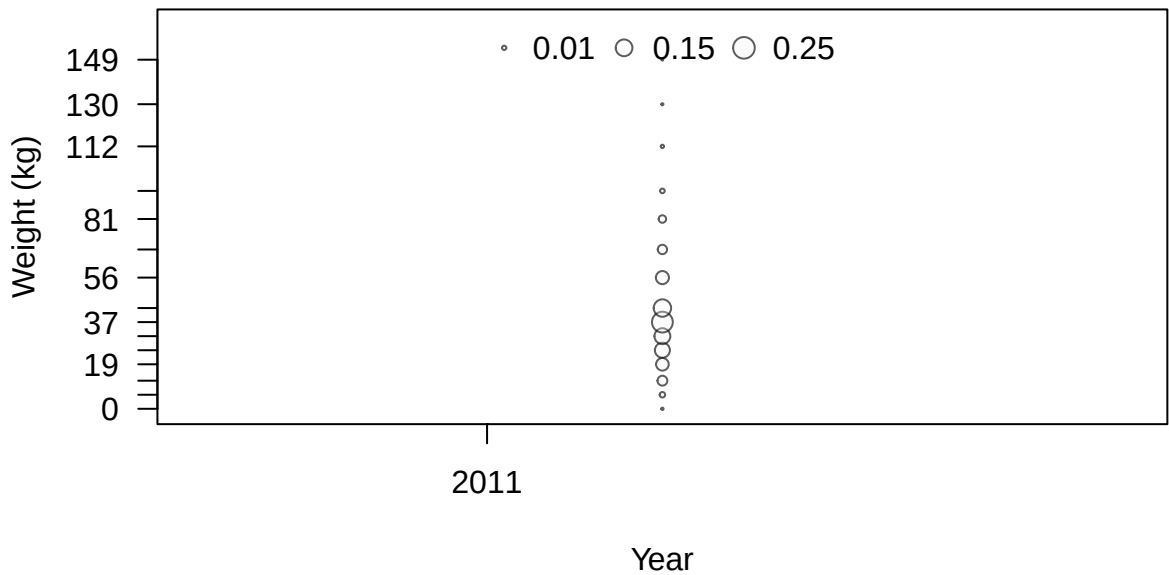
Weight (kg)





Proportion

Weight (kg)



Proportion

I6_ESP_Q1

Sum of N adj.=750

I8_ESP_Q3

Sum of N adj.=750

I7_ESP_Q2

Sum of N adj.=750

I9_ESP_Q4

Sum of N adj.=750

Length (cm)

0.15
0.10
0.05
0.00
0.00
0.05
0.10
0.15

50

100

150

200

250

50

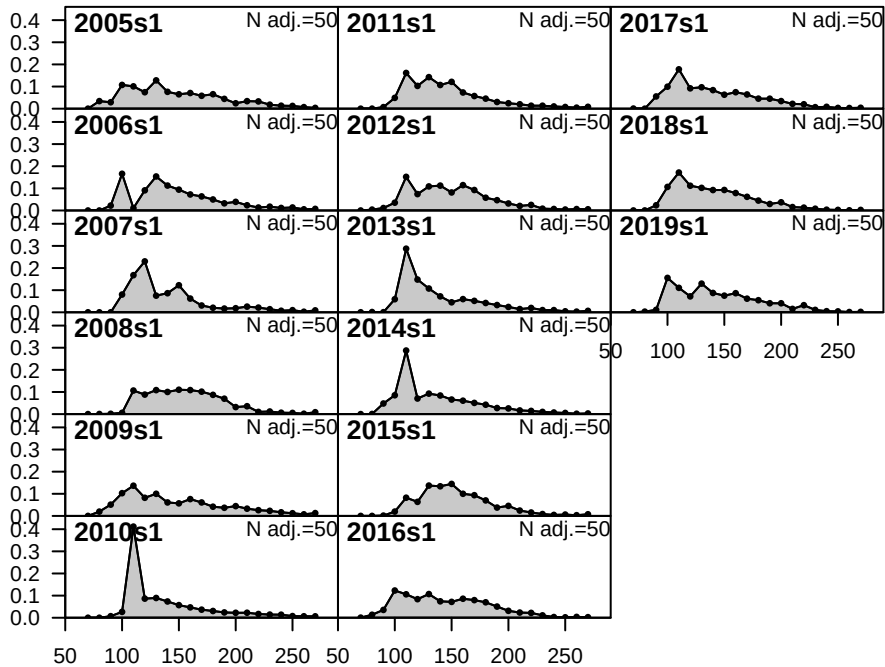
100

150

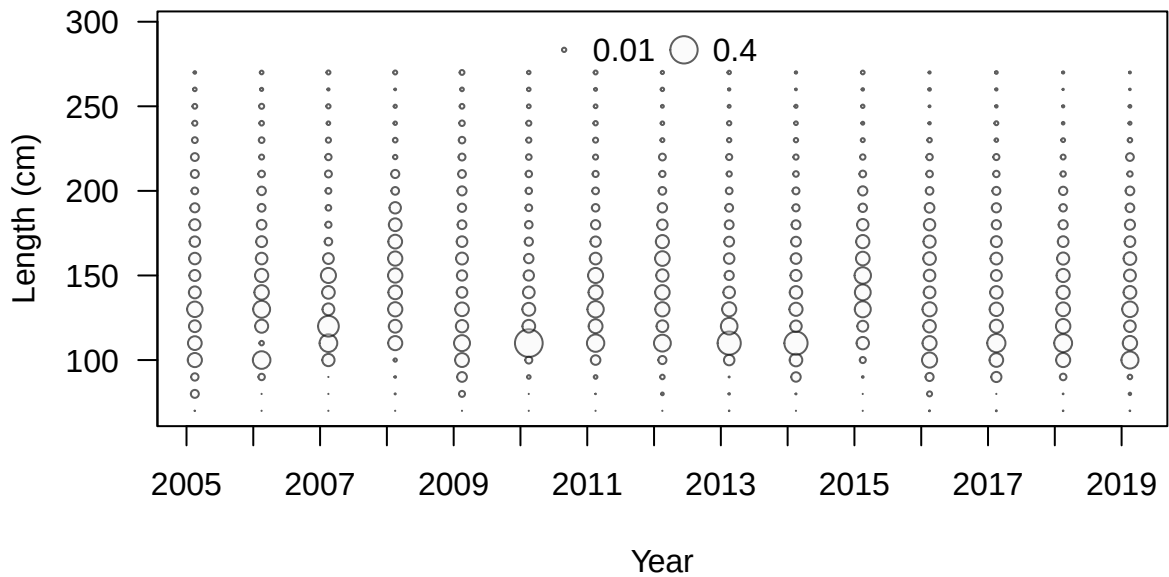
200

250

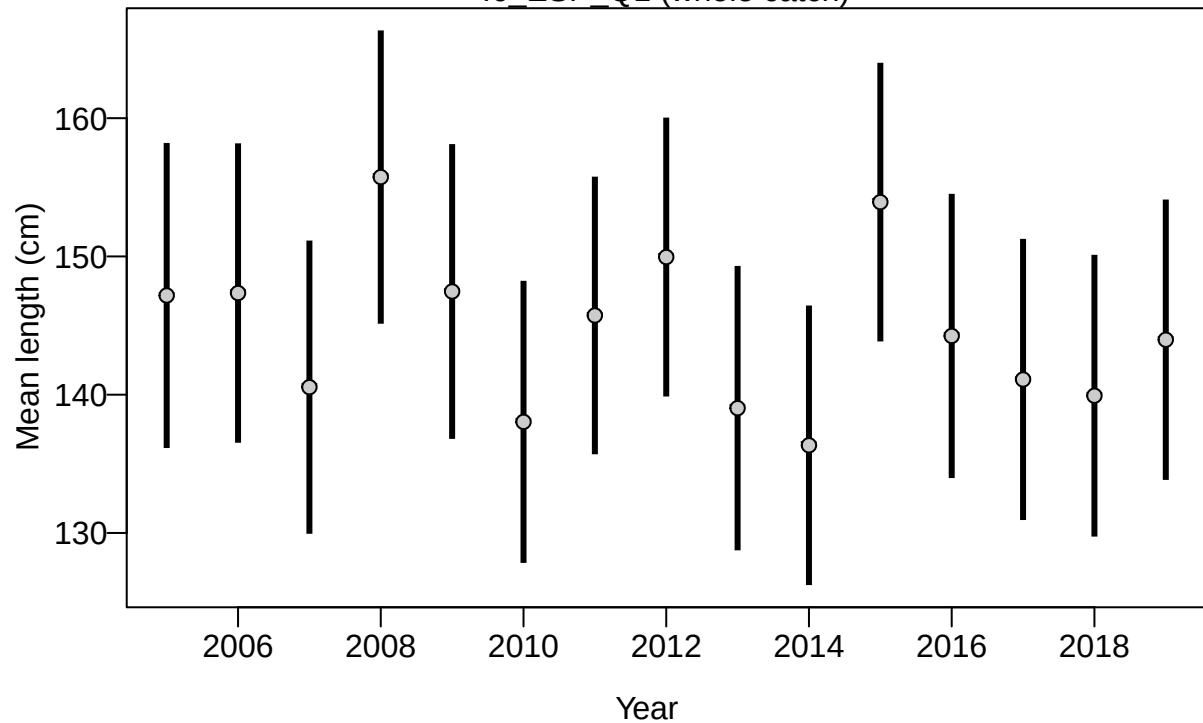
Proportion



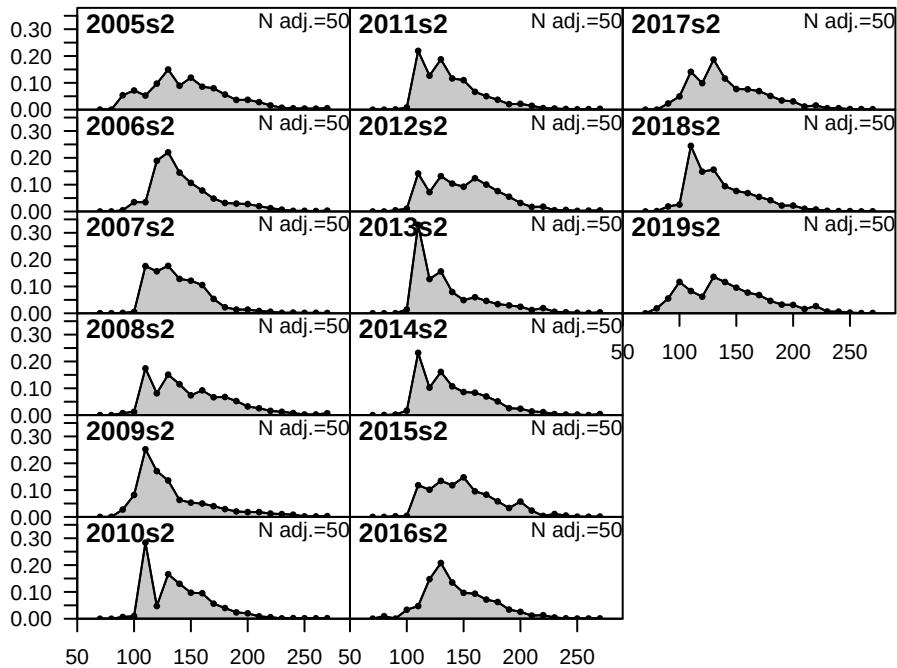
Length (cm)



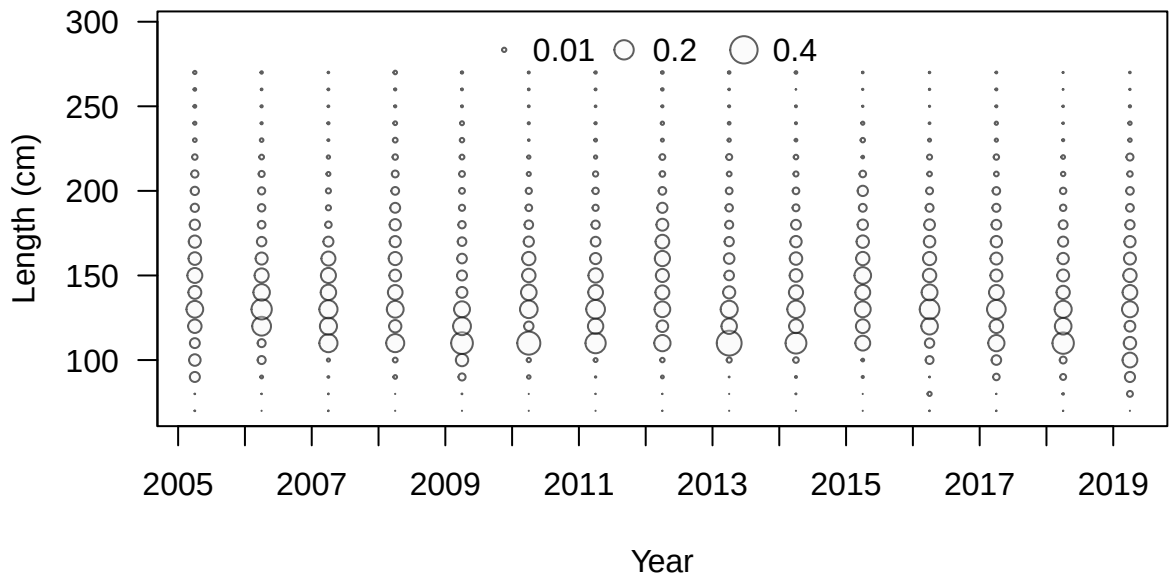
I6_ESP_Q1 (whole catch)



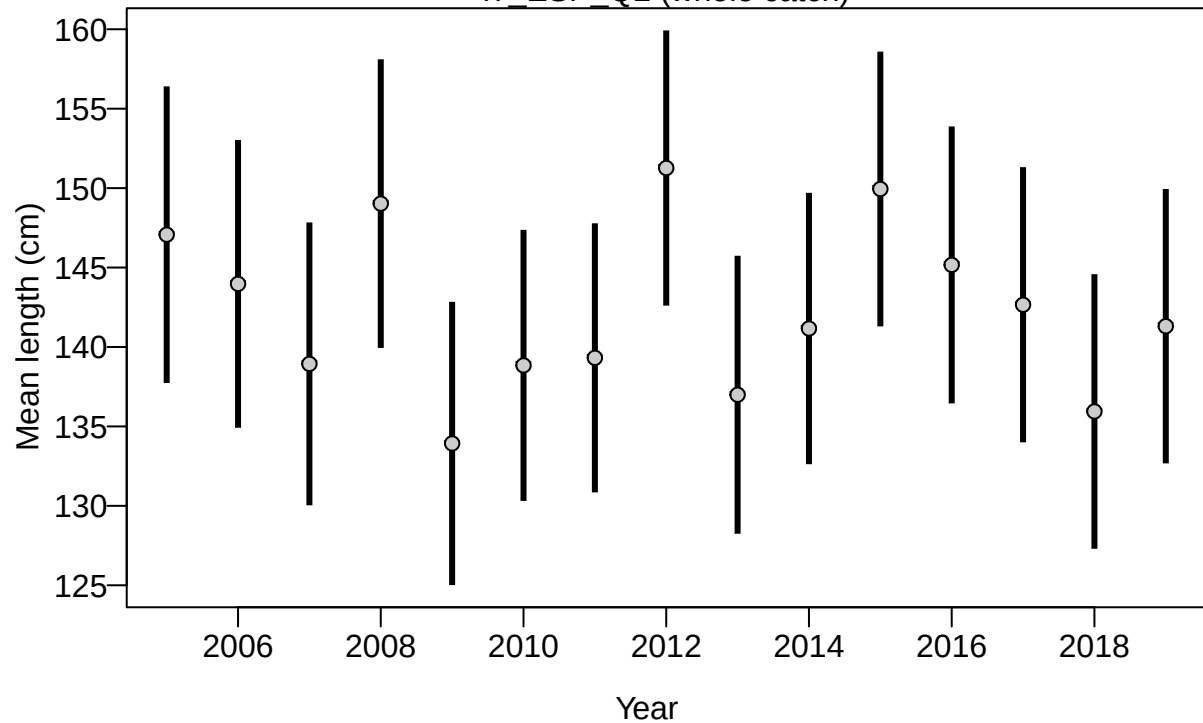
Proportion



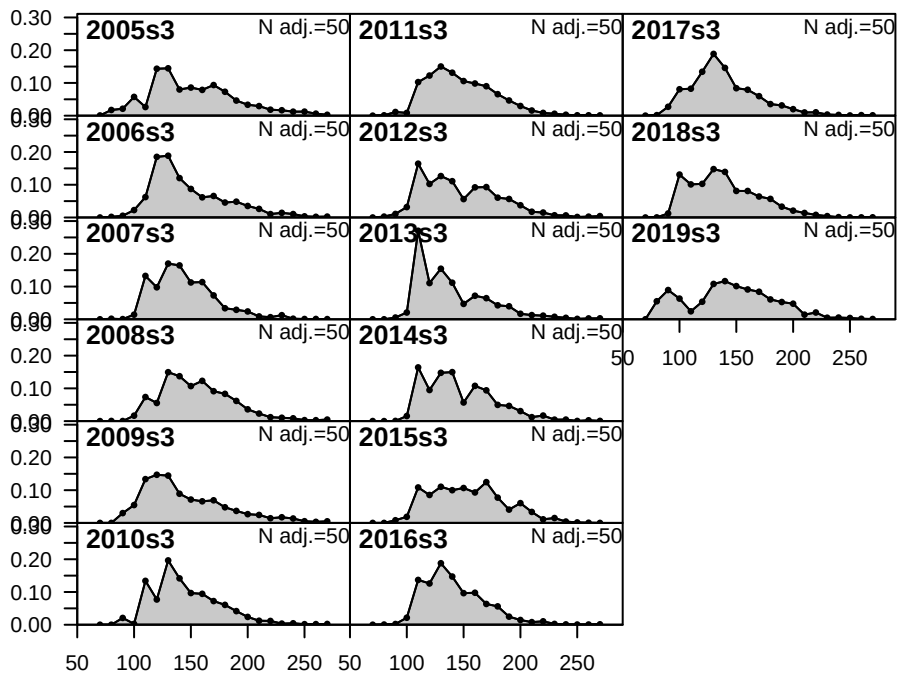
Length (cm)



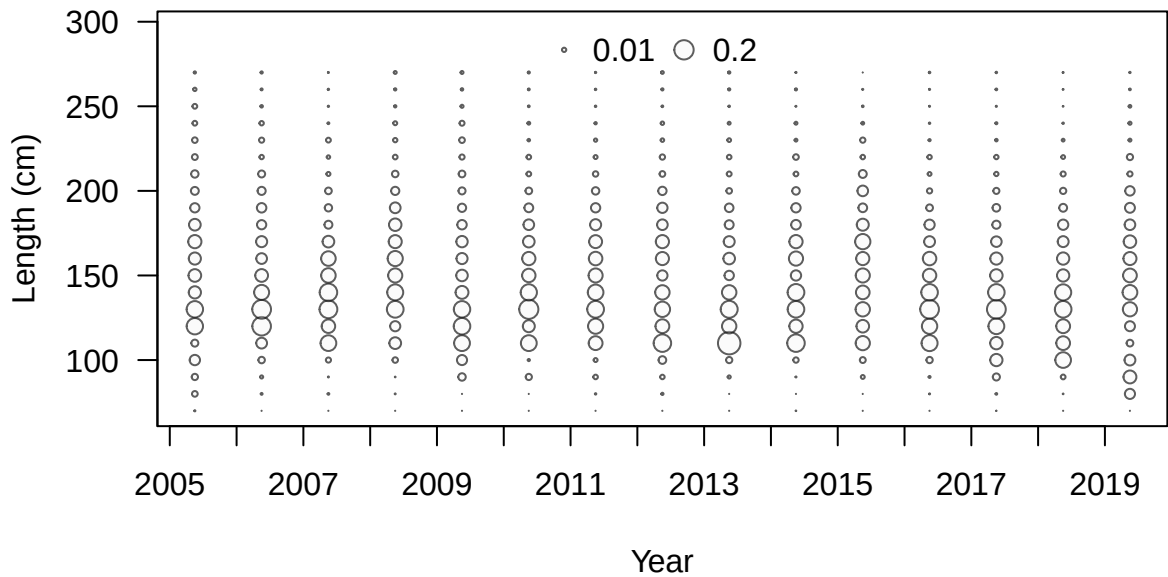
I7_ESP_Q2 (whole catch)



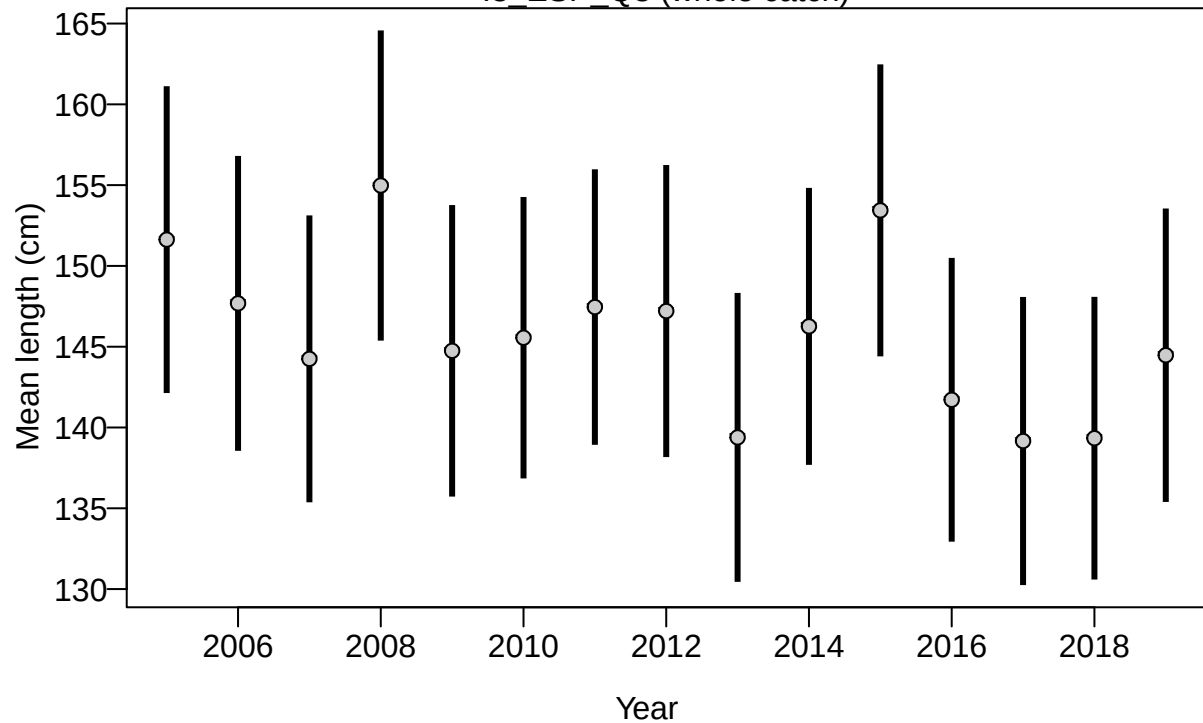
Proportion



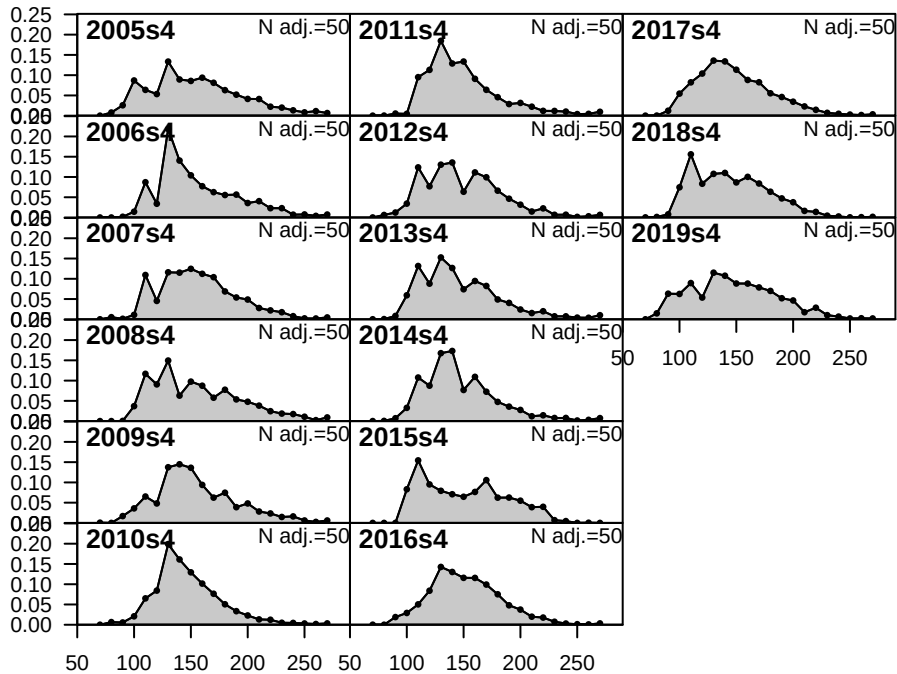
Length (cm)



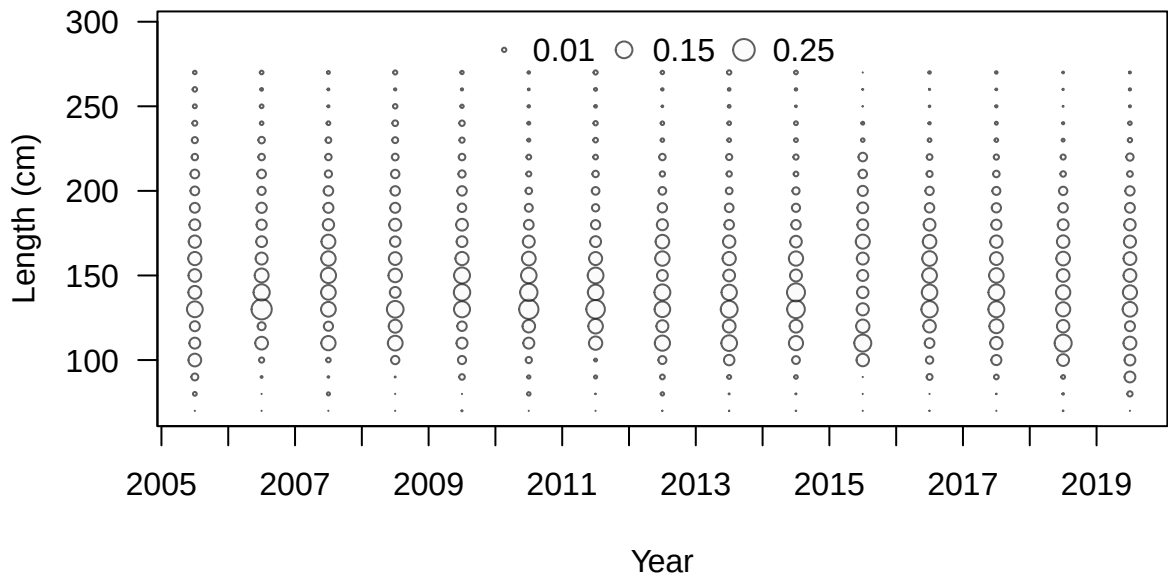
I8_ESP_Q3 (whole catch)



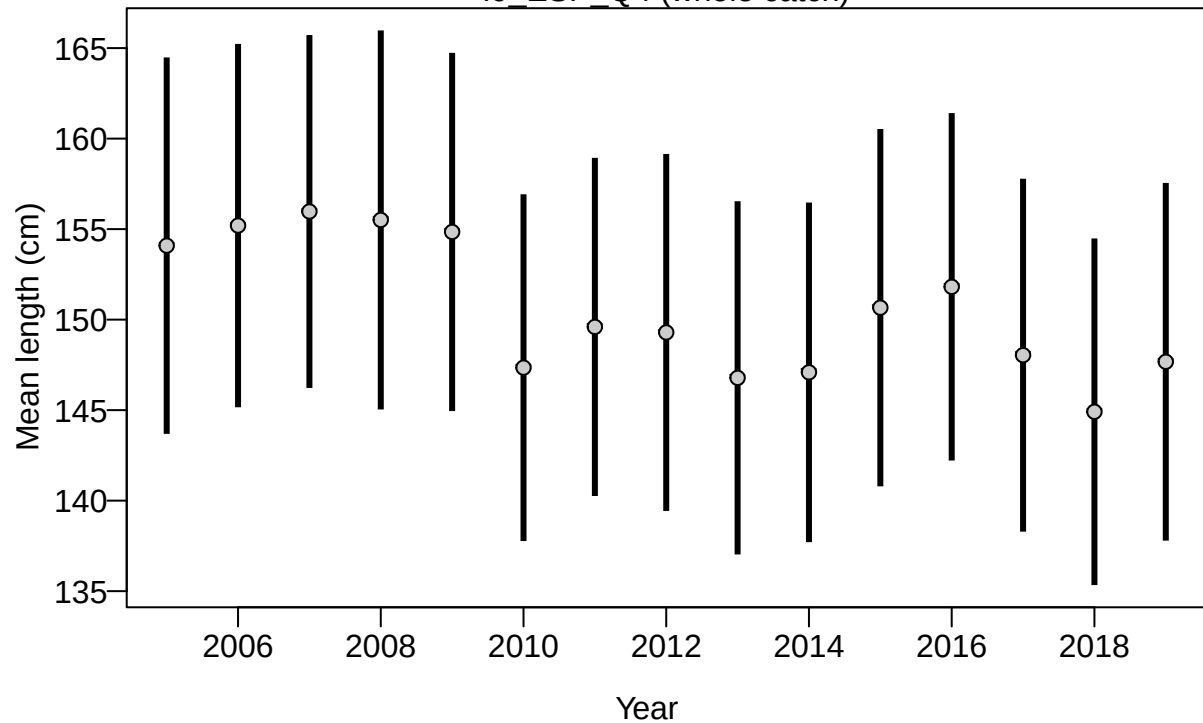
Proportion

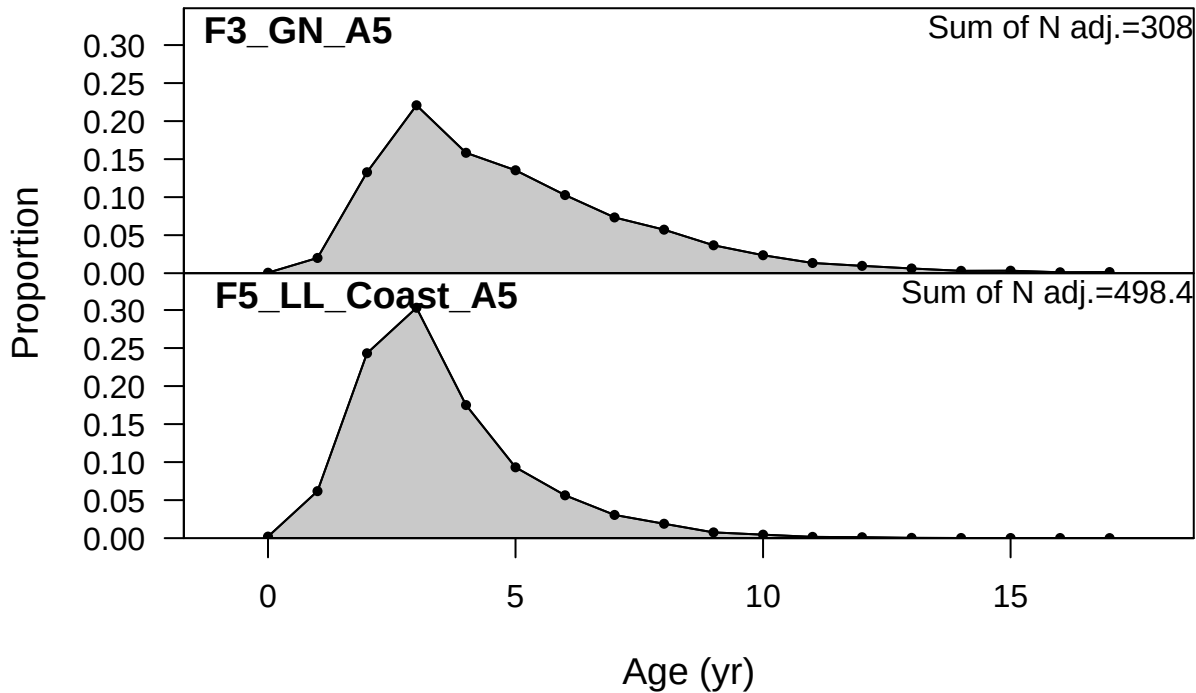


Length (cm)

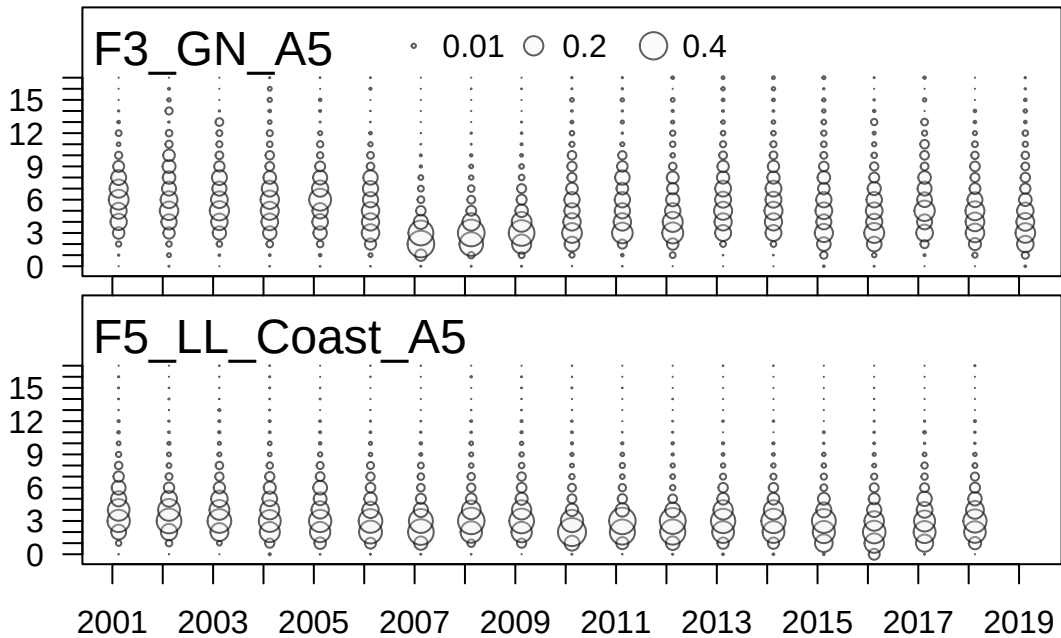


I9_ESP_Q4 (whole catch)

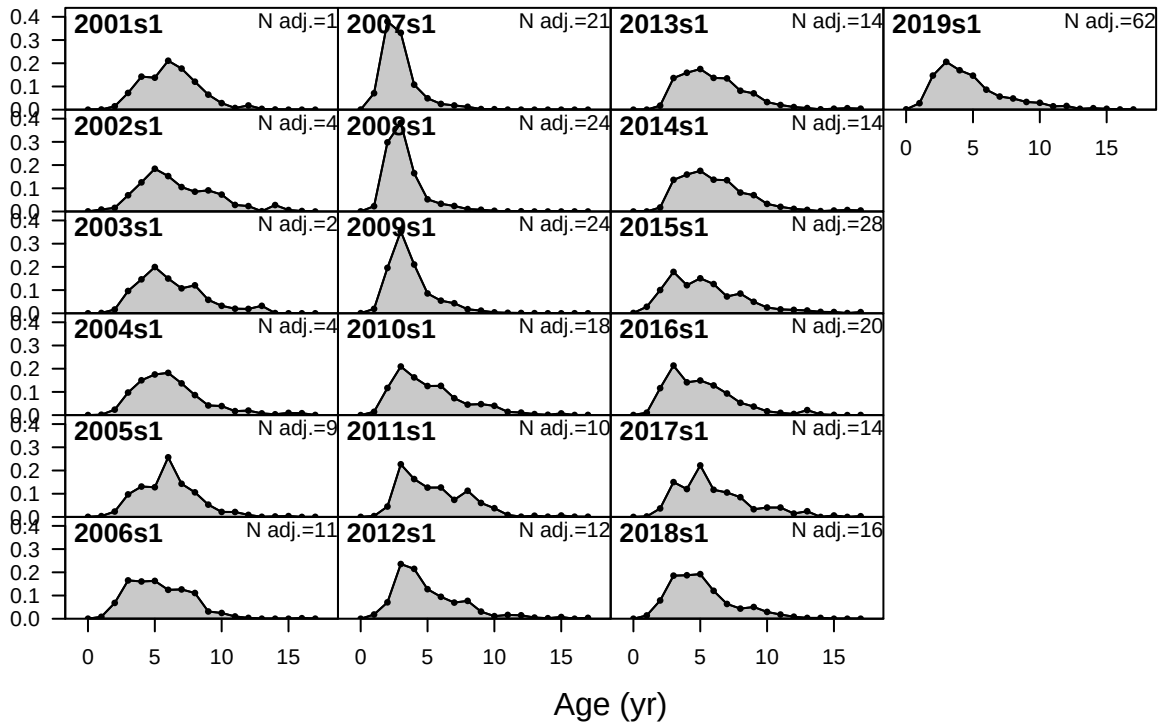


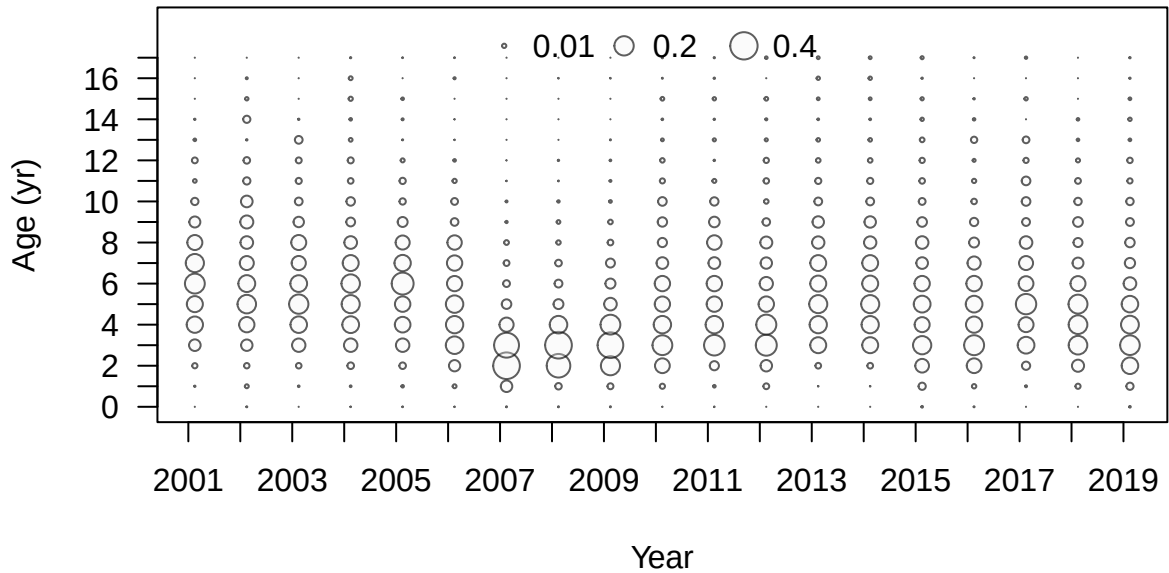


Age (yr)

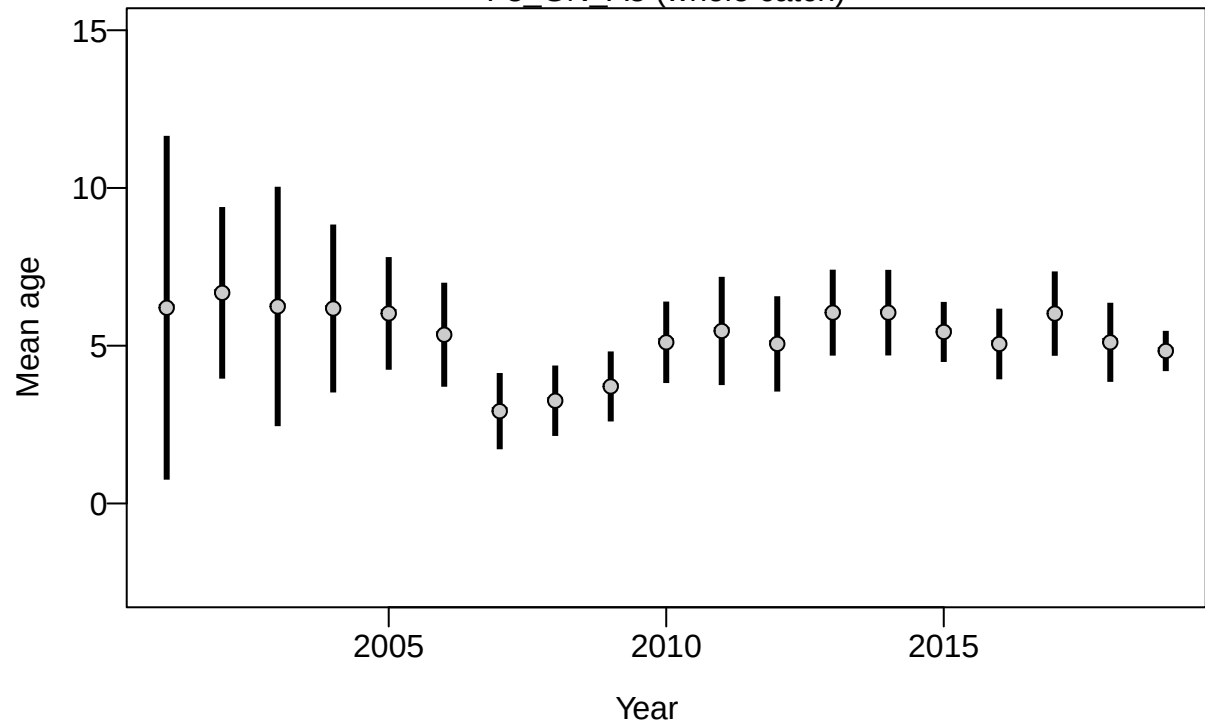


Proportion

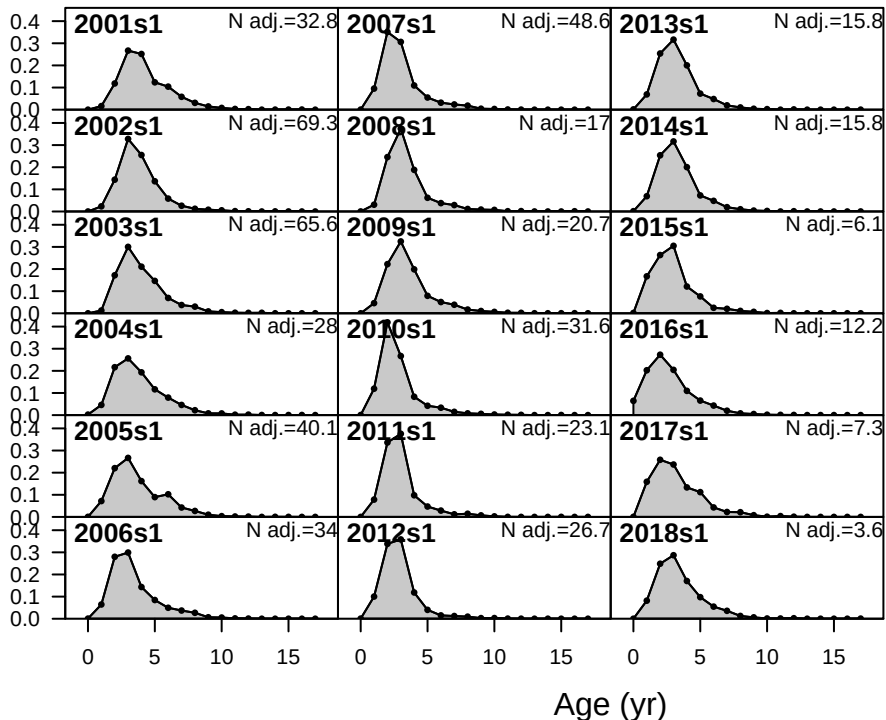


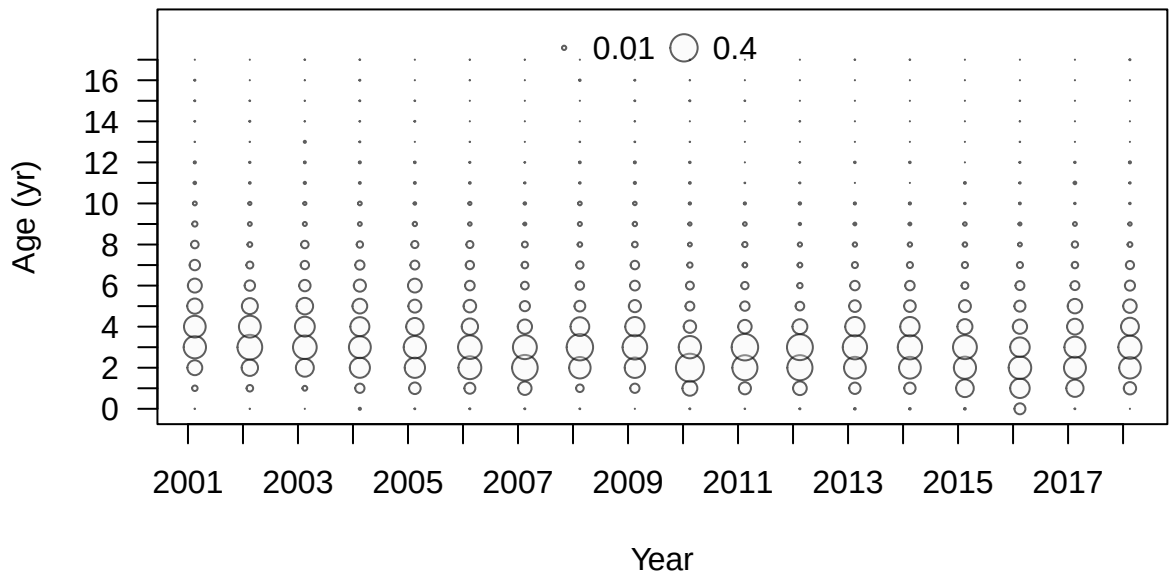


F3_GN_A5 (whole catch)

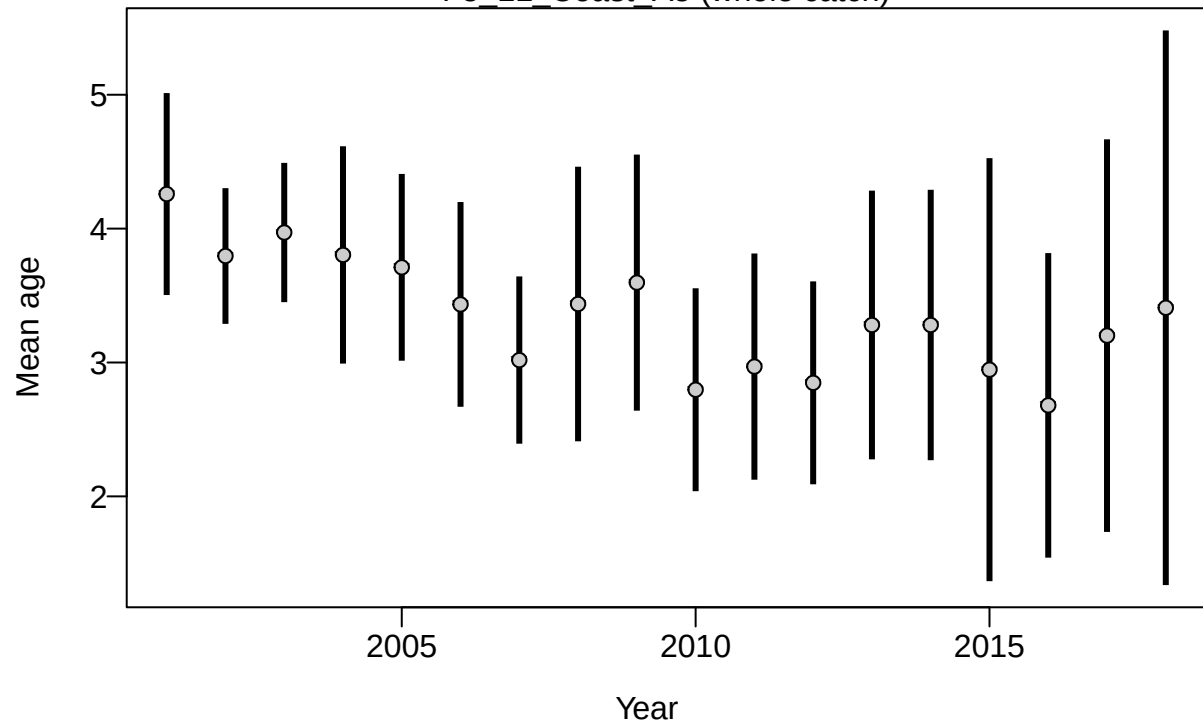


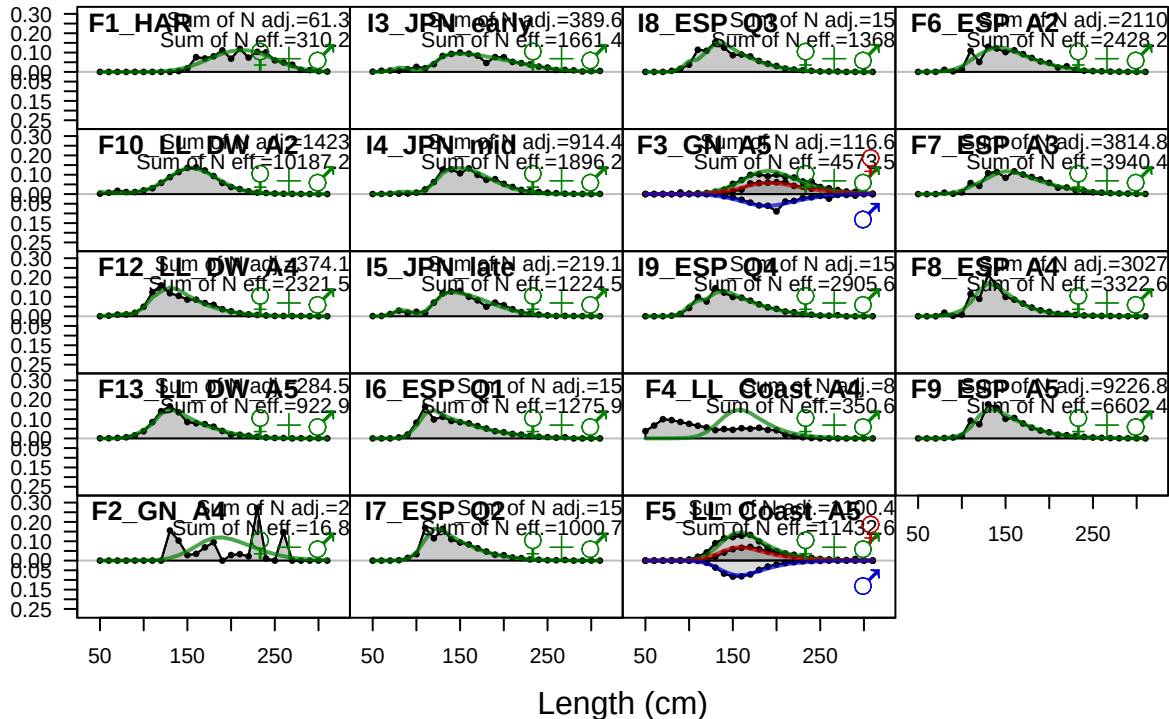
Proportion

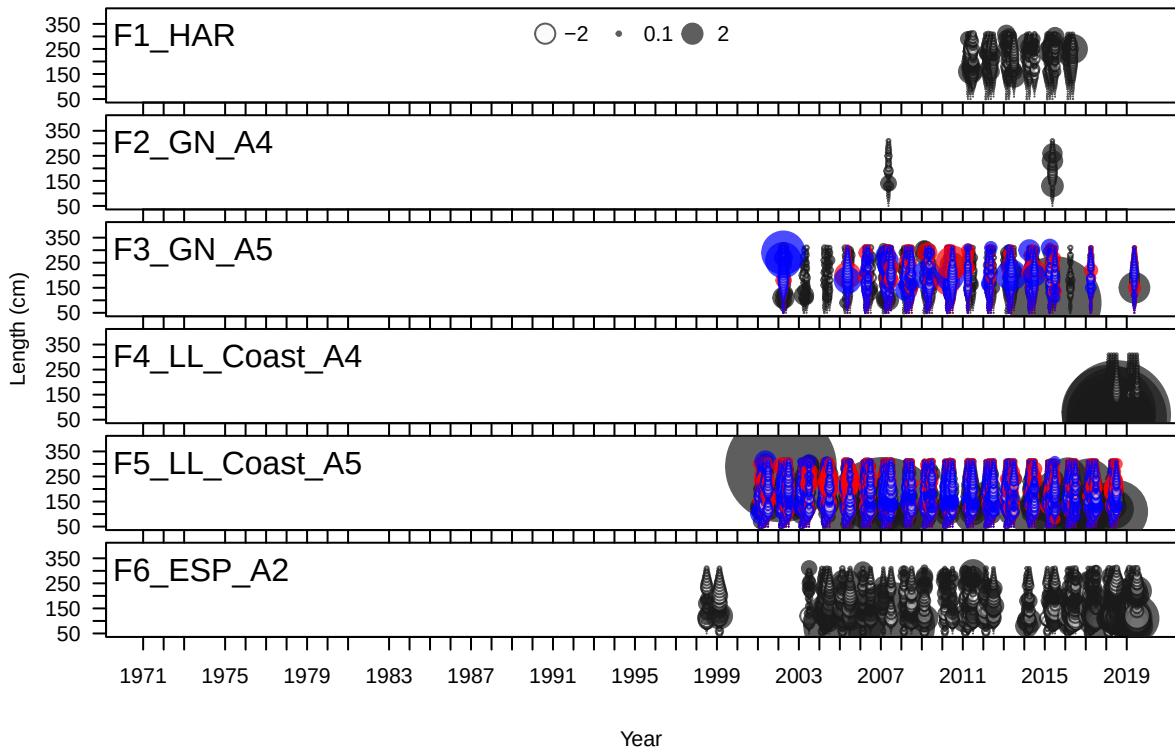


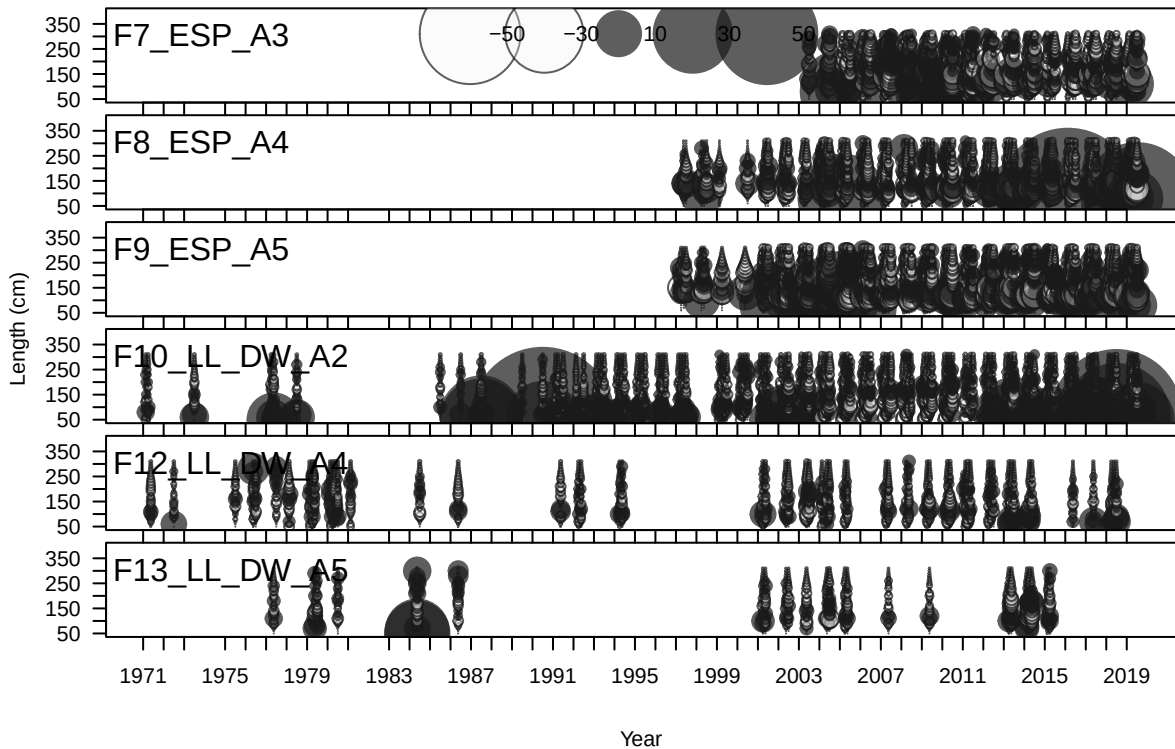


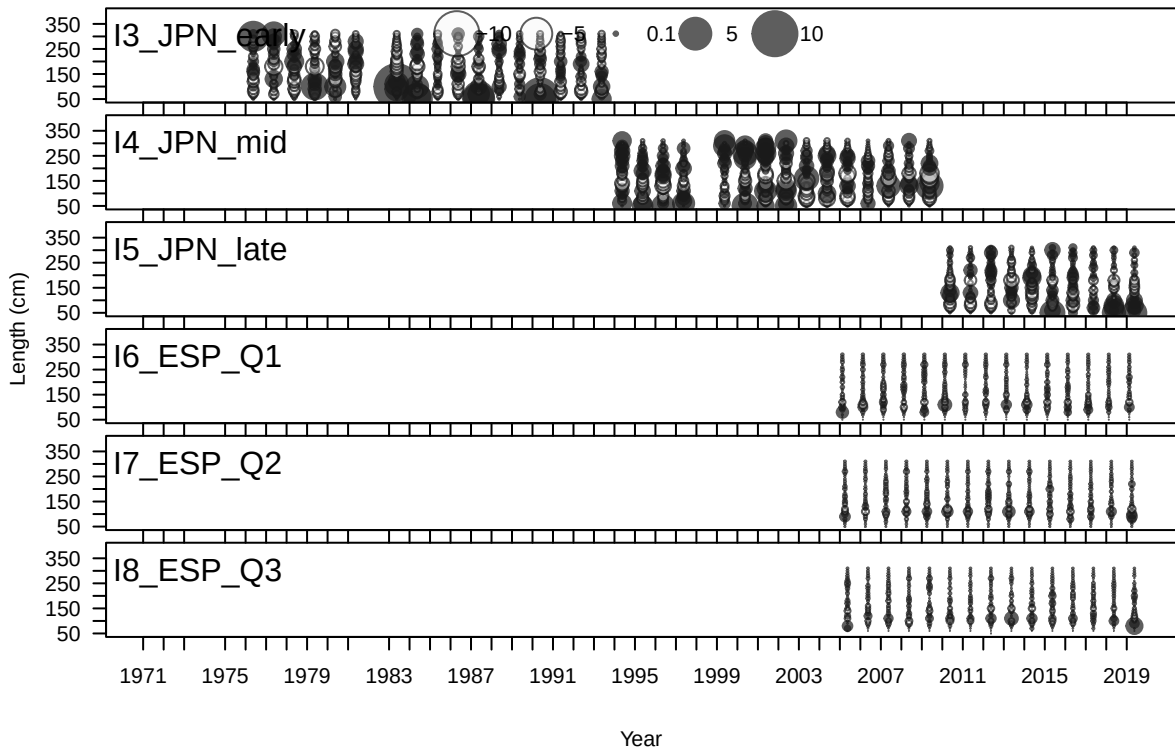
F5_LL_Coast_A5 (whole catch)



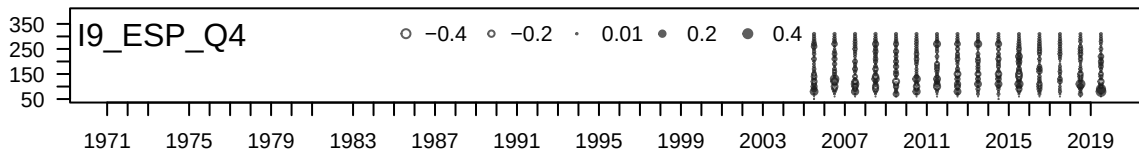




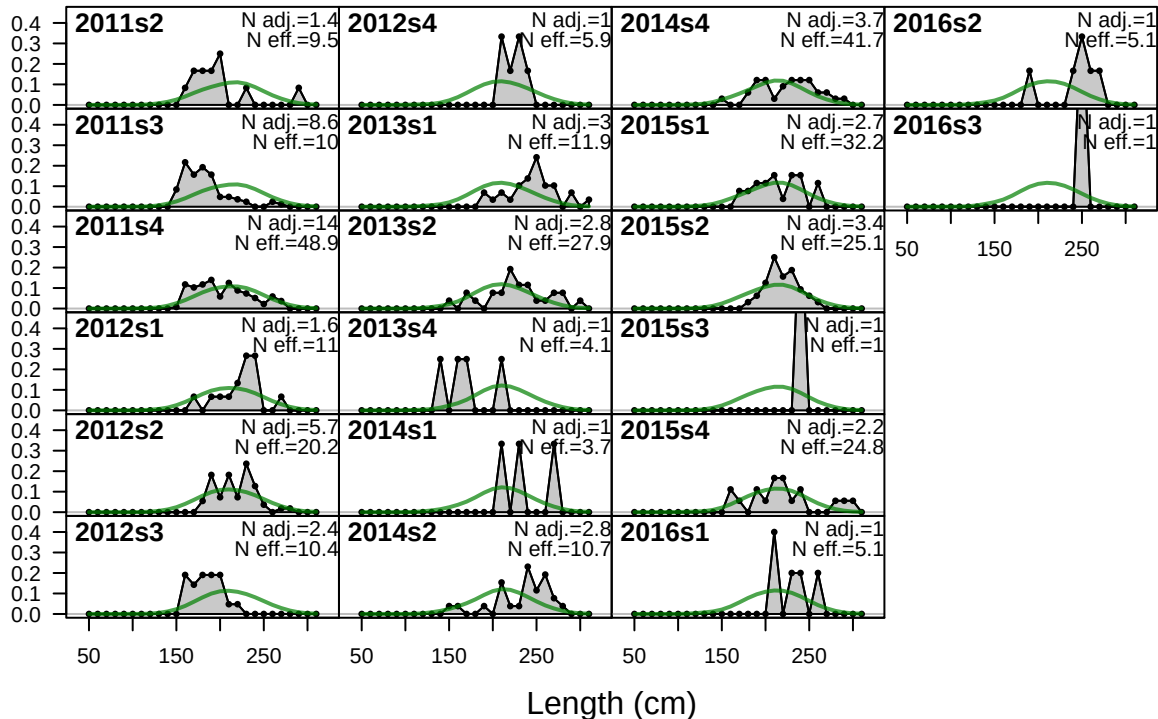


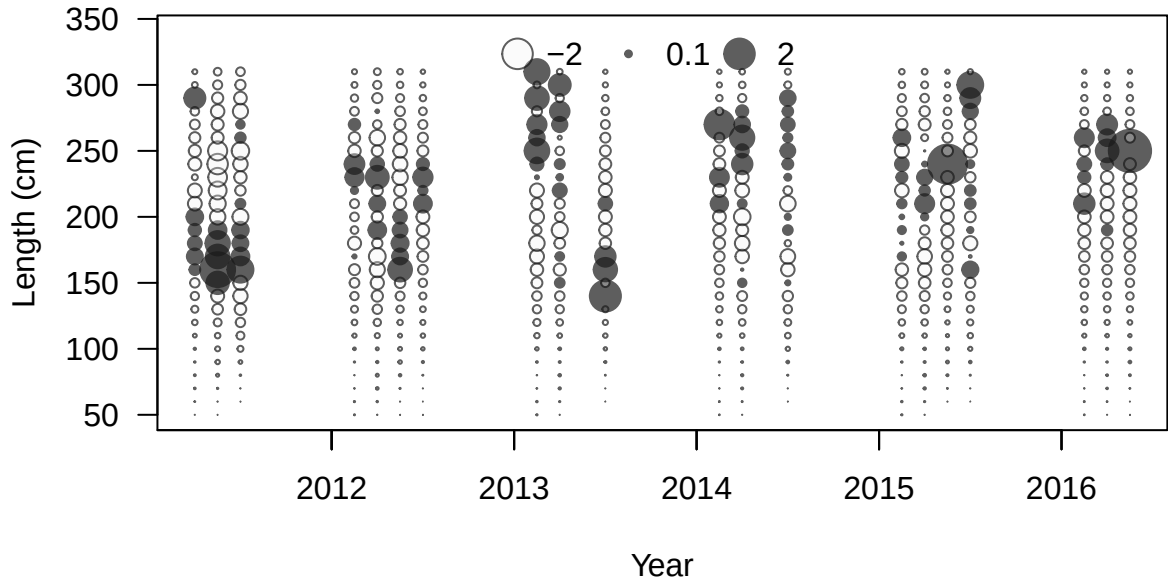


Length (cm)

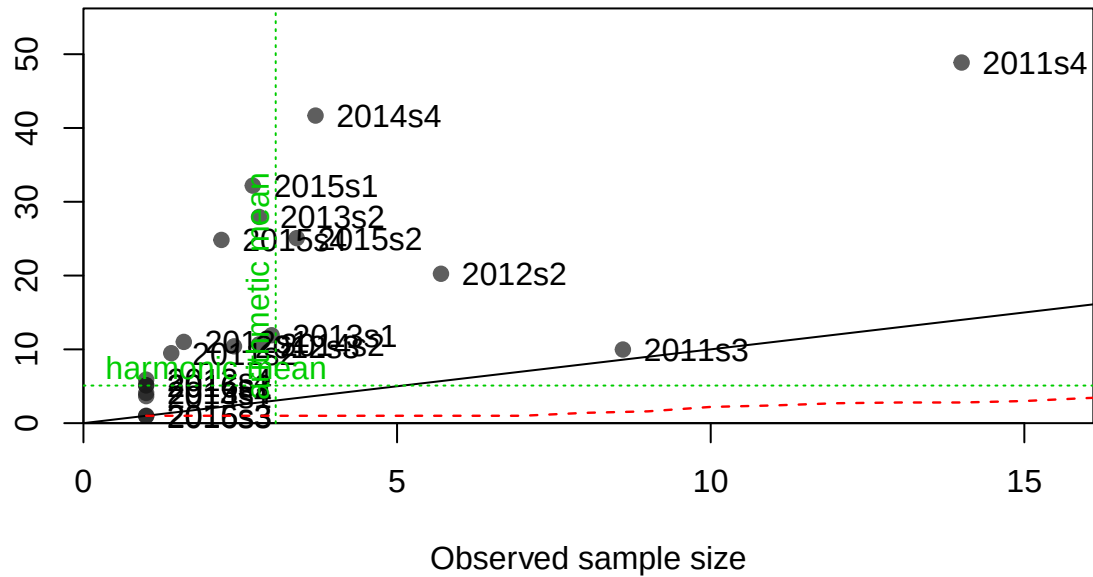


Proportion

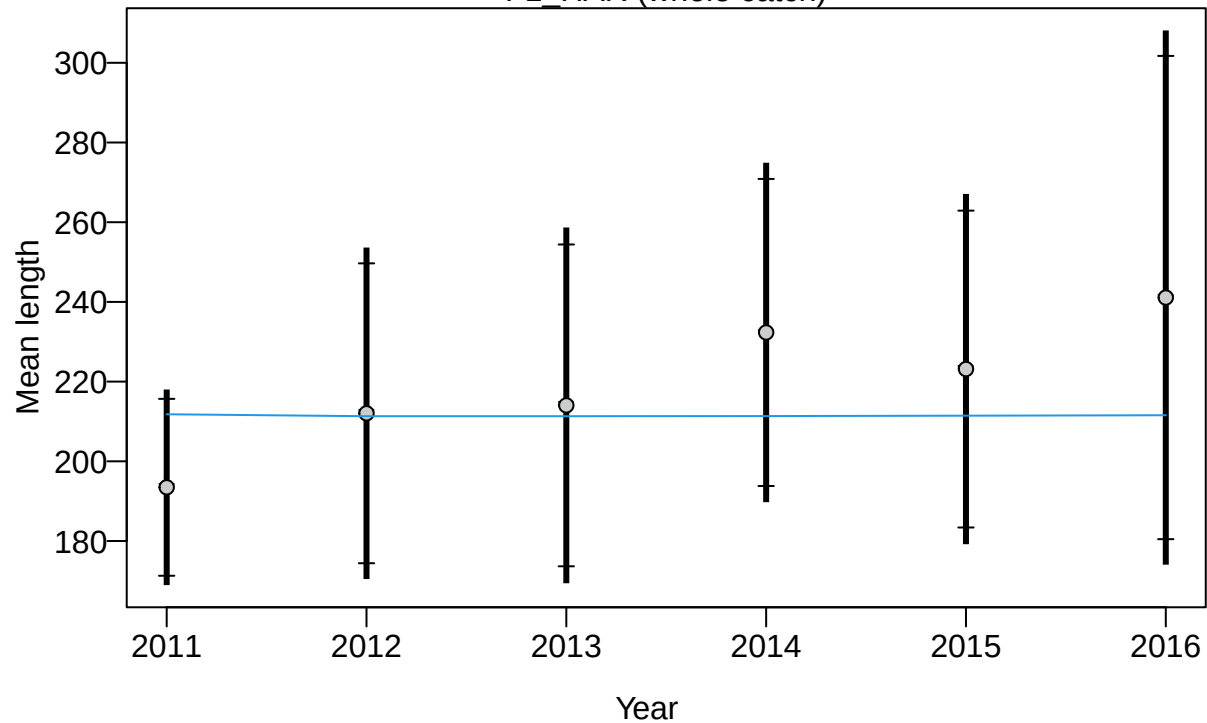




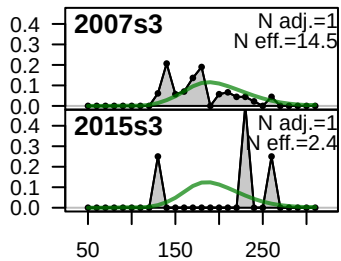
Effective sample size



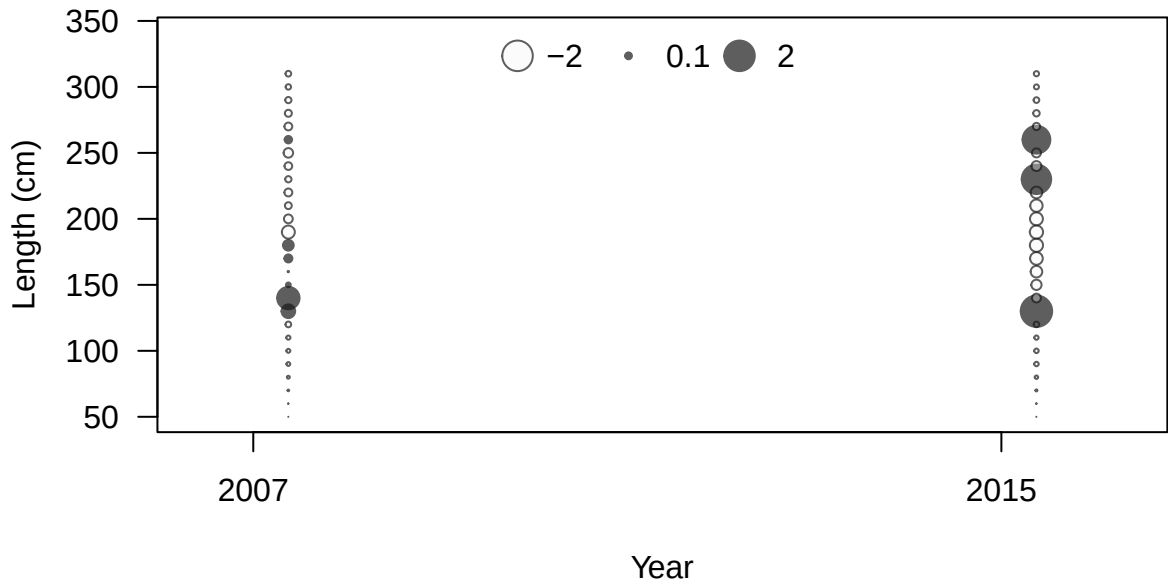
F1_HAR (whole catch)



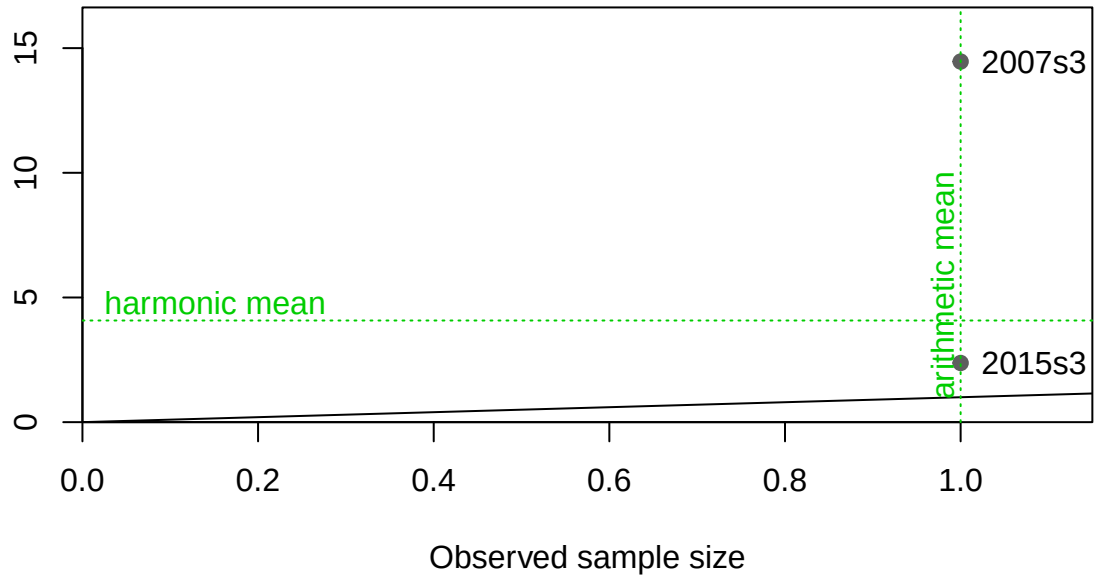
Proportion



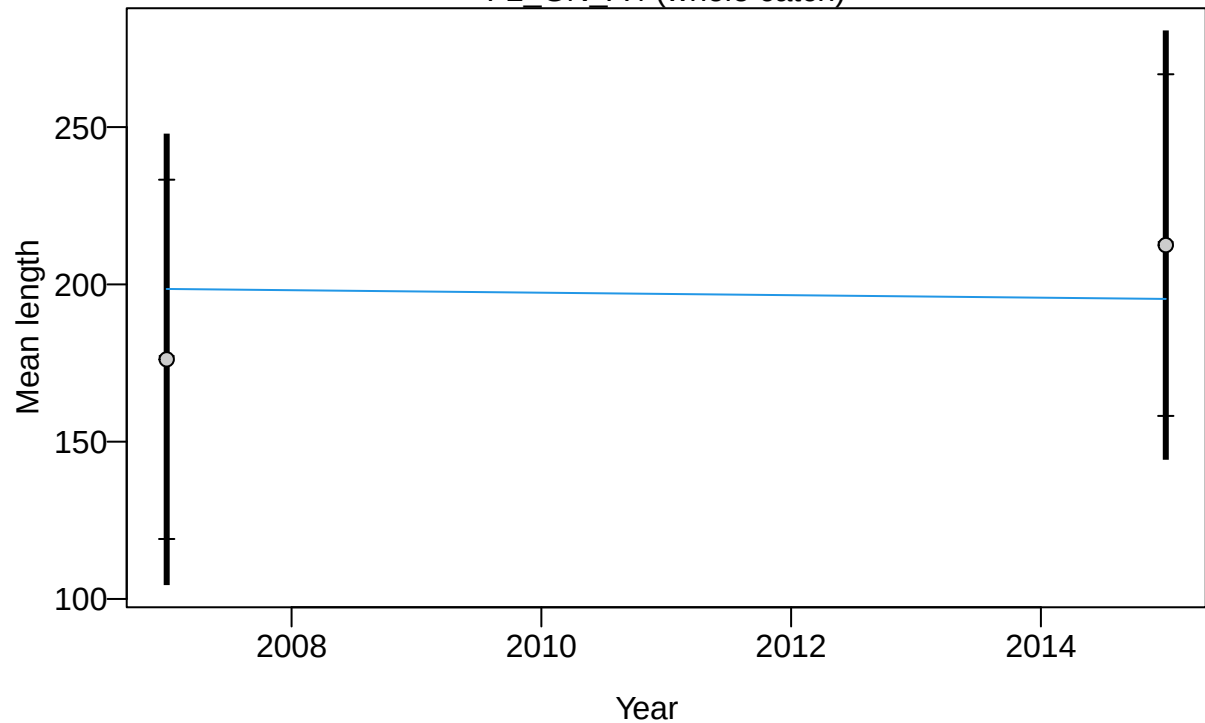
Length (cm)



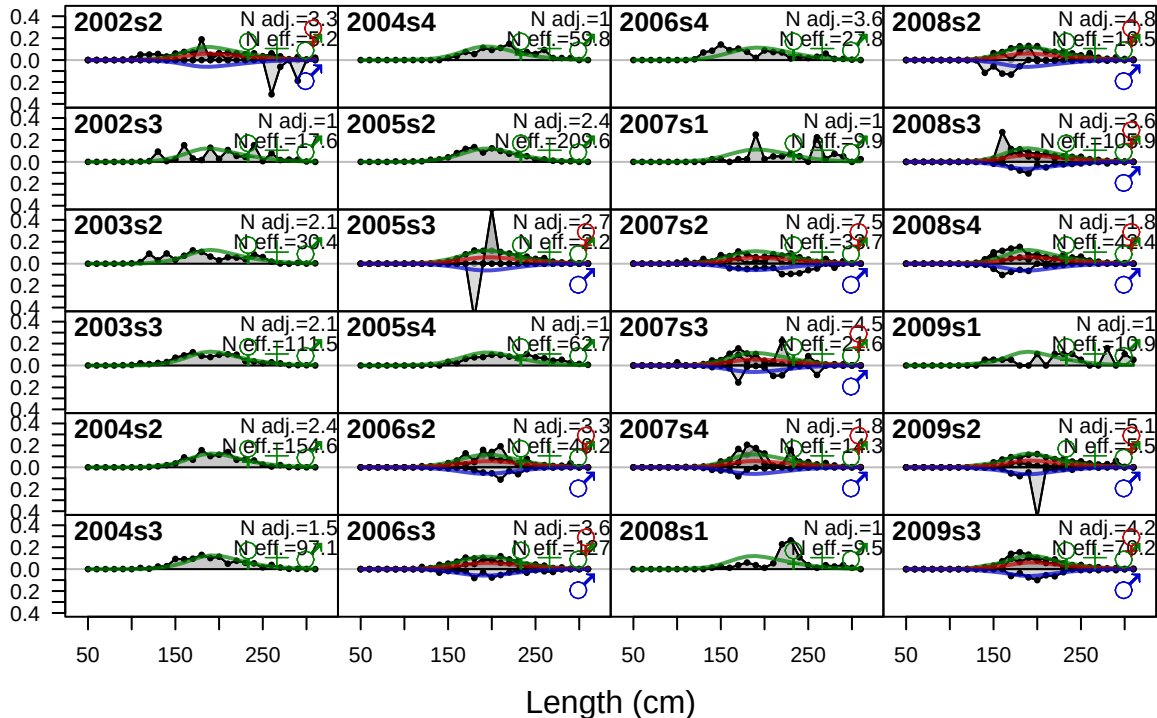
Effective sample size



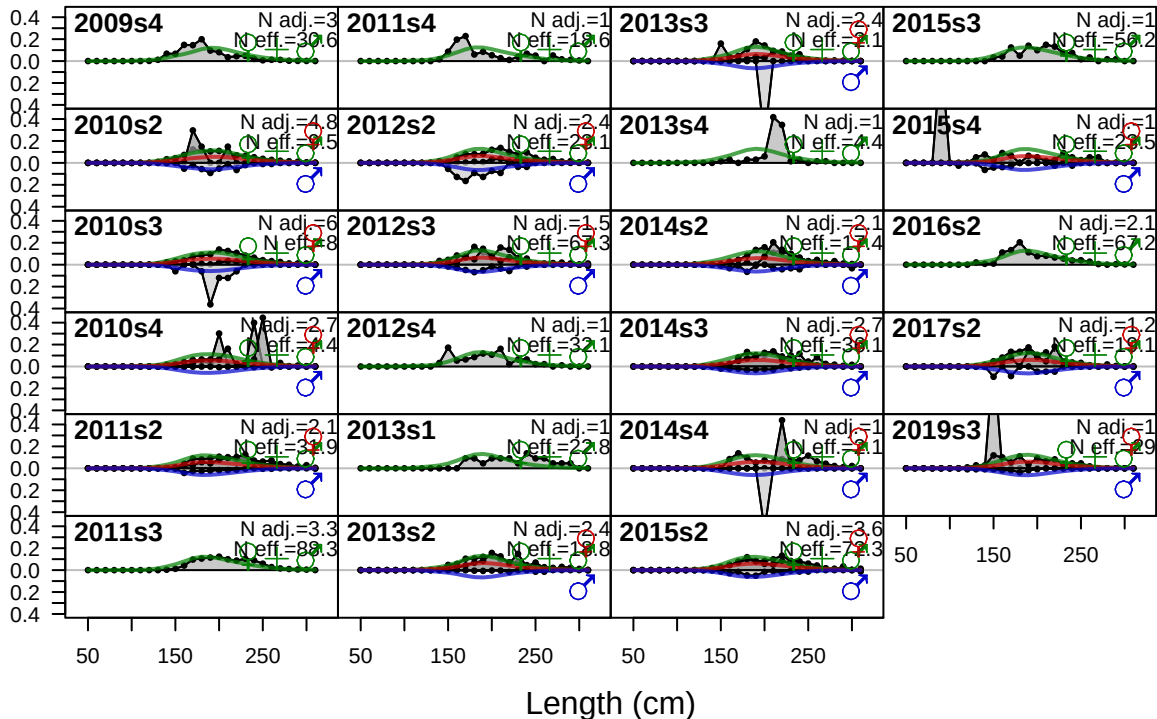
F2_GN_A4 (whole catch)

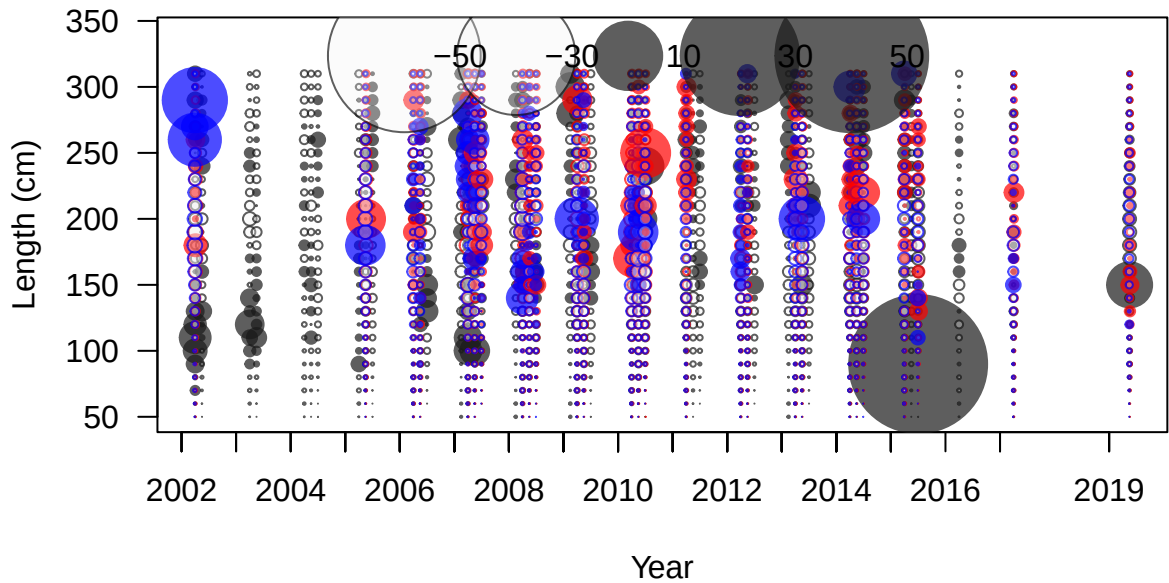


Proportion

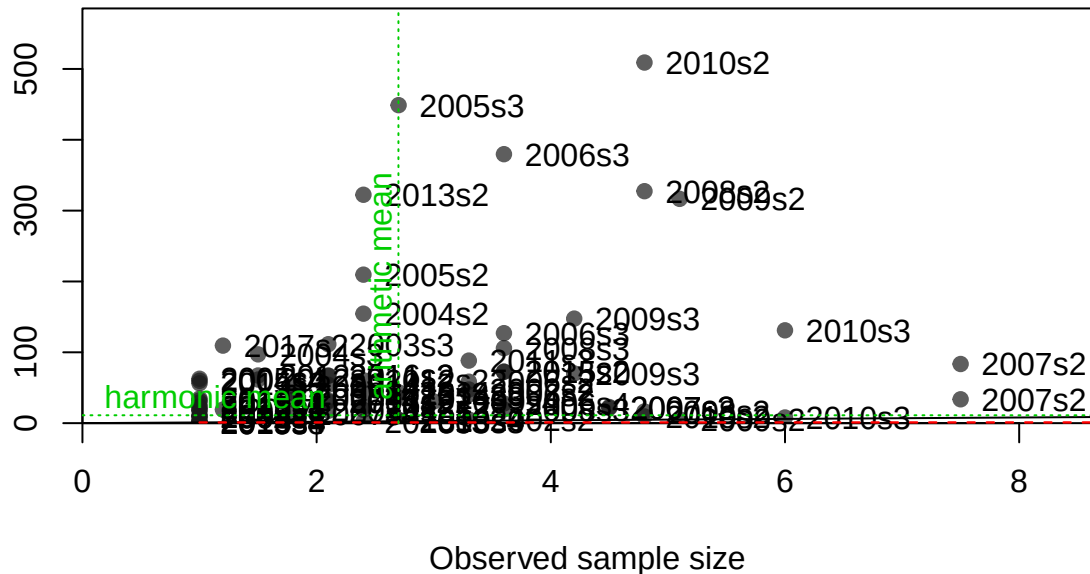


Proportion

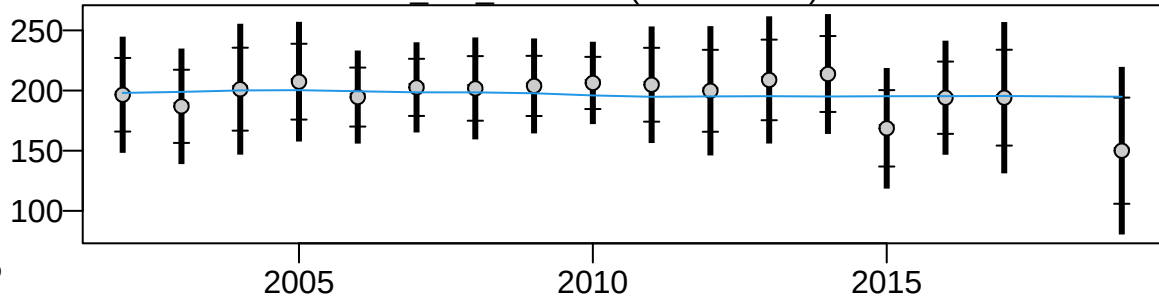




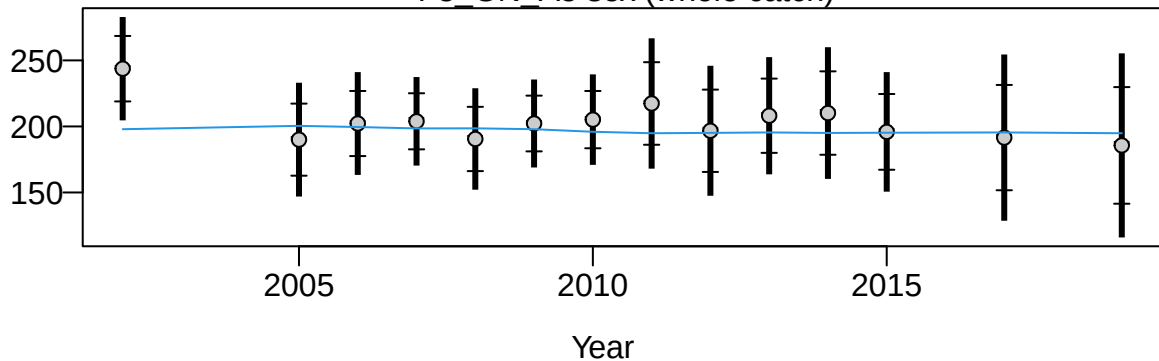
Effective sample size



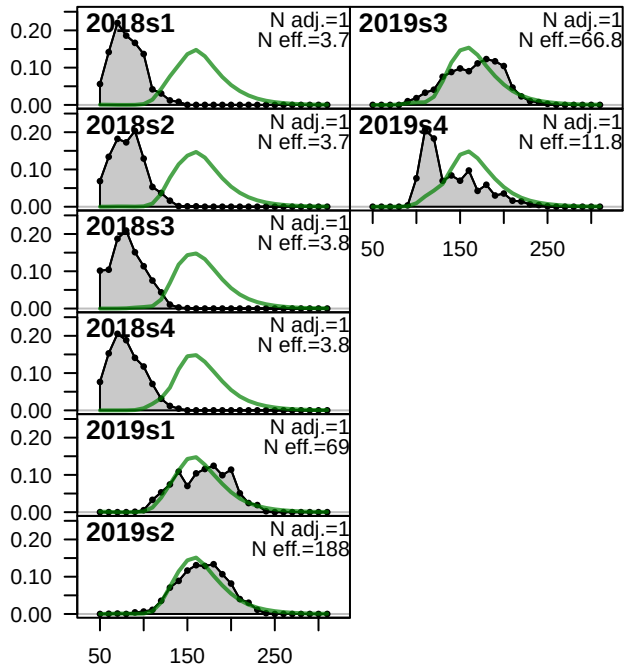
F3_GN_A5 comb (whole catch)



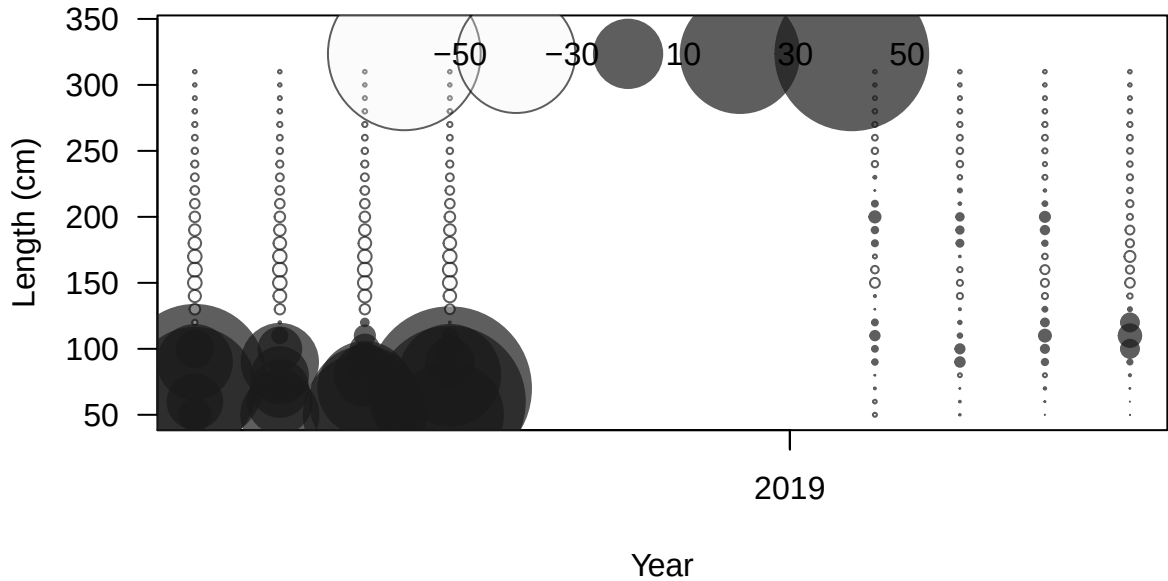
F3_GN_A5 sex (whole catch)



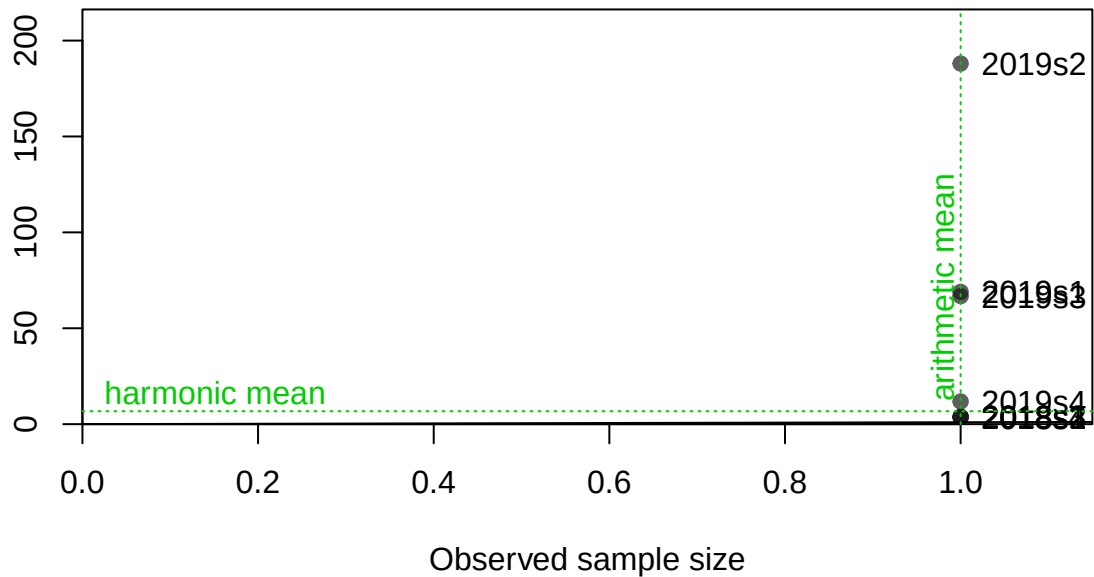
Proportion



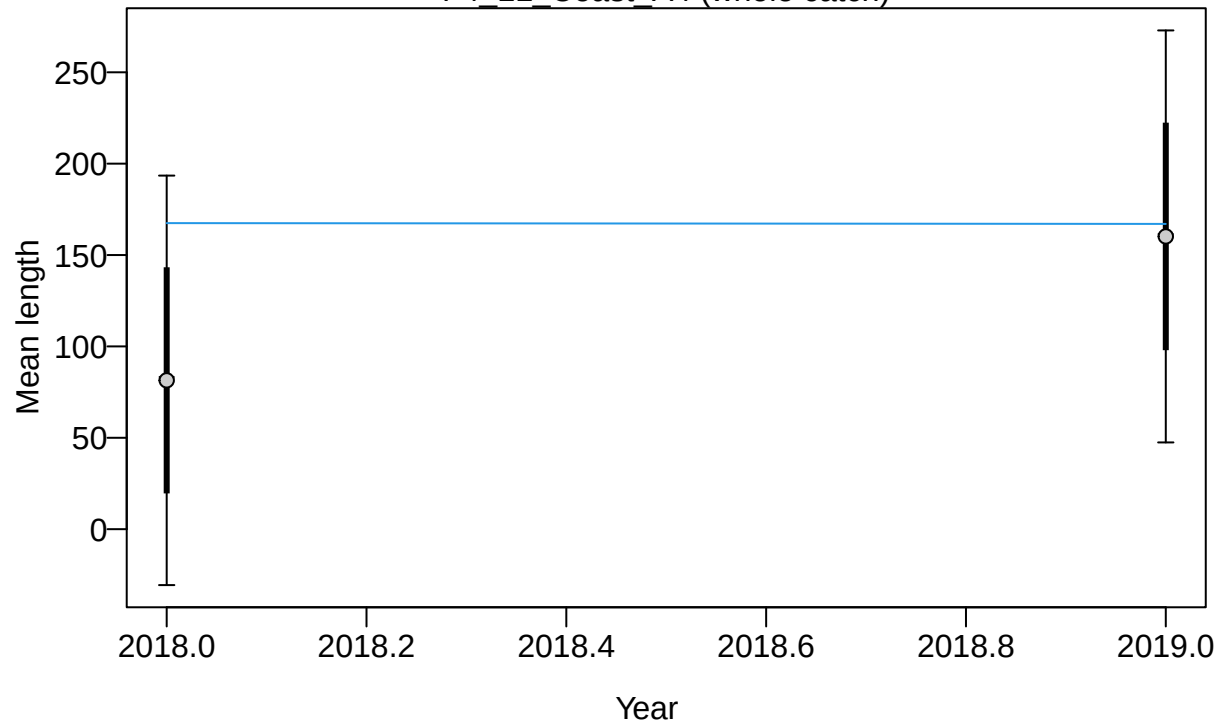
Length (cm)



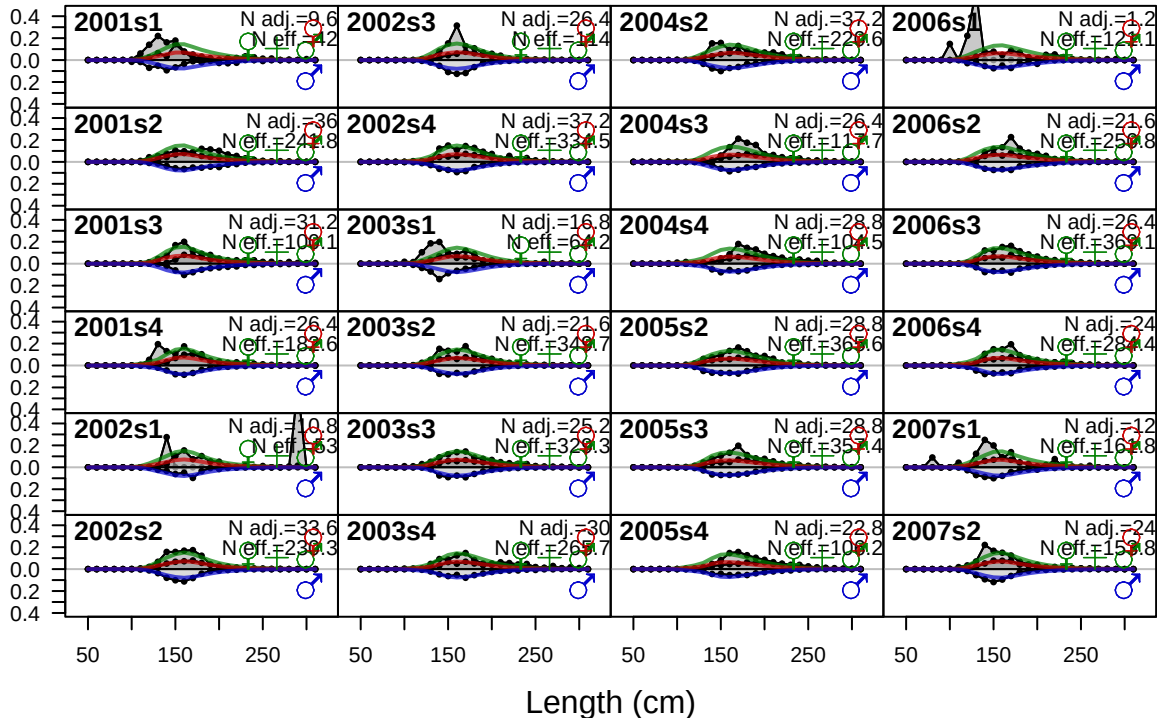
Effective sample size



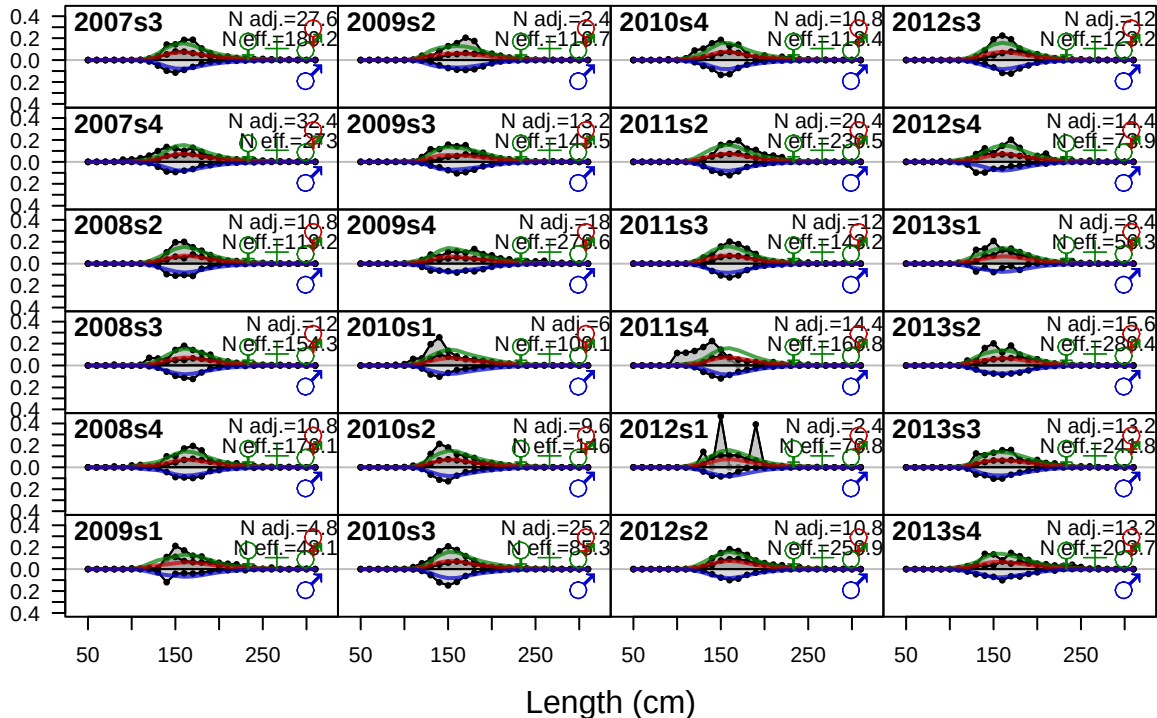
F4_LL_Coast_A4 (whole catch)



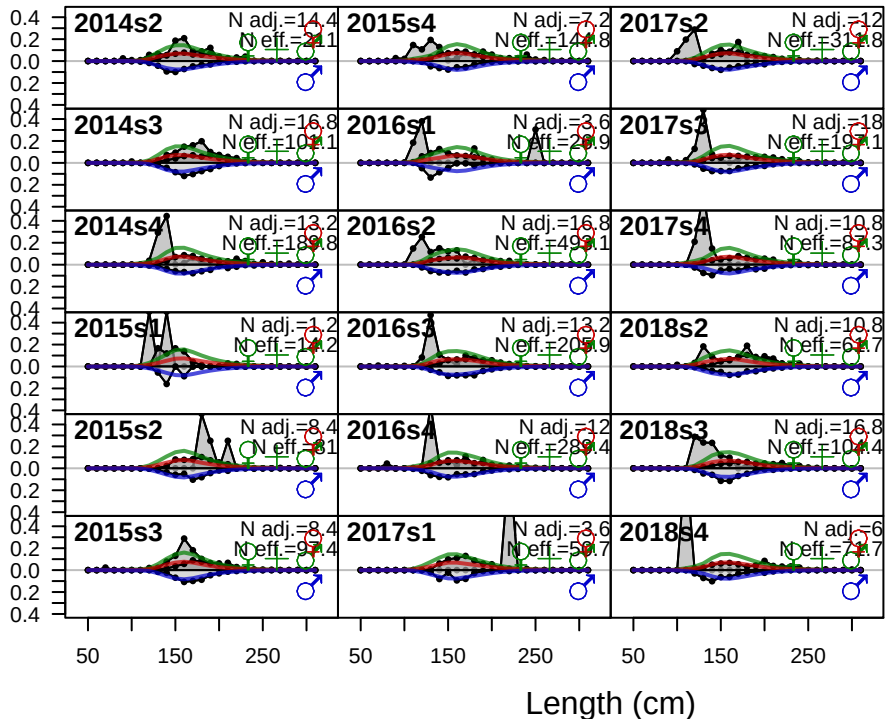
Proportion

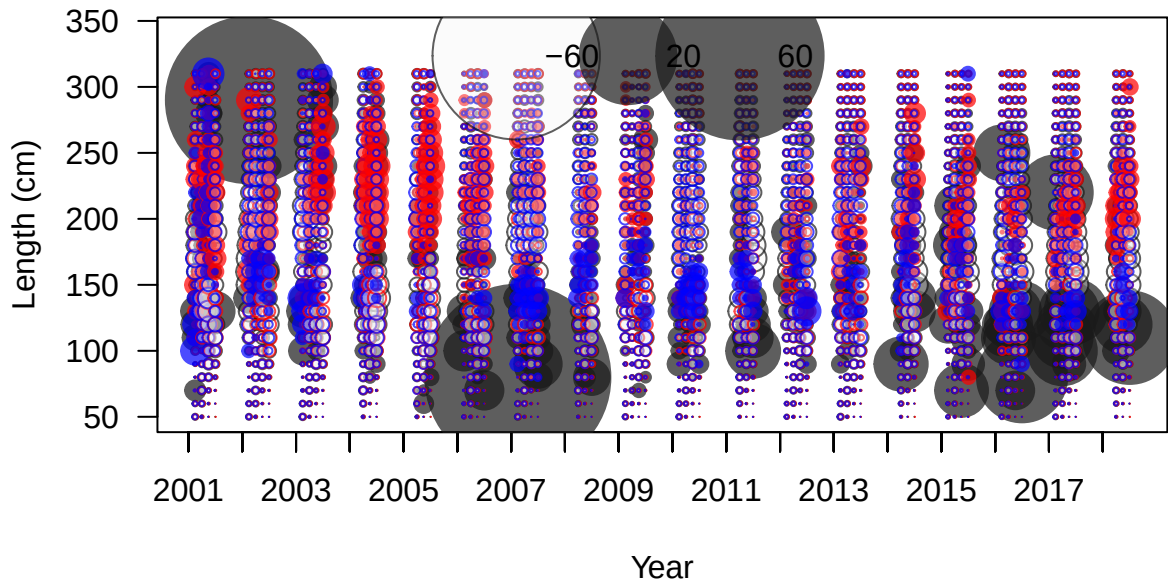


Proportion

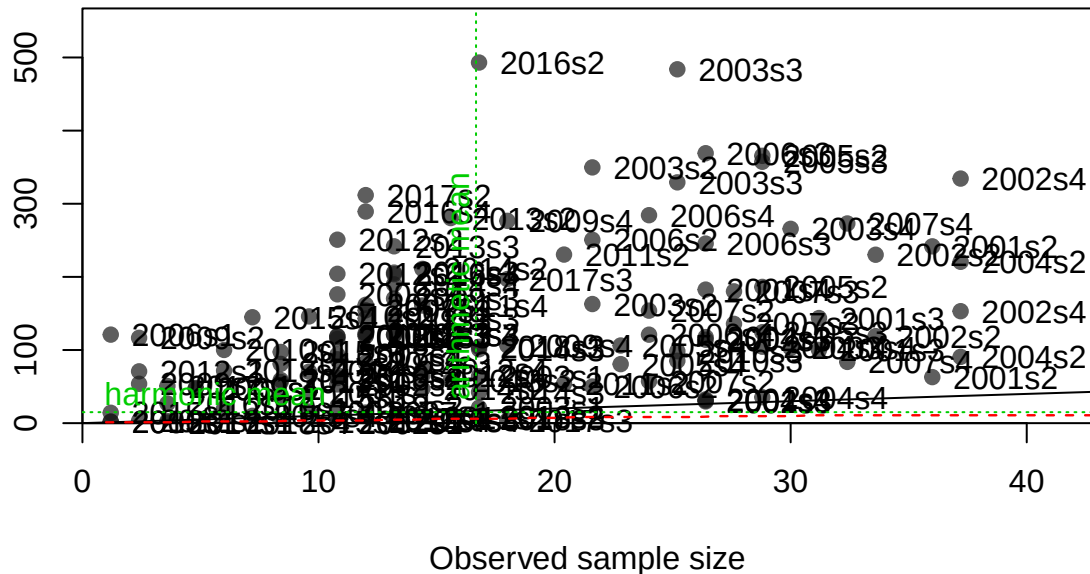


Proportion

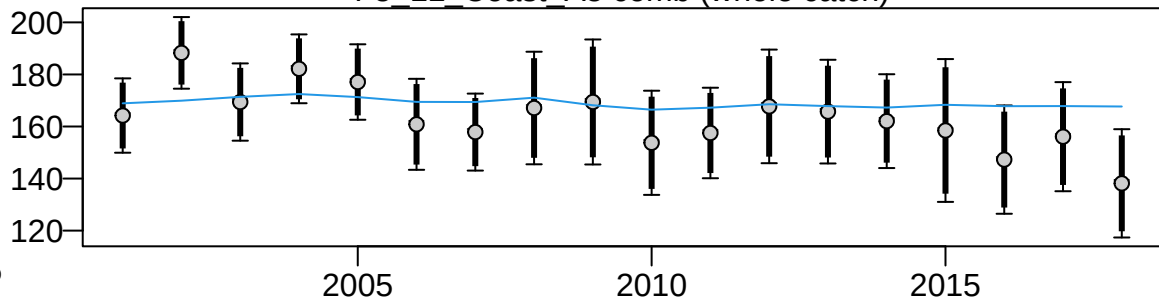




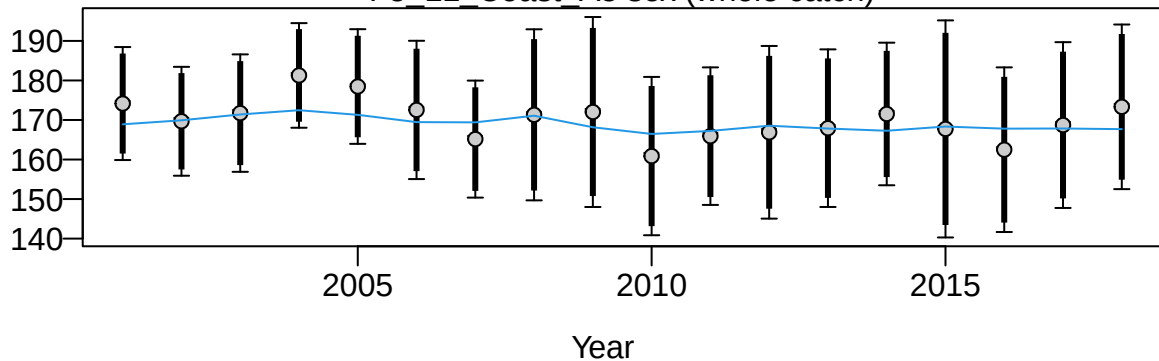
Effective sample size



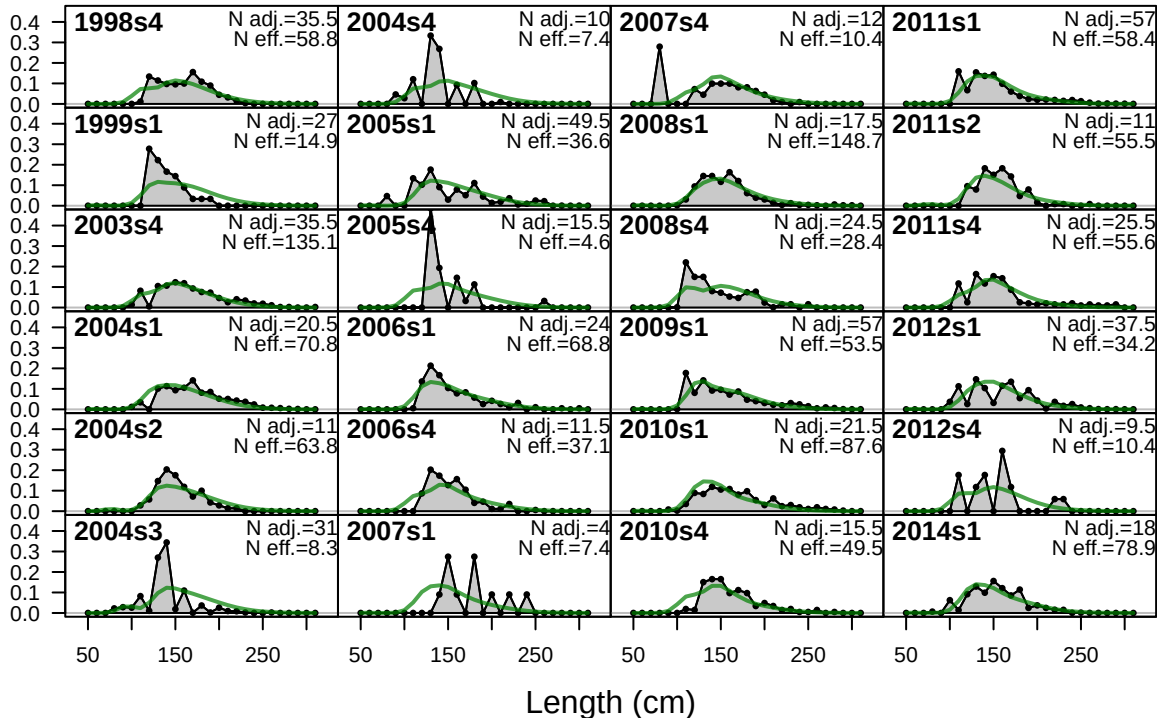
F5_LL_Coast_A5 comb (whole catch)



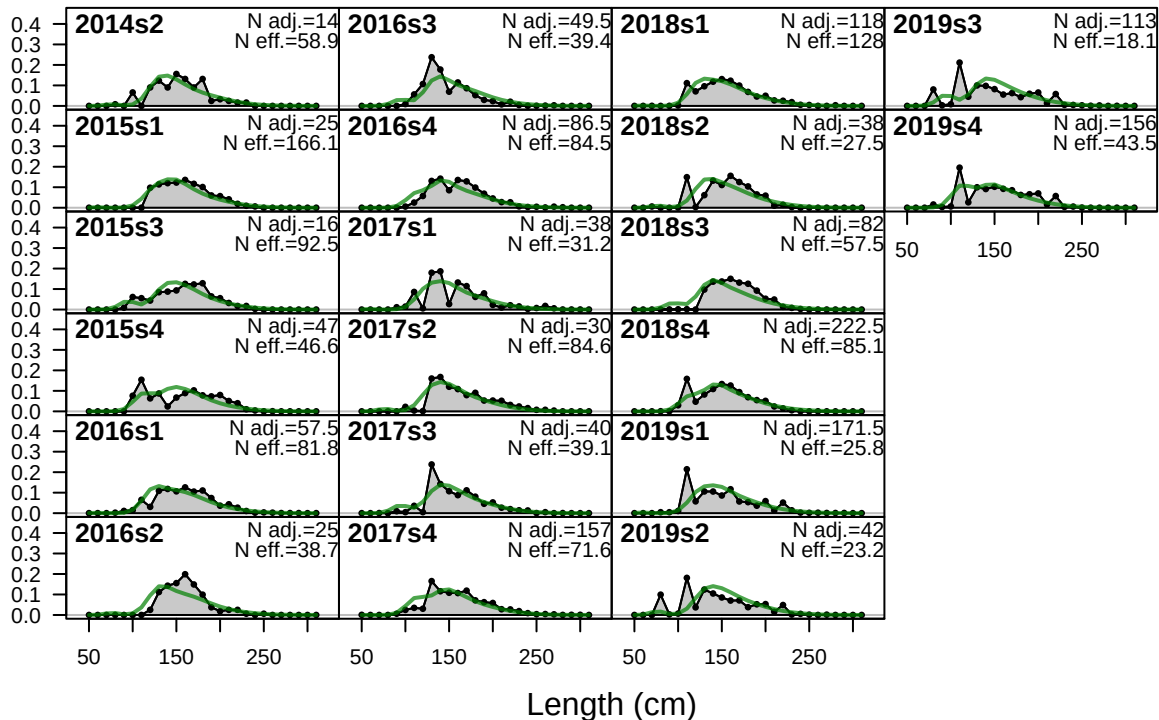
F5_LL_Coast_A5 sex (whole catch)

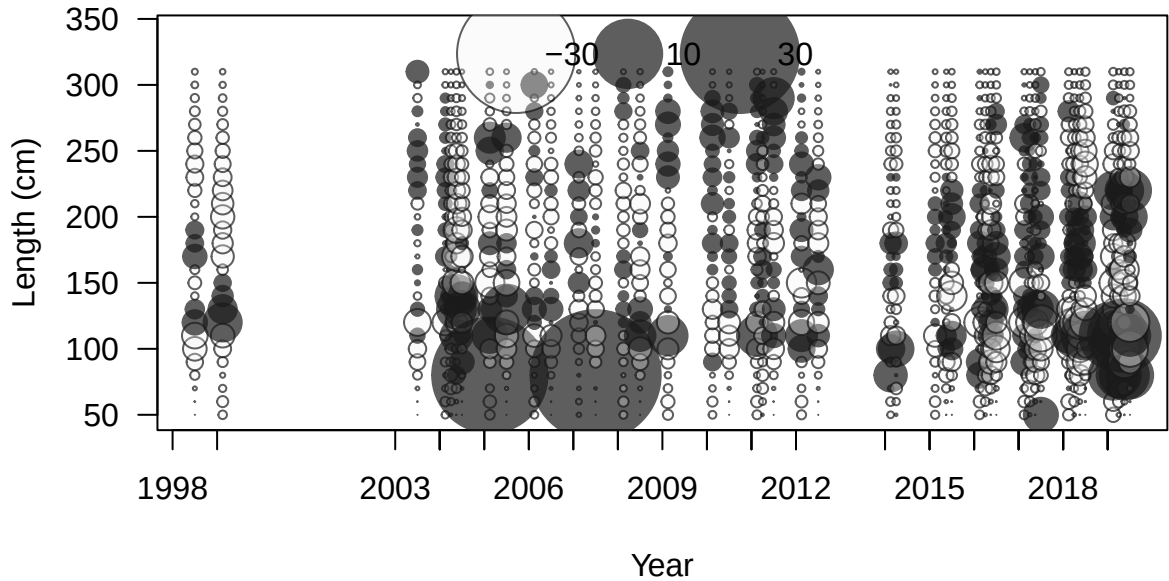


Proportion

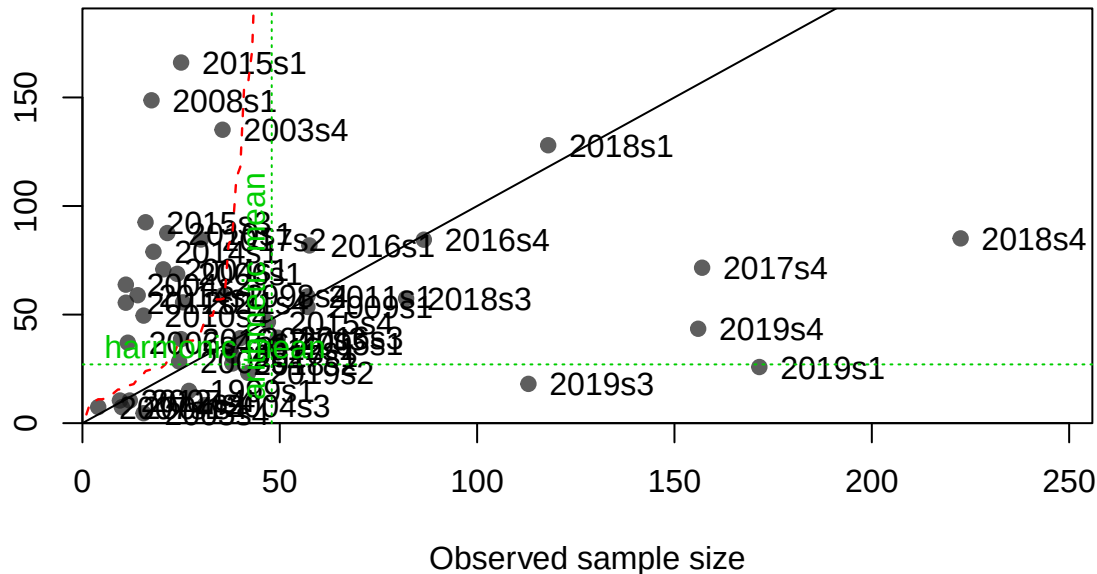


Proportion

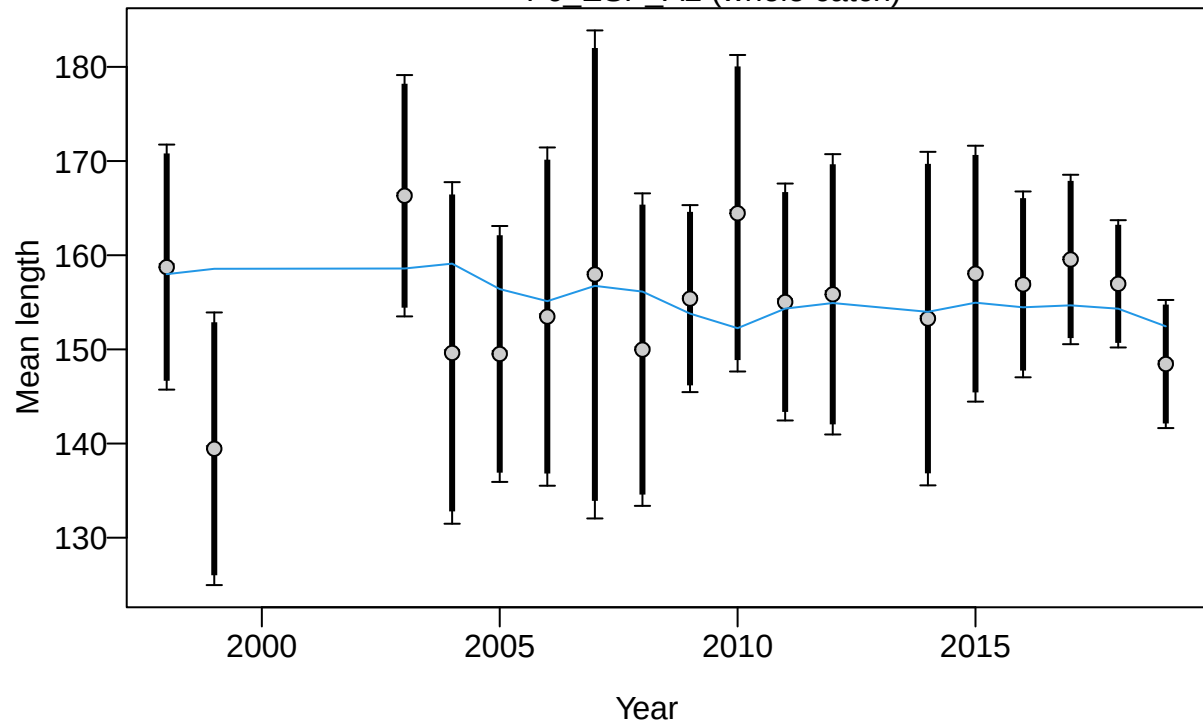


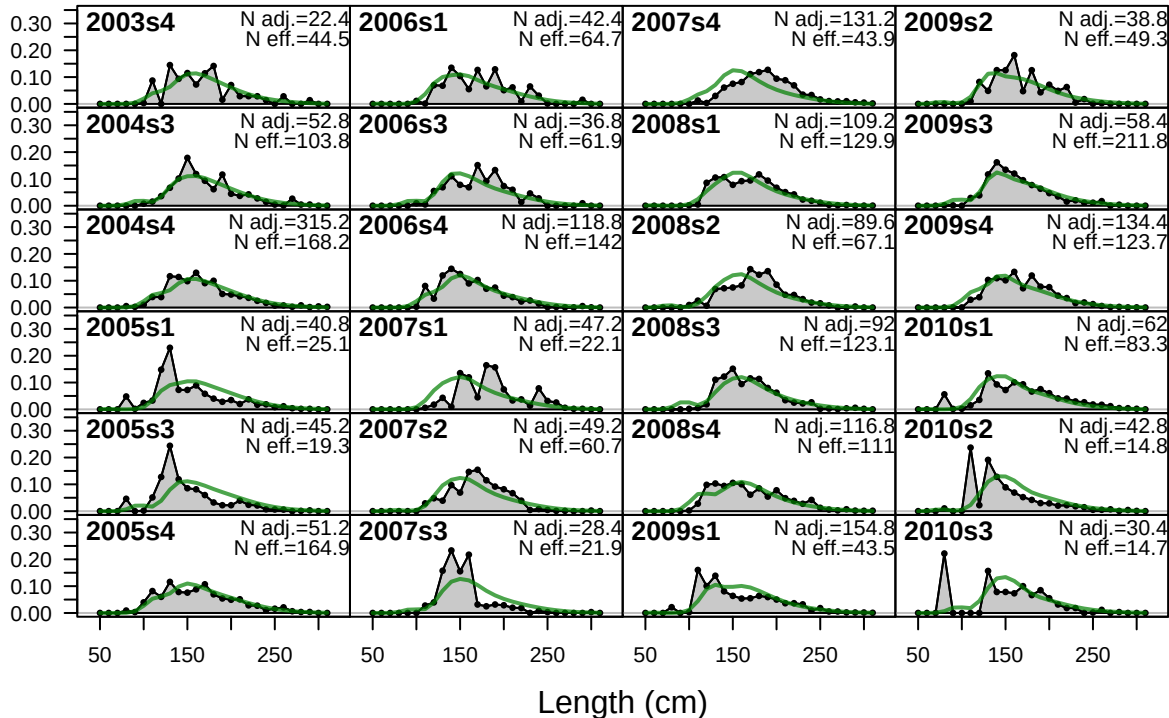


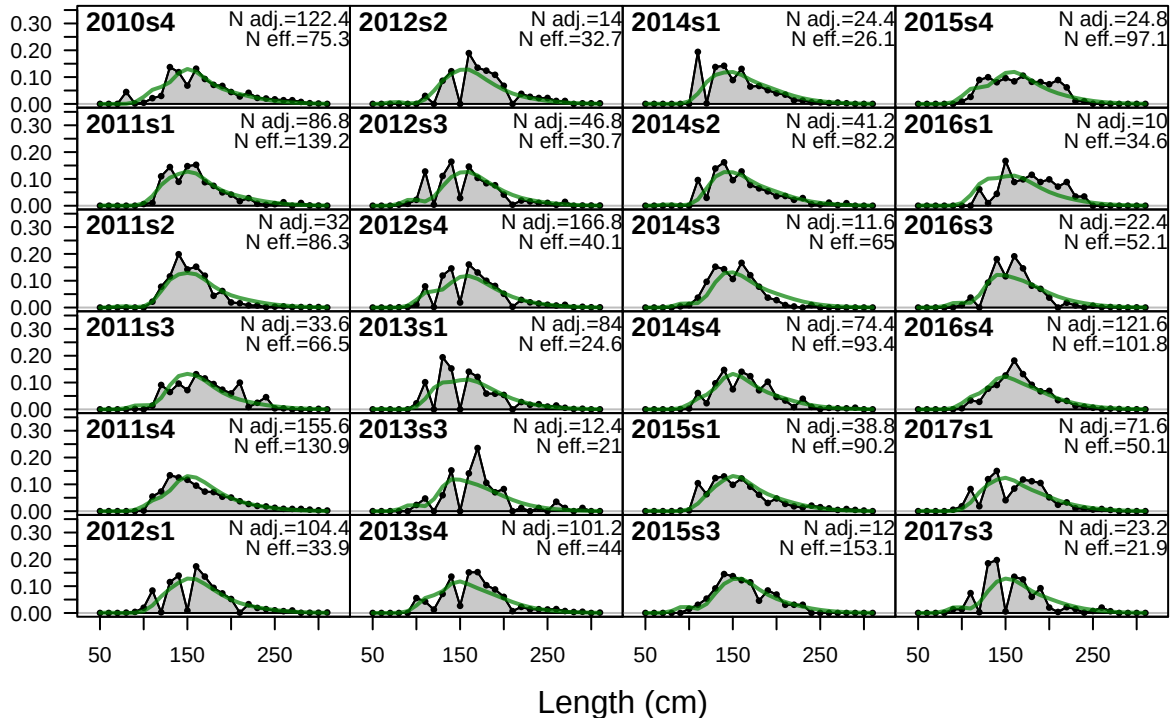
Effective sample size



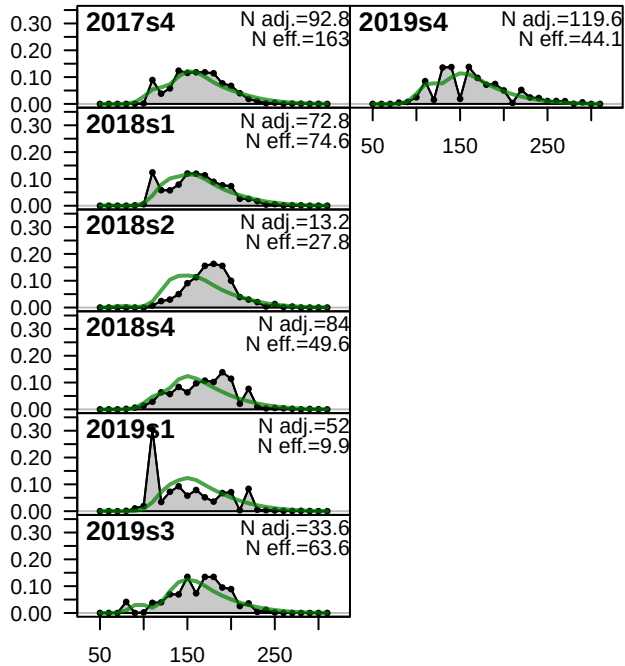
F6_ESP_A2 (whole catch)



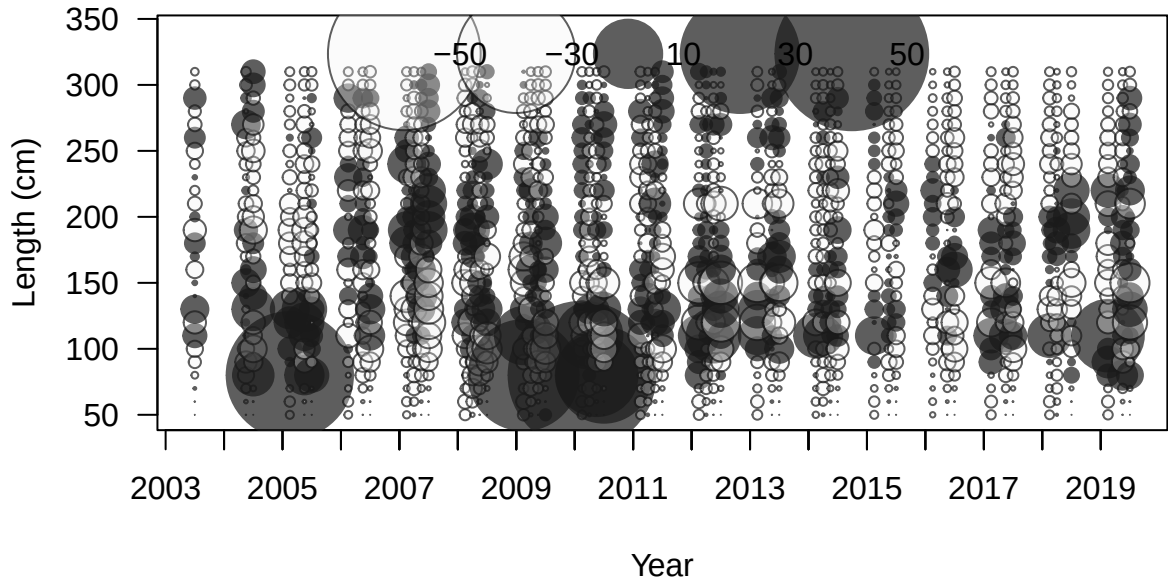


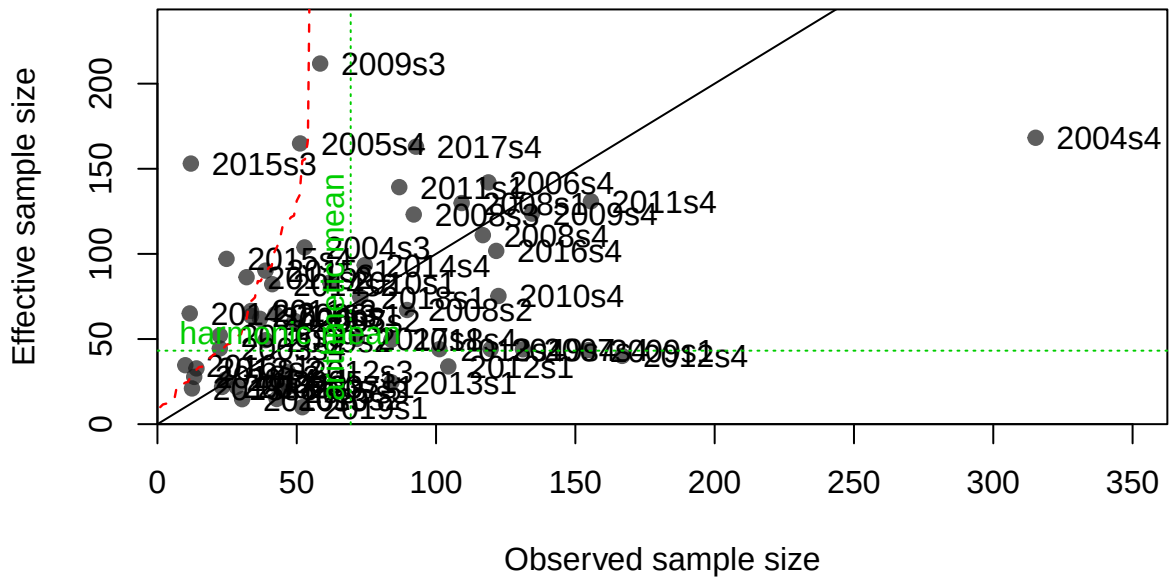


Proportion

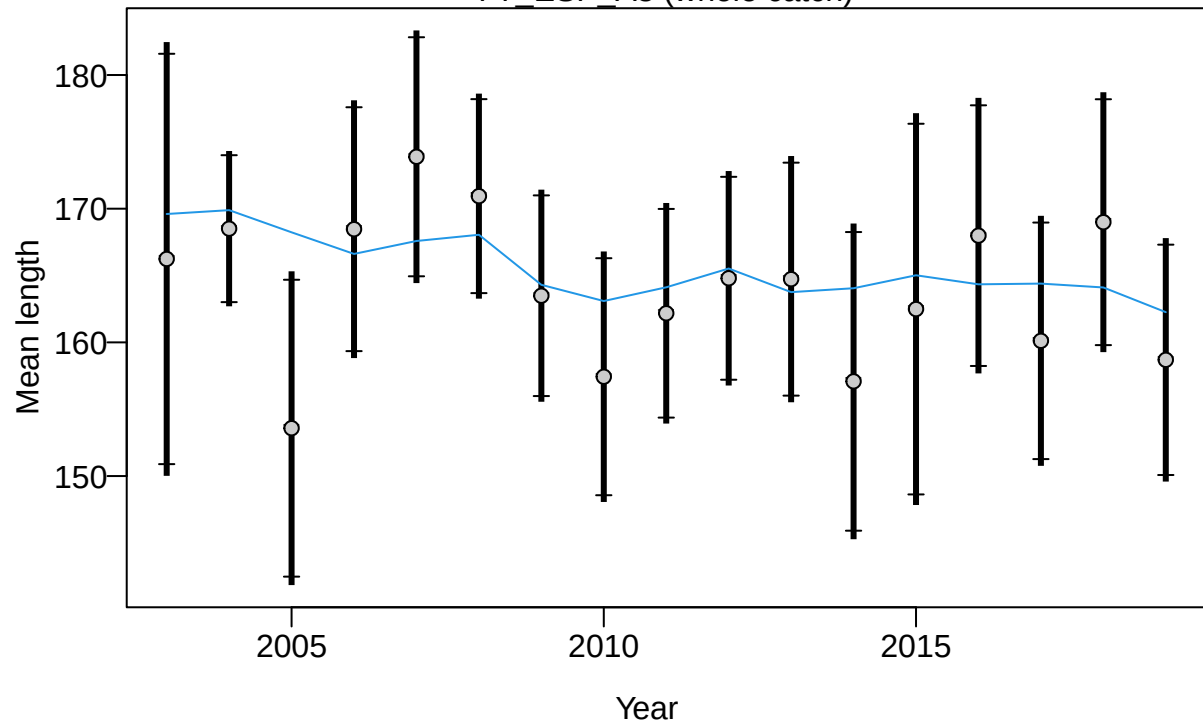


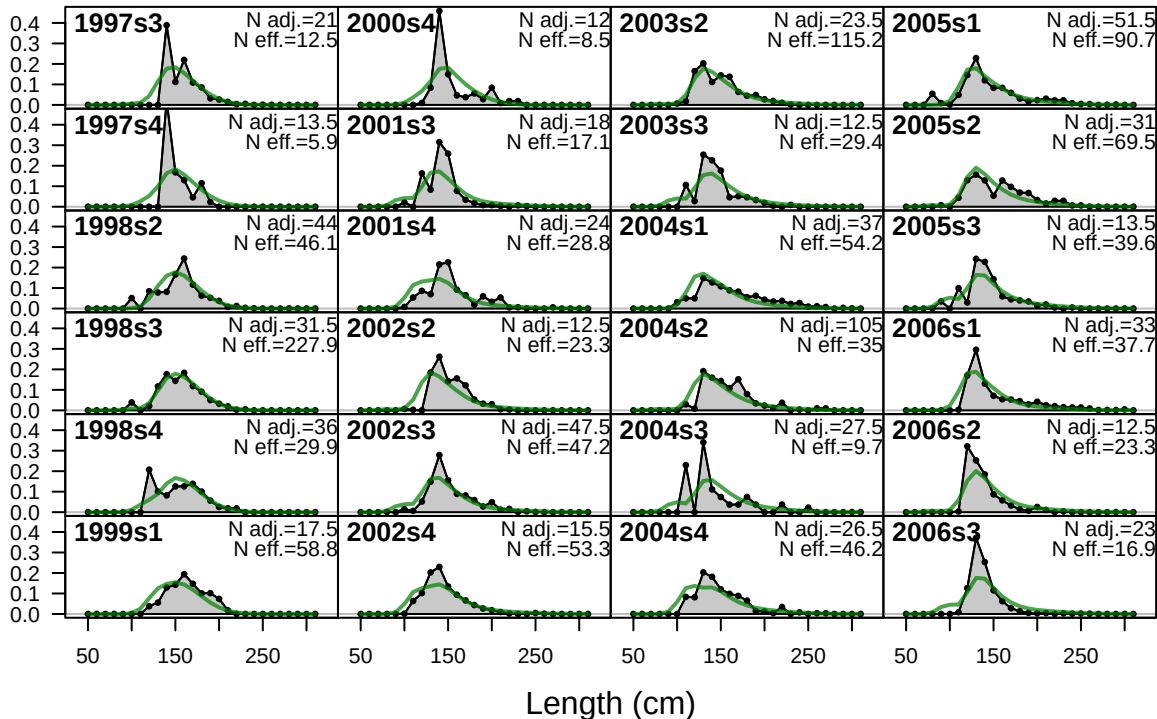
Length (cm)

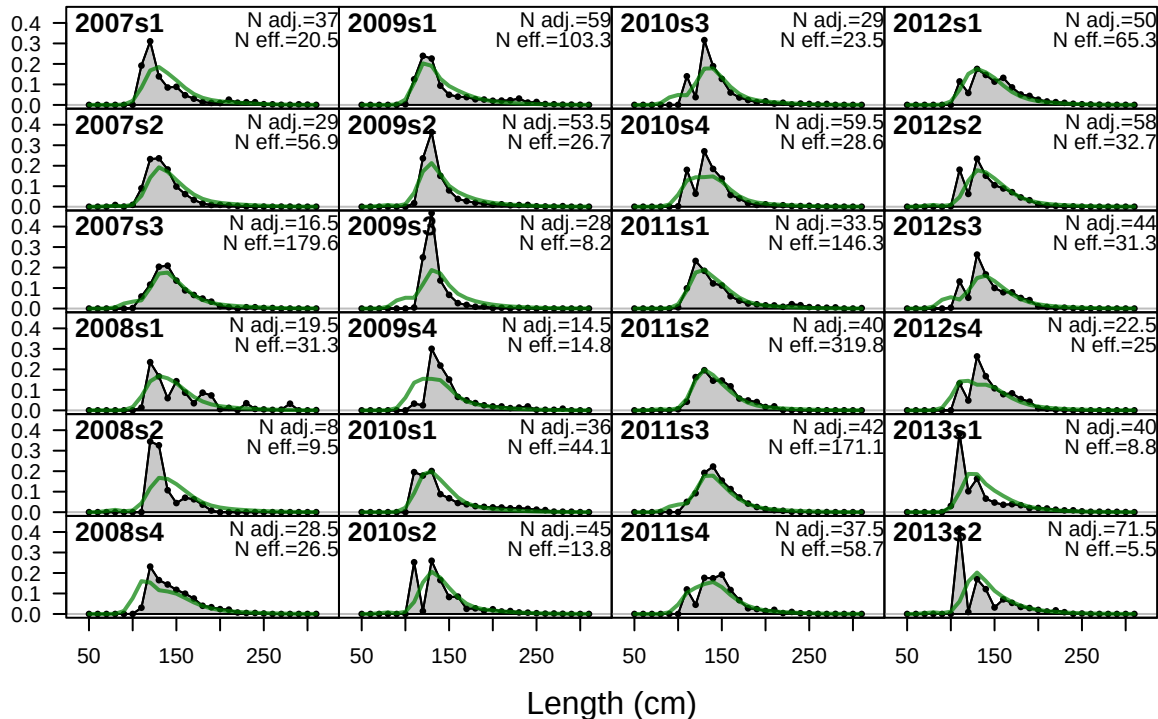


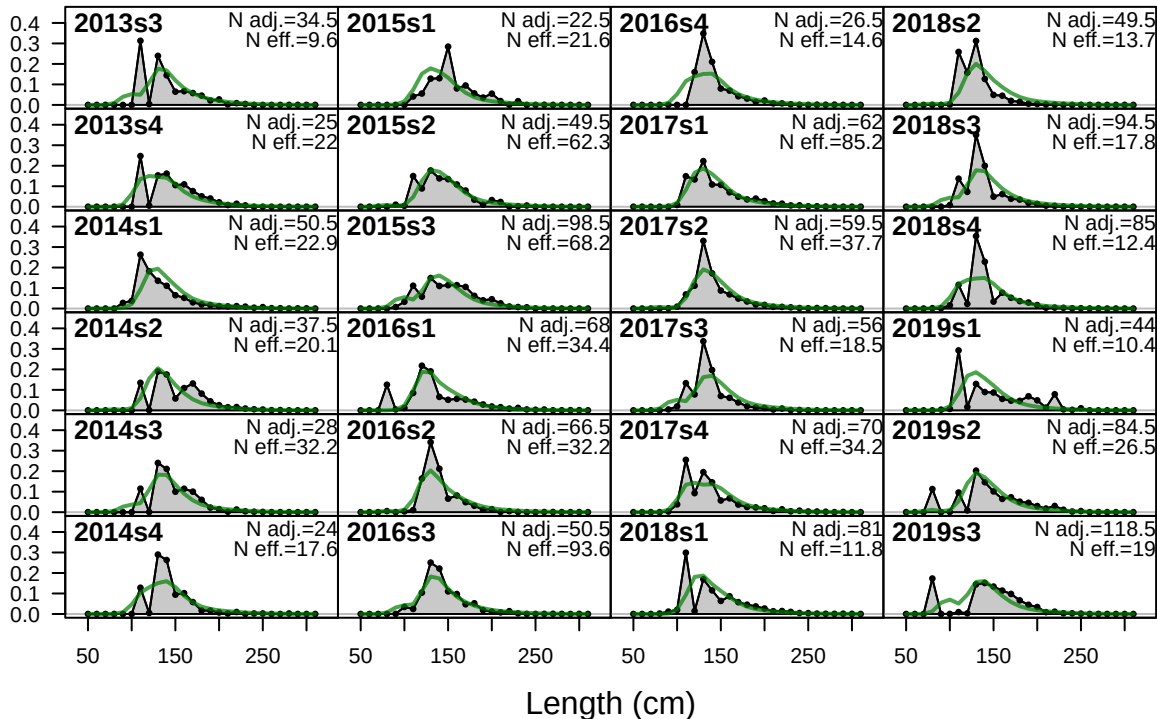


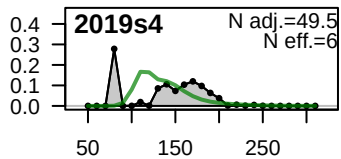
F7_ESP_A3 (whole catch)





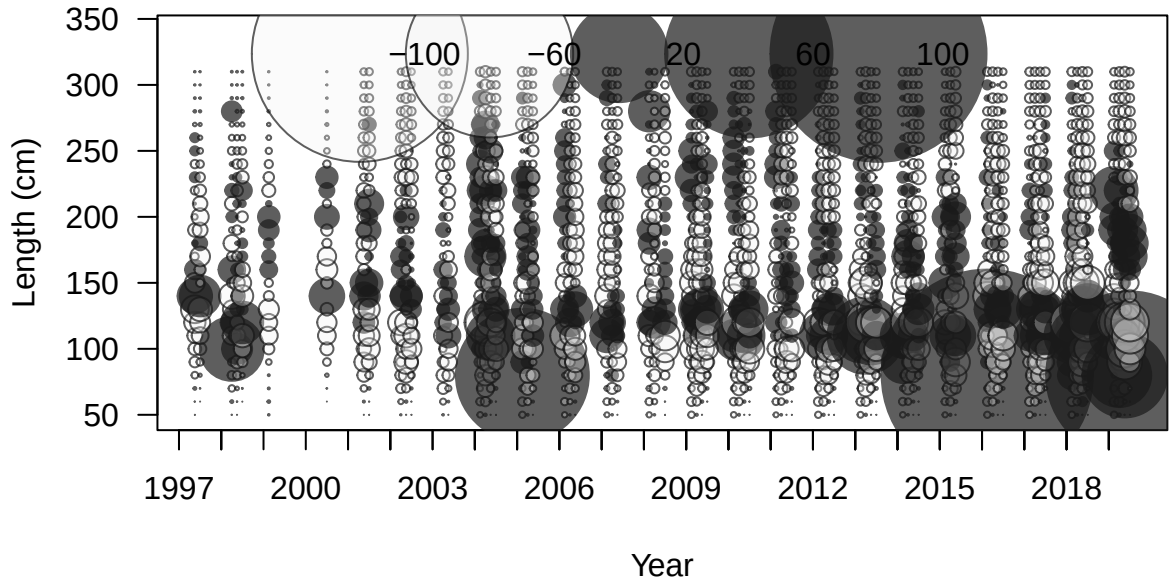


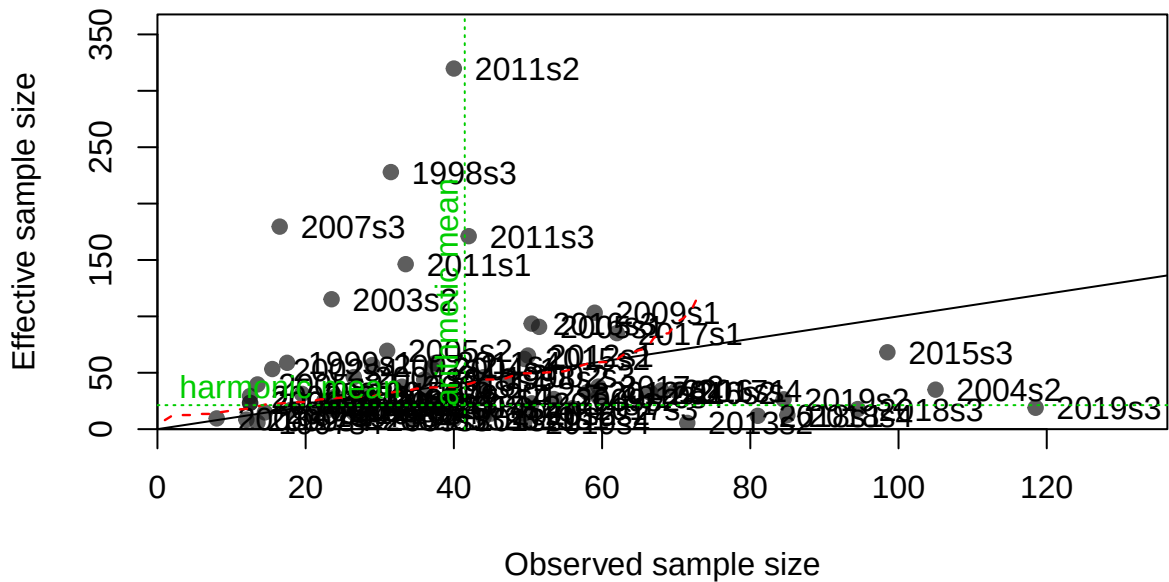




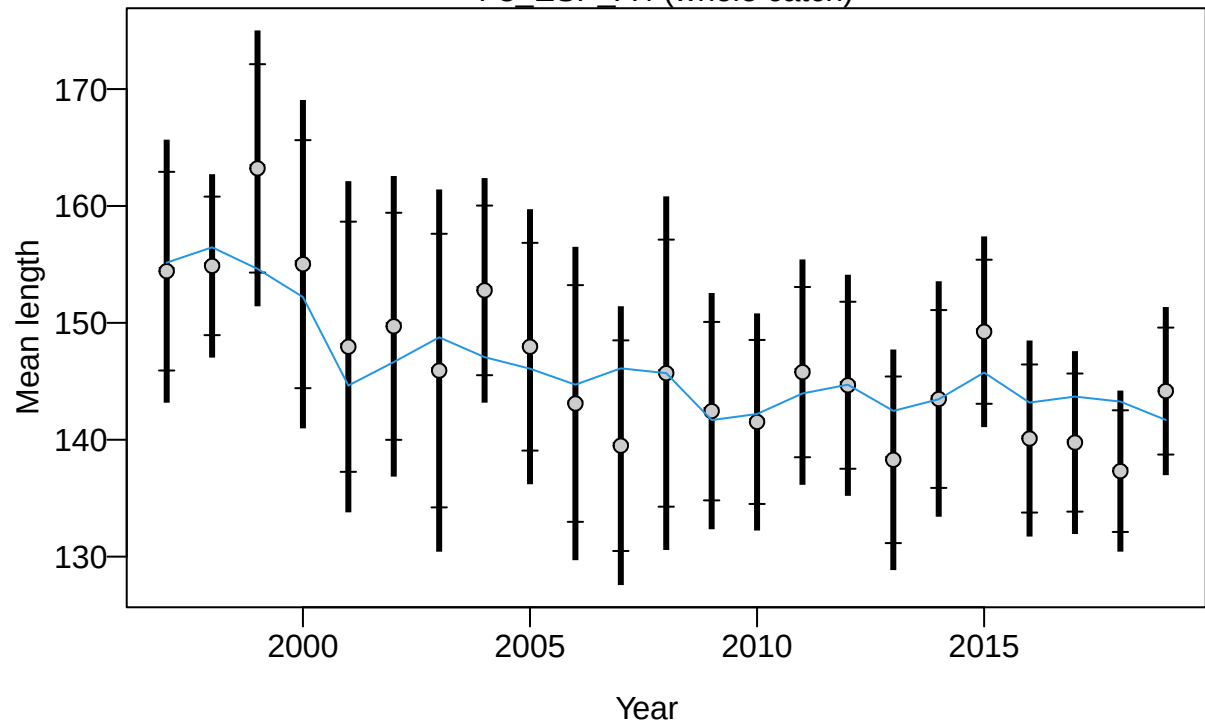
Proportion

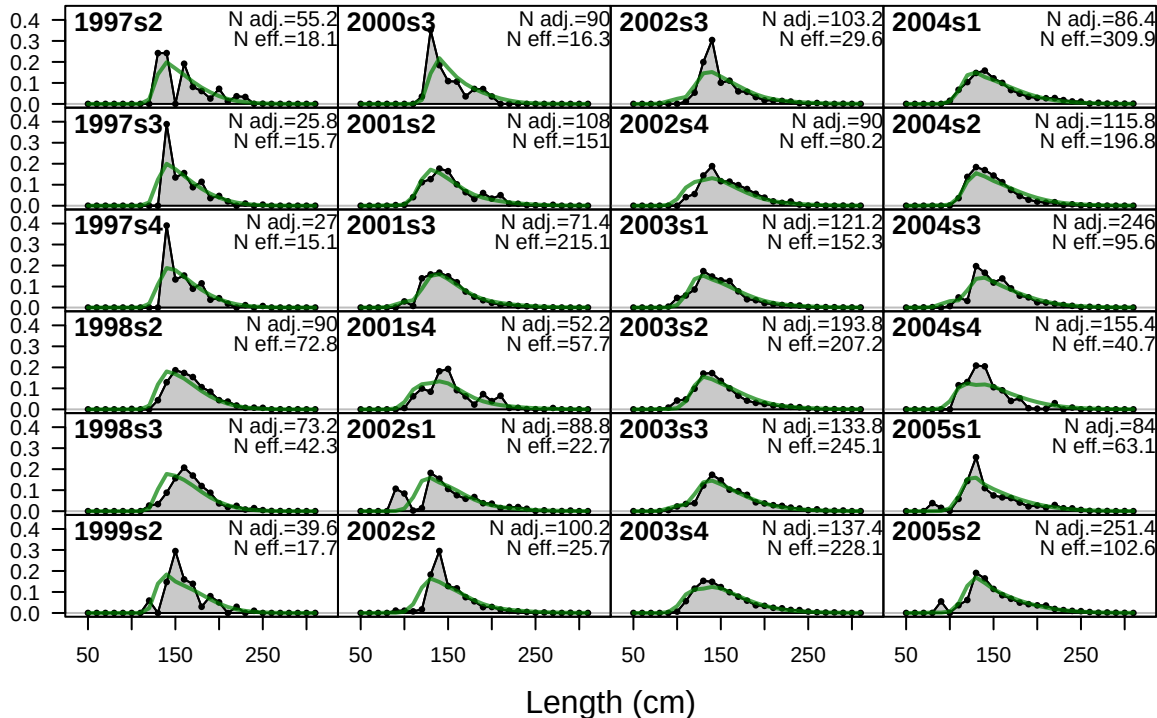
Length (cm)

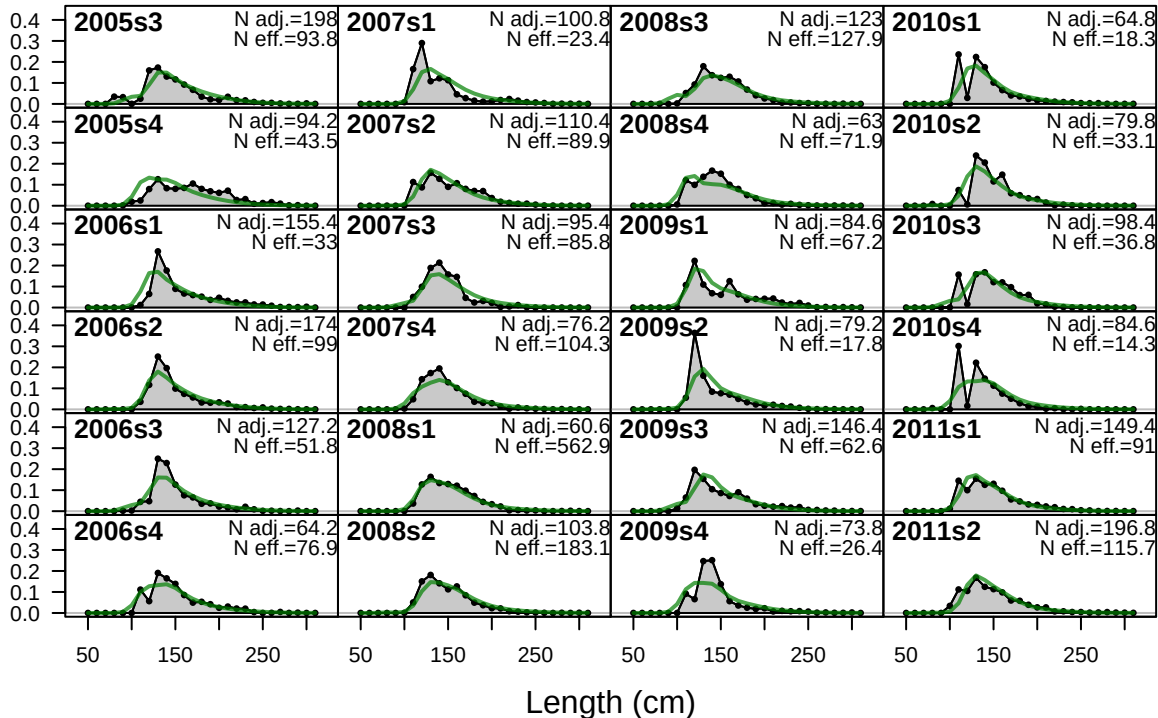


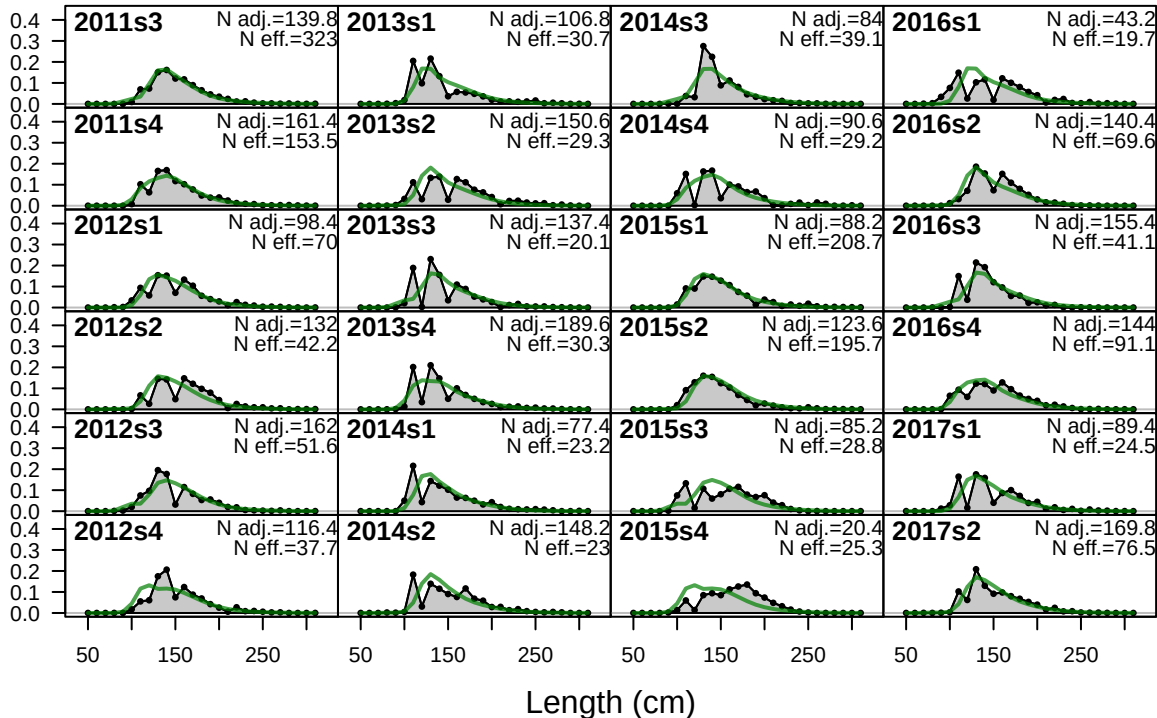


F8_ESP_A4 (whole catch)

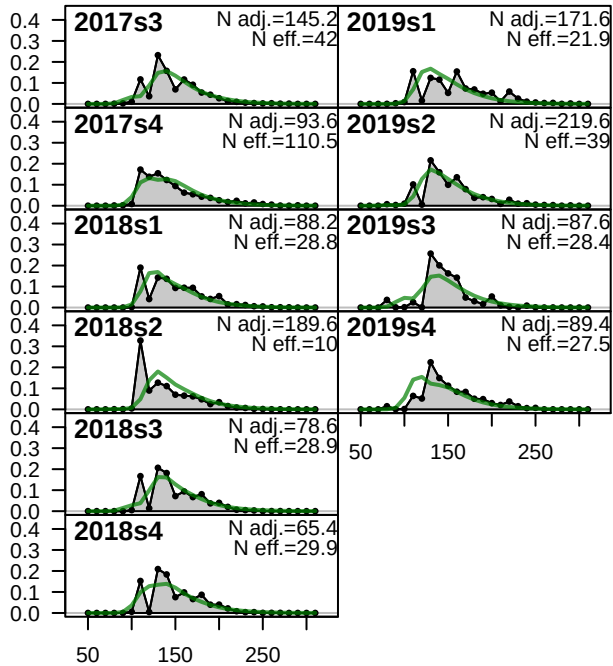




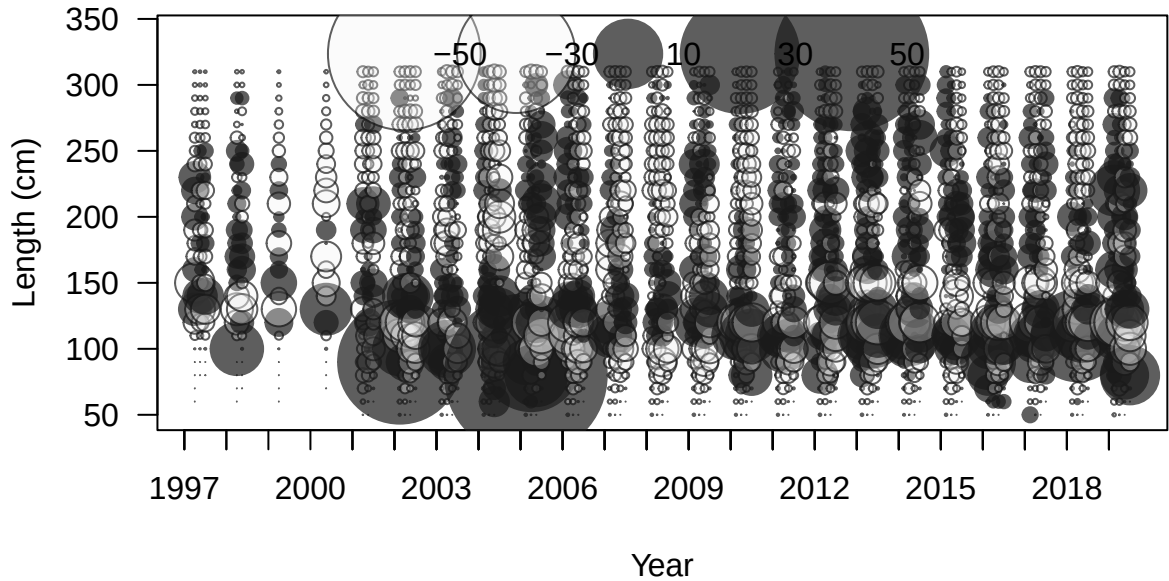




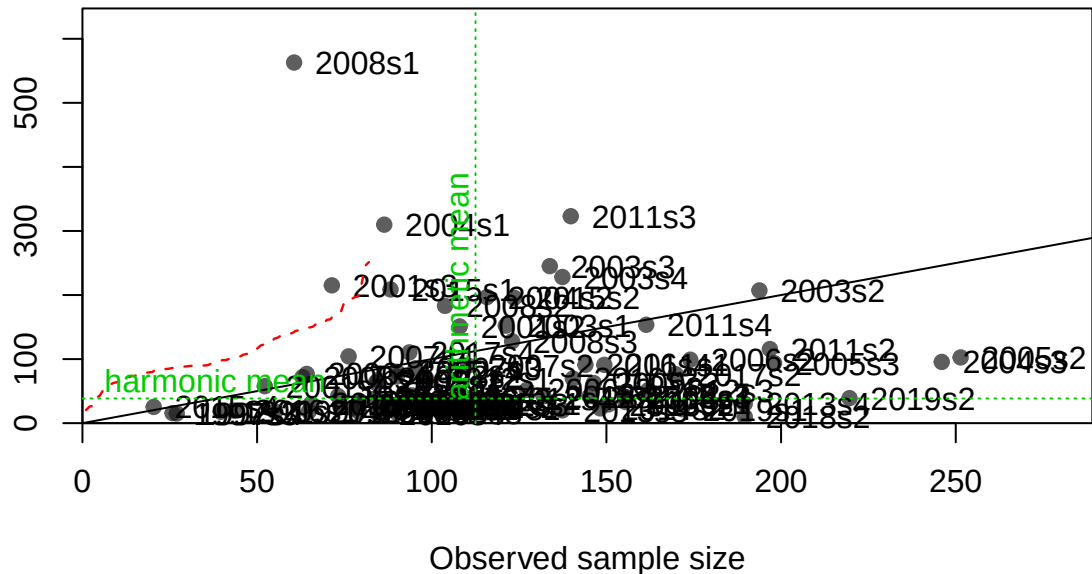
Proportion



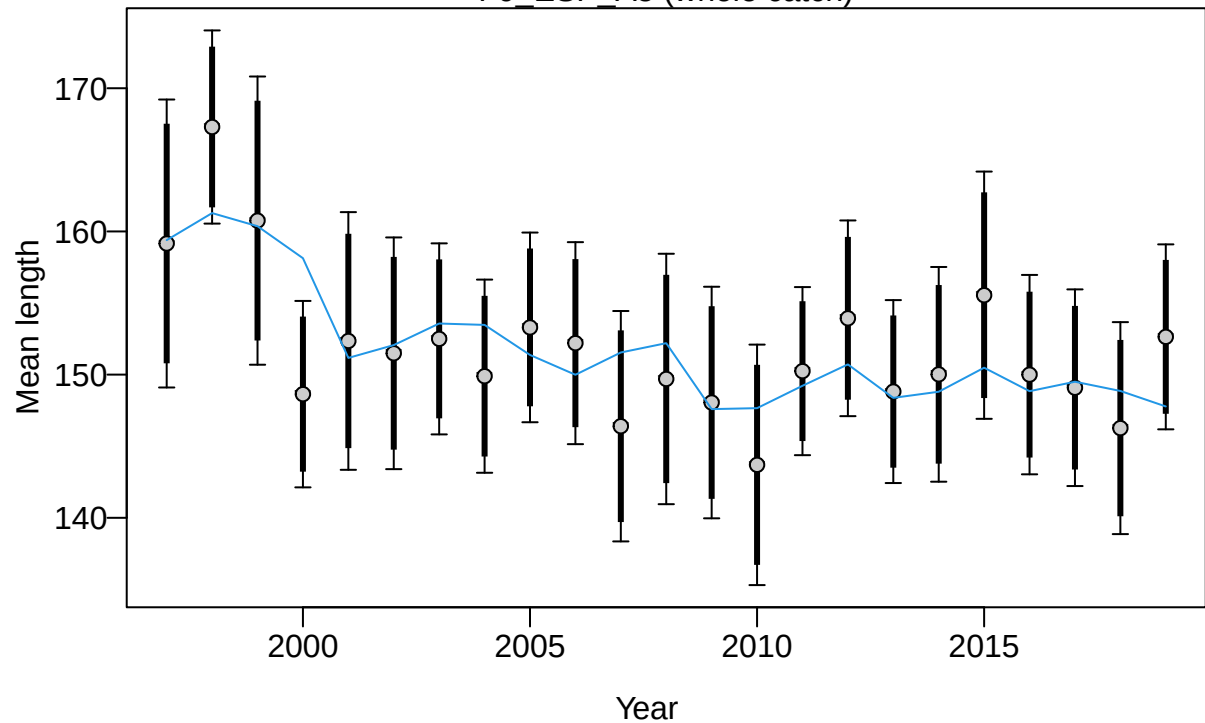
Length (cm)



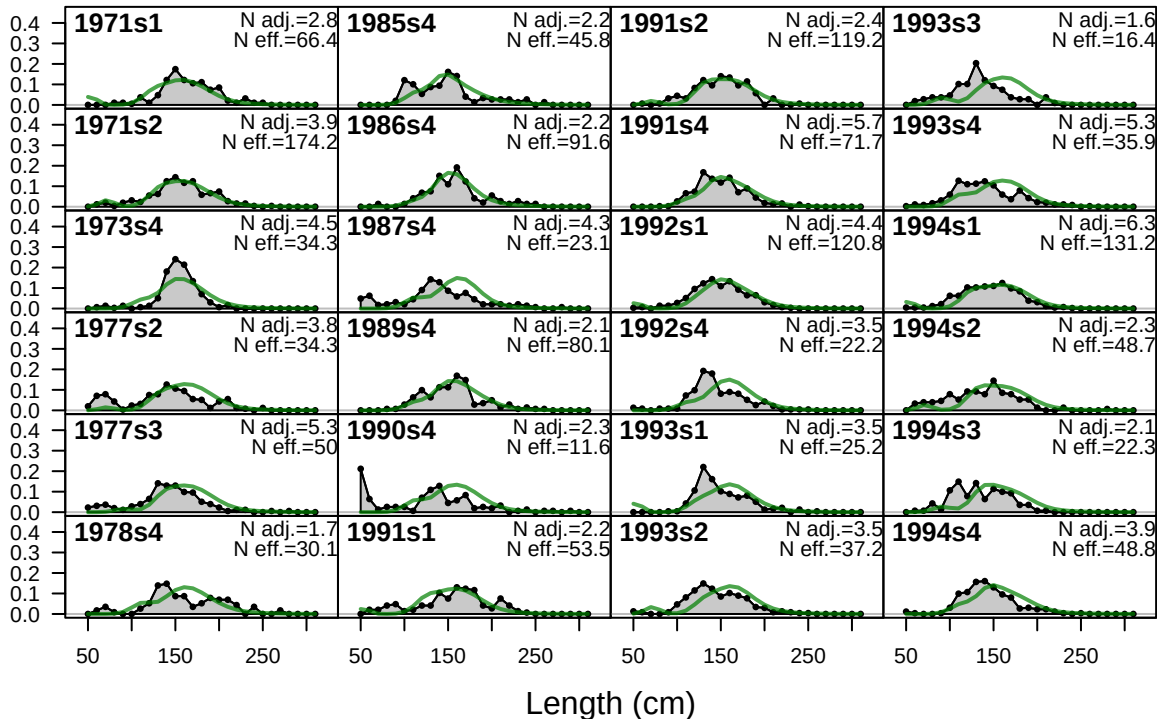
Effective sample size



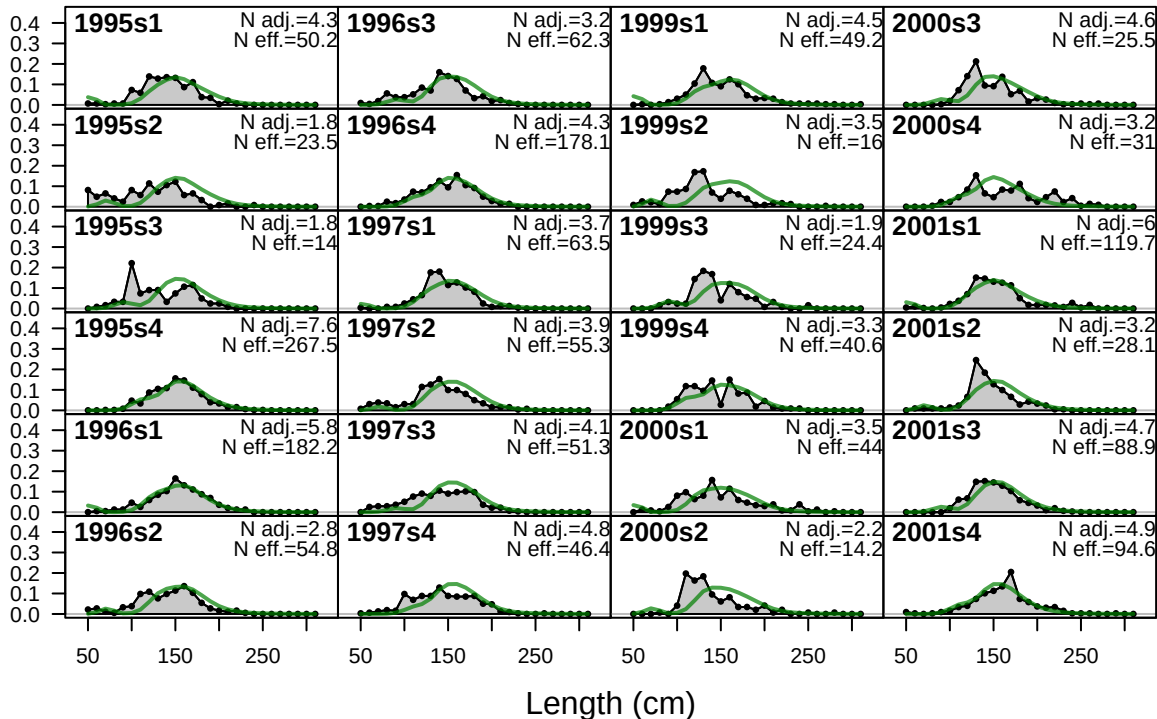
F9_ESP_A5 (whole catch)

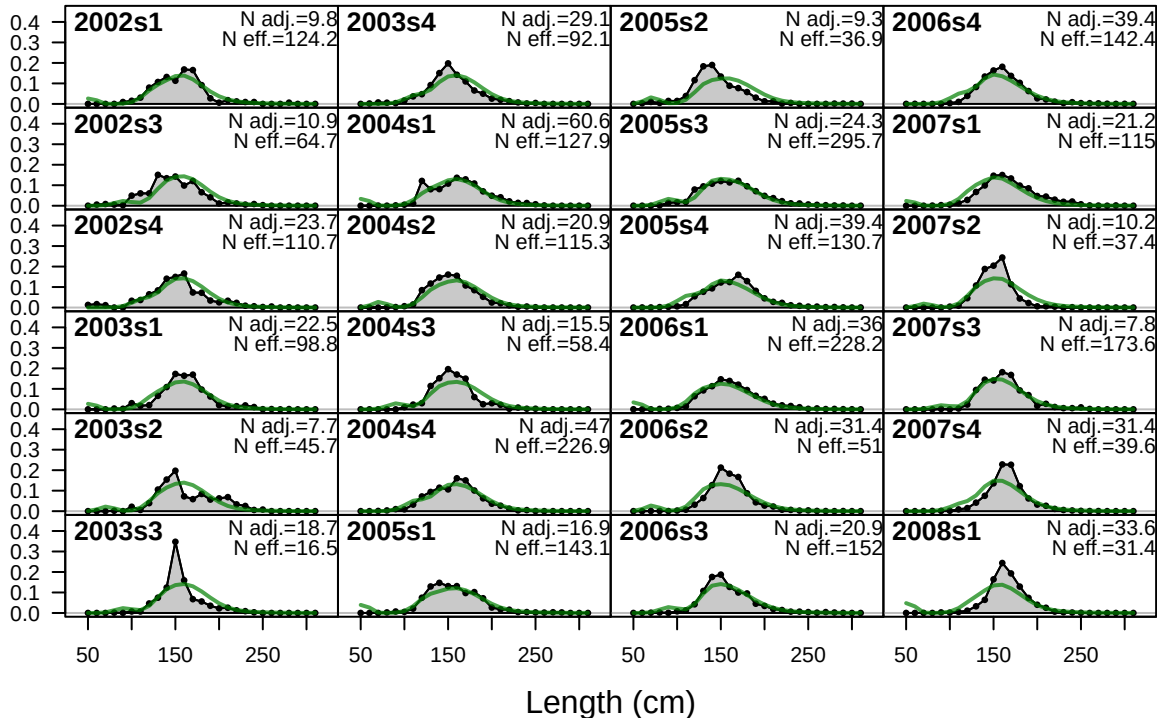


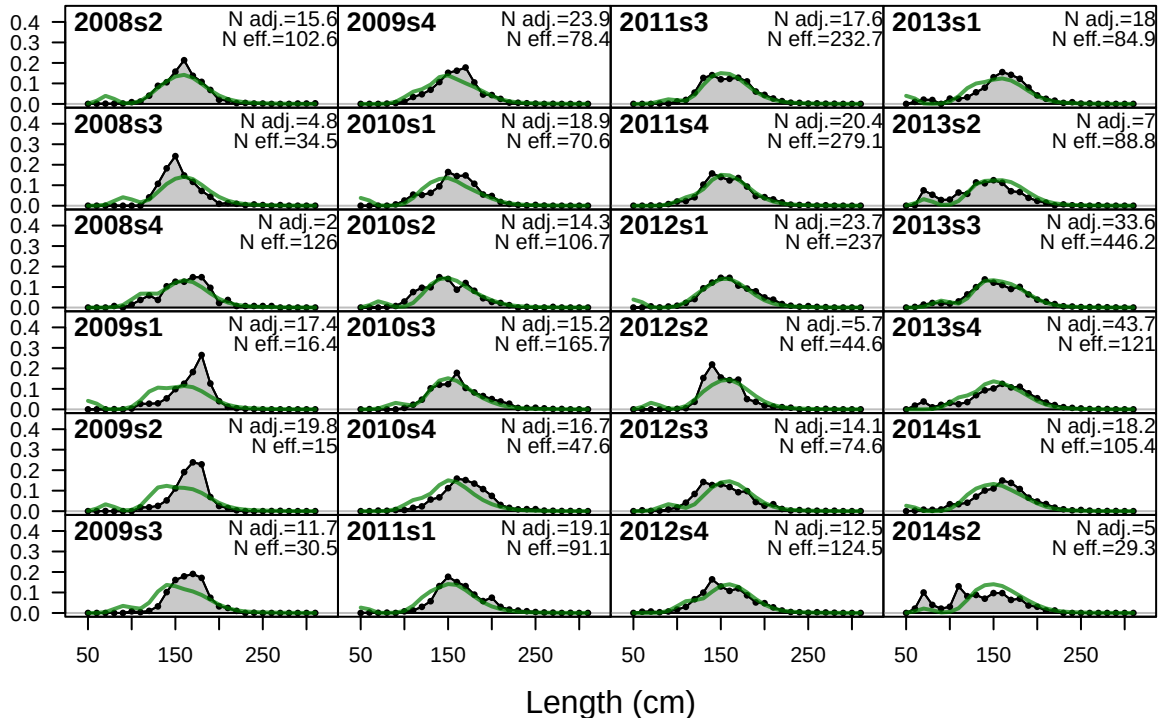
Proportion



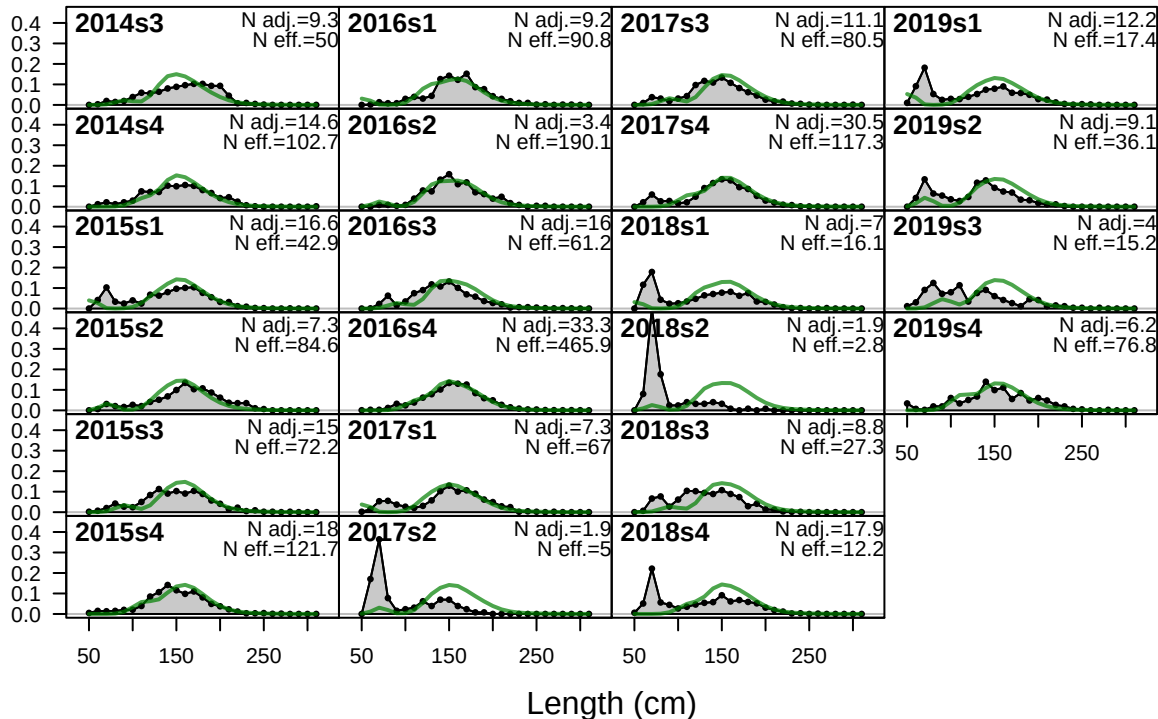
Proportion

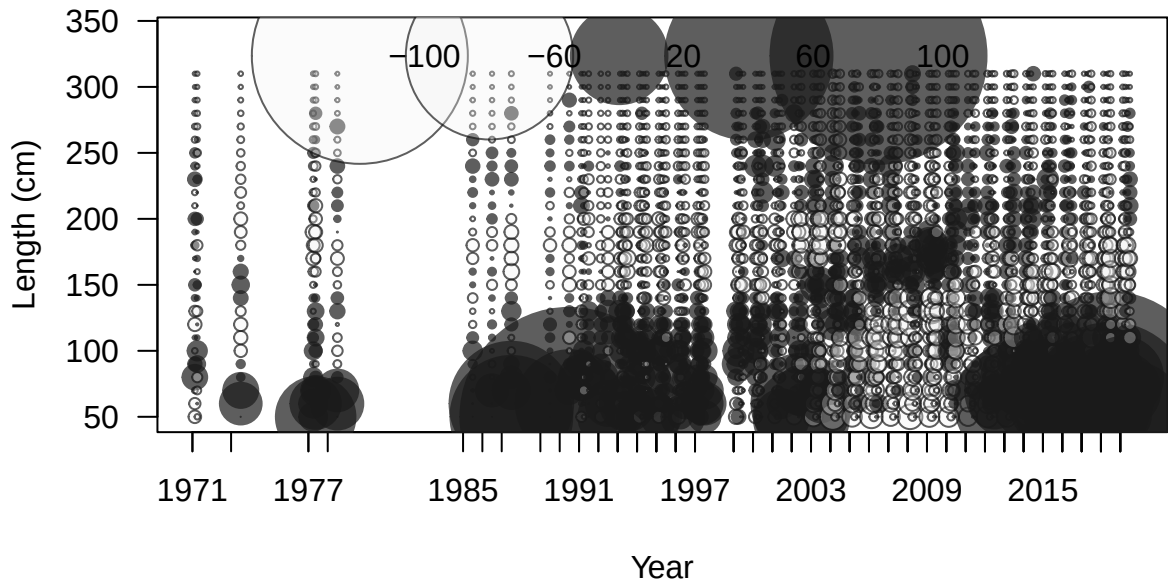


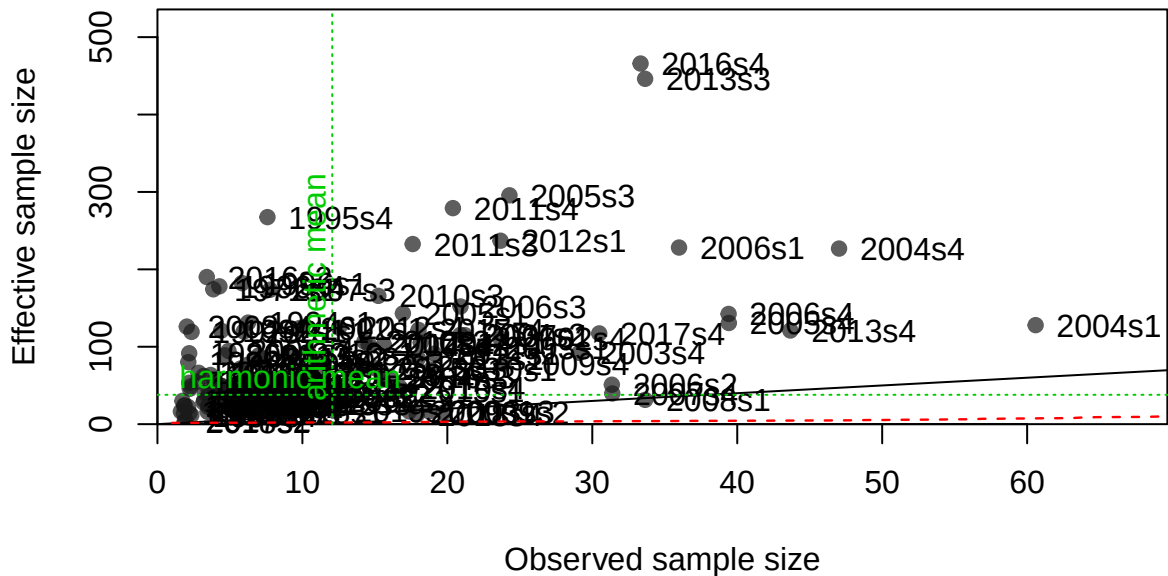




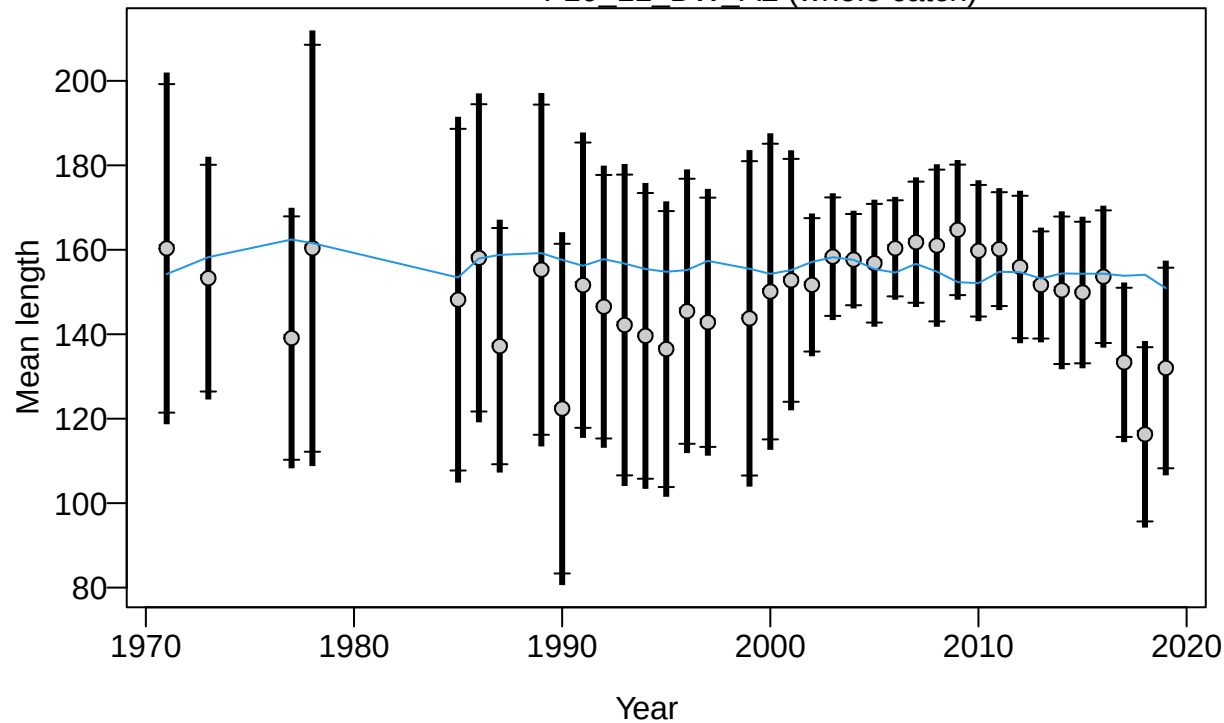
Proportion



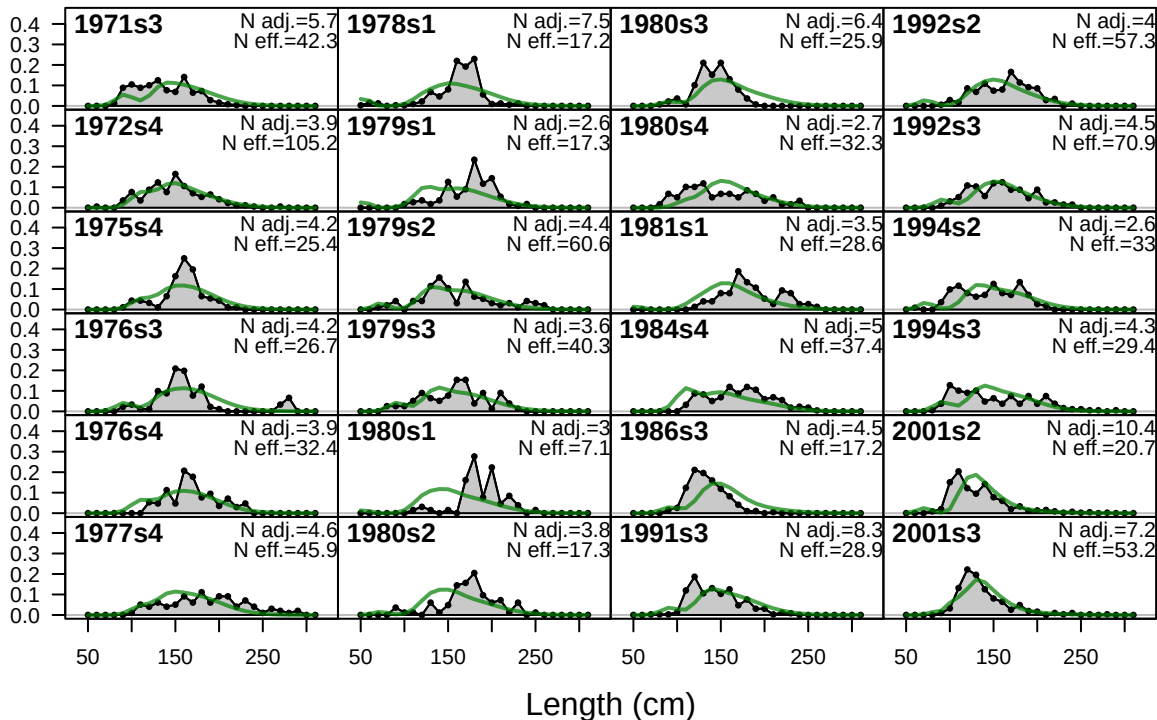


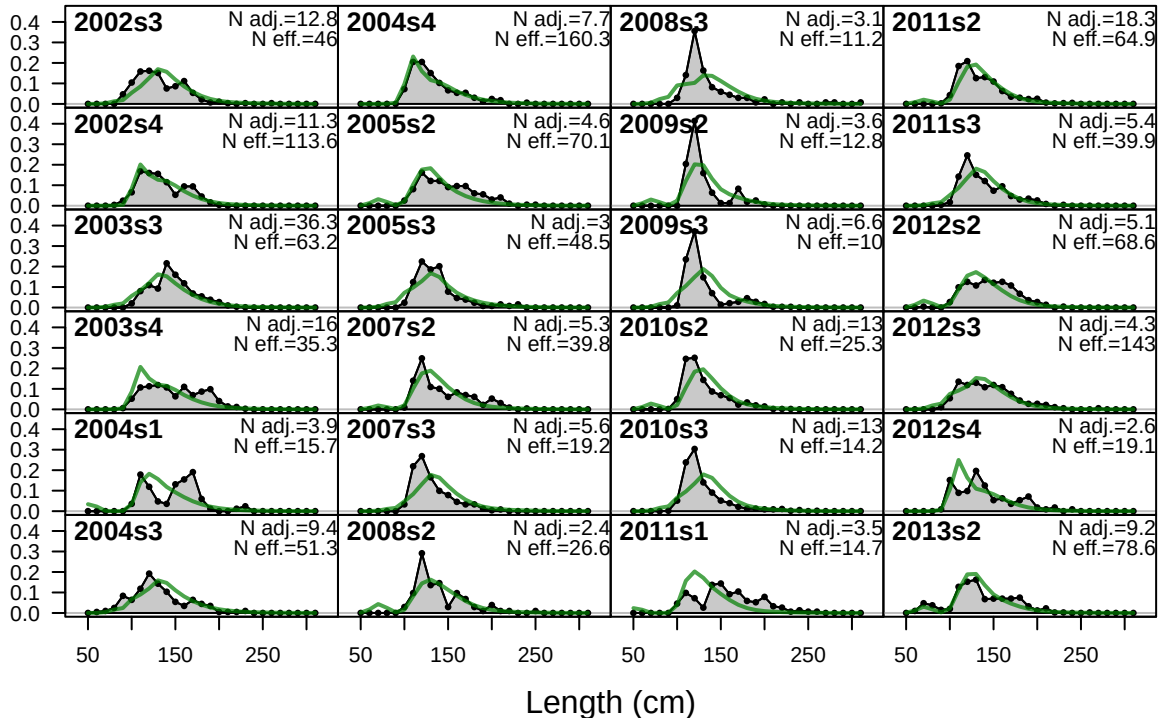


F10_LL_DW_A2 (whole catch)

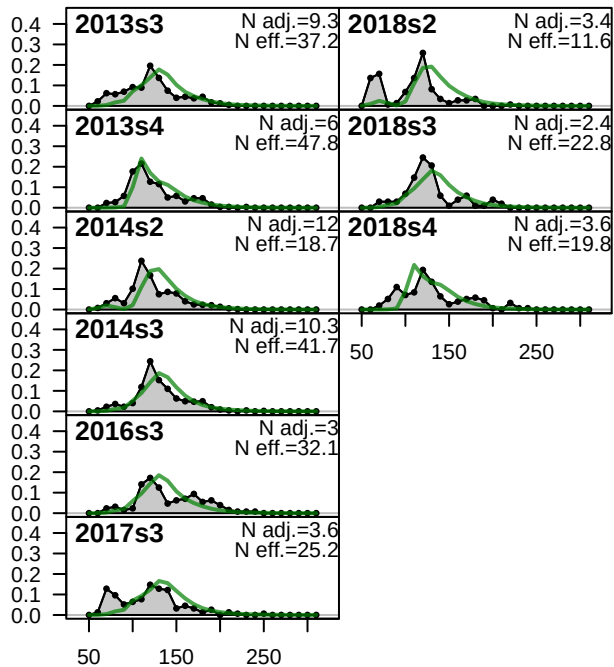


Proportion

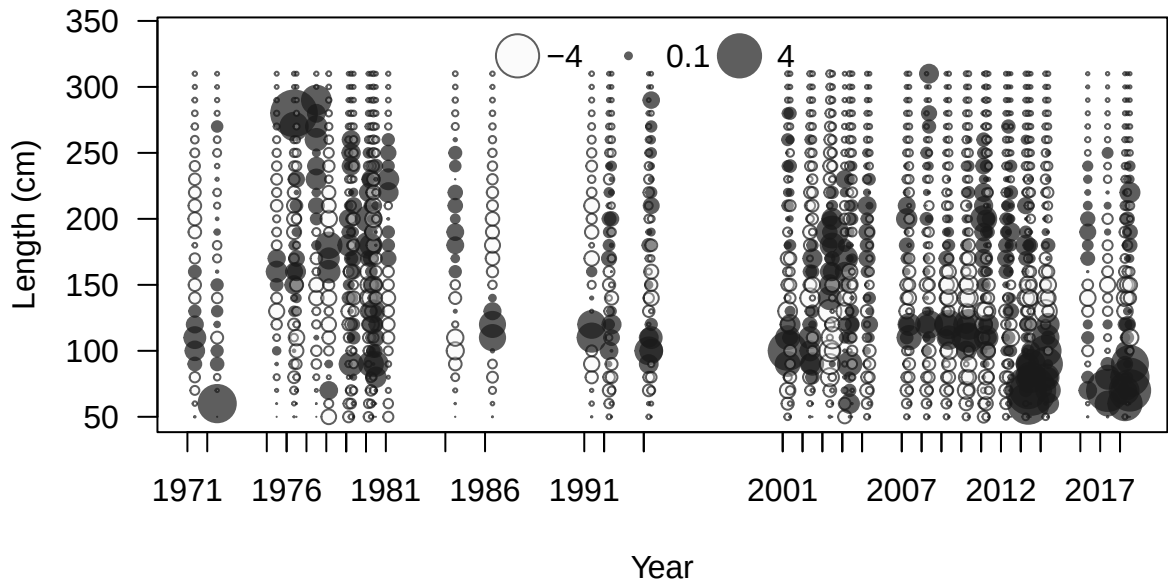




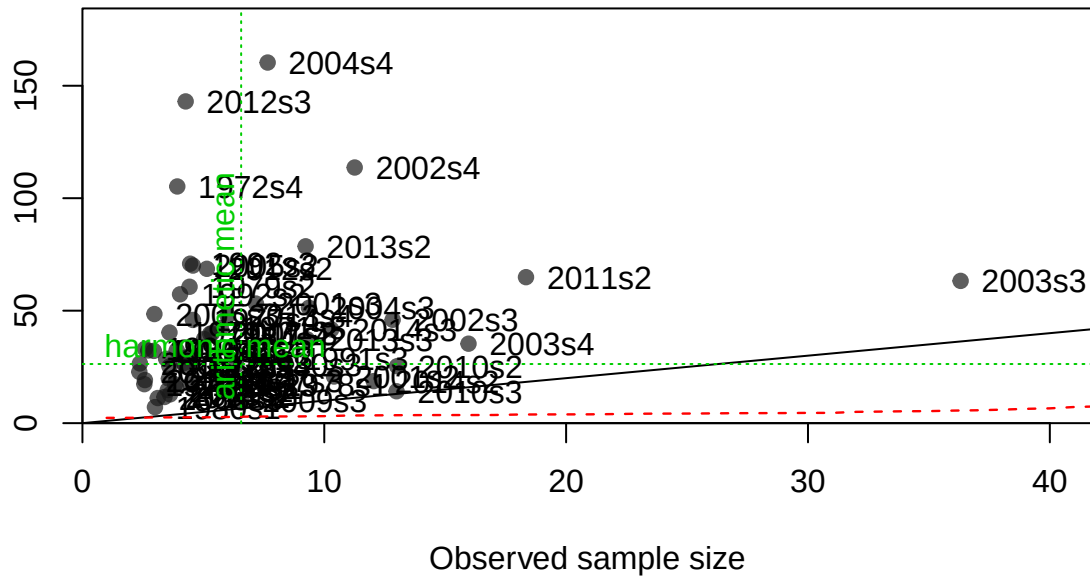
Proportion



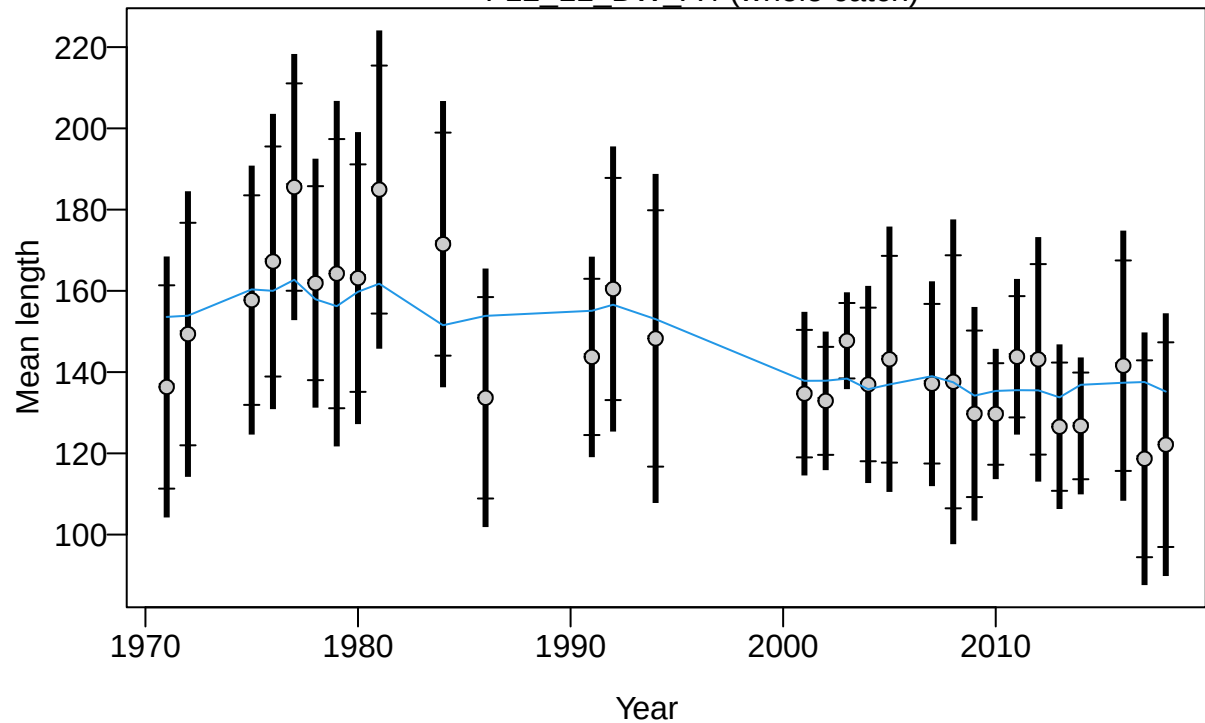
Length (cm)

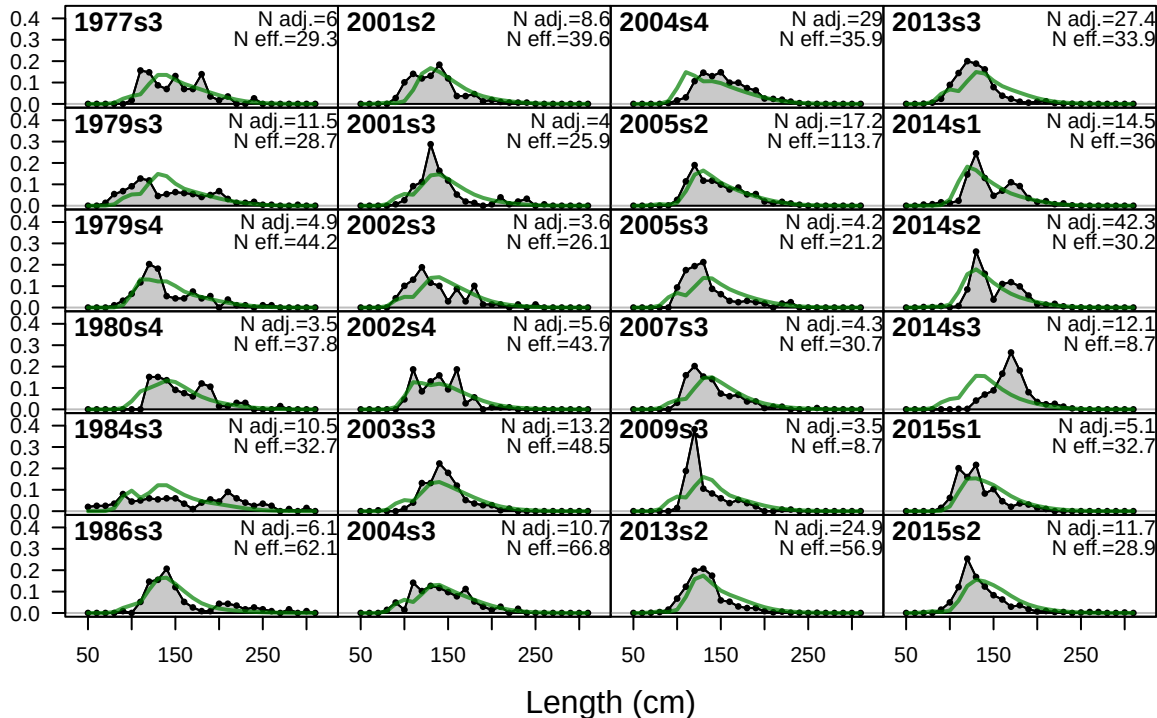


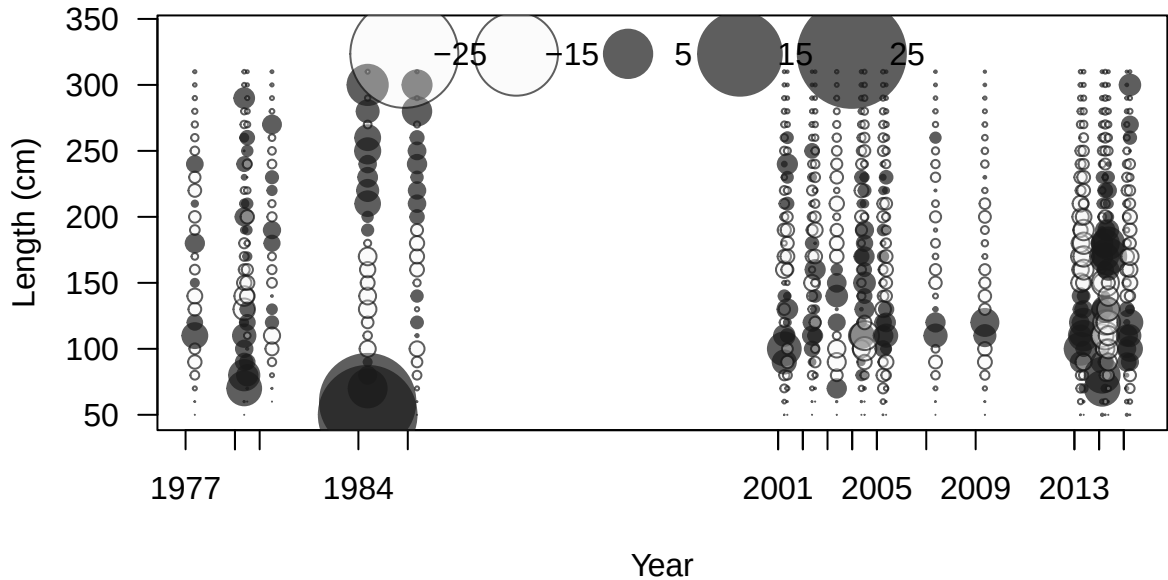
Effective sample size



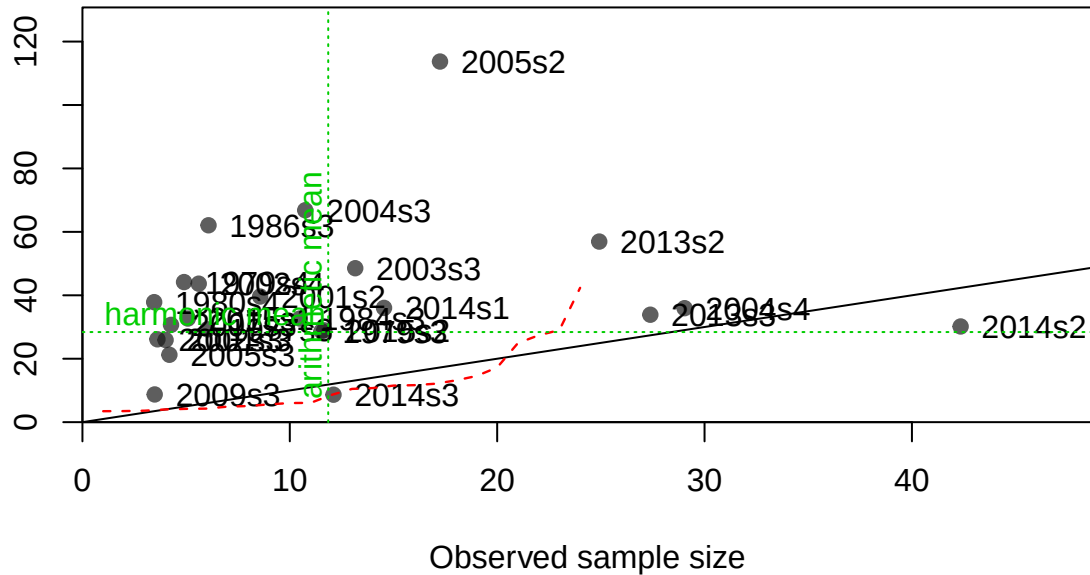
F12_LL_DW_A4 (whole catch)



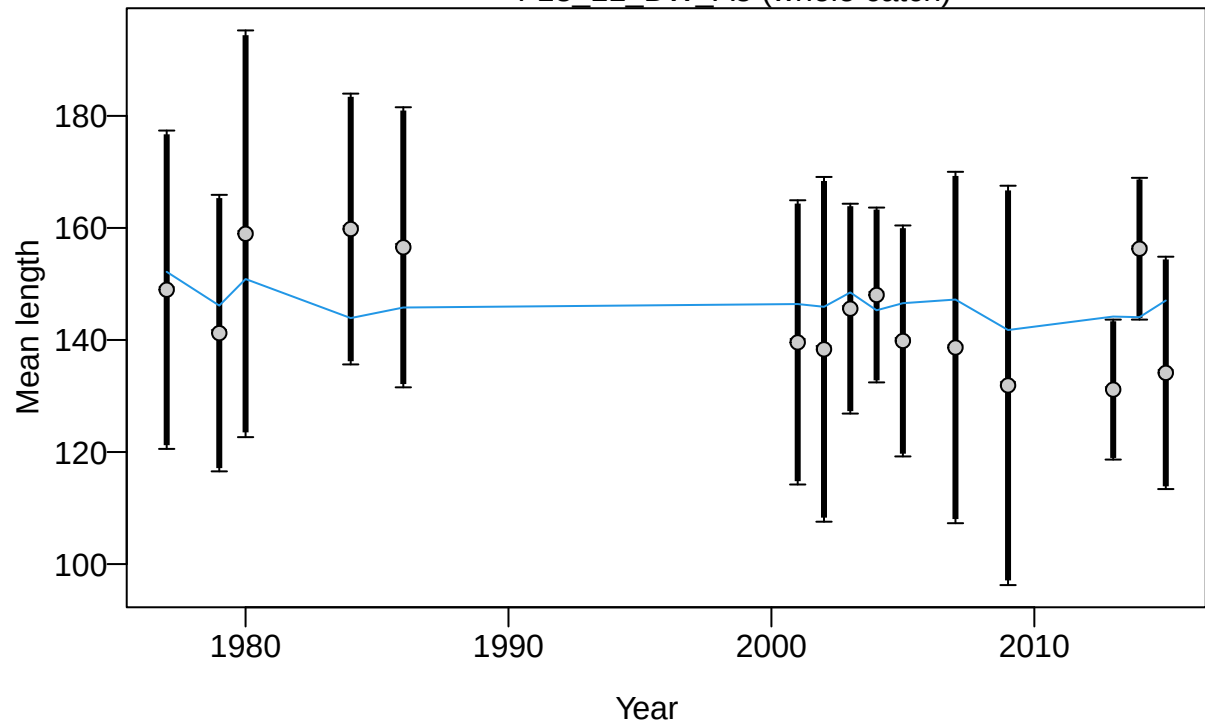




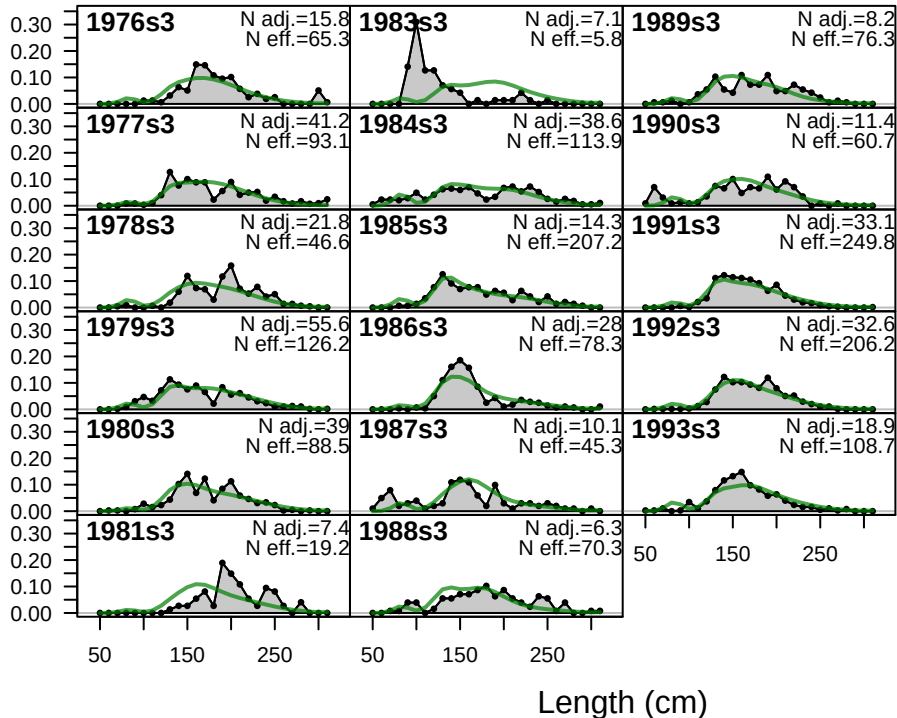
Effective sample size

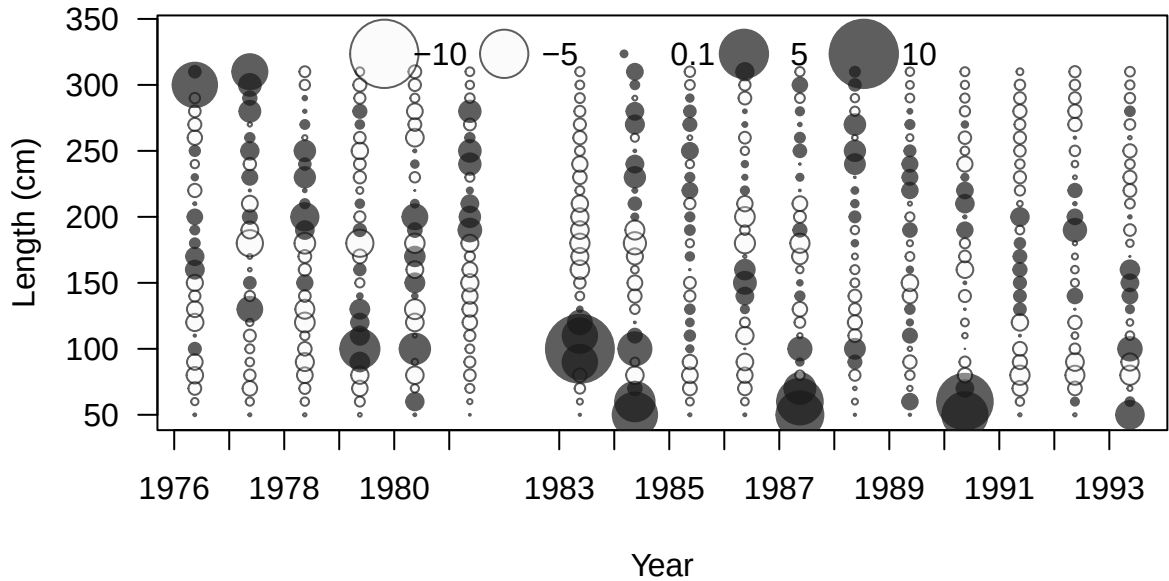


F13_LL_DW_A5 (whole catch)

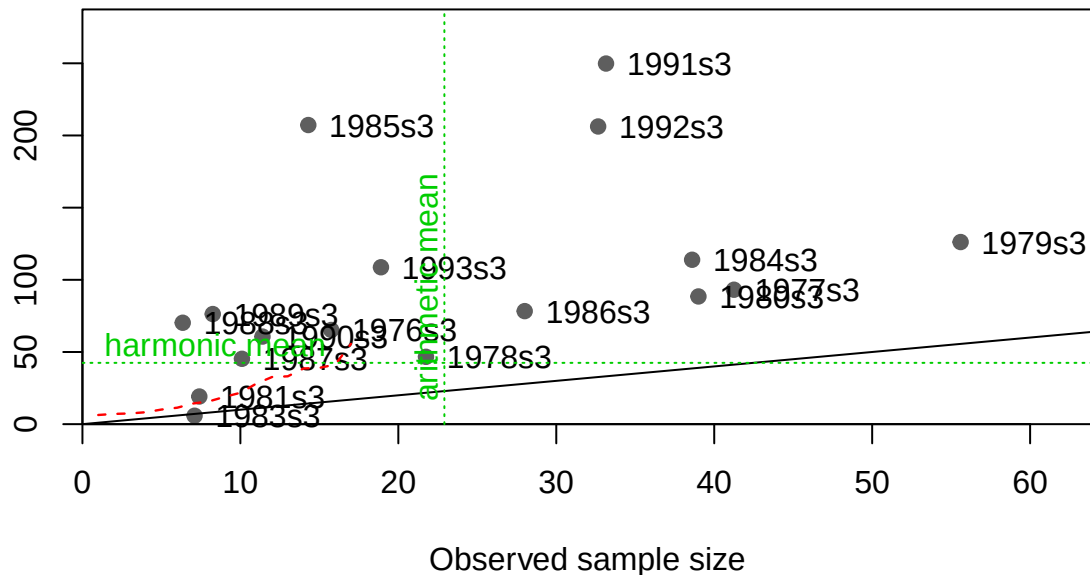


Proportion

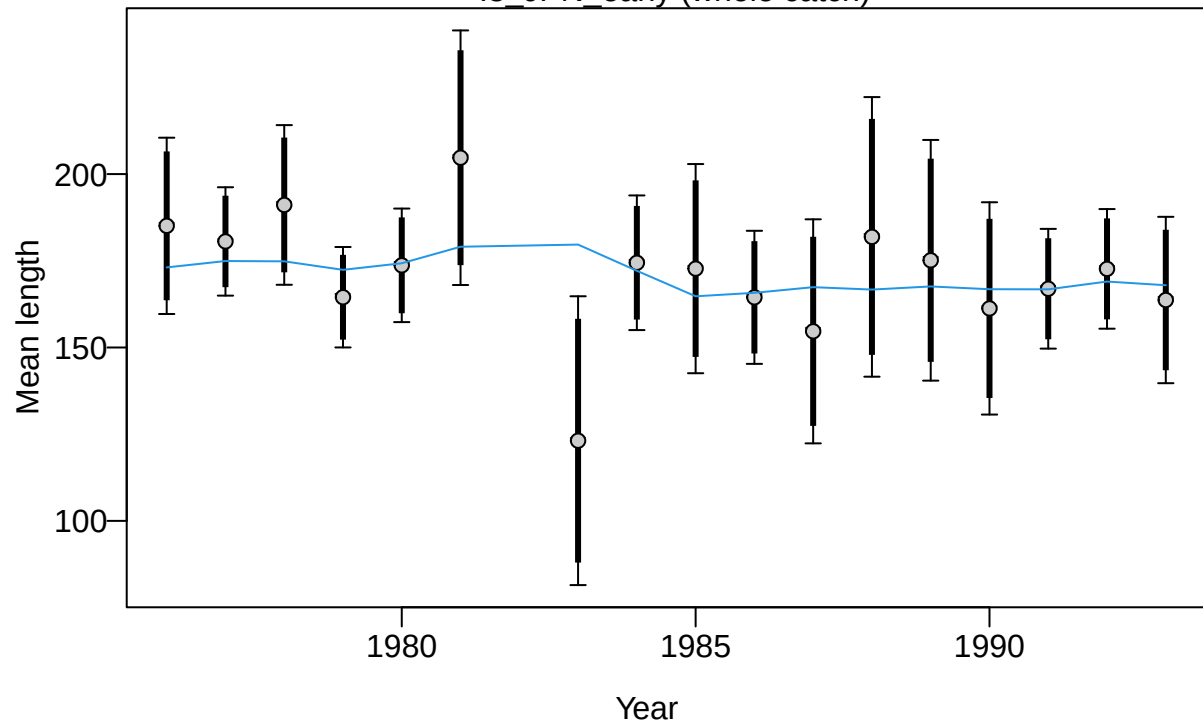




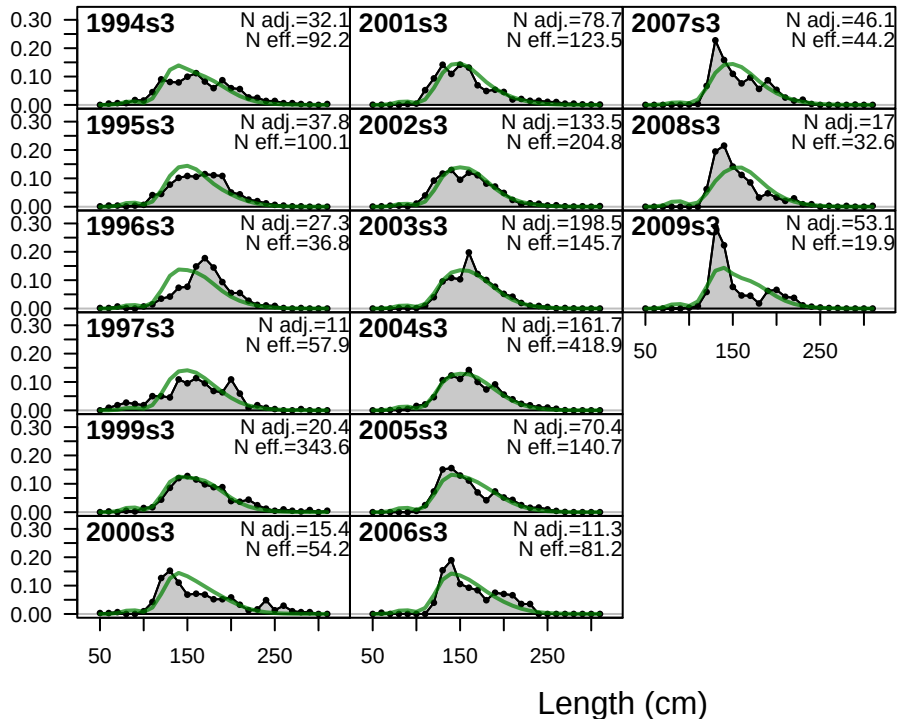
Effective sample size

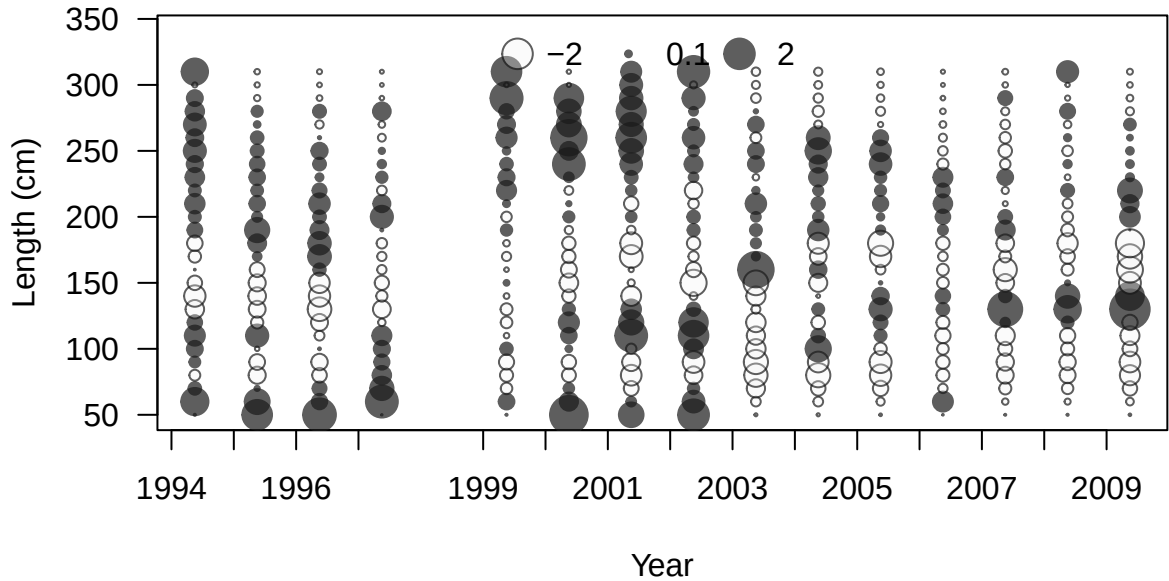


I3_JPN_early (whole catch)

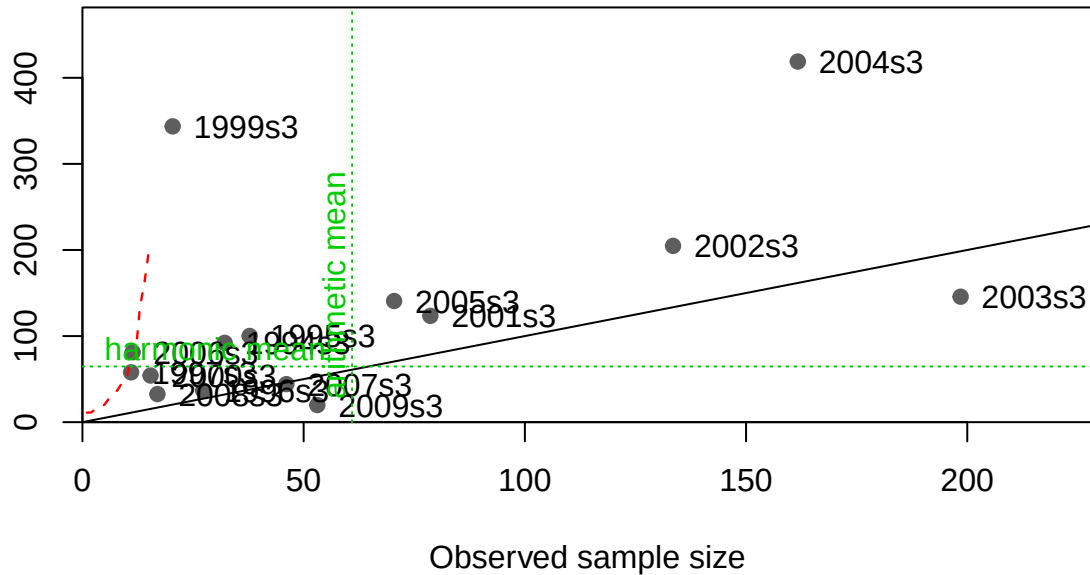


Proportion

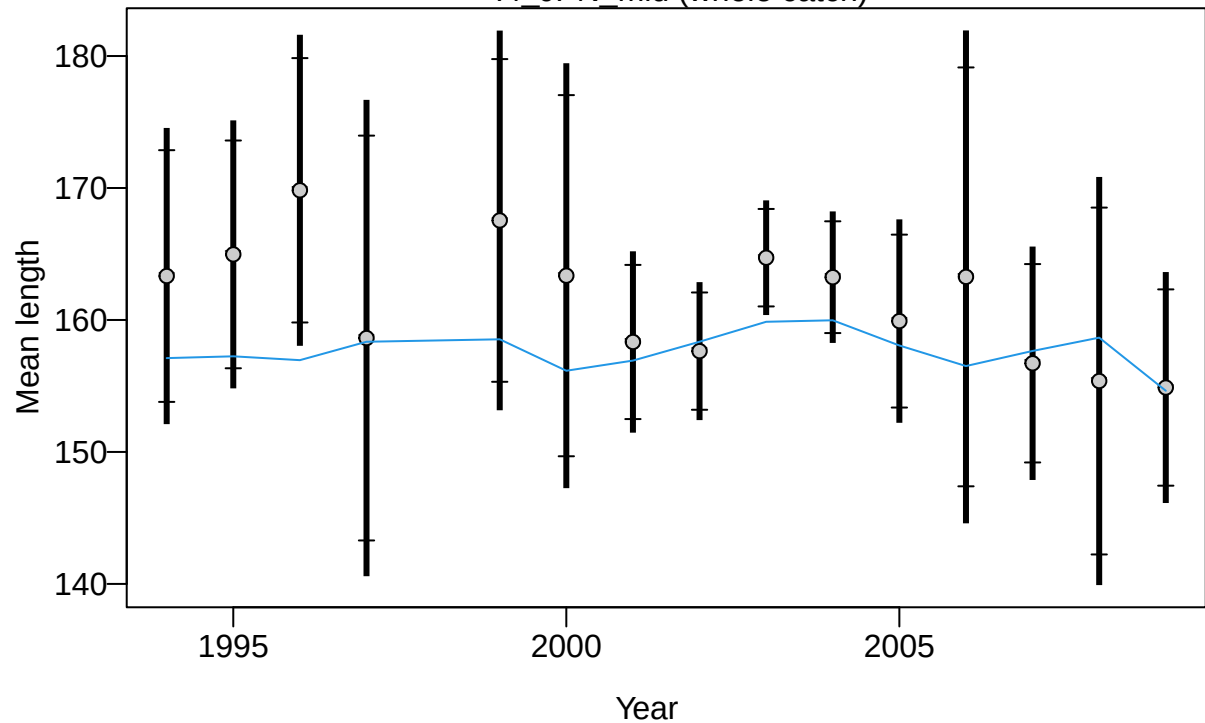




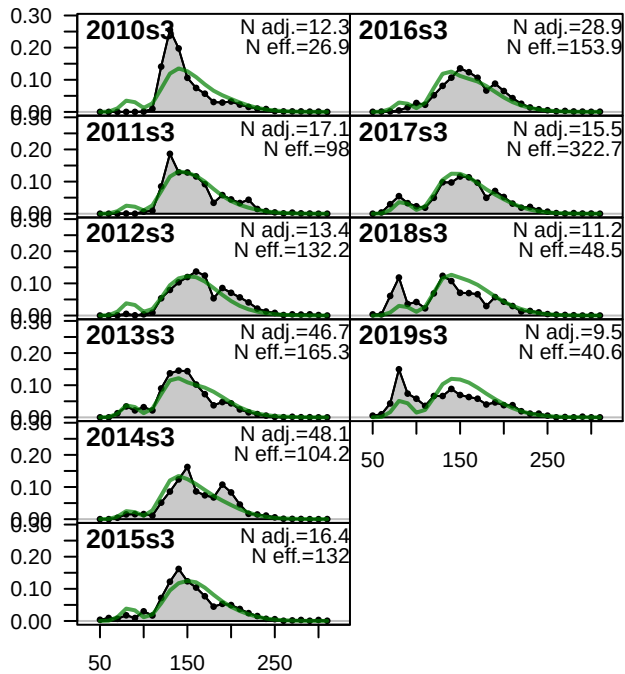
Effective sample size



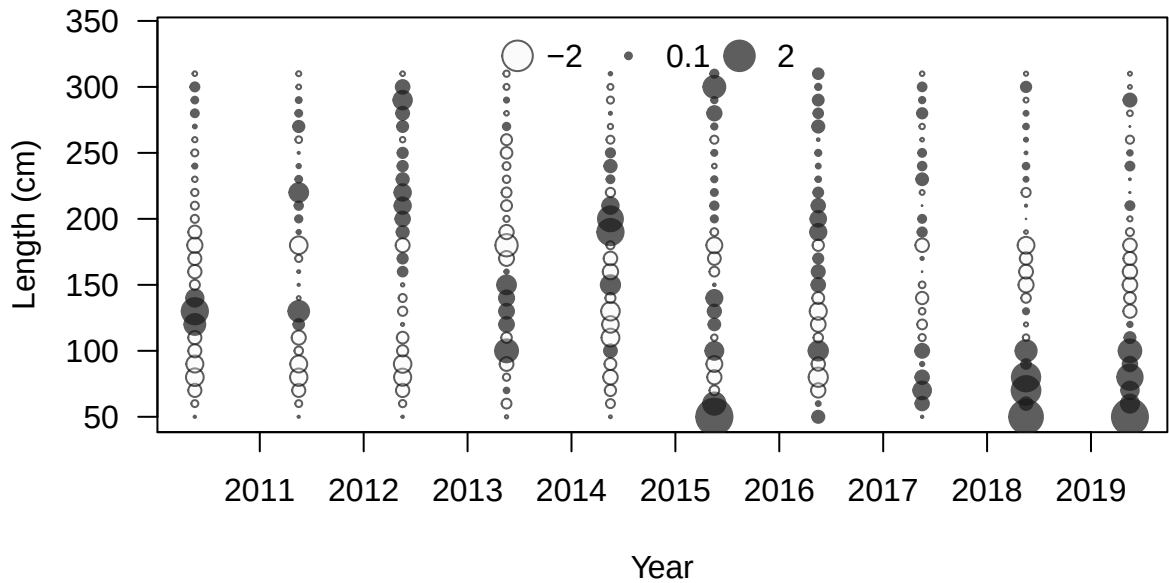
l4_JPN_mid (whole catch)



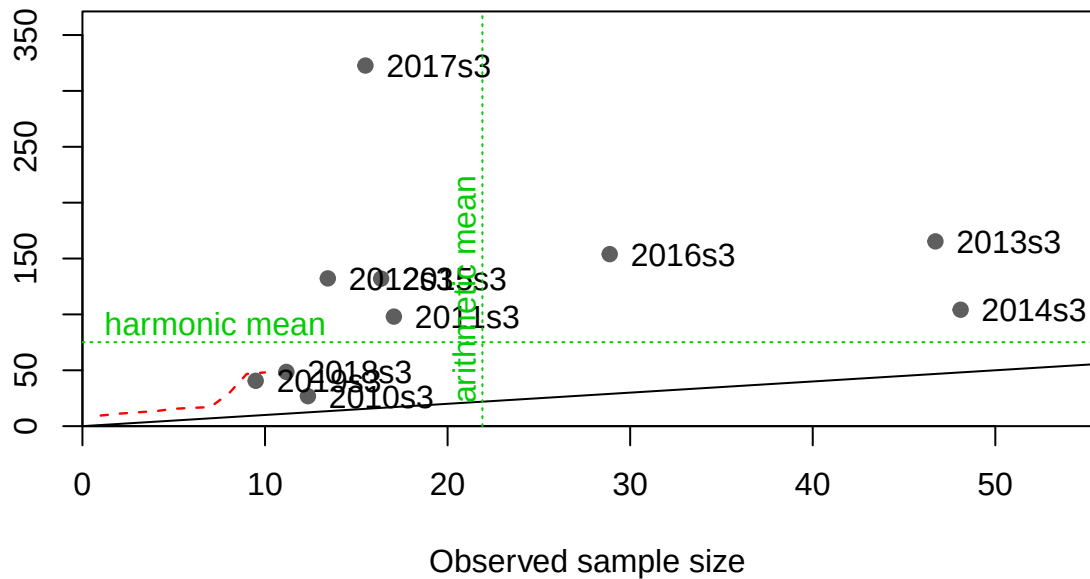
Proportion



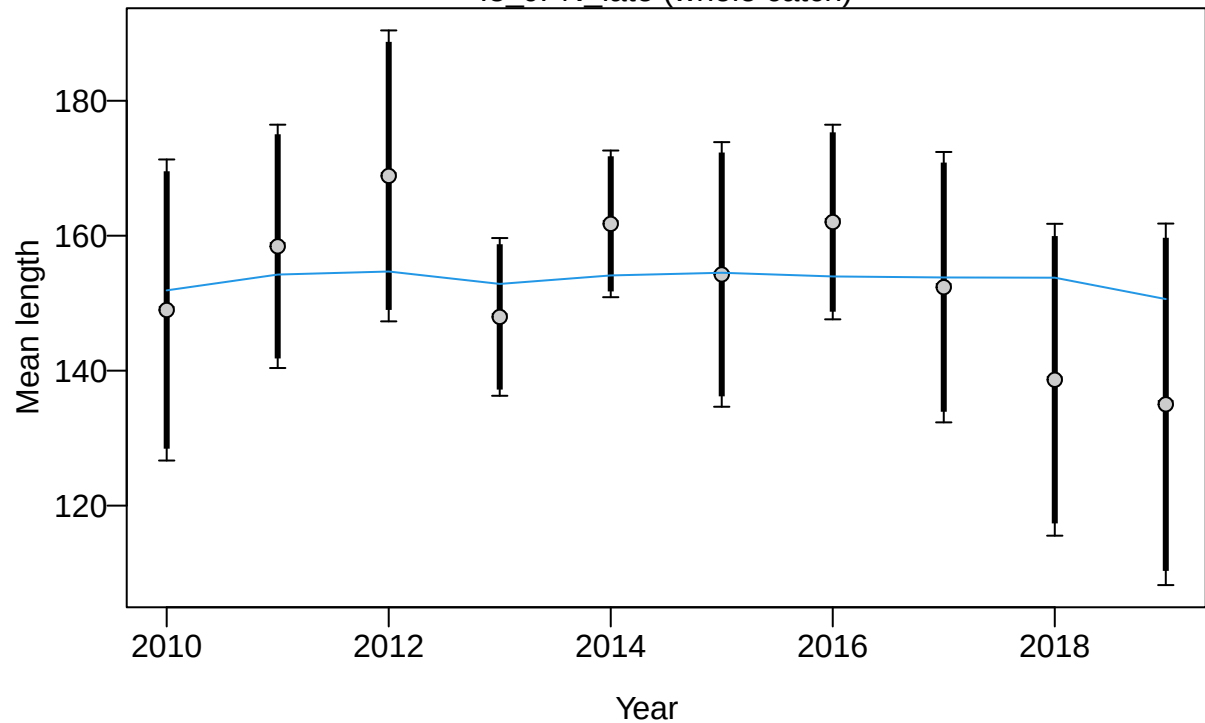
Length (cm)



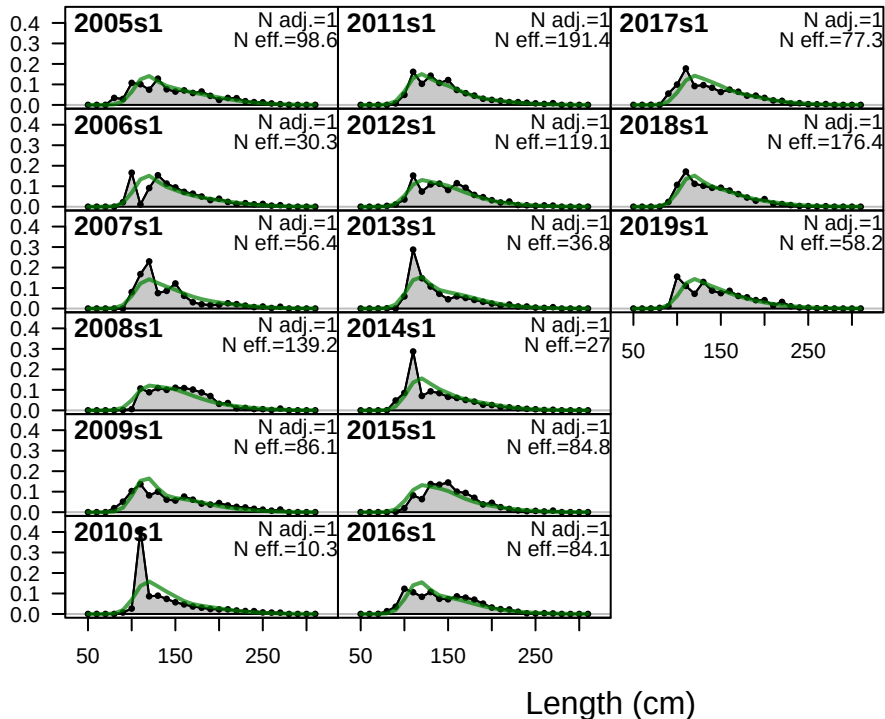
Effective sample size

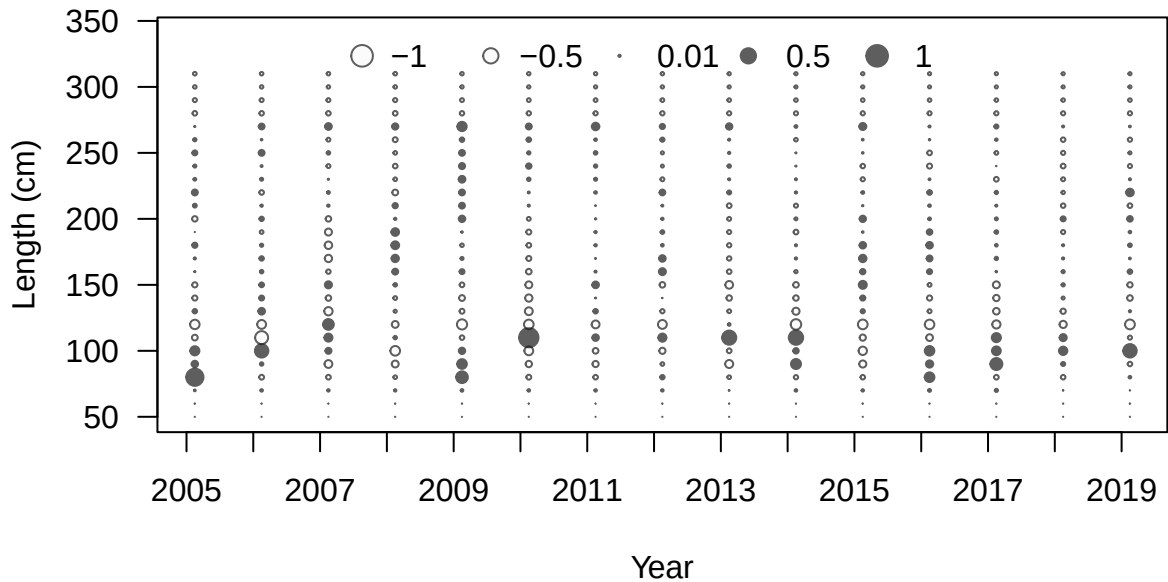


I5_JPN_late (whole catch)

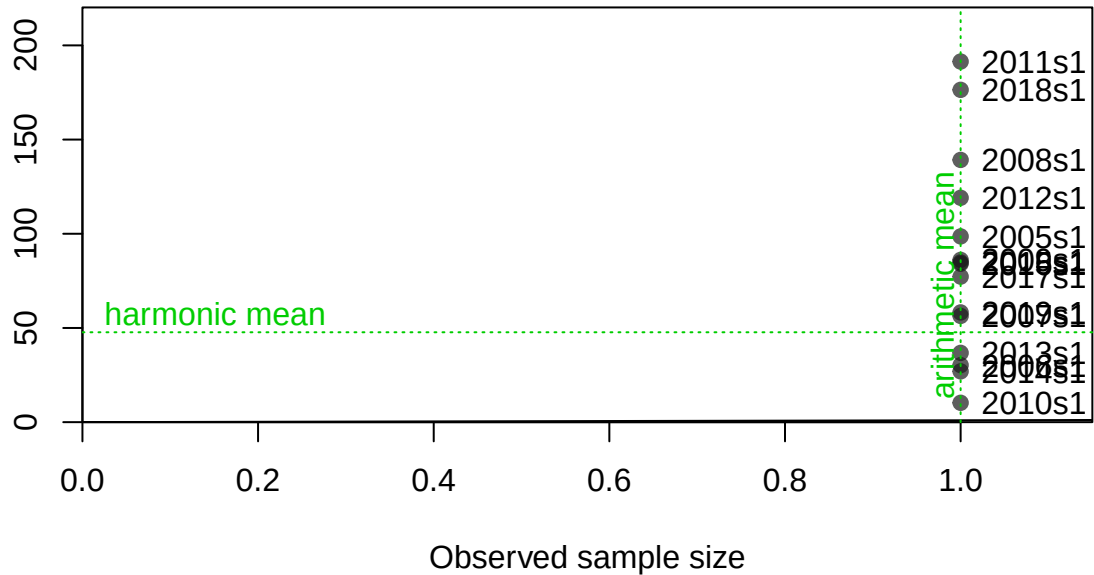


Proportion

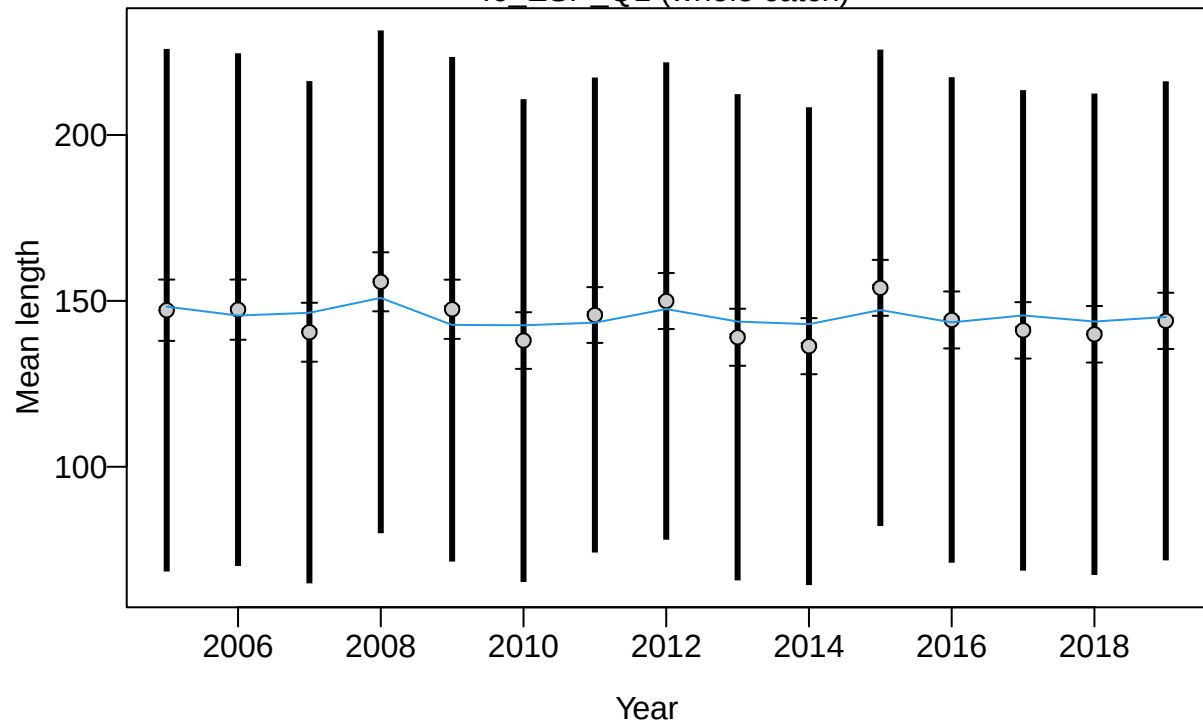




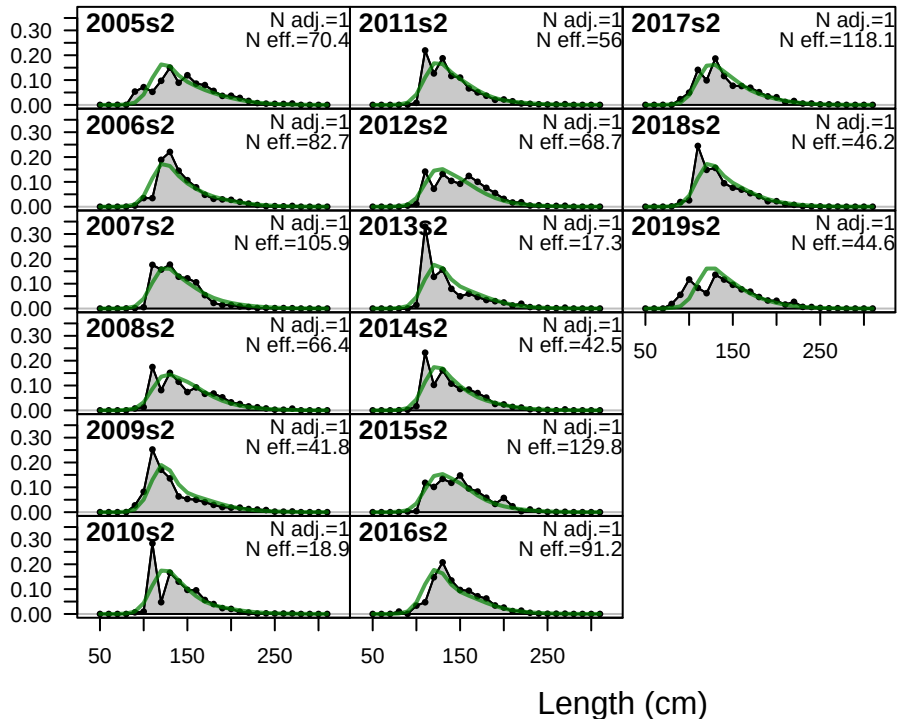
Effective sample size

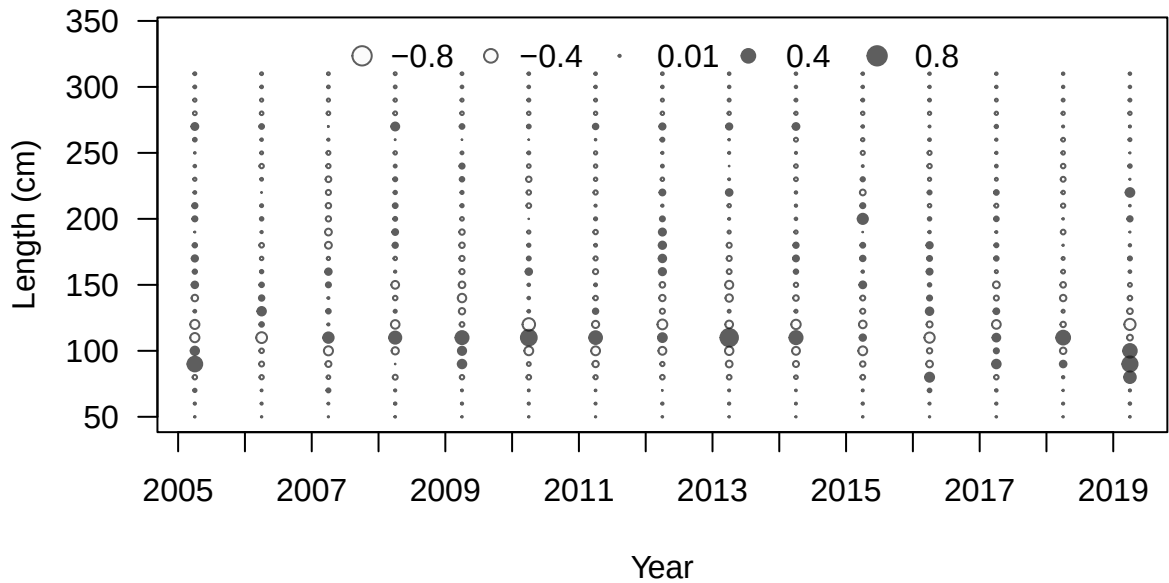


I6_ESP_Q1 (whole catch)

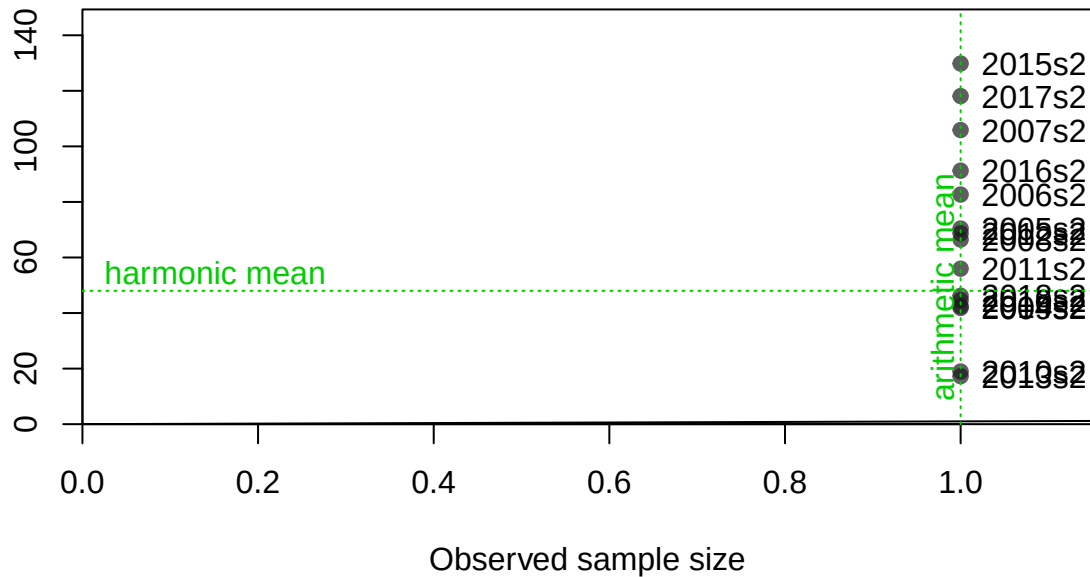


Proportion

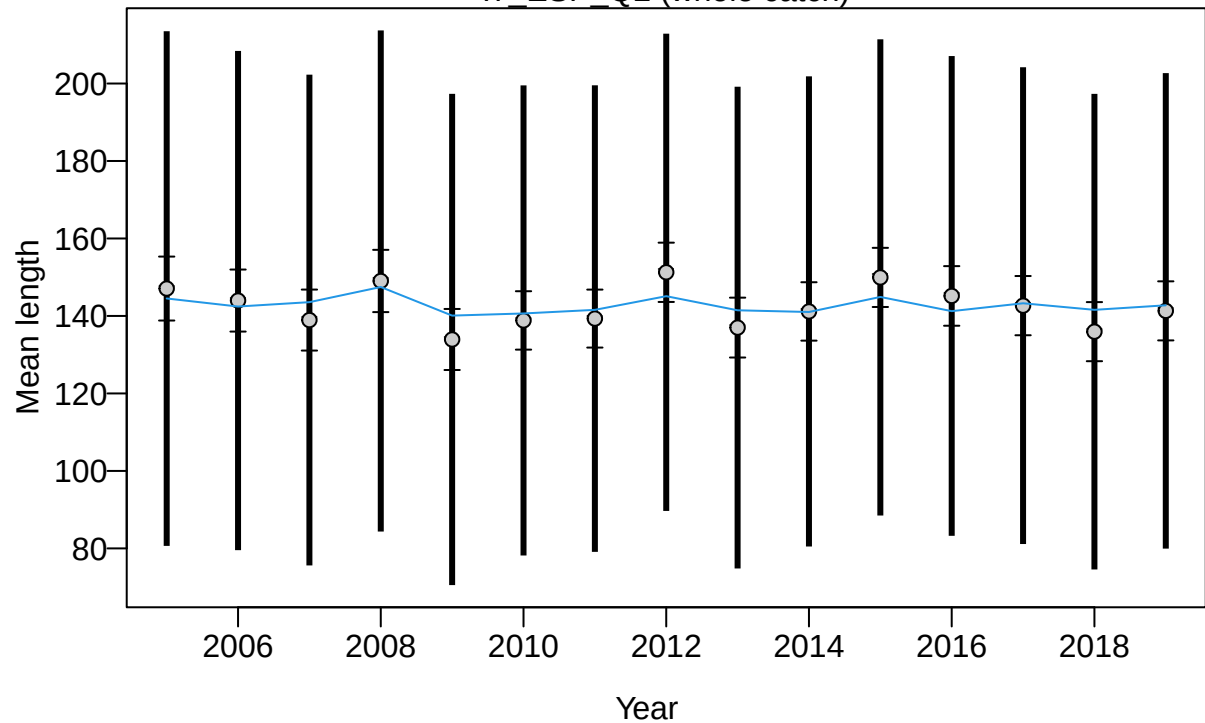




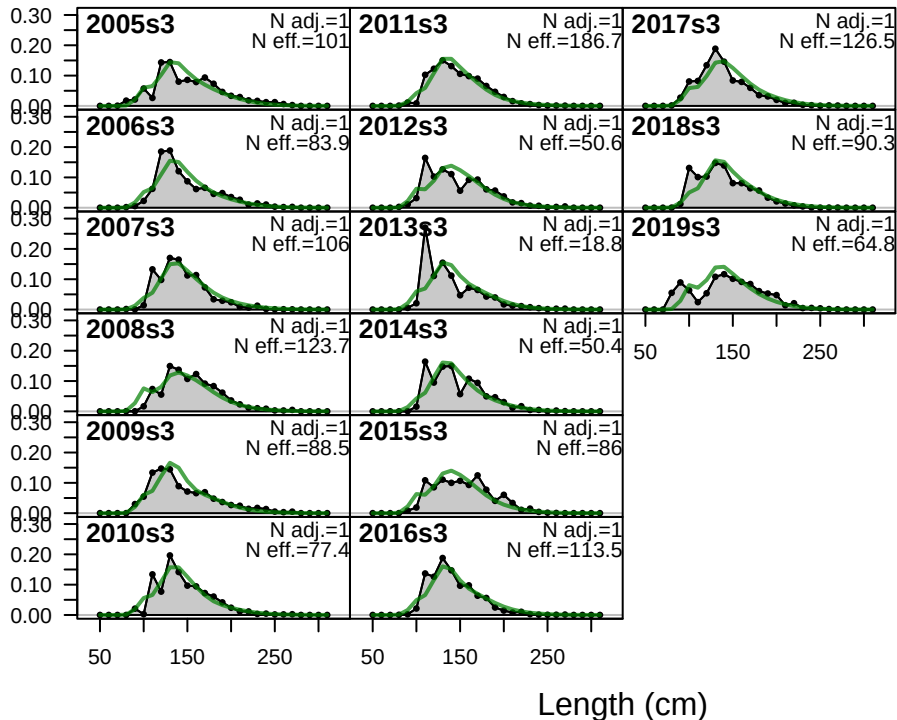
Effective sample size

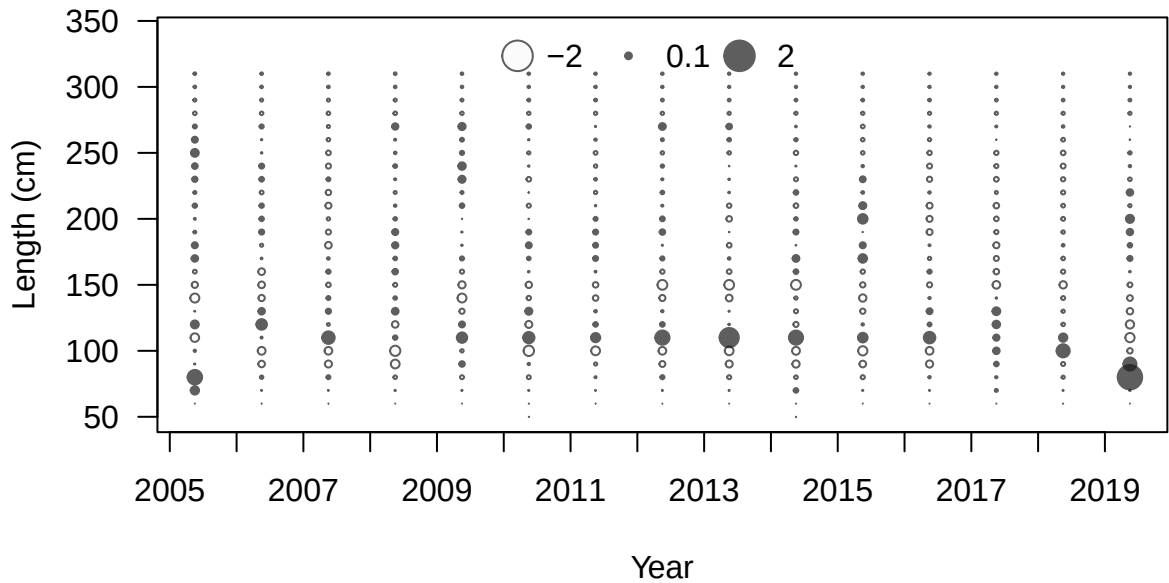


I7_ESP_Q2 (whole catch)

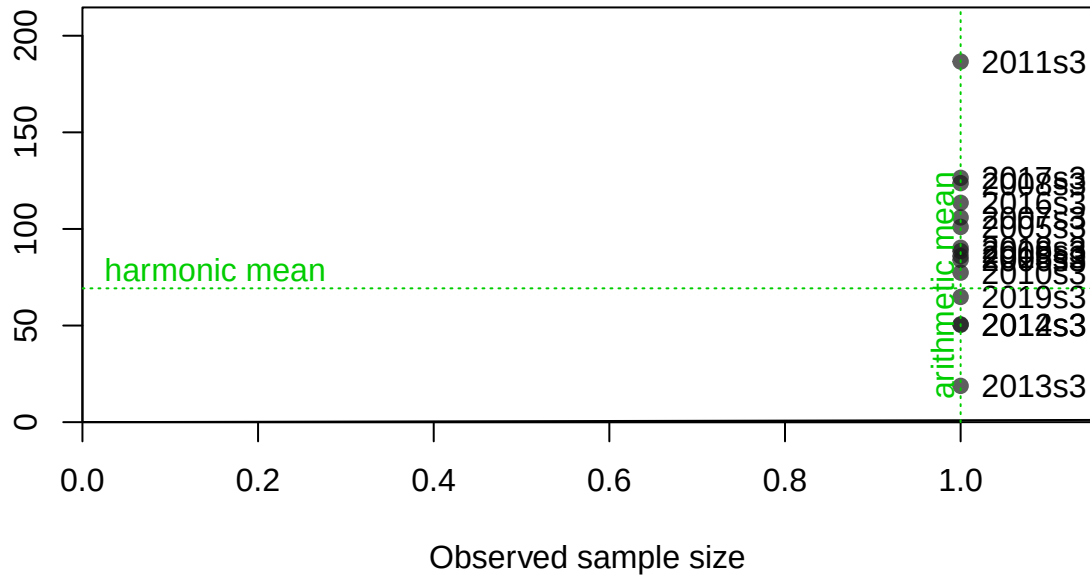


Proportion

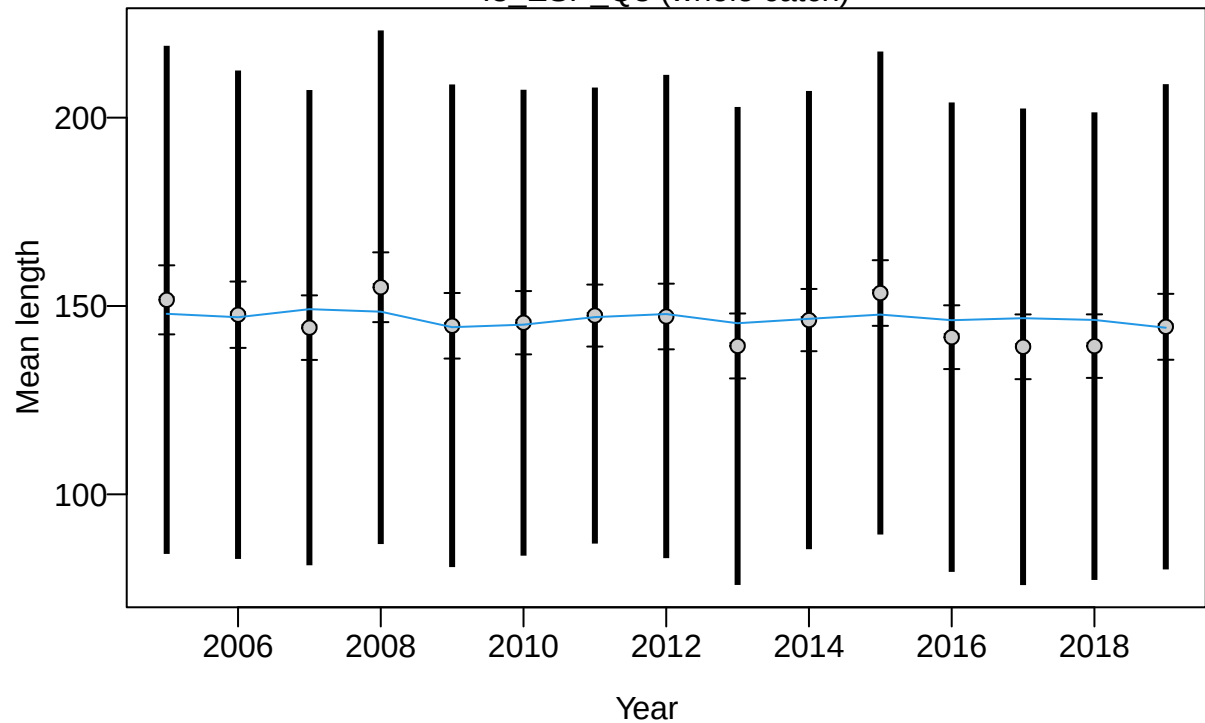


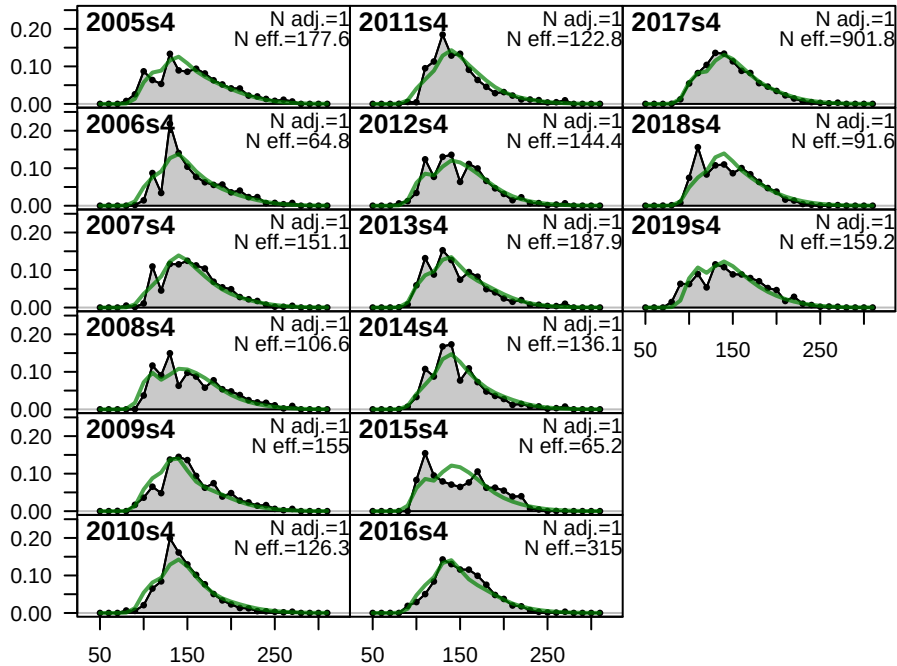


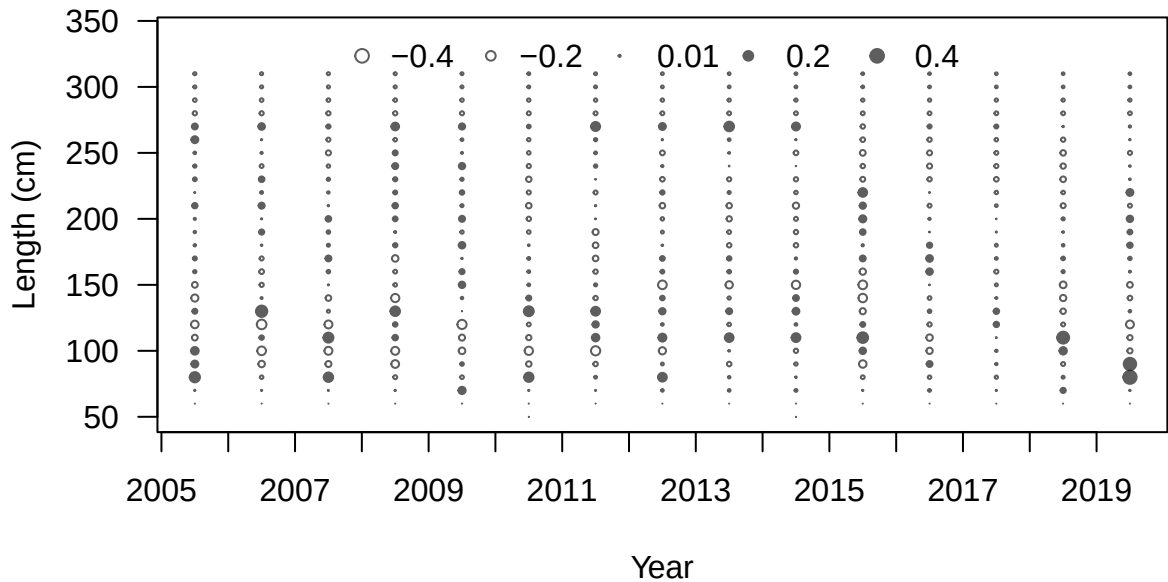
Effective sample size

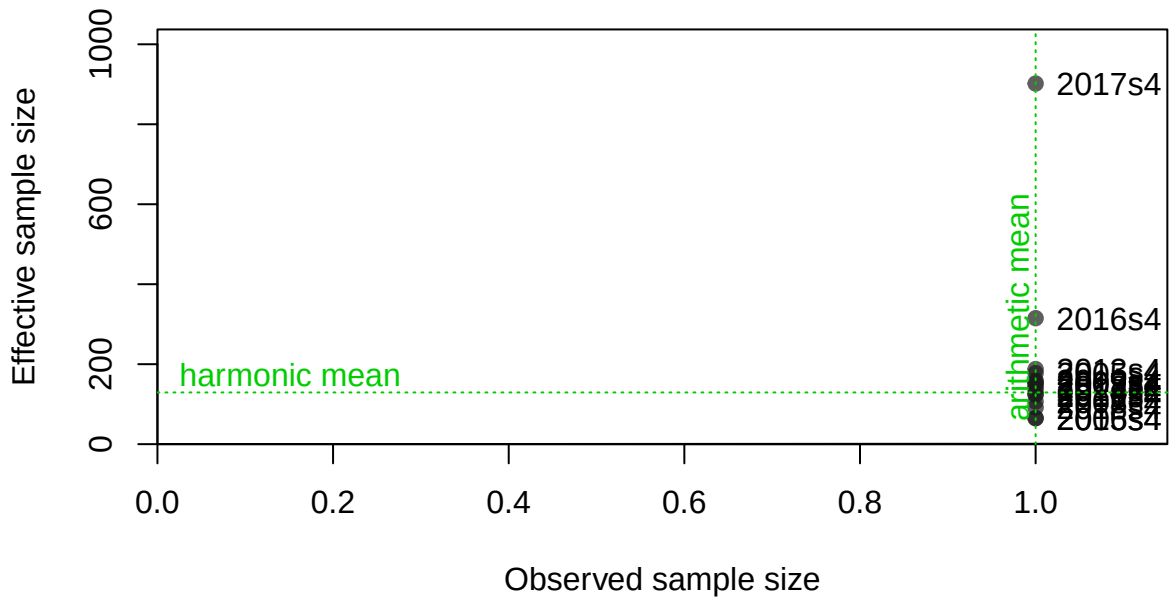


I8_ESP_Q3 (whole catch)

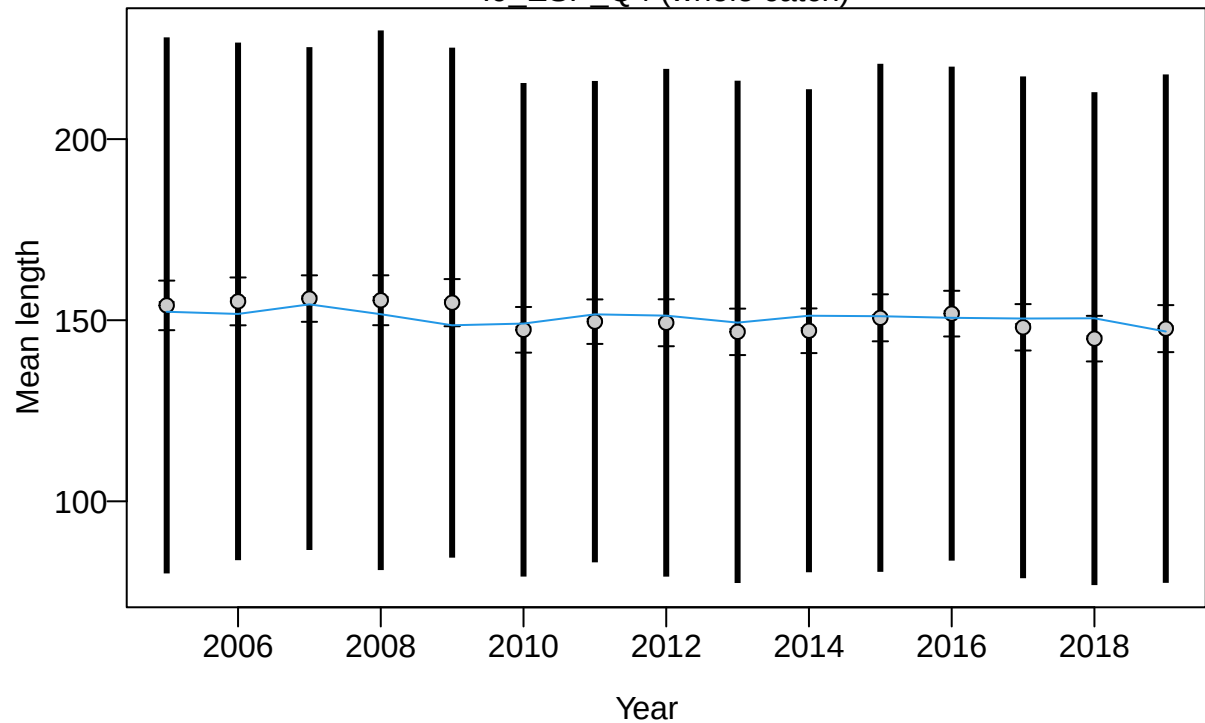




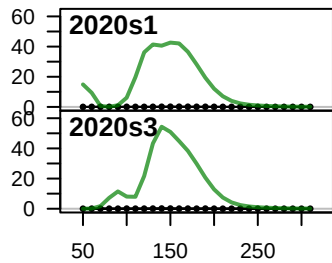




I9_ESP_Q4 (whole catch)

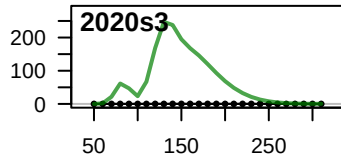


Proportion



Length (cm)

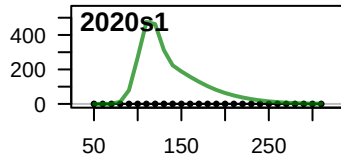
2020s3



Proportion

Length (cm)

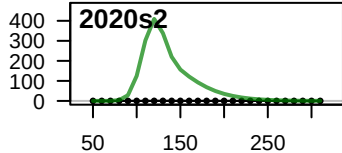
2020s1



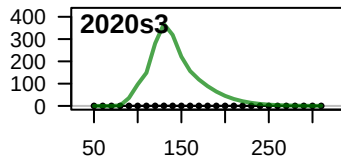
Proportion

Length (cm)

2020s2



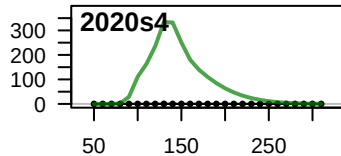
Length (cm)



Proportion

Length (cm)

2020s4



Proportion

Length (cm)

Proportion

I1_Chile_Q2

Sum of N adj.=641.3
Sum of N eff.=3141.1

I2_Chile_Q3

Sum of N adj.=485.6
Sum of N eff.=3157.3

100

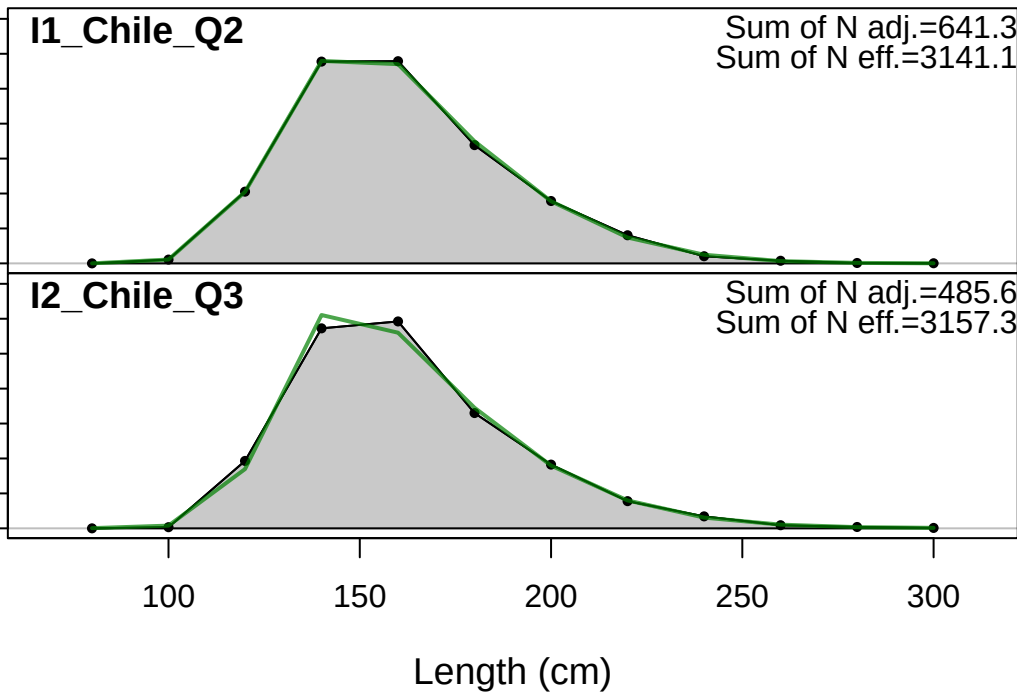
150

200

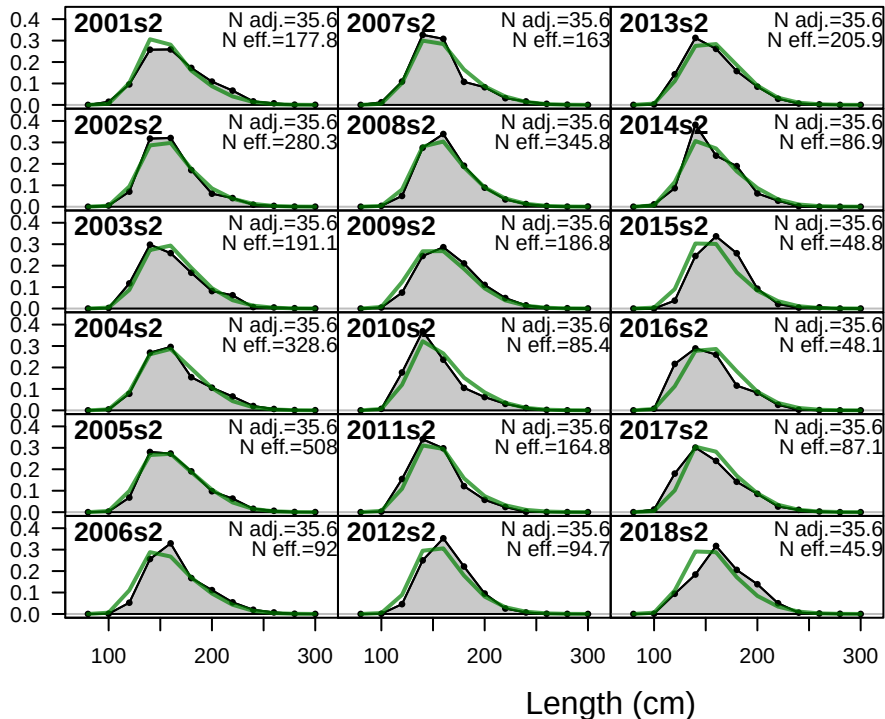
250

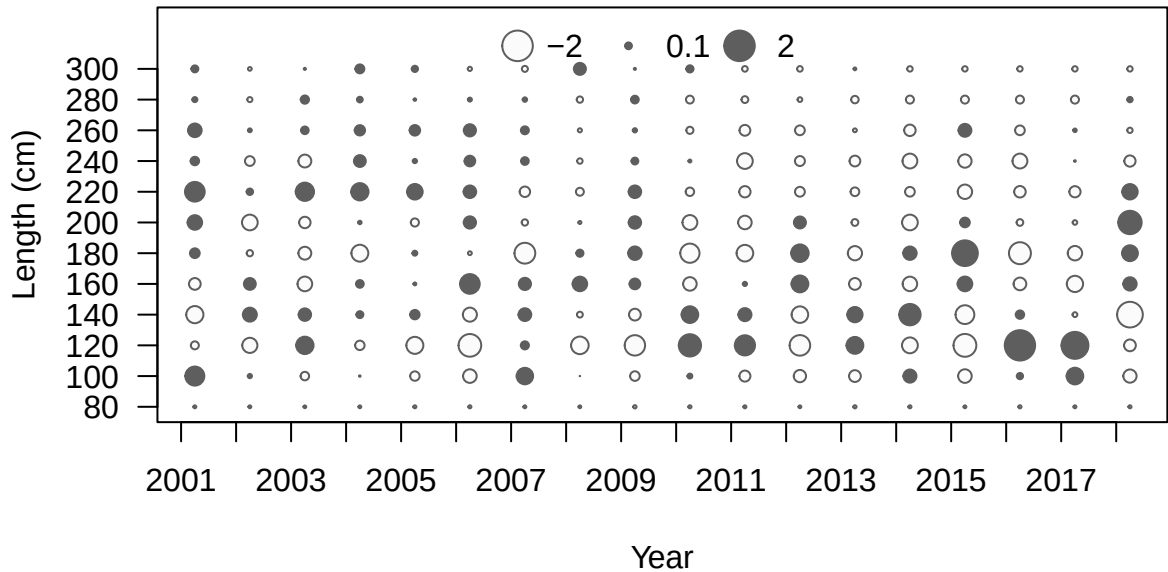
300

Length (cm)

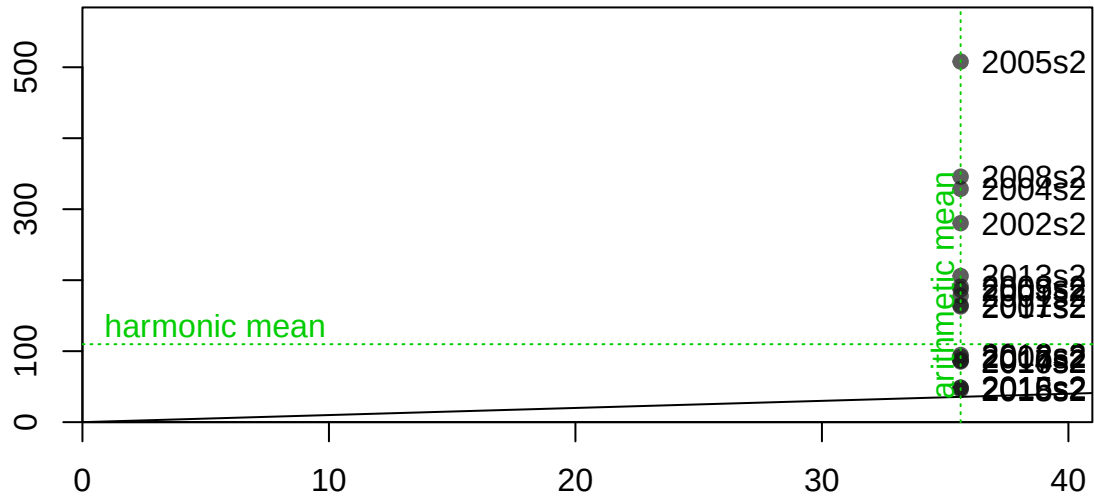


Proportion



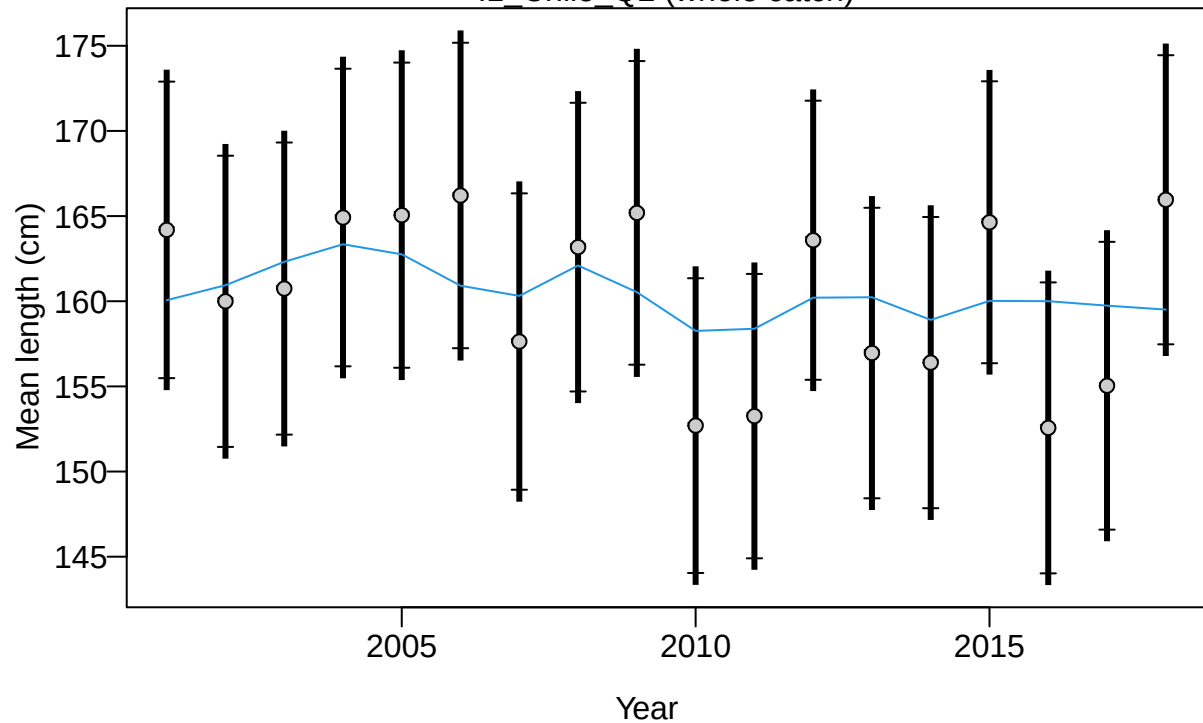


Effective sample size

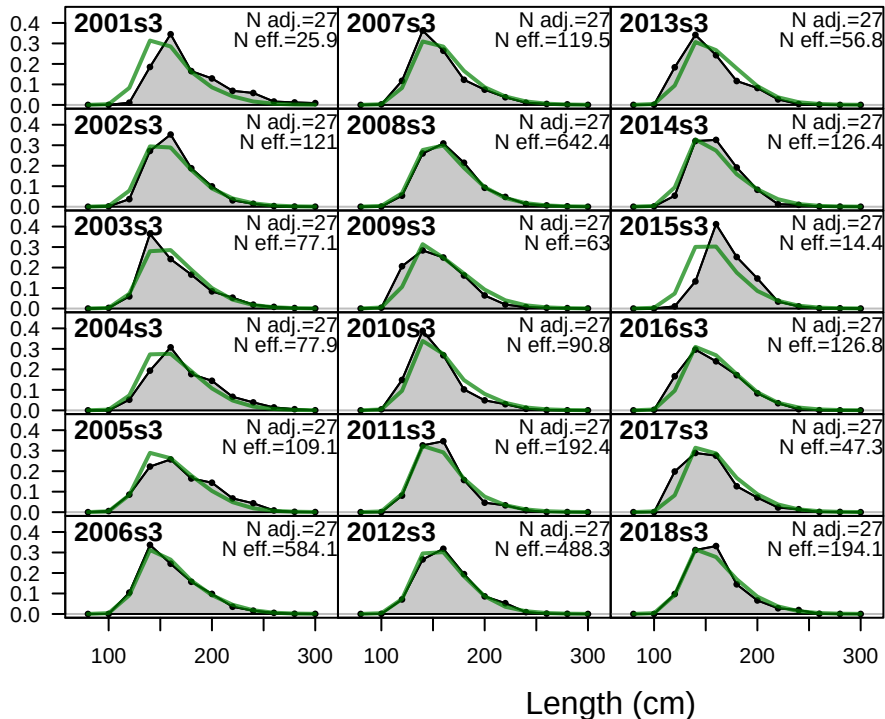


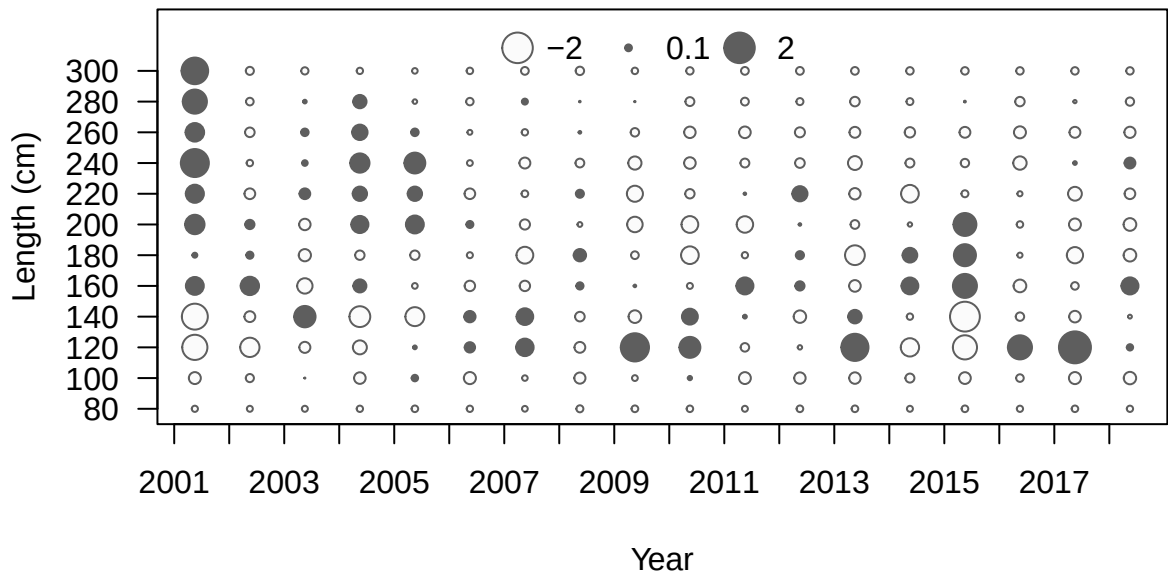
Observed sample size

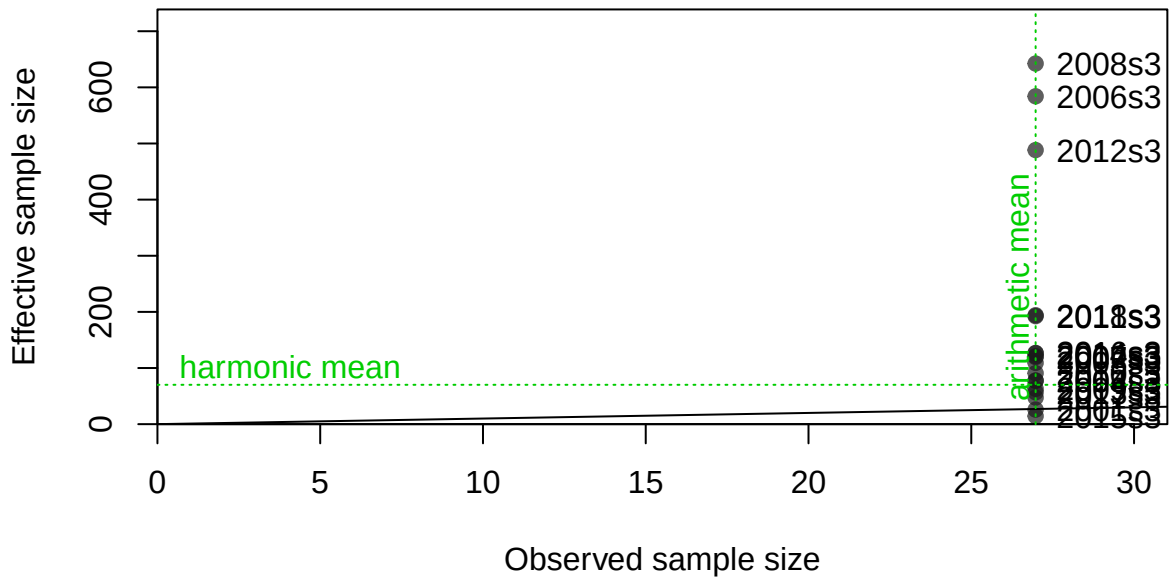
I1_Chile_Q2 (whole catch)



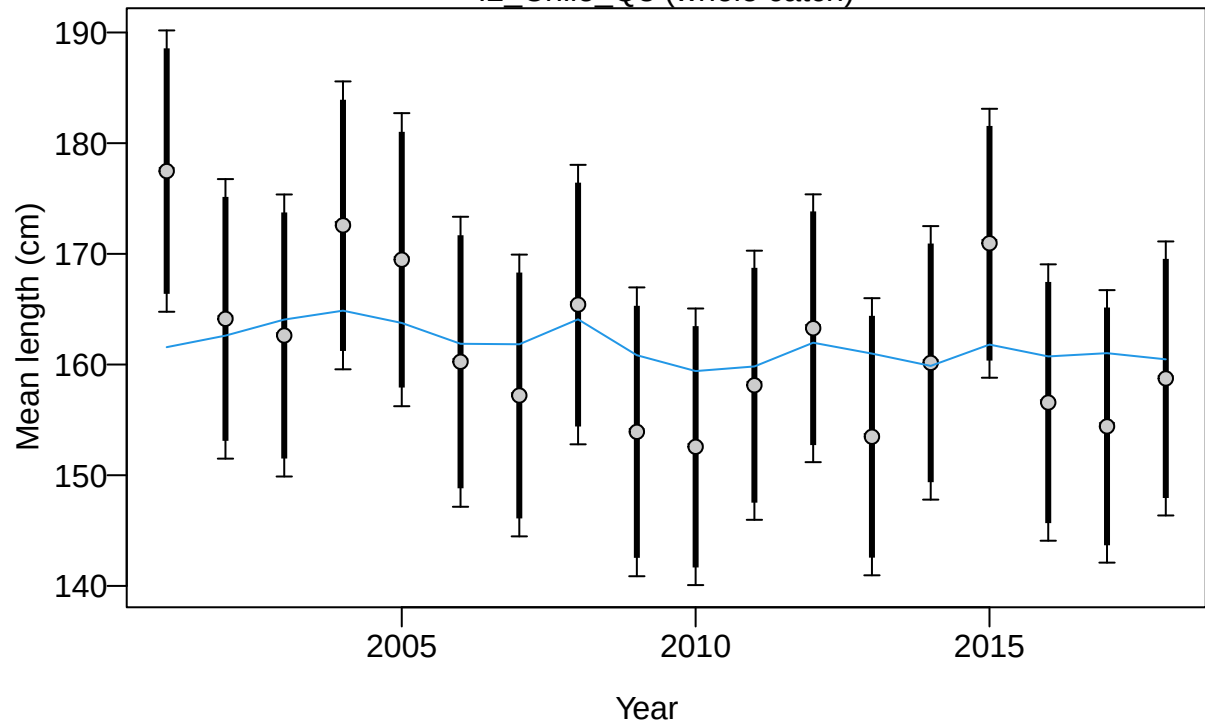
Proportion







I2_Chile_Q3 (whole catch)

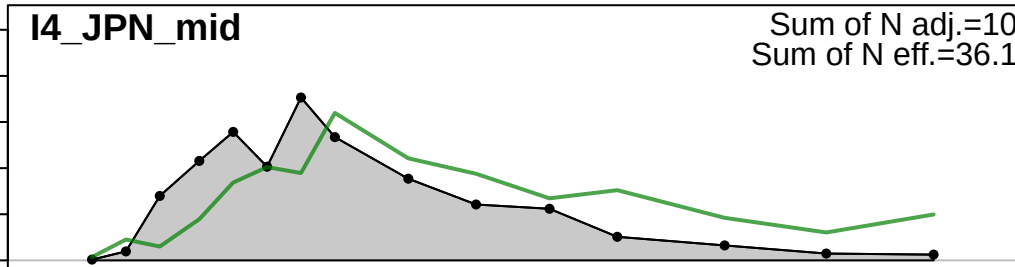


Proportion

I4_JPN_mid

Sum of N adj.=10
Sum of N eff.=36.1

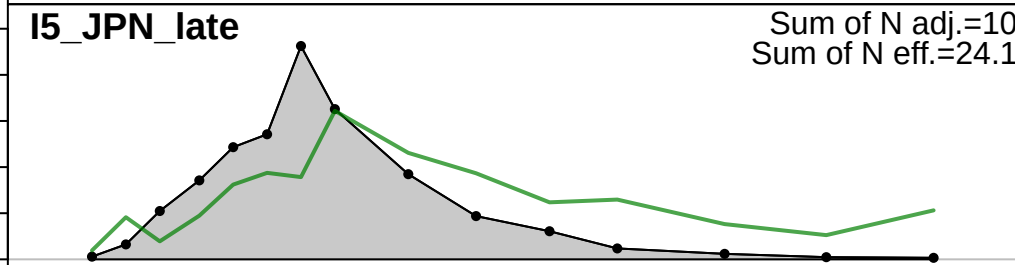
0.25
0.20
0.15
0.10
0.05
0.00



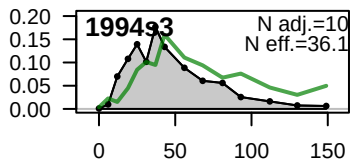
I5_JPN_late

Sum of N adj.=10
Sum of N eff.=24.1

0.25
0.20
0.15
0.10
0.05
0.00

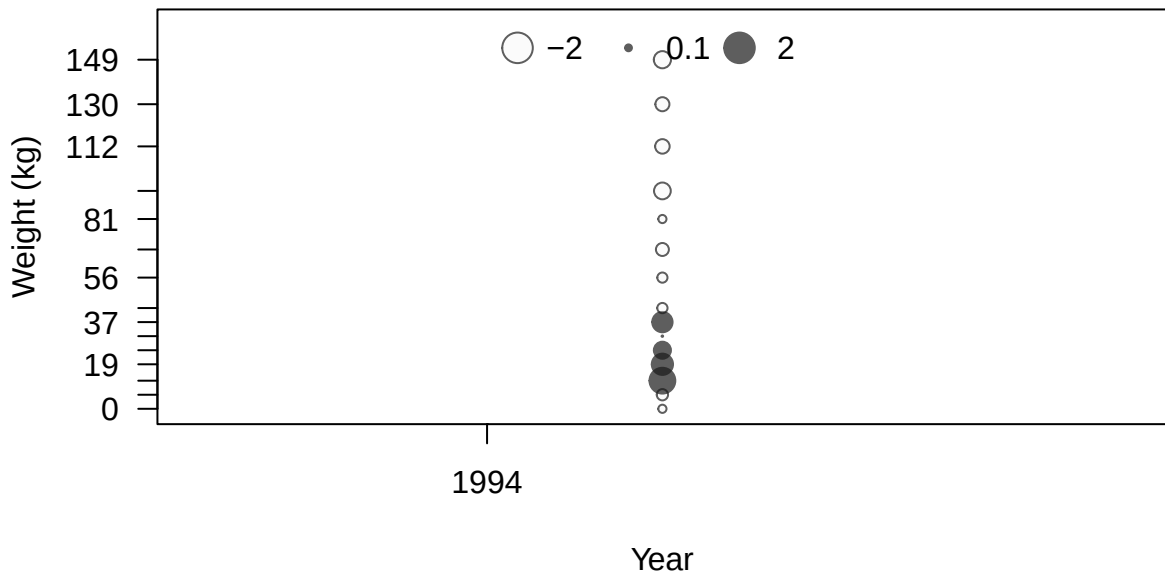


Weight (kg)

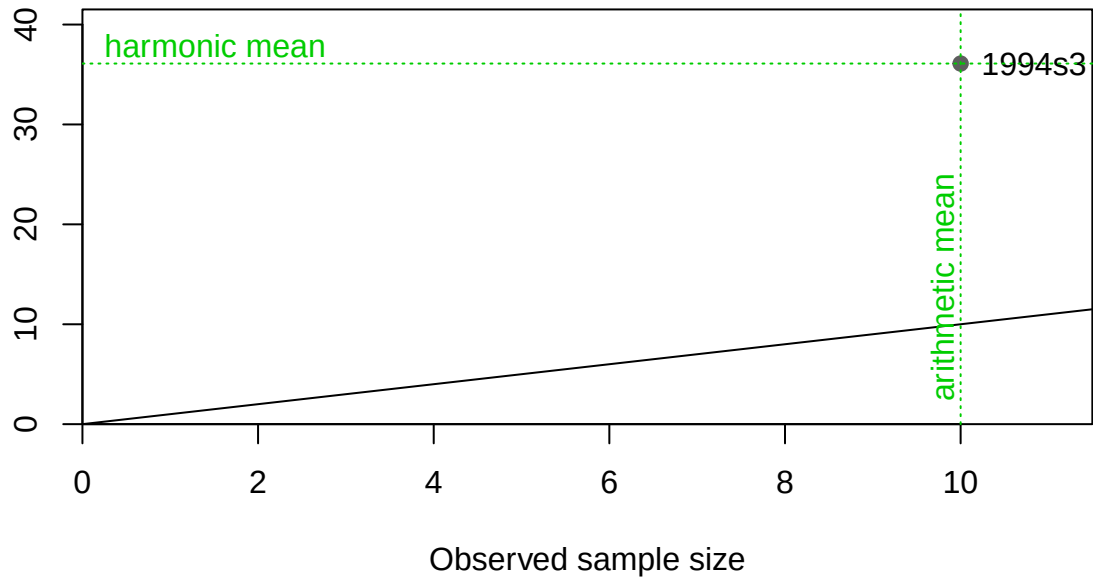


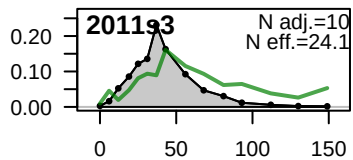
Proportion

Weight (kg)



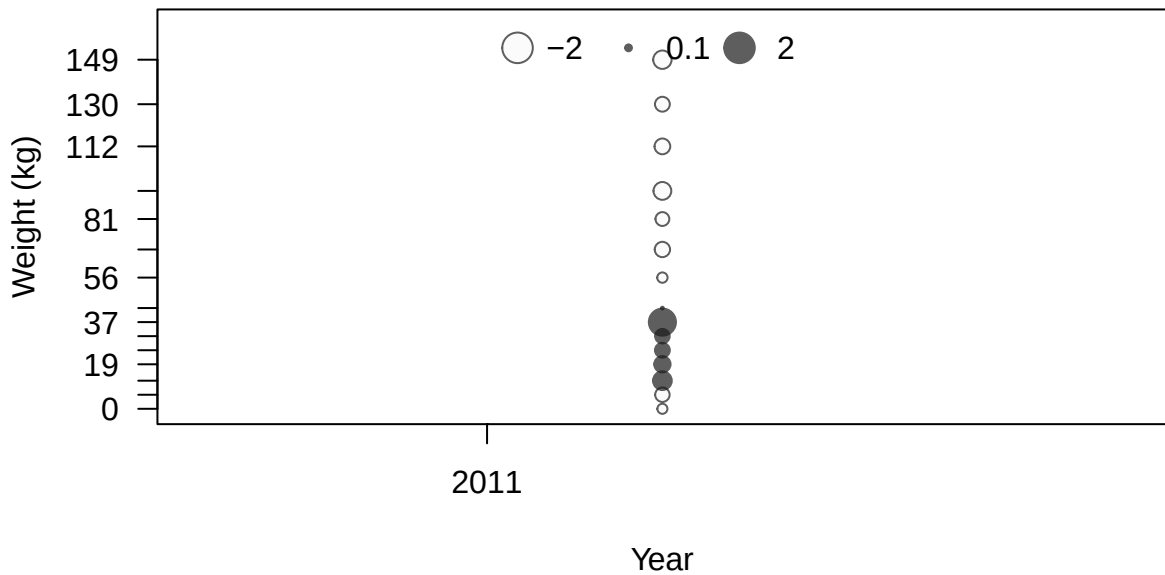
Effective sample size



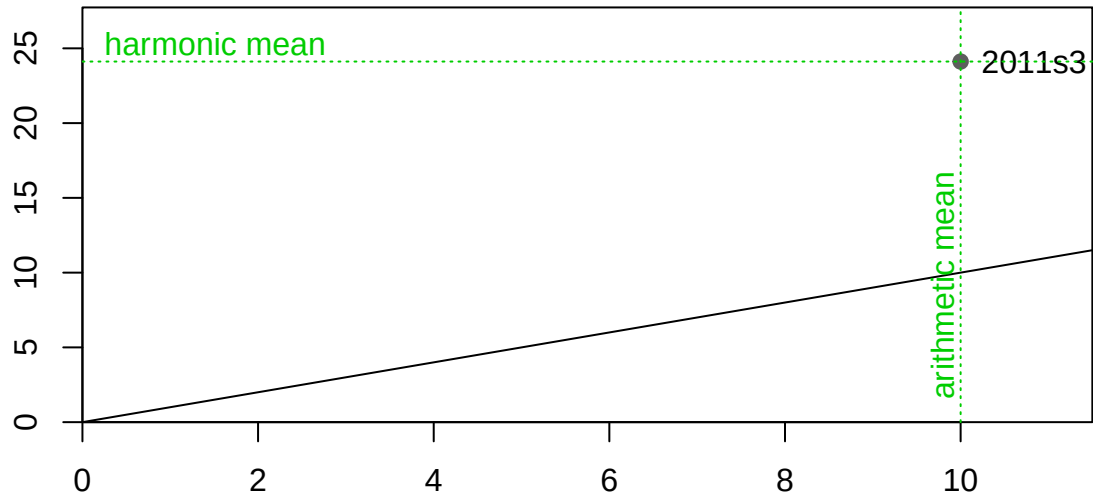


Proportion

Weight (kg)

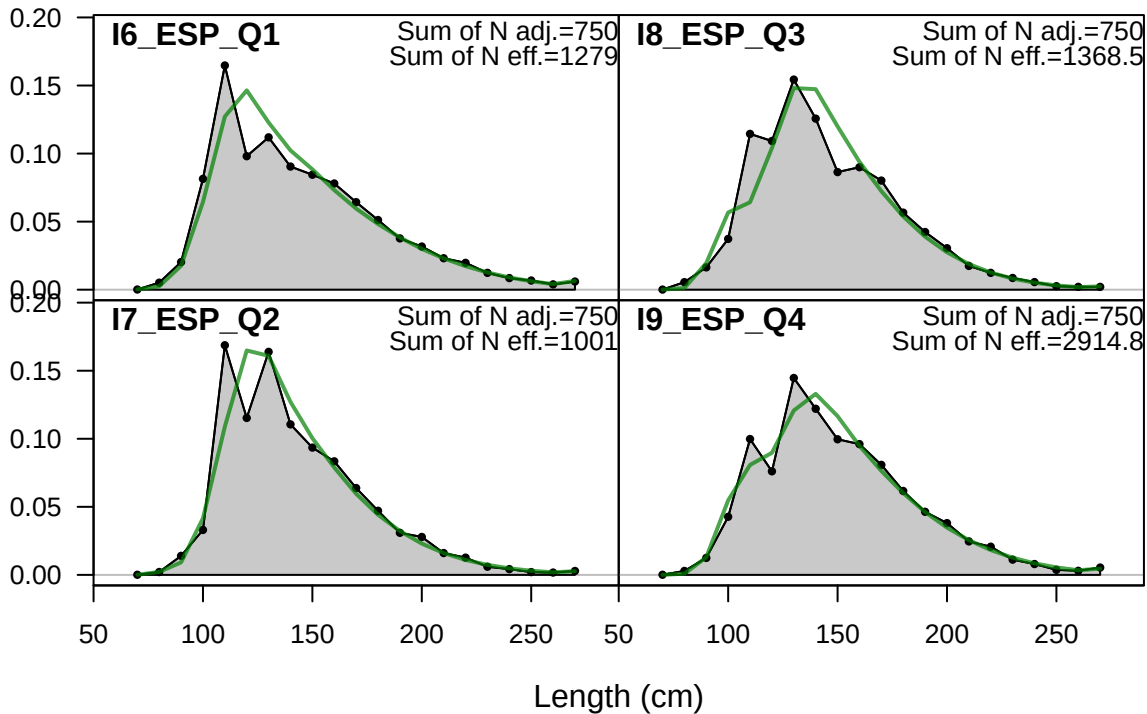


Effective sample size

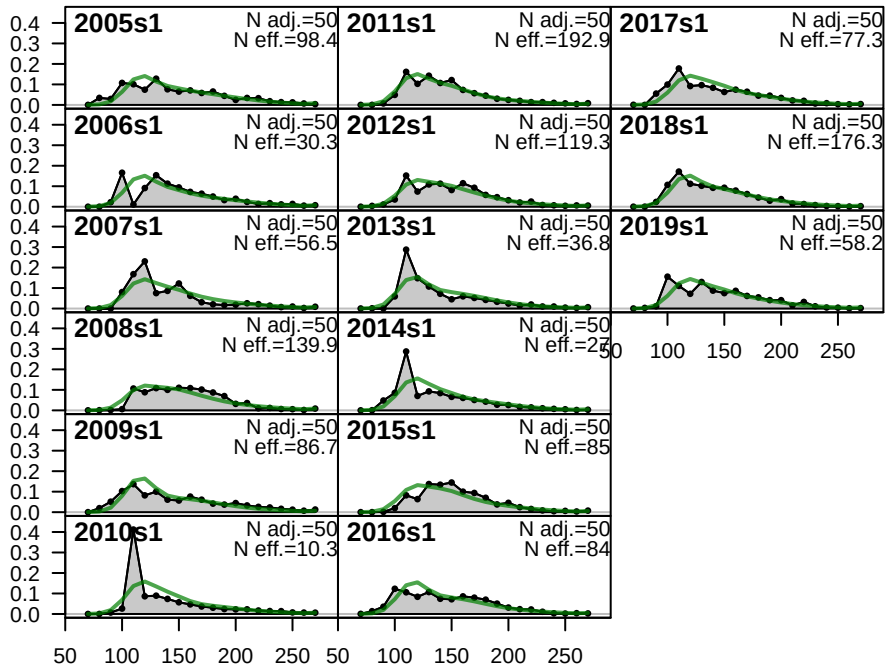


Observed sample size

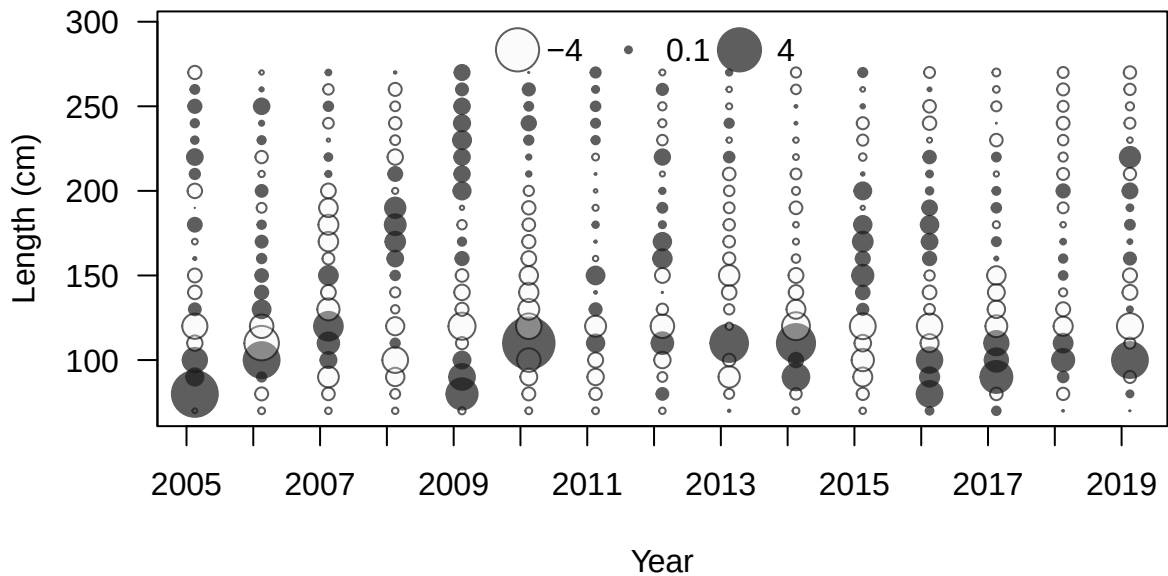
Proportion



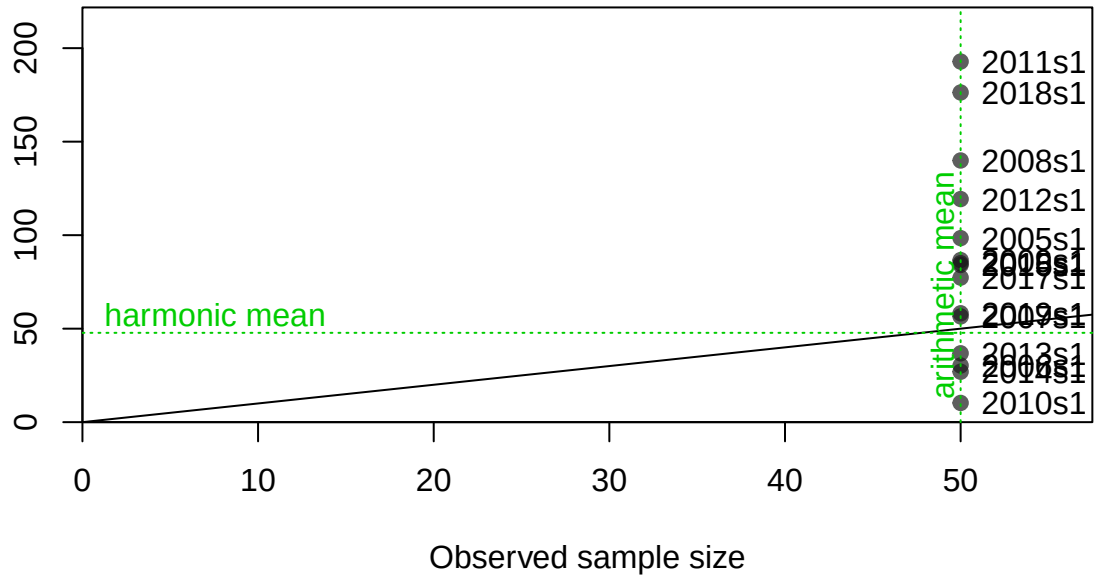
Proportion



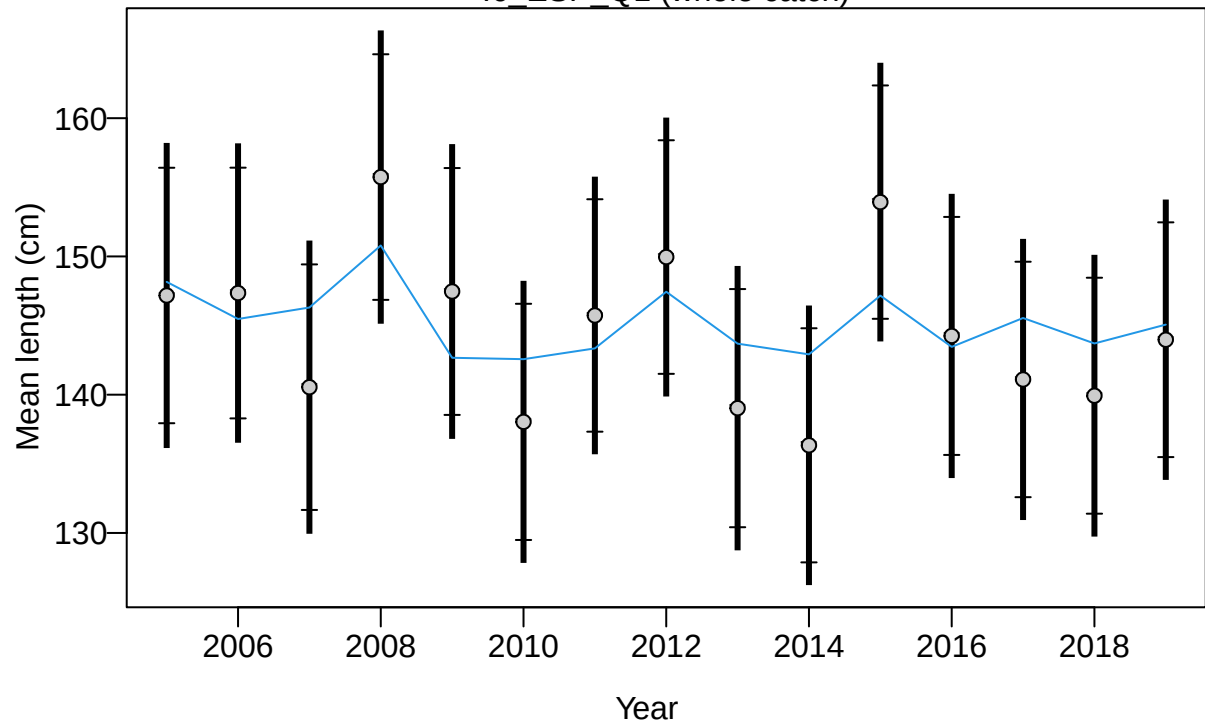
Length (cm)



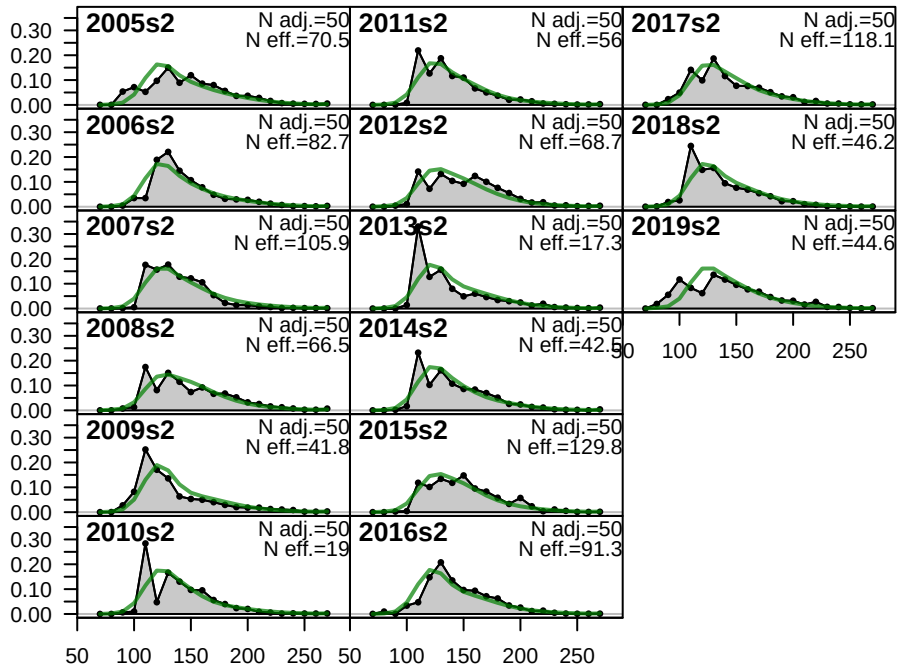
Effective sample size



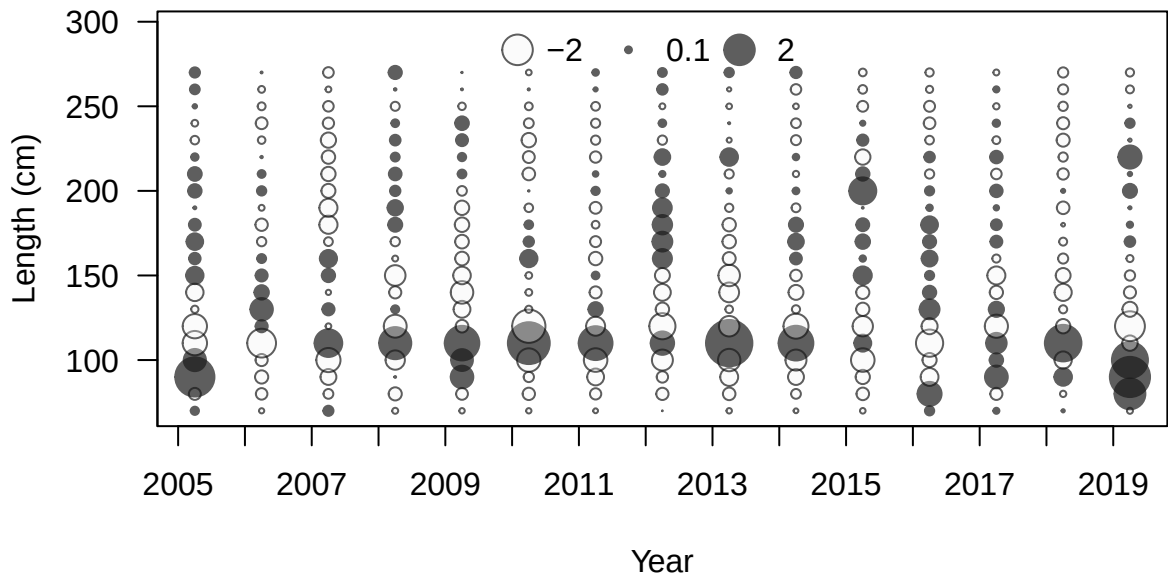
I6_ESP_Q1 (whole catch)



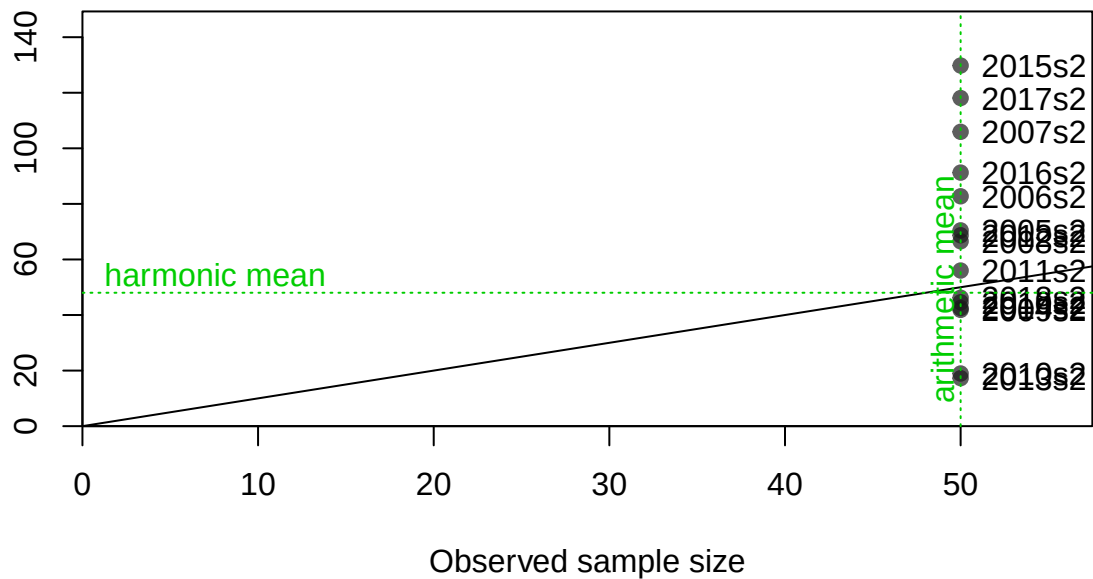
Proportion



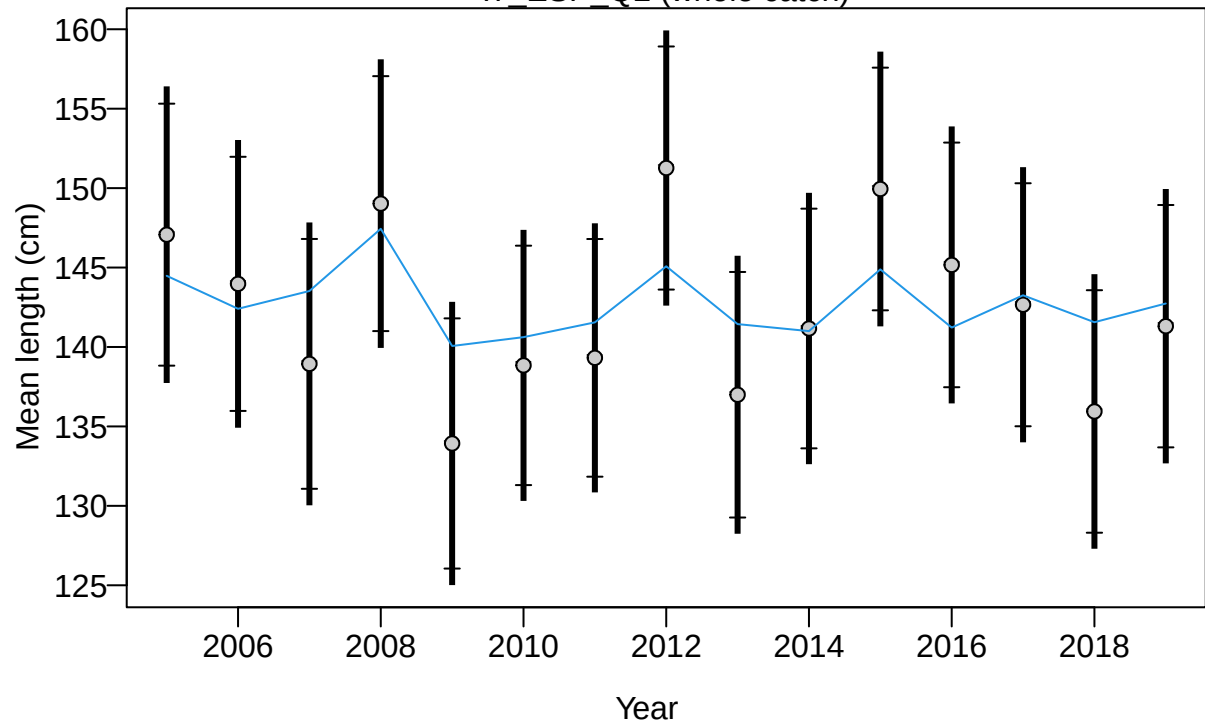
Length (cm)



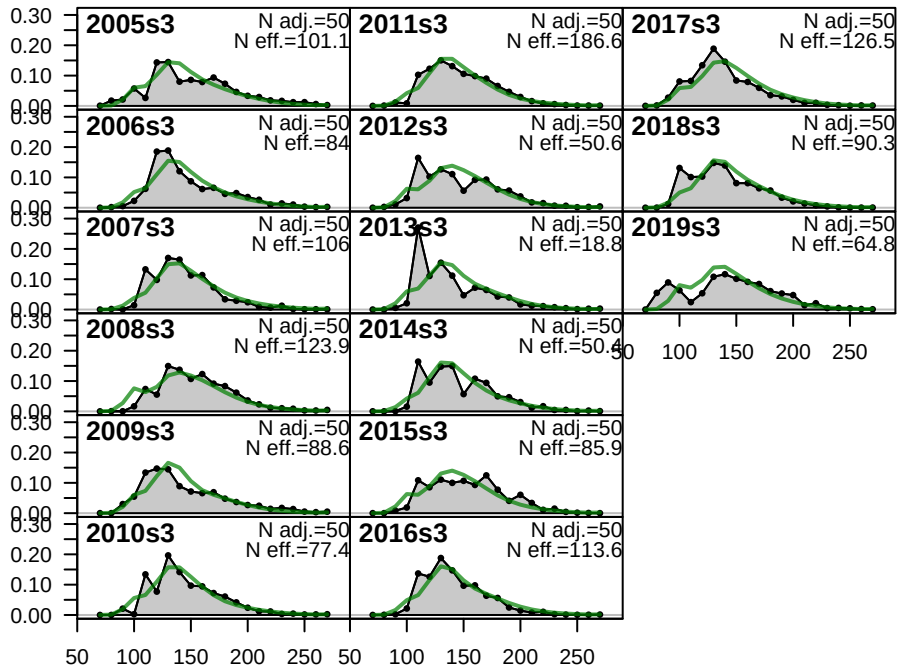
Effective sample size



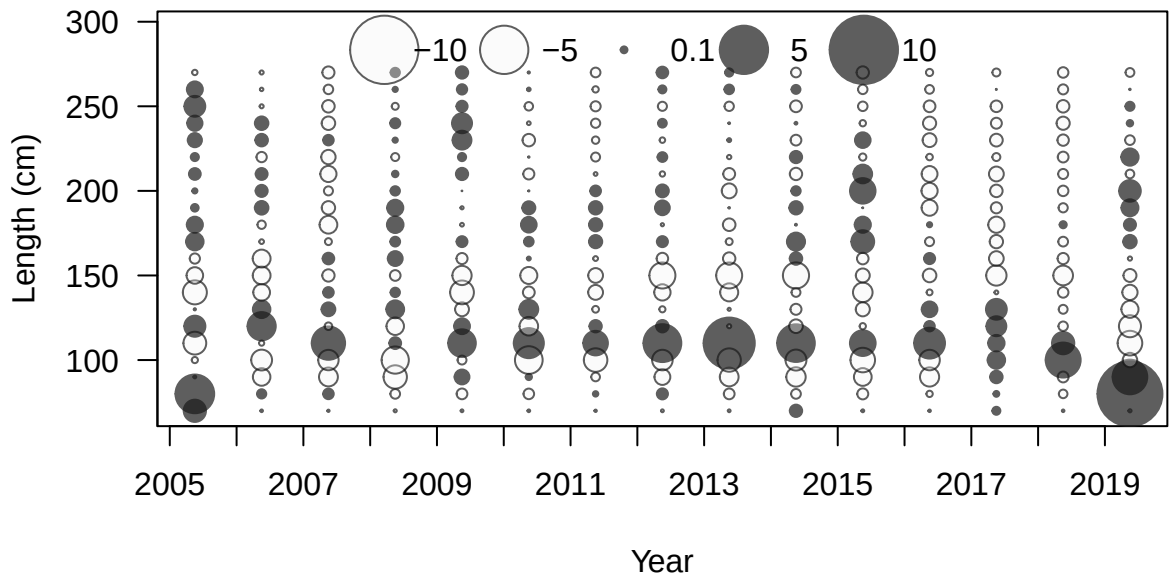
I7_ESP_Q2 (whole catch)



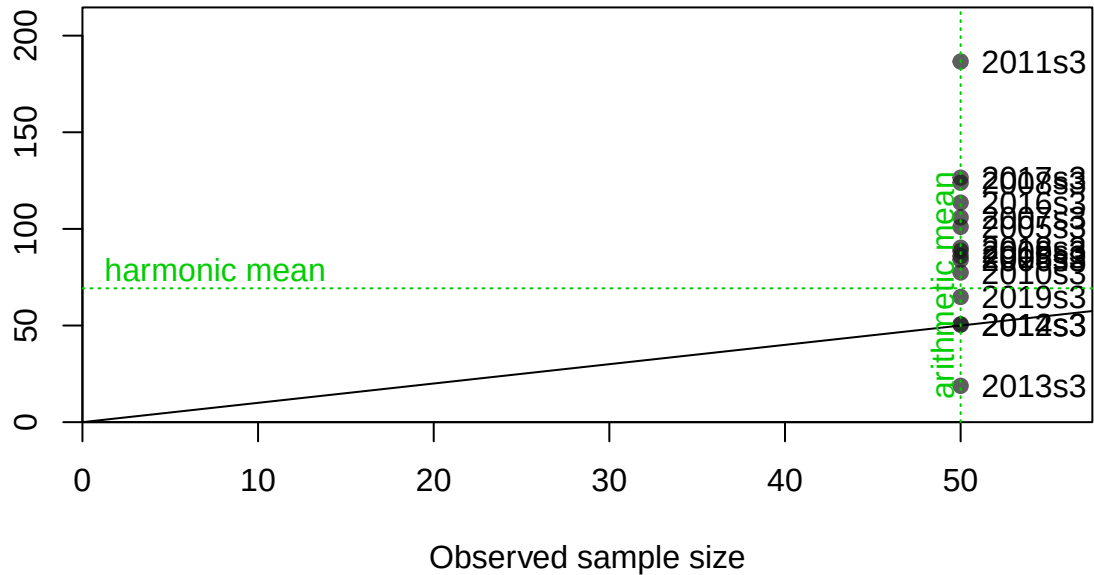
Proportion



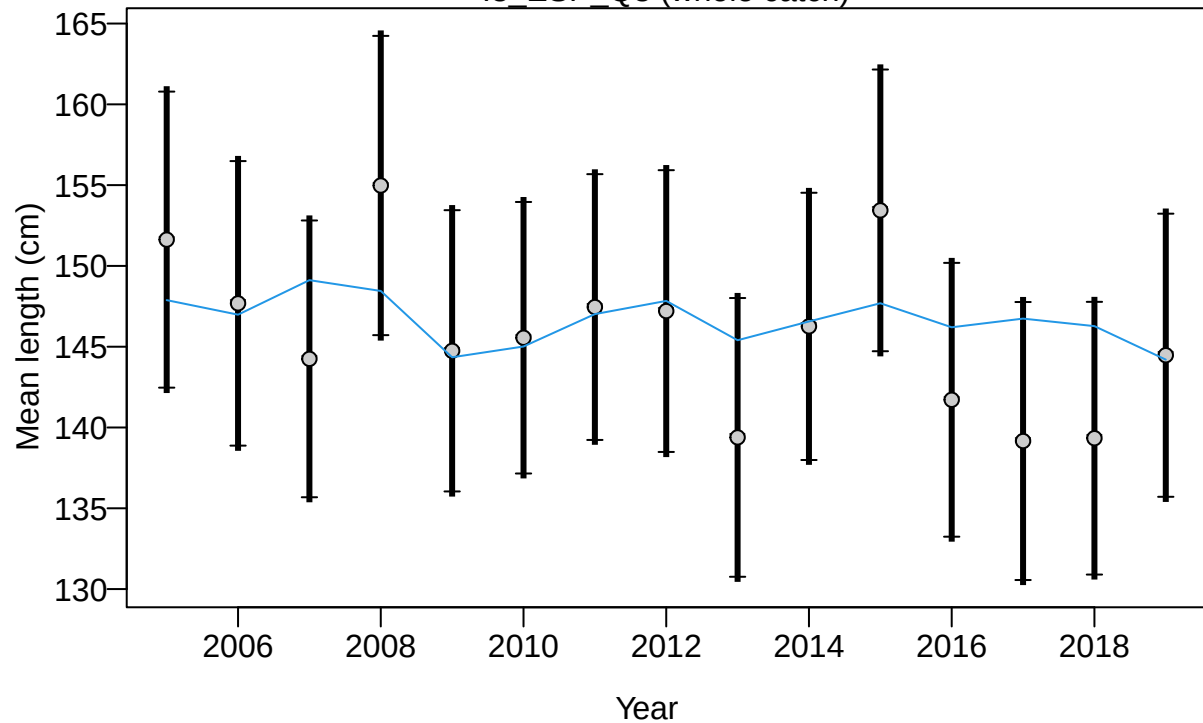
Length (cm)

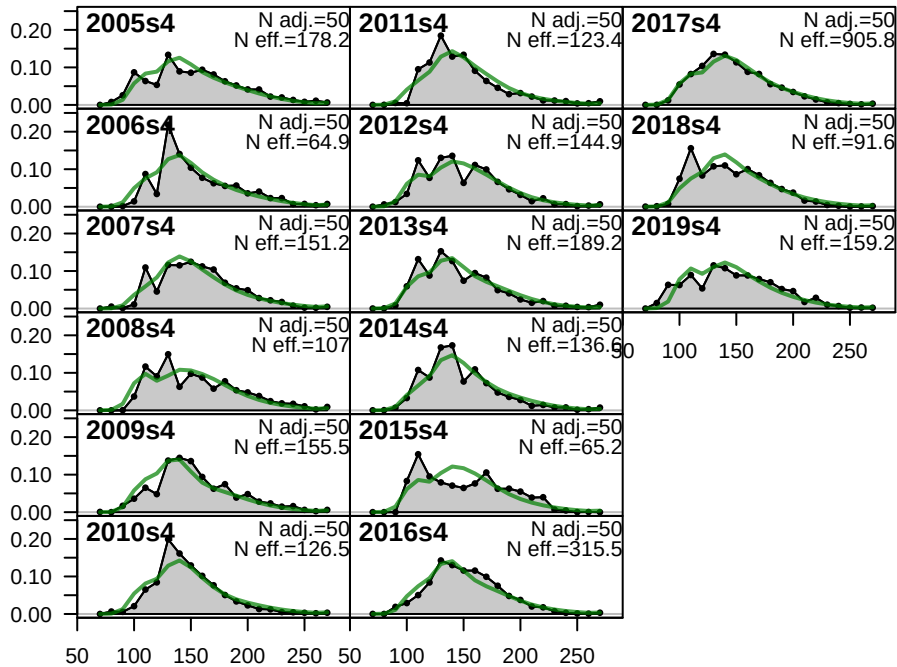


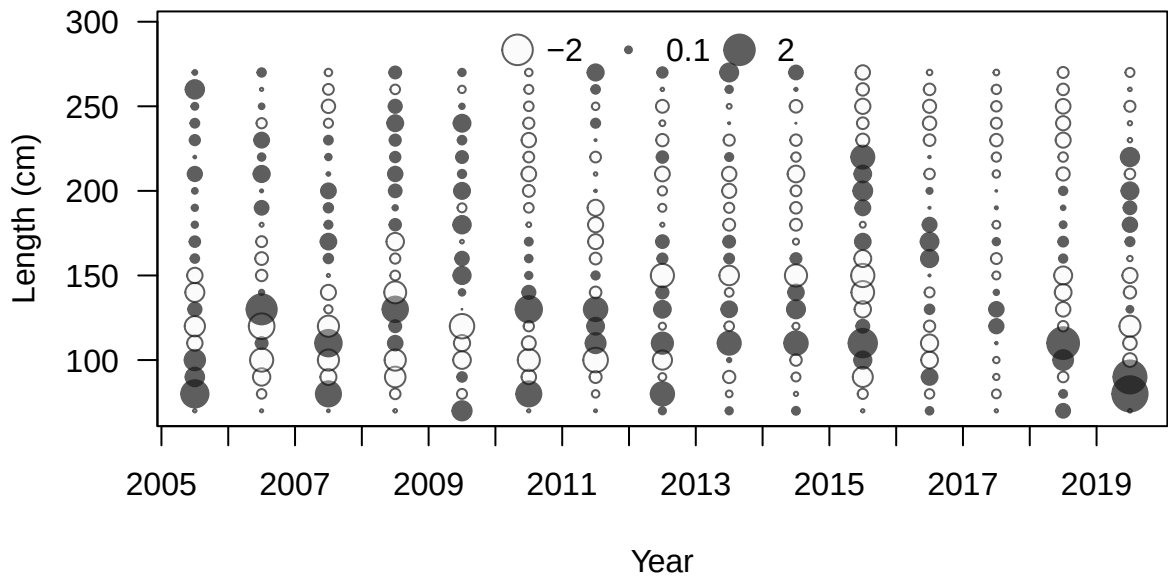
Effective sample size



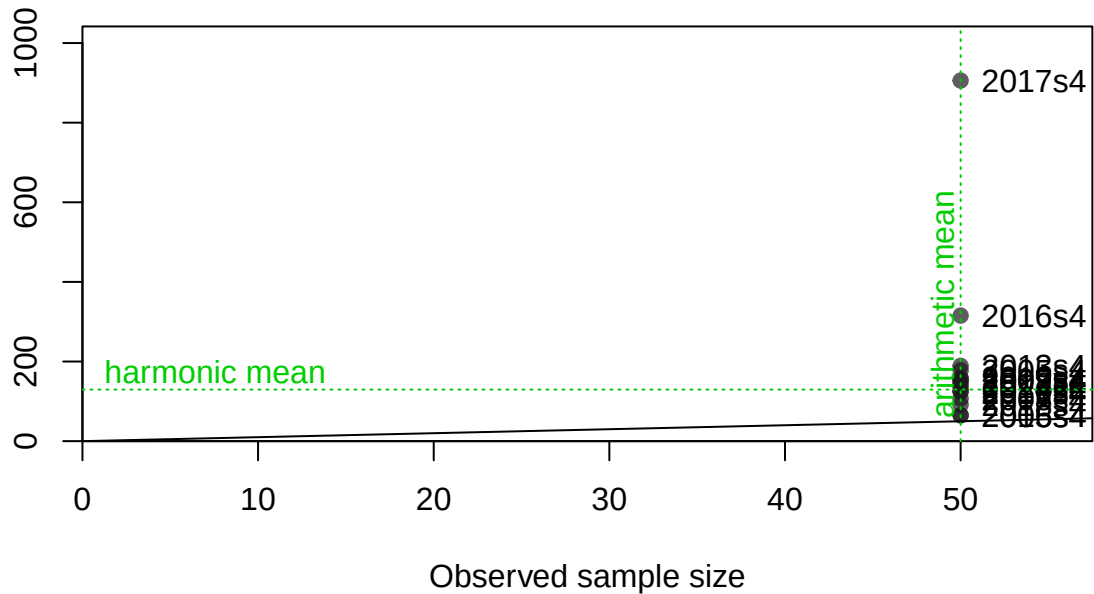
I8_ESP_Q3 (whole catch)



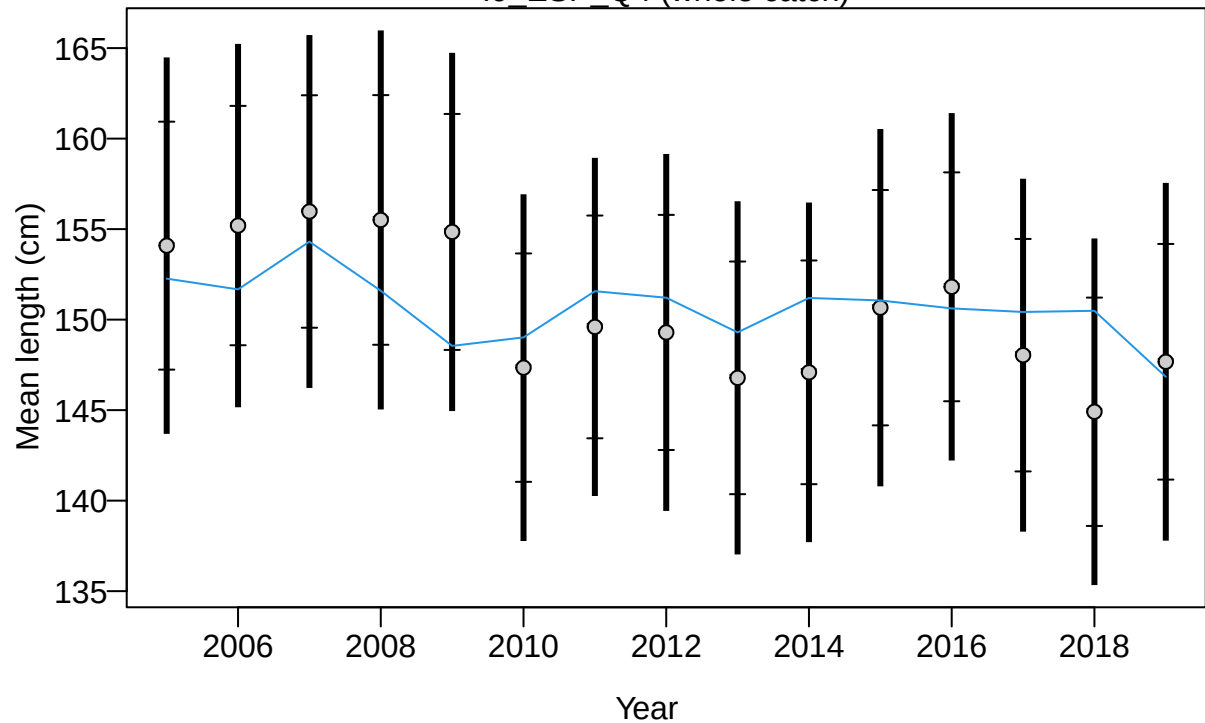


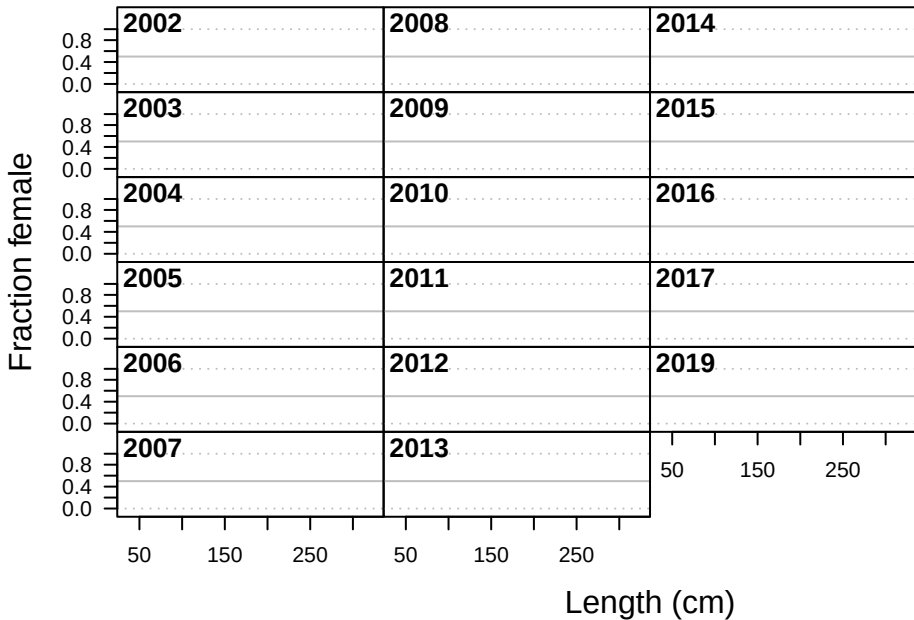


Effective sample size

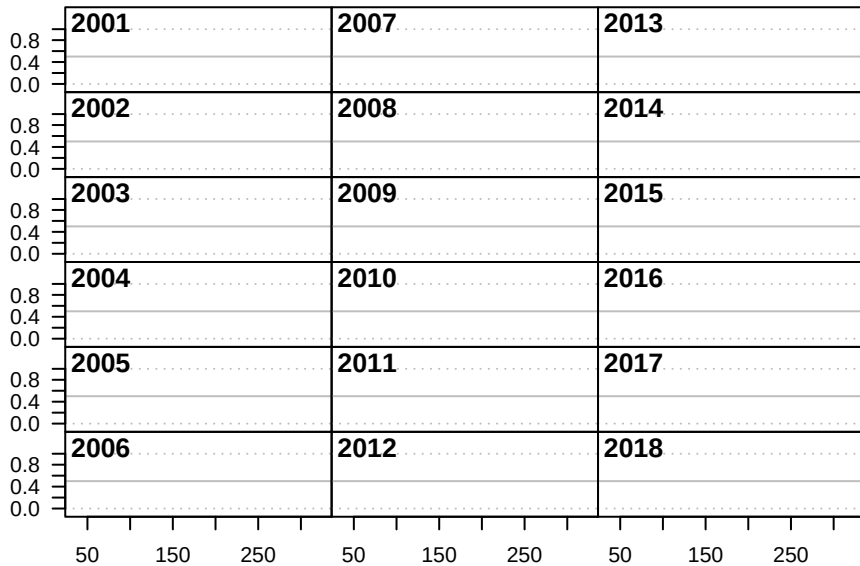


I9_ESP_Q4 (whole catch)





Fraction female



Length (cm)

Proportion

F3_GN_A5

Sum of N adj.=308
Sum of N eff.=1293.2

F5_LL_Coast_A5

Sum of N adj.=498.4
Sum of N eff.=1204.4

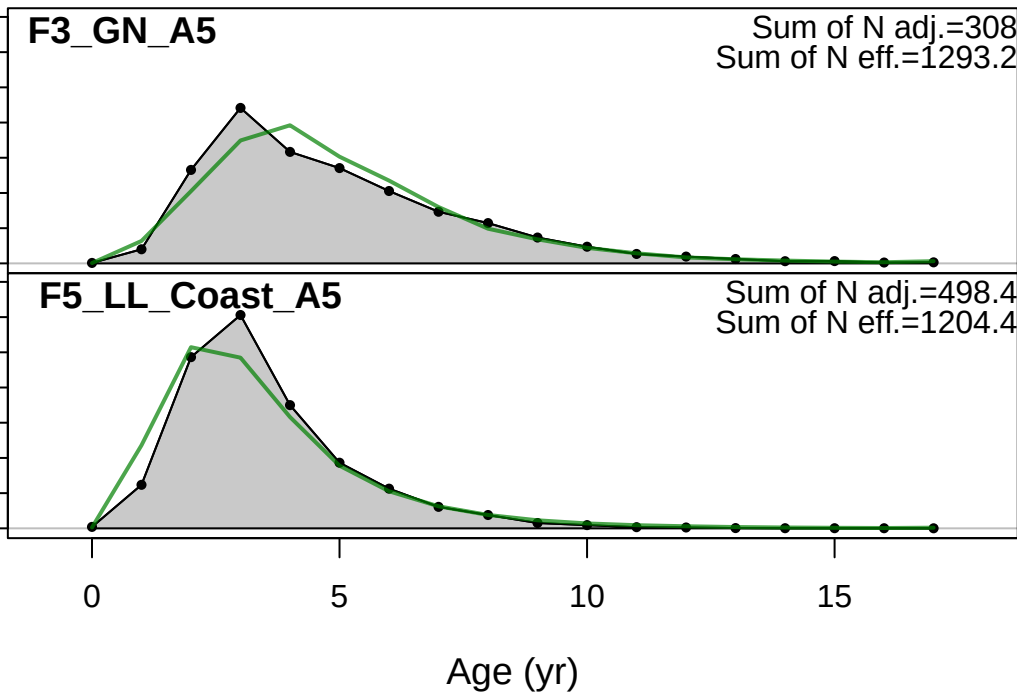
0

5

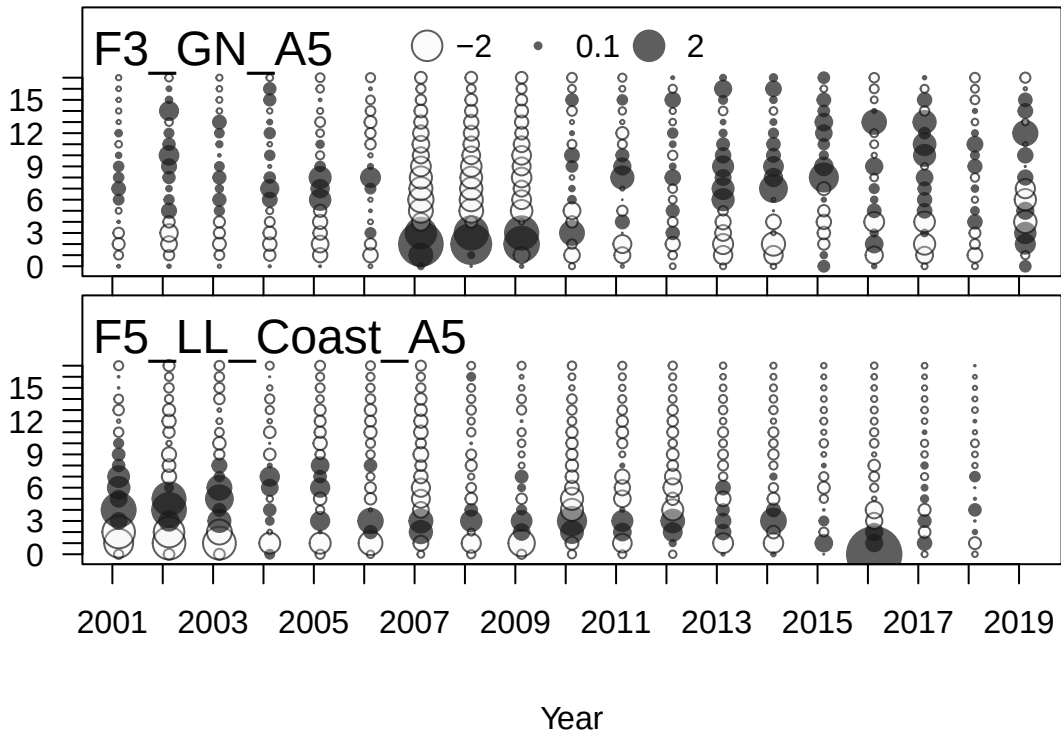
10

15

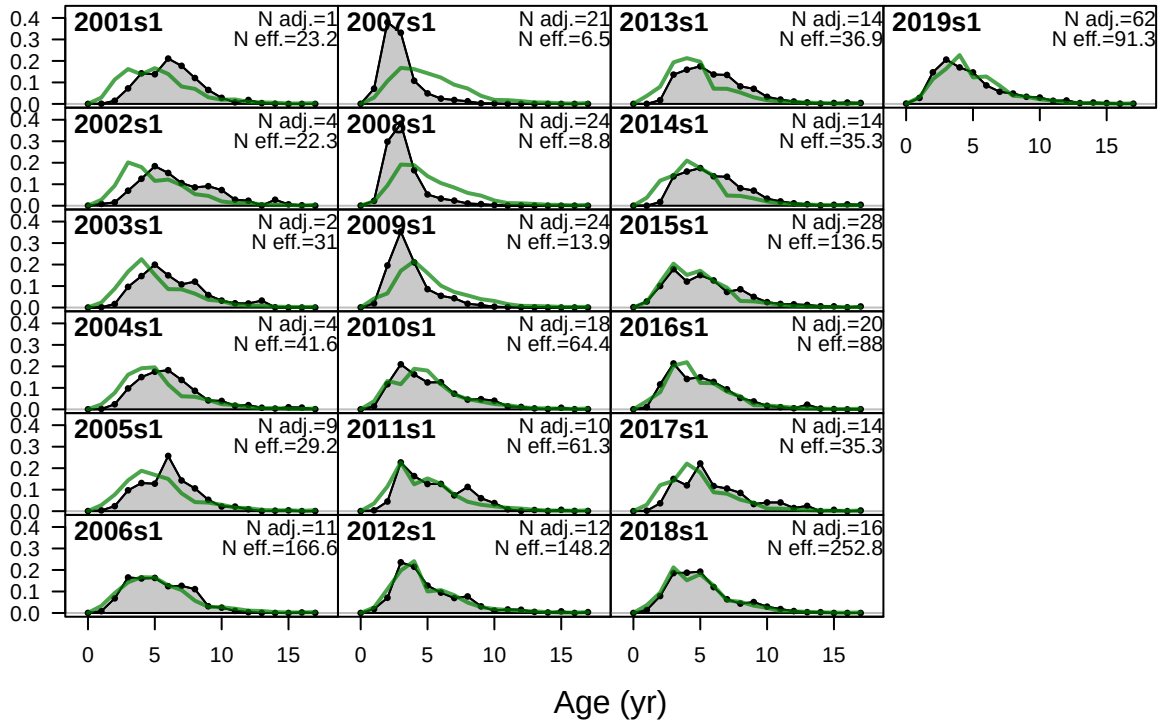
Age (yr)

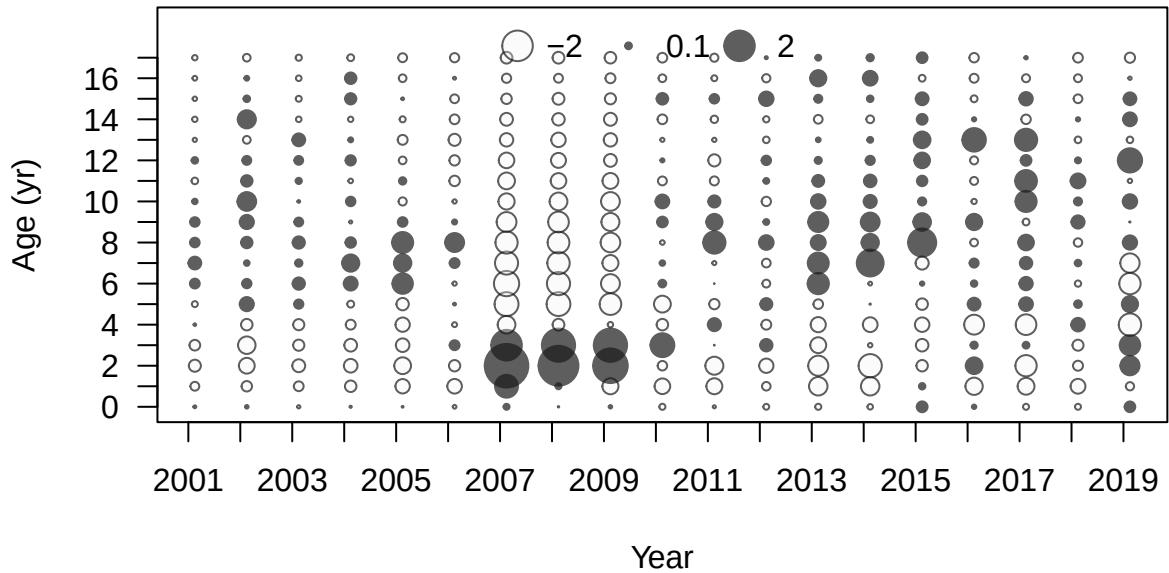


Age (yr)

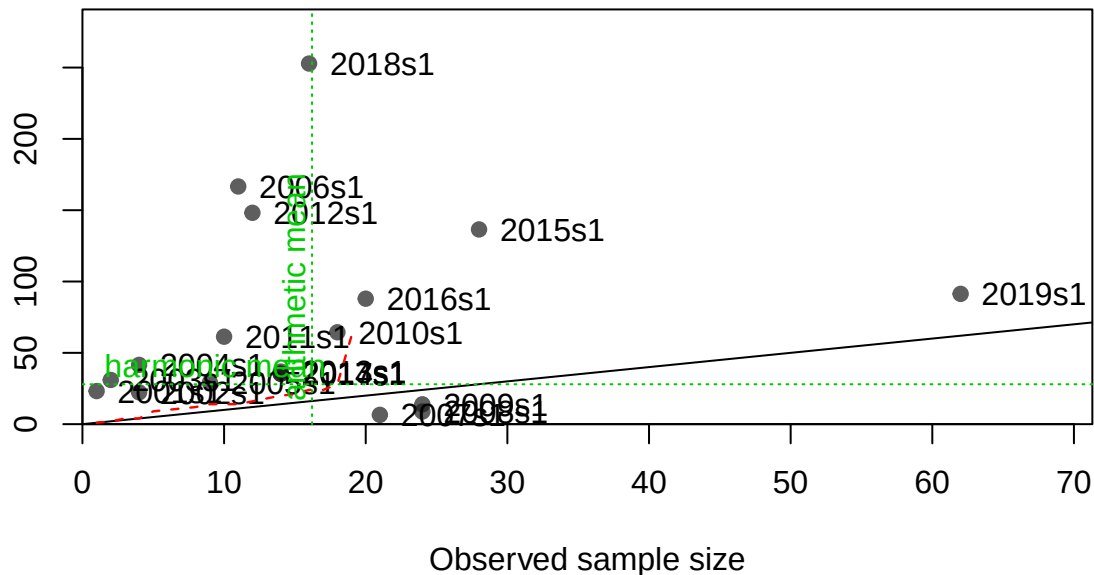


Proportion

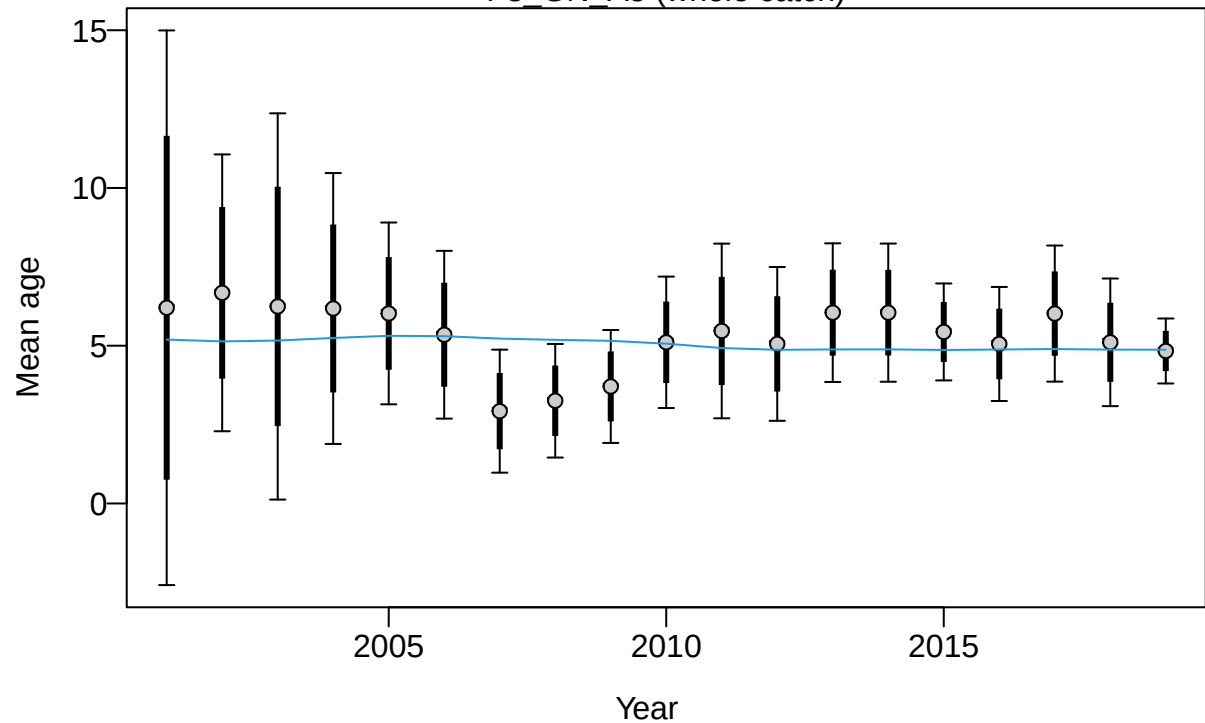




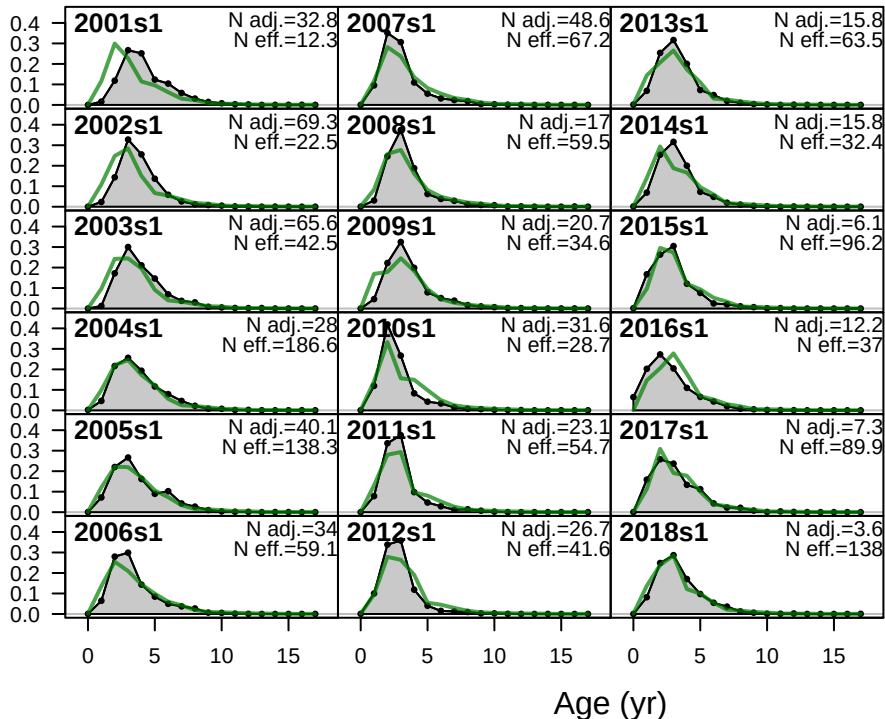
Effective sample size

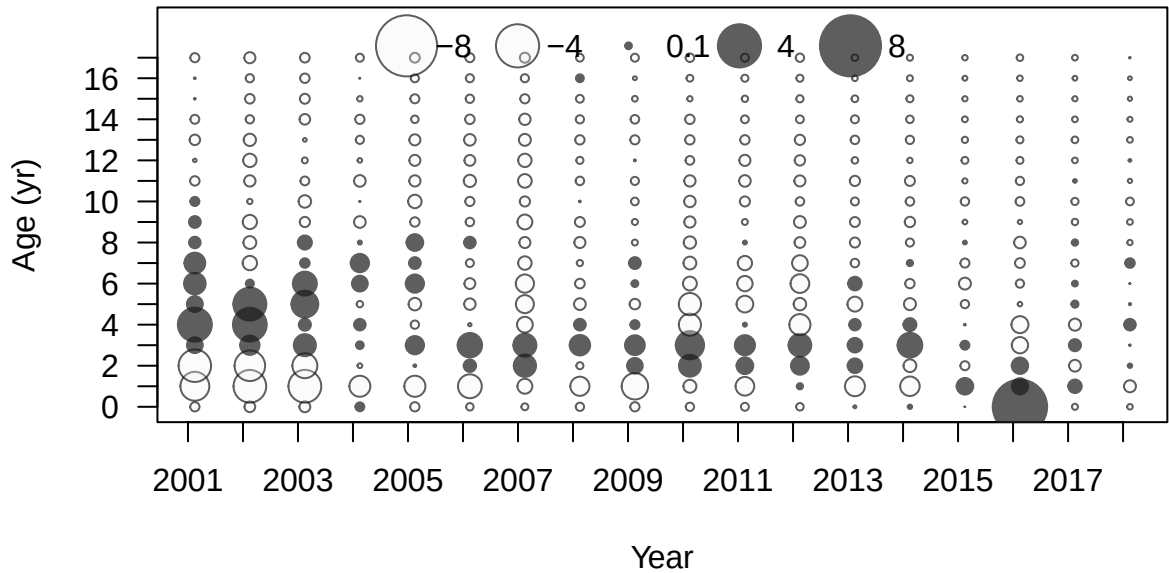


F3_GN_A5 (whole catch)

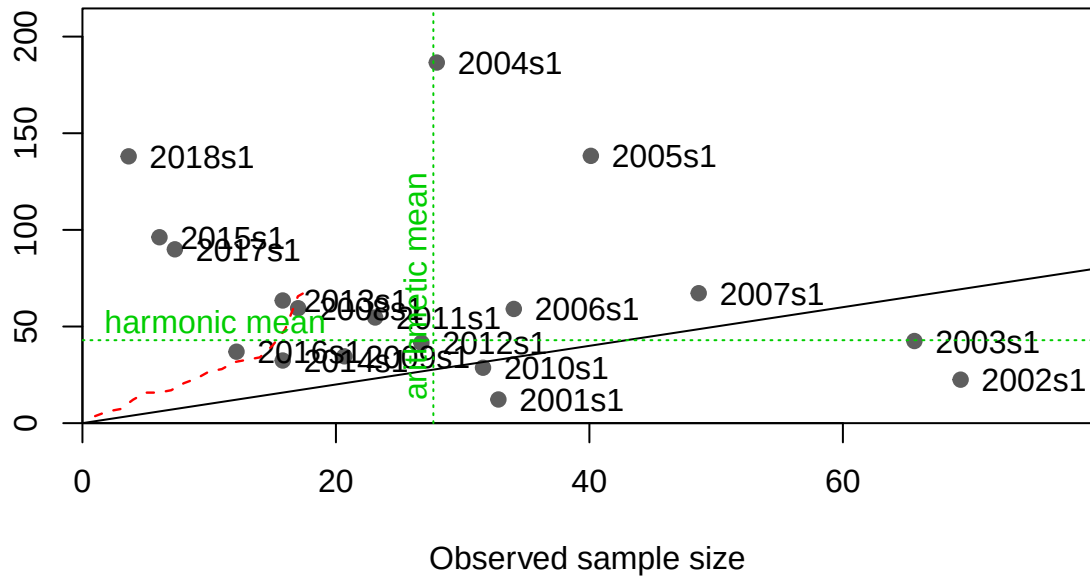


Proportion

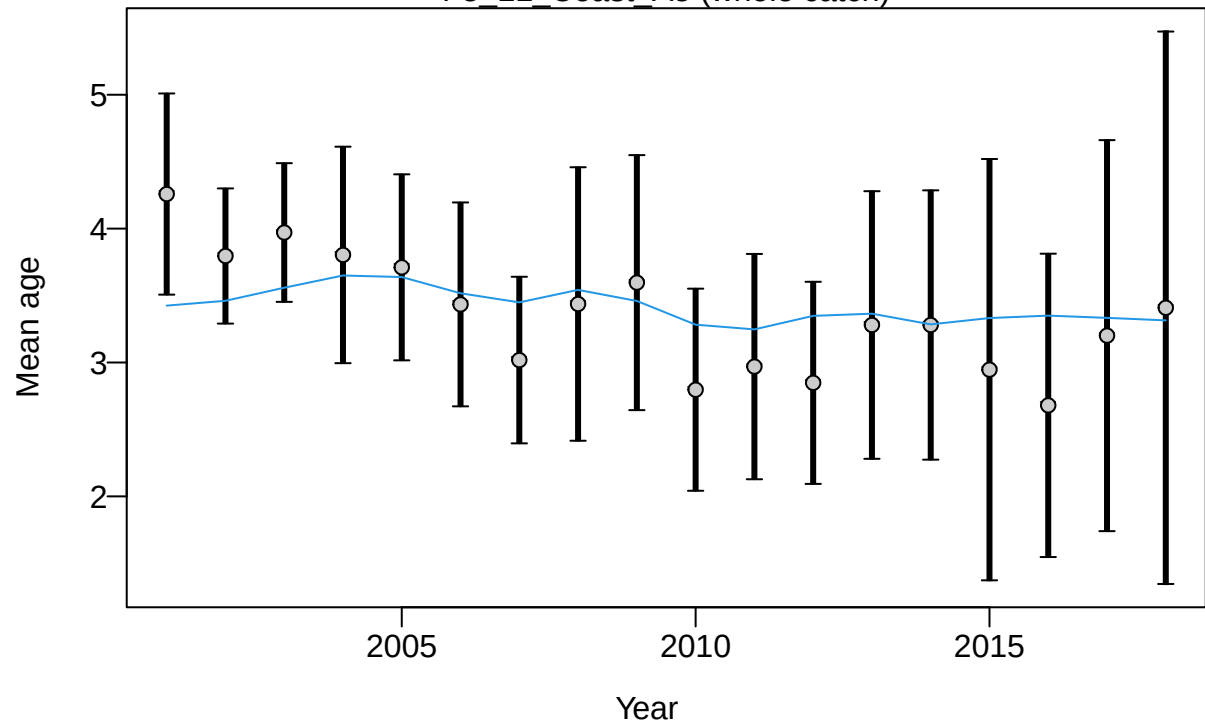


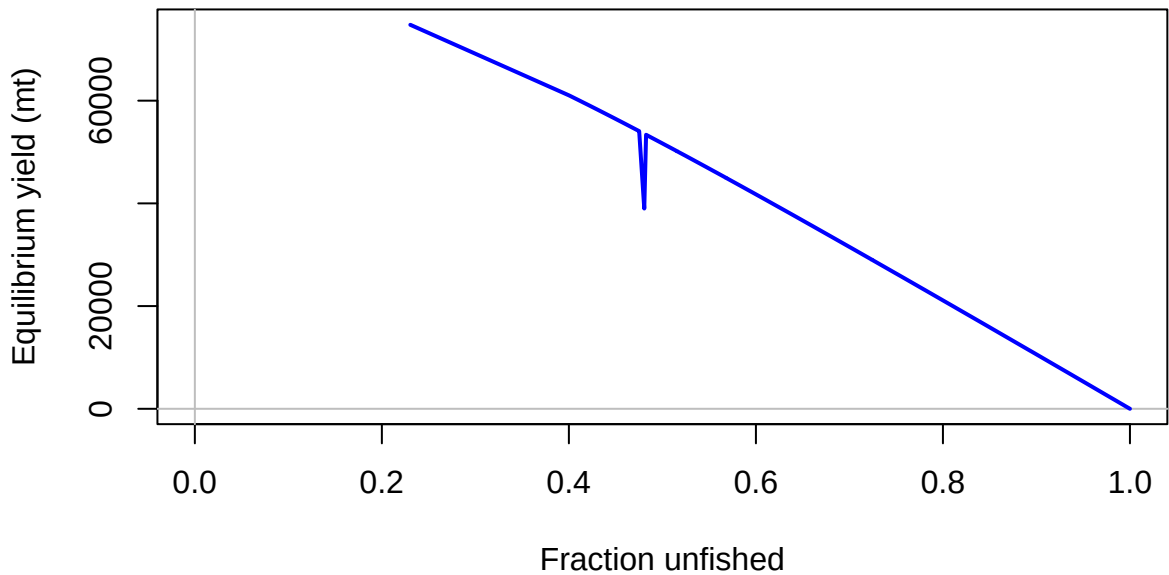


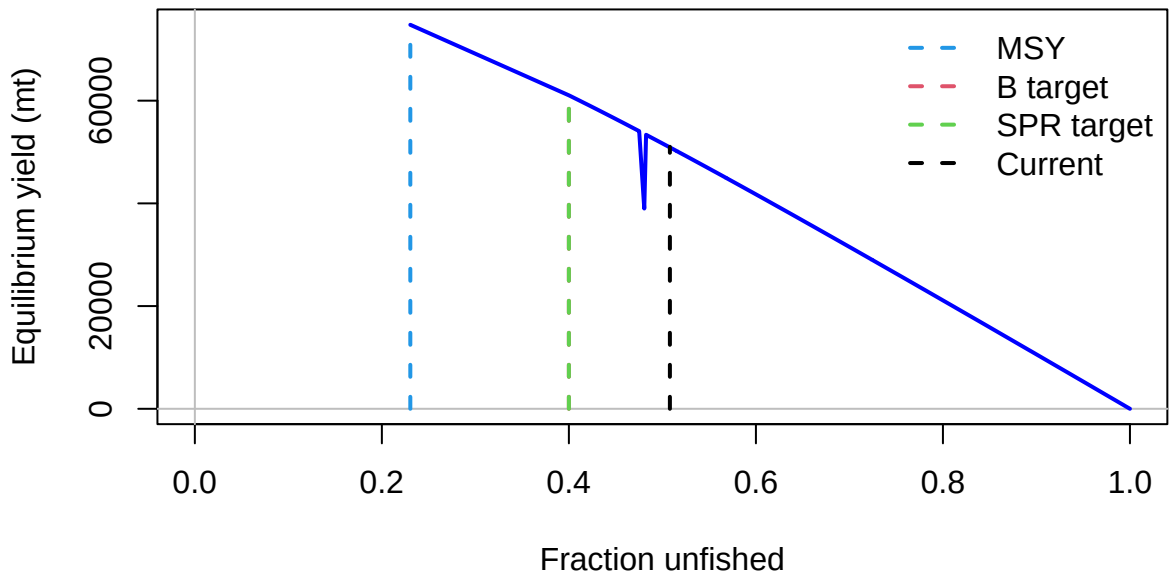
Effective sample size

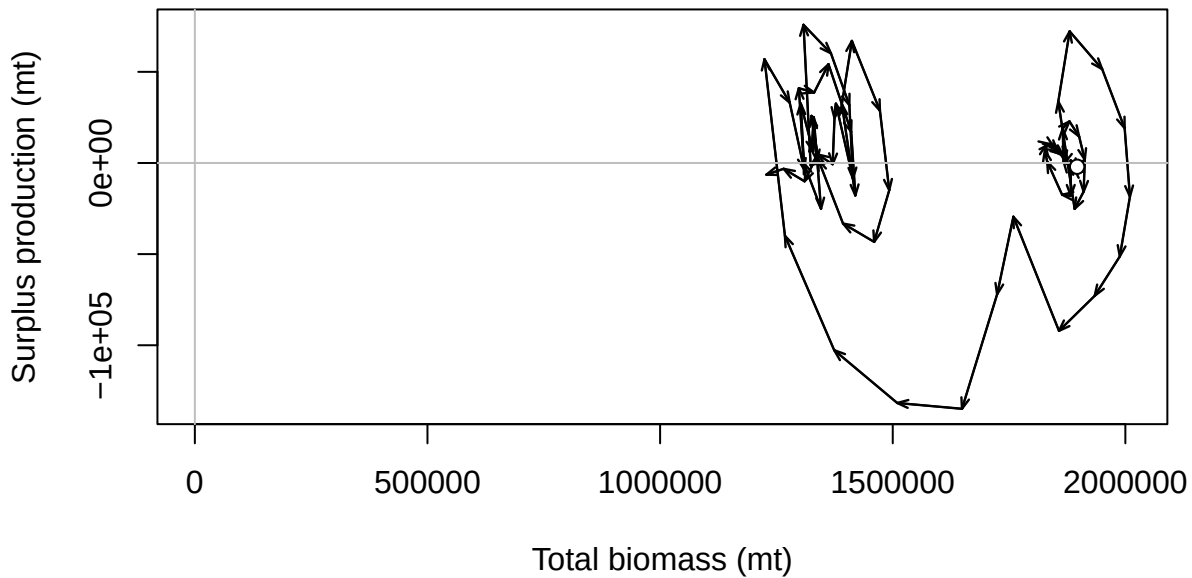


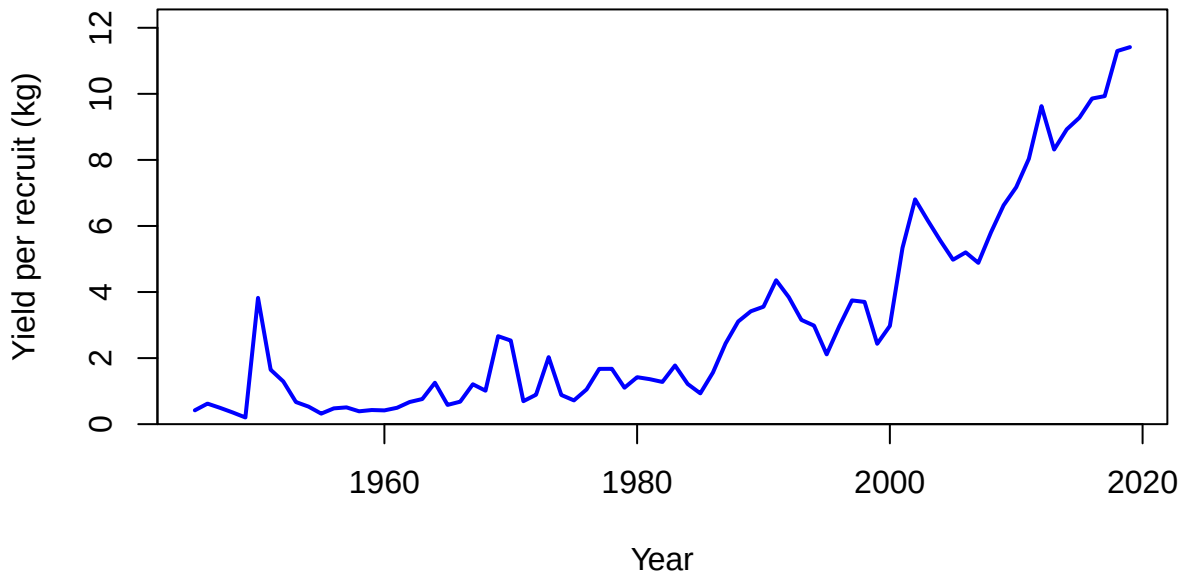
F5_LL_Coast_A5 (whole catch)

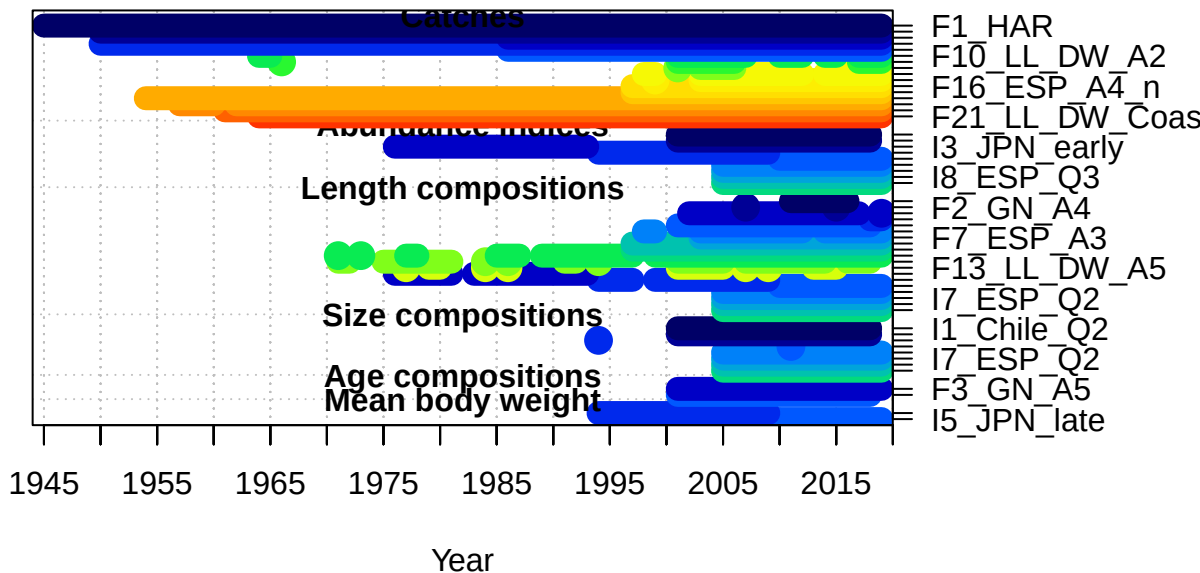


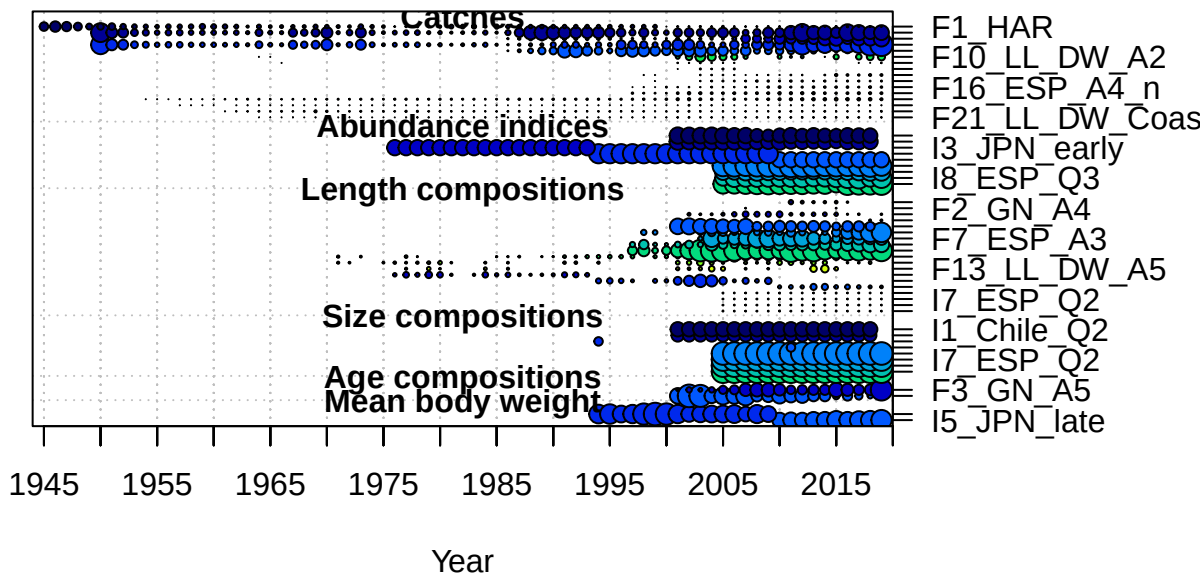




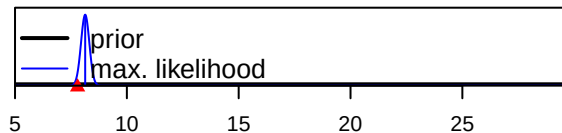




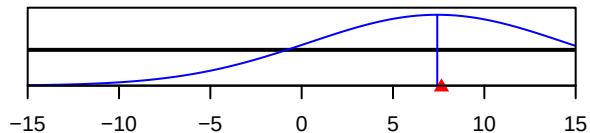




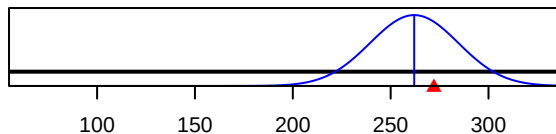
SR_LN(R0)



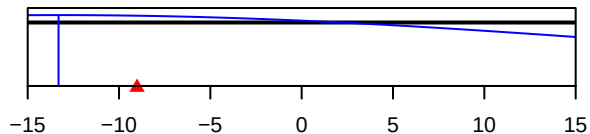
Size_DbIN_descend_se_F1_HAR(1)



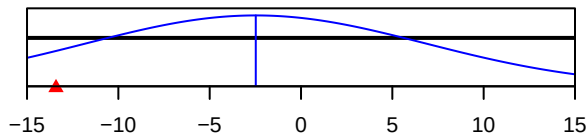
Size_DbIN_peak_F1_HAR(1)



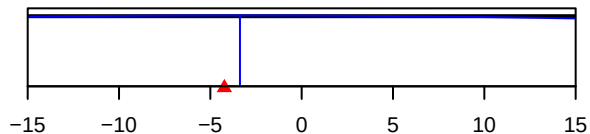
Size_DbIN_start_logit_F1_HAR(1)



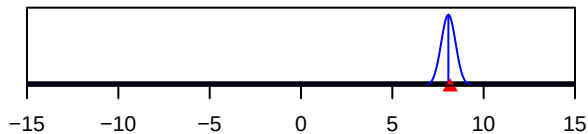
Size_DbIN_top_logit_F1_HAR(1)



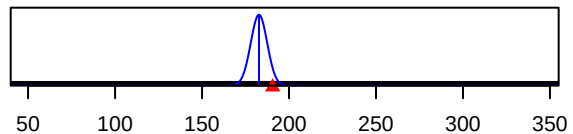
Size_DbIN_end_logit_F1_HAR(1)



Size_DbIN_ascend_se_F1_HAR(1)

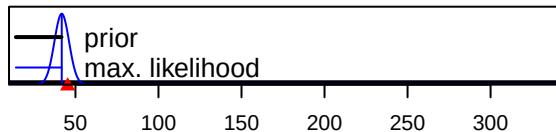


Size_inflection_F2_GN_A4(2)

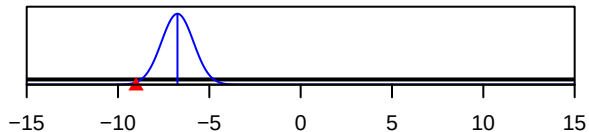


Parameter value

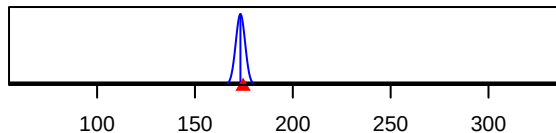
Size_95%width_F2_GN_A4(2)



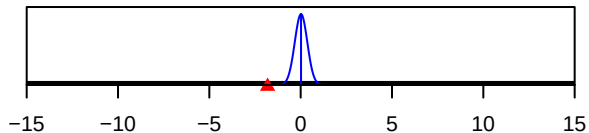
Size_DbIN_start_logit_F4_LL_Coast_A4(4)



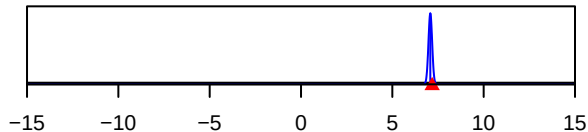
Size_DbIN_peak_F4_LL_Coast_A4(4)



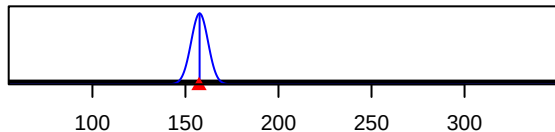
Size_DbIN_end_logit_F4_LL_Coast_A4(4)



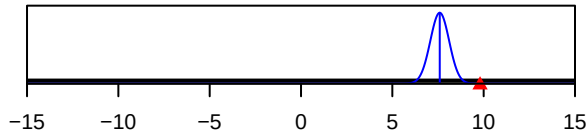
Size_DbIN_ascend_se_F4_LL_Coast_A4(4)



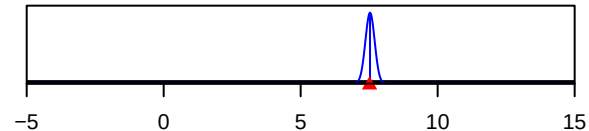
Size_DbIN_peak_F6_ESP_A2(6)



Size_DbIN_descend_se_F4_LL_Coast_A4(4)

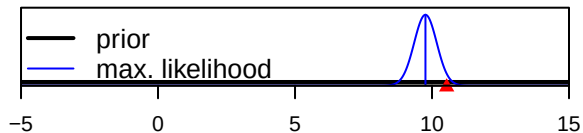


Size_DbIN_ascend_se_F6_ESP_A2(6)

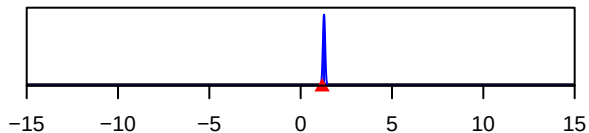


Parameter value

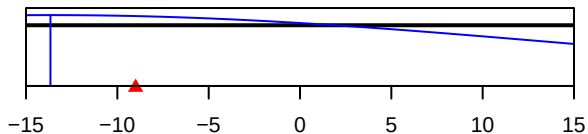
Size_DbIN_descend_se_F6_ESP_A2(6)



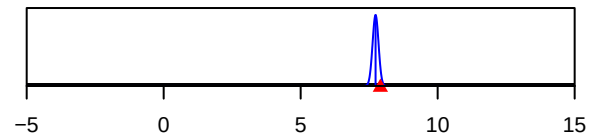
Size_DbIN_top_logit_F7_ESP_A3(7)



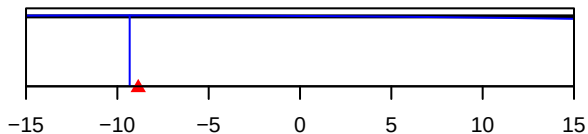
Size_DbIN_start_logit_F6_ESP_A2(6)



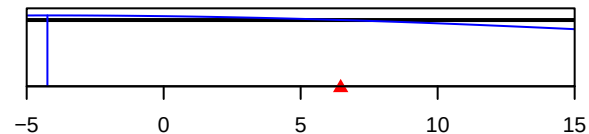
Size_DbIN_ascend_se_F7_ESP_A3(7)



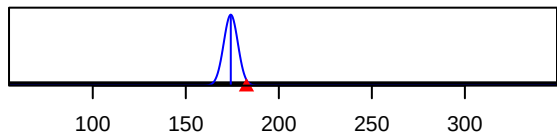
Size_DbIN_end_logit_F6_ESP_A2(6)



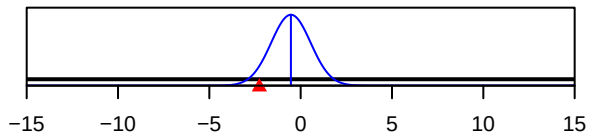
Size_DbIN_descend_se_F7_ESP_A3(7)

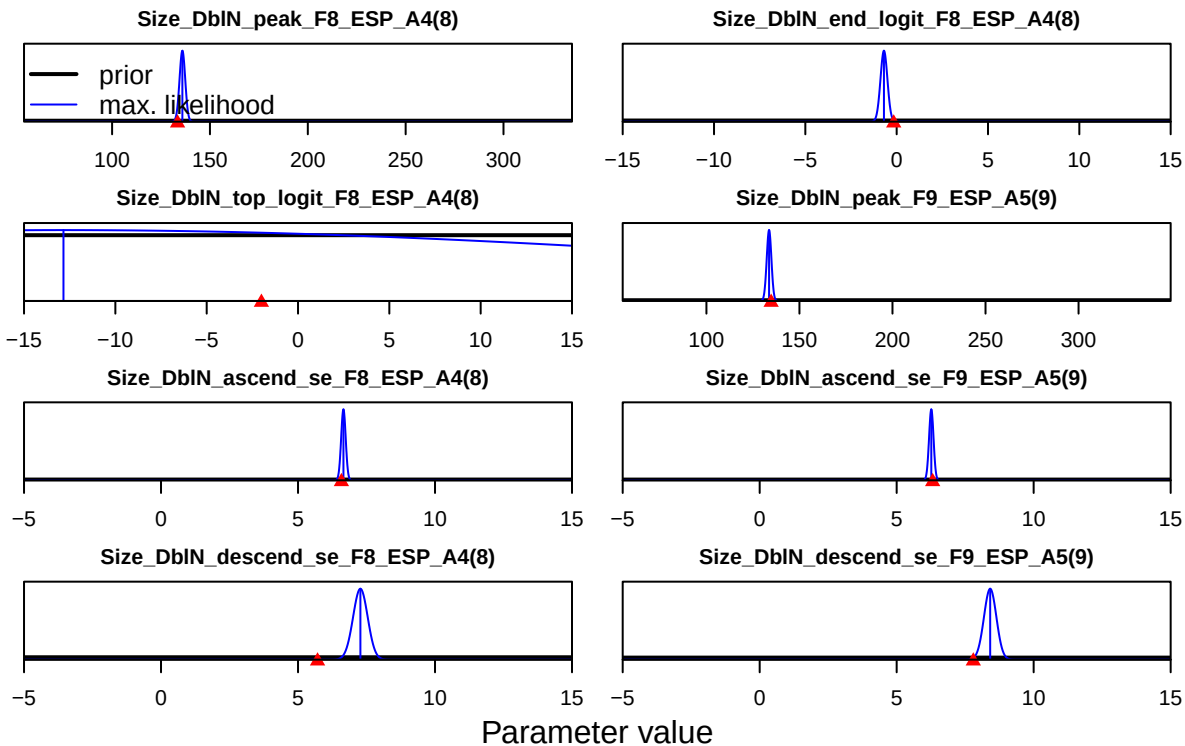


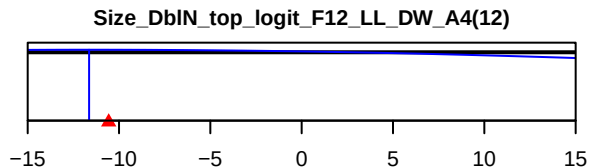
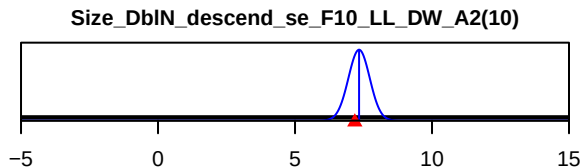
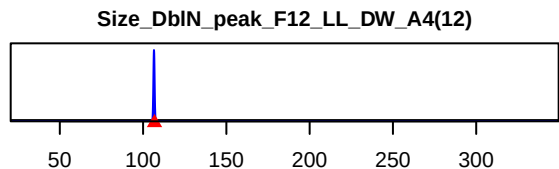
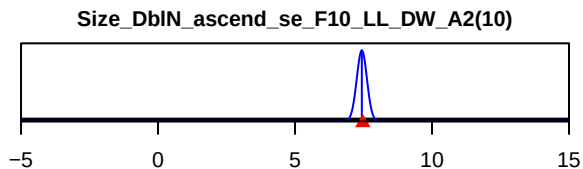
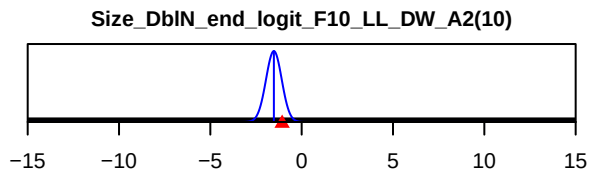
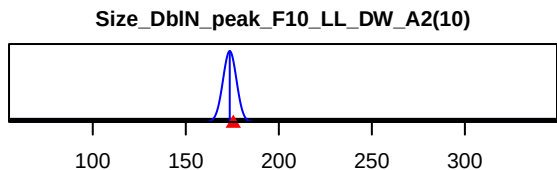
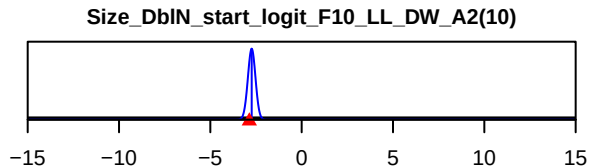
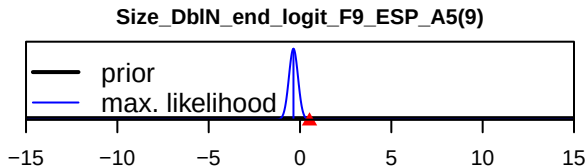
Size_DbIN_peak_F7_ESP_A3(7)



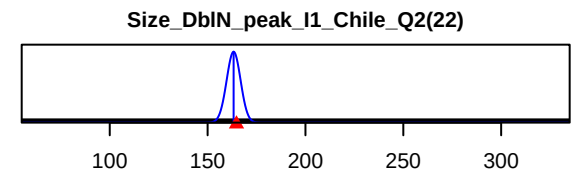
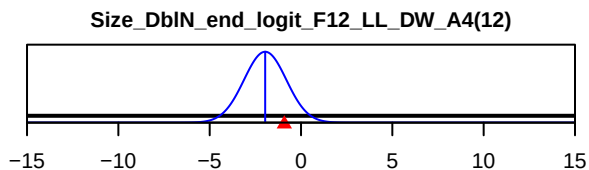
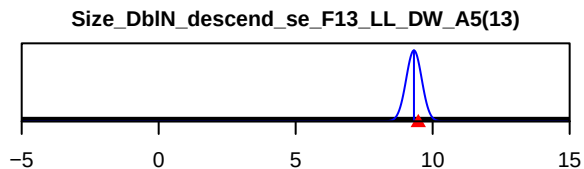
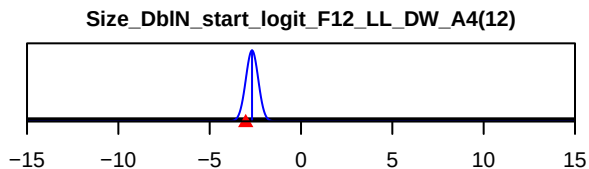
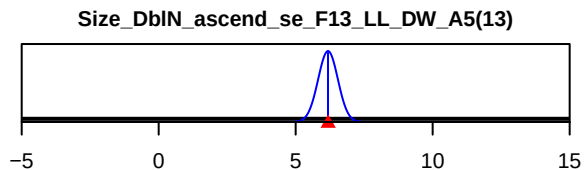
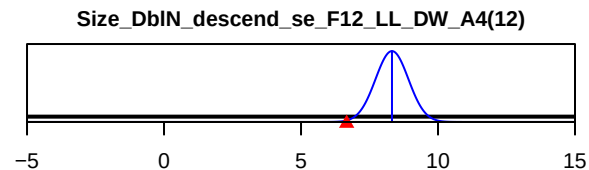
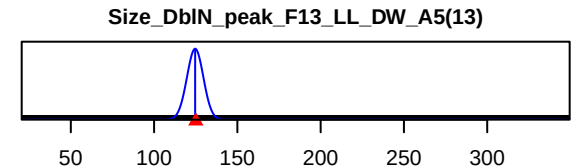
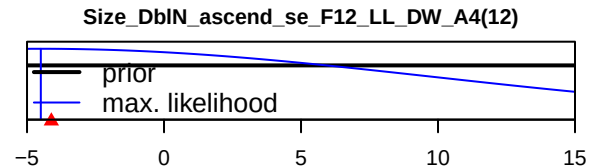
Size_DbIN_end_logit_F7_ESP_A3(7)





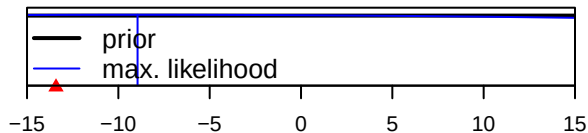


Parameter value

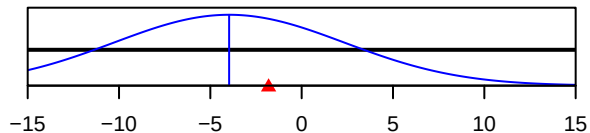


Parameter value

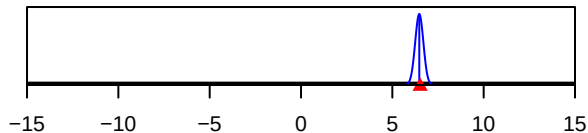
Size_DbIN_top_logit_I1_Chile_Q2(22)



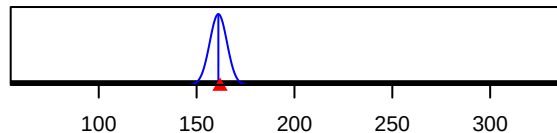
Size_DbIN_end_logit_I1_Chile_Q2(22)



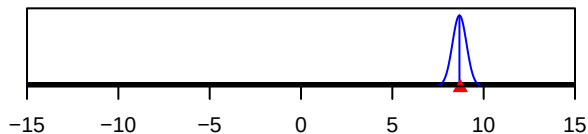
Size_DbIN_ascend_se_I1_Chile_Q2(22)



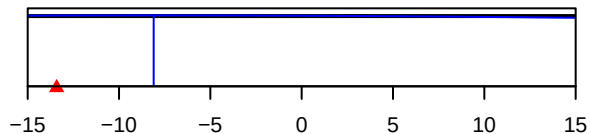
Size_DbIN_peak_I2_Chile_Q3(23)



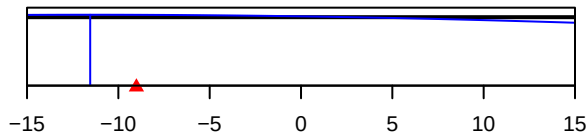
Size_DbIN_descend_se_I1_Chile_Q2(22)



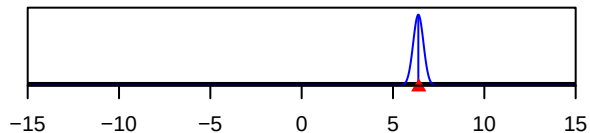
Size_DbIN_top_logit_I2_Chile_Q3(23)



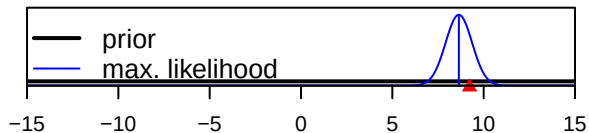
Size_DbIN_start_logit_I1_Chile_Q2(22)



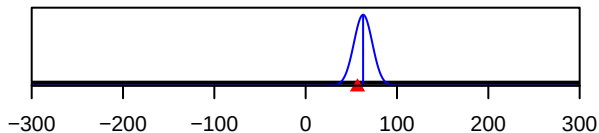
Size_DbIN_ascend_se_I2_Chile_Q3(23)



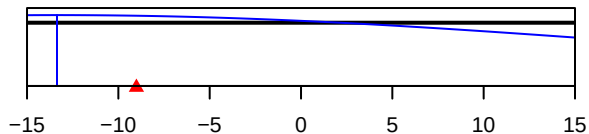
Size_DbIN_descend_se_I2_Chile_Q3(23)



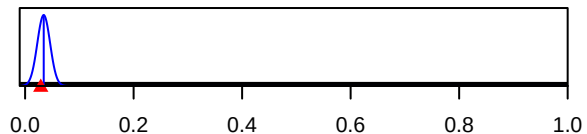
Size_95%width_I3_JPN_early(24)



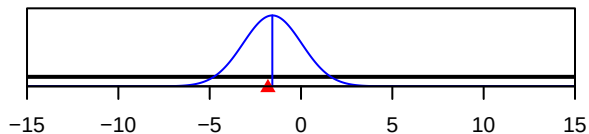
Size_DbIN_start_logit_I2_Chile_Q3(23)



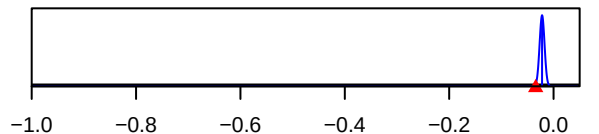
SizeSpline_GradLo_I4_JPN_mid(25)



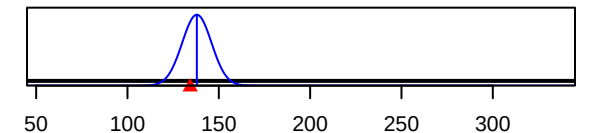
Size_DbIN_end_logit_I2_Chile_Q3(23)



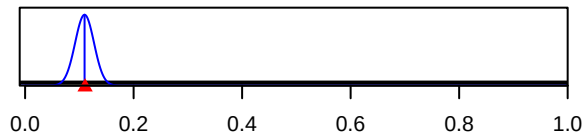
SizeSpline_GradHi_I4_JPN_mid(25)



Size_inflection_I3_JPN_early(24)

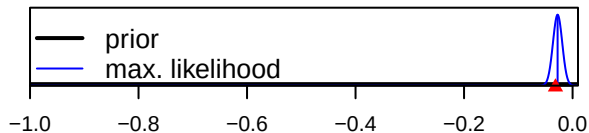


SizeSpline_GradLo_I5_JPN_late(26)

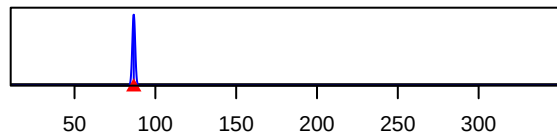


Parameter value

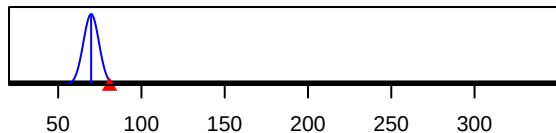
SizeSpline_GradHi_I5_JPN_late(26)



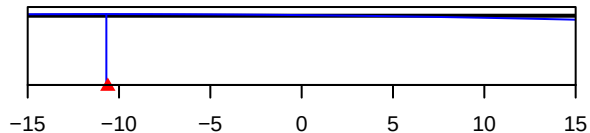
Size_DbIN_peak_I7_ESP_Q2(28)



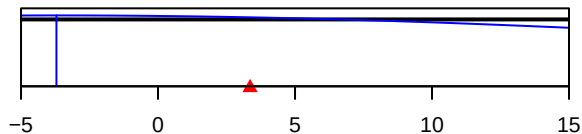
Size_DbIN_peak_I6_ESP_Q1(27)



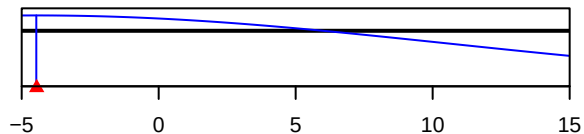
Size_DbIN_top_logit_I7_ESP_Q2(28)



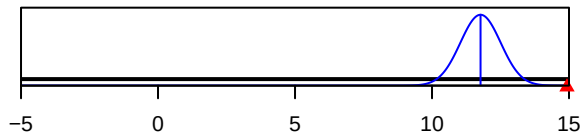
Size_DbIN_ascend_se_I6_ESP_Q1(27)



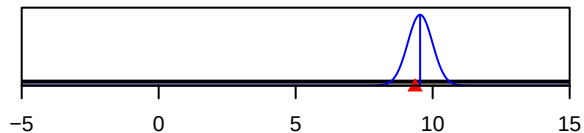
Size_DbIN_ascend_se_I7_ESP_Q2(28)



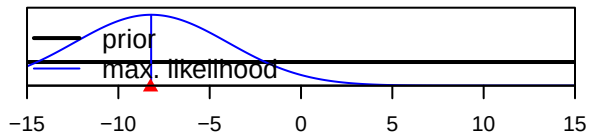
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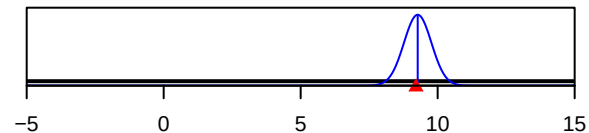
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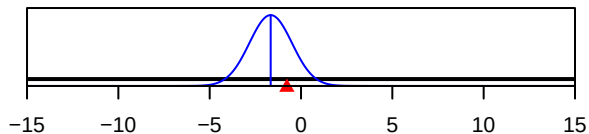
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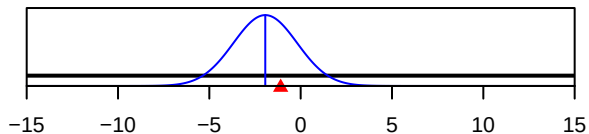
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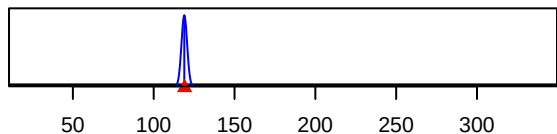
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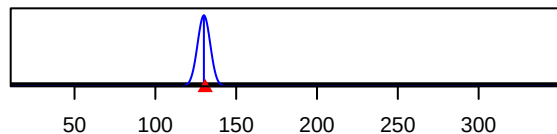
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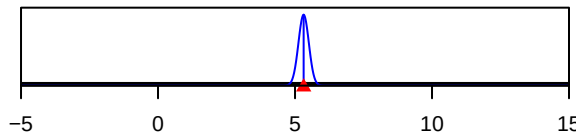
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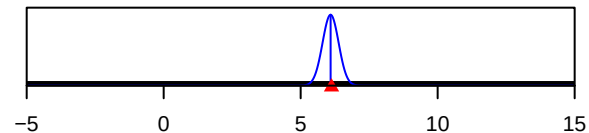
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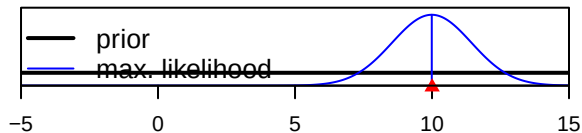
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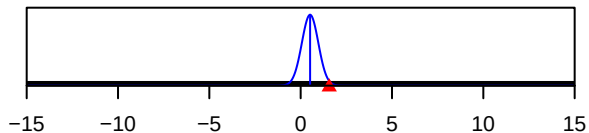
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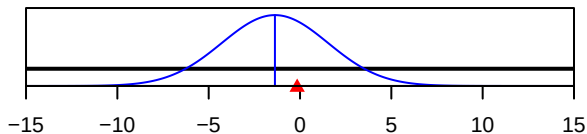
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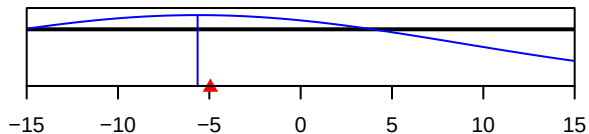
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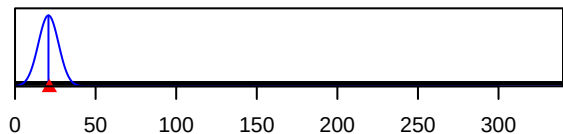
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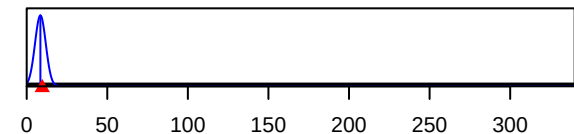
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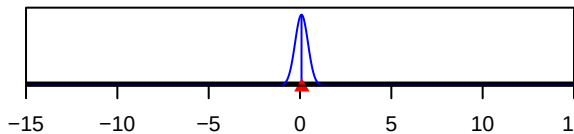
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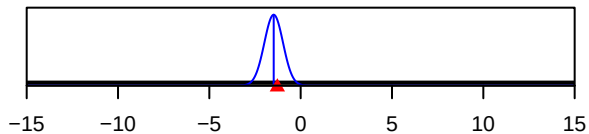
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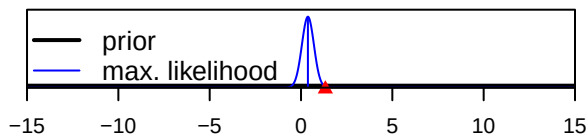


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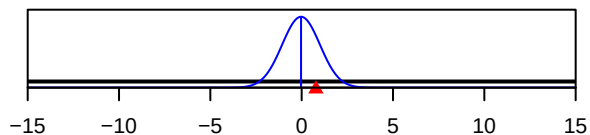


Parameter value

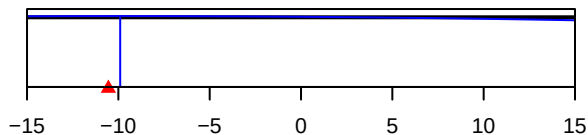
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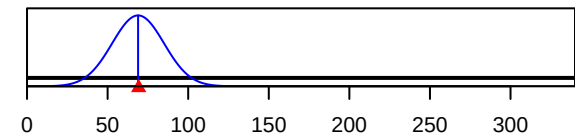
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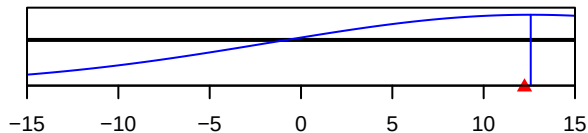
Size_DbIN_end_logit_F9_ESP_A5(9)_BLK1add_1945



Size_DbIN_peak_F12_LL_DW_A4(12)_BLK1delta_1945



Size_DbIN_ascend_se_F12_LL_DW_A4(12)_BLK1delta_1945



Parameter value