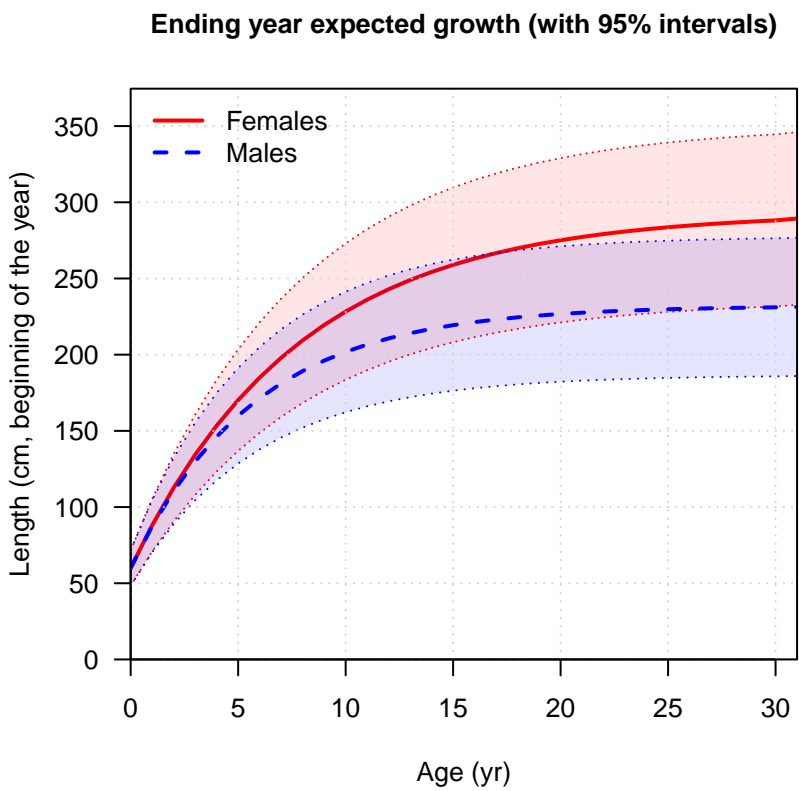
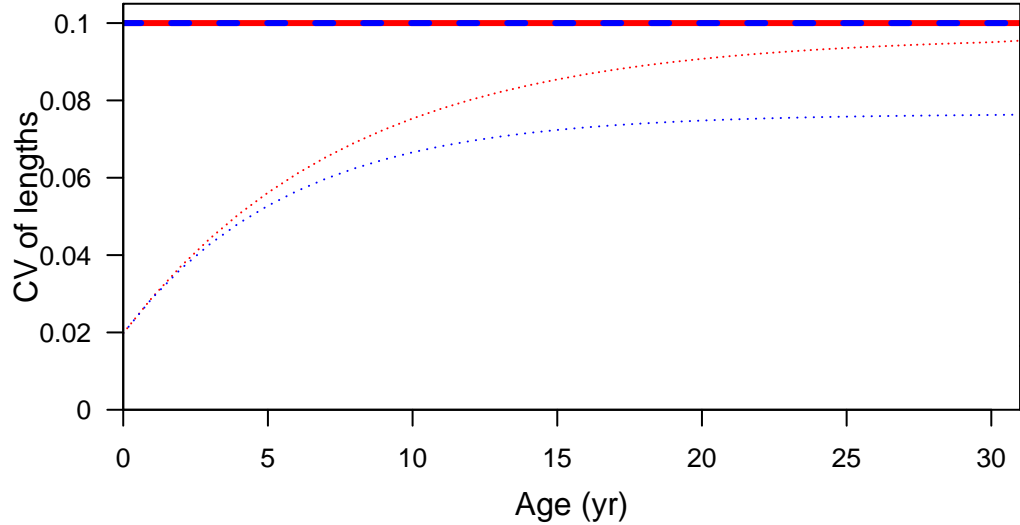
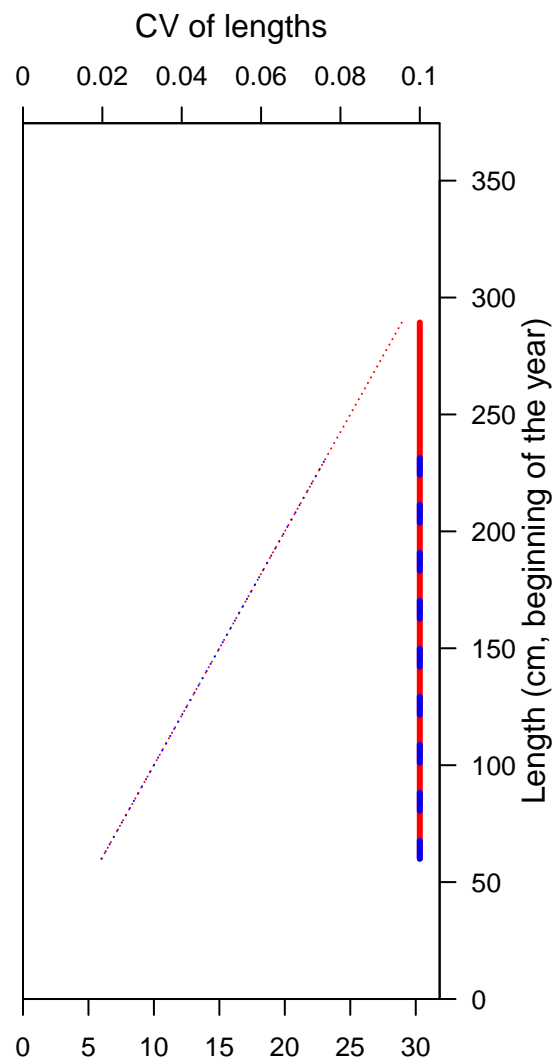
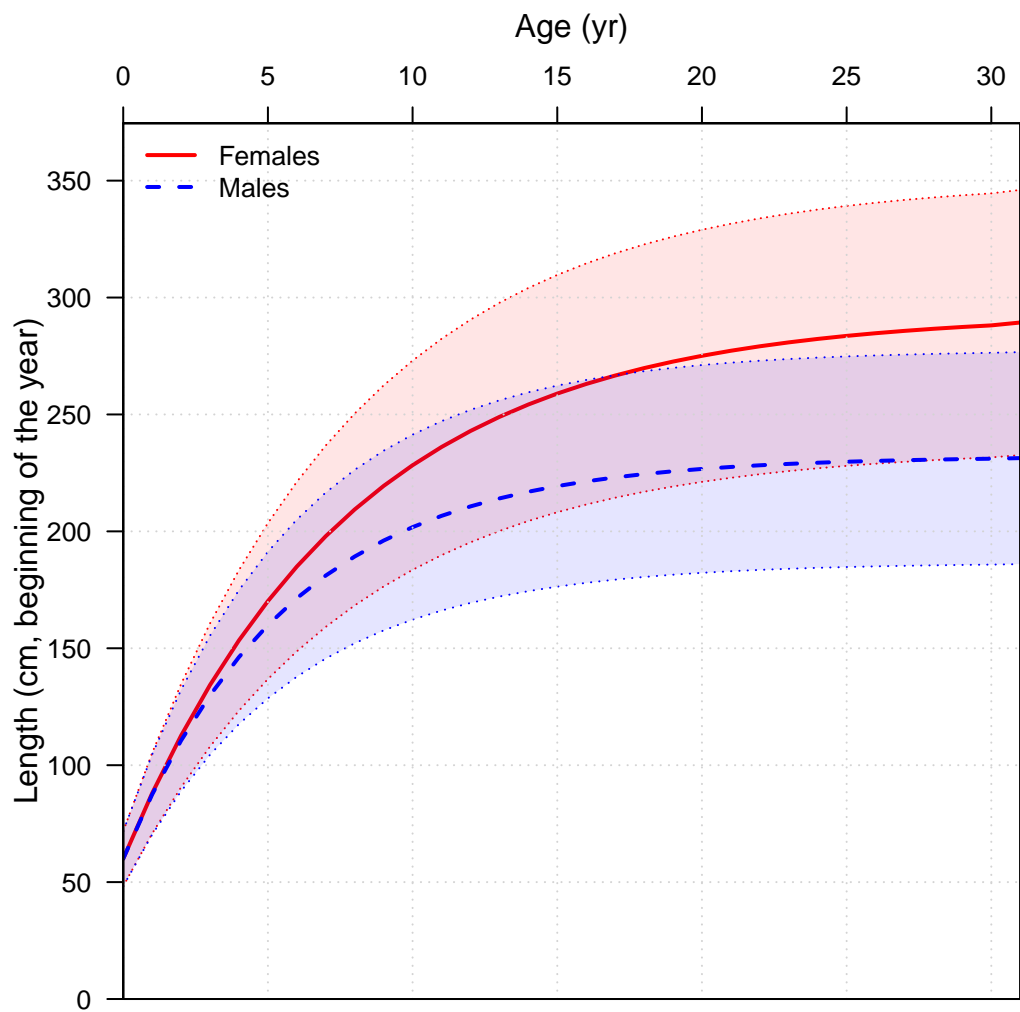


Plots created using the 'r4ss' package in R  
Stock Synthesis version: SS-V3.24U

Data\_File: DATA.ss  
Control\_File: CONTROL.ss

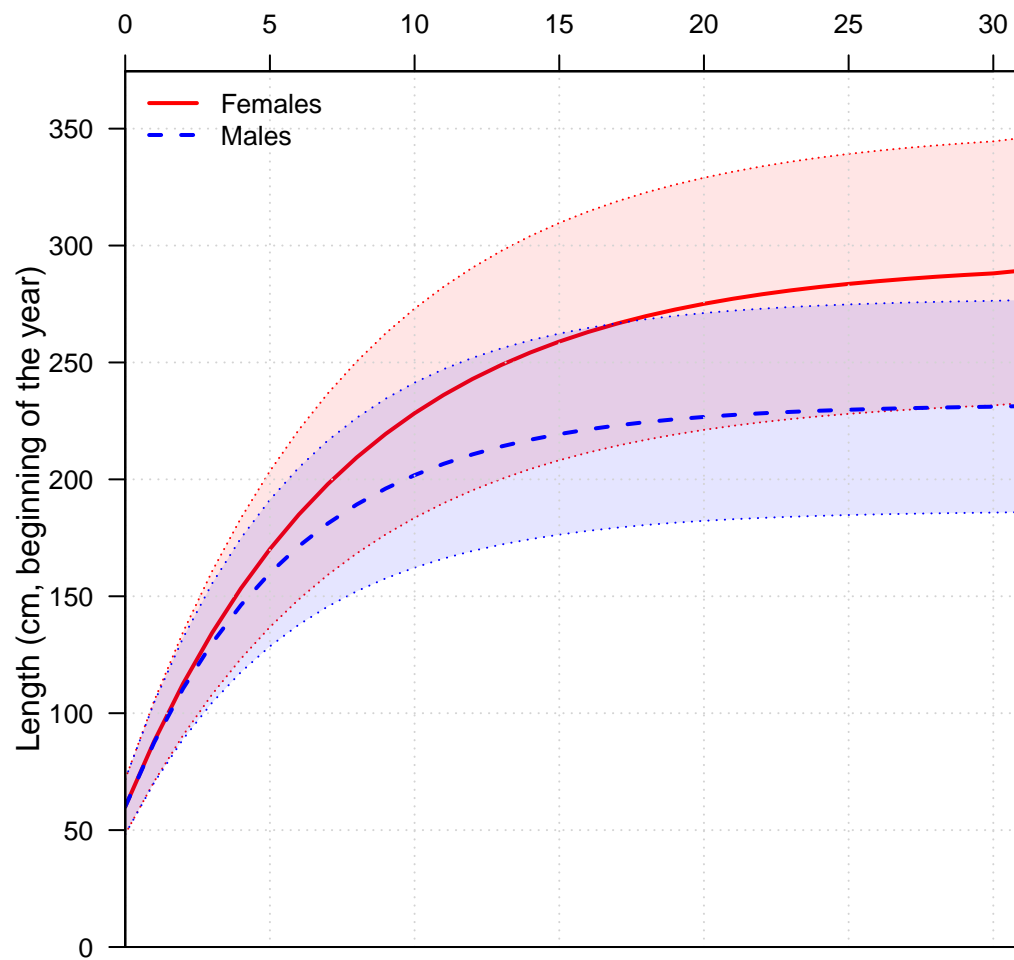




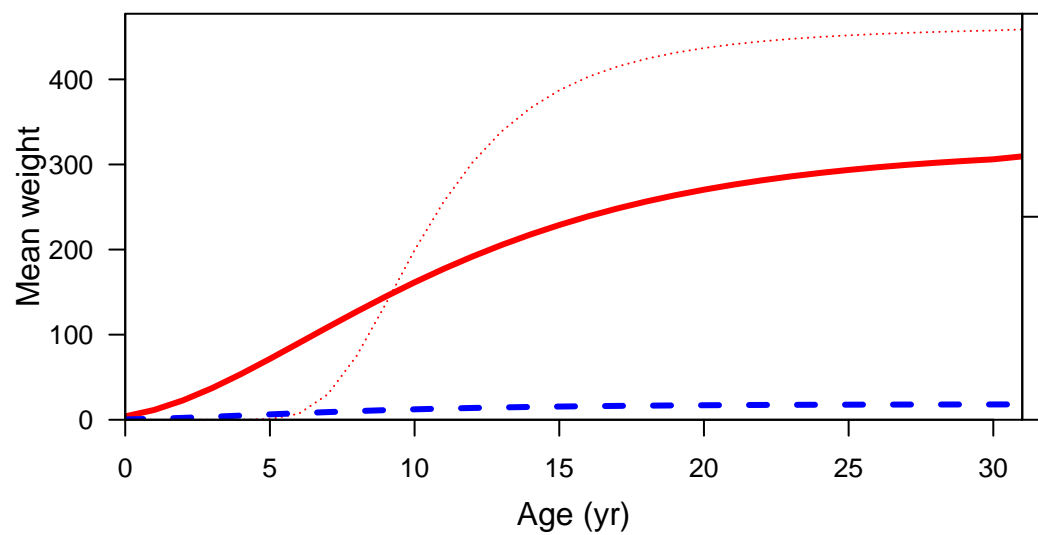
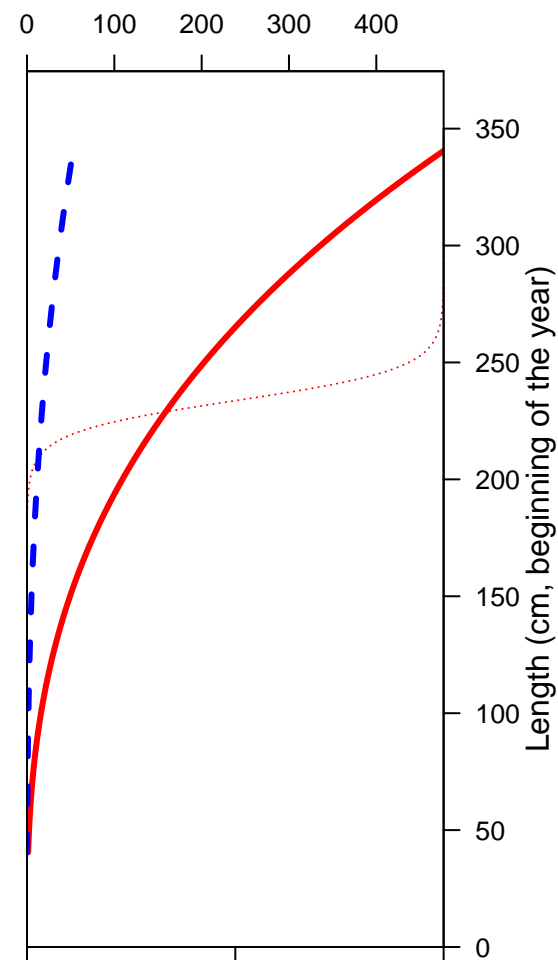
SD of lengths

SD of lengths

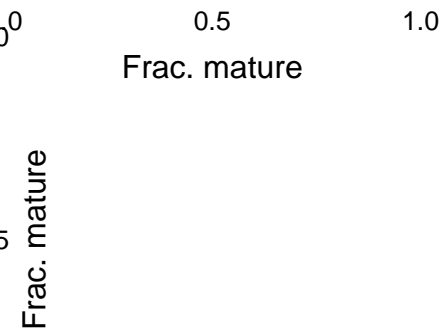
Age (yr)

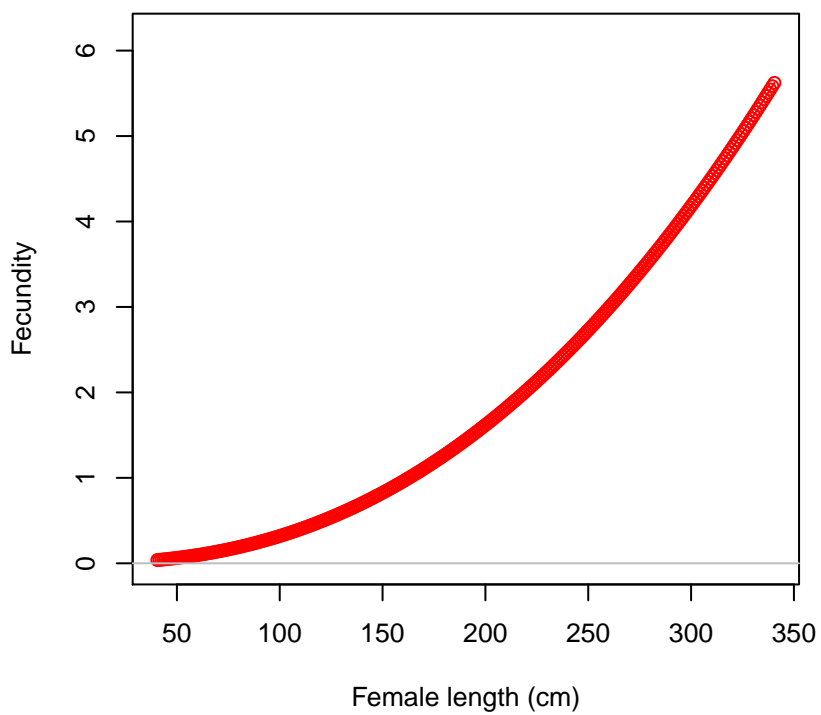
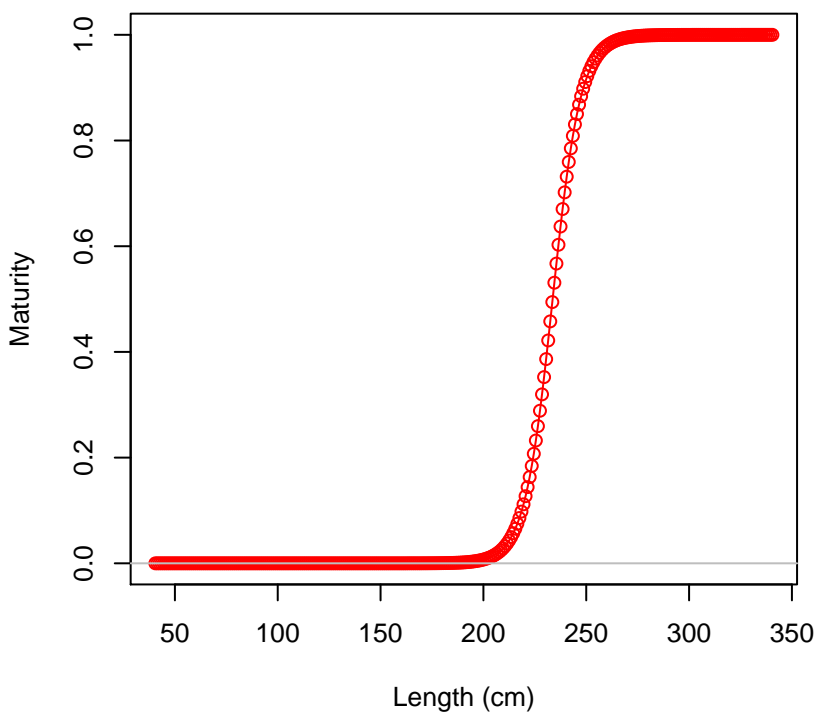
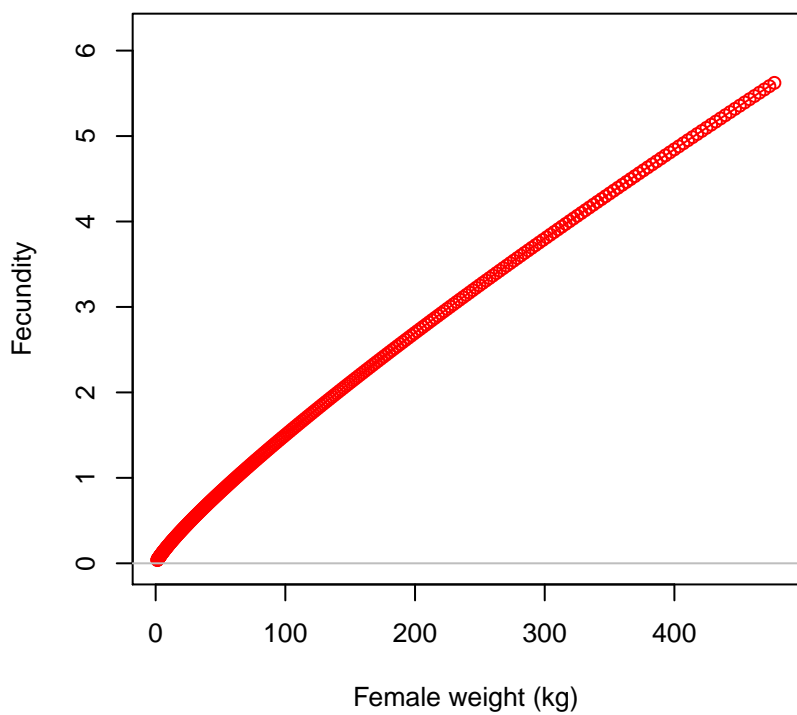
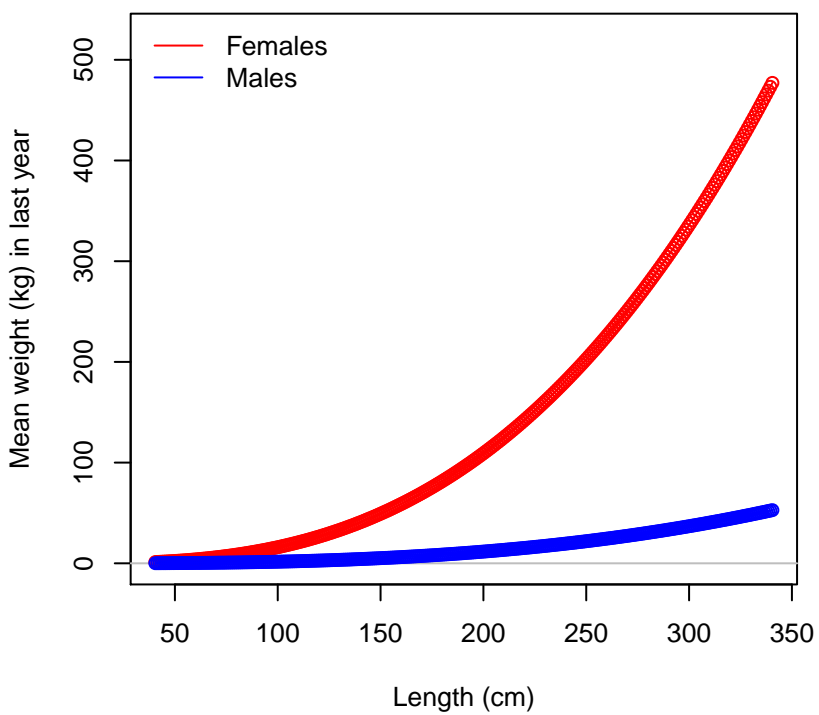


Mean weight

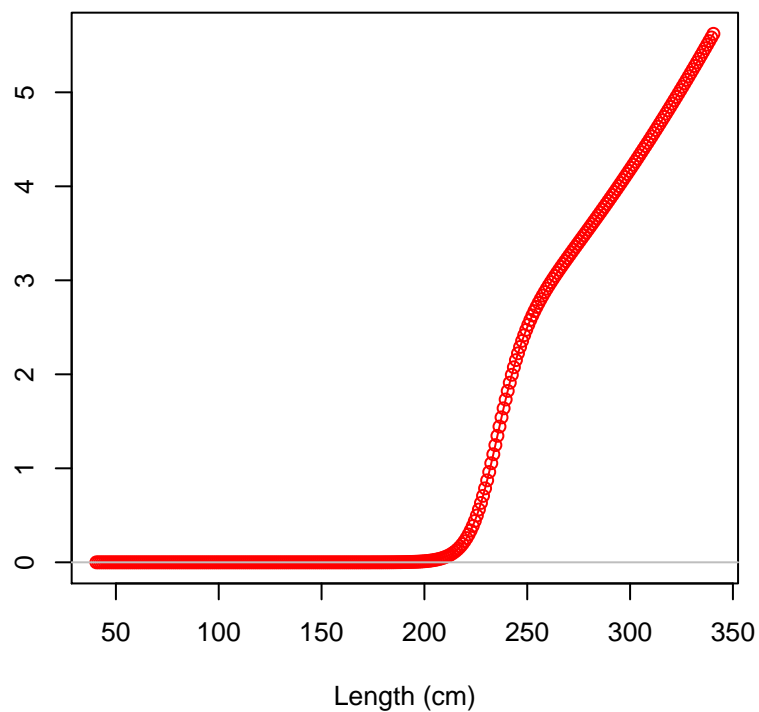


Frac. mature

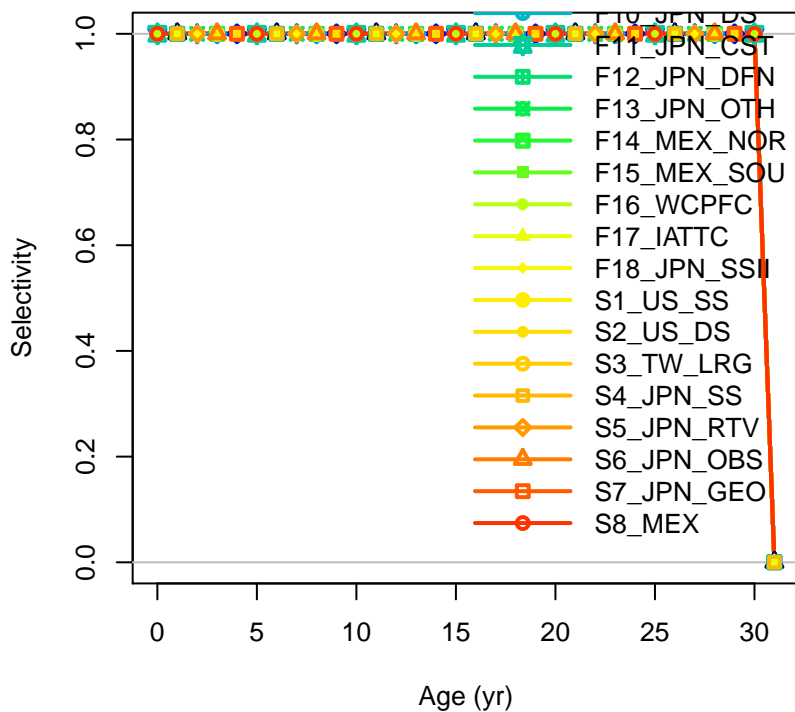




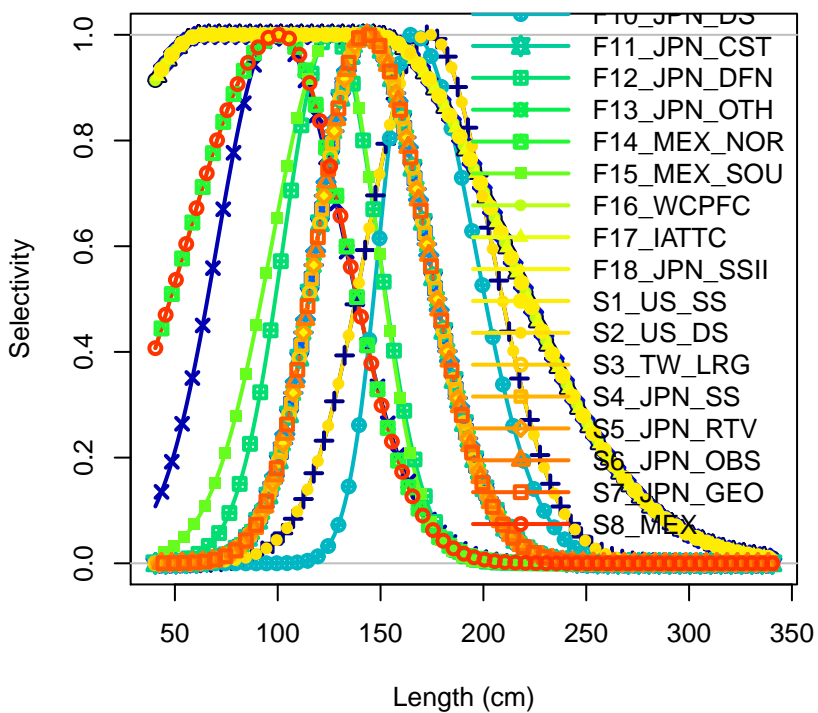
Spawning output



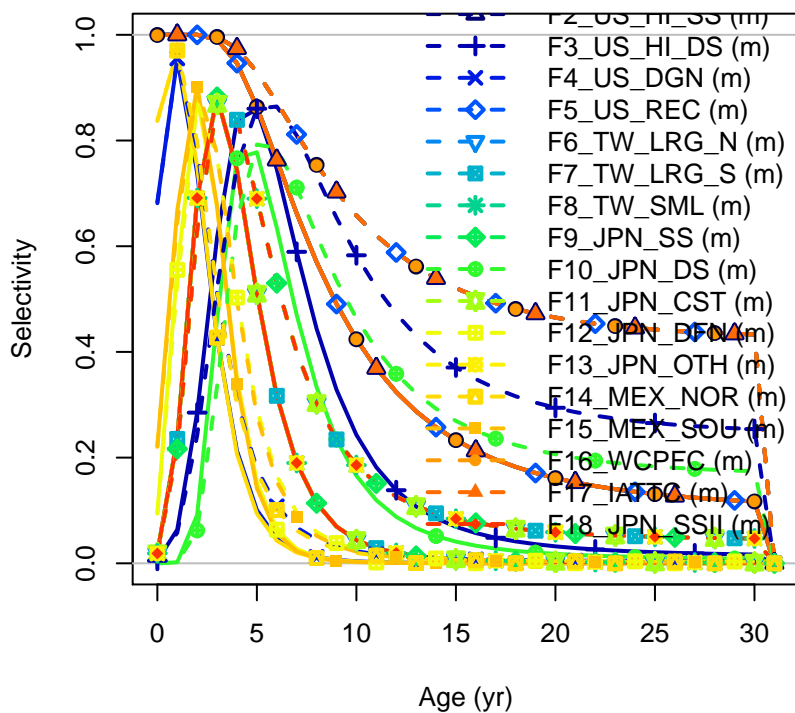
Age-based selectivity by fleet in 2016



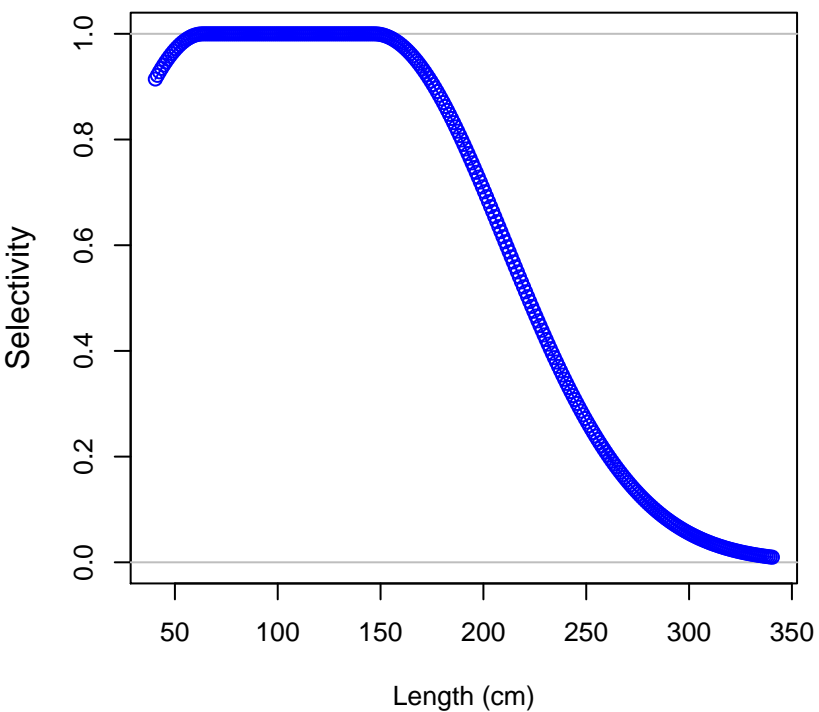
Length-based selectivity by fleet in 2016



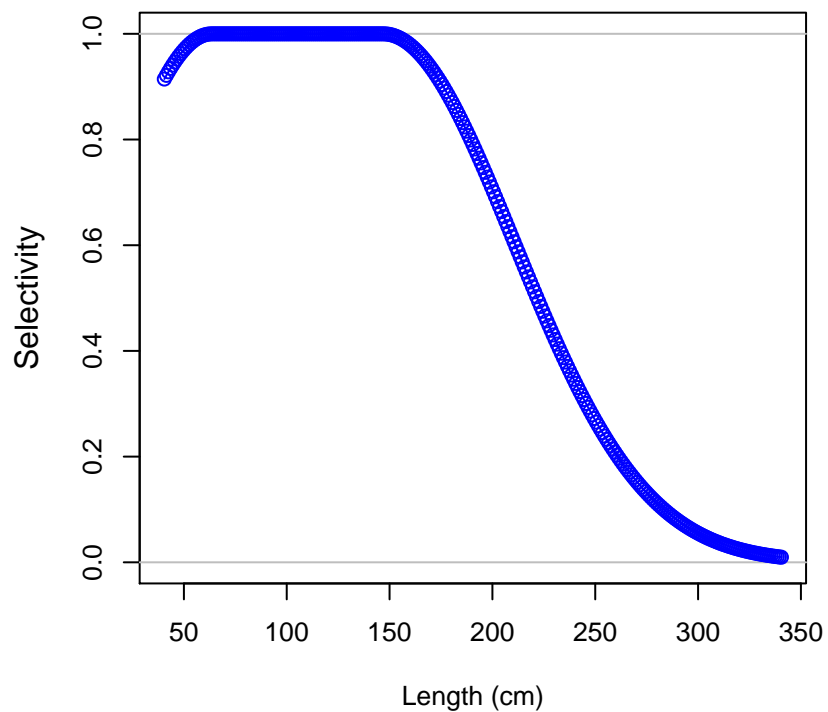
Derived age-based from length-based selectivity by fleet in 2016



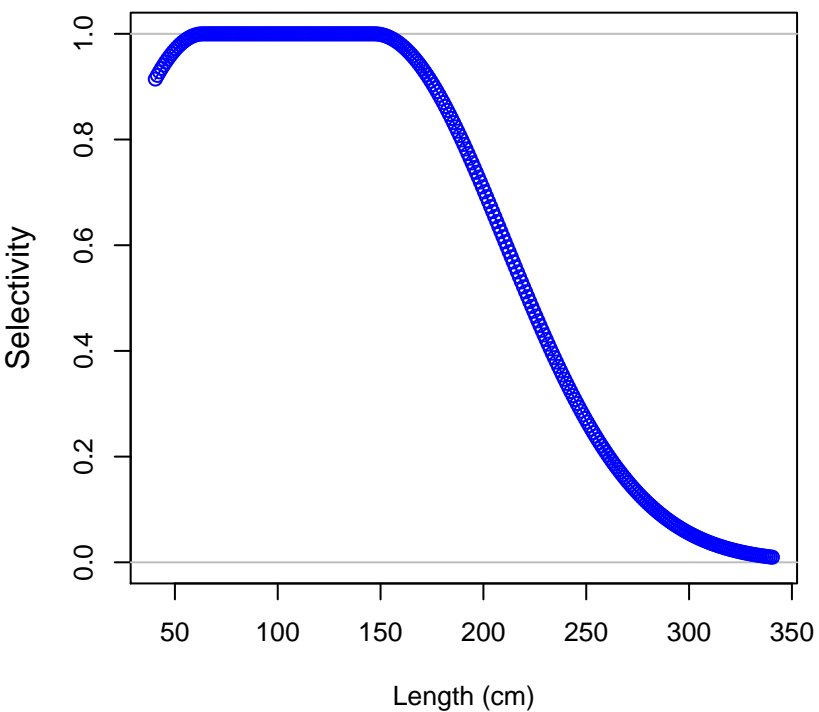
**Female ending year selectivity for F1\_US\_CA**



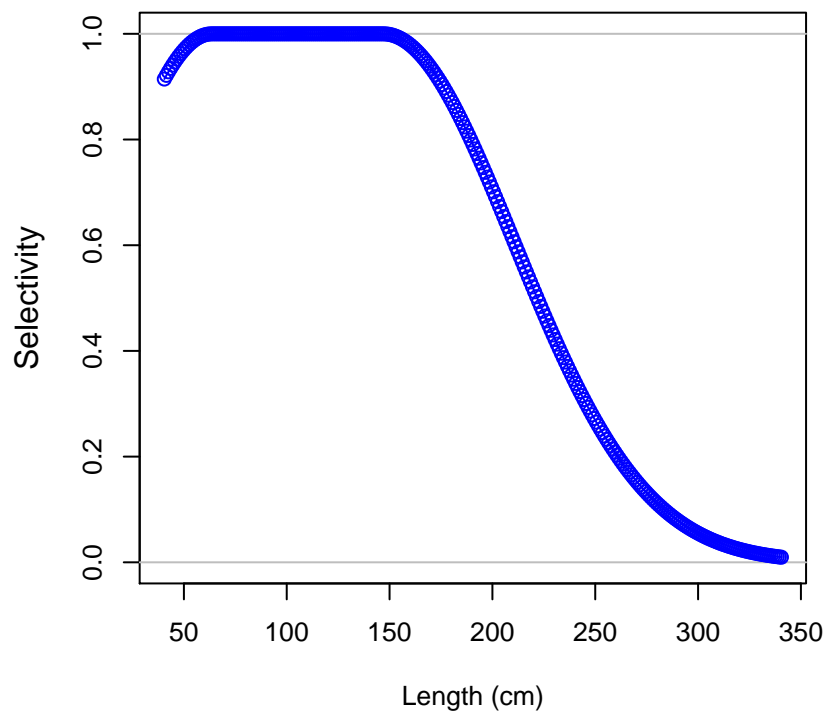
**Female ending year selectivity for F2\_US\_HI\_SS**



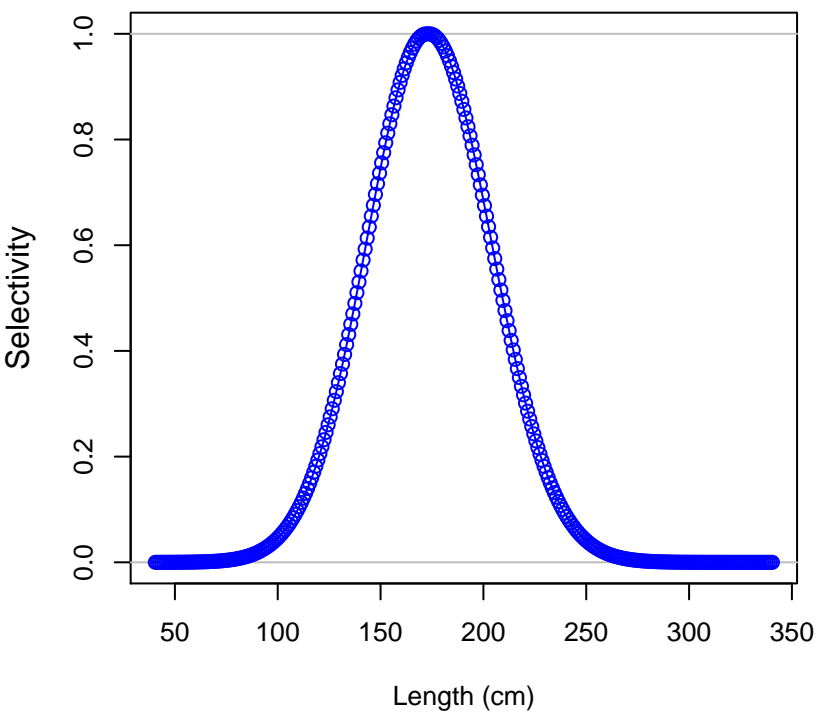
**Male ending year selectivity for F1\_US\_CA**



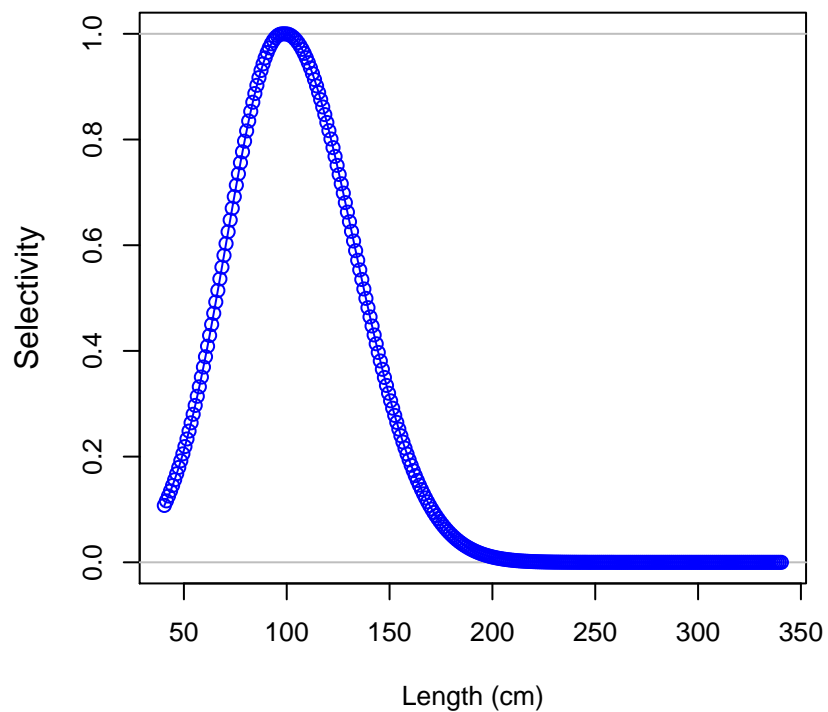
**Male ending year selectivity for F2\_US\_HI\_SS**



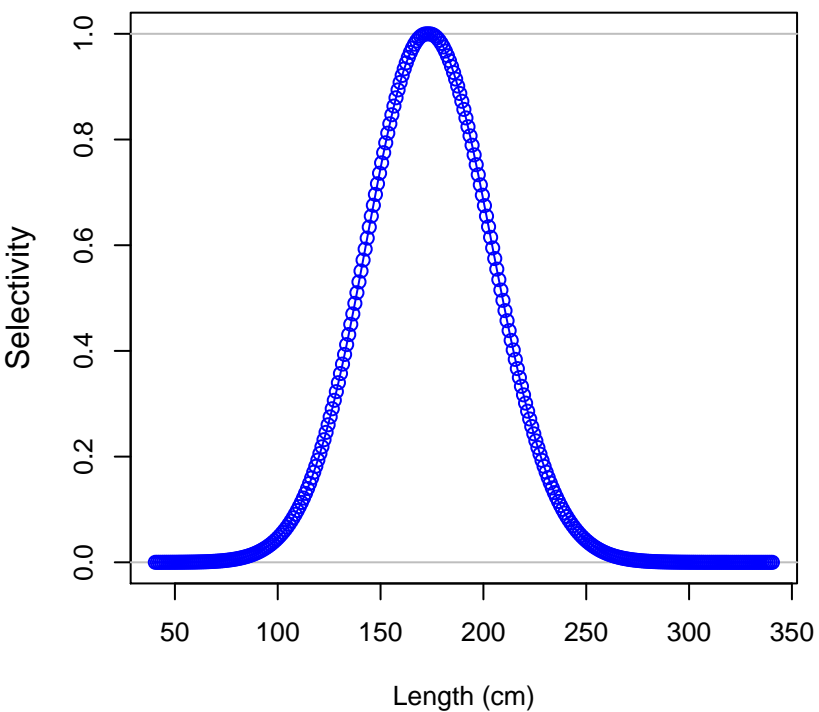
Female ending year selectivity for F3\_US\_HI\_DS



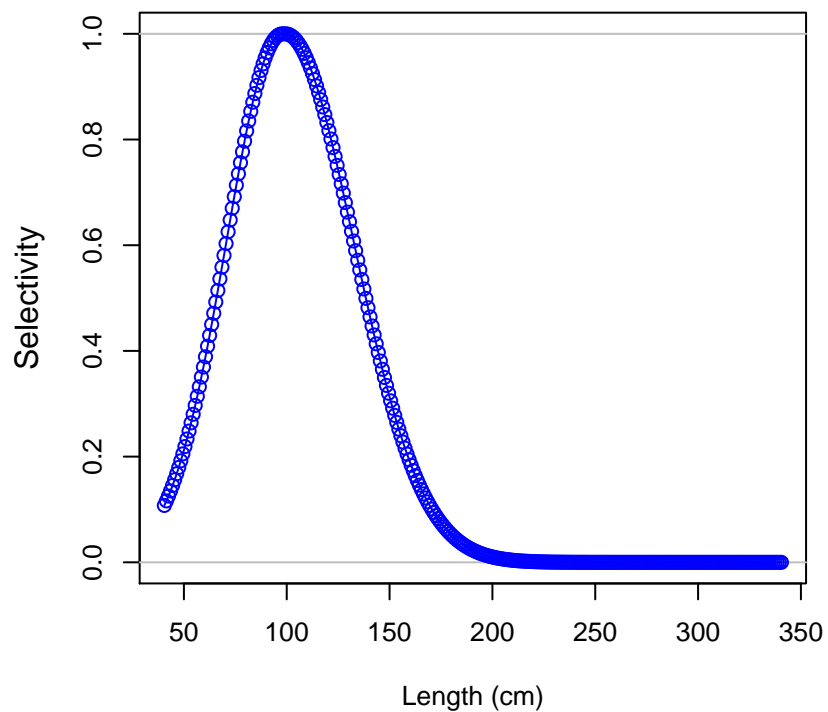
Female ending year selectivity for F4\_US\_DGN



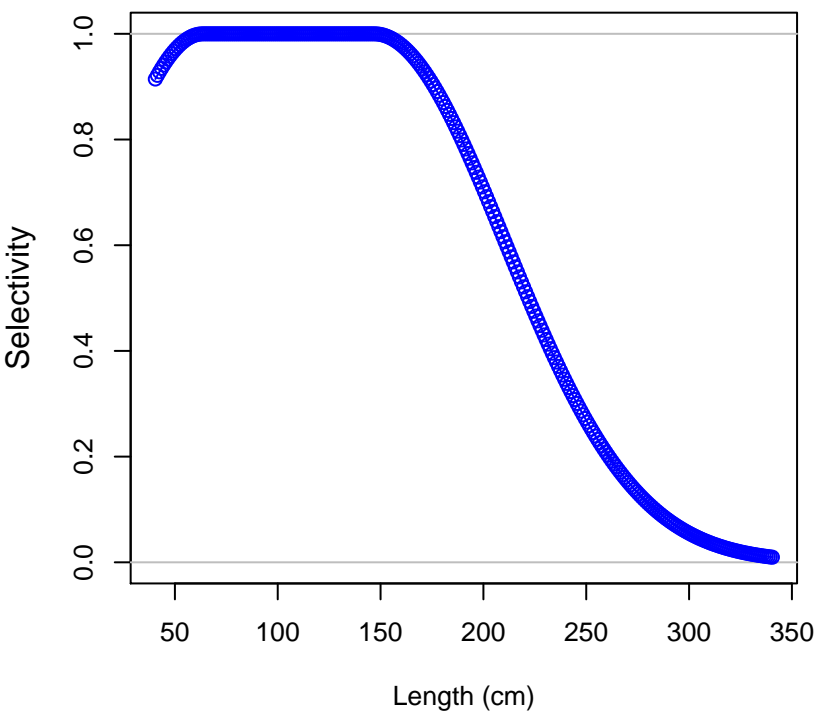
Male ending year selectivity for F3\_US\_HI\_DS



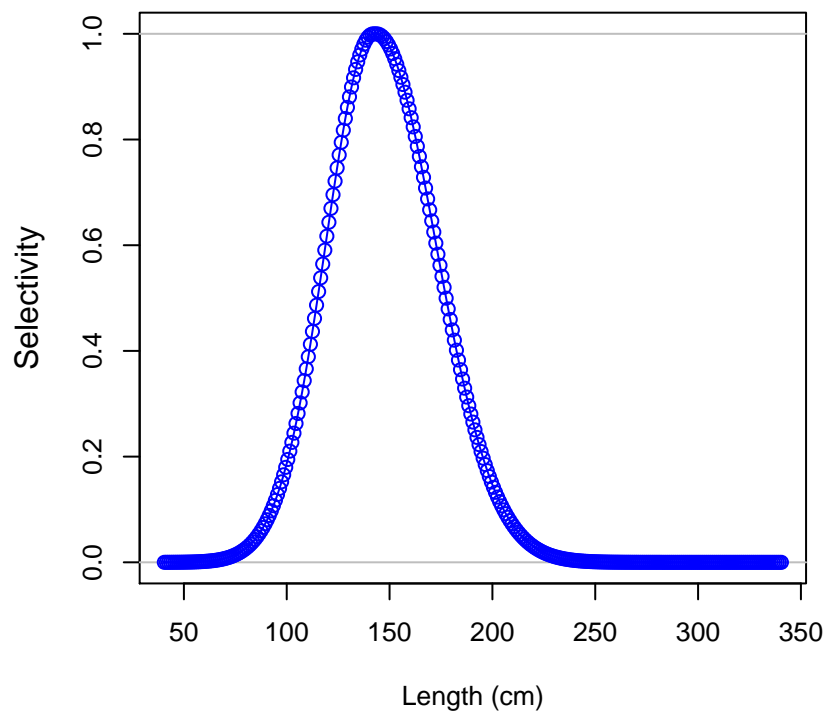
Male ending year selectivity for F4\_US\_DGN



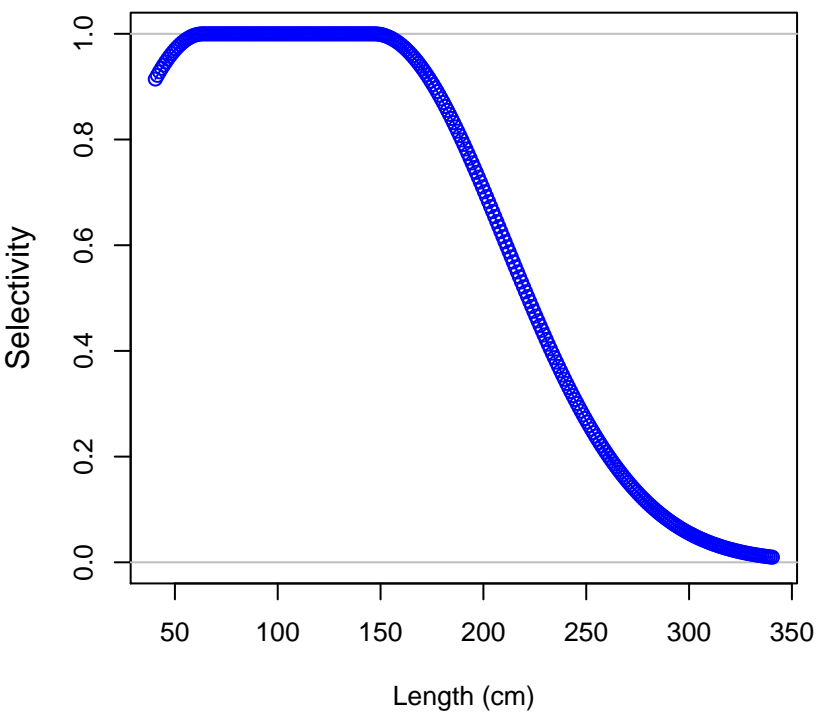
Female ending year selectivity for F5\_US\_REC



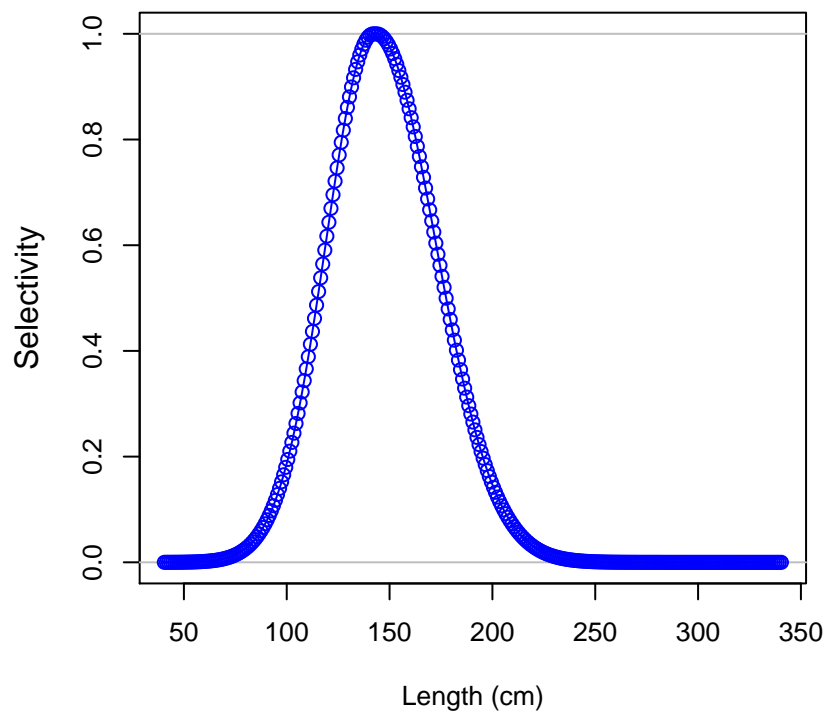
Female ending year selectivity for F6\_TW\_LRG\_N



Male ending year selectivity for F5\_US\_REC

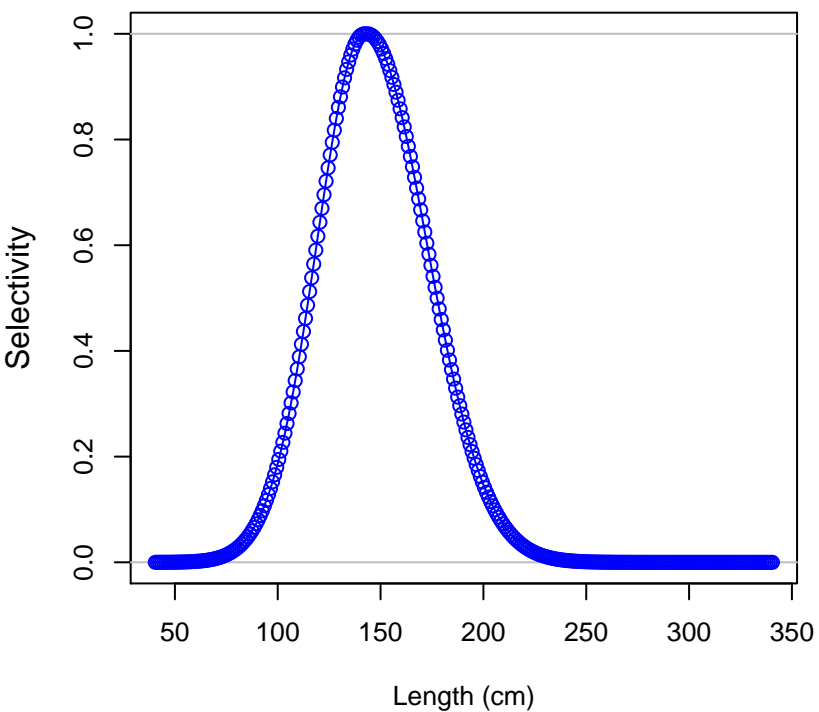


Male ending year selectivity for F6\_TW\_LRG\_N

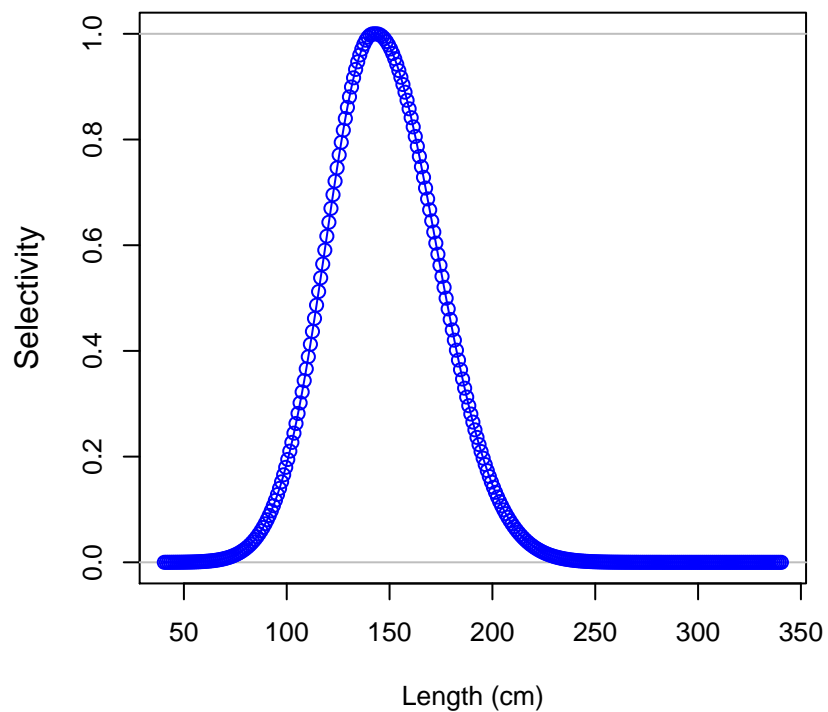




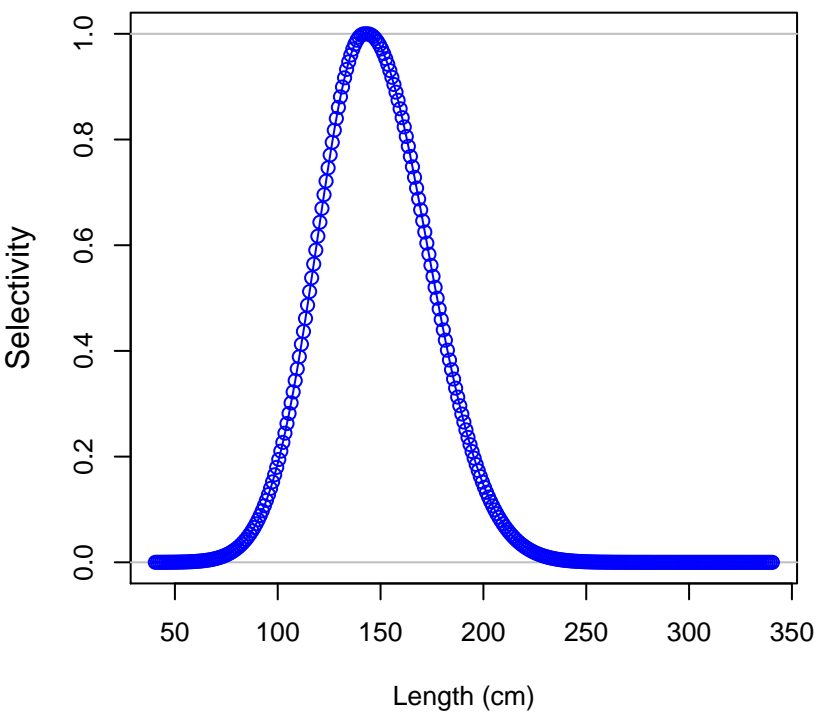
**Female ending year selectivity for F7\_TW\_LRG\_S**



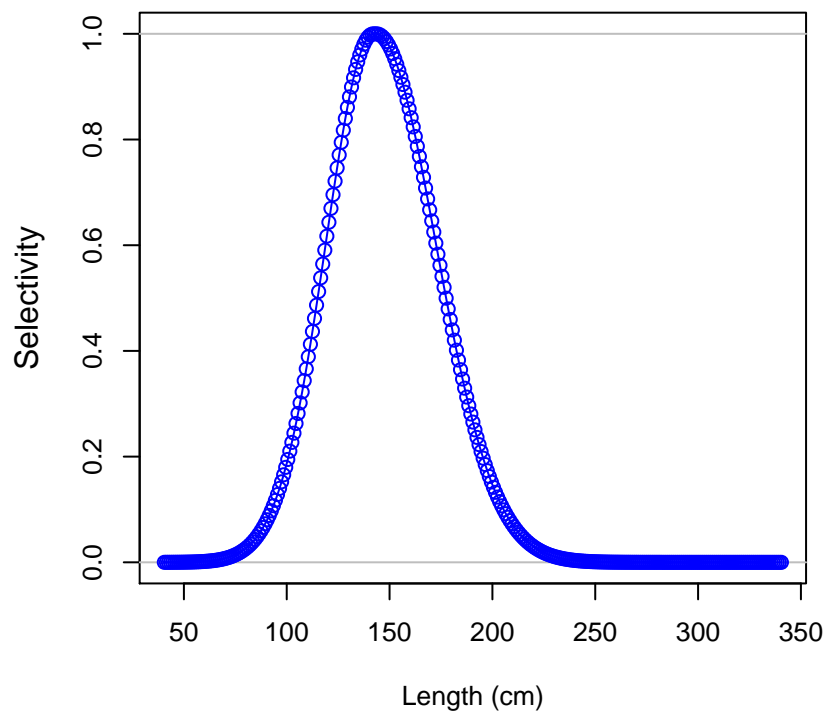
**Female ending year selectivity for F8\_TW\_SML**



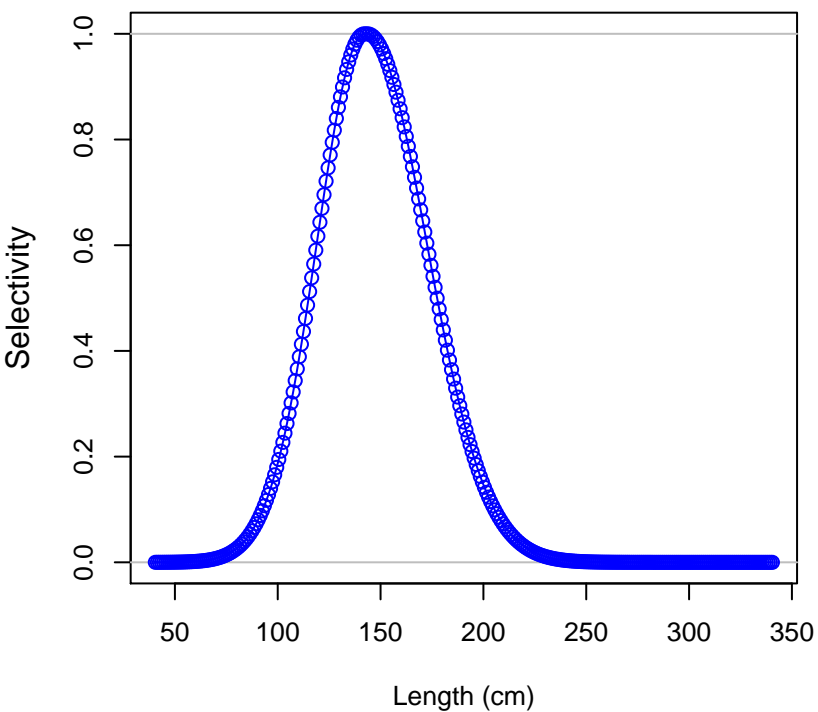
**Male ending year selectivity for F7\_TW\_LRG\_S**



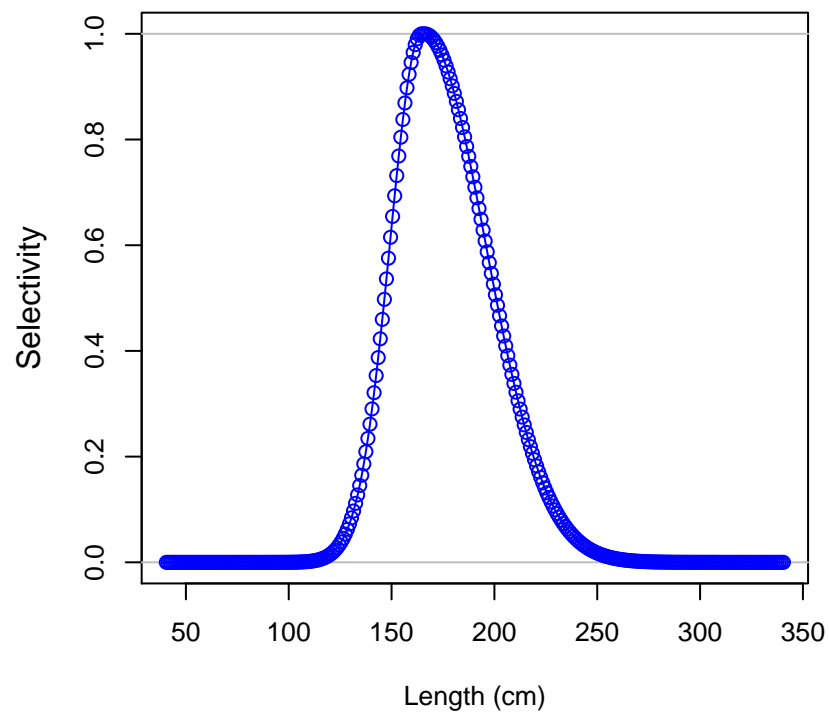
**Male ending year selectivity for F8\_TW\_SML**



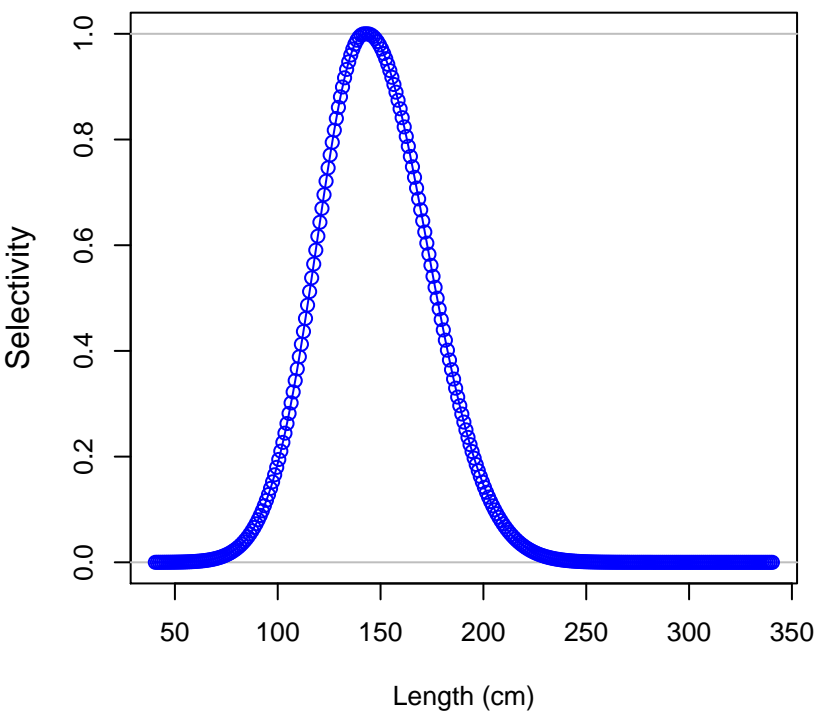
**Female ending year selectivity for F9\_JPN\_SS**



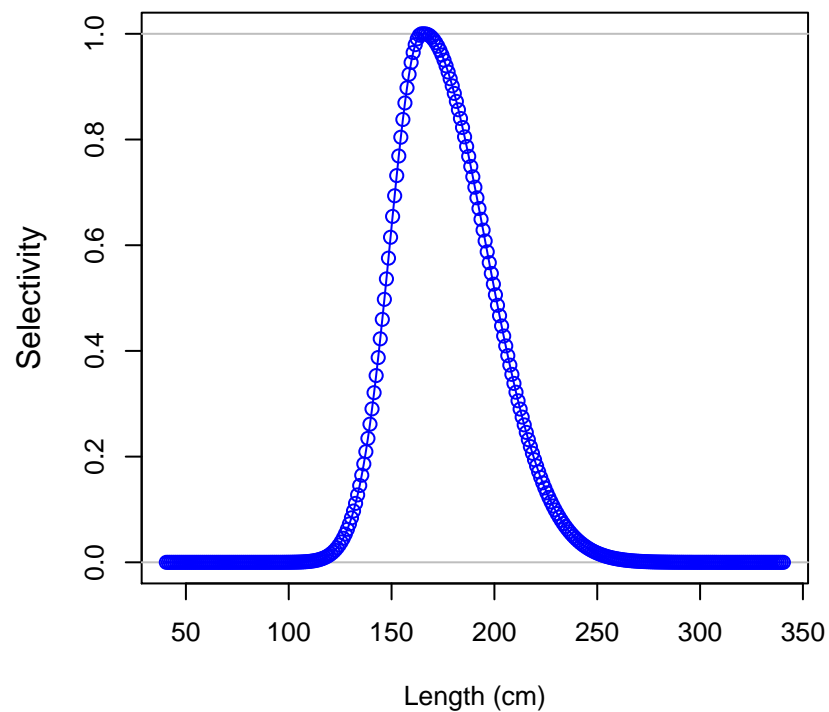
**Female ending year selectivity for F10\_JPN\_DS**



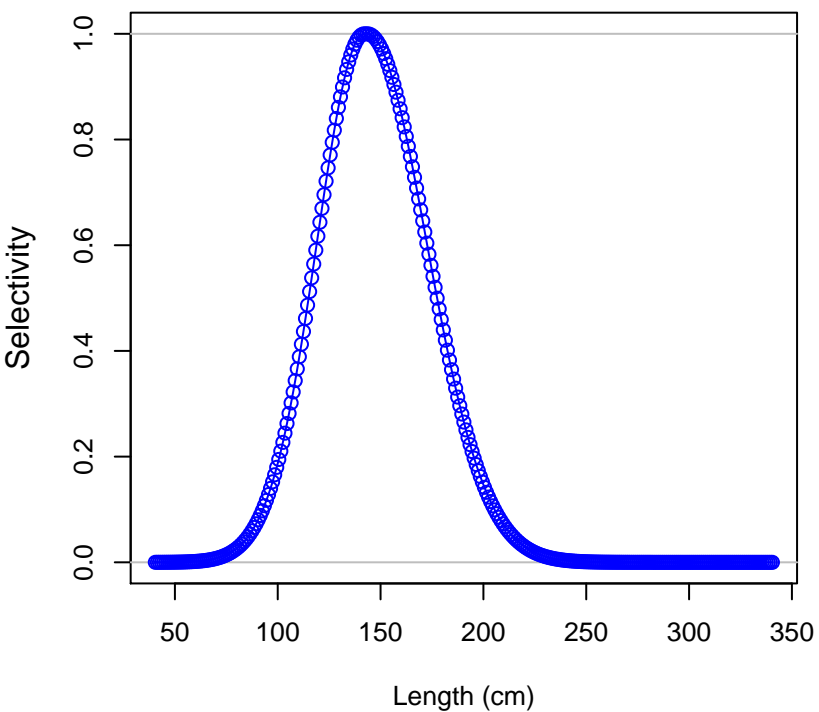
**Male ending year selectivity for F9\_JPN\_SS**



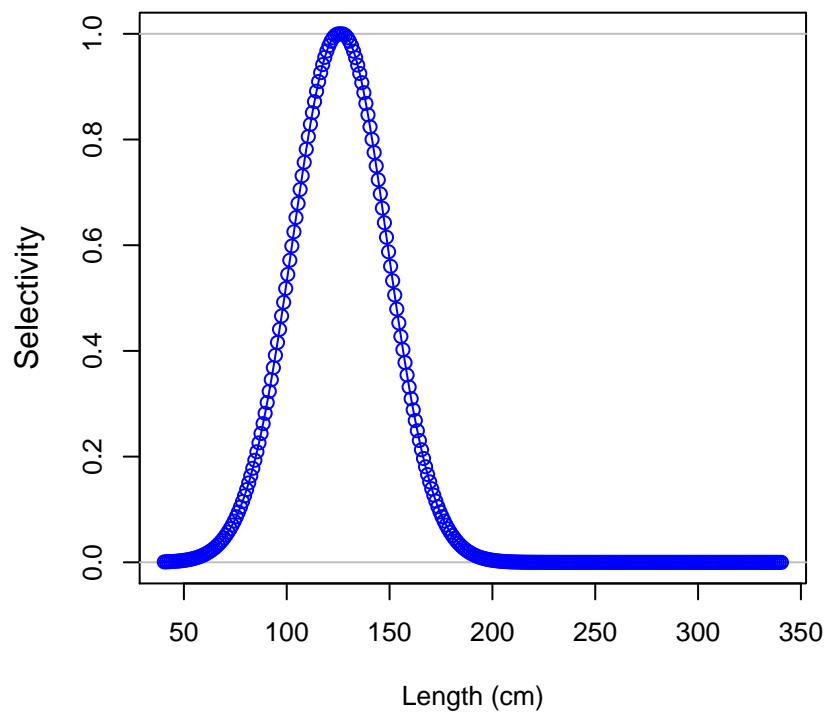
**Male ending year selectivity for F10\_JPN\_DS**



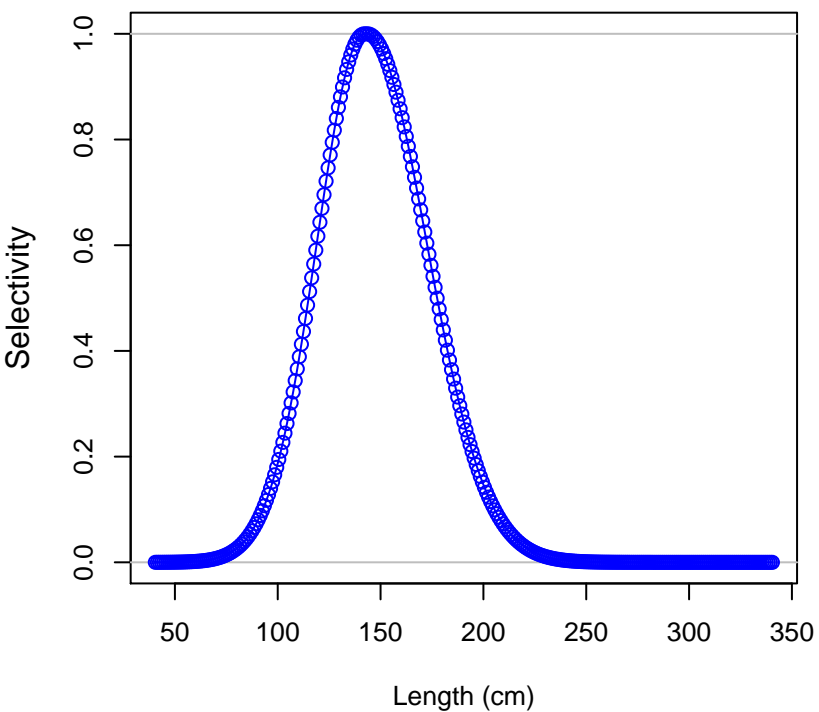
**Female ending year selectivity for F11\_JPN\_CST**



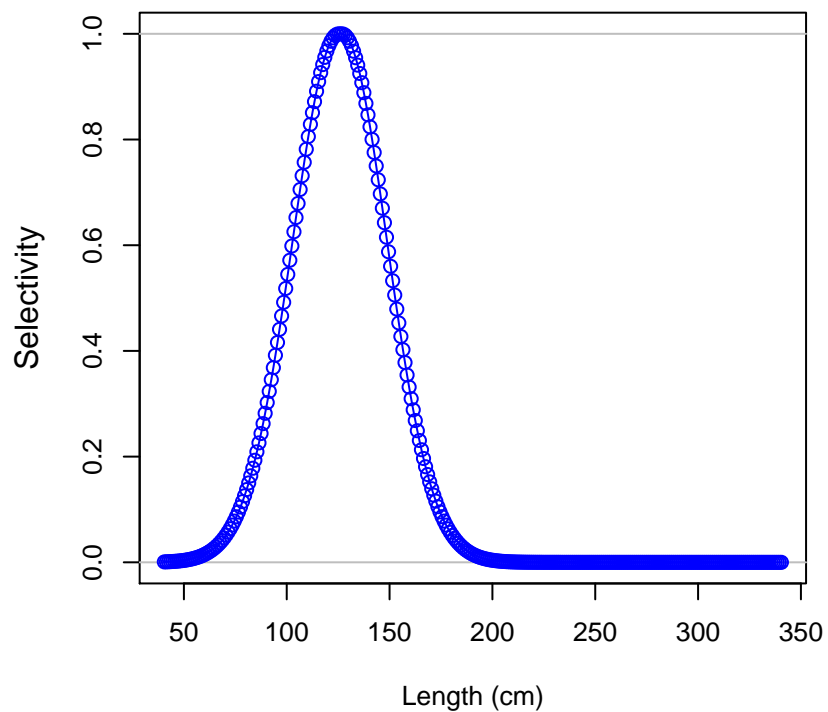
**Female ending year selectivity for F12\_JPN\_DFN**



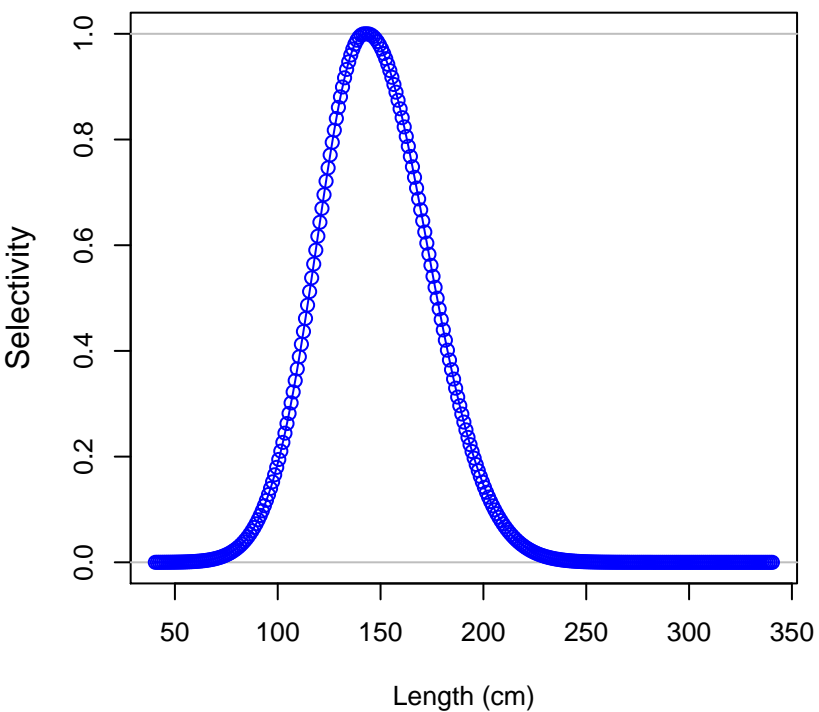
**Male ending year selectivity for F11\_JPN\_CST**



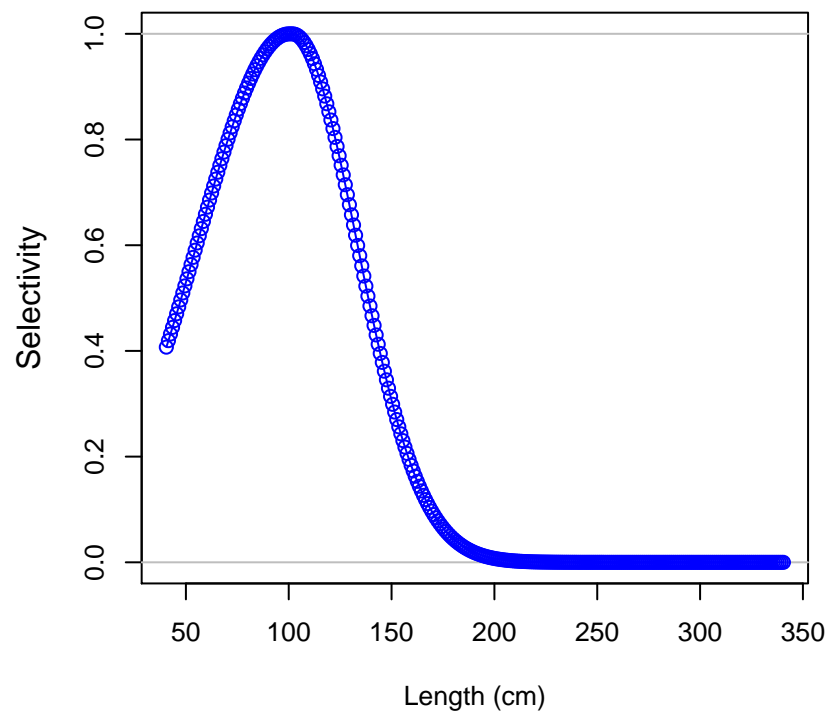
**Male ending year selectivity for F12\_JPN\_DFN**



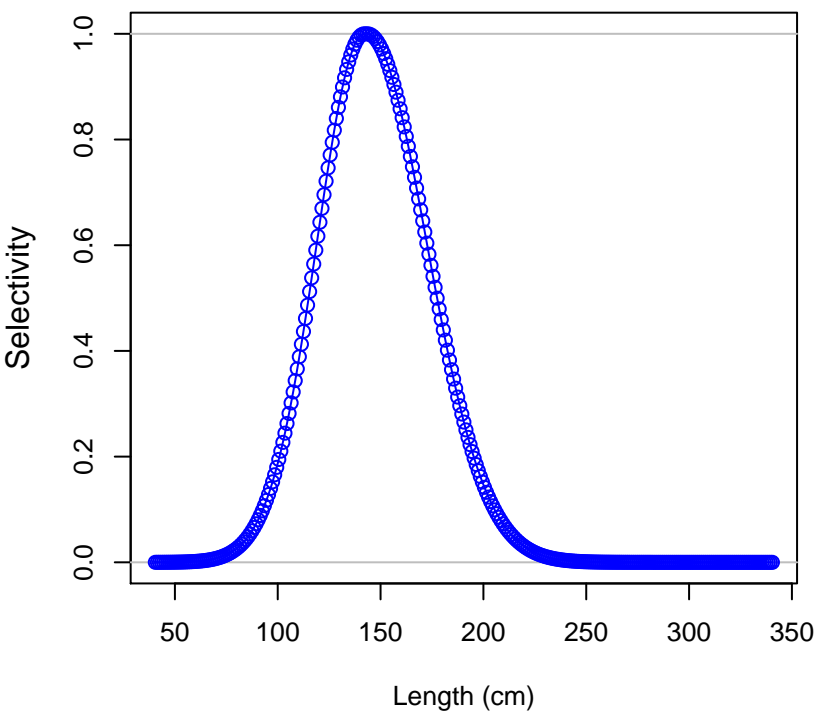
Female ending year selectivity for F13\_JPN\_OTH



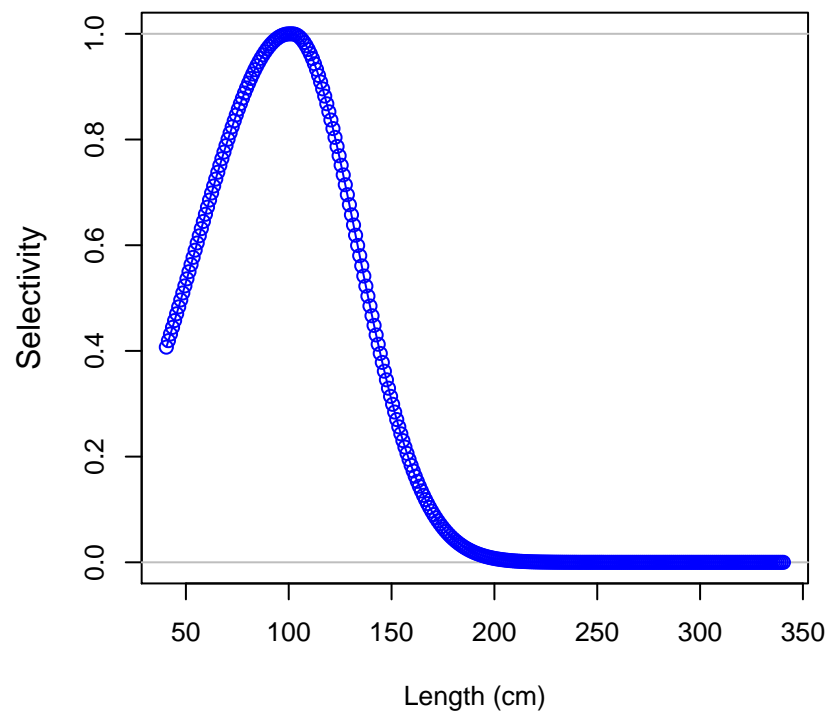
Female ending year selectivity for F14\_MEX\_NOR



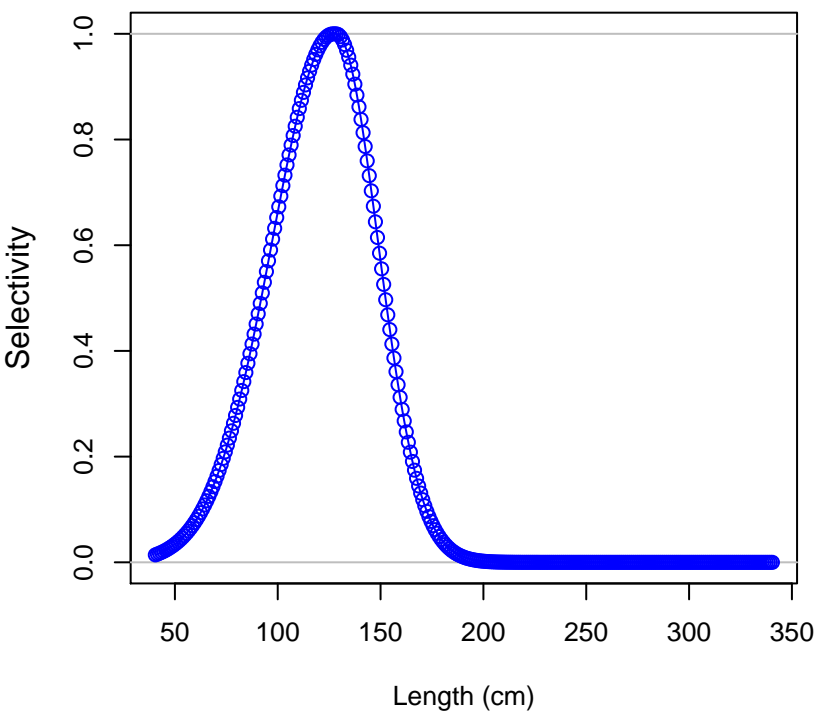
Male ending year selectivity for F13\_JPN\_OTH



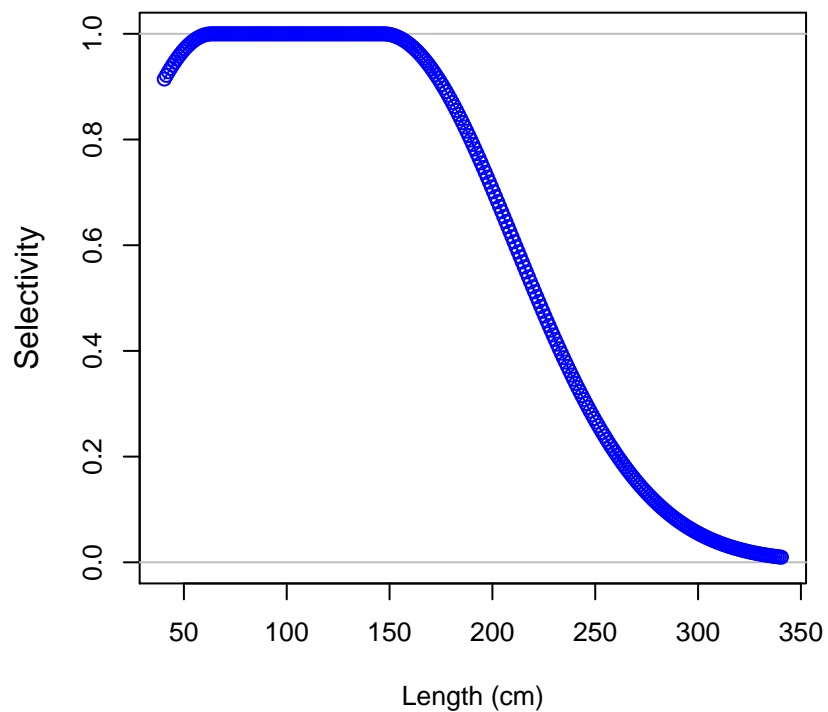
Male ending year selectivity for F14\_MEX\_NOR



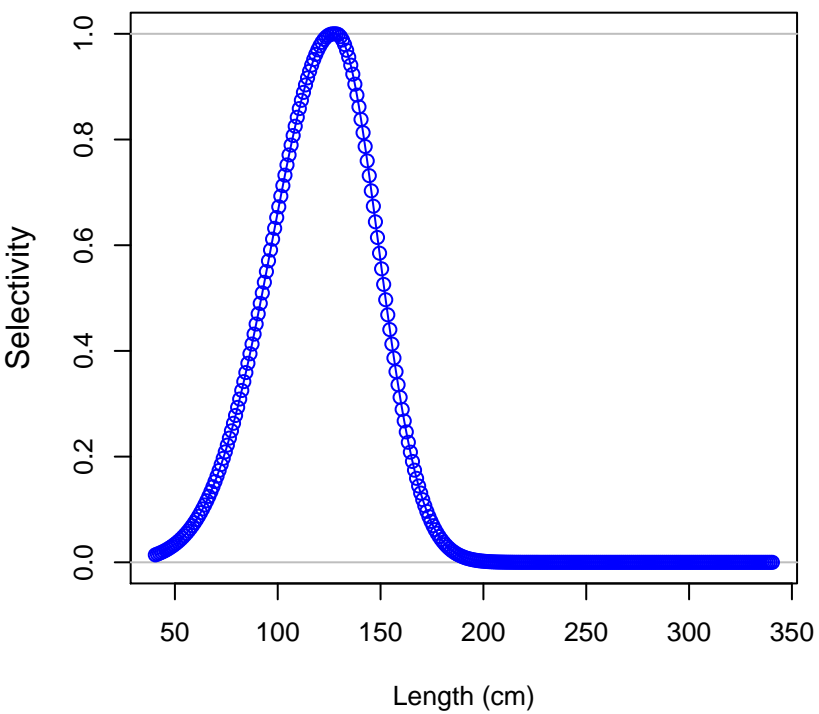
**Female ending year selectivity for F15\_MEX\_SOU**



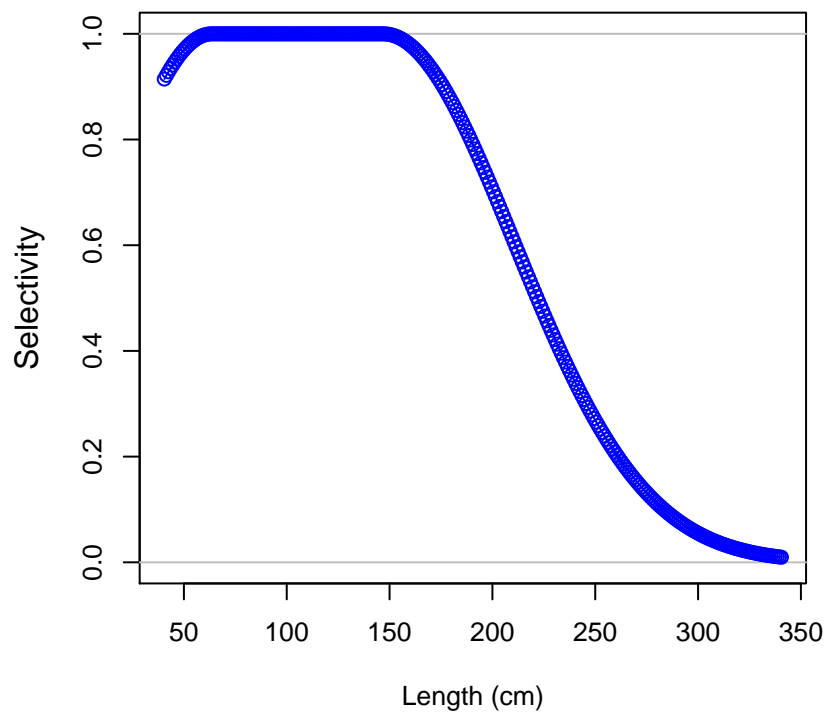
**Female ending year selectivity for F16\_WCPFC**



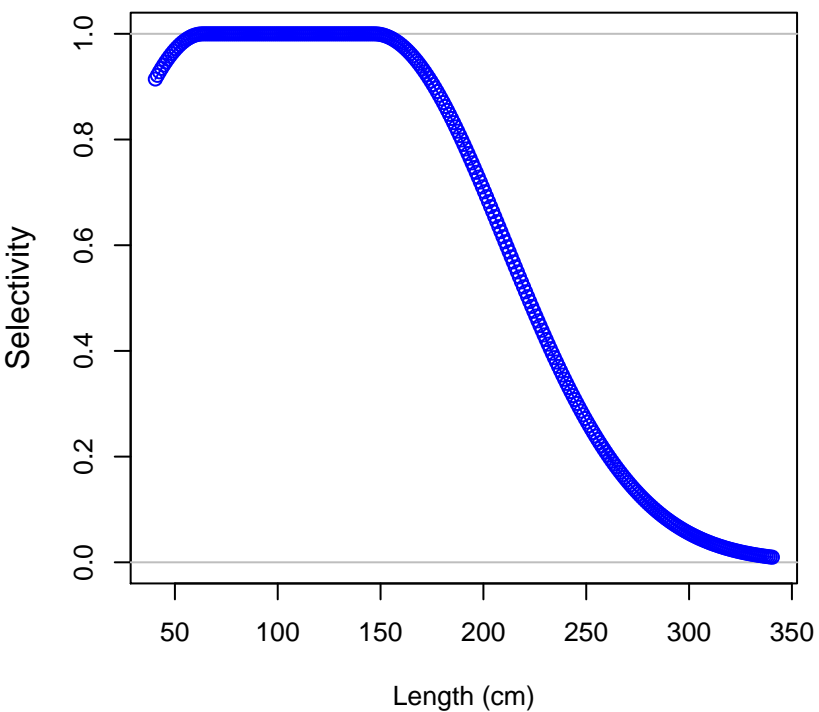
**Male ending year selectivity for F15\_MEX\_SOU**



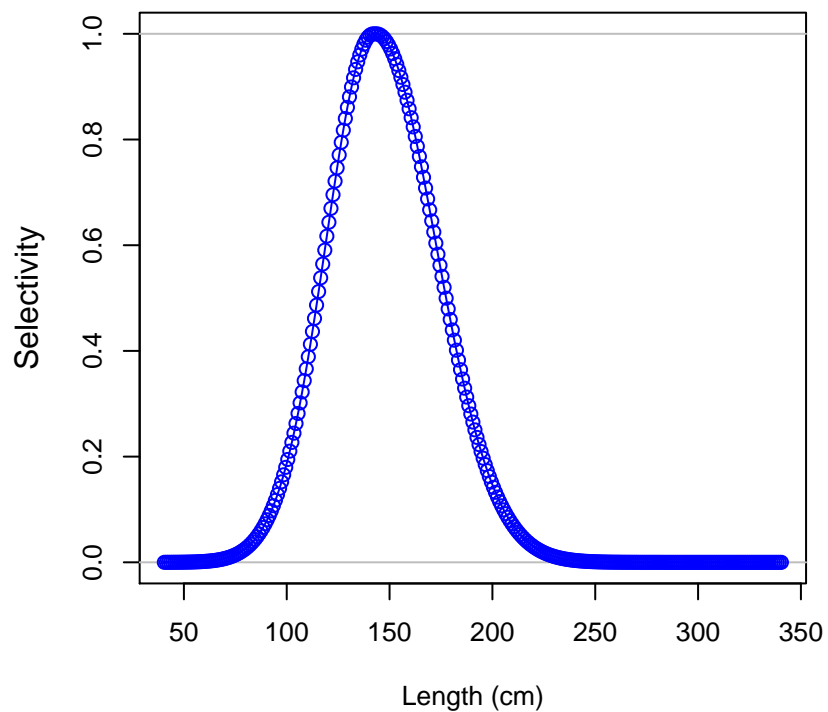
**Male ending year selectivity for F16\_WCPFC**



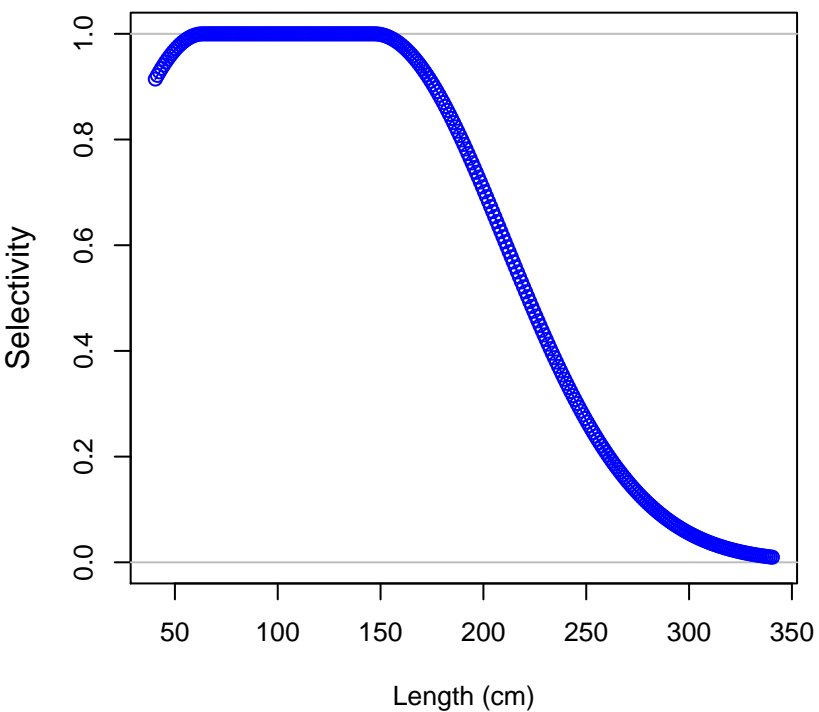
**Female ending year selectivity for F17\_IATTC**



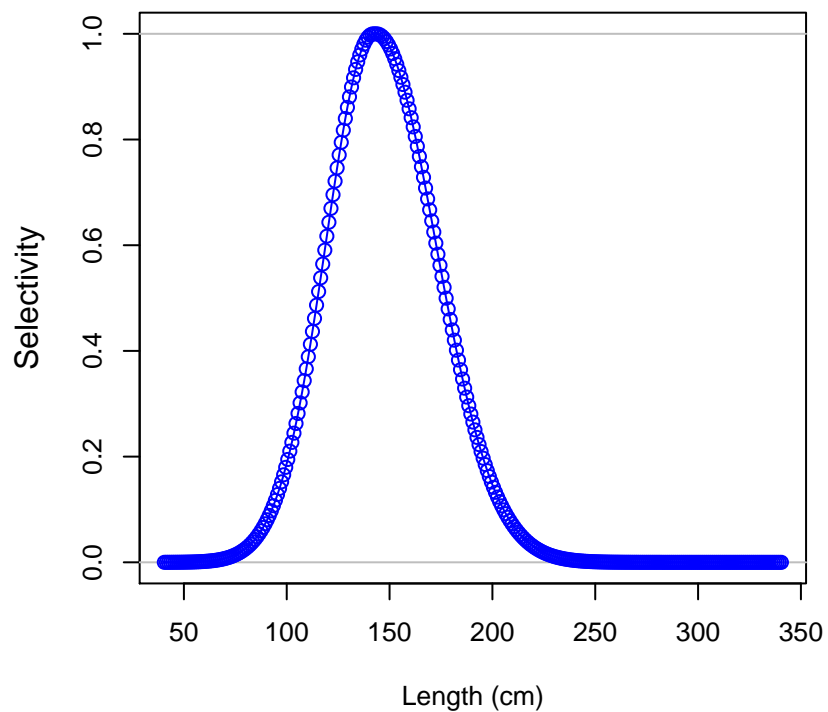
**Female ending year selectivity for F18\_JPN\_SSII**



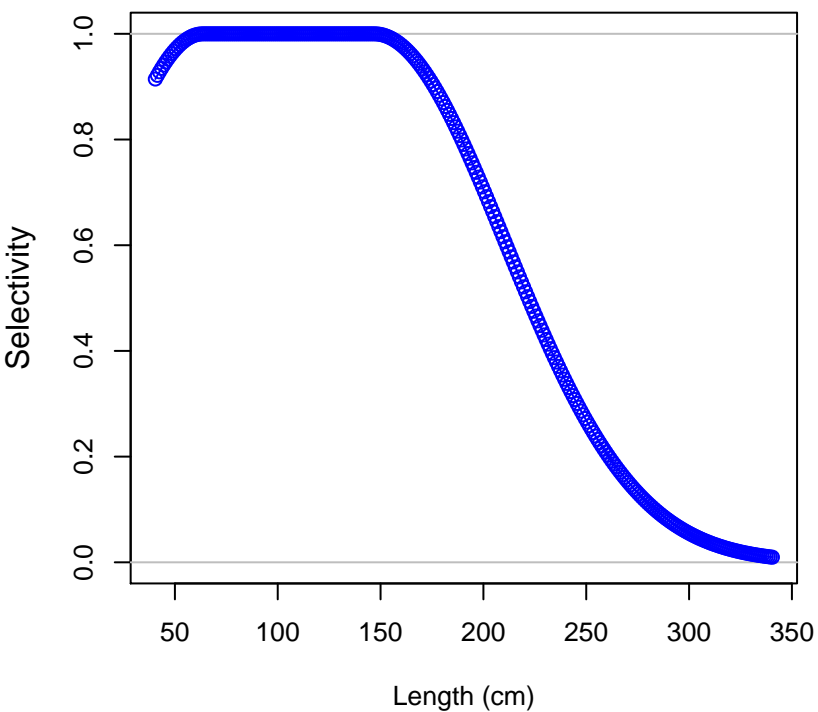
**Male ending year selectivity for F17\_IATTC**



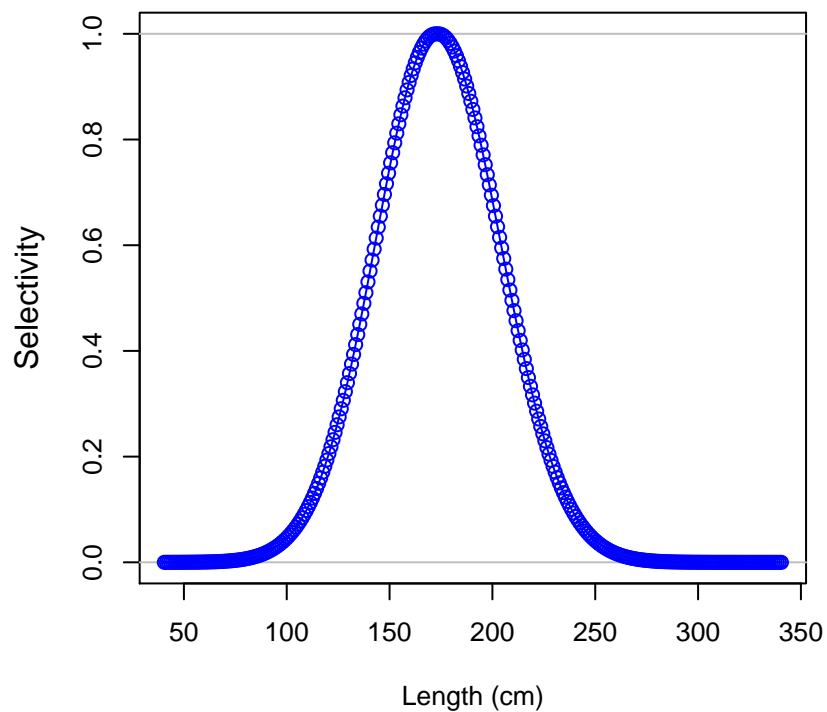
**Male ending year selectivity for F18\_JPN\_SSII**



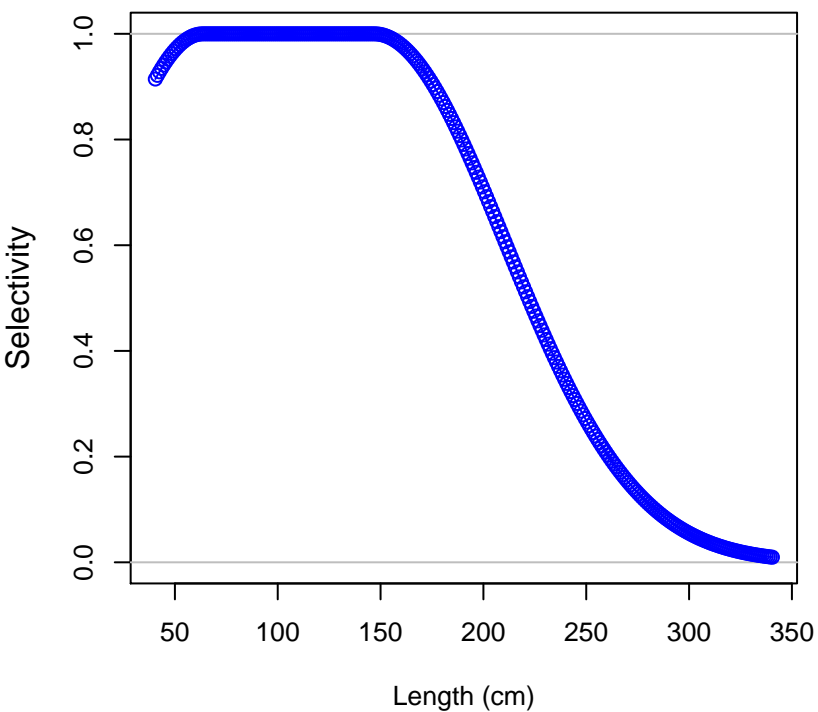
**Female ending year selectivity for S1\_US\_SS**



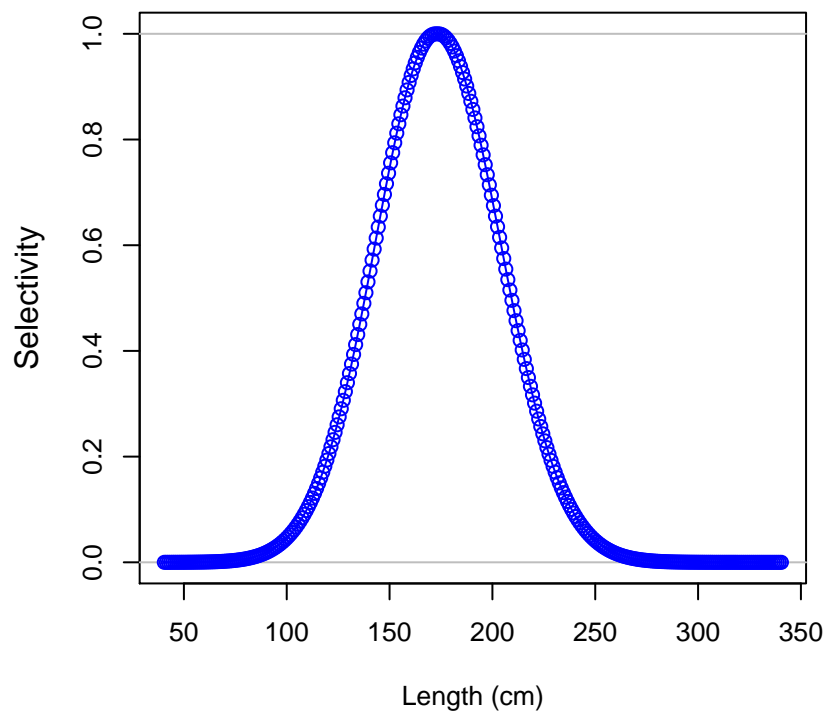
**Female ending year selectivity for S2\_US\_DS**



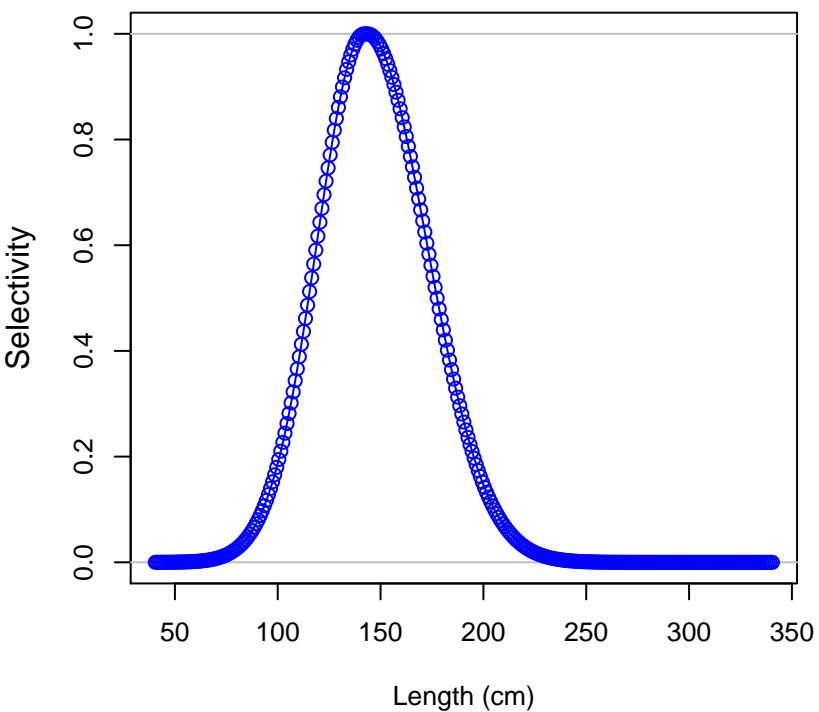
**Male ending year selectivity for S1\_US\_SS**



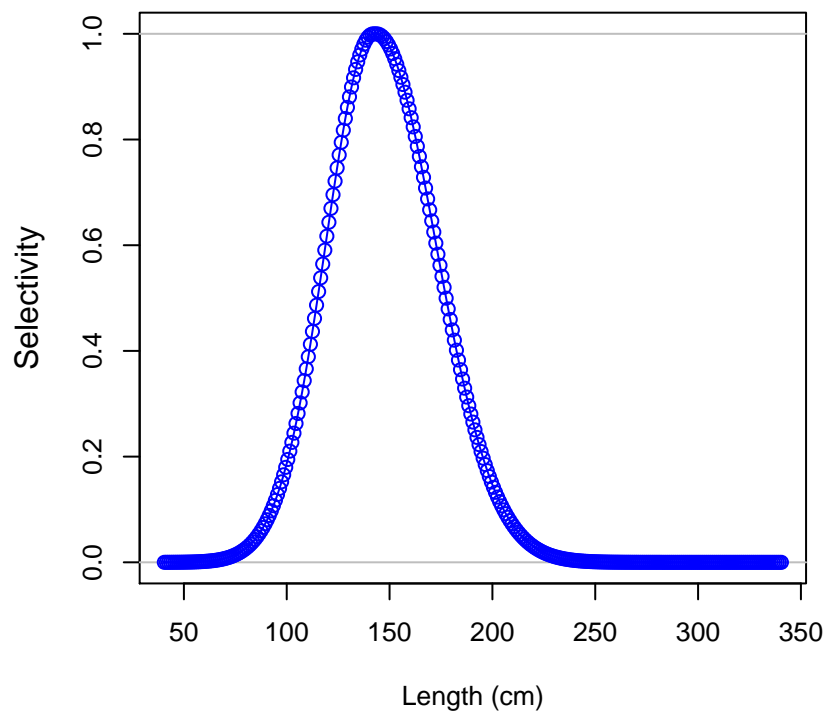
**Male ending year selectivity for S2\_US\_DS**



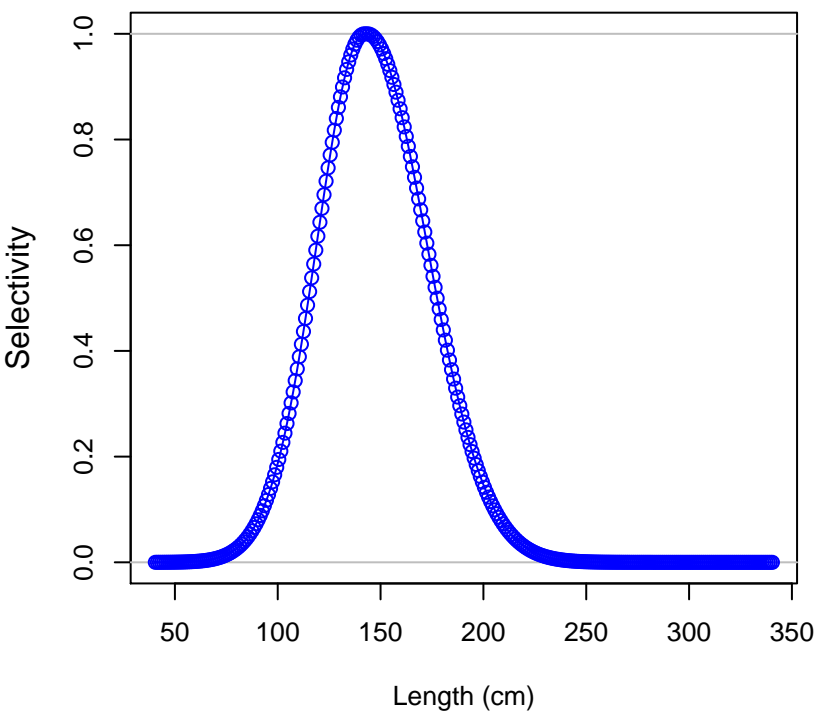
**Female ending year selectivity for S3\_TW\_LRG**



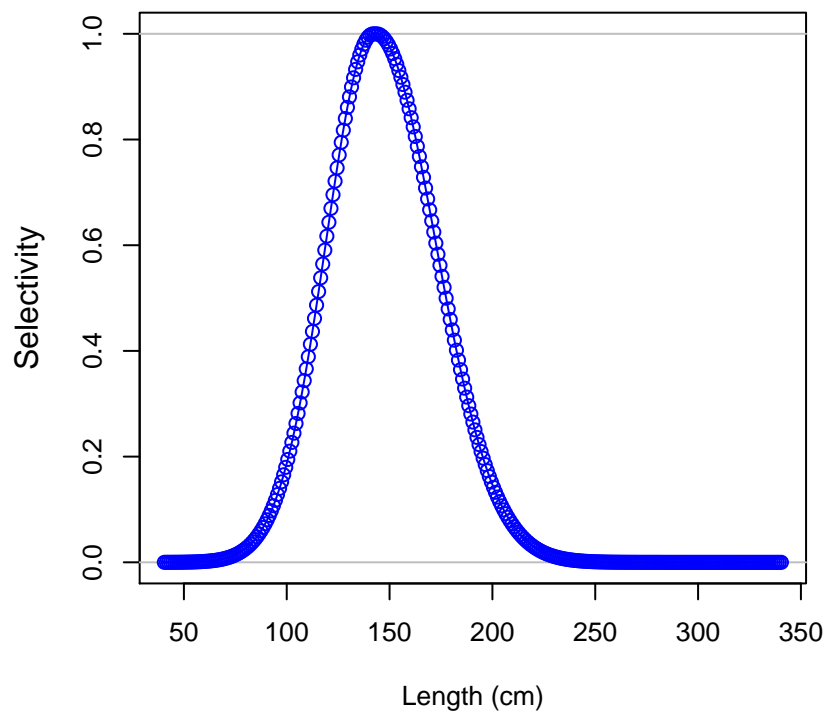
**Female ending year selectivity for S4\_JPN\_SS**



**Male ending year selectivity for S3\_TW\_LRG**

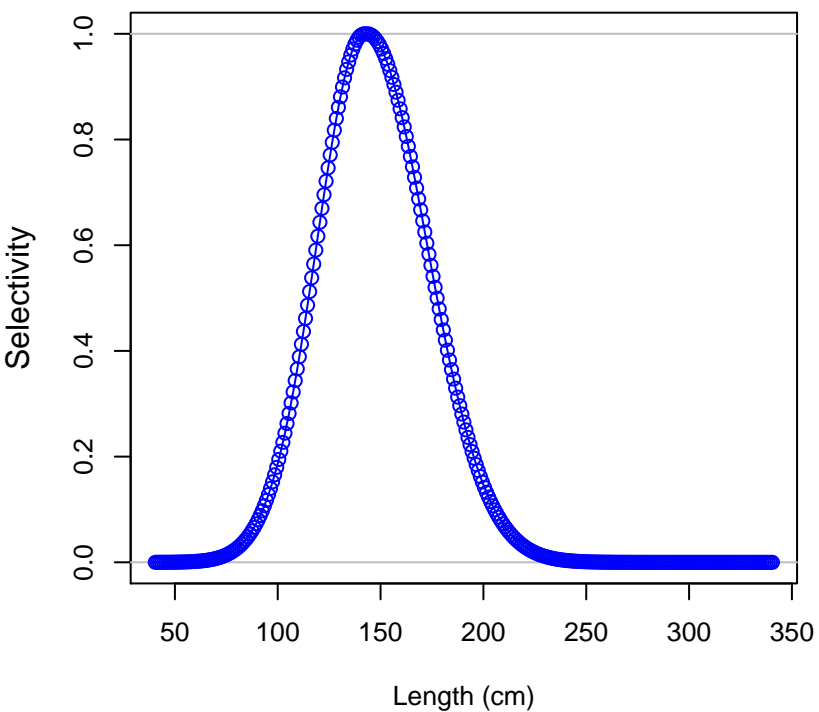


**Male ending year selectivity for S4\_JPN\_SS**

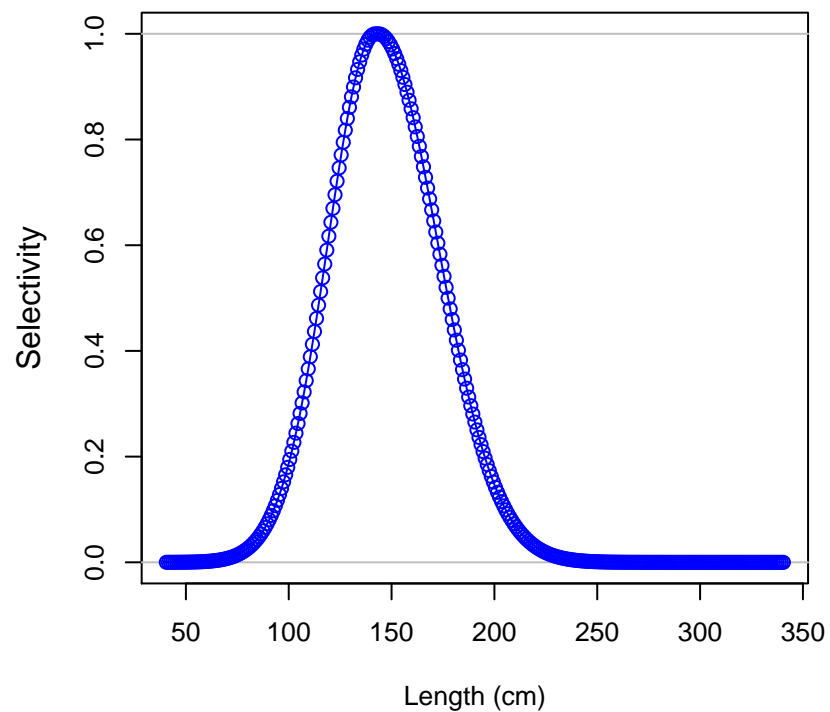




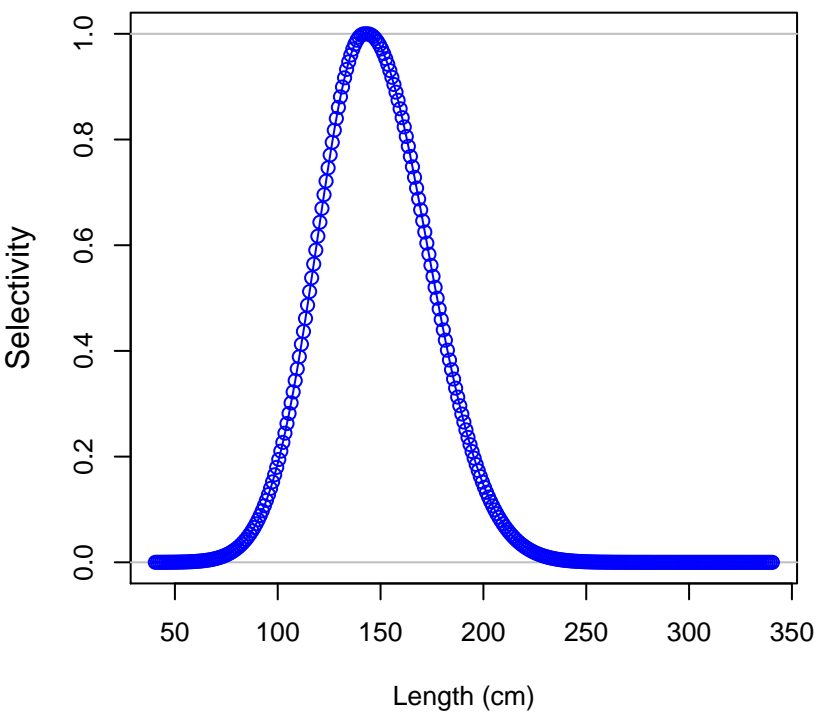
**Female ending year selectivity for S5\_JPN\_RTV**



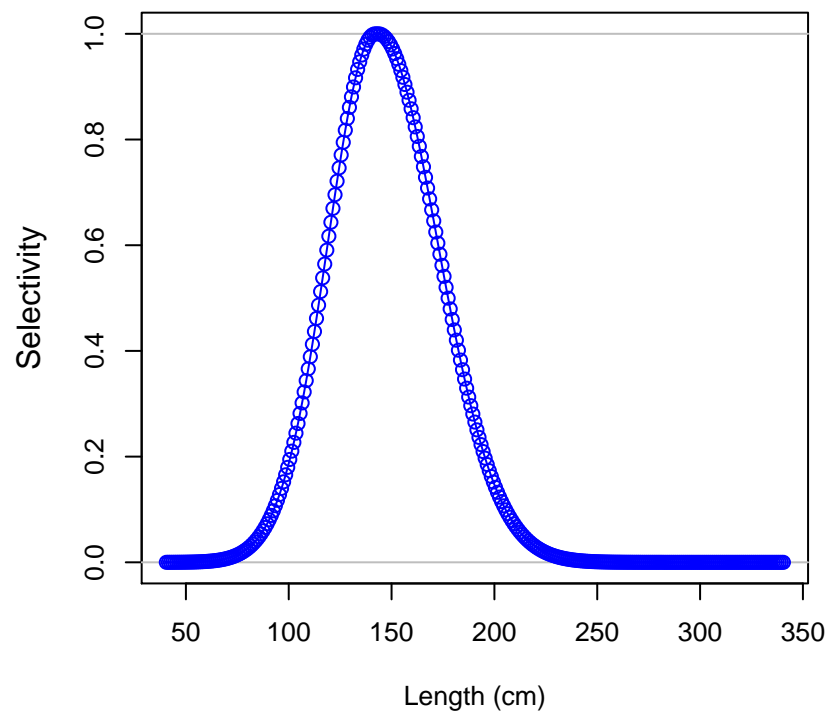
**Female ending year selectivity for S6\_JPN\_OBS**



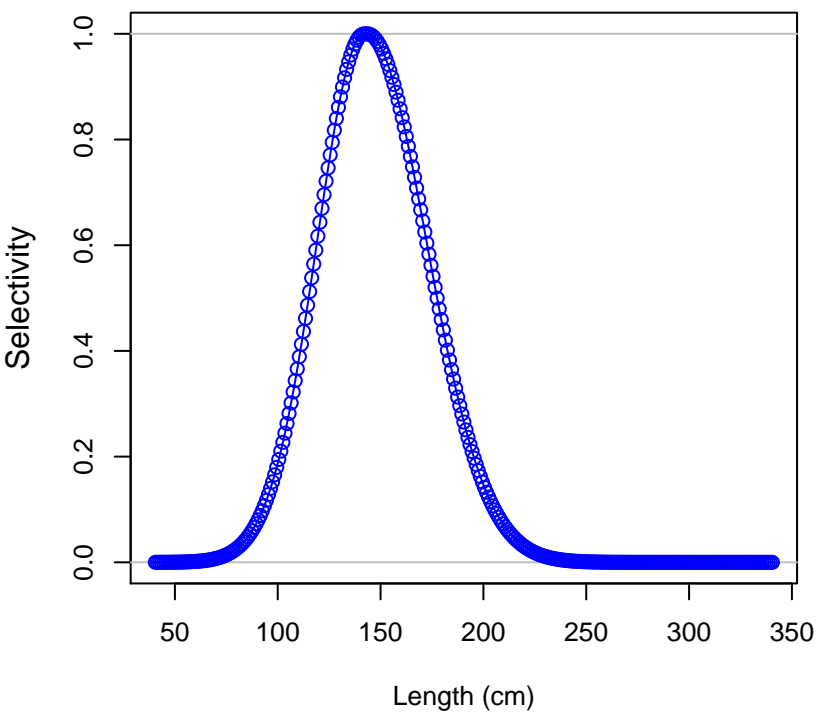
**Male ending year selectivity for S5\_JPN\_RTV**



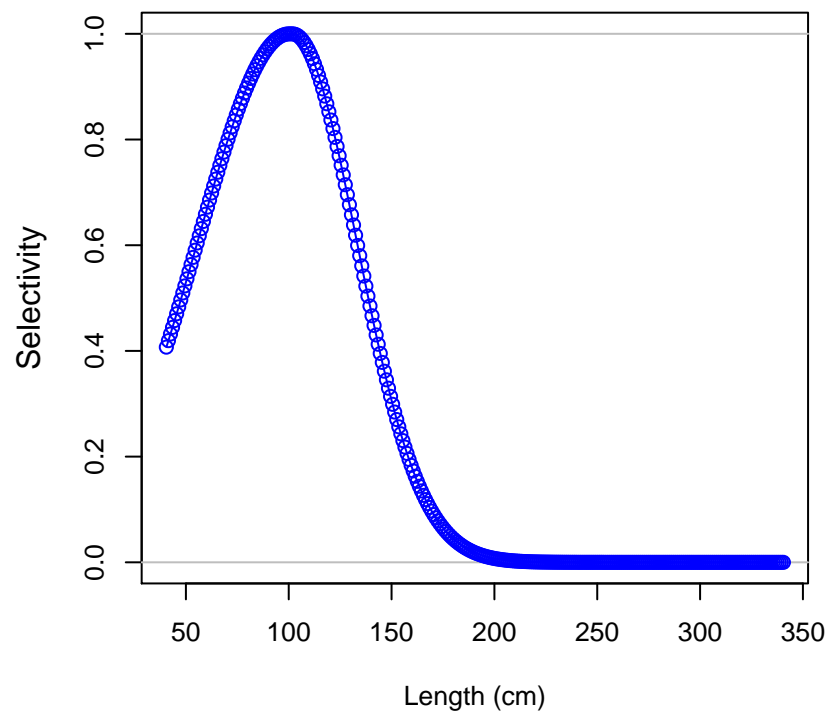
**Male ending year selectivity for S6\_JPN\_OBS**



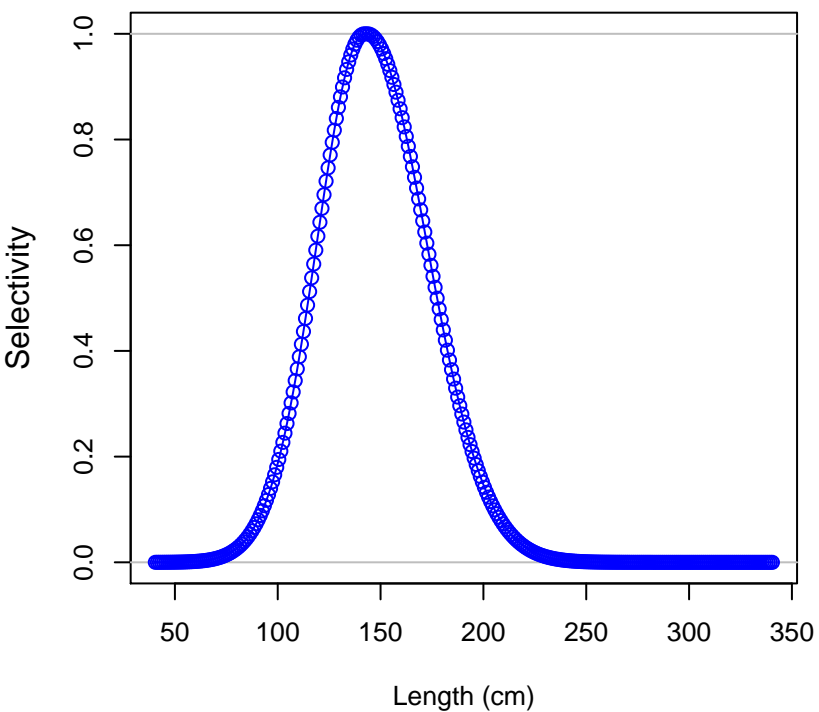
**Female ending year selectivity for S7\_JPN\_GEO**



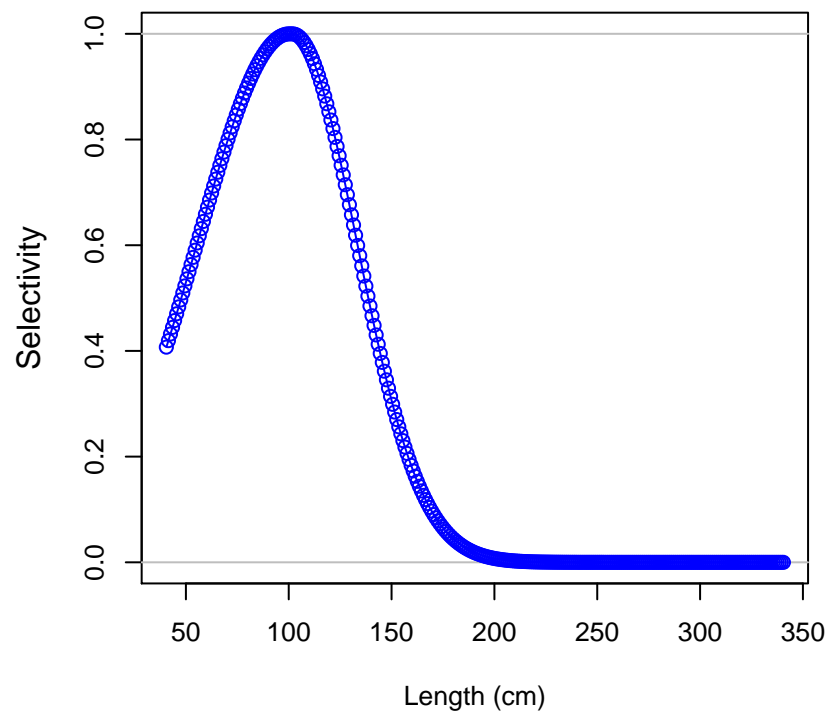
**Female ending year selectivity for S8\_MEX**



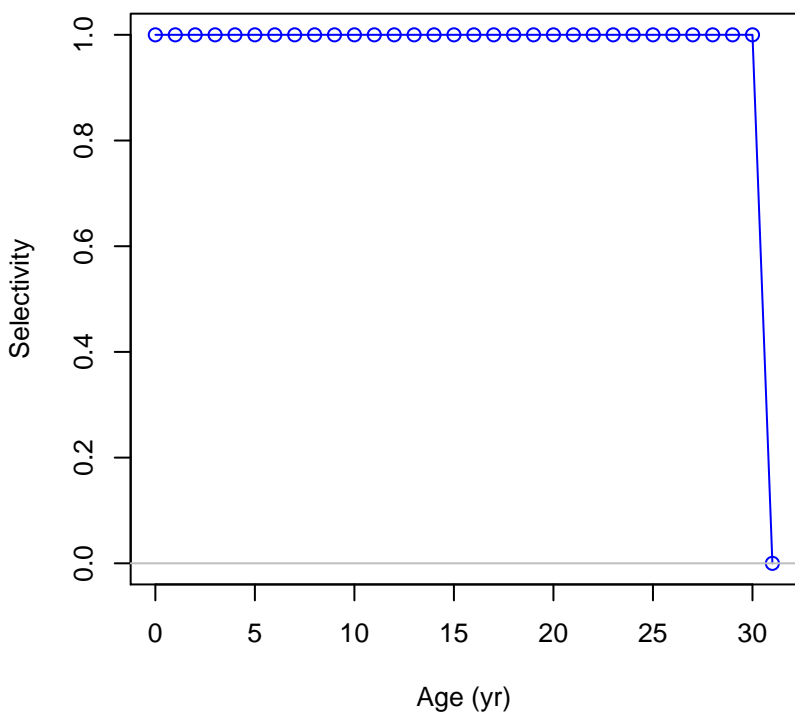
**Male ending year selectivity for S7\_JPN\_GEO**



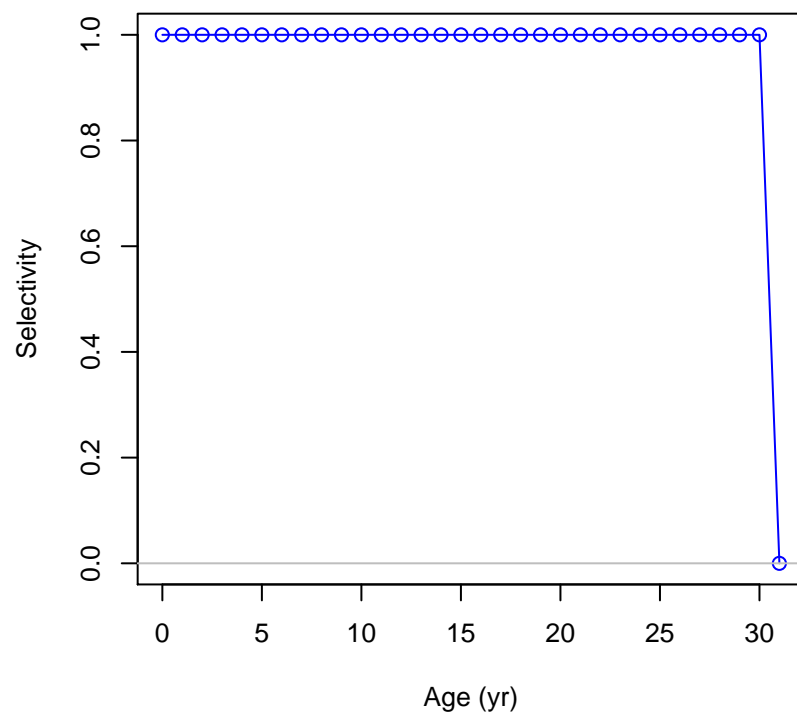
**Male ending year selectivity for S8\_MEX**



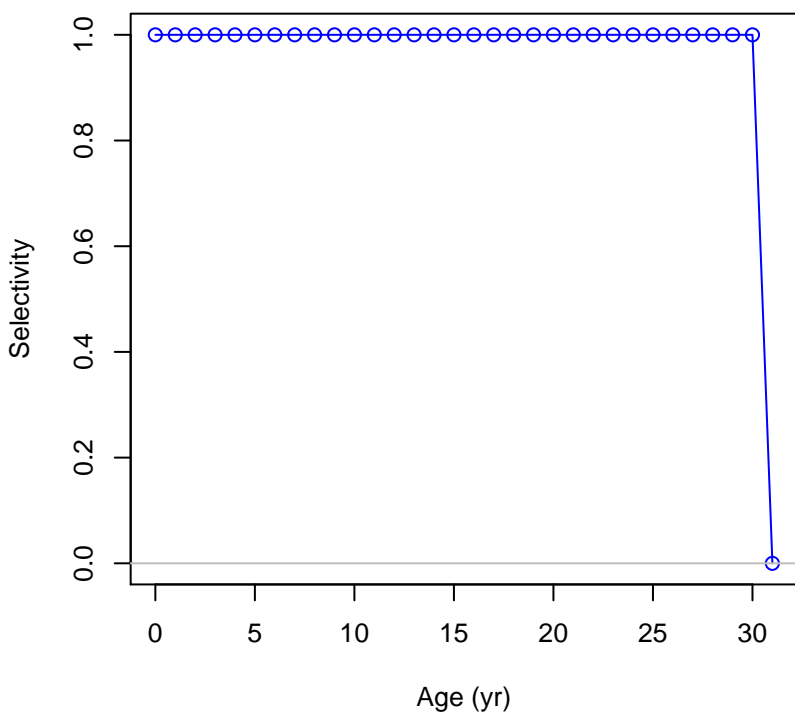
**Female ending year selectivity for F1\_US\_CA**



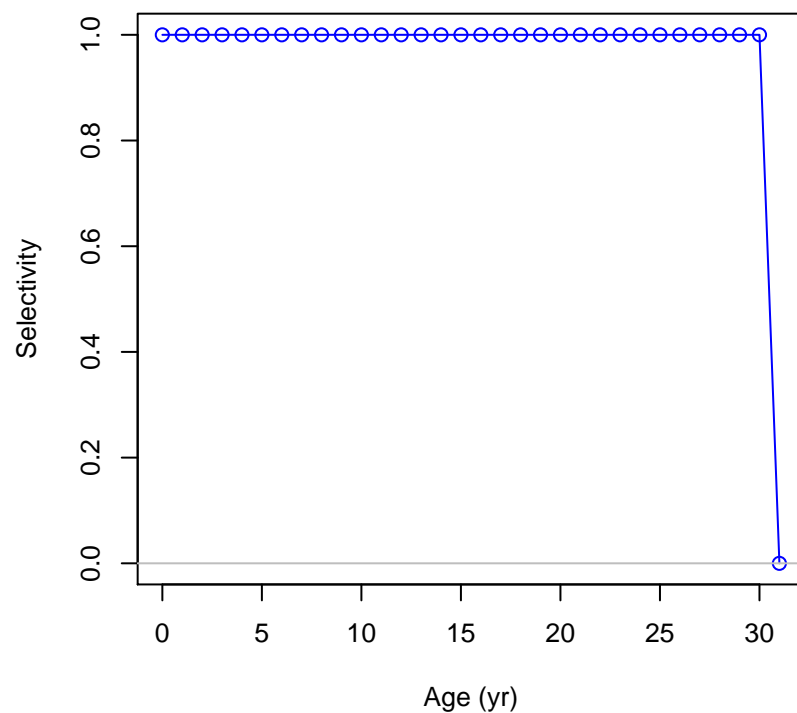
**Female ending year selectivity for F2\_US\_HI\_SS**



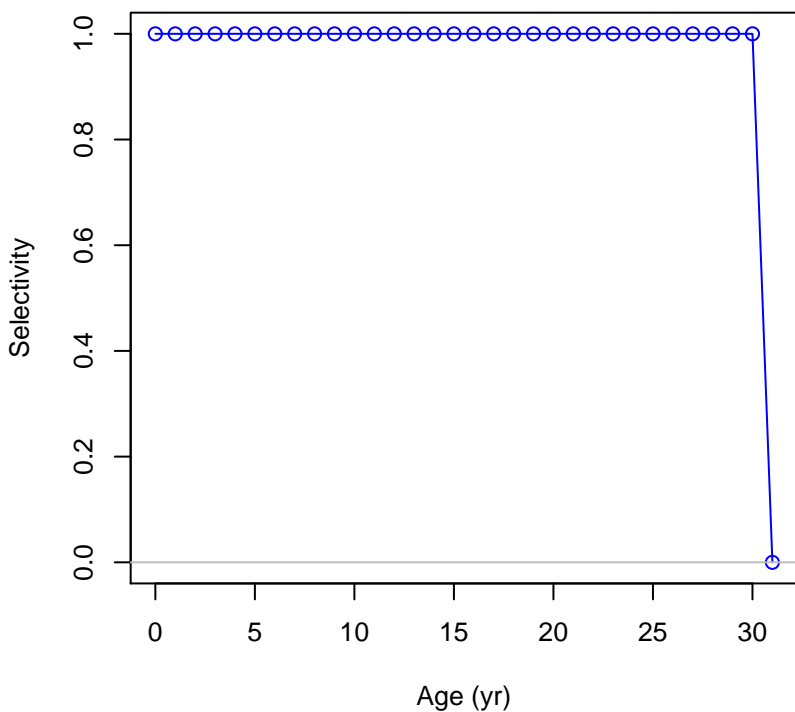
**Male ending year selectivity for F1\_US\_CA**



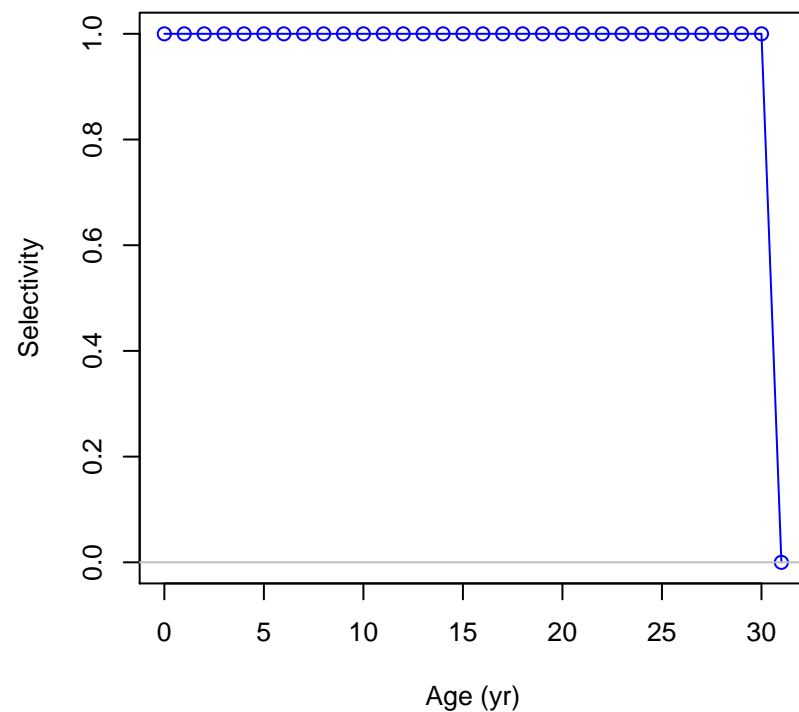
**Male ending year selectivity for F2\_US\_HI\_SS**



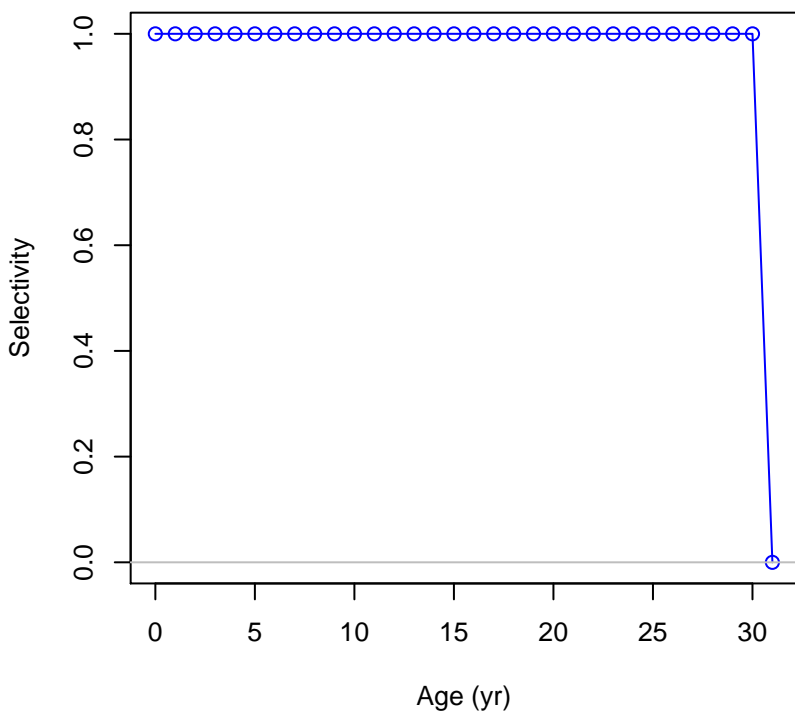
**Female ending year selectivity for F3\_US\_HI\_DS**



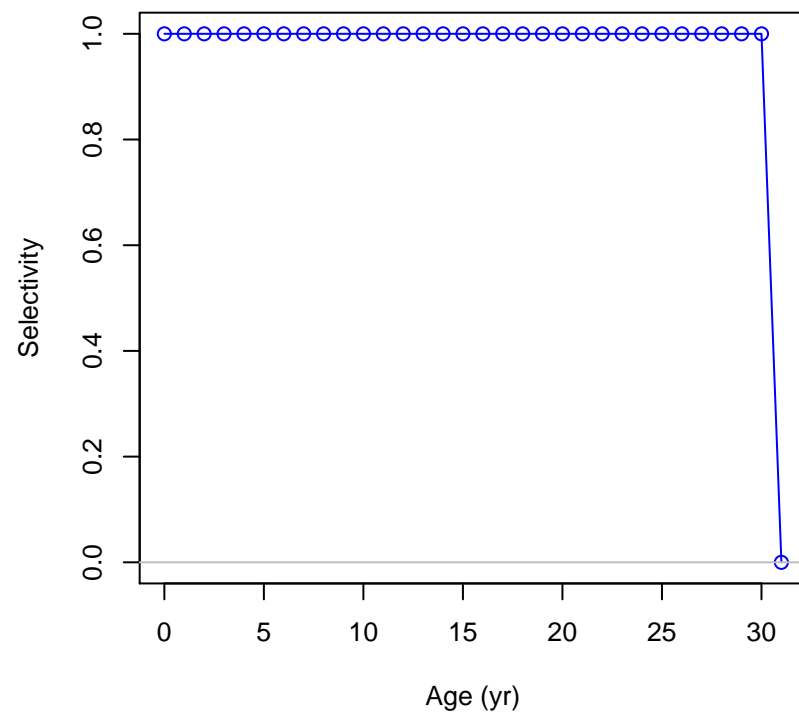
**Female ending year selectivity for F4\_US\_DGN**



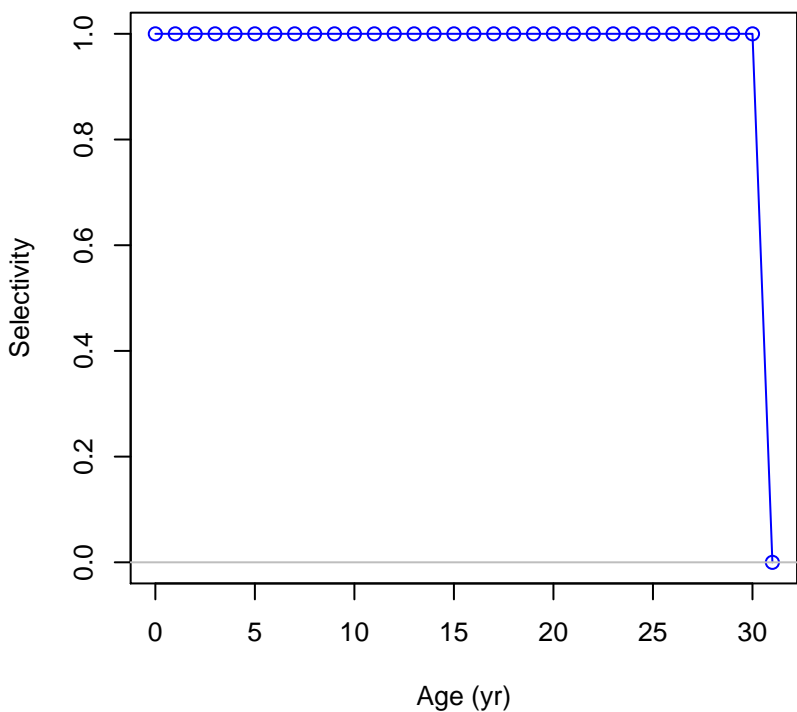
**Male ending year selectivity for F3\_US\_HI\_DS**



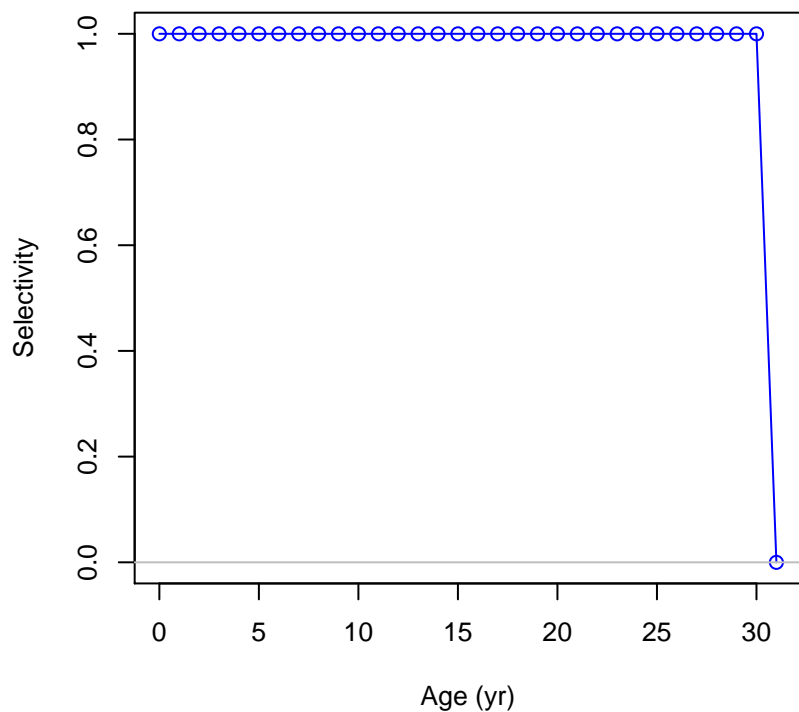
**Male ending year selectivity for F4\_US\_DGN**



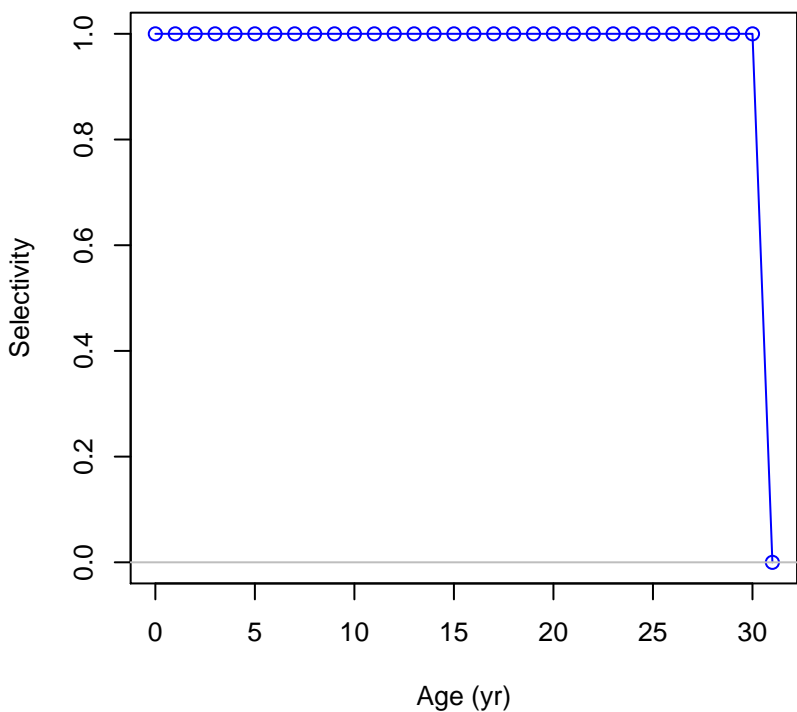
Female ending year selectivity for F5\_US\_REC



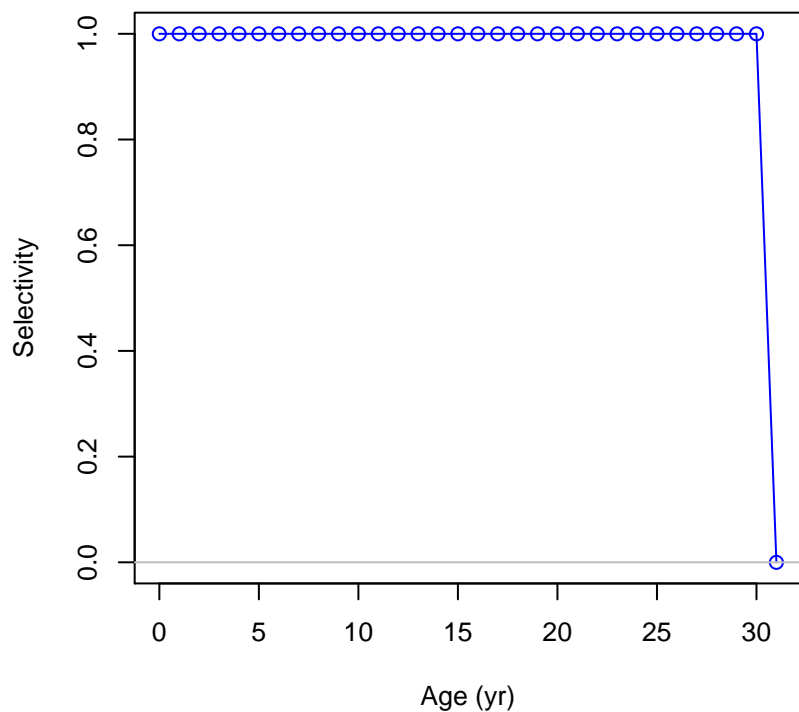
Female ending year selectivity for F6\_TW\_LRG\_N



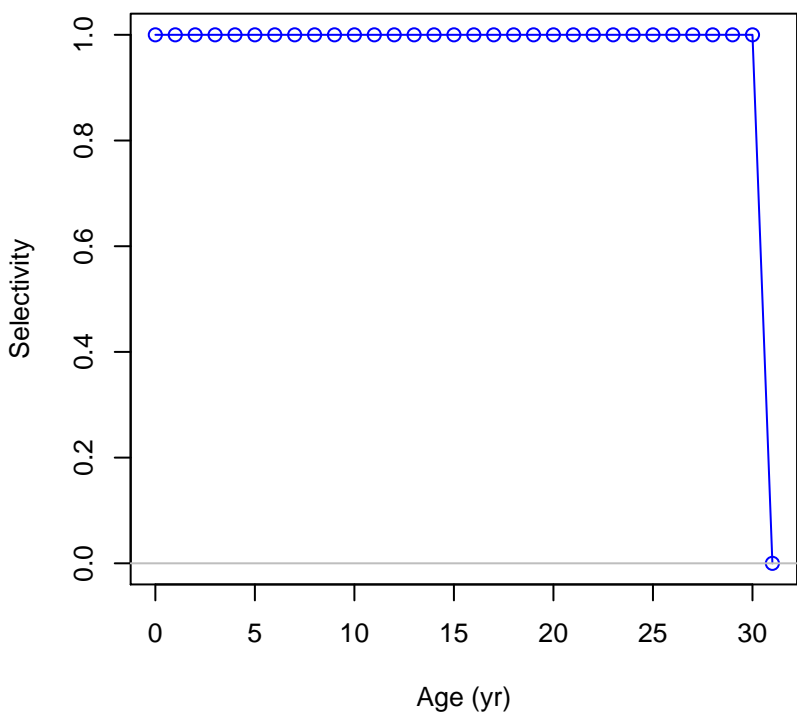
Male ending year selectivity for F5\_US\_REC



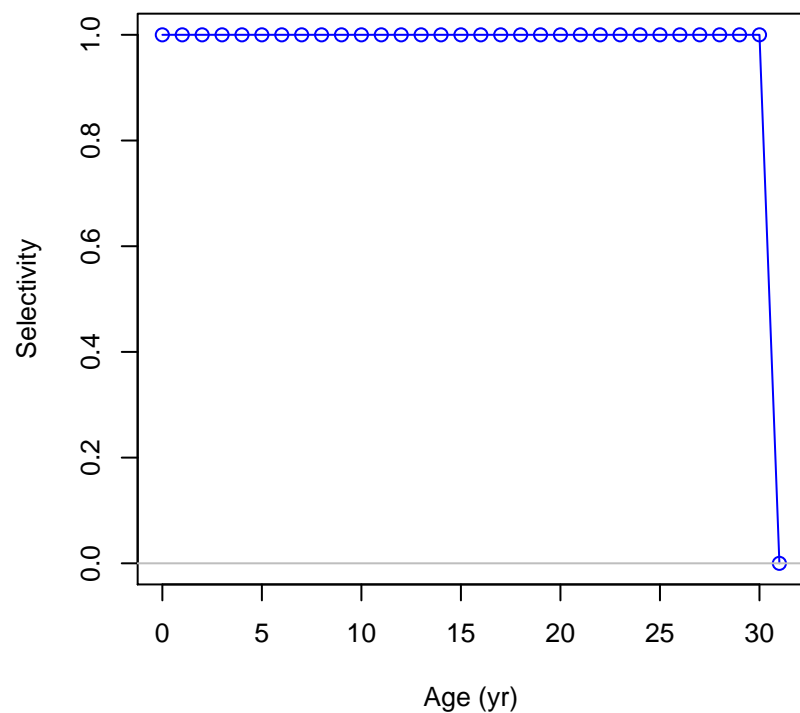
Male ending year selectivity for F6\_TW\_LRG\_N



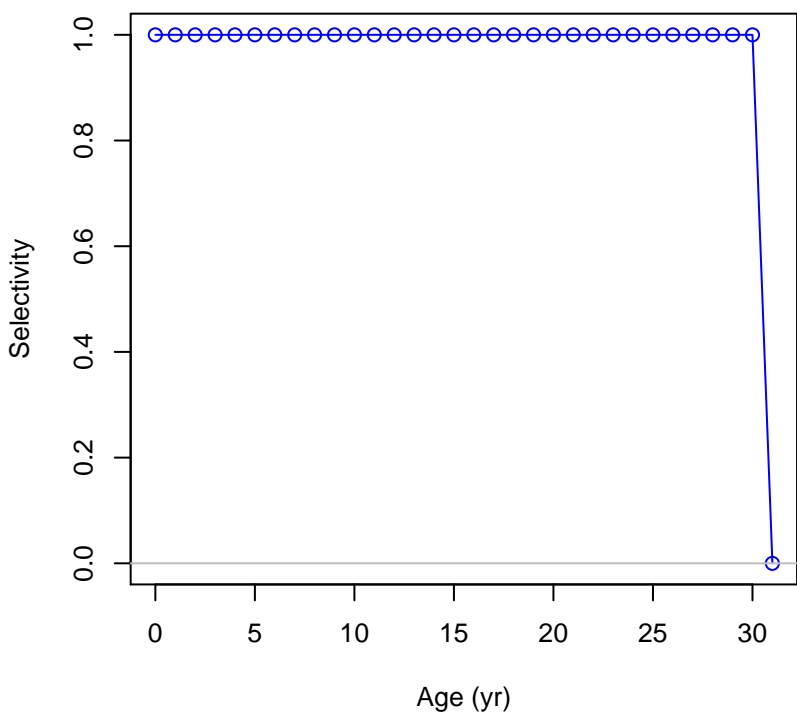
**Female ending year selectivity for F7\_TW\_LRG\_S**



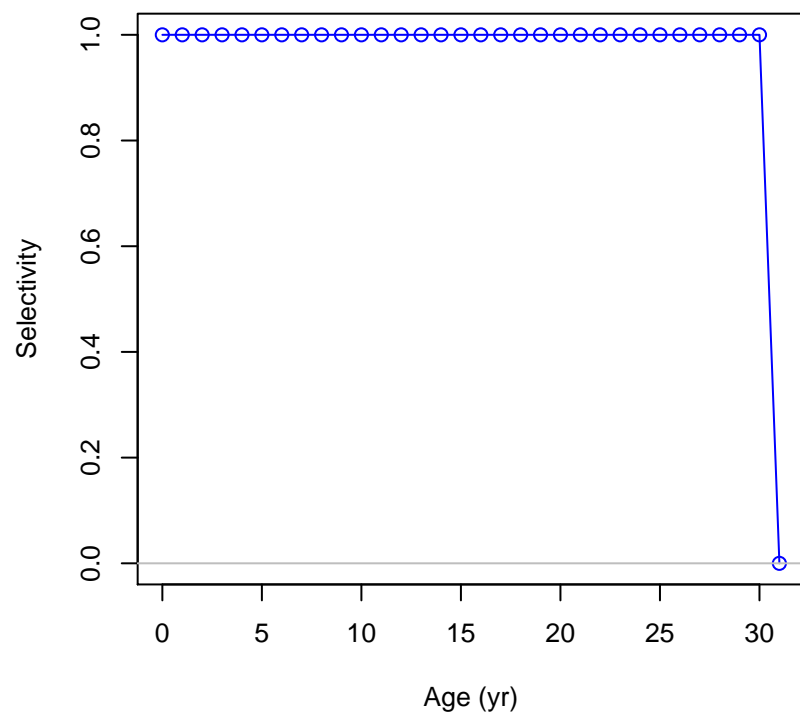
**Female ending year selectivity for F8\_TW\_SML**



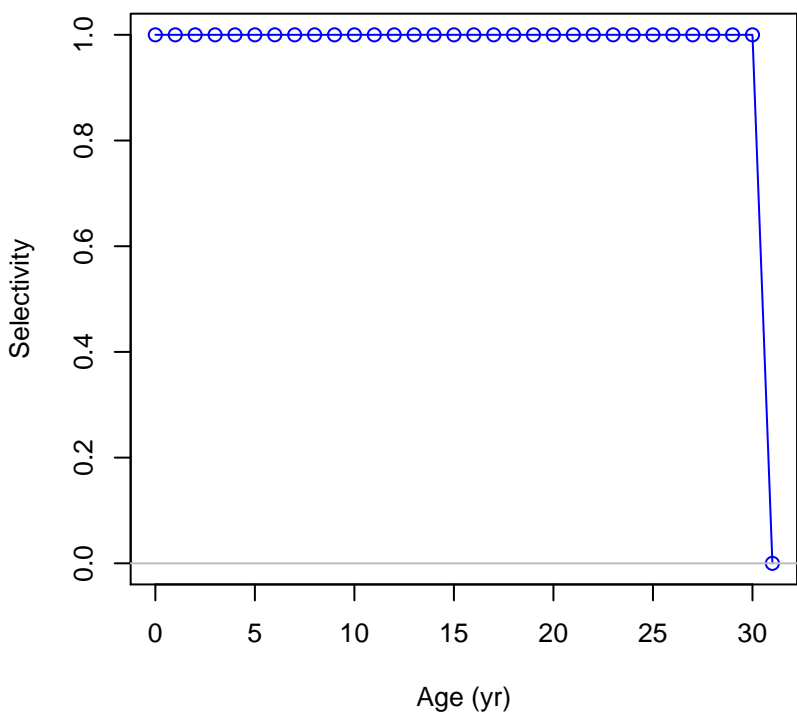
**Male ending year selectivity for F7\_TW\_LRG\_S**



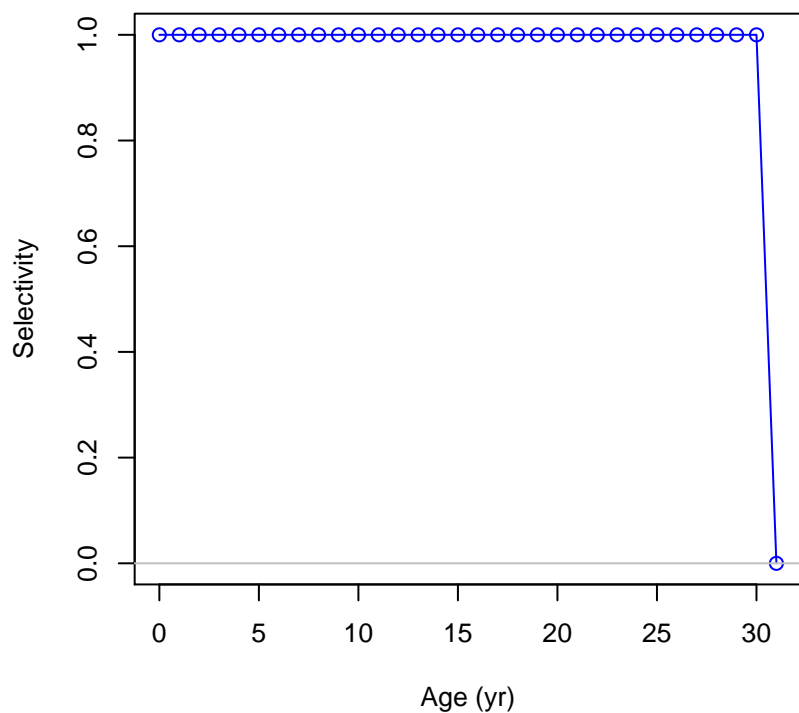
**Male ending year selectivity for F8\_TW\_SML**



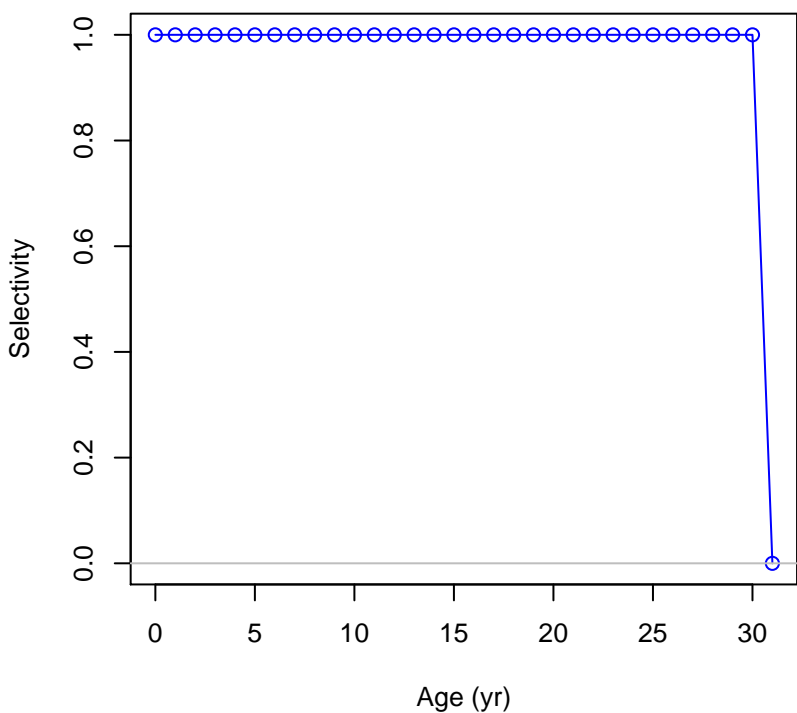
**Female ending year selectivity for F9\_JPN\_SS**



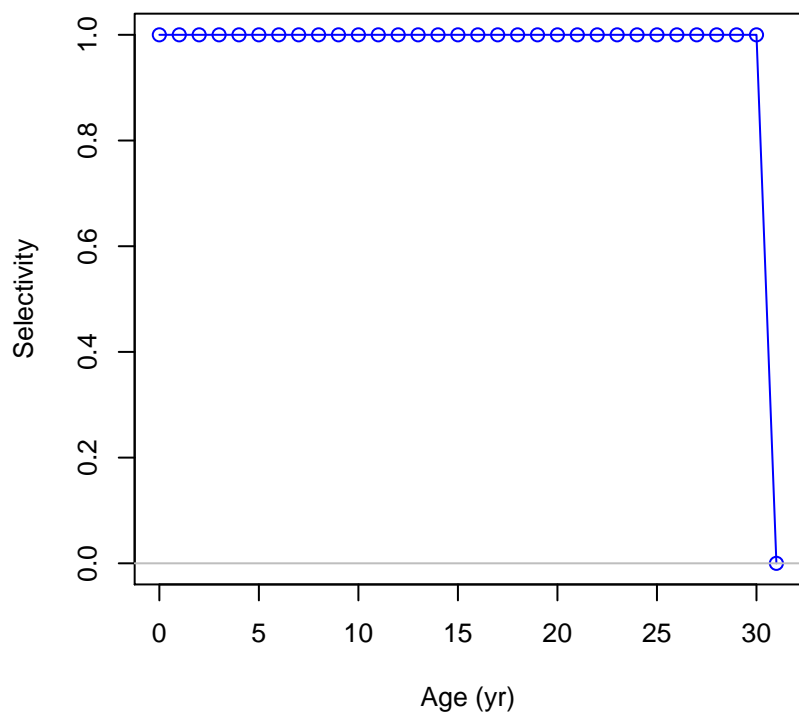
**Female ending year selectivity for F10\_JPN\_DS**



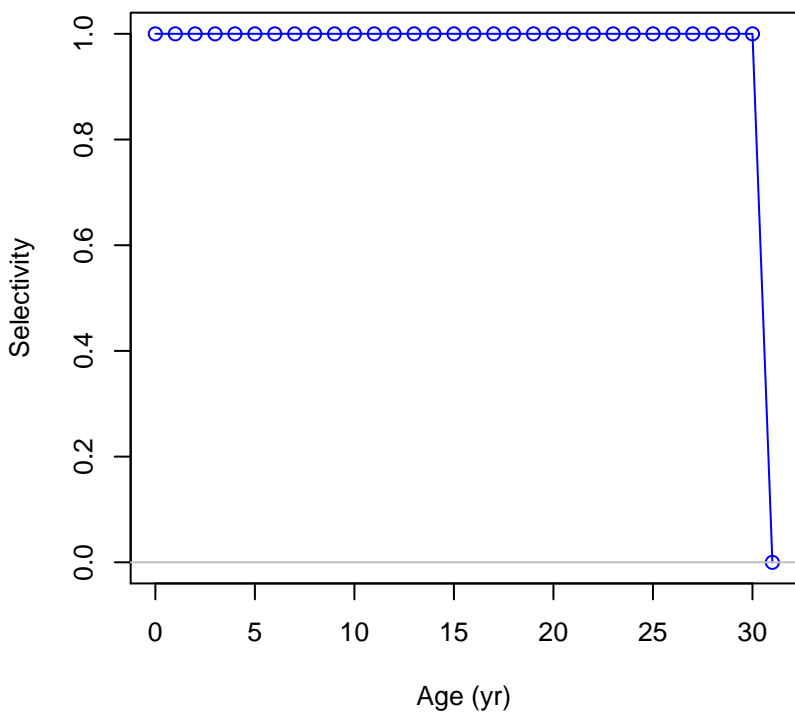
**Male ending year selectivity for F9\_JPN\_SS**



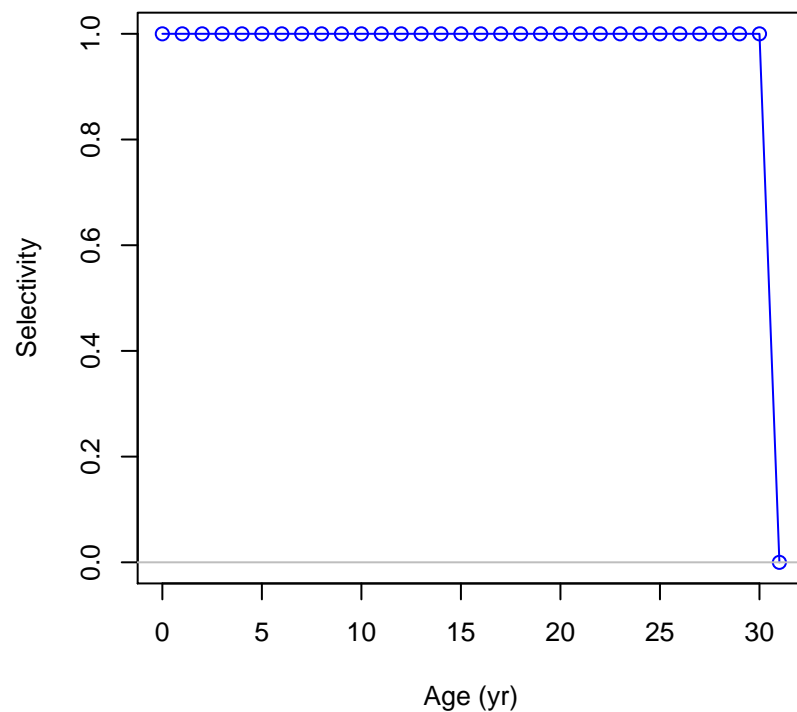
**Male ending year selectivity for F10\_JPN\_DS**



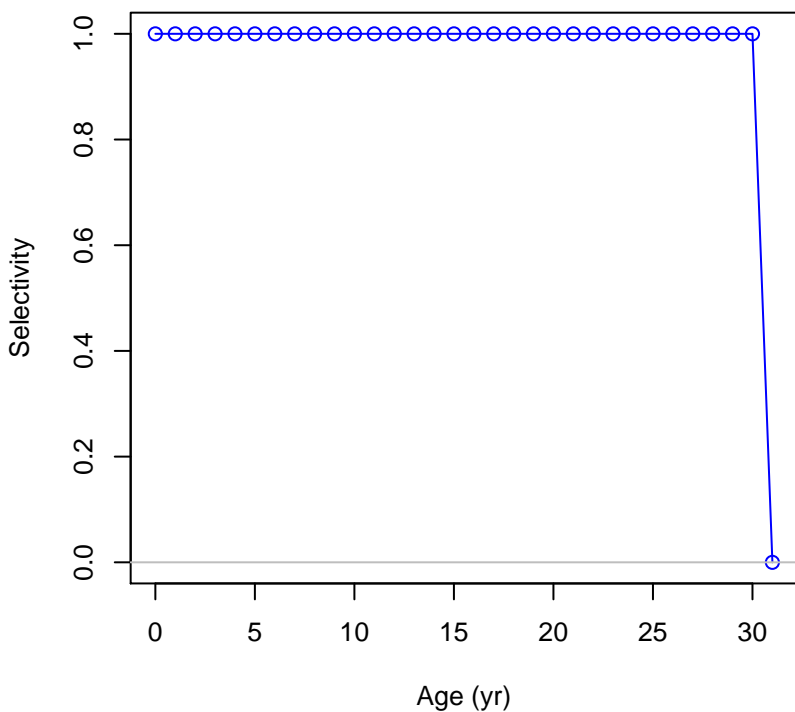
**Female ending year selectivity for F11\_JPN\_CST**



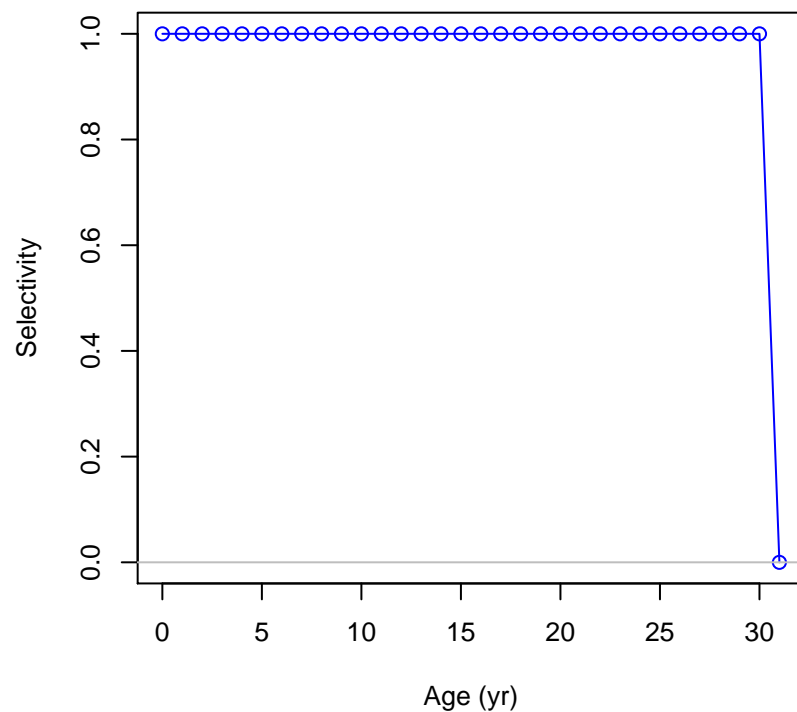
**Female ending year selectivity for F12\_JPN\_DFN**



**Male ending year selectivity for F11\_JPN\_CST**

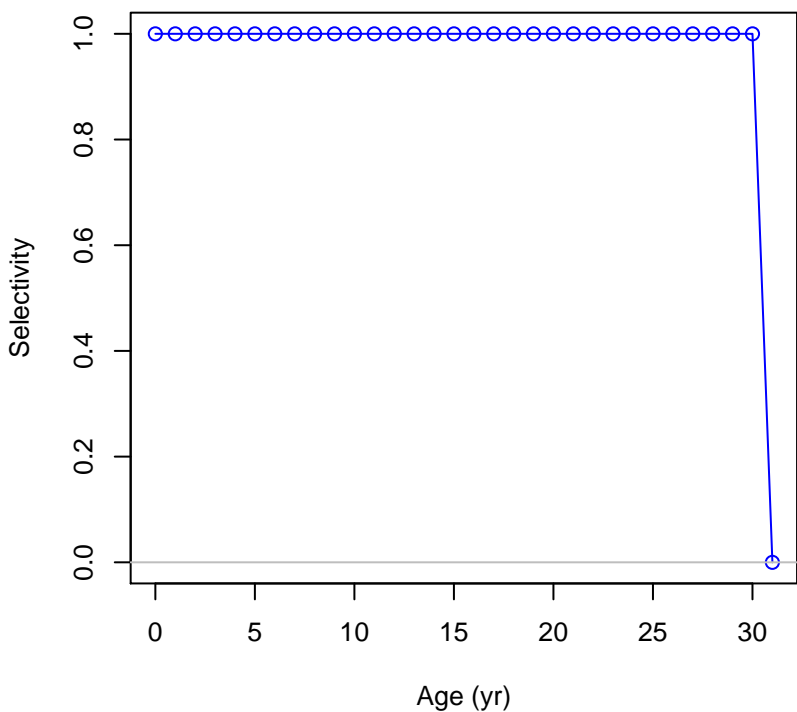


**Male ending year selectivity for F12\_JPN\_DFN**

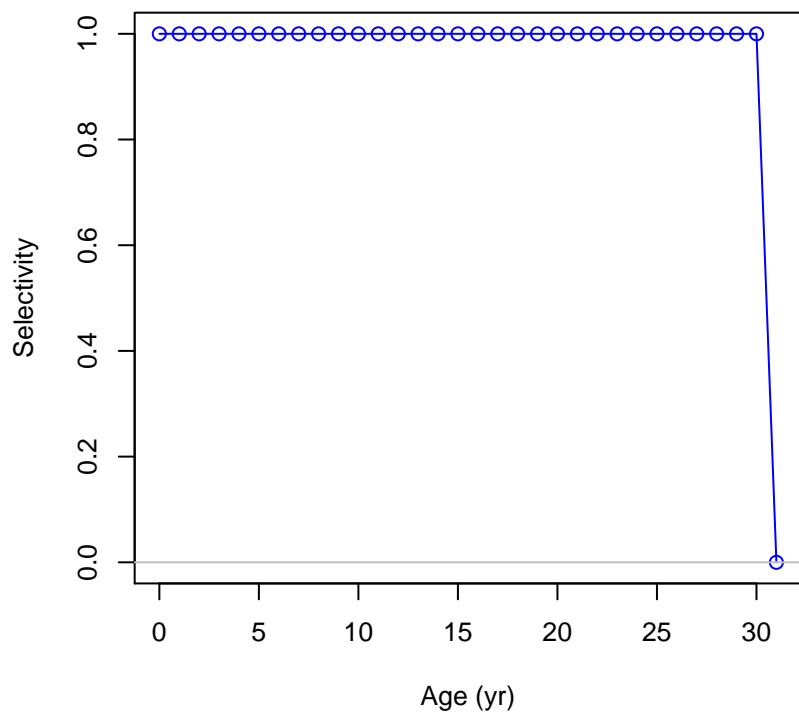




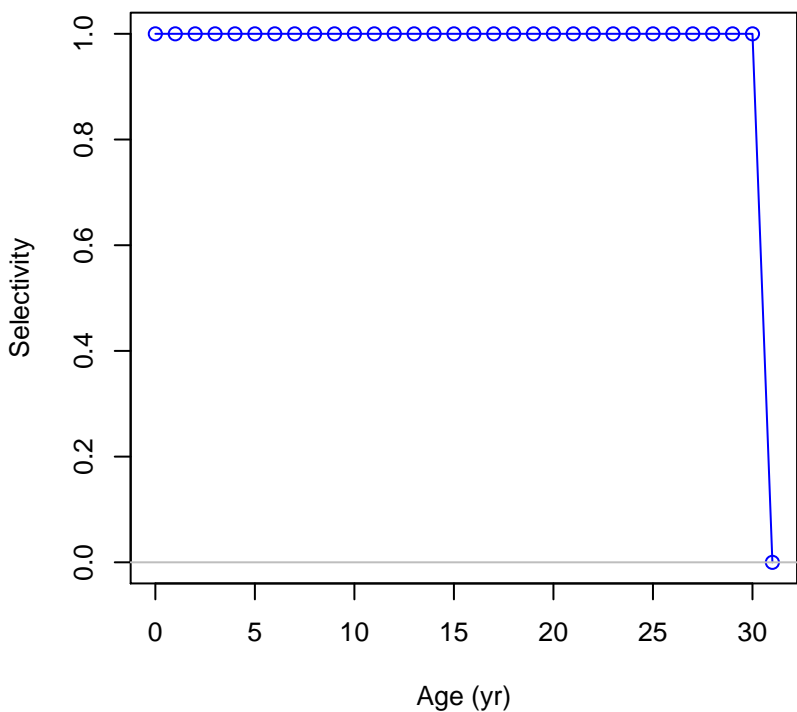
Female ending year selectivity for F13\_JPN\_OTH



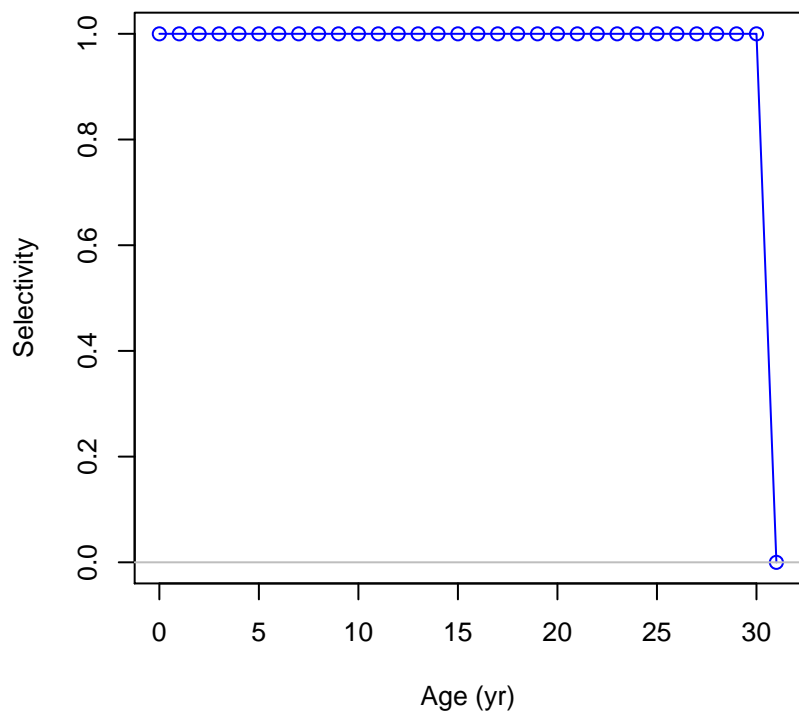
Female ending year selectivity for F14\_MEX\_NOR



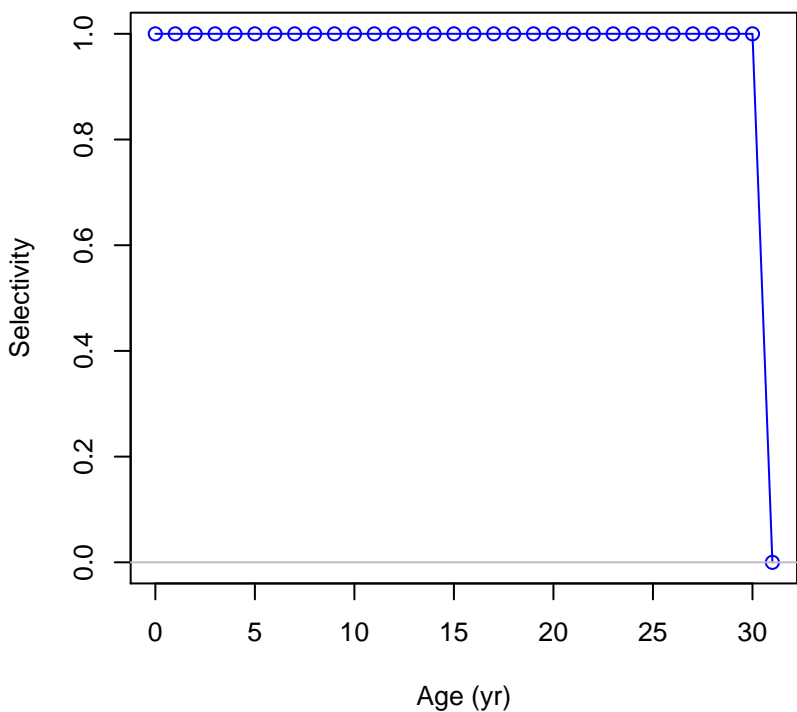
Male ending year selectivity for F13\_JPN\_OTH



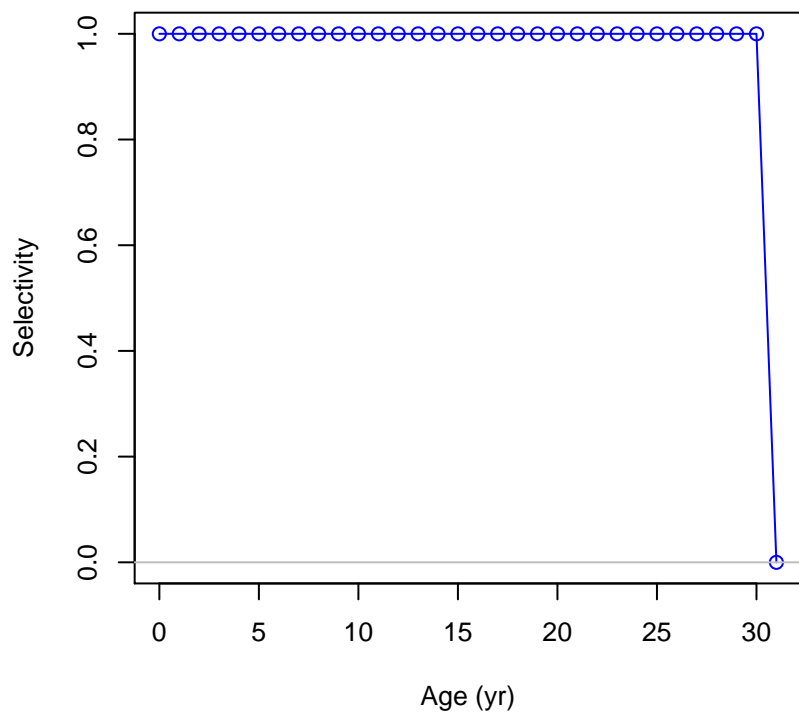
Male ending year selectivity for F14\_MEX\_NOR



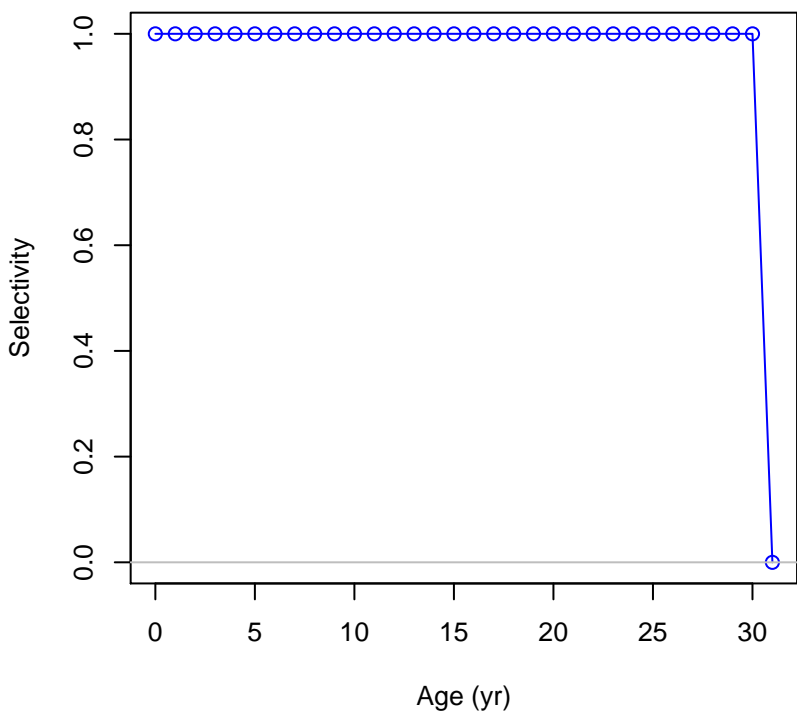
**Female ending year selectivity for F15\_MEX\_SOU**



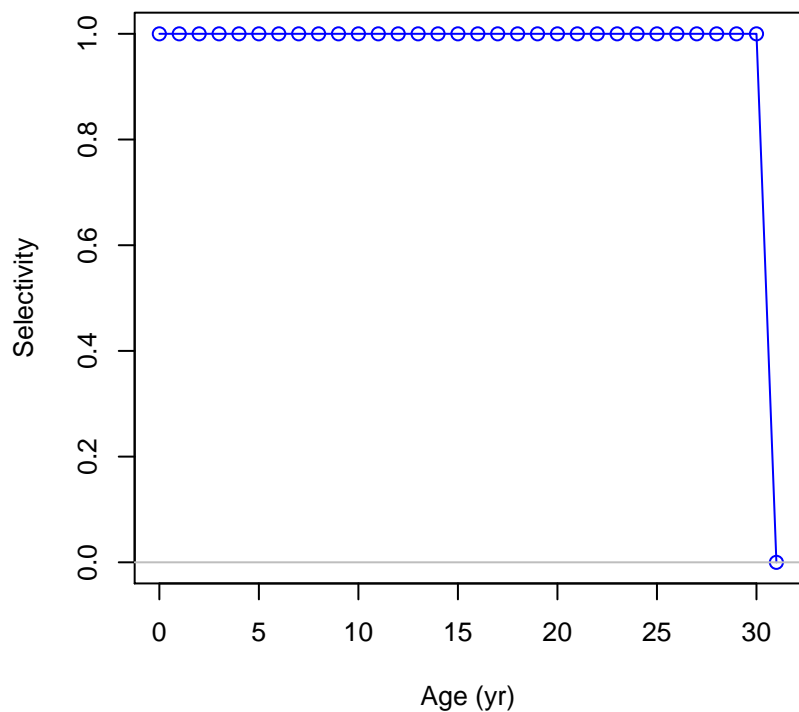
**Female ending year selectivity for F16\_WCPFC**



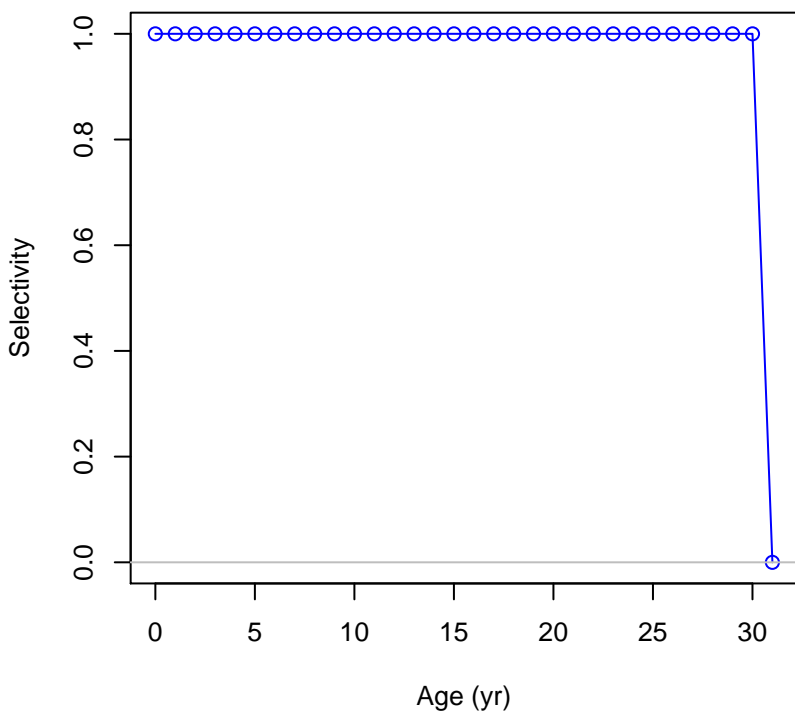
**Male ending year selectivity for F15\_MEX\_SOU**



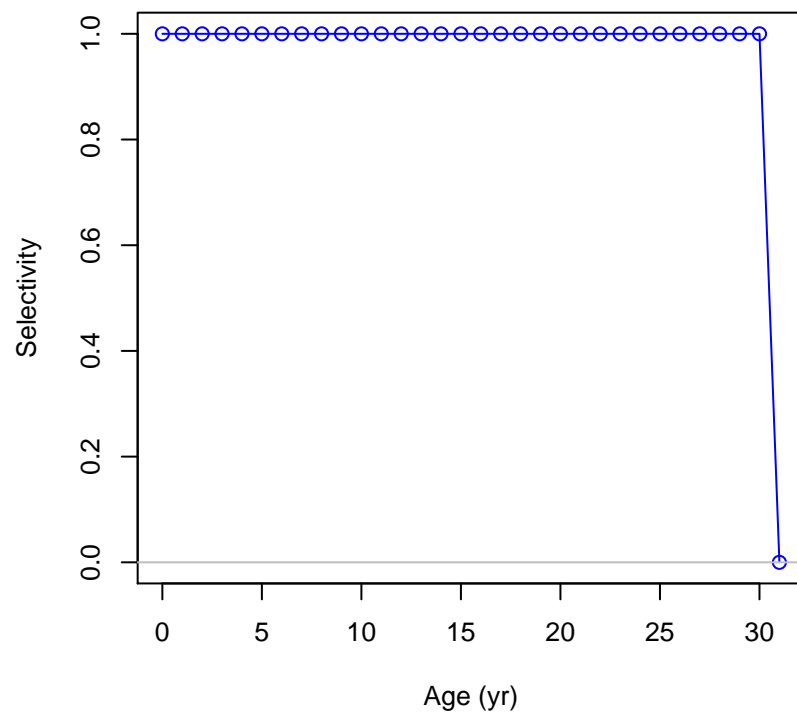
**Male ending year selectivity for F16\_WCPFC**



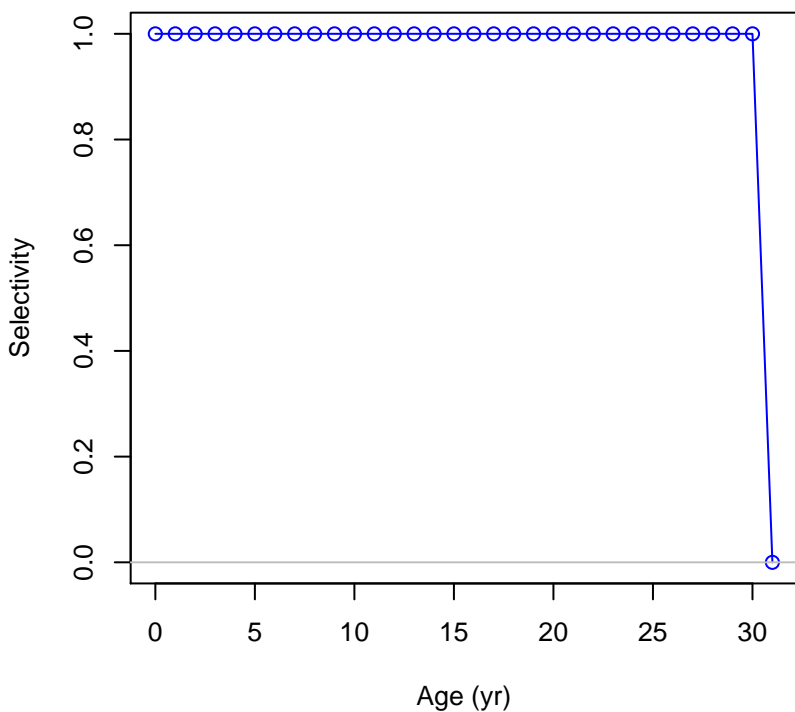
**Female ending year selectivity for F17\_IATTC**



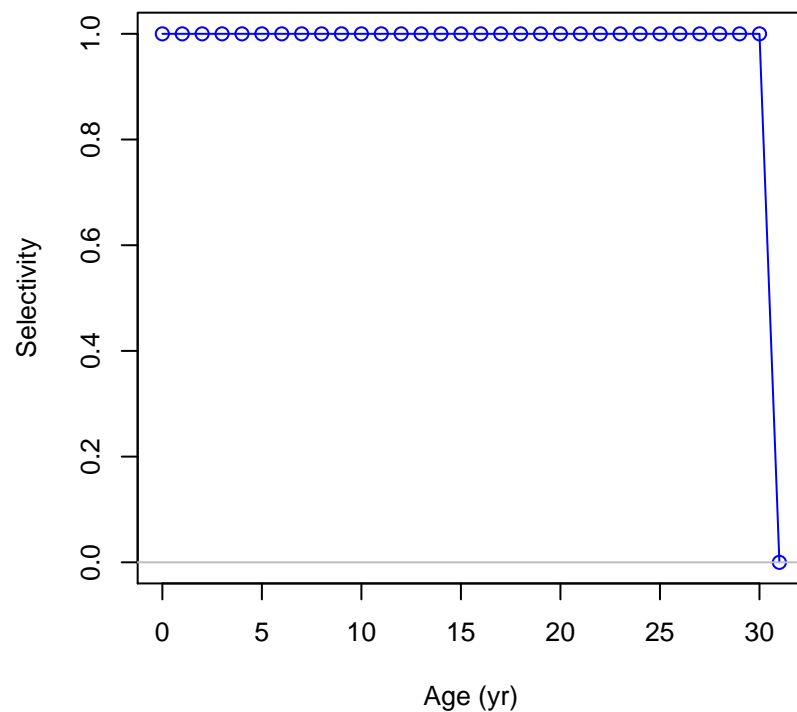
**Female ending year selectivity for F18\_JPN\_SSII**



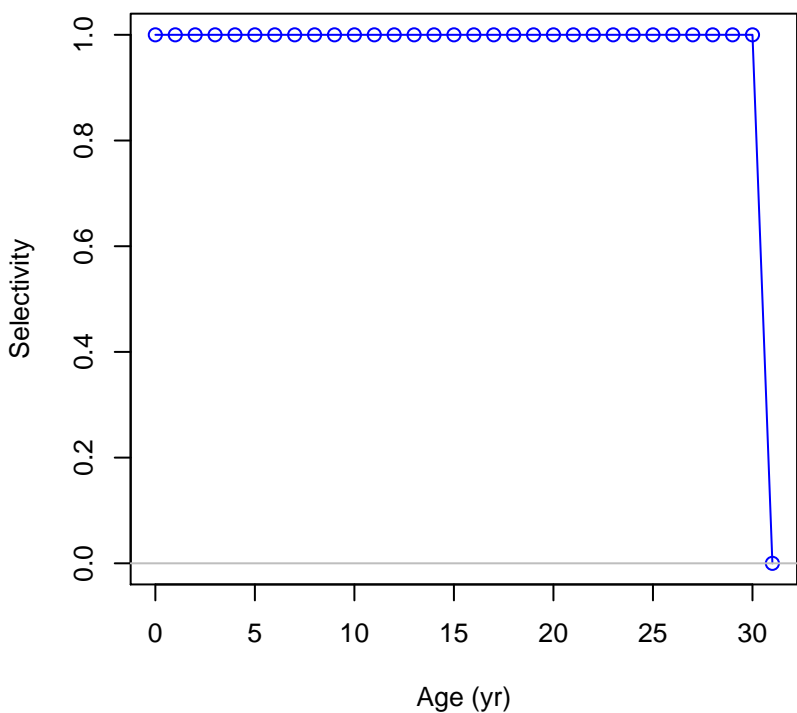
**Male ending year selectivity for F17\_IATTC**



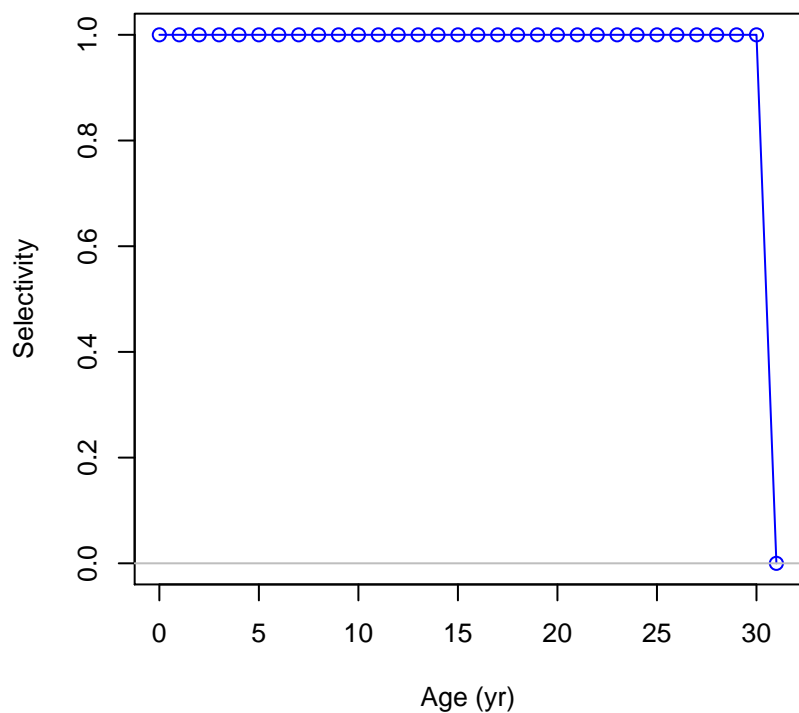
**Male ending year selectivity for F18\_JPN\_SSII**



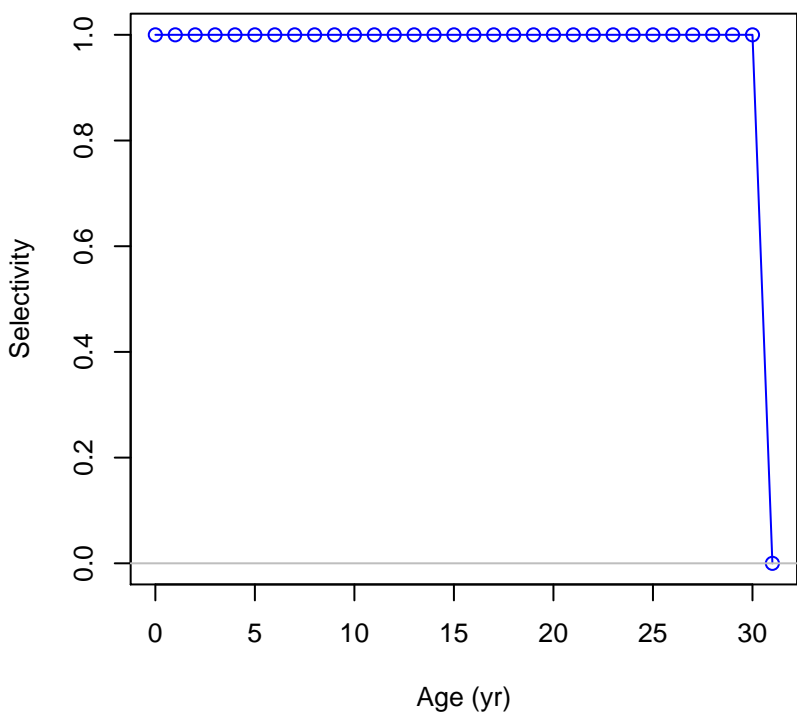
**Female ending year selectivity for S1\_US\_SS**



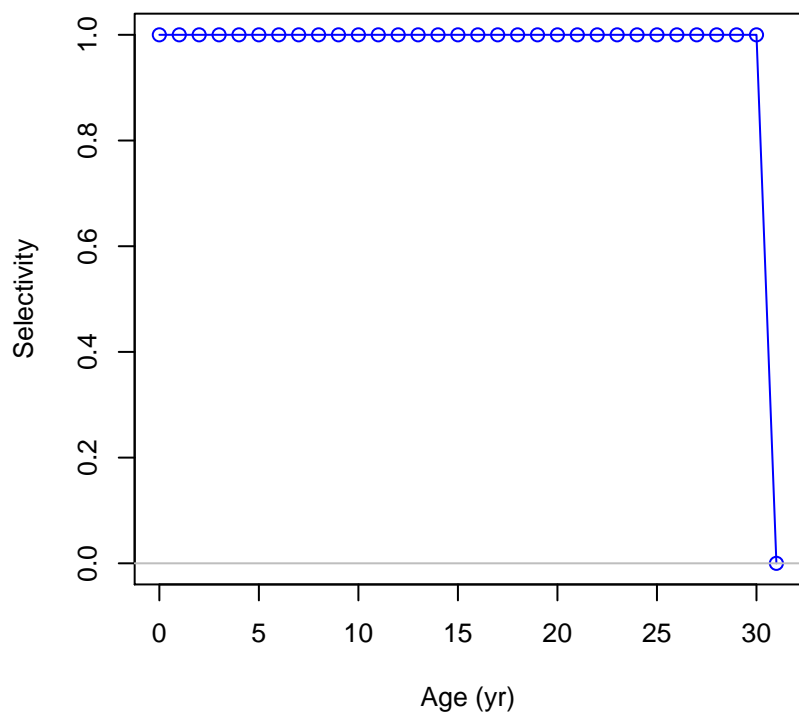
**Female ending year selectivity for S2\_US\_DS**



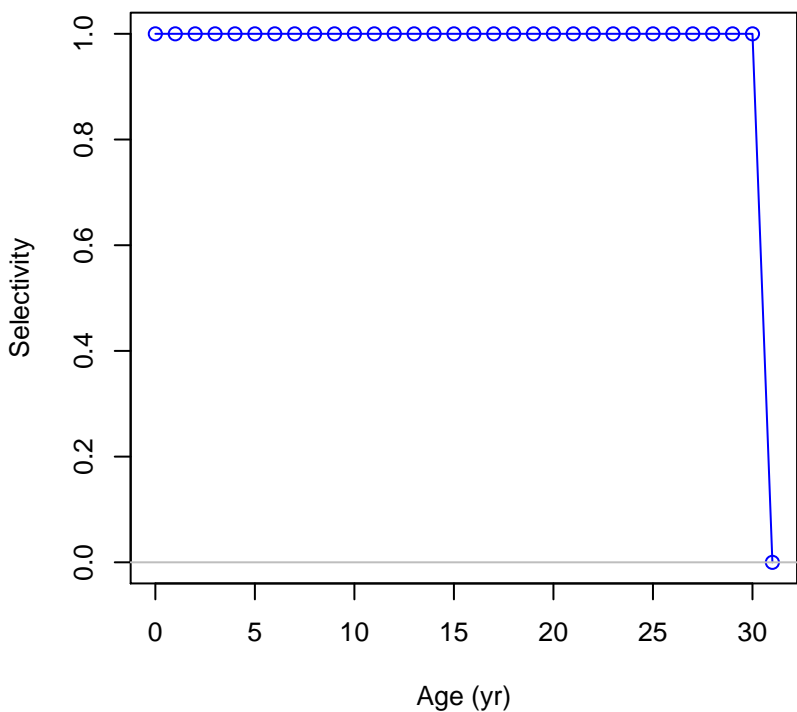
**Male ending year selectivity for S1\_US\_SS**



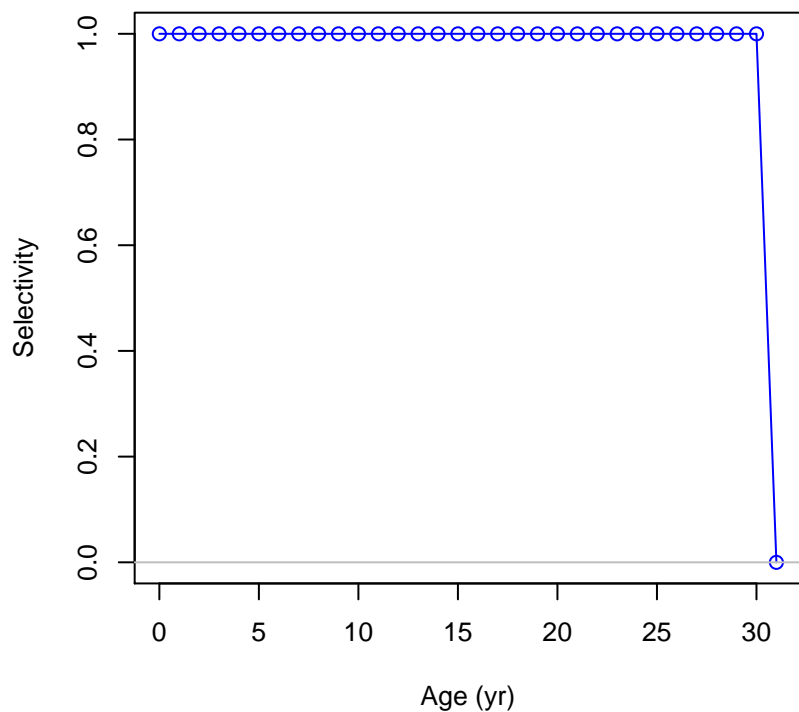
**Male ending year selectivity for S2\_US\_DS**



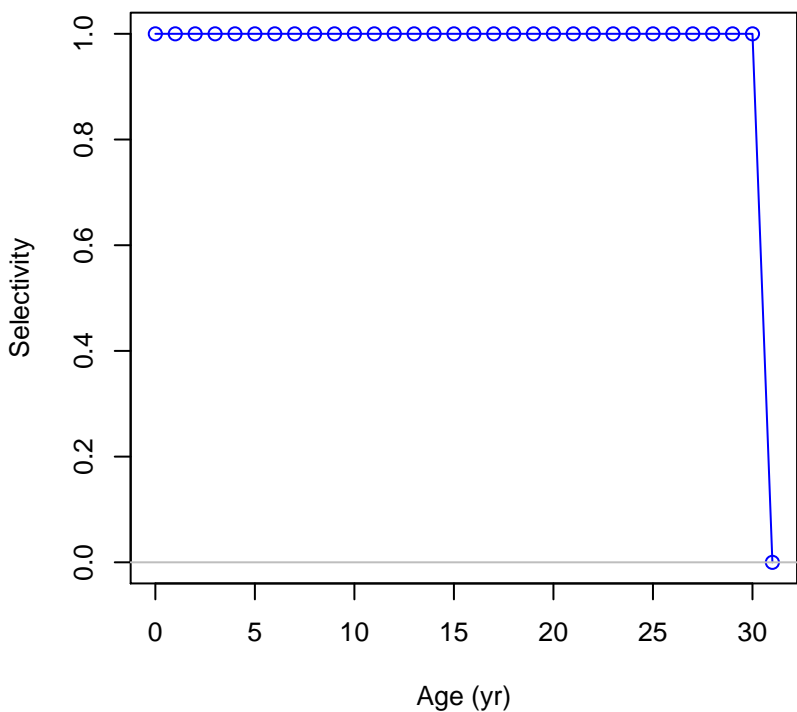
**Female ending year selectivity for S3\_TW\_LRG**



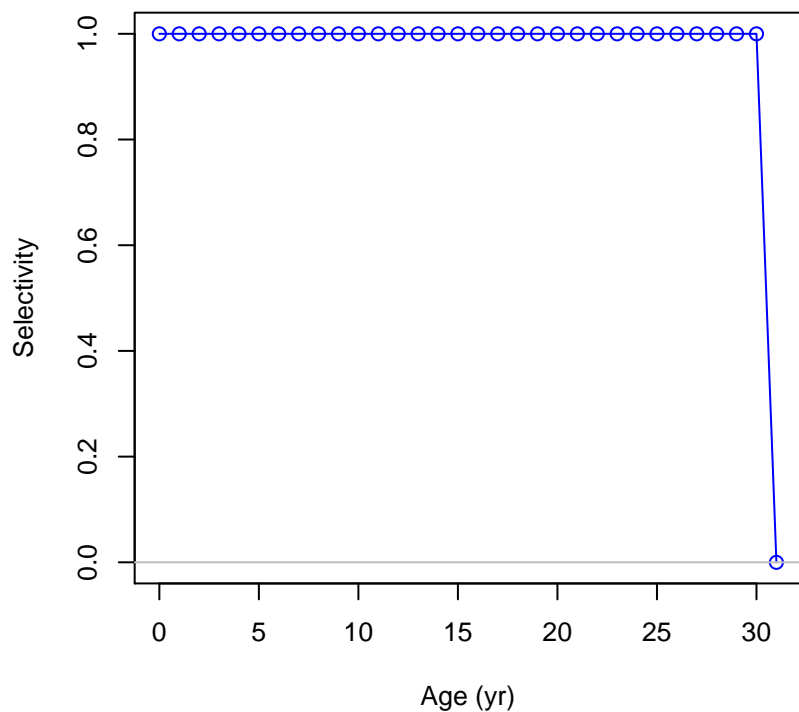
**Female ending year selectivity for S4\_JPN\_SS**



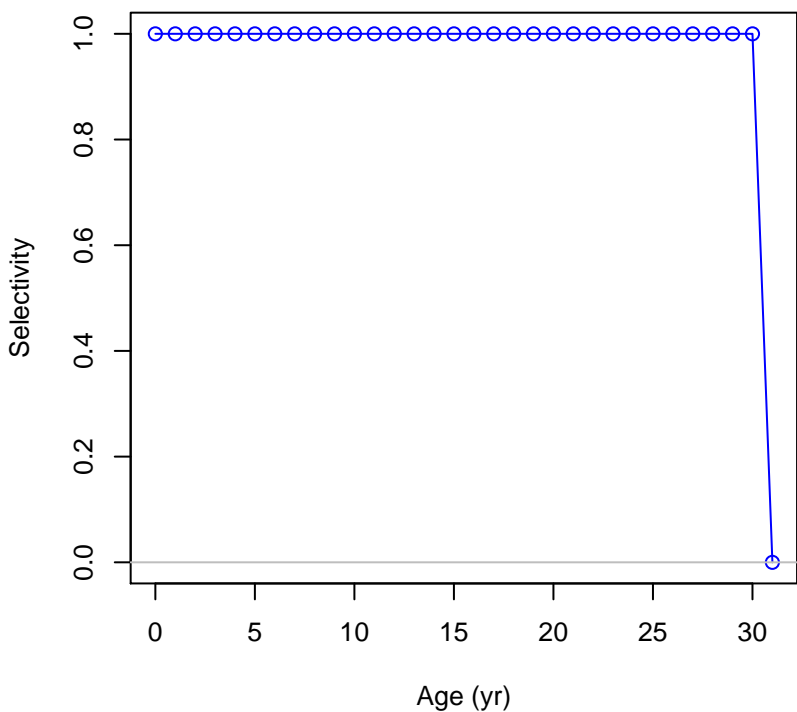
**Male ending year selectivity for S3\_TW\_LRG**



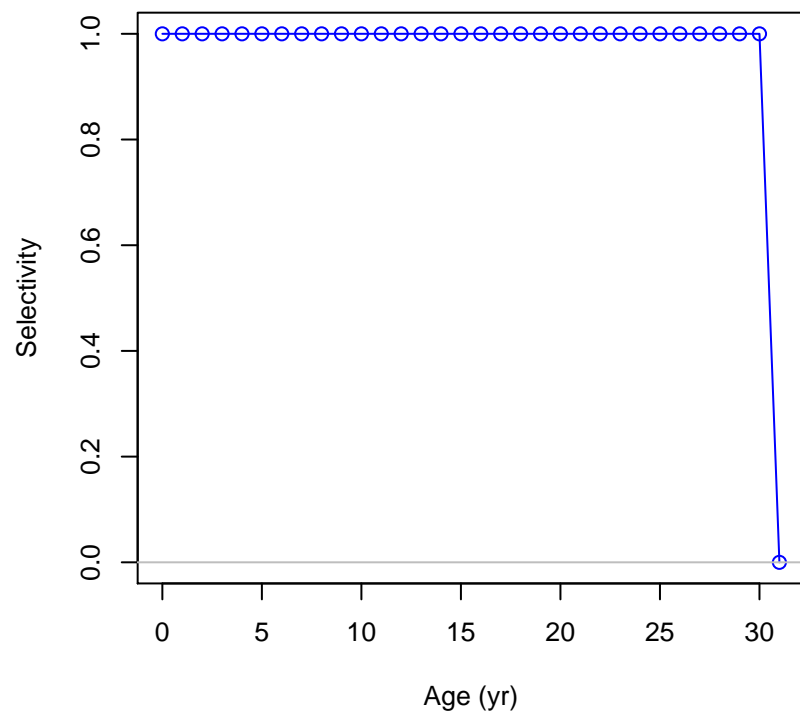
**Male ending year selectivity for S4\_JPN\_SS**



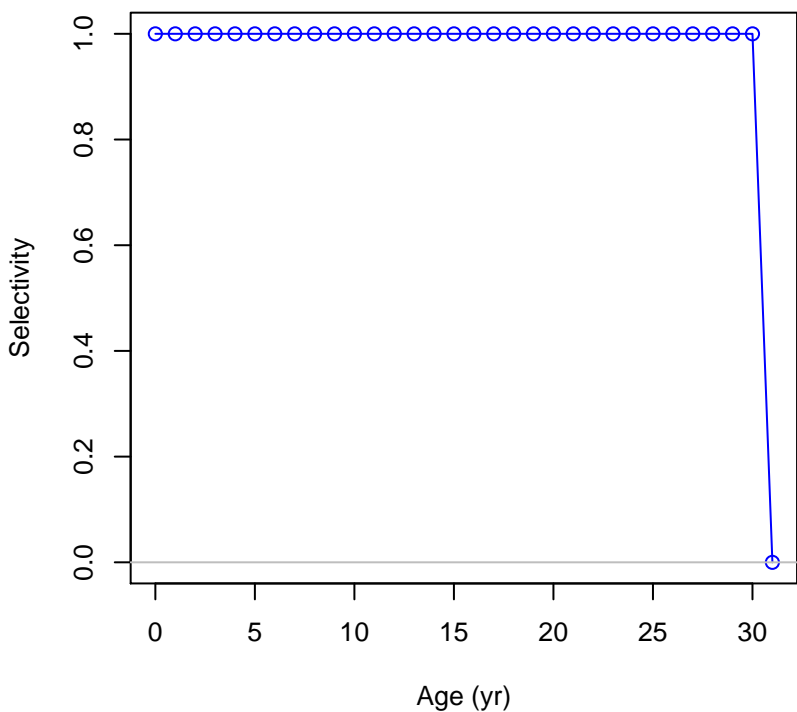
**Female ending year selectivity for S5\_JPN\_RTV**



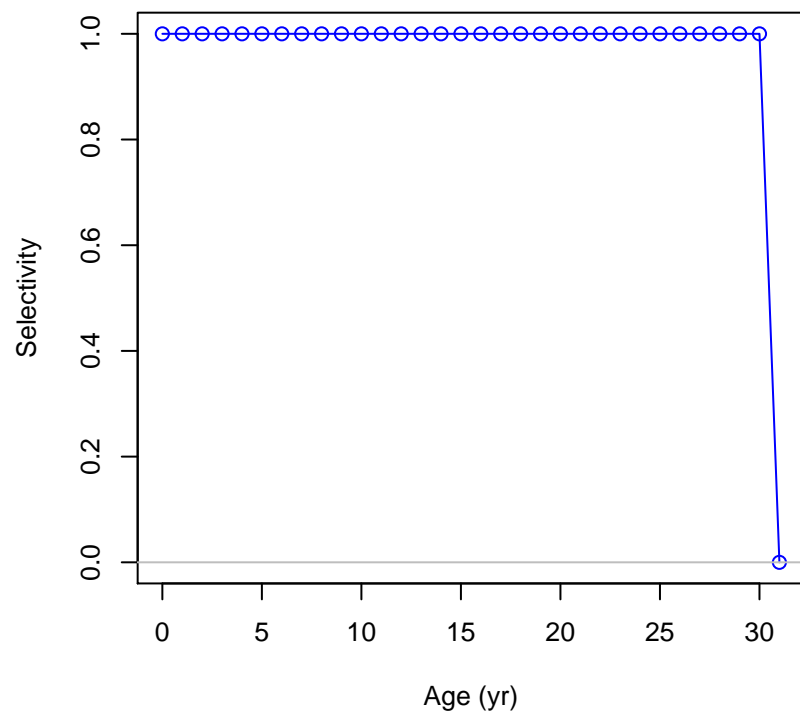
**Female ending year selectivity for S6\_JPN\_OBS**



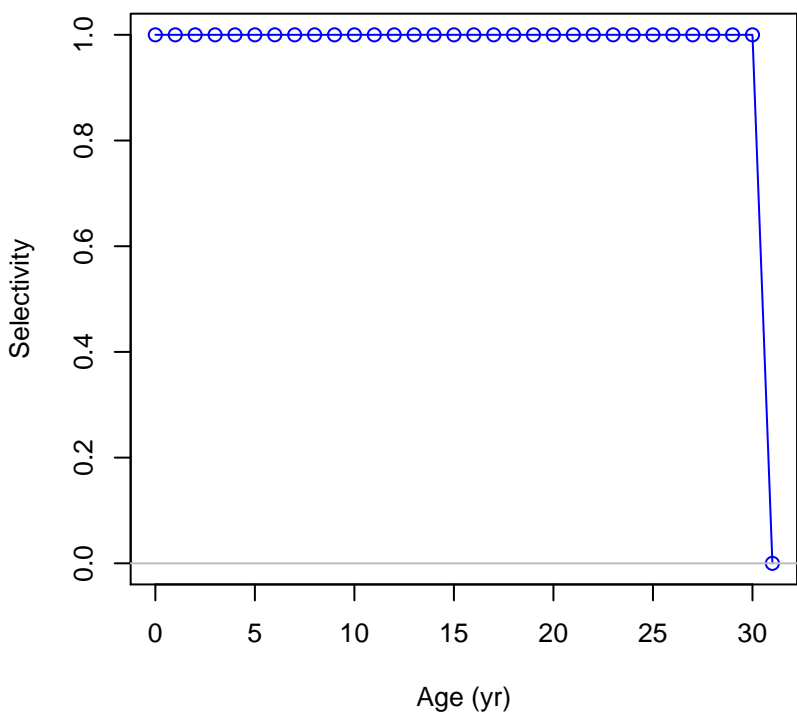
**Male ending year selectivity for S5\_JPN\_RTV**



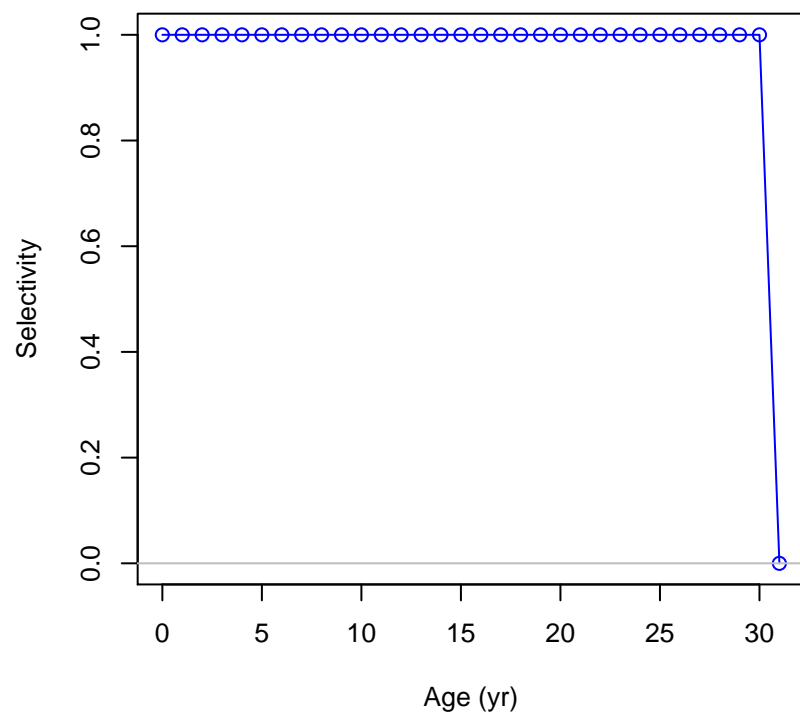
**Male ending year selectivity for S6\_JPN\_OBS**



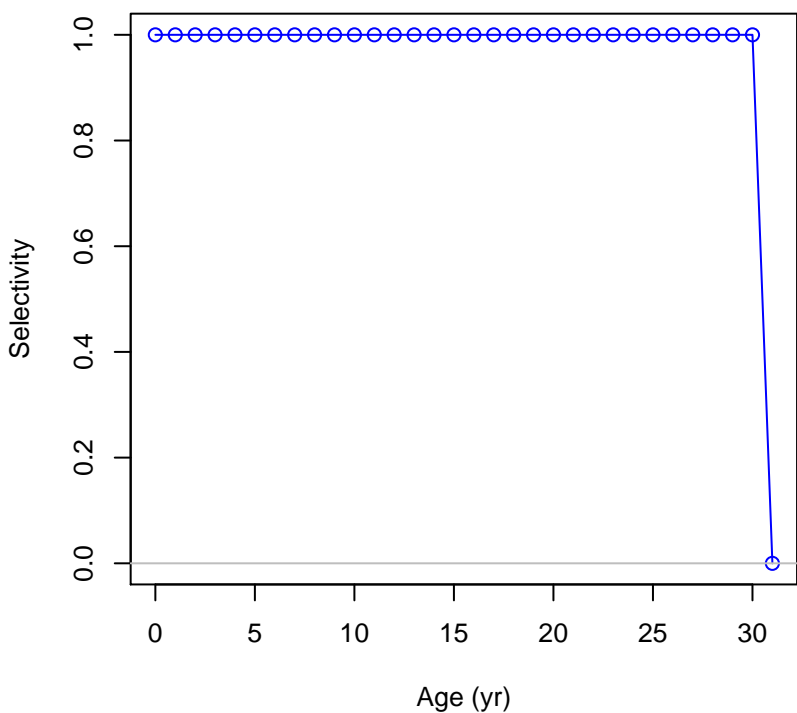
Female ending year selectivity for S7\_JPN\_GEO



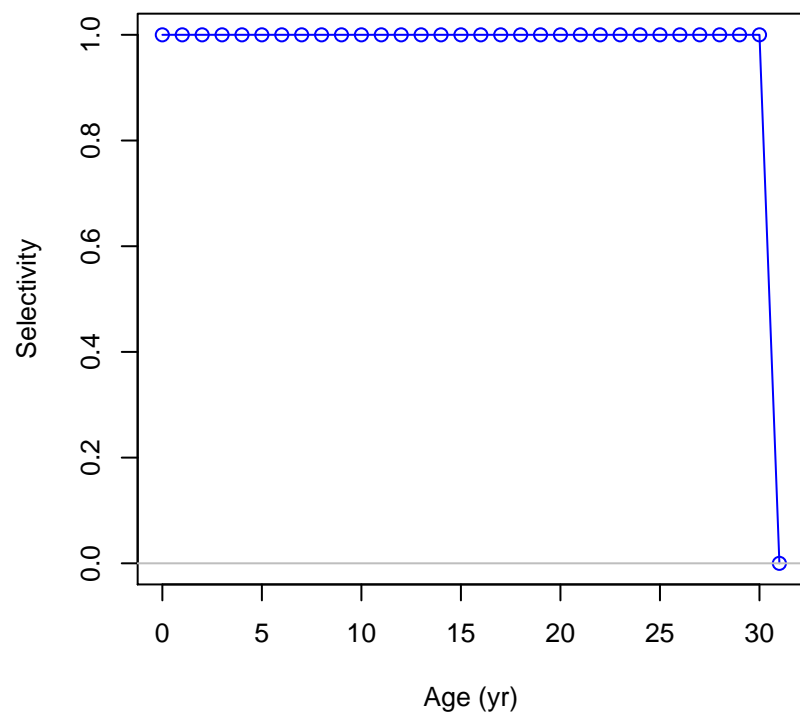
Female ending year selectivity for S8\_MEX



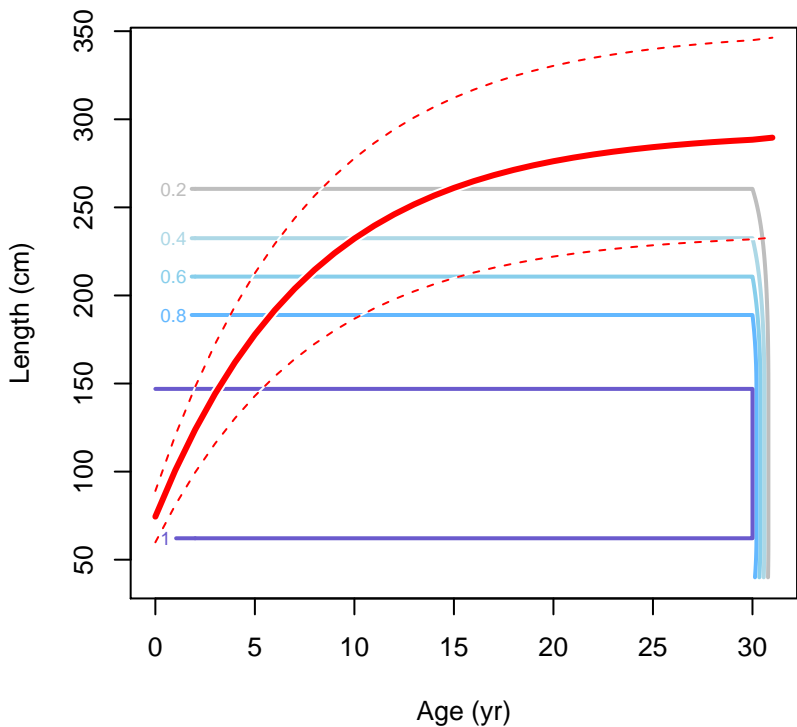
Male ending year selectivity for S7\_JPN\_GEO



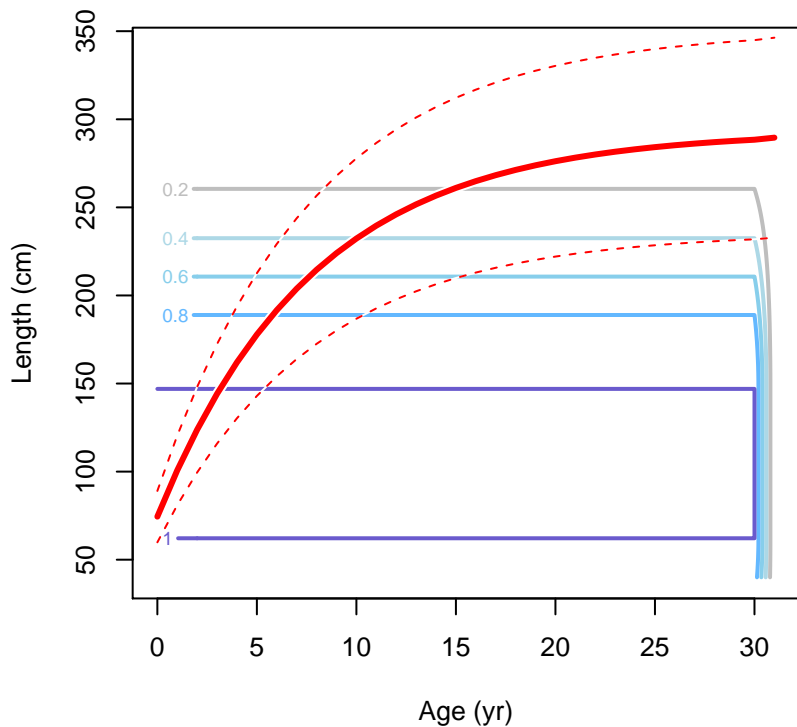
Male ending year selectivity for S8\_MEX



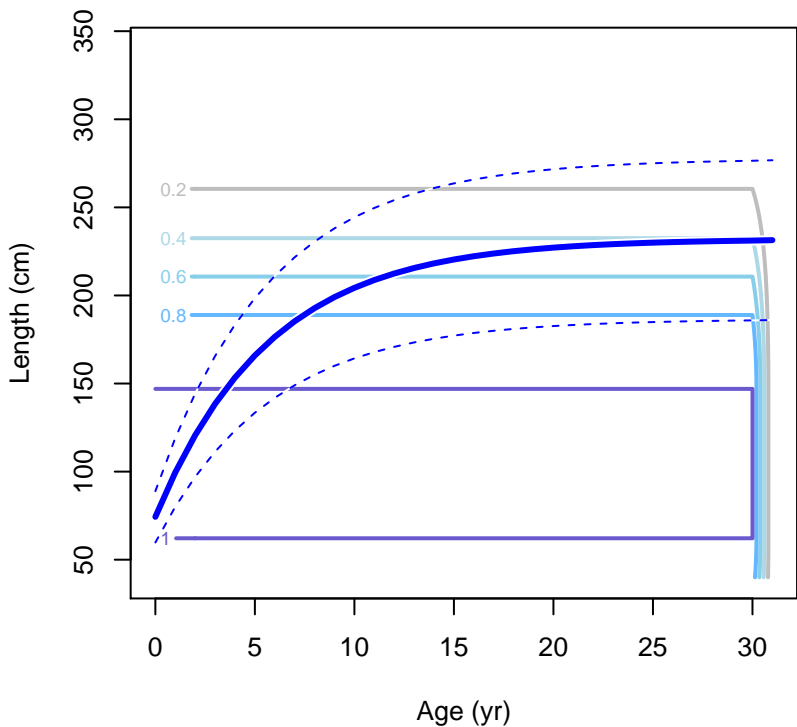
Female ending year selectivity and growth for F1\_US\_CA



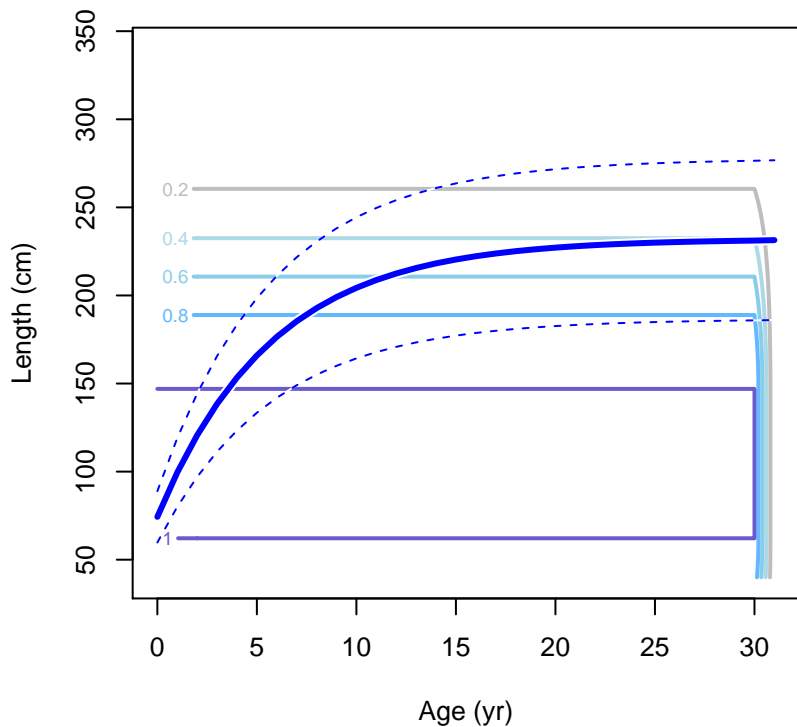
Female ending year selectivity and growth for F2\_US\_HI\_SS



Male ending year selectivity and growth for F1\_US\_CA

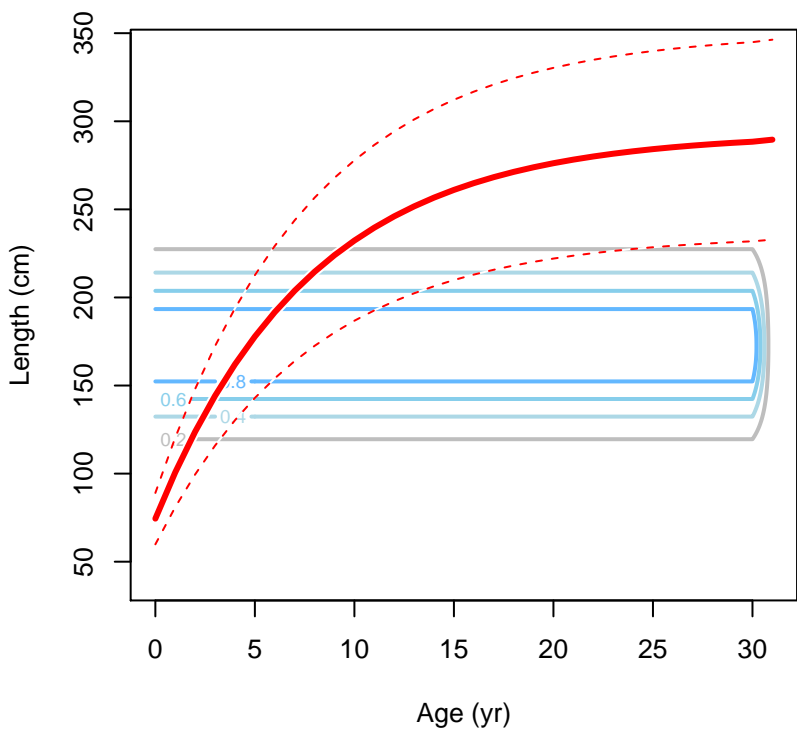


Male ending year selectivity and growth for F2\_US\_HI\_SS

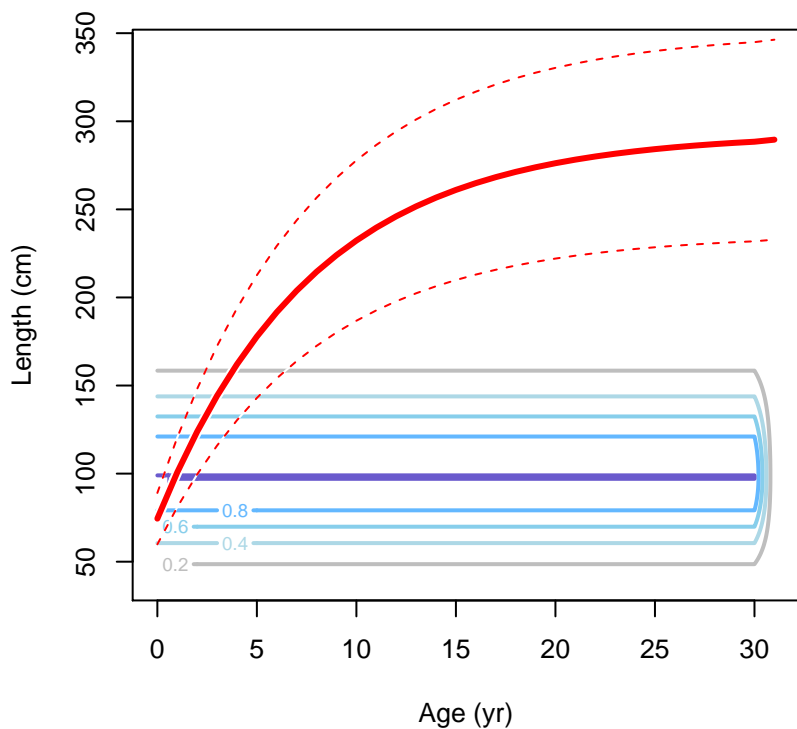




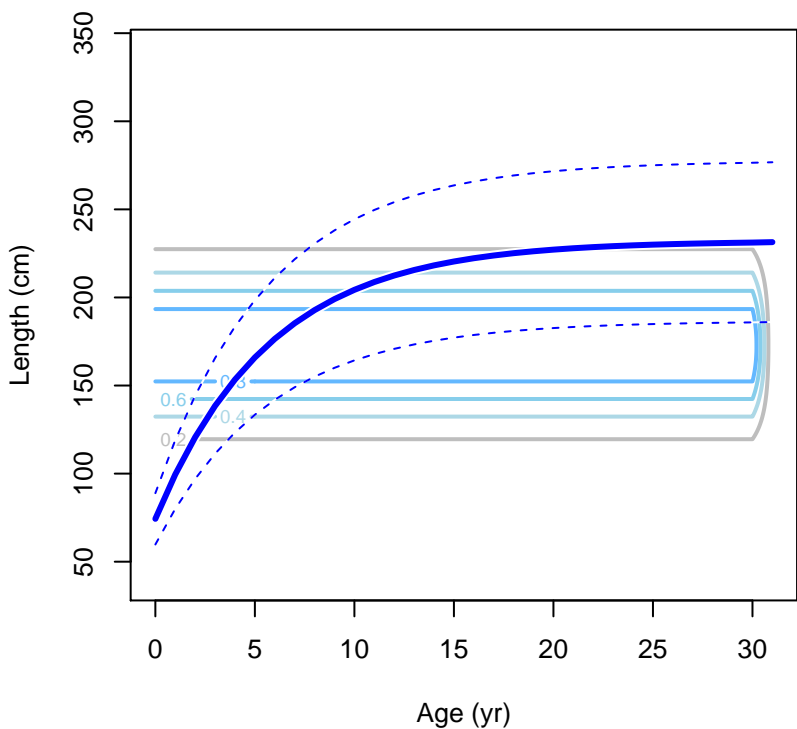
**Female ending year selectivity and growth for F3\_US\_HI\_DS**



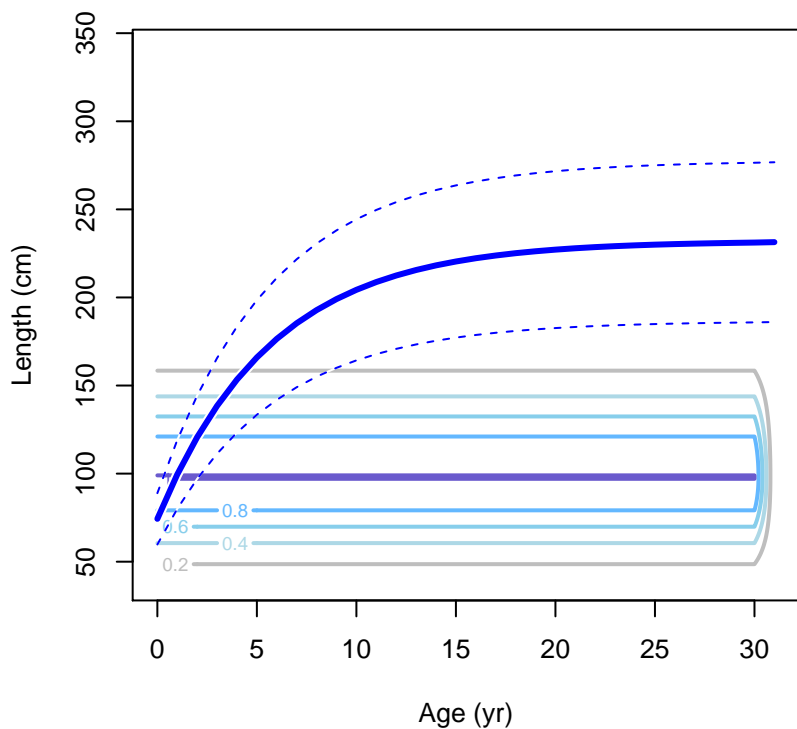
**Female ending year selectivity and growth for F4\_US\_DGN**



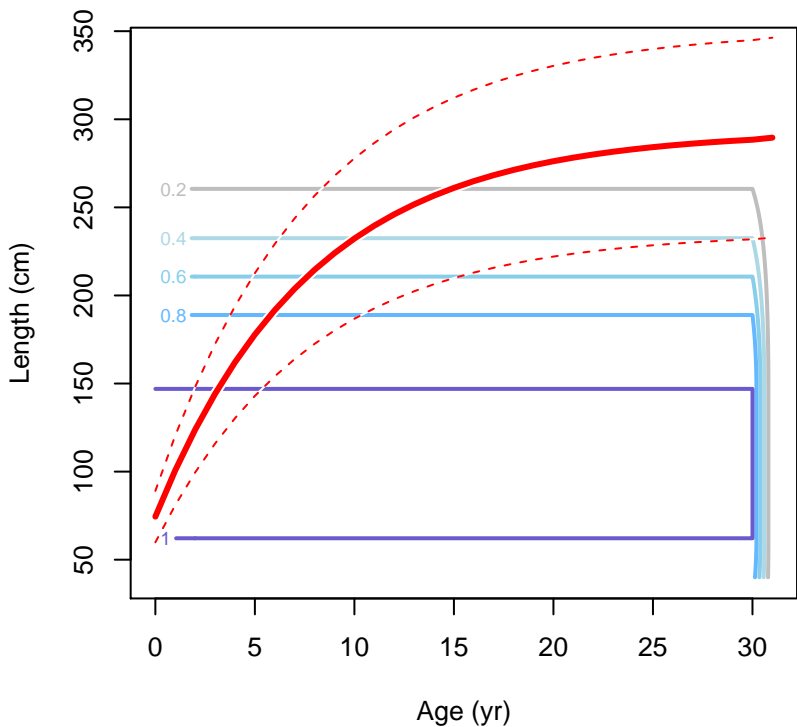
**Male ending year selectivity and growth for F3\_US\_HI\_DS**



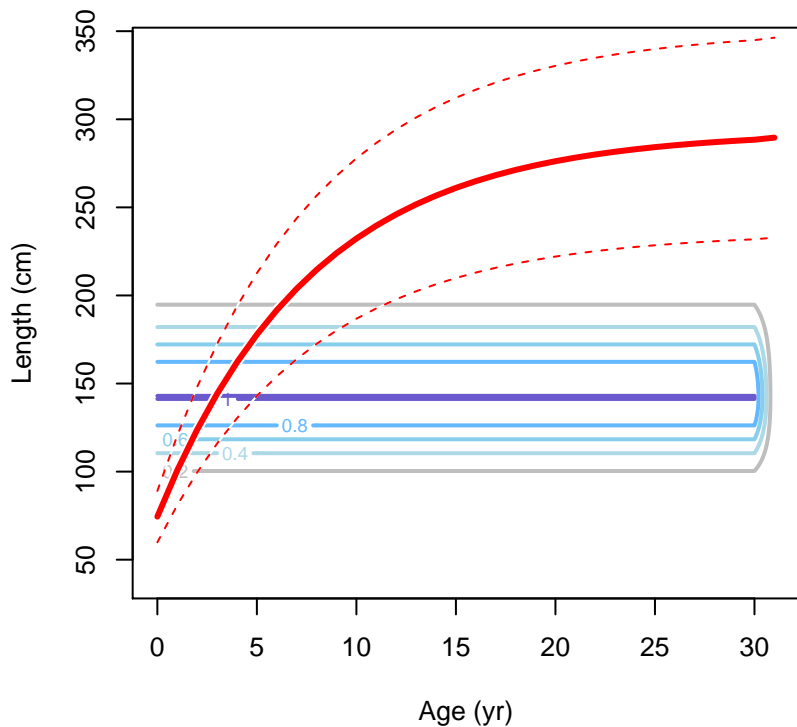
**Male ending year selectivity and growth for F4\_US\_DGN**



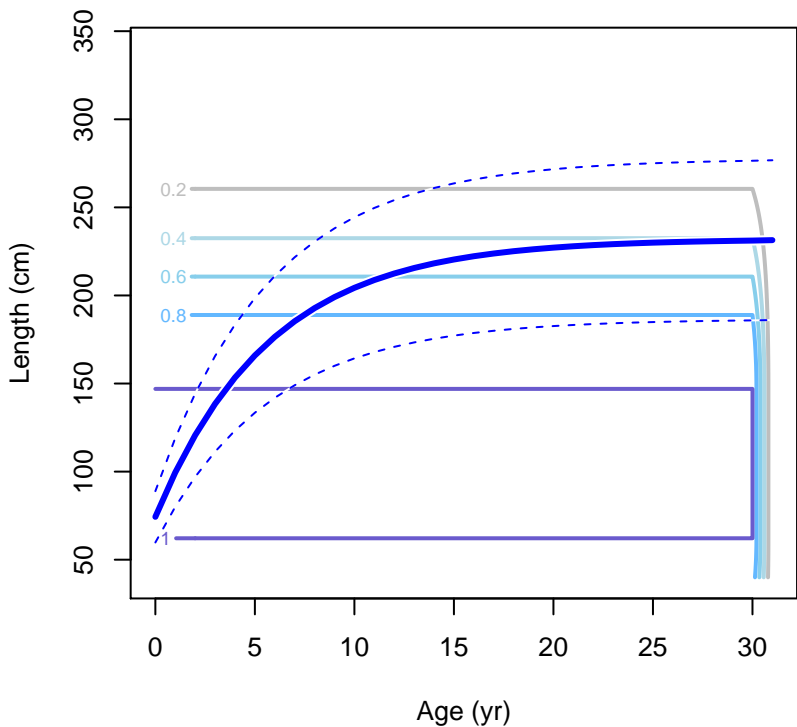
Female ending year selectivity and growth for F5\_US\_REC



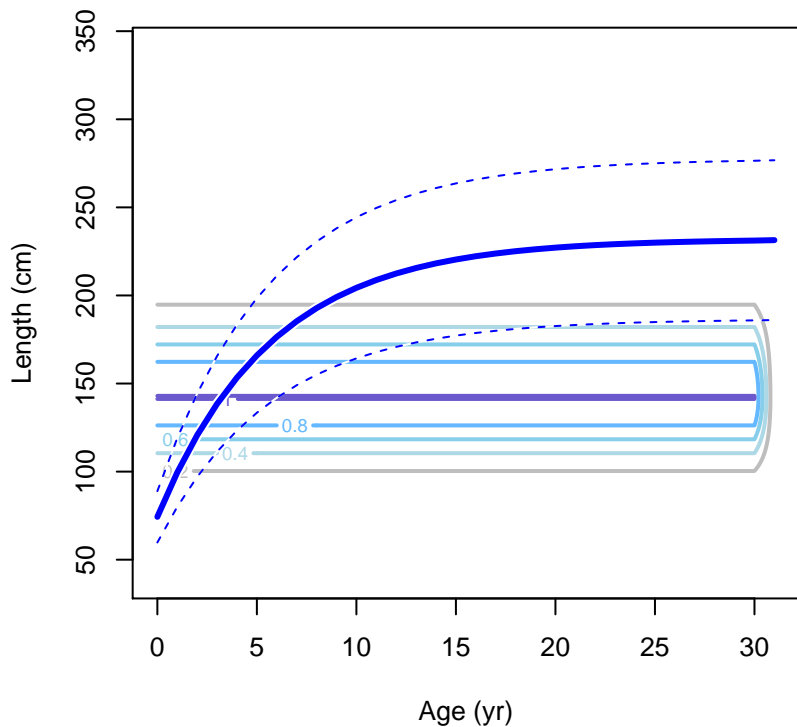
Female ending year selectivity and growth for F6\_TW\_LRG\_N



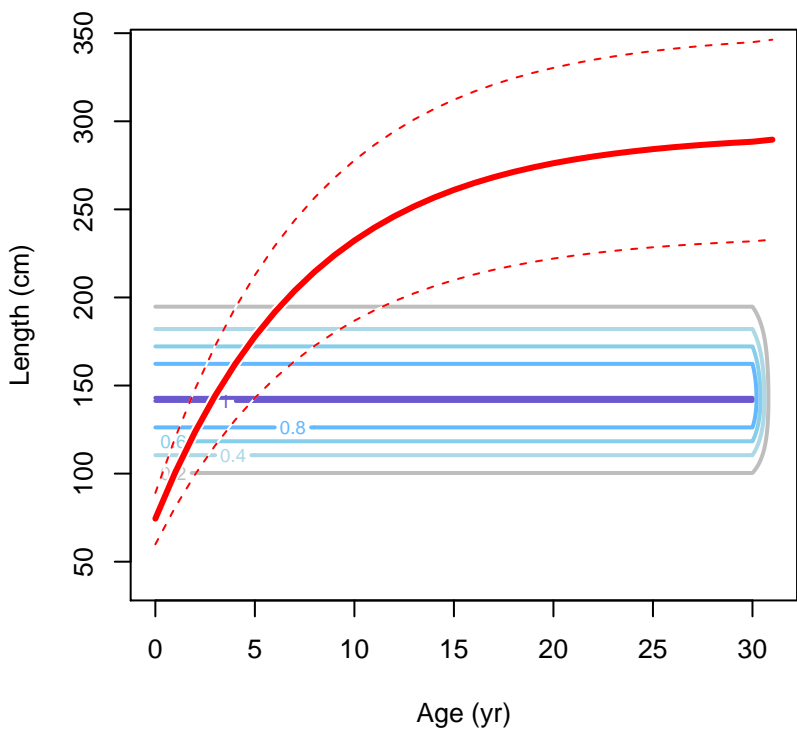
Male ending year selectivity and growth for F5\_US\_REC



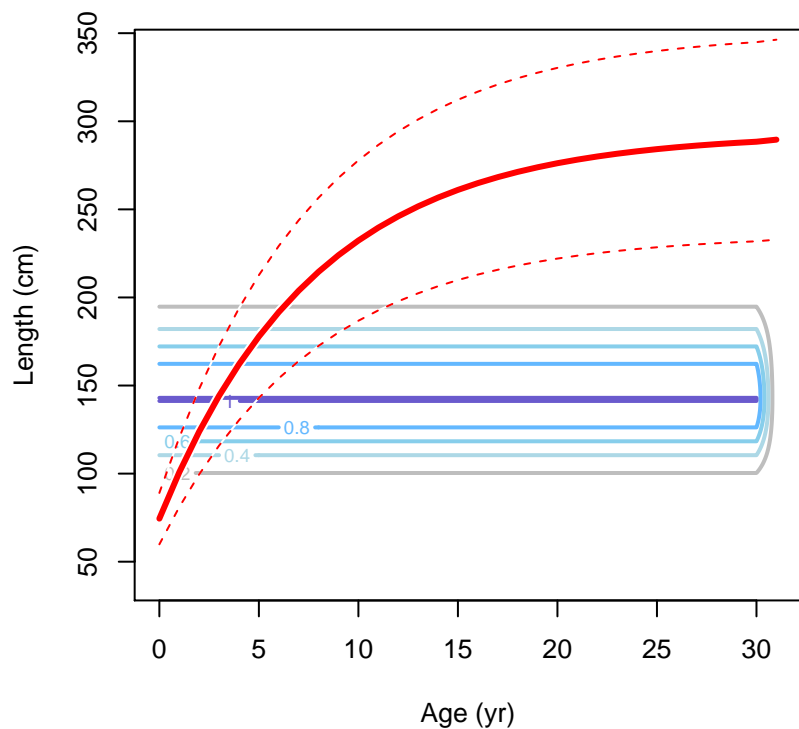
Male ending year selectivity and growth for F6\_TW\_LRG\_N



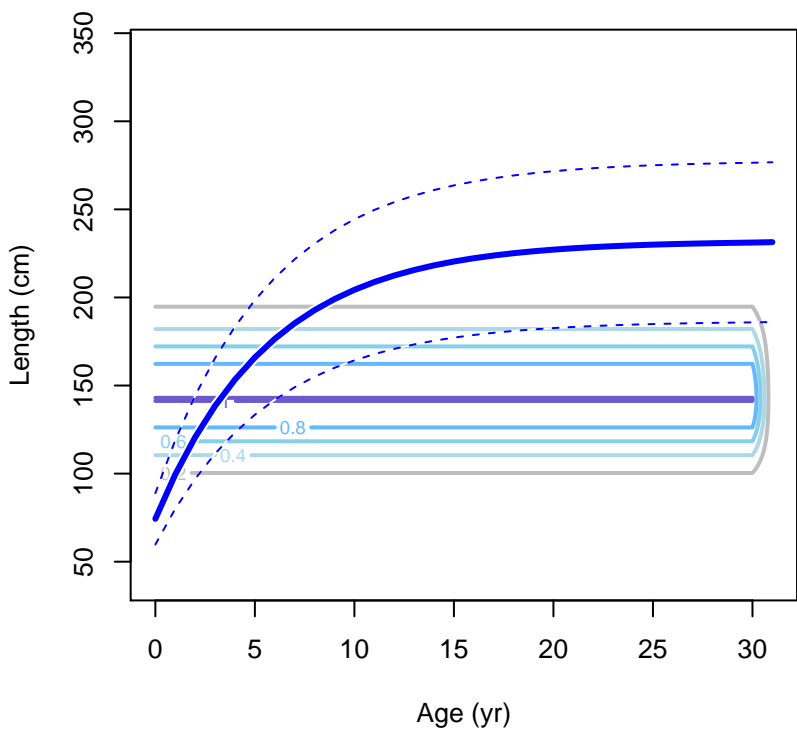
Female ending year selectivity and growth for F7\_TW\_LRG\_S



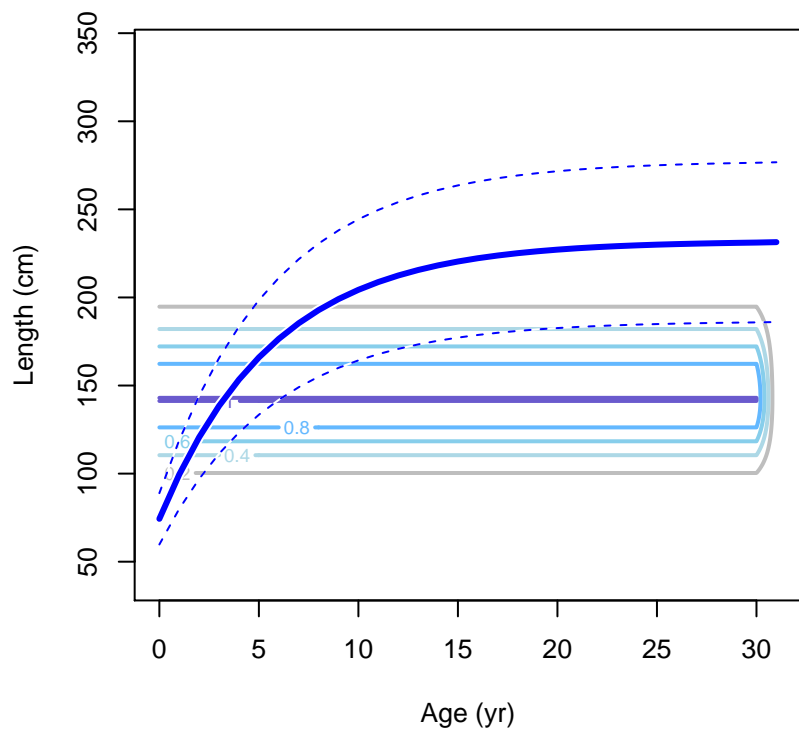
Female ending year selectivity and growth for F8\_TW\_SML



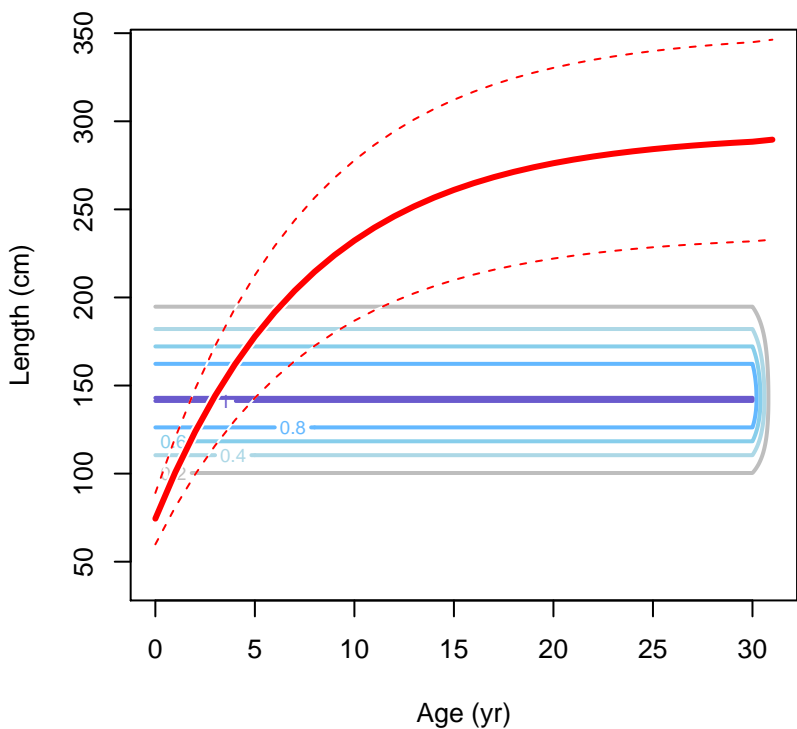
Male ending year selectivity and growth for F7\_TW\_LRG\_S



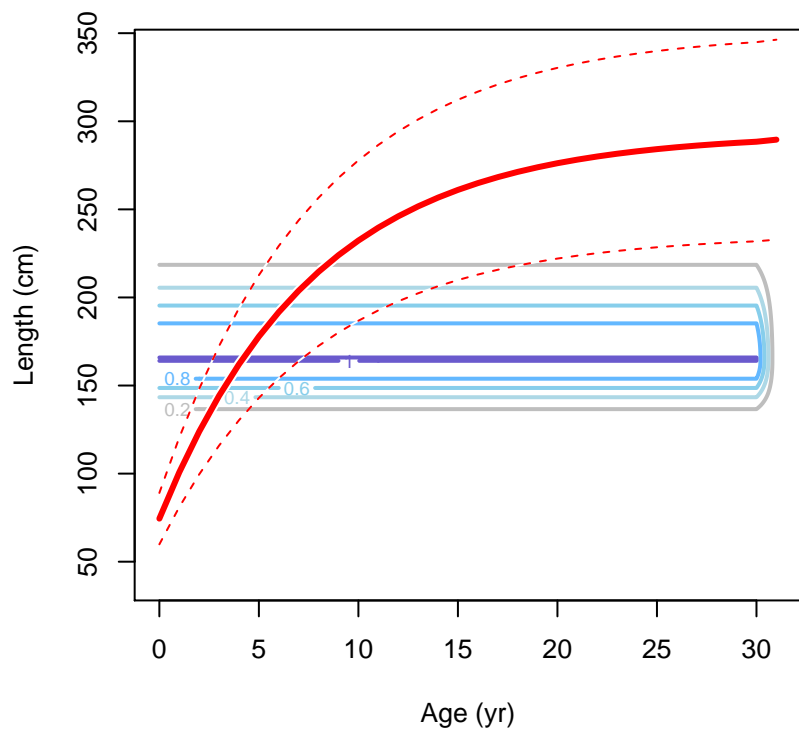
Male ending year selectivity and growth for F8\_TW\_SML



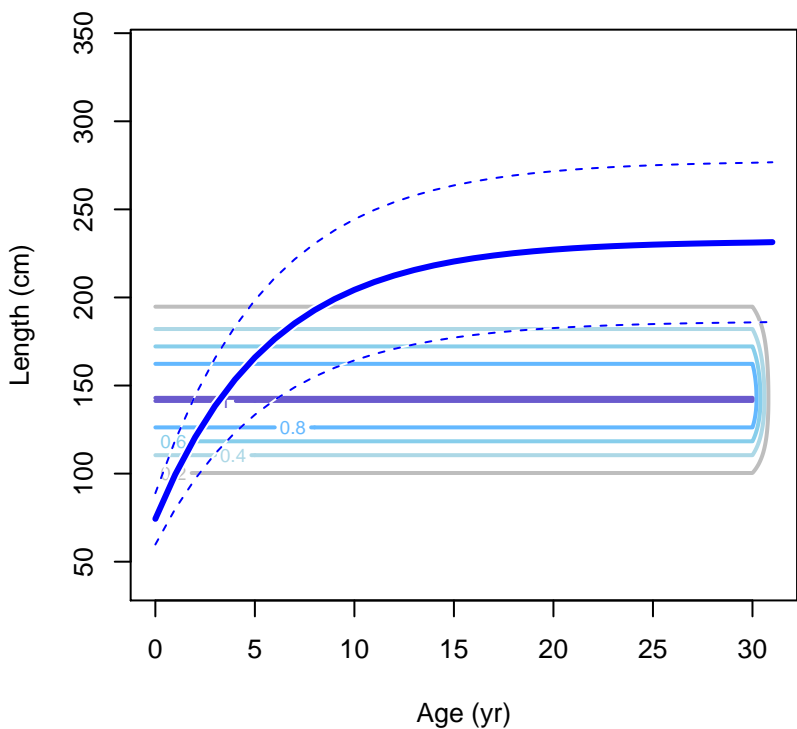
**Female ending year selectivity and growth for F9\_JPN\_SS**



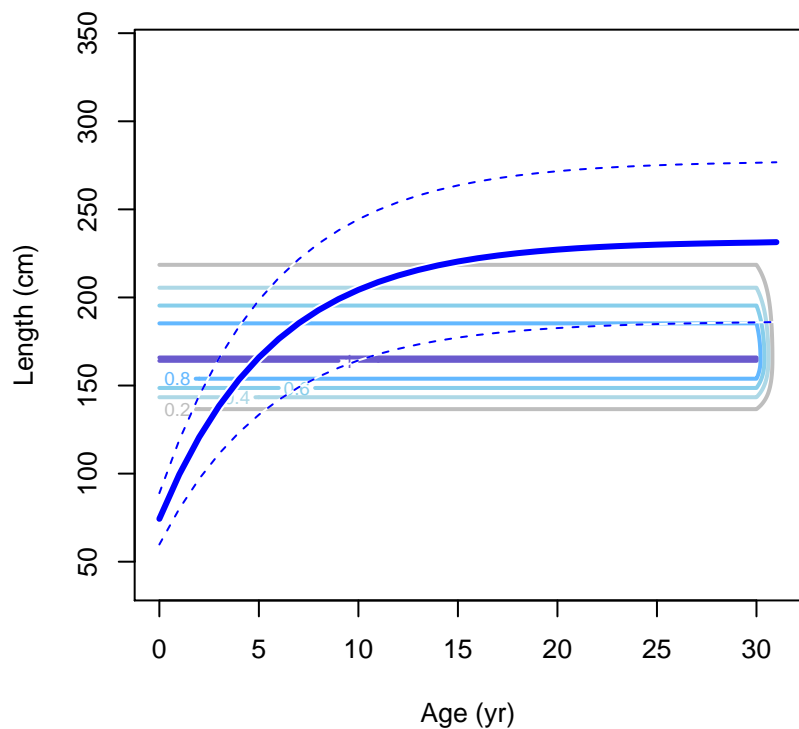
**Female ending year selectivity and growth for F10\_JPN\_DS**



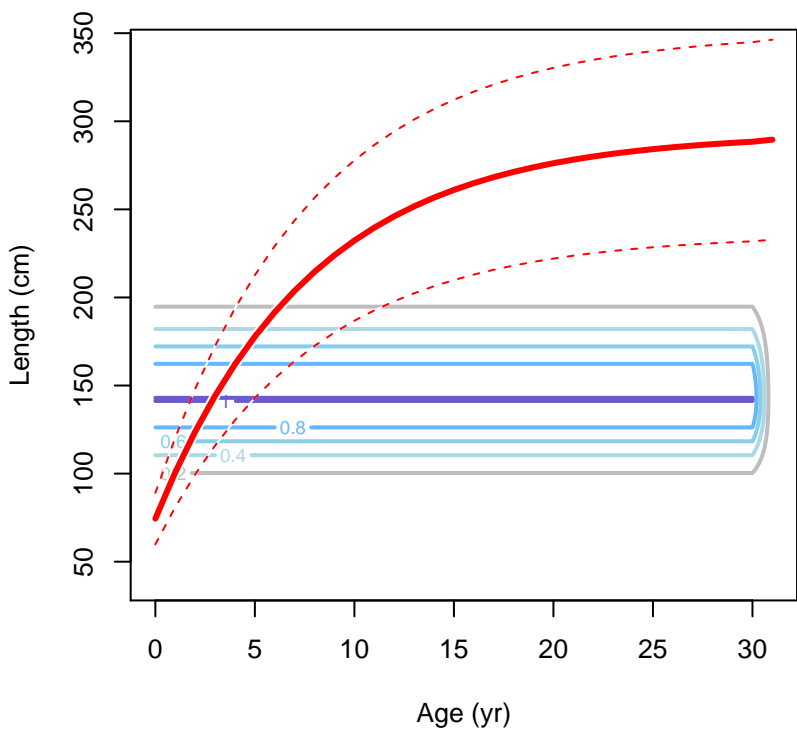
**Male ending year selectivity and growth for F9\_JPN\_SS**



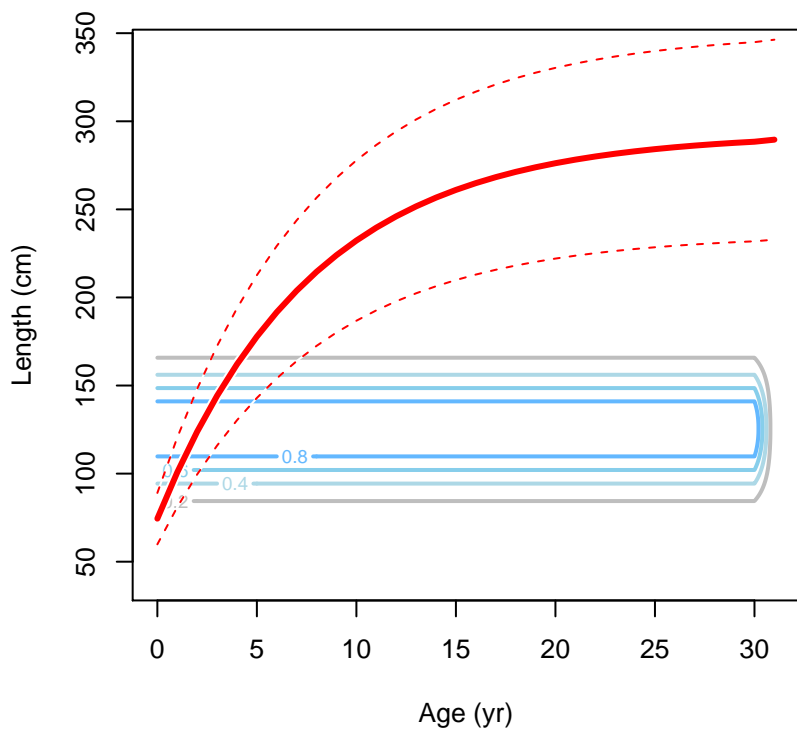
**Male ending year selectivity and growth for F10\_JPN\_DS**



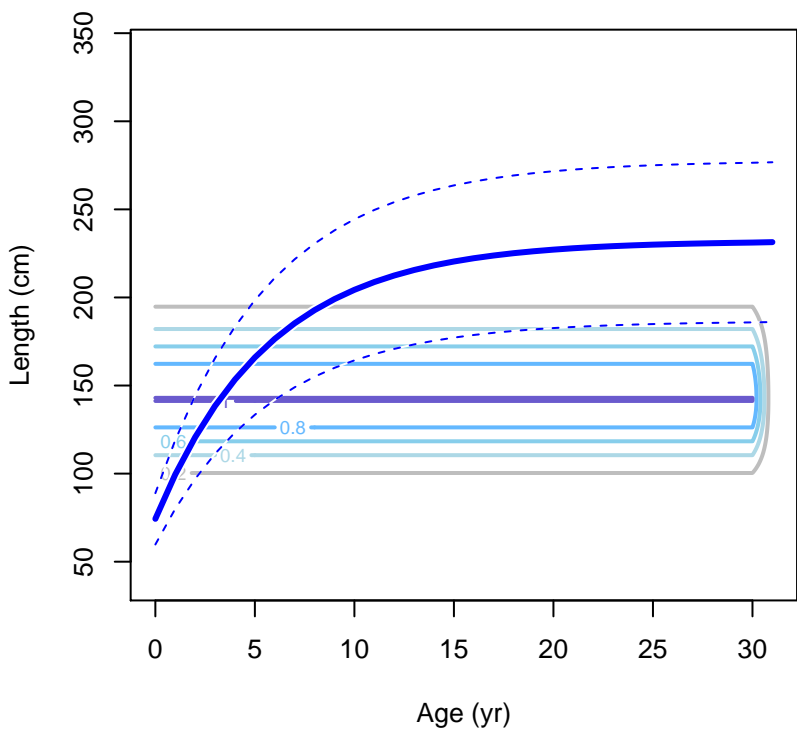
**Female ending year selectivity and growth for F11\_JPN\_CST**



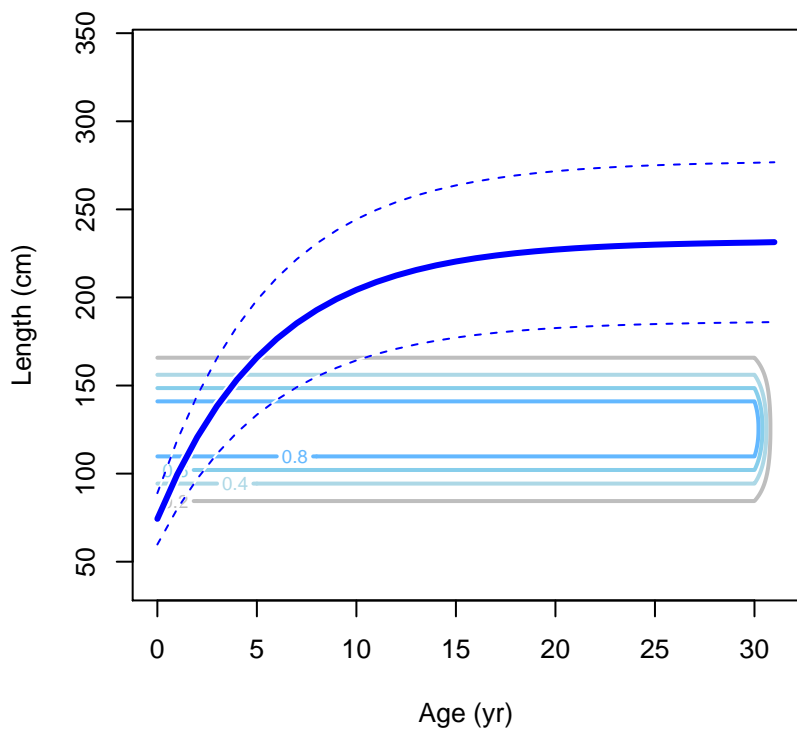
**Female ending year selectivity and growth for F12\_JPN\_DFN**



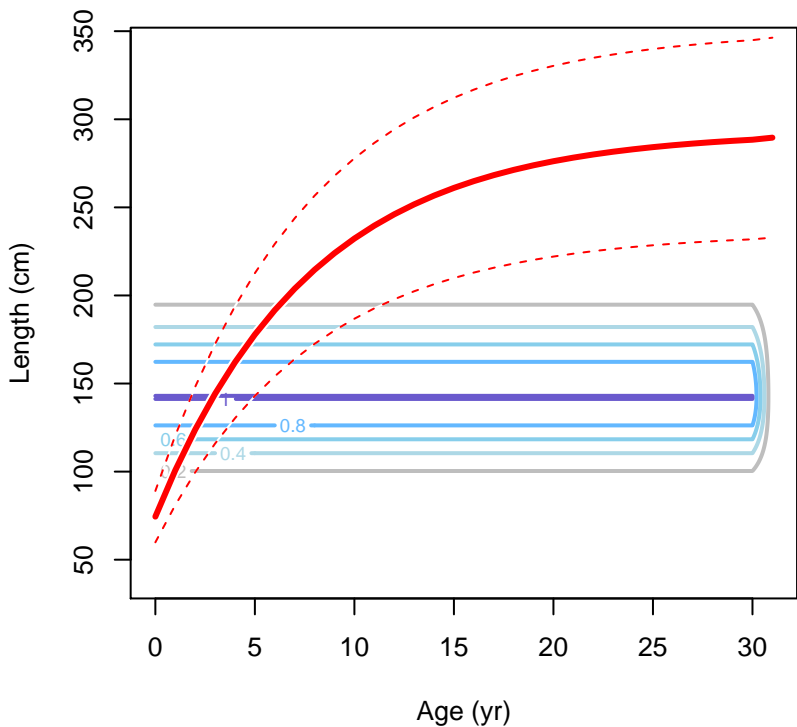
**Male ending year selectivity and growth for F11\_JPN\_CST**



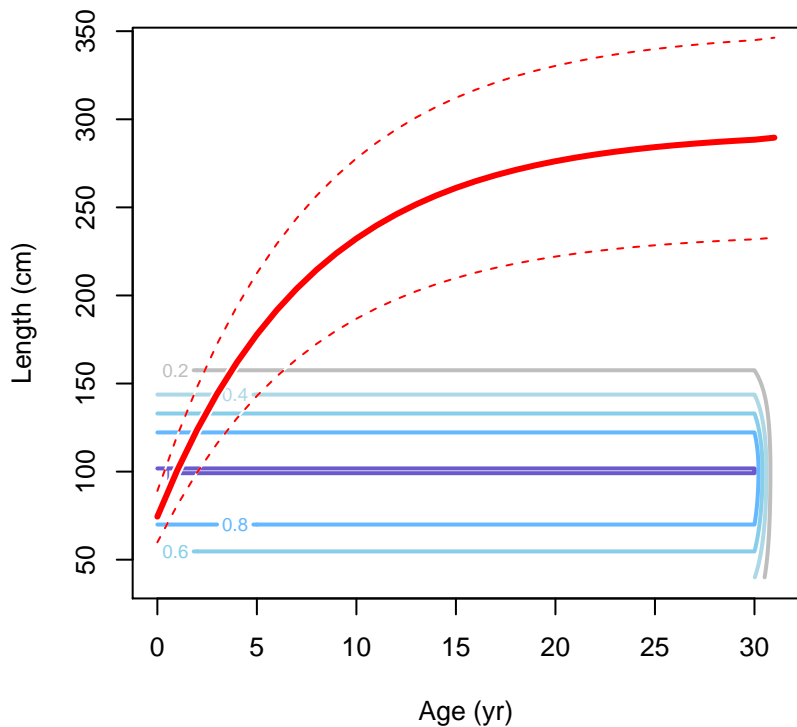
**Male ending year selectivity and growth for F12\_JPN\_DFN**



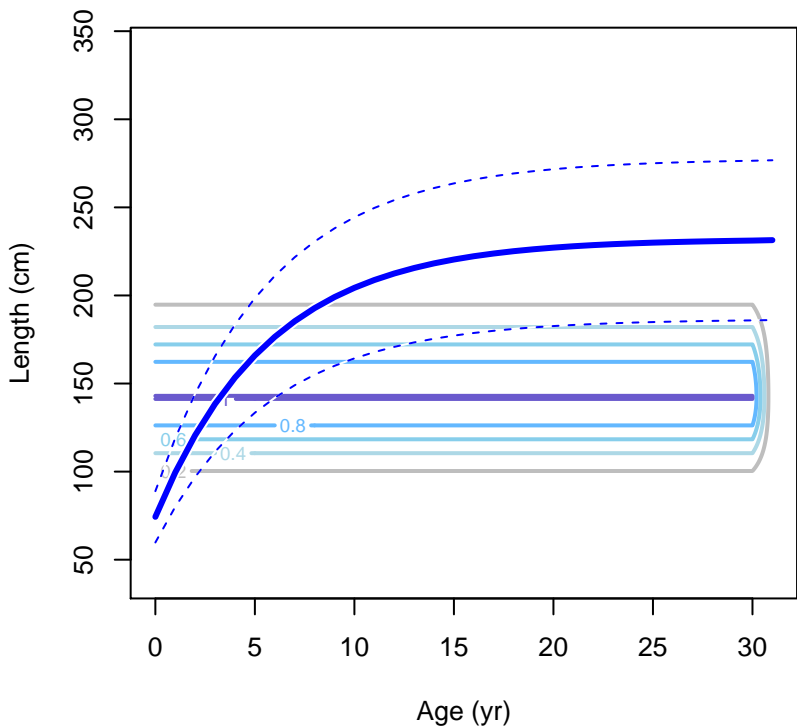
Female ending year selectivity and growth for F13\_JPN\_OTH



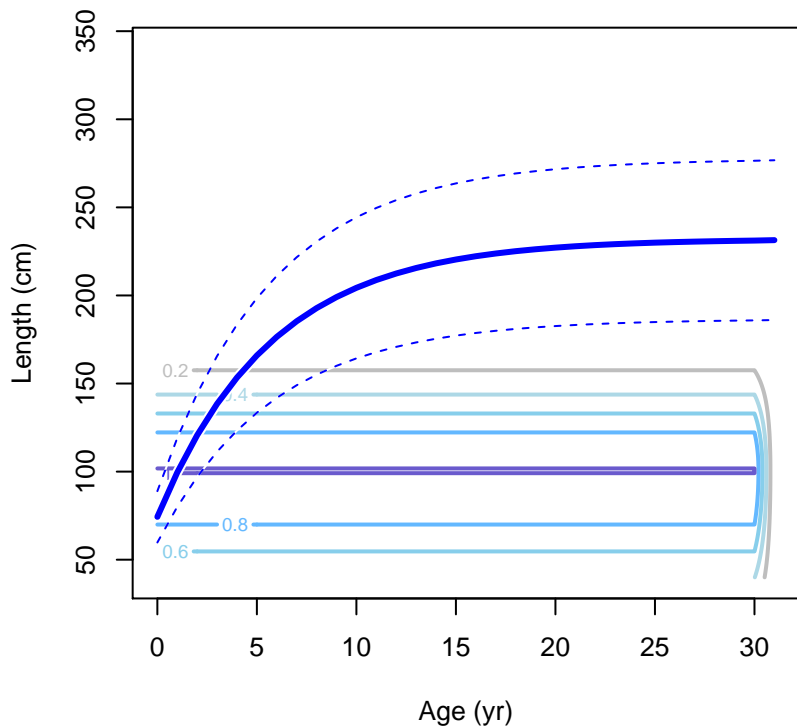
Female ending year selectivity and growth for F14\_MEX\_NOR



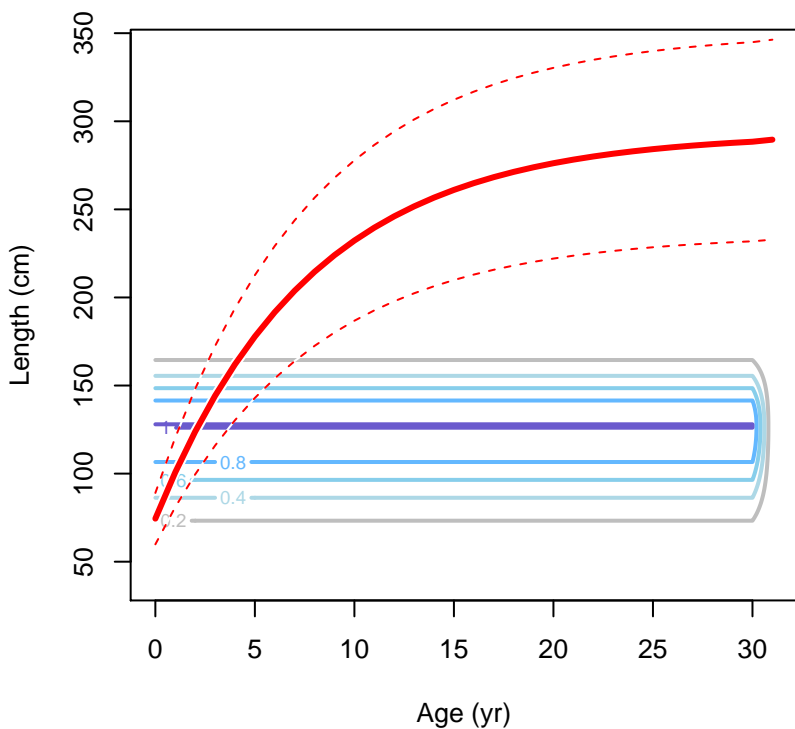
Male ending year selectivity and growth for F13\_JPN\_OTH



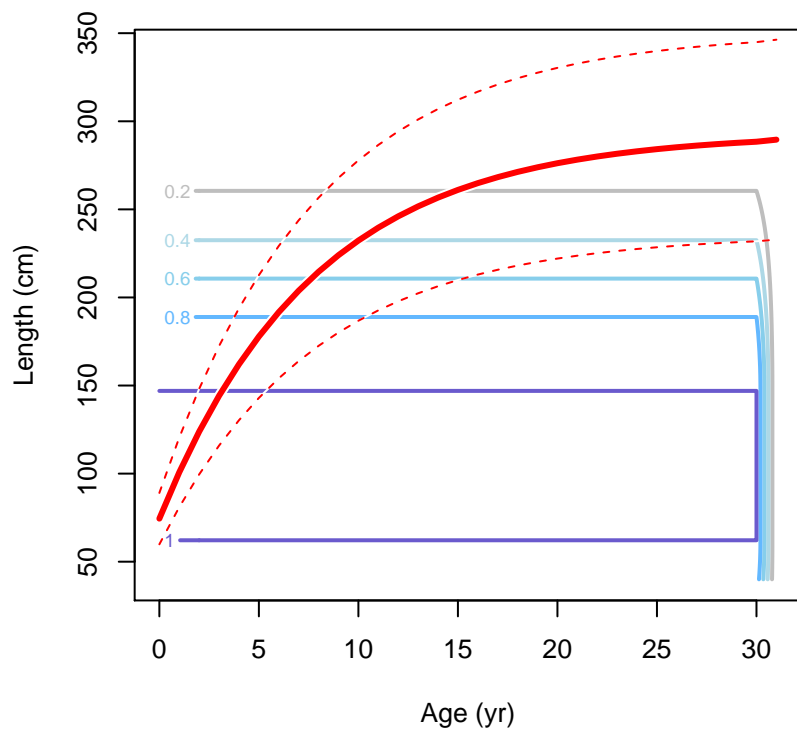
Male ending year selectivity and growth for F14\_MEX\_NOR



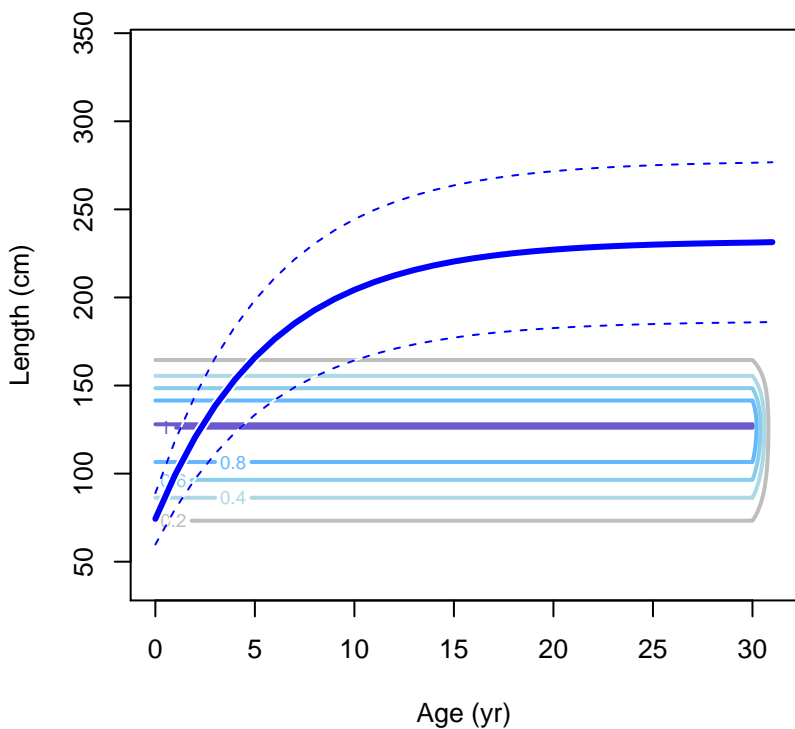
**Female ending year selectivity and growth for F15\_MEX\_SOU**



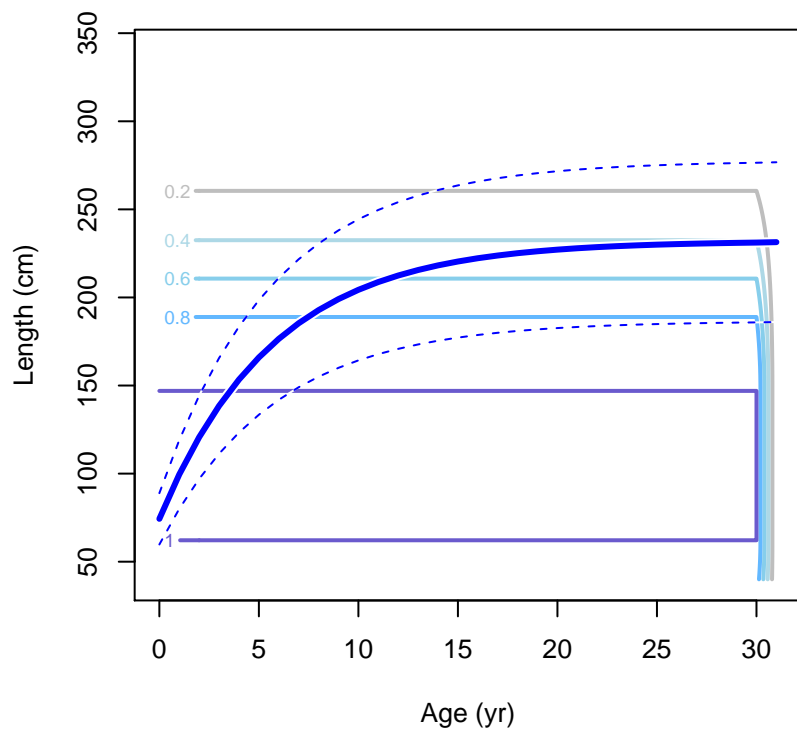
**Female ending year selectivity and growth for F16\_WCPFC**



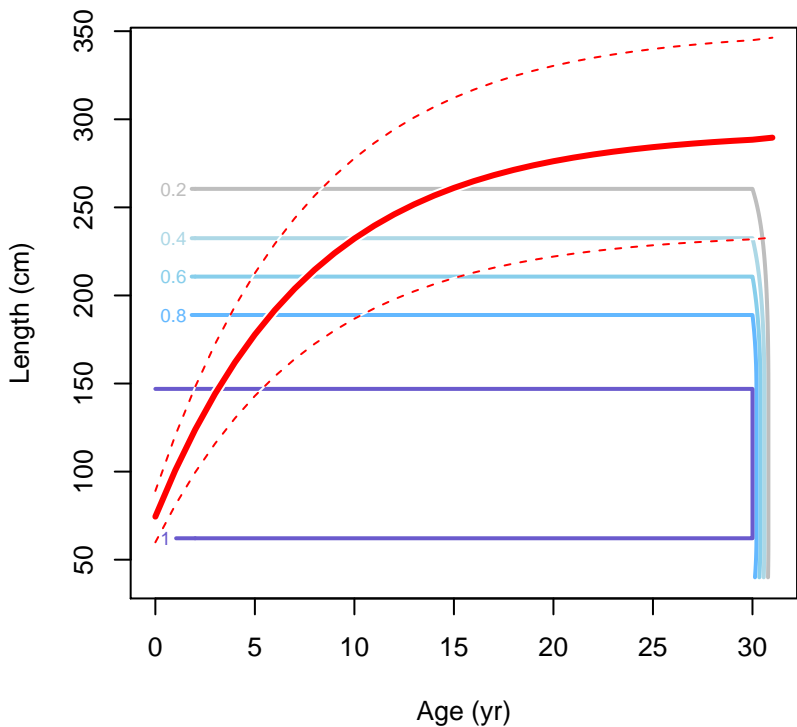
**Male ending year selectivity and growth for F15\_MEX\_SOU**



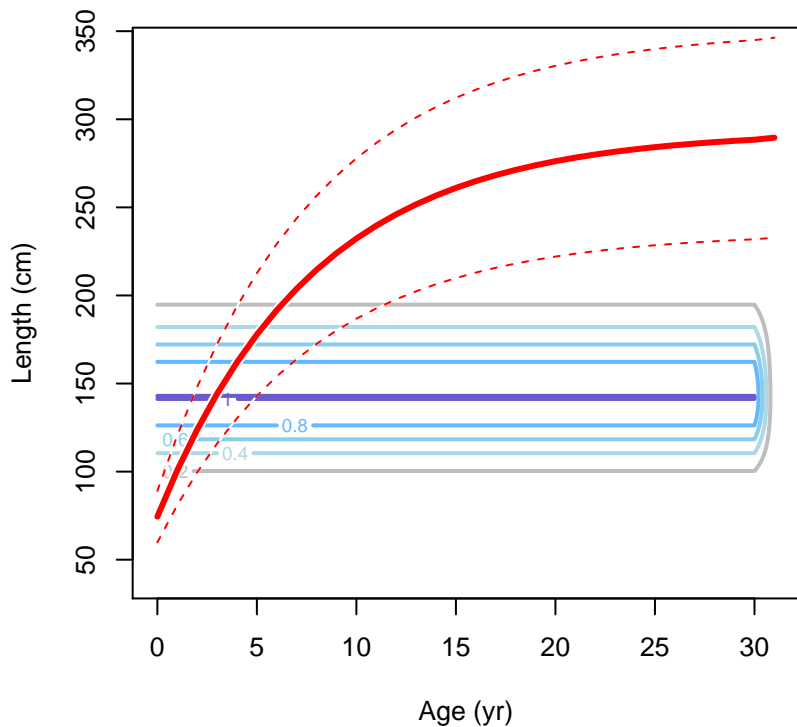
**Male ending year selectivity and growth for F16\_WCPFC**



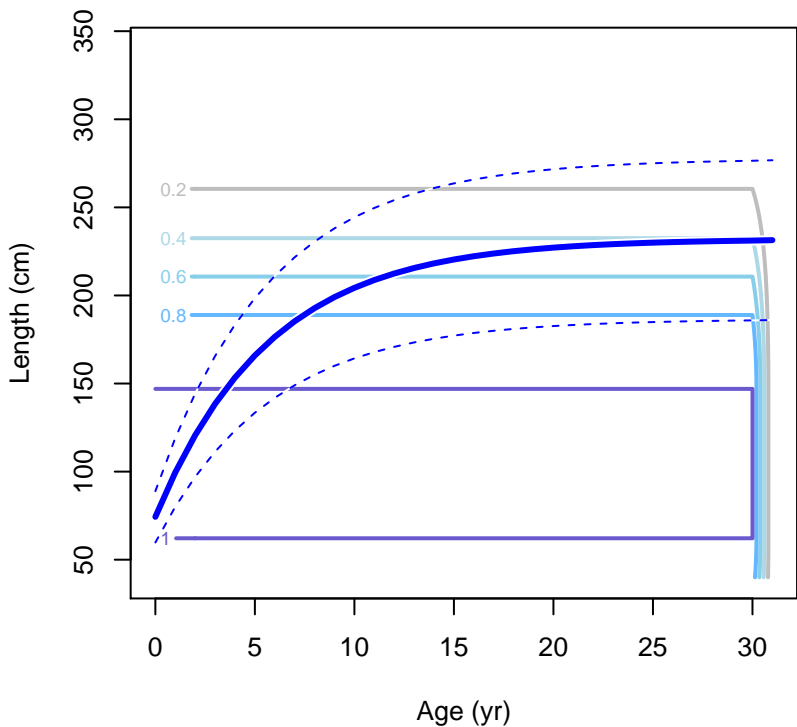
Female ending year selectivity and growth for F17\_IATTC



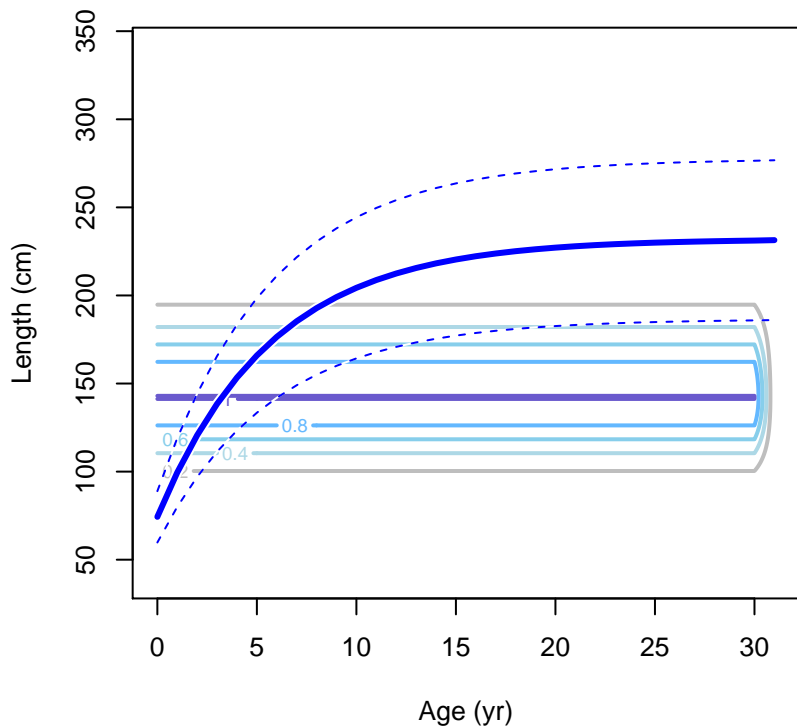
Female ending year selectivity and growth for F18\_JPN\_SSII



Male ending year selectivity and growth for F17\_IATTC

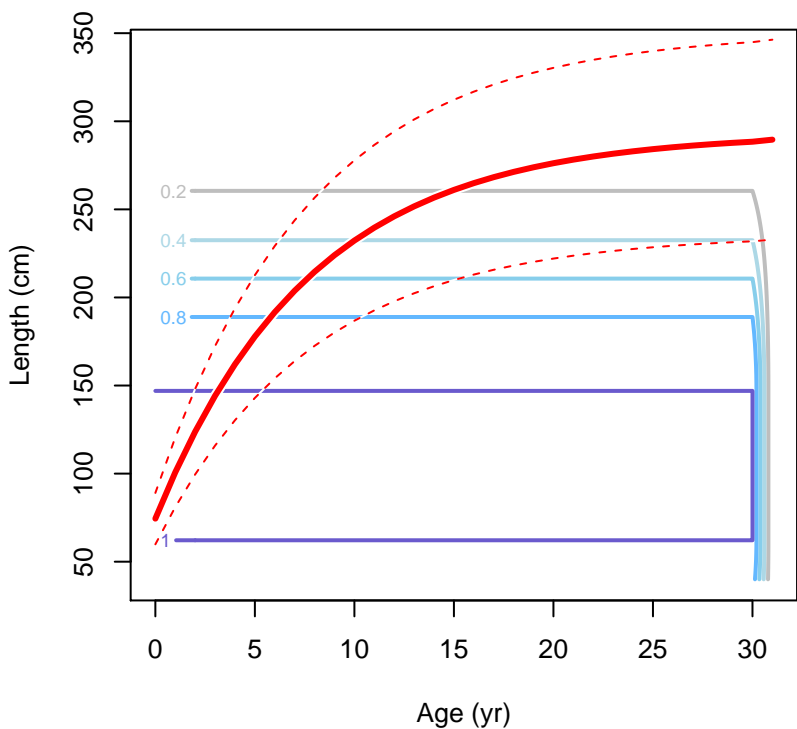


Male ending year selectivity and growth for F18\_JPN\_SSII

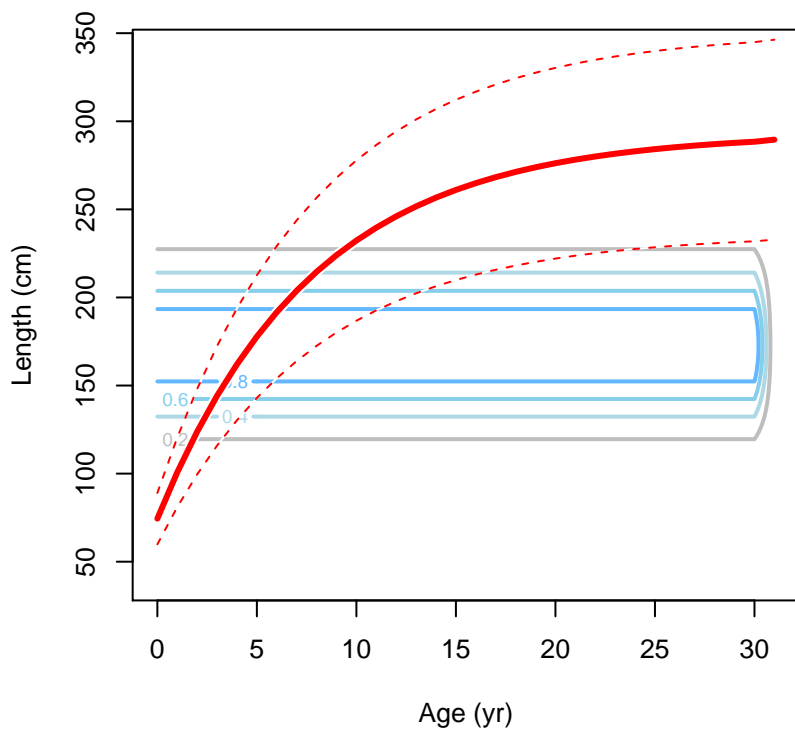




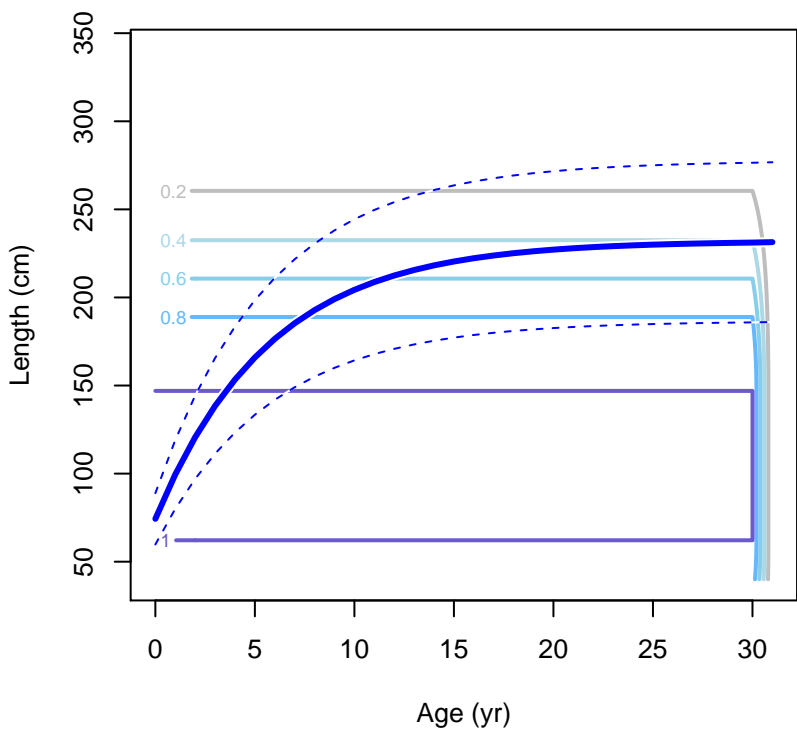
Female ending year selectivity and growth for S1\_US\_SS



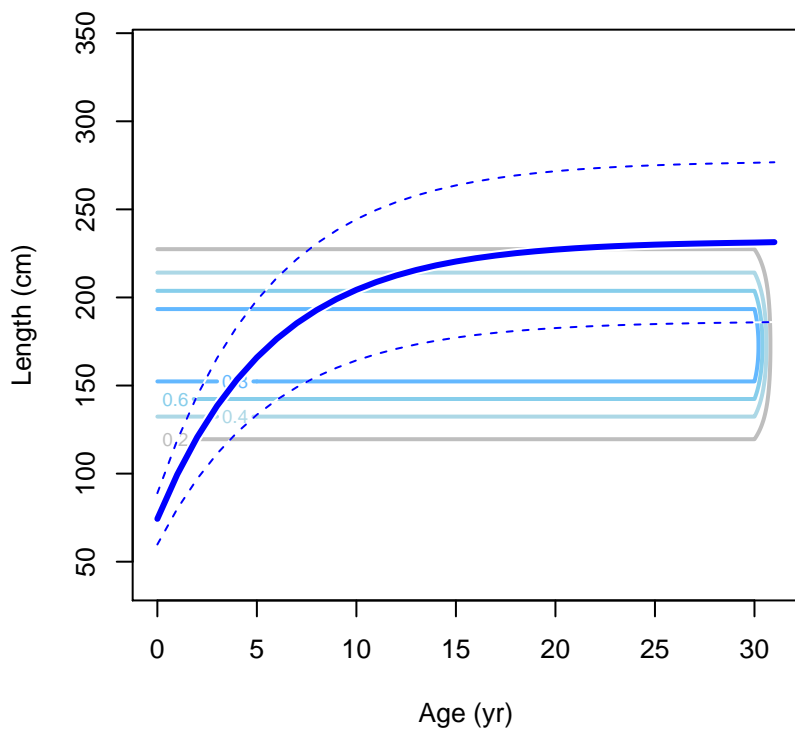
Female ending year selectivity and growth for S2\_US\_DS



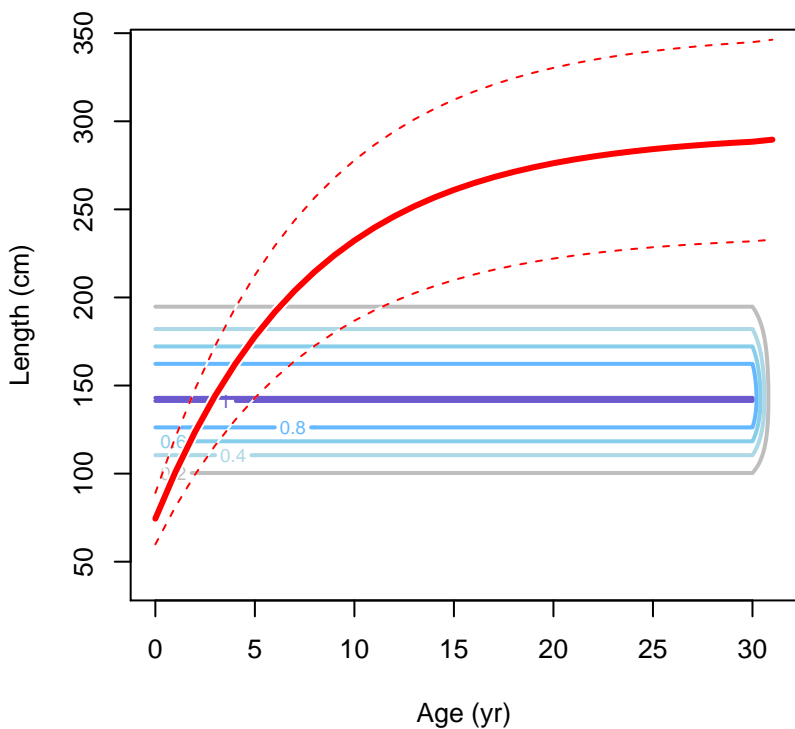
Male ending year selectivity and growth for S1\_US\_SS



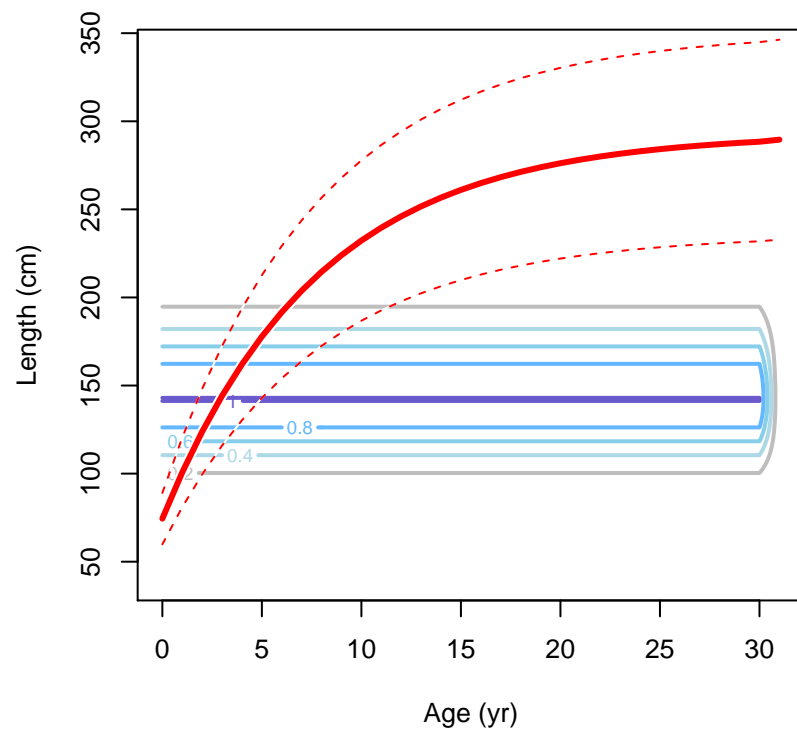
Male ending year selectivity and growth for S2\_US\_DS



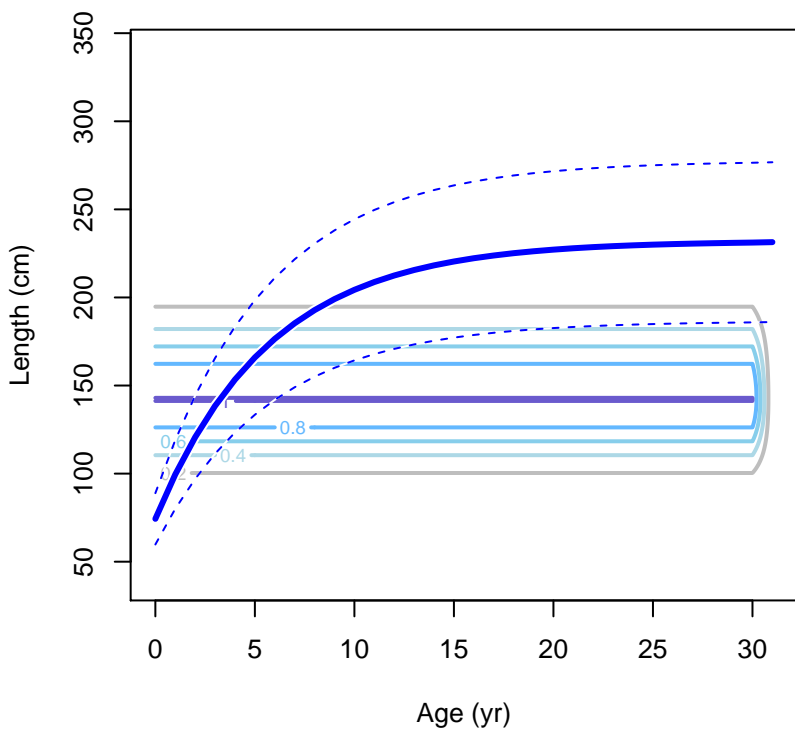
Female ending year selectivity and growth for S3\_TW\_LRG



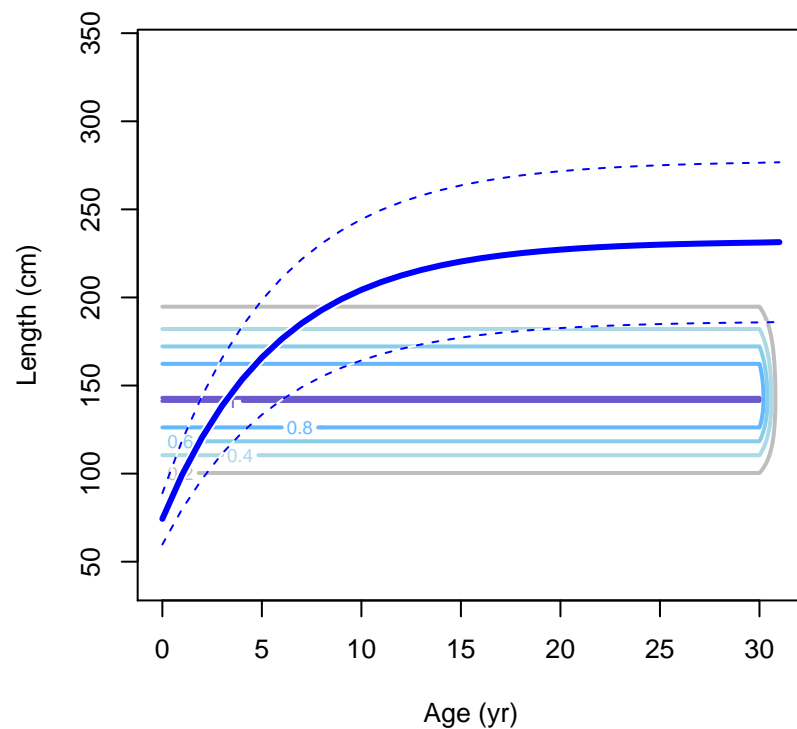
Female ending year selectivity and growth for S4\_JPN\_SS



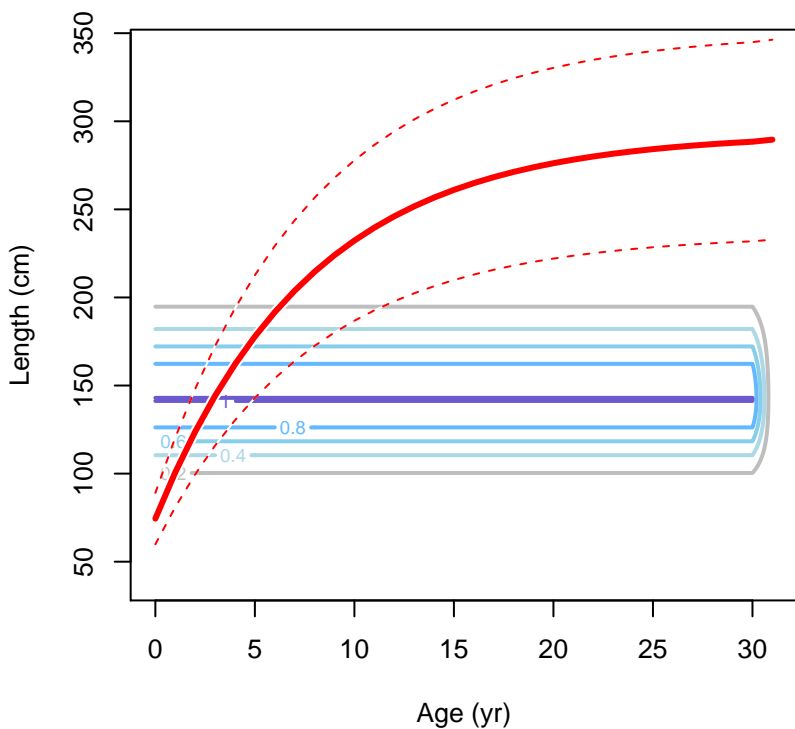
Male ending year selectivity and growth for S3\_TW\_LRG



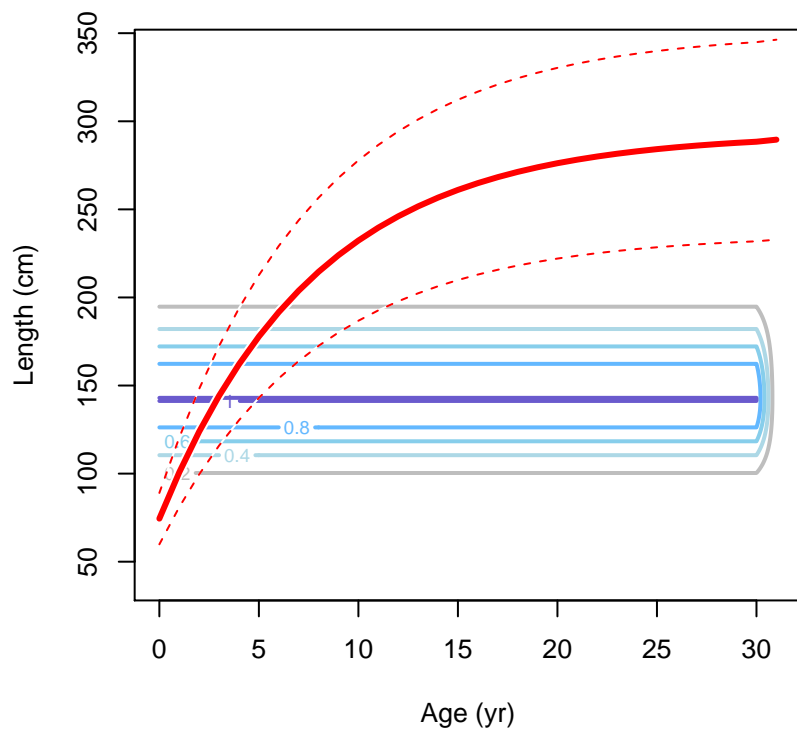
Male ending year selectivity and growth for S4\_JPN\_SS



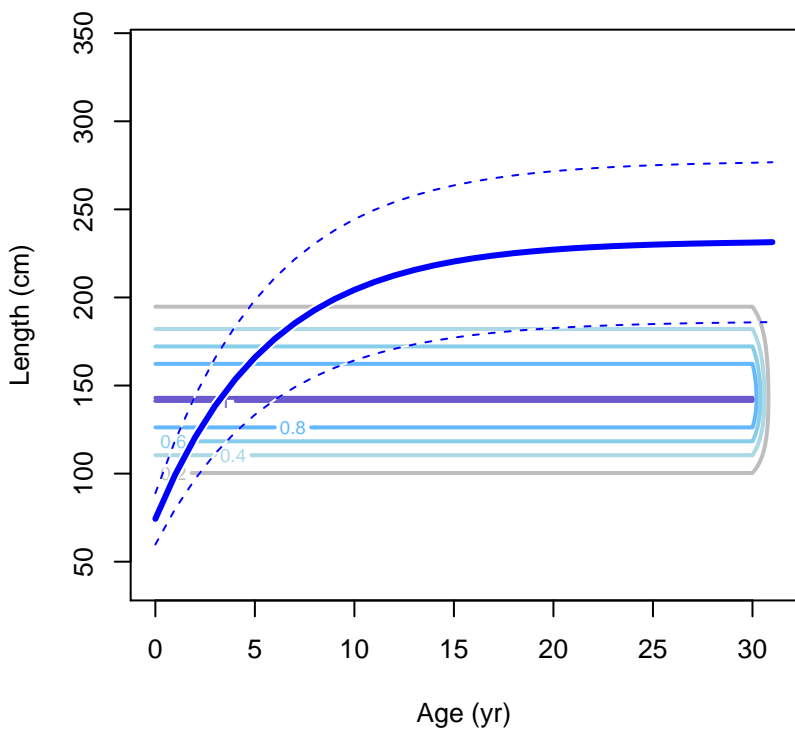
**Female ending year selectivity and growth for S5\_JPN\_RTV**



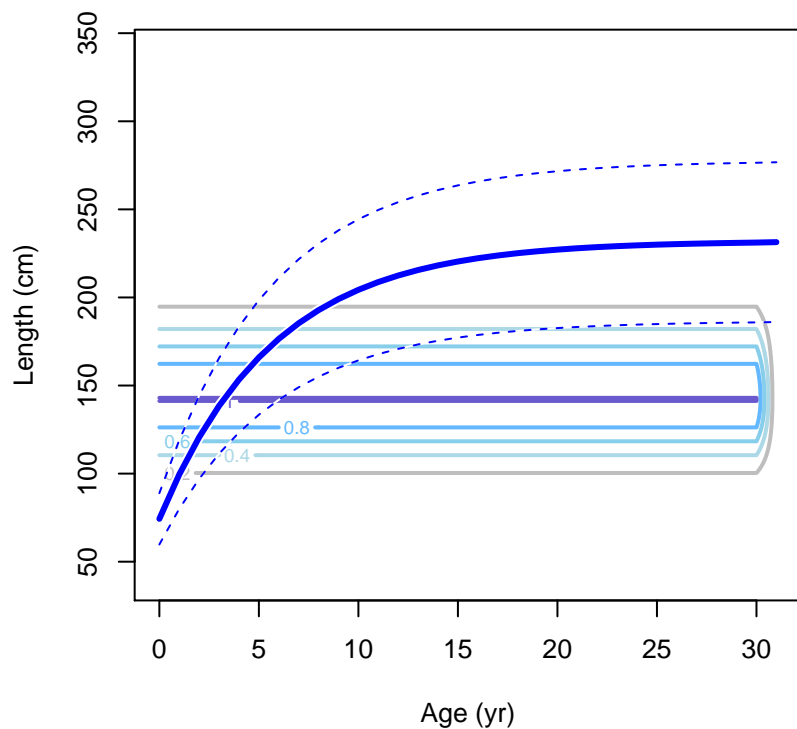
**Female ending year selectivity and growth for S6\_JPN\_OBS**



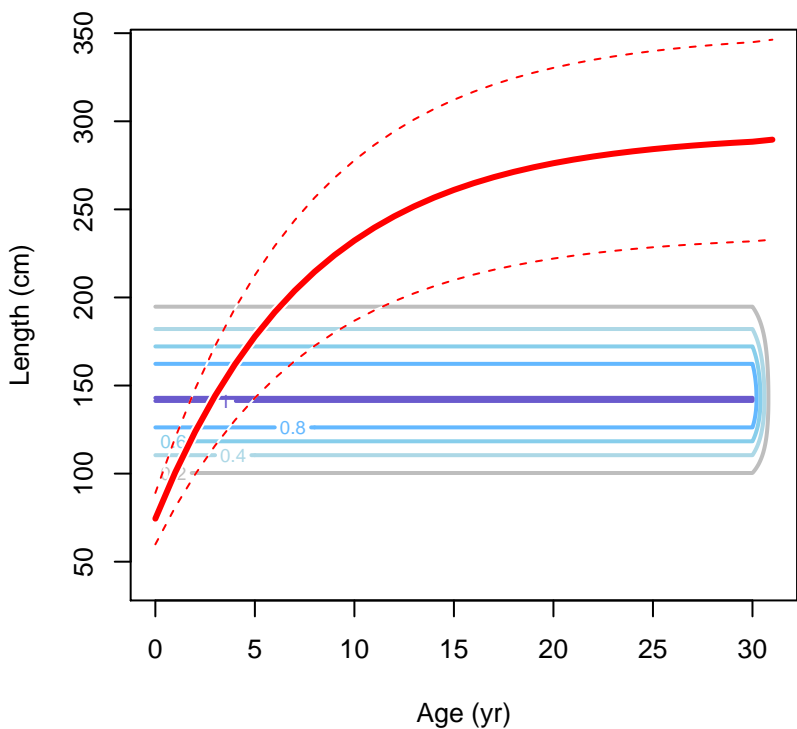
**Male ending year selectivity and growth for S5\_JPN\_RTV**



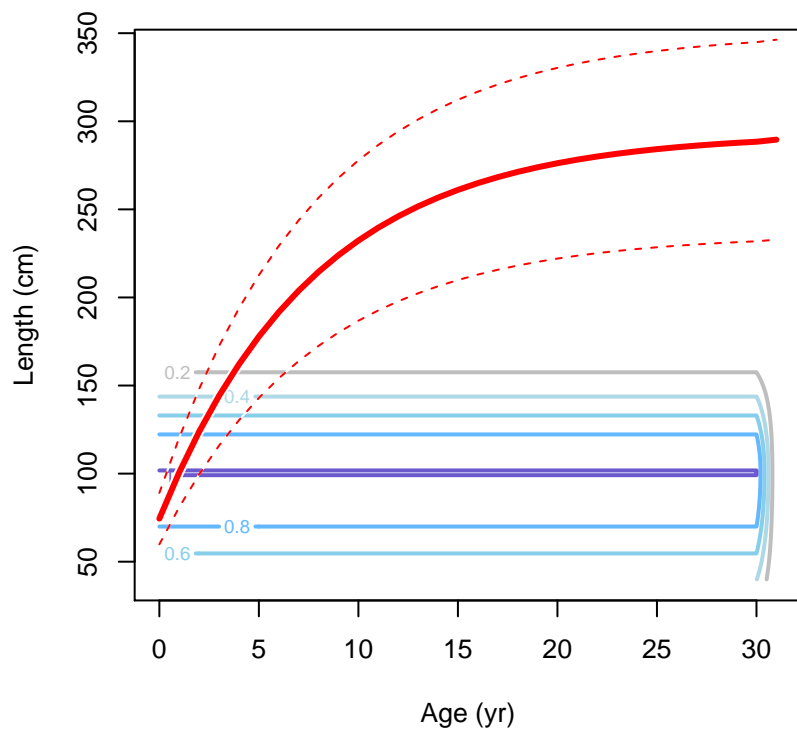
**Male ending year selectivity and growth for S6\_JPN\_OBS**



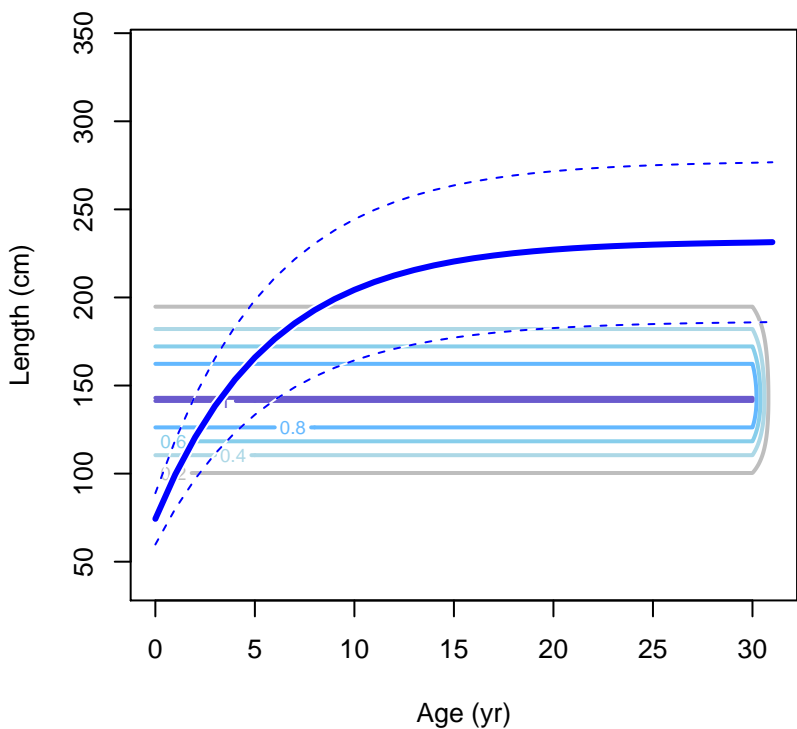
**Female ending year selectivity and growth for S7\_JPN\_GEO**



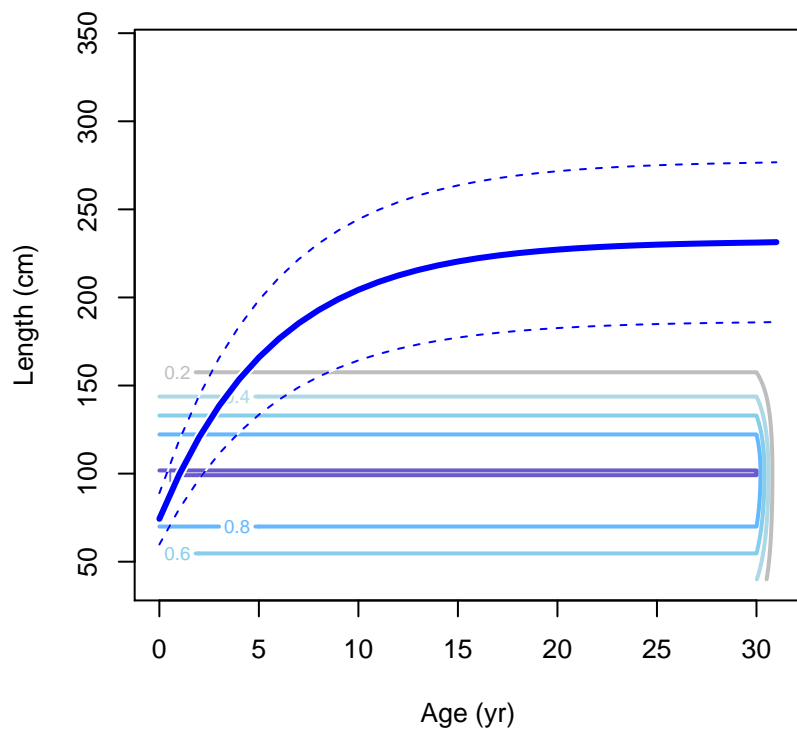
**Female ending year selectivity and growth for S8\_MEX**



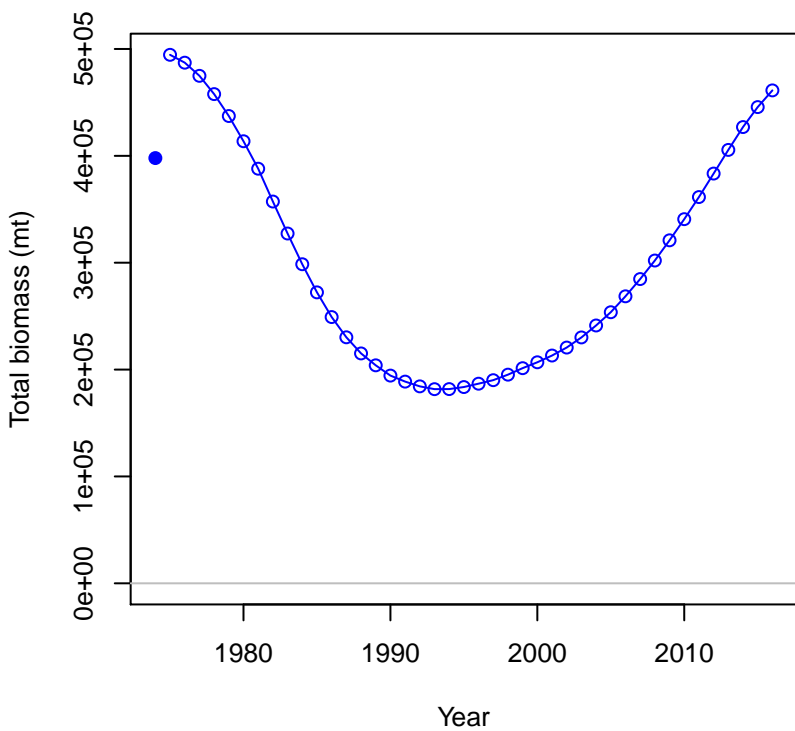
**Male ending year selectivity and growth for S7\_JPN\_GEO**



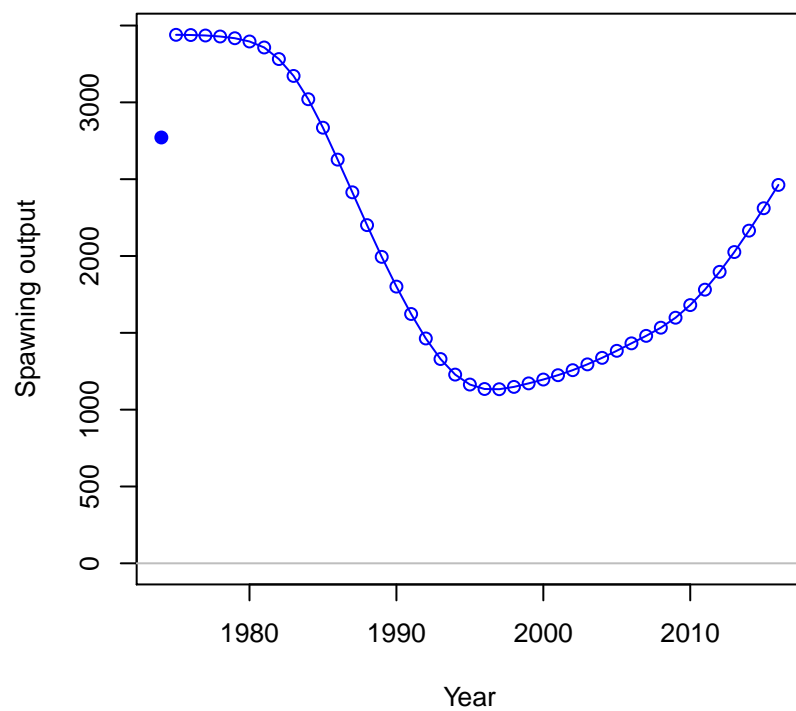
**Male ending year selectivity and growth for S8\_MEX**



**Total biomass (mt)**



**Spawning output**



**Summary biomass (mt)**

