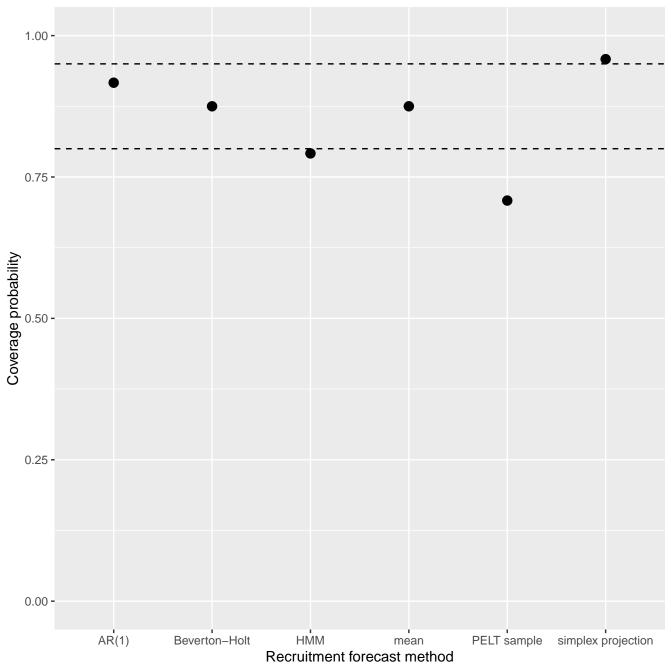
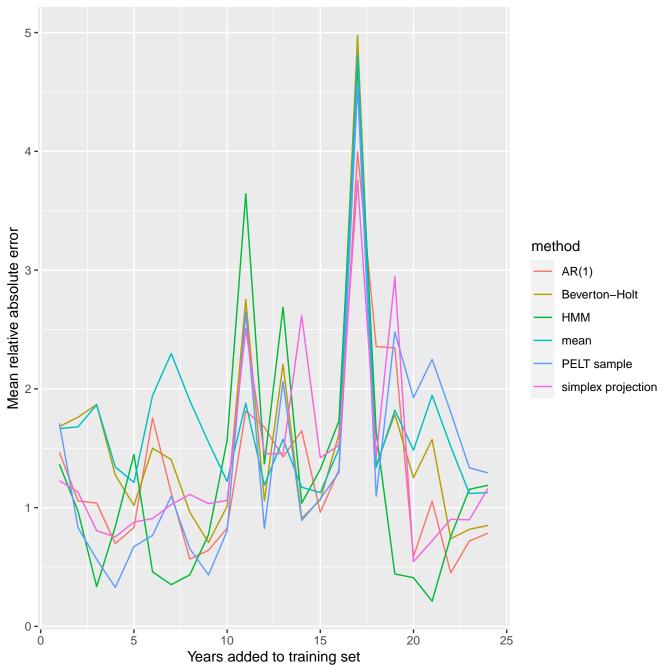
1-step Forecasts (a) Mean (b) AR(1) 1.25e+09 -1.00e+09 -7.50e+08 -5.00e+08 -1.5e+09 -1.0e+09 -5.0e+08 -1.5e+09 -1.00e+09 -2.50e+08 -1980 2010 1990 2020 2000 1990 2010 1980 2000 2020 Year Year (c) Beverton-Holt (d) Simplex projection 1.25e+09 -1.6e+09 -1.00e+09 -Recruitment Recruitment 1.2e+09 -7.50e+08 **-**8.0e+08 **-**5.00e+08 -4.0e+08 **-**2.50e+08 -2010 2020 2000 1990 2010 1990 2000 1980 2020 1980 Year Year (e) PELT sample (f) HMM 1.5e+09 -Recruitment Recruitment 1e+09 -1.0e+09 **-**5e+08 -5.0e+08 0.0e+00 -1980 1990 2000 2020 2010 2010 1990 2000 2020 1980 Year Year

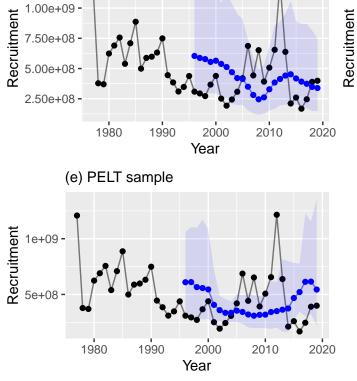




1.25e+09 -1.25e+09 -Xecrnitment 7.50e+09 - 5.00e+08 - 5.00e+08 - 5.00e+08 - 5.00e+08 - 5.00e+08 - 5.00e+08 - 5.00e+09 - 5.00e+08 -1.00e+09 **-**1.00e+09 **-**Recruitment 7.50e+08 **-**5.00e+08 -2.50e+08 -2.50e+08 -2010 1990 1980 1980 1990 2000 2020 2010 2020 2000

5-step Forecasts

(b) AR(1)



Year

(a) Mean

(c) Beverton-Holt

1.25e+09 -

