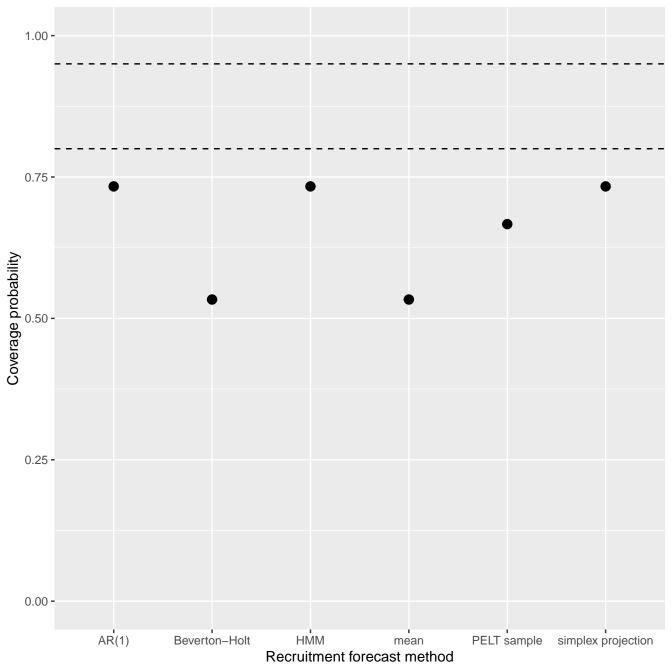
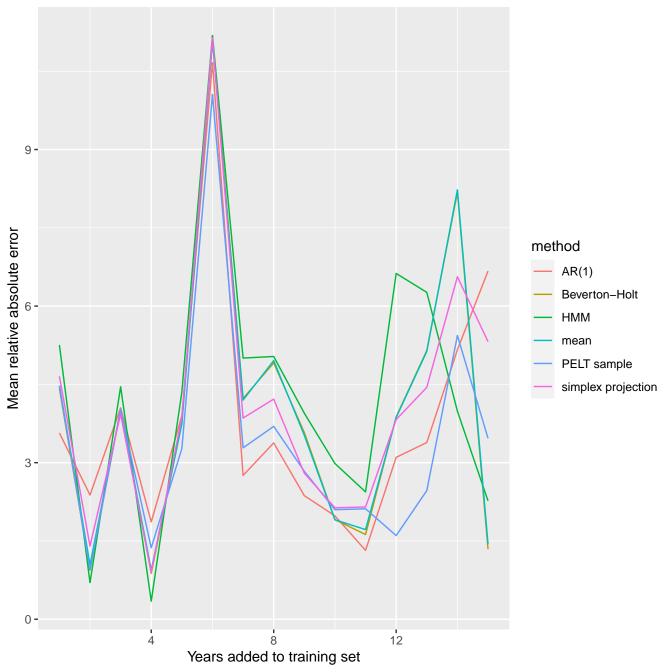
1-step Forecasts (a) Mean (b) AR(1) 80000 -150000 -Recruitment 40000 - 40000 - 20000 - 20000 -Recruitment 100000 -50000 -2000 2000 1980 1990 1980 1990 Year Year (c) Beverton-Holt (d) Simplex projection 80000 -200000 -Recruitment 40000 - 20000 - 20000 -Recruitment 150000 -100000 -50000 -2000 2000 1990 1980 1990 1980 Year Year (e) HMM (f) PELT sample 100000 -Recruitment 75000 -Recruitment 2e+05 **-**50000 -1e+05 -25000 -0e+00 -2000 2000 1980 1990 1990 1980 Year Year





5-step Forecasts (a) Mean (b) AR(1) 80000 -80000 -Recruitment 40000 - 40000 - 20000 - 20000 -Recruitment 40000 - 40000 - 20000 -2000 2000 1980 1990 1980 1990 Year Year (c) Beverton-Holt (d) Simplex projection 80000 -Recruitment 40000 - 20000 - 20000 -1e+05 **-**Recruitment 5e+04 -0e+00 2000 1980 2000 1990 1980 1990 Year Year (e) HMM (f) PELT sample 150000 -75000 -50000 -25000 -75000 -Recruitment 100000 -50000 -0 -1990 2000 2000 1980 1980 1990 Year Year

