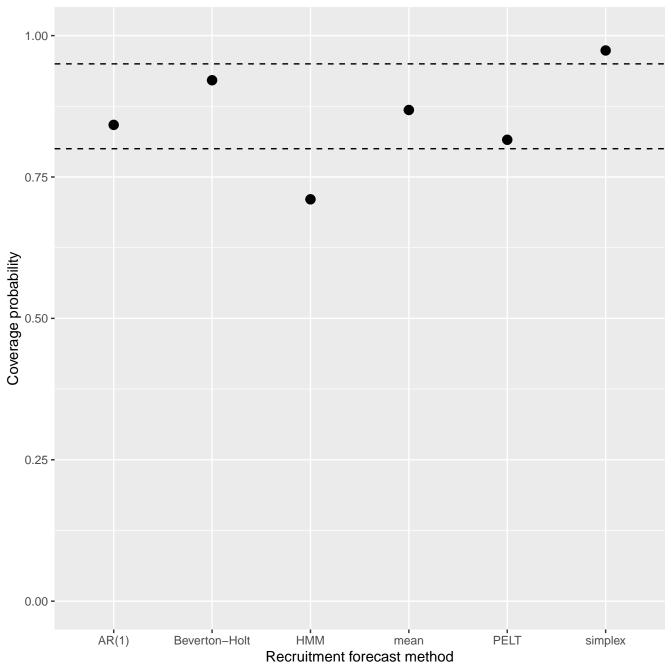
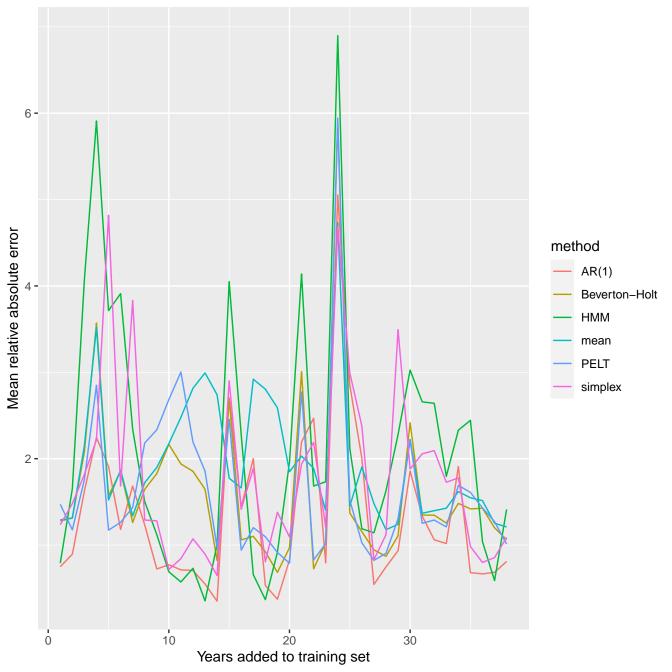
1-step Forecasts (a) mean (b) AR(1) 200 -Recruitment Recruitment 150 -100 -50 -0 -1980 1980 2000 1960 2000 1960 Year Year (c) Beverton-Holt (d) simplex 400 -Recruitment 200 - 000 - 001 150 **-**Recruitment 100 -50 -0 -0 -1980 2000 1980 2000 1960 1960 Year Year (e) HMM (f) PELT 400 -Recruitment 200 - 000 - 001 150 **-**Recruitment 100 50 0 -1980 2000 1980 2000 1960 1960 Year Year





5-step Forecasts (a) mean (b) AR(1) 200 -150 **-**150 **-**Recruitment Recruitment 100 -100 -50 -0 -1980 2000 1980 2000 1960 1960 Year Year (c) Beverton-Holt (d) simplex 400 -150 **-**300 -Recruitment Recruitment 100 -200 -50 -100 0 -0 -1980 1980 2000 2000 1960 1960 Year Year (e) HMM (f) PELT 200 -400 -Recruitment 200 - 000 - 150 -Recruitment 100 -50 0 -1980 2000 1980 2000 1960 1960 Year Year

