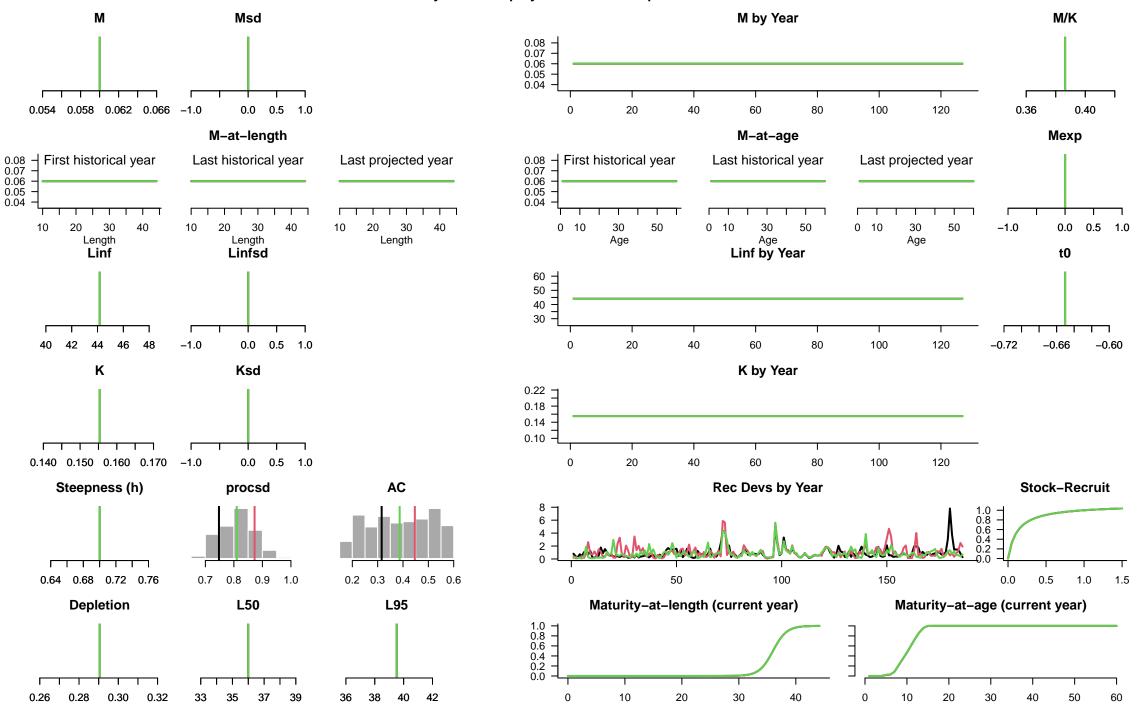
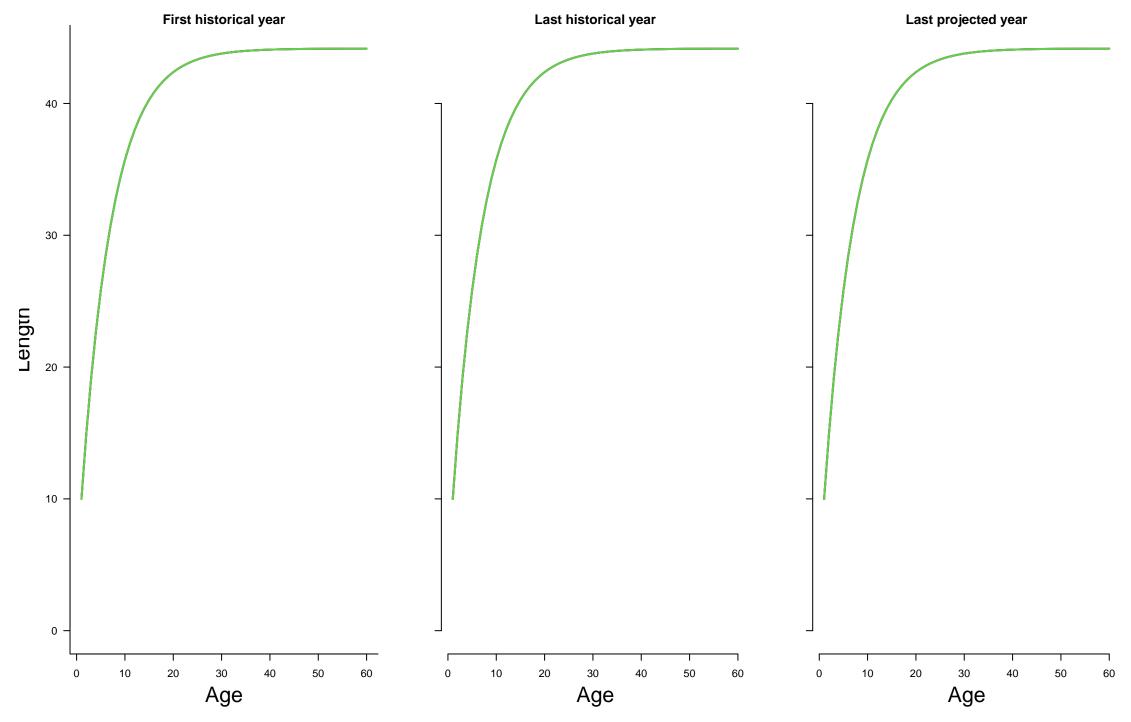
nyears = 77 proyears = 50 3 sampled iterations



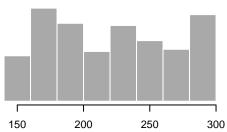
## Sampled length-at-age curves



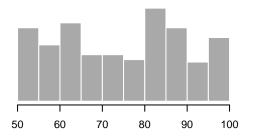
Fleet: NA Stock: nyears = 77 proyears = 50 3 sampled iterations Esd qinc Spat\_targ qcv 0.10 0.15 0.20 0.25 0.30 0.35 0.40 -1.0-0.5 0.0 0.5 1.0 -1.0-0.5 0.0 0.5 1.0 0.90 0.95 1.00 1.05 1.10 Change in future Fishing effort (historical) catchability 1.4 1.2 · 1.2 8.0 1.0 0.4 8.0 0.0 20 60 80 20 30 40 0 40 0 10 50 Selectivity-at-length First historical Last historical Last projected year year year 1.0 <del>-</del> 0.8 <del>-</del> 1.0 <del>-</del> 0.8 <del>-</del> 1.0 0.8 0.6 0.6 0.6 0.4 0.4 0.4 0.2 0.2 0.2 0.0 0.0 0.0 20 30 40 20 30 50 10 20 30 50 0 10 50 0 10 40 0 40 L5 LFS **Vmaxlen** L5 **LFS** Vmaxlen L5 LFS Vmaxlen 28 31 34 31 34 37 0.90 1.05 28 31 34 31 34 37 0.90 1.05 28 31 34 31 34 37 0.90 1.05 Selectivity-at-age First historical Last historical Last projected year year year 1.0 0.8 1.0 -0.8 -1.0 0.8 0.6 0.6 0.6 0.4 0.4 0.4 0.2 0.2 0.2 0.0 0.0 0.0 0 10 20 30 40 50 60 0 10 20 30 40 50 60 0 10 20 30 40 50 60

## Observation biases and sample sizes for observation object NA

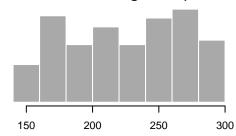
No. annual catch-at-age obs (CAA\_san



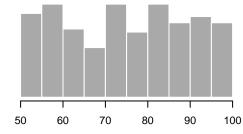
Effective sample size CAA obs (CAA\_E



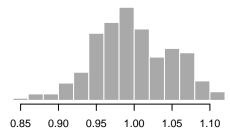
No. annual catch-at-length obs (CAL\_sa



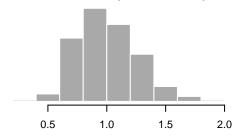
Effective sample size CAL obs (CAL\_ES



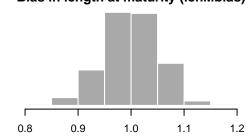
Natural mortality rate bias (Mbias)



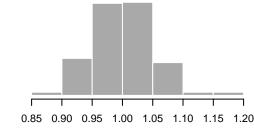
FMSY/M bias (FMSY\_Mbias)



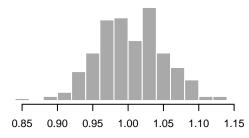
Bias in length at maturity (lenMbias)



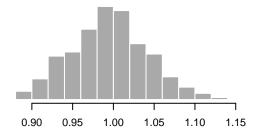
Bias in length at first capture (LFCbias



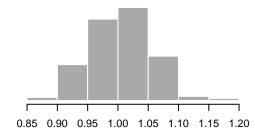
Bias in length at full selection (LFSbia



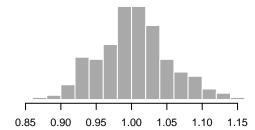
Bias in von B. K (Kbias)



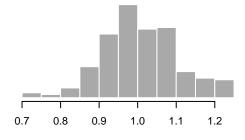
Bias in von B. t0 (t0bias)



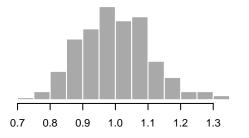
Bias in von B. Linf (Linfbias)



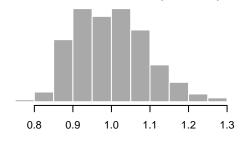
Bias in index at MSY (Irefbias)



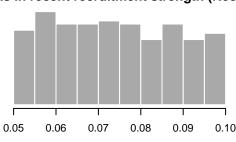
Bias in MSY catch (Crefbias)



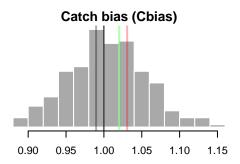
Bias in MSY biomass (Brefbias)

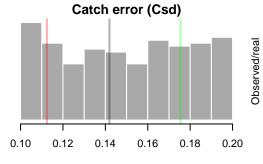


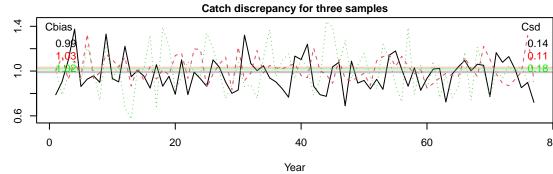
Bias in recent recruitment strength (Rec

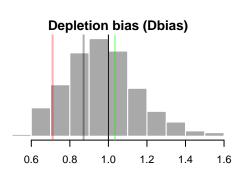


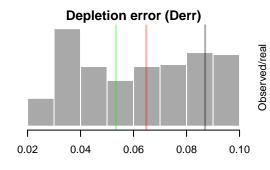
## Observation time series plots for observation object

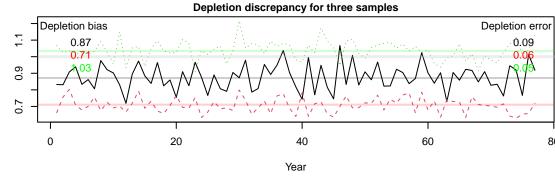


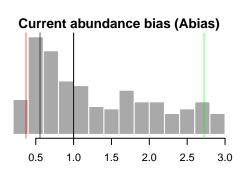


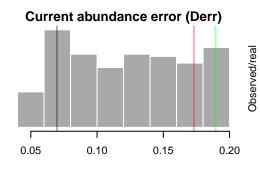


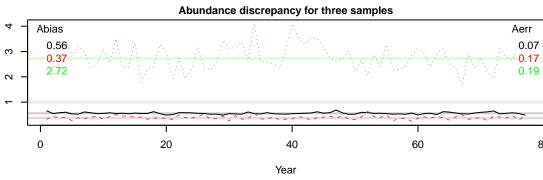


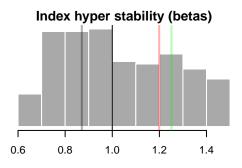


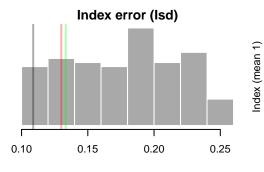


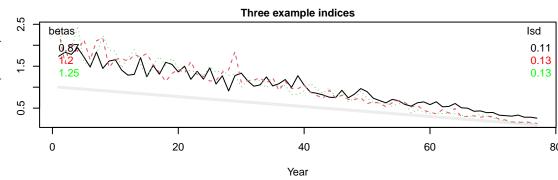












## Implementation error time series plots for implementation object NA

